**IN THE UNITED STATES DISTRICT COURT**
**FOR THE EASTERN DISTRICT OF TEXAS**
**MARSHALL DIVISION**

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| **KEYLESS LICENSING LLC,**<br>Plaintiff,<br><br>v.<br><br>**SAMSUNG ELECTRONICS AMERICA, INC. AND SAMSUNG ELECTRONICS CO., LTD.**<br>Defendants. | **Case No. 2:24-CV-00464-JRG**<br><br>**Jury Trial Demanded** |

# DEFENDANTS' INVALIDITY CONTENTIONS

Pursuant to Local Patent Rules 3-3 and 3-4 and the Court's Docket Control Order (Dkt. 43), Defendants Samsung Electronics Co., Ltd. ("SEC") and Samsung Electronics America, Inc. ("SEA") (collectively, "Defendants") provide these Preliminary Invalidity Contentions and accompanying document production to Plaintiff Keyless Licensing LLC ("Plaintiff").

## I. Overview

In this action, Plaintiff asserted in its P.R. 3-1 and 3-2 Disclosures of October 9, 2024 ("Infringement Contentions") that Defendants infringe claims 1-13, 15-19, and 21-36 of U.S. Patent No. 9,304,602 (the "'602 Patent"), claims 1-21 of U.S. Patent No. 10,976,922 (the "'922 Patent"), and claims 1-5 and 7-20 of U.S. Patent No. 11,503,144 (the "'144 Patent") (collectively, the "Patents-in-Suit" and the "Asserted Claims").

This Court has not yet construed any of the terms in the Patents-in-Suit. Defendants' Invalidity Contentions are based on Defendants' present understanding of Plaintiff's apparent interpretation of the Asserted Claims, as advanced by Plaintiff in its Complaint and Infringement Contentions, and Defendants' own understanding of the scope of the Asserted Claims. Defendants



Keyless EX2003
Samsung v. Keyless
IPR2025-00526

take no position on any matter of claim construction or interpretation in these contentions. Defendants' contentions herein are not, and should in no way be seen as, admissions about or adoptions of any particular claim scope or construction, or as any admission that any particular element is met in any particular way. Defendants object to any attempt to imply claim constructions from any identification or application of potential prior art. Any statement herein describing or tending to describe any claim element is provided solely for the purpose of understanding the relevant prior art. By including prior art that anticipates or renders obvious claims based on Plaintiff's apparent claim construction, Defendants do not thereby adopt Plaintiff's apparent claim construction.

Moreover, nothing herein should be construed as an admission that Defendants agree with Plaintiff's claim interpretations or that Plaintiff has a plausible basis to allege infringement. Similarly, nothing herein shall be construed as an admission regarding the application of the Asserted Claims to any of Defendants' accused products. Defendants do not agree with Plaintiff's application of the claims to the accused products, and Defendants deny infringement. Furthermore, these contentions do not represent an agreement with Plaintiff's views as to the meaning, definiteness, written description support for, or enablement of any of the Asserted Claims. In fact, Defendants provide grounds for invalidity under § 112 below. Pursuant to the Court's Docket Control Order (Dkt. 43), Defendants reserve the right to include arguments directed to indefiniteness in their *Markman* briefing. Nothing stated herein shall be construed as a waiver of any argument available under 35 U.S.C. §§ 101, 102, 103, and/or 112. Defendants expressly reserve the right to propose alternative interpretations to those advocated by Plaintiff and to rebut Plaintiff's actual claim interpretation and infringement positions. Defendants reserve the right to modify or supplement these contentions in response to the Court's construction of the claim terms at issue.

Prior art not included in this disclosure may also become relevant. Defendants are currently unaware of the extent, if any, to which Plaintiff may contend that certain limitations of the Asserted

Claims are not disclosed in the prior art identified by Defendants. Defendants reserve the right to identify other relevant prior art with respect to such allegedly missing limitation(s).

Defendants' invalidity claim charts attached hereto cite to exemplary portions, teachings, and disclosures of the prior art as applied to limitations of the Asserted Claims. Persons skilled in the art, however, would recognize these as exemplary and may view an item of prior art in the context of other publications, literature, products, and understanding. Again, this is because the cited portions of prior art identified herein are exemplary only. The citations and discussion in the charts are organized by claim (and claim limitation) for convenience, but each limitation or claim section applies to the larger context of each claim, to any related dependent or independent claims, as well as all claims containing similar limitations or elements in the particular Patent-in-Suit or other related patents also being asserted by Plaintiff. For example, citations as to any recited limitation, step, or component in the claims apply wherever each such limitation, step, or component is repeated elsewhere in the claim of that patent or other related patent also being asserted by Plaintiff. Any and all citations to particular figures in the attached charts or elsewhere in these contentions shall be deemed to wholly incorporate the figure by reference, and include the figure as if it had been inserted into the chart itself, as well as any text discussing the figure. Similarly, where Defendants cite to particular text in a prior art reference concerning a drawing or figure, the citation encompasses that drawing or figure as well as any other associated information in the prior art reference. Defendants may therefore rely on the entirety of the prior art references listed herein, including uncited portions of those prior art references, as well as additional information including products, documents, materials, and expert testimony.

The references cited herein disclose the limitations of the Asserted Claims explicitly or inherently, and/or they may be relied upon to demonstrate how the state of the art in the relevant time frame invalidates each Asserted Claim. In the context of the knowledge of a person of ordinary skill

in the art, each reference's disclosure applies in the context of both anticipation and obviousness. Therefore, any suggested single reference obviousness positions and obviousness combinations are provided in the alternative to Defendants' anticipation contentions and are not to be construed to suggest that any reference included in the combinations is somehow deficient or is not by itself anticipatory. Further, the combinations listed herein are exemplary and not exhaustive. There are many possible invalidating combinations of the references listed herein, and it is not practical, at this early stage, to identify and list all potentially relevant combinations without the benefit of further factual investigation and the Court's claim construction.

In addition to the positions and prior art identified below, and the accompanying invalidity claim charts, Defendants also incorporate by reference all invalidity contentions, prior art, and invalidity claim charts (including, without limitation, all anticipation positions, obviousness positions (including all prior art combinations and motivations to combine), indefiniteness positions, written description positions, and enablement positions) that have been or will be disclosed in any other action involving the Patents-in-Suit, including but not limited to any U.S. Patent and Trademark Office (USPTO) proceeding involving the Patents-in-Suit and that have or will be disclosed in any pending USPTO proceeding involving related patents. Such art and positions would have been obvious to combine with the prior art and combinations identified in these Invalidity Contentions. To the extent Plaintiff or the Board puts forth an argument in any USPTO proceedings contrary to the positions in the litigation, Defendants reserve the right to raise and/or address such argument or position in this litigation.

Defendants expect to rely on testimony of one or more expert witnesses and materials referenced by those expert witnesses in support of these contentions and incorporate those forthcoming expert reports as if fully set forth herein. Subsequent expert statements—including deposition and trial testimony, declarations, and reports—related to invalidity, interrogatory

responses, and other discovery or pleadings may expand and elaborate upon the positions contained in these Invalidity Contentions as originally prepared or subsequently amended, and Defendants reserve the right to incorporate such by reference. Defendants may further rely on any inventor admissions concerning the scope of the prior art relevant to the Patents-in-Suit found in, *inter alia*: the patent prosecution histories for the Patents-in-Suit and related patents, patent applications, and/or re-examinations; deposition testimony of the named inventor on the Patents-in-Suit; and the papers and any evidence submitted by Plaintiff in these actions.

Discovery has only just begun, and Defendants' investigation into prior art—including third-party prior art, and related evidence, documents, and knowledgeable witnesses—remains ongoing. Moreover, prior art may become relevant depending on the claim interpretations and/or validity positions Plaintiff or its expert witness(es) may assert, Defendants' further understanding of Plaintiff's Infringement Contentions, and any findings as to the priority date of the Asserted Claims. Accordingly, Defendants reserve the right to supplement or modify these Invalidity Contentions based on further discovery and in a manner consistent with the Federal Rules of Civil Procedure and the Court's rules and schedule. To the extent Plaintiff contends that any prior art presented in these contentions does not qualify as prior art to one or more Patents-in-Suit, the prior art remains relevant as evidence of simultaneous development as a secondary consideration of obviousness. *See George M. Martin Co. v. Alliance Mach. Sys. Int'l LLC,* 618 F.3d 1294, 1305 (Fed. Cir. 2010) ("Independently made, simultaneous inventions, made within a comparatively short space of time, are persuasive evidence that the claimed apparatus was the product only of ordinary mechanical or engineering skill.").

As set forth in detail below, and in the claim charts which accompany these Invalidity Contentions as exhibits A1-A8, B1-B7, and C1-C12, the Asserted Claims of the Patents-in-Suit are invalid over the cited prior art listed below under either pre-AIA 35 U.S.C. §§ 102 and/or 103 and/or

their post-AIA counterparts depending on the Patent-in-Suit. Regarding the obviousness of certain claims under 35 U.S.C. § 103, one or more of the principles enumerated by the United States Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007) apply to the Asserted Claims of the Patents-in-Suit, including, for example:

(a) combining various claimed elements known in the prior art according to known methods to yield a predictable result;

(b) making a simple substitution of one or more known elements for another to obtain a predictable result;

(c) using a known technique to improve a similar device or method in the same way;

(d) applying a known technique, known device or method ready for improvement to yield a predictable result;

(e) choosing from a finite number of identified, predictable solutions with a reasonable expectation of success or, in other words, the solution was one which was "obvious to try;

(f) a known work in one field of endeavor prompting variations of it for use either in the same field or a different based on given design incentives or other market forces in which the variations were predictable to one of ordinary skill in the art; and/or

(g) a teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill in the art to modify the prior art reference or to combine the teachings of various prior art references to arrive at the claimed invention.

The above criteria may be collectively referred to herein as the "*KSR* Criteria."

Based on these considerations, as further detailed below and/or in the attached exhibits, one of ordinary skill in the art would have combined the teachings of the prior art references discussed and charted in those exhibits. The combinations of these references would have rendered obvious to

one of ordinary skill in the art the subject matter of the Asserted Claims. The references identified in the attached exhibits for the respective Asserted Claims are analogous prior art to the subject matter of the Asserted Claims and, for at least the reasons set forth below and/or in the claim chart exhibits, are properly combinable. Because these prior art references exist within a single field of art, particularly one in which individuals in the field often shared and/or collaborated on their work, it would have been obvious for one of ordinary skill in the art to look from one piece of prior art to another in order to find any missing functionality they desired to implement. Therefore, these references provide interrelated teachings and one of ordinary skill would have looked to the concepts in any of these references when seeking to solve the problems purportedly addressed by the Patents-in-Suit.

Numerous prior art references, including in the attached exhibits, reflect common knowledge and the state of the prior art before the earliest effective priority date of the Patents-in-Suit. As it would be unduly burdensome to create detailed claim charts for all of the invalidating combinations, for at least the reasons described in these Invalidity Contentions, it would have been obvious to one of ordinary skill in the art to combine any of a number of prior art references, including any combination of those identified in the attached exhibits, to meet the limitations of the Asserted Claims. Defendants' inclusion of exemplary combinations, in view of the factors and motivations identified here, does not preclude Defendants from identifying other invalidating combinations and/or motivations as appropriate.

No showing of a specific motivation to combine prior art is required to combine the references disclosed above and in the attached charts, because each combination of art would have no unexpected results, and at most would simply represent a known alternative to one of ordinary skill in the art. *See KSR*, 500 U.S. at 415-17 (rejecting the Federal Circuit's "rigid" application of the teaching, suggestion, or motivation to combine test, instead espousing an "expansive and flexible"

approach). That said, the Supreme Court's rationale, that a person of ordinary skill in the art is "a person of ordinary creativity, not an automaton" and "in many cases a person of ordinary skill in the art will be able to fit the teachings of multiple patents together like pieces of a puzzle," applies equally here. *Id.* at 420-21.

Additional evidence that there would have been a motivation or reason to combine the prior art references identified herein includes but is not limited to the interrelated teachings of multiple prior art references; the effects of demands known to the design community or present in the marketplace; the existence of a known problem for which there was an obvious solution; the existence of a known need or problem in the field of endeavor at the time of the alleged inventions; and the background knowledge that would have been possessed by one of ordinary skill in the art. For example, the prior art references are generally directed to the same problems. Thus, a skilled artisan seeking to solve these problems would look to these cited references in combination.

Defendants contend there are no secondary considerations of non-obviousness evidencing the validity of any of the Asserted Claims. If Plaintiff presents any alleged evidence of secondary considerations of non-obviousness, Defendants reserve their right to respond to any such alleged evidence. Further, to the extent Plaintiff identifies any product as allegedly practicing the claims and having been successful, there is no nexus between the claimed invention and the products' success and Defendants reserve their right to respond to any such alleged evidence.

## II. P.R. 3-3(a): Identification of Prior Art

Pursuant to Patent Rule 3-3 and subject to Defendants' reservations of rights in these Invalidity Contentions, Defendants identify the following prior art that anticipates and/or renders obvious one or more Asserted Claims of the Patents-in-Suit as detailed in the claim chart exhibits and elsewhere in these Invalidity Contentions. Below are tables identifying individual items of prior art. The prior art references, systems, and products listed below and in the accompanying claim chart

exhibits may be relied upon for certain limitations, state of the art, and background of the art; as evidence of the level of skill in the art at the time of the filing of the Patents-in-Suit; or in support of assertions that it is proper to combine certain prior art references in certain ways.

Defendants also incorporate by reference each and every prior art reference of record in the prosecution of the Patents-in-Suit and patents or patent applications related to the Patents-in-Suit, as well as the prior art referred to in the specifications of the Patents-in-Suit. In these Invalidity Contentions, Defendants have identified each item of prior art, based on currently available information, including:

(1) each patent, constituting prior art under pre-AIA 35 U.S.C. §§ 102(a), (b), and/or (e) or under AIA 35 U.S.C. §§ 102(a)(1) and/or (a)(2), by its patent number, country of origin, and date of issue;

(2) each non-patent publication, constituting prior art under pre-AIA 35 U.S.C. §§ 102(a) and/or (b) or under AIA 35 U.S.C. §§ 102(a)(1) and/or (a)(2), by its title, date of publication, and, where feasible, author and publisher;

(3) sales or public disclosures, constituting prior art under pre-AIA 35 U.S.C. § 102(a) and/or (b) or under AIA 35 U.S.C. § 102(a)(1), by the item offered for sale or publicly used or known, the date the offer or use took place or the information became known, and the identity of the person or entity which made the use or which made and received the offer, or the person or entity which made the information known or to whom it was made known;

(4) prior art under pre-AIA 35 U.S.C. § 102(f), by the name of the person(s) from whom and the circumstances under which the invention or any part of it was derived; and

(5) prior art under pre-AIA 35 U.S.C. § 102(g), by the identities of the person(s) or entities involved in and the circumstances surrounding the making of the invention before the patent applicant(s).

Defendants' identification of patents and publications as prior art herein and in the attached invalidity claim charts includes the publications themselves as well as the use of the products and systems described therein. Defendants' investigation continues, but information available to date indicates that such products and systems were (1) known or used in the country before the alleged invention(s) of the claimed subject matter of the Asserted Claims, (2) were in public use and/or on sale in this country more than one year before the filing date of the Patents-in-Suit, and/or (3) were invented by another who did not abandon, suppress, or conceal, before the alleged invention(s) of the claimed subject matter of the Asserted Claims. Upon information and belief, these prior art products and systems and their associated references anticipate and/or render obvious one or more of the Asserted Claims of the Patents-in-Suit.

**A. Prior Art Patents, Patent Applications, and Publications**

**Table 1: Prior Art Patents and Patent Applications**

| Country | Pat./App./Pub. No. | Date of Filing | Date of Issue/Pub. | Inventor(s) | Bates Range Start | Bates Range End |
|---|---|---|---|---|---|---|
| US | 2008/0207188 A1 | Feb. 14, 2008 | Aug. 28, 2008 | H.S. Ahn et al. | SAM-KEY_00979955 | SAM-KEY_00979994 |
| US | 2012/0215533 A1 | Jan. 25, 2012 | Aug. 23, 2012 | M. Aravamudan et al. | SAM-KEY_00982179 | SAM-KEY_00982191 |
| US | 2011/0202836 A1 | May 20, 2010 | Aug.18, 2011 | E. Badger et al. | SAM-KEY_00982192 | SAM-KEY_00982224 |

| Country | Pat./App./Pub. No. | Date of Filing | Date of Issue/Pub. | Inventor(s) | Bates Range Start | Bates Range End |
|---|---|---|---|---|---|---|
| US | 9,165,257 B2 | May 20, 2010 | Oct. 20, 2015 | E. Badger et al. | SAM-KEY_00982225 | SAM-KEY_00982260 |
| US | 2011/0187674 A1 | Feb. 3, 2011 | Aug. 4, 2011 | J. Baker et al. | SAM-KEY_00982261 | SAM-KEY_00982268 |
| EP | 0425291 A1 | Oct. 25, 1990 | May 2, 1991 | J. T. Beran | SAM-KEY_00982298 | SAM-KEY_00982329 |
| EP | 0425291 A2 | Oct. 25, 1990 | May 2, 1991 | J, Beran et al. | SAM-KEY_00982298 | SAM-KEY_00982329 |
| US | 2010/0164959 A1 | Dec. 26, 2008 | July 1, 2010 | C. T. Brown et al. | SAM-KEY_00982330 | SAM-KEY_00982339 |
| US | 2010/0164959 A1 | Dec. 26, 2008 | July 1. 2010 | C. Brown et al. | SAM-KEY_00982330 | SAM-KEY_00982339 |
| US | 7,657,849 B2 | Dec. 23, 2005 | Feb. 2, 2010 | I. Chaudhri et al. | SAM-KEY_00982342 | SAM-KEY_00982372 |
| US | 2010/0060585 A1 | Aug. 18, 2009 | Mar. 11, 2010 | H.C. Chiu | SAM-KEY_00982373 | SAM-KEY_00982402 |
| US | 2010/0192102 A1 | Jan. 29, 2009 | Jan. 29, 2010 | P. Chmielewski et al. | SAM-KEY_00982403 | SAM-KEY_00982434 |
| US | 2009/0322695 A1 | June 16, 2009 | Dec. 31, 2009 | S. Cho et al. | SAM-KEY_00982435 | SAM-KEY_00982467 |
| US | 2011/0191717 A1 | Sept. 3, 2010 | Aug. 4, 2011 | F. Cort et al. | SAM-KEY_00982468 | SAM-KEY_00982498 |
| DE | 10122229 A1 | May 8, 2001 | Dec. 13, 2001 | R. Dutta | SAM-KEY_00982515<br><br>SAM- | SAM-KEY_00982520<br><br>SAM- |

| Country | Pat./App./Pub. No. | Date of Filing | Date of Issue/Pub. | Inventor(s) | Bates Range Start | Bates Range End |
|---|---|---|---|---|---|---|
| | | | | | KEY_00989594<br><br>SAM-KEY_00982509 | KEY_00989594<br><br>SAM-KEY_00982514 |
| EP | 1229428 A1 | Feb. 2, 2001 | Aug. 7, 2002 | T. Pensjo | SAM-KEY_00982531 | SAM-KEY_00982538 |
| EP | 1336949 A1 | Feb. 18, 2003 | Aug. 20, 2003 | C. De Bast | SAM-KEY_00982539<br><br>SAM-KEY_00982340<br><br>SAM-KEY_00982550 | SAM-KEY_00982549<br><br>SAM-KEY_00982340<br><br>SAM-KEY_00982550 |
| FR | 2830093 | Sept. 25, 2001 | Mar. 28, 2003 | C. Benoit et al. | SAM-KEY_00982563<br><br>SAM-KEY_00982341<br><br>SAM-KEY_00982574 | SAM-KEY_00982573<br><br>SAM-KEY_00982341<br><br>SAM-KEY_00982584 |
| US | 2004/0212617 A1 | Dec. 31, 2003 | Oct. 28, 2004 | G. Fitzmaurice et al. | SAM-KEY_00982585 | SAM-KEY_00982612 |
| GB | 2331204 | Nov. 5, 1998 | May 12, 1999 | F. Kobayashi | SAM-KEY_00982626 | SAM-KEY_00982677 |
| US | 2011/0169749 A1 | Jan. 13, 2010 | July 14, 2011 | H. Ganey et al. | SAM-KEY_00982765 | SAM-KEY_00982779 |

| Country | Pat./App./Pub. No. | Date of Filing | Date of Issue/Pub. | Inventor(s) | Bates Range Start | Bates Range End |
|---|---|---|---|---|---|---|
| US | 2006/0209040 | Mar. 18, 2005 | Sept. 21, 2006 | A.J. Garside et al. | SAM-KEY_00982780 | SAM-KEY_00982808 |
| US | 2004/0109013 A1 | Dec. 10, 2002 | June 10, 2004 | M. Goertz | SAM-KEY_00982809 | SAM-KEY_00982818 |
| US | 8,095,879 B2 | Dec. 10, 2002 | Jan. 10, 2012 | M. Goertz | SAM-KEY_00982819 | SAM-KEY_00982828 |
| US | 2013/0234945 A1 | Mar. 5, 2013 | Sept. 12, 2013 | C. Goktekin | SAM-KEY_00982829 | SAM-KEY_00982840 |
| US | 2011/0209093 A1 | Feb. 19, 2010 | Aug. 25, 2011 | K. P. Hinckley et al. | SAM-KEY_00983067 | SAM-KEY_00983112 |
| US | 2011/0209099 A1 | Feb. 19, 2010 | Aug. 25, 2011 | K. Hinckley et al. | SAM-KEY_00983113 | SAM-KEY_00983158 |
| JP | 2003-195998 | Dec. 26, 2001 | July 11, 2003 | T. Hisatomi | SAM-KEY_00983159<br><br>SAM-KEY_00983221 | SAM-KEY_00983220<br><br>SAM-KEY_00983259 |
| US | 2006/0278714 A1 | June 13, 2006 | Dec. 14, 2006 | D. Ho et al. | SAM-KEY_00983260 | SAM-KEY_00983270 |
| US | 2007/0089069 A1 | Aug. 3, 2006 | April 19, 2007 | K. Hsieh et al. | SAM-KEY_00983271 | SAM-KEY_00983286 |
| US | 8,806,364 B2 | April 7, 2009 | Aug. 12, 2014 | H. Hwang | SAM-KEY_00983287 | SAM-KEY_00983326 |
| US | 2010/0013780 A1 | June 19, 2009 | Jan. 21, 2010 | T. Ikeda et al. | SAM-KEY_00983327 | SAM-KEY_00983401 |

| Country | Pat./App./Pub. No. | Date of Filing | Date of Issue/Pub. | Inventor(s) | Bates Range Start | Bates Range End |
|---|---|---|---|---|---|---|
| JP | JP2000-151774A | Nov. 9, 1998 | May 30, 2000 | T. Yamaguchi | SAM-KEY_00983402<br><br>SAM-KEY_00989595<br><br>SAM-KEY_00983408 | SAM-KEY_00983407<br><br>SAM-KEY_00989595<br><br>SAM-KEY_00983413 |
| KR | 2009-0002545 | July 2, 2007 | Jan. 9, 2009 | G. Jeon et al. | SAM-KEY_00983414<br><br>SAM-KEY_00991870 | SAM-KEY_00983429<br><br>SAM-KEY_00991902 |
| US | 2009/0094562 A1 | Oct. 3, 2008 | April 9, 2009 | K. Jeong et al. | SAM-KEY_00983431 | SAM-KEY_00983453 |
| US | 8,564,544 B2 | Sept. 5, 2007 | Oct. 22, 2013 | S. Jobs et al. | SAM-KEY_00983454 | SAM-KEY_00983822 |
| KR | 2010-0029026 | Aug. 17, 2009 | Mar. 15, 2010 | C. Chiu | SAM-KEY_00983823 | SAM-KEY_00983845 |
| KR | 2012-0062971 | Dec. 7, 2010 | June 15, 2012 | H. Kim et al. | SAM-KEY_00983848<br><br>SAM-KEY_00993380 | SAM-KEY_00983891<br><br>SAM-KEY_00993423 |
| US | 2008/0158189 A1 | Nov. 8, 2007 | July 3, 2008 | S. Kim | SAM-KEY_00983894 | SAM-KEY_00983907 |
| US | 2008/0163119 A1 | Aug. 28, 2007 | July 3, 2008 | H, Kim et al. | SAM-KEY_00983908 | SAM-KEY_00983930 |

| Country | Pat./App./Pub. No. | Date of Filing | Date of Issue/Pub. | Inventor(s) | Bates Range Start | Bates Range End |
|---|---|---|---|---|---|---|
| US | 2009/0228820 A1 | Dec. 30, 2008 | Sept. 10, 2009 | S. Hwa et al. | SAM-KEY_00983931 | SAM-KEY_00983971 |
| US | 2006/0045374 A1 | Aug. 30, 2005 | Mar. 2, 2006 | Y. Kim et al. | SAM-KEY_00983972 | SAM-KEY_00983992 |
| US | 2010/0008582 A1 | July 9. 2009 | Jan. 14, 2010 | S. Kim et al. | SAM-KEY_00983993 | SAM-KEY_00984029 |
| US | 8,170,620 B2 | April 30, 2009 | May 1, 2012 | H. Kim | SAM-KEY_00984030 | SAM-KEY_00984054 |
| US | 8,625,899 B2 | July 9, 2009 | Jan. 7, 2014 | S. Kim et al. | SAM-KEY_00984055 | SAM-KEY_00984090 |
| US | 8,005,720 B2 | Aug.18, 2005 | Aug. 23, 2011 | M. King et al. | SAM-KEY_00984091 | SAM-KEY_00984142 |
| US | 2012/0113023 A1 | Mar. 30, 2011 | May 10, 2012 | J. Koch et al. | SAM-KEY_00984143 | SAM-KEY_00984276 |
| US | 8,547,354 B2 | Mar. 30, 2011 | Oct.1, 2013 | J. Koch et al. | SAM-KEY_00984277 | SAM-KEY_00984411 |
| US | 2013/0187861 A1 | Jan. 19, 2012 | July 25, 2013 | J. Lavallee | SAM-KEY_00984412 | SAM-KEY_00984441 |
| US | 2013/0187861 A1 | Jan. 19, 2012 | July 25, 2013 | J. Lavallee | SAM-KEY_00984412 | SAM-KEY_00984441 |
| US | 2013/0318467 A1 | Aug. 9, 2013 | Nov. 28, 2013 | B. Lee et al. | SAM-KEY_00984442 | SAM-KEY_00984471 |
| US | 2010/0131880 A1 | Dec. 1, 2008 | May 27, 2010 | S. Lee et al. | SAM-KEY_00984472 | SAM-KEY_00984493 |

| Country | Pat./App./Pub. No. | Date of Filing | Date of Issue/Pub. | Inventor(s) | Bates Range Start | Bates Range End |
|---|---|---|---|---|---|---|
| US | 2005/0169527 A1 | Dec. 20, 2004 | Aug. 4, 2005 | M. Longe et al. | SAM-KEY_00984494 | SAM-KEY_00984548 |
| US | 5,933,525 | April 10, 1996 | Aug. 3, 1999 | J. Makhoul et al. | SAM-KEY_00984549 | SAM-KEY_00984564 |
| US | 5,933,525 | April 10, 1996 | Aug. 3, 1999 | J. Makhoul et al. | SAM-KEY_00984549 | SAM-KEY_00984564 |
| US | 2009/0288044 A1 | May 19, 2008 | Nov. 19, 2009 | D. Matthews et al. | SAM-KEY_00984565 | SAM-KEY_00984582 |
| US | 7,340,686 B2 | Mar. 22, 2005 | Mar. 4, 2008 | D. Matthews et al. | SAM-KEY_00984583 | SAM-KEY_00984606 |
| US | 8,584,031 B2 | Nov. 19, 2008 | Nov. 12, 2013 | B. Moore et al. | SAM-KEY_00984616 | SAM-KEY_00984697 |
| US | 2004/0100479 | May 9, 2003 | May 27, 2004 | M. Nakano et al. | SAM-KEY_00984701 | SAM-KEY_00984786 |
| KR | 2009-0122010 | May 23, 2008 | Nov. 26, 2009 | S. Park et al. | SAM-KEY_00986134<br><br>SAM-KEY_00993848 | SAM-KEY_00986152<br><br>SAM-KEY_00993866 |
| US | 2009/0315836 A1 | June 24, 2008 | Dec. 24, 2009 | P. Pihlaja | SAM-KEY_00986153 | SAM-KEY_00986166 |
| US | 8,249,347 B1 | May 19, 2011 | Aug. 21, 2012 | G.D. Ramkumar et al. | SAM-KEY_00986682 | SAM-KEY_00986693 |
| US | 8,249,347 B1 | May 19, 2011 | Aug. 21, 2012 | G. Ramkumar et al. | SAM-KEY_00986682 | SAM-KEY_00986693 |

| Country | Pat./App./Pub. No. | Date of Filing | Date of Issue/Pub. | Inventor(s) | Bates Range Start | Bates Range End |
|---|---|---|---|---|---|---|
| US | 8,571,862 B2 | Oct.13, 2009 | Oct. 29, 2013 | A. Rao et al. | SAM-KEY_00986694 | SAM-KEY_00986740 |
| US | 2013/0120595 A1 | June 19, 2012 | May 16, 2013 | J.J. Roach et al. | SAM-KEY_00986741 | SAM-KEY_00986829 |
| US | 2013/0120595 A1 | June 19, 2012 | May 16, 2013 | J. Roach et al. | SAM-KEY_00986741 | SAM-KEY_00986829 |
| US | 9,250,797 B2 | Sept. 30, 2008 | Feb. 2, 2016 | B. Roberts et al, | SAM-KEY_00986830 | SAM-KEY_00986861 |
| US | 2010/0050076 A1 | Aug. 29, 2008 | Feb. 25, 2010 | V. Roth | SAM-KEY_00986872 | SAM-KEY_00986885 |
| US | 2010/0088597 A1 | Sept. 29, 2009 | April 8, 2010 | S. Shin et al. | SAM-KEY_00987795 | SAM-KEY_00987833 |
| US | 8,788,964 B2 | Oct. 19, 2009 | July 22, 2014 | S. Shin et al. | SAM-KEY_00987834 | SAM-KEY_00987866 |
| US | 61/389,000 | Sept. 28, 2011 | May 3, 2012 | S. Sirpal et al. | SAM-KEY_00987912 | SAM-KEY_00988168 |
| US | 61/389,087 | Oct. 1, 2010 | | S. Sirpal et al. | SAM-KEY_00988169 | SAM-KEY_00988231 |
| US | 61/389,117 | Oct. 1, 2010 | | C. Reeves et al. | SAM-KEY_00988232 | SAM-KEY_00988375 |
| US | 61/458,150 | Nov. 17, 2010 | | P. Webber | SAM-KEY_00988376 | SAM-KEY_00988606 |
| US | 61/539,884 | Sept. 27, 2011 | | D. Burton et al. | SAM-KEY_00988607 | SAM-KEY_00989111 |

| Country | Pat./App./Pub. No. | Date of Filing | Date of Issue/Pub. | Inventor(s) | Bates Range Start | Bates Range End |
|---|---|---|---|---|---|---|
| US | 2012/0110486 | Sept. 28, 2011 | May 3, 2012 | S. Sirpal et al. | SAM-KEY_00989112 | SAM-KEY_00989149 |
| US | 8,832,577 B2 | Sept. 28, 2011 | Sept. 9, 2014 | S. Sirpal et al. | SAM-KEY_00989150 | SAM-KEY_00989188 |
| WO | 2012/044782 A1 | Sept. 29, 2011 | April 5, 2012 | S. Sirpal et al. | SAM-KEY_00989189 | SAM-KEY_00989255 |
| US | 8,200,247 B1 | Feb. 8, 2010 | June 12, 2012 | V. Starenky et al. | SAM-KEY_00989256 | SAM-KEY_00989283 |
| US | 9,588,674 B2 | Nov. 30, 2012 | Mar. 7, 2017 | P. Strutin-Belinoff et al. | SAM-KEY_00989284 | SAM-KEY_00989294 |
| US | 7,917,286 B2 | Dec. 16, 2005 | Mar. 29, 2011 | B. Taylor et al. | SAM-KEY_00989408 | SAM-KEY_00989424 |
| US | 9,933,938 B1 | June 16, 2015 | April 3, 2018 | A. Tse et al. | SAM-KEY_00989596 | SAM-KEY_00989629 |
| US | 2009/0249247 A1 | Jan. 30, 2009 | Oct. 1, 2009 | E. Tseng et al. | SAM-KEY_00989630 | SAM-KEY_00989657 |
| US | 2011/0157029 A1 | Dec. 31, 2009 | June 30, 2011 | E. Tseng | SAM-KEY_00989658 | SAM-KEY_00989682 |
| WO | 2009/097555 A2 | Jan. 30, 2009 | Aug. 6, 2009 | E. Tseng et al. | SAM-KEY_00989683 | SAM-KEY_00989756 |
| US | 2002/0067346 A1 | Sept. 21, 2001 | June 6, 2002 | E. Mouton | SAM-KEY_00989757 | SAM-KEY_00989763 |
| US | 2003/0022701 A1 | July 25, 2001 | Jan. 30, 2003 | A. Gupta | SAM-KEY_00989764 | SAM-KEY_00989775 |

| Country | Pat./App./Pub. No. | Date of Filing | Date of Issue/Pub. | Inventor(s) | Bates Range Start | Bates Range End |
|---|---|---|---|---|---|---|
| US | 2011/0161845 A1 | Dec. 31, 2009 | June 30, 2011 | E. Stallings et al. | SAM-KEY_00989776 | SAM-KEY_00989795 |
| US | 5,848,356 | Oct. 2, 1995 | Dec. 8, 1998 | S. Jambhekar et al. | SAM-KEY_00989796 | SAM-KEY_00989821 |
| US | 6,751,487 | Feb. 8, 2000 | June 15, 2004 | N. Rydbeck et al. | SAM-KEY_00989822 | SAM-KEY_00989837 |
| US | 2011/0161852 A1 | Dec. 31, 2009 | June 30, 2011 | J. Vainio et al. | SAM-KEY_00989920 | SAM-KEY_00989948 |
| US | 2010/0105443 A1 | Nov. 10, 2009 | April 29, 2010 | M. Vaisanen | SAM-KEY_00989949 | SAM-KEY_00989974 |
| US | 2010/0107067 A1 | Oct. 27, 2008 | April 29, 2010 | M. Vaisanen | SAM-KEY_00989975 | SAM-KEY_00989985 |
| US | 6,359,572 B1 | Sept. 3, 1998 | Mar. 19, 2002 | P. Vale | SAM-KEY_00989986 | SAM-KEY_00990009 |
| US | 2013/0039570 A1 | Sept. 15, 2012 | Feb. 14, 2013 | L. Vincent et al. | SAM-KEY_00990010 | SAM-KEY_00990028 |
| US | 8,744,173 B2 | Sept. 15, 2012 | June 3, 2014 | L. Vicent et al. | SAM-KEY_00990029 | SAM-KEY_00990050 |
| WO | 2004/070871 | Feb. 4, 2004 | Aug. 19, 2004 | M. Wedel et al. | SAM-KEY_00990051 | SAM-KEY_00990076 |
| US | 2013/0050102 A1 | Nov. 28, 2011 | Feb. 28, 2013 | N. Wang et al. | SAM-KEY_00990077 | SAM-KEY_00990083 |
| US | 2010/0302172 A1 | May 27, 2009 | Dec. 2, 2010 | W. Wilairat | SAM-KEY_00990087 | SAM-KEY_00990096 |

| Country | Pat./App./Pub. No. | Date of Filing | Date of Issue/Pub. | Inventor(s) | Bates Range Start | Bates Range End |
|---|---|---|---|---|---|---|
| US | 10,198,163 B2 | June 6, 2013 | Feb. 5, 2019 | M. Yabuki | SAM-KEY_00990097 | SAM-KEY_00990121 |
| WO | 2013/183722 A1 | June 6, 2013 | Dec. 12, 2013 | M. Yabuki | SAM-KEY_00990122<br><br>SAM-KEY_00992545 | SAM-KEY_00990161<br><br>SAM-KEY_00992621 |
| US | 2009/0295750 A1 | May 27, 2009 | Dec. 3, 2009 | H. Yamazaki et al. | SAM-KEY_00990162 | SAM-KEY_00990182 |
| TW | 2012484489 A1 | May 31, 2011 | Dec. 1, 2012 | Z. Zhuang | SAM-KEY_00990210<br><br>SAM-KEY_00992494 | SAM-KEY_00990234<br><br>SAM-KEY_00992544 |
| US | 9,916,081 | Feb. 1, 2013 | 13-Mar-18 | J. Zhu et al. | SAM-KEY_00990183 | SAM-KEY_00990209 |
| EP | 1445823 | Oct. 2, 2003 | Nov. 8, 2004 | M. Wedel et al. | SAM-KEY_00991834 | SAM-KEY_00991849 |
| US | 2015/0088923 A1 | Sept. 23, 2010 | Mar. 26, 2015 | L. Garcia-Barrio et al. | SAM-KEY_00993239 | SAM-KEY_00993253 |
| US | 7,921,361 | Oct. 12, 2007 | Apr. 5, 2011 | H. Gunn et al. | SAM-KEY_00993254 | SAM-KEY_00993303 |
| JP | 2012198944A | July 25, 2012 | Oct. 18, 2012 | T. Ishihara et al. | SAM-KEY_00993337<br><br>SAM-KEY_00993356 | SAM-KEY_00993355<br><br>SAM-KEY_00993379 |

| Country | Pat./App./Pub. No. | Date of Filing | Date of Issue/Pub. | Inventor(s) | Bates Range Start | Bates Range End |
|---|---|---|---|---|---|---|
| US | 2013/0046544A1 | Mar. 14, 2011 | Feb. 21, 2013 | D. Kay et al. | SAM-KEY_00993424 | SAM-KEY_00993478 |
| US | 2013/0047114A1 | Aug. 16, 2012 | Feb. 21, 2013 | H. Murakami et al. | SAM-KEY_00993503 | SAM-KEY_00993518 |
| US | 8,745,018 | July 10, 2009 | June 3, 2014 | D. Singleton et al. | SAM-KEY_00993615 | SAM-KEY_00993647 |
| EP | 399176 | Mar. 28, 1990 | Nov. 28, 1990 | J. Tattari | SAM-KEY_00993820 | SAM-KEY_00993822 |
| EP | 651544 | Oct. 28, 1994 | May 3, 1995 | D. Allard et al. | SAM-KEY_00993823 | SAM-KEY_00993834 |
| EP | 1379101 A1 | July 1, 2002 | Jan. 7, 2004 | M. Erixon et al. | SAM-KEY_00993835 | SAM-KEY_00993847 |
| US | 9,547,375 | June 17, 2013 | Jan. 17, 2017 | T. Paek et al. | SAM-KEY_00993869 | SAM-KEY_00993898 |
| US | 2001/0044281 | June 15, 2001 | Nov. 22, 2001 | P. Peterzell et al. | SAM-KEY_00993899 | SAM-KEY_00993906 |
| US | 2003/0048257 | Sep. 6, 2001 | Mar. 13, 2003 | S. Mattila | SAM-KEY_00993907 | SAM-KEY_00993927 |
| US | 5,537,608 | June 2, 1995 | July 16, 1996 | B. Beatty et al. | SAM-KEY_00993928 | SAM-KEY_00993943 |
| US | D284,759 | Oct. 25, 1983 | July 22, 1986 | A. Nagele et al. | SAM-KEY_00993944 | SAM-KEY_00993946 |
| WO | 2004/095414 | April 19, 2004 | Nov. 4, 2004 | B. Ghassabian | SAM-KEY_00993949 | SAM-KEY_00994267 |

**Table 2: Non-Patent Publications**

| Title | Pub. Date | Author(s) | Publisher | Bates Range Start | Bates Range End |
|---|---|---|---|---|---|
| More than dotting the I's – Foundations for crossing-based interfaces | April 1, 2002 | J. Accot et al. | Association for Computing Machinery | SAM-KEY_00979947 | SAM-KEY_00979954 |
| Newton Apple MessagePad Handbook | 1995 | Apple Computer, Inc. | Apple Computer, Inc. | SAM-KEY_00981676 | SAM-KEY_00981871 |
| Pad++: Zoomable Graphical Sketchpad For Exploring Alternate Interface Physics | 1996 | B. Bederson et al. | Academic Press Ltd. | SAM-KEY_00982269 | SAM-KEY_00982297 |
| CrossY: A Crossing-Based Drawing Application | Oct. 2004 | G. Apitz et al. | Association for Computing Machinery | SAM-KEY_00982499 | SAM-KEY_00982508 |
| Artistic Resizing: A Technique For Rich Scale-Sensitive Vector Graphics | Oct. 2005 | P. Dragicevic et al. | Association for Computing Machinery | SAM-KEY_00982521 | SAM-KEY_00982530 |
| Barrier Pointing: Using Physical Edges to Assist Target Acquisition on Mobile Device Touch Screens | Oct. 2007 | J. Froehlich et al. | Association for Computing Machinery | SAM-KEY_00982613 | SAM-KEY_00982620 |
| Samsung Galaxy User Manual | Oct. 2009 | Samsung Electronics | Samsung Electronics | SAM-KEY_00982678 | SAM-KEY_00982764 |
| FlowMenu: Combining Command, Text, and Data Entry | 2000 | F, Guimbretière et al. | Association for Computing Machinery | SAM-KEY_00982841 | SAM-KEY_00982844 |
| HTC Dream User Manual | 2009 | HTC Corp. | HTC Corp. | SAM-KEY_00982845 | SAM-KEY_00983058 |
| On-line Personalization of a Touch Screen Based Keyboard | Jan. 2003 | J. Himberg et al. | Association for Computing Machinery | SAM-KEY_00983059 | SAM-KEY_00983066 |
| Customizable Keyboard | Oct. 2010 | E. Missimer et al. | Association for Computing Machinery | SAM-KEY_00984607 | SAM-KEY_00984608 |

| Title | Pub. Date | Author(s) | Publisher | Bates Range Start | Bates Range End |
|---|---|---|---|---|---|
| Mobile Text Entry: Relationship between Walking Speed and Text Input Task Difficulty | Sept. 2005 | S. Mizobuchi et al. | Association for Computing Machinery | SAM-KEY_00984609 | SAM-KEY_00984615 |
| *Gyrophone* ("MyOrigo Magazine") | Oct. 2, 2003 | D. Chow | What Mobile Magazine | SAM-KEY_00984698 | SAM-KEY_00984700 |
| Neonode N2 Overview | Mar. 26, 2008 | MobileBurn.com | MobileBurn.com | SAM-KEY_00984832 | SAM-KEY_00984832 |
| Palm Pre - The Missing Manual | Aug. 2009 | E. Baig | O'Reilly Media, Inc. | SAM-KEY_00985412 | SAM-KEY_00985700 |
| Palm Pre Plus User Guide | 2010 | Palm, Inc. | Palm, Inc. | SAM-KEY_00985701 | SAM-KEY_00985924 |
| Palm Pre Plus User Guide | 2009 | Palm, Inc. | Palm, Inc. | SAM-KEY_00985925 | SAM-KEY_00986133 |
| Which? Samsung Galaxy i7500 Google Android phone launches at IFA Berlin | Sept. 4, 2009 | Which? | YouTube | SAM-KEY_00986488 | SAM-KEY_00986488 |
| I bought the first Samsung Galaxy! | Mar. 22, 2023 | Destructive Dan | YouTube | SAM-KEY_00986534 | SAM-KEY_00986534 |
| Retro Review: T-Mobile MyTouch 3G Android (HTC Magic) | Mar. 30, 2016 | One Stop Reviews | YouTube | SAM-KEY_00986540 | SAM-KEY_00986540 |
| Samsung Galaxy I7500 Preview | May 27, 2009 | Phone Arena | YouTube | SAM-KEY_00986541 | SAM-KEY_00986541 |
| Samsung Galaxy Review | Aug. 10, 2009 | Phone Arena | YouTube | SAM-KEY_00986542 | SAM-KEY_00986542 |
| Samsung Galaxy I7500 Review | Aug. 7, 2009 | Phone Arena Team | Phone Arena | SAM-KEY_00986636 | SAM-KEY_00986657 |
| HTC Magic Review | June 1, 2009 | Gareth Beavis | Tech Radar, Future US Inc. | SAM-KEY_00986670 | SAM-KEY_00986681 |

| Title | Pub. Date | Author(s) | Publisher | Bates Range Start | Bates Range End |
|---|---|---|---|---|---|
| Buttons as First Class Objects on an X Desktop | Nov. 1991 | G. Robertson et al. | Association for Computing Machinery | SAM-KEY_00986862 | SAM-KEY_00986871 |
| Bezel Swipe: Conflict-Free Scrolling and Multiple Selection on Mobile Touch Screen Devices | April 8, 2009 | V. Roth et al. | CHI 2009 ~ Multimodal Mobile Interaction | SAM-KEY_00986886 | SAM-KEY_00986889 |
| Samsung Galaxy S III: 4G LTE Smartphone User Manual | 2013 | Samsung Telecomm-unications America, LLC | Samsung Telecomm-unications America, LLC | SAM-KEY_00986890 | SAM-KEY_00987092 |
| Samsung Galaxy Tab2 7.0 Android Tablet User Manual | 2012 | Samsung Elecs. Am., Inc. | Samsung Elecs. Am., Inc. | SAM-KEY_00987180 | SAM-KEY_00987330 |
| Samsung Galaxy Note 10.1 Android Tablet User Manual | 2012 | Samsung Elecs. Am., Inc. | Samsung Elecs. Am., Inc. | SAM-KEY_00987331 | SAM-KEY_00987579 |
| Samsung Galaxy Nexus User's Guide | 2011 | Google Inc. | Google Inc. | SAM-KEY_00987580 | SAM-KEY_00987686 |
| Laser Pointer Interaction Techniques using Peripheral Areas of Screens | May 1, 2006 | B. Shizuki et al. | Association for Computing Machinery | SAM-KEY_00987867 | SAM-KEY_00987870 |
| Simon Says "Here's How!" Users Manual | 1994 | IBM Corp. | IBM Corp. | SAM-KEY_00987871 | SAM-KEY_00987911 |
| The Google Phone Pocket Guide | 2009 | J. O'Grady | Peachpit Press | SAM-KEY_00989425 | SAM-KEY_00989593 |
| Samsung Galaxy S II Mobile Phone User Manual | 2011 | Samsung Telecomm-unications America, LLC | Samsung Telecomm-unications America, LLC | SAM-KEY_00990235 | SAM-KEY_00990437 |
| Alternatives to WhatsApp: IM and VoIP Apps for Smartphones | 2013 | N. Unuth | About.com | SAM-KEY_00990443 | SAM-KEY_00990443 |
| Enter the Phablet: A History of Phone-Tablet Hybrids | Feb. 13, 2012 | S. Segan | PC Mag | SAM-KEY_00991850 | SAM-KEY_00991865 |

| Title | Pub. Date | Author(s) | Publisher | Bates Range Start | Bates Range End |
|---|---|---|---|---|---|
| Is Samsung's 'phablet' the shape of things to come? | April 5, 2012 | J. Wagstaff et al. | NBC News | SAM-KEY_00991866 | SAM-KEY_00991869 |
| MyOrigo mydevice Z1 User Manual ("MyOrigo Manual") | No later than Dec. 19, 2003 | MyOrigo OY, Ltd. | MyOrigo OY, Ltd | SAM-KEY_00992022 | SAM-KEY_00992137 |
| Samsung ChatON Takes Chatting on your Phone to the Next Level | Sept. 25, 2012 | J. Strietelmeier | Gadgeteer | SAM-KEY_00992449 | SAM-KEY_00992463 |
| Samsung ChatON – IM App Review | Oct. 5, 2013 | N. Unuth | About.com | SAM-KEY_00992464 | SAM-KEY_00992465 |
| Samsung dazzles phablet followers with more girth, size | Sept. 26, 2013 | M. Kim | Reuters | SAM-KEY_00992466 | SAM-KEY_00992478 |
| Samsung unveils ChatON 2.0 with multiple device syncing, new social features and more | Dec. 27, 2012 | KS Sandhya Iyer | Gadgets360 | SAM-KEY_00992479 | SAM-KEY_00992484 |
| Samsung's ChatON App Updated To v2.7.3 With Voice And Video Chat For GS4, Animated GIFs, And More | June 11, 2013 | R. Whitwam | Android Police | SAM-KEY_00992485 | SAM-KEY_00992493 |
| How to Install the ICS Messaging App on ANY Android Phone | Jan. 17, 2012 | T. Schofield | YouTube | SAM-KEY_00992883 | SAM-KEY_00992883 |
| ChatON Chat Your Way Tutorial Video | Sept. 2, 2011 | Samsung | YouTube | SAM-KEY_00992885 | SAM-KEY_00992885 |
| DetroitBORG Galaxy Note 10.1 Unboxing | Aug. 25, 2012 | DetroitBORG | YouTube | SAM-KEY_00992886 | SAM-KEY_00992886 |
| The Verge, Samsung Galaxy Note 10.1 review ("Verge Note 10.1 Review") | Aug. 15, 2012 | The Verge | YouTube | SAM-KEY_00992887 | SAM-KEY_00992887 |
| Samsung Galaxy Note 10.1 Launches Tomorrow in the U.S. | Aug. 15, 2012 | Kellen | Droid Life | SAM-KEY_00992913 | SAM-KEY_00992919 |

| Title | Pub. Date | Author(s) | Publisher | Bates Range Start | Bates Range End |
|---|---|---|---|---|---|
| Samsung Relaunches the Galaxy Note 10.1 with Quad-core Processor and 2GB RAM, Arriving This Month | Aug. 6, 2012 | Kellen | Droid Life | SAM-KEY_00992920 | SAM-KEY_00992926 |
| Microsoft Lumia 640 LTE | Mar. 4, 2015 | GSMArena | GSMArena | SAM-KEY_00993867 | SAM-KEY_00993868 |
| Samsung i7500 android Hands-On | May 7, 2009 | Gear65.com | YouTube | SAM-KEY_00993948 | SAM-KEY_00993948 |
| HTC Magic Mobile Phone – Part 1 – Unboxing & Review | Aug. 10, 2009 | Geekanoids | YouTube | SAM-KEY_00993947 | SAM-KEY_00993947 |

Defendants further incorporate by reference all "U.S. Patent Documents" and "Other Publications" cited on the face of the Patents-in-Suit. Any citation to one or more of the above prior art references, or other prior art references regarding any method or system, should be construed to constitute not only a citation to the prior art reference itself, but also a reference to the system itself. Discovery has only just begun in this case, and Defendants will supplement if and when more information becomes available from Plaintiff or third parties.

**B. Prior Art Disclosures—Known/Use/Sales/Offers for Sale**

Defendants believe that there were prior art disclosures in the form of sales, offers for sale, and/or uses by others of products that qualify as prior art under pre-AIA 35 U.S.C. § 102(a) and/or (b) or under AIA 35 U.S.C. § 102(a)(1) against one or more of the Asserted Claims of the Patents-in-Suit. The below-identified prior art products include products Defendants are currently aware of through an on-going diligent and reasonable investigation at this early stage of discovery and/or based on public available information. Details regarding such offers for sale and public uses may be within the possession of third parties. As discovery progresses, Defendants intend and reserve the

right to promptly supplement and/or amend the lists below to include additional prior art products that anticipate and/or render the Asserted Claims obvious.

**Table 3: Prior Art Products**

| System[1] | Sale or Use Date |
|---|---|
| Apple Newton MessagePad 2000 | At least by March 1997 |
| HTC G1 1.6 | At least by September 23, 2008, and not later than September 15, 2009 |
| HTC Hero 1.5 | At least by October 11, 2009 |
| HTC Hero 2.1 | At least by January 2010 |
| HTC Magic 1.6 | At least by July 8, 2009 |
| Lumia 640 | At least by March 2, 2015 |
| Motorola Droid A855 | At least by November 6, 2009 |
| Motorola Moto E 2nd Gen. | At least by February 25, 2015 |
| MyOrigo MyDevice | At least by October 2003 |
| Neonode N2 | At least by 2008 |
| Palm Pre | At least by February 2009 |
| Samsung Behold II | At least by November 4, 2009 |
| Samsung Galaxy GT-i7500 | At least by June 29, 2009 |
| Samsung Galaxy Nexus | At least by November 2011, and not later than November 28, 2012 |
| Samsung Galaxy Note 10.1 | At least by July 2012, and not later than January 15, 2013 |
| Samsung Galaxy Tab2 7.0 | At least by April 2012, and not later than November 19, 2013 |
| Sony P800 | At least by October 15, 2002 |

[1] To the extent Plaintiff asserts that any prior art product does not qualify as prior art under the relevant statute, the documents and videos cited in each Exhibit as evidence of these systems' functionality are independently prior art and would anticipate or render obvious the Asserted Claims for the reasons given in each Exhibit.

For the public uses identified herein, Defendants are investigating the identities of the individuals who knew about and/or were involved in the making, first public use, offer for sale and/or sale of these products and systems. Defendants are also investigating the exact date that these products and systems were first made, first publicly used, offered for sale and/or sold. In addition, Defendants are currently investigating the dates of conception and reduction to practice of these products and systems and when these products and systems were first known or used by others.

In the course of their investigation, Defendants may identify additional prior art documents describing these products, systems, and/or disclosures that may also anticipate and/or render obvious as invalidating printed publications. Any citation to one or more of prior art references regarding these products, systems, and/or disclosures should be construed to constitute not only a citation to the prior art reference itself, but also a reference to the associated products, systems, and/or disclosures.

**C. Prior art under Pre-AIA 35 U.S.C. § 102(f) and/or AIA 35 U.S.C. § 101**

Discovery has only just recently begun, and inventor discovery is forthcoming. Based on limited discovery received to date, Defendants contend that the Asserted Claims subject to the pre-AIA statutory provisions are invalid under 35 U.S.C. § 102(f) and/or for failing to satisfy § 116 on the grounds that the named inventor of the Patents-in-Suit did not invent the subject matter claimed therein and/or improperly omitted an inventor. Similarly, Defendants contend that the Asserted Claims subject to the AIA provisions are invalid under 35 U.S.C. § 101 on the grounds that the named inventor of the Patents-in-Suit is not "[w]hoever invent[ed] or discover[ed]" the alleged inventions and, thus, is not a person who "may obtain a patent therefor." A patent is invalid if more or fewer than the true inventors are named. Should Defendants obtain additional evidence, they will provide the name of the person(s) from whom and the circumstances under which the alleged invention or any part of it was derived.

For example, Defendants believe that one or more other people may have invented or contributed to the subject matter claimed in the Patents-in-Suit, whose subject matter qualifies as prior art under pre-AIA 35 U.S.C. § 102(f) against one or more of the Patent-in-Suits. Defendants may identify additional information describing additional persons, facts, and circumstances that may also demonstrate that the named inventors are not entitled to the Patents-in-Suit under pre-AIA 35 U.S.C. § 102(f) and/or failed to satisfy the requirements under § 116 such that the Asserted Claims of the Patents-in-Suit are invalid.

Additionally, Plaintiff may have in its possession, custody, or control information related to or pertaining to prior art under pre-AIA 35 U.S.C. § 102(f) and/or information concerning the failure to satisfy § 116. Defendants will supplement these Invalidity Contentions if and when Plaintiff produces such information and Defendants have had the opportunity to obtain and analyze that information. Defendants contend that the Patents-in-Suit are invalid under pre-AIA 35 U.S.C. § 102(f) and/or § 116 in the event Defendants obtain evidence that the named inventor of any of the Patents-in-Suit did not invent (either together or in conjunction with other parties) the subject matter claimed therein and/or omitted a true inventor.

As another example, Defendants believe that one or more other people may have invented or contributed to the subject matter claimed in the Patents-in-Suit, whose subject matter qualifies as prior art under AIA 35 U.S.C. § 101 against one or more of the Patent-in-Suits. Defendants may identify additional information describing additional persons, facts, and circumstances that may also demonstrate that the named inventors are not entitled to the Patents-in-Suit under AIA 35 U.S.C. § 101 such that the Asserted Claims of the Patents-in-Suit are invalid.

Additionally, Plaintiff may have in its possession, custody, or control information related to or pertaining to prior art under AIA 35 U.S.C. § 101. Defendants will supplement these Invalidity Contentions if and when Plaintiff produces such information and Defendants have had the

opportunity to obtain and analyze that information. Defendants contend that the Patents-in-Suit subject to AIA are invalid under 35 U.S.C. § 101 in the event Defendants obtain evidence that the named inventor of any of the Patents-in-Suit did not invent (either together or in conjunction with other parties) the subject matter claimed therein and/or omitted a true inventor.

**D. Prior art under Pre-AIA 35 U.S.C. § 102(g)**

Each prior art patent, publication, or product identified above was either filed or issued (for patents), published (for publications), or known, used, offered for sale or sold (for disclosures, products, and/or systems) before the earliest priority date of the Patents-in-Suit. Additionally, each prior art patent, publication, or product identified above does not appear to have been abandoned, suppressed, or concealed, so that each such reference also constitutes evidence of prior invention pursuant to 35 U.S.C. § 102(g) to the extent that it is in the U.S. The persons or entities involved with each such invention include the named inventors on the above-identified patents, the authors listed on the above-identified publications, and the entities and individuals identified in connection with the above-identified products and systems. Plaintiff has not provided conception dates or evidence thereof earlier than the filing dates of the Patents-in-Suit or the alleged priority dates listed on the faces of the Patents-in-Suit. Nor has Plaintiff provided reduction to practice dates or evidence thereof and/or any purported diligence associated therewith. Should the Court permit Plaintiff to provide any of such evidence, Defendants reserve the right to assert that any of the prior art references identified in the sections above as pre-AIA 35 U.S.C. §102(a) prior art is also pre-AIA 35 U.S.C. §102(g) prior art. Investigation, analysis, and discovery are ongoing in this matter, and Defendants reserve the right to supplement this response as appropriate.

**E. Invalidity by Anticipation or Obviousness**

Subject to the Defendants' reservation of rights stated in these Invalidity Contentions and based on Defendants' present understanding of the Asserted Claims and the apparent interpretations

that Plaintiff is asserting based on Plaintiff's Complaint and its Infringement Contentions, Defendants provide below exemplary references and combinations of references that anticipate and/or render the Asserted Claims of the '602 Patent obvious in Table 4, exemplary references and combinations of references that anticipate and/or render the Asserted Claims of the '922 Patent obvious in Table 5, and exemplary references and combinations of references that anticipate and/or render the Asserted Claims of the '144 Patent obvious in Table 6.

Aspects of these Invalidity Contentions are based, in whole or in part, on Defendants' present understanding of Plaintiff's apparent interpretations of the Asserted Claims based on Plaintiff's Complaint and its Infringement Contentions. Given Plaintiff's apparent interpretations of the Asserted Claims, Defendants have attempted to apply those interpretations, but this application of Plaintiff's interpretations is not an agreement or admission that any of Plaintiff's interpretations are correct. To be clear, Defendants do not agree with Plaintiff's Infringement Contentions but are merely offering Invalidity Contentions based on those interpretations.

The references identified in the exhibits attached to these Invalidity Contentions may disclose the elements of the Asserted Claims explicitly and/or inherently, and/or they may be relied upon to show how the state of the art in the relevant time frame invalidates the Asserted Claims. In some instances, multiple prior art publications discuss the same underlying system, software, or other project. For example, some patents and published patent applications reflect commercial products or services offered in the market. It would have been obvious to consider and combine the teachings of a patent or patent application that relate to a certain product or service with the features of that product or service as provided commercially. Similarly, where multiple publications discuss the same underlying product, service, project, or system, it would have been obvious to combine the discussions and disclosures of the publications as they would have been understood to describe features or potential features of the underlying subject matter. Likewise, where one publication

discusses another publication, it would have been obvious to consider and combine the teachings of each publication in combination with each other.

Defendants' contentions that the references in this section, in various combinations, render the Asserted Claims of the Patents-in-Suit obvious under 35 U.S.C. § 103 are in no way an admission or suggestion that each reference does not independently anticipate the Asserted Claims under 35 U.S.C. § 102. Any of these references may be combined with other disclosed references, the disclosed products and systems, and/or with the knowledge of one of ordinary skill in the art during the relevant time period to render obvious, and, therefore, invalidate, the Asserted Claims of the Patents-in-Suit.

Although Defendants have identified at least one disclosure of a limitation for each prior art reference, each and every disclosure of the same limitation in the same reference is not necessarily identified. To focus the issues, Defendants cite only exemplary and representative portions of an identified reference, even where a reference may contain additional support for a particular claim limitation. Persons of ordinary skill in the art read an item of prior art as a whole and in the context of other publications and literature. Thus, to understand and interpret any specific statement or disclosure within a prior art reference that Defendants identify as exemplary and representative, such persons of ordinary skill in the art would rely on other information within the reference, along with other publications and their general scientific knowledge. As such, Defendants may rely upon uncited portions of the prior art references and on other publications and expert testimony to provide context, and as aids to understanding and interpreting the exemplary portions that are cited.

No showing of a specific motivation to combine prior art is required to combine the references disclosed above and in the attached charts, as each combination of art would have no unexpected results, and at most would simply represent a known alternative to one of ordinary skill in the art. *See KSR*, 550 U.S. at 415-17 (rejecting the Federal Circuit's "rigid" application of the teaching,

suggestion, or motivation to combine test, instead espousing an "expansive and flexible" approach). That said, the Supreme Court's rationale, that a person of ordinary skill in the art is "a person of ordinary creativity, not an automaton" and "in many cases a person of ordinary skill in the art will be able to fit the teachings of multiple patents together like pieces of a puzzle," applies equally here. *Id.* at 420-21. Nevertheless, in addition to the information contained in the section(s) above and elsewhere in these contentions, Defendants hereby identify additional motivations and reasons to combine the cited art. Further motivations are provided in the attached charts.

One or more combinations of the prior art references identified herein would have been obvious because these references would have been combined using: known methods to yield predictable results; known techniques in the same way; a simple substitution of one known, equivalent element for another to obtain predictable results; and/or a teaching, suggestion, or motivation in the prior art generally. In addition, it would have been obvious to try combining the prior art references identified above because there were only a finite number of predictable solutions and/or because known work in one field of endeavor prompts variations based on predictable design incentives and/or market forces either in the same field or a different one. In addition, the combinations of the prior art references identified above would have been obvious because the combinations represent the known potential options with a reasonable expectation of success.

Motivation to combine any two or more of the identified references, systems, and/or products comes from the fact that the references, systems, and/or products teach structural designs and use of multiple display devices, and one would have been motivated by considerations of efficiency, effectiveness, convenience, cost-savings, power savings, and accessibility, to combine the various teachings. Additional evidence that there would have been a motivation or reason to combine the prior art references identified above includes the interrelated teachings of multiple prior art references; the effects of demands known to the design community or present in the marketplace; the

existence of a known problem for which there was an obvious solution; the existence of a known need or problem in the field of endeavor at the time of the invention; and the background knowledge that would have been possessed by a person having ordinary skill in the art. For example, the prior art references, systems, and/or products are generally directed to the same or similar problems. Some references expressly incorporate others by reference or are authored by the same inventor. Thus, a skilled artisan seeking to solve these problems would have looked to these cited references in combination.

Thus, the motivation or reason to combine the teachings of the prior art references disclosed herein is found in the references themselves and in: (1) the nature of the problem being solved; (2) the express, implied, and inherent teachings of the prior art; (3) the knowledge of persons of ordinary skill in the art; (4) the fact that the prior art is generally directed towards the same problem; (5) the predictable results obtained in combining the different elements of the prior art; (6) the use of a known technique to improve similar devices, methods, or products in the same way; (7) the predictable results obtained in applying a known technique to a known device, method, or product ready for improvement; (8) the finite number of identified predictable solutions having a reasonable expectation of success; and/or (9) known work in various technological fields that could be applied to the same or different technological fields based on design incentives or other market forces.

**1. ’602 Patent**

**Table 4: Exemplary Anticipatory and Combinations for the Asserted Claims of the ’602 Patent**

| Chart | Prior Art References |
|---|---|
| A1 | Tseng in view of one or more of Jeong, Roth, Brown, Wilairat, Hinckley, Hisatomi, Roth Bezel Swipe, Samsung Galaxy GT-i7500, Samsung Behold II, HTC G1 1.6, HTC Hero 1.5, HTC Hero 2.1, HTC Magic 1.6, Motorola Droid A855, Palm Pre, and Neonode N2 |

| Chart | Prior Art References |
|---|---|
| A2 | Jeong in view of one or more of Tseng, Roth, Brown, Wilairat, Hinckley, Hisatomi, Roth Bezel Swipe, Samsung Galaxy GT-i7500, Samsung Behold II, HTC G1 1.6, HTC Hero 1.5, HTC Hero 2.1, HTC Magic 1.6, Motorola Droid A855, Palm Pre, and Neonode N2 |
| A3 | HTC G1 1.6 in view of one or more of Jeong, Tseng, Roth, Brown, Wilairat, Hinckley, Hisatomi, Roth Bezel Swipe, Samsung Galaxy GT-i7500, Samsung Behold II, HTC Hero 1.5, HTC Hero 2.1, HTC Magic 1.6, Motorola Droid A855, Palm Pre, and Neonode N2 |
| A4 | Samsung Behold II in view of one or more of Jeong, Tseng, Roth, Brown, Wilairat, Hinckley, Hisatomi, Roth Bezel Swipe, Samsung Galaxy GT-i7500, HTC Hero 1.5, HTC Hero 2.1, HTC Magic 1.6, Motorola Droid A855, Palm Pre, and Neonode N2 |
| A5 | Motorola Droid A855 in view of one or more of Jeong, Tseng, Roth, Brown, Wilairat, Hinckley, Hisatomi, Roth Bezel Swipe, Samsung Galaxy GT-i7500, HTC Hero 1.5, HTC Hero 2.1, HTC Magic 1.6, Palm Pre, and Neonode N2 |
| A6 | HTC Hero 1.5 and/or 2.1 in view of one or more of Jeong, Tseng, Roth, Brown, Wilairat, Hinckley, Hisatomi, Roth Bezel Swipe, Samsung Galaxy GT-i7500, HTC G1 1.6, HTC Magic 1.6, Motorola Droid A855, Palm Pre, and Neonode N2 |
| A7 | Palm Pre in view of one or more of Jeong, Tseng, Roth, Brown, Wilairat, Hinckley, Hisatomi, Roth Bezel Swipe, Samsung Galaxy GT-i7500, HTC G1 1.6, HTC Hero 1.5, HTC Hero 2.1, HTC Magic 1.6, Motorola Droid A855, and Neonode N2 |
| A8 | Neonode N2 in view of one or more of Jeong, Tseng, Roth, Brown, Wilairat, Hinckley, Hisatomi, Roth Bezel Swipe, Samsung Galaxy GT-i7500, HTC G1 1.6, HTC Hero 1.5, HTC Hero 2.1, HTC Magic 1.6, Motorola Droid A855, and Palm Pre |

The prior art identified above, and in the attached ’602 Patent charts, individually anticipate and/or can properly be combined in multiple ways to demonstrate the obviousness of the Asserted Claims of the ’602 Patent. Various combinations of the references would have naturally been considered as part of the exercise of ordinary skill by one skilled in the art. The references disclosed in the attached charts and herein are also directed to the same or similar features as the purported

invention claimed in the Asserted Claims of the ’602 Patent. To the extent Plaintiff contends that any of these features solved a problem in the art, the references cited herein show that that problem was known to those of ordinary skill and had already been solved using obvious solutions.

To that end, the Asserted Claims of the ’602 Patent simply combine elements already combined and well known in the art and yield no more than what one skilled in the art would have expected from such a combination. For example, with respect to the ’602 Patent, when confronted with the alleged problems described in the ’602 Patent, one of ordinary skill in the art at the time of the alleged inventions would have been motivated to consider the techniques taught by the prior art cited in these Invalidity Contentions. Consideration of the teachings of this prior art, both individually and in combination, would necessarily lead to the alleged invention claimed in the ’602 Patent. This is demonstrated by the cited prior art, which disclose all of the elements of the Asserted Claims of the ’602 Patent, as well as motivations to modify or combine their individual teachings. One of skill in the art would have been motivated to either modify the prior art identified in the claim charts or to combine that prior art in the manner indicated, by, for example, their background knowledge, design incentives, effects of demands known to the design community, or other market forces. Moreover, the cited prior art share commonalities. To the extent it is argued that any cited prior art does not expressly disclose a particular claim or element, it would have been inherent in the disclosure and/or obvious to a person of ordinary skill in the art to include the claimed element to perform the invention as claimed in the ’602 Patent.

As described in the attached charts, all the elements of the Asserted Claims of the ’602 Patent were commonplace before the alleged date of inventions. For each element, there exists evidence from the cited prior art that it was well known in the art prior to the date of invention. To the extent it is argued any of the cited prior art references, systems, and/or products do not anticipate the

Asserted Claims, it would have been obvious to a person of ordinary skill in the art that the Asserted Claims are merely combinations of well-known methods and systems resulting in expected results.

Additionally, Defendants hereby incorporate by reference the motivations to combine references set forth during the prosecution of the Asserted Claims of the '602 Patent, including the statements and reasoning set forth by the examiner, as to why it would have been obvious to modify or combine references to achieve the limitations of the Asserted Claims of the '602 Patent.

**2. '922 Patent**

**Table 5: Exemplary Anticipatory and Combinations for the Asserted Claims of the '922 Patent**

| Chart | Prior Art References |
|---|---|
| B1 | Goktekin in view of one or more of Lavallee, Sirpal-486, Sirpal-000, Makhoul, Kim-582, Beran, Wang, Yabuki, Roach, Vincent, Ramkumar, Garcia-Barrio, and Aravamudan |
| B2 | Koch in view of one or more of Lavallee, Sirpal-486, Sirpal-000, Wang, Matthews, and Yabuki |
| B3 | Samsung Galaxy Note 10.1 in view of one or more of Note 10.1 Manual, *Verge Note 10.1 Review*, *DetroitBORG Galaxy Note 10.1 Unboxing*, *ChatON Tutorial, ICS Messaging*, *About.com*, *Gadgets360*, *Android Police*, *Gadgeteer*, Lavallee, Sirpal-486, Sirpal-000, Wang, Matthews, Nexus, Koch, *PC Mag*, *NBC News*, *Reuters*, and Yabuki |
| B4 | Samsung Galaxy Tab2 7.0 in view of one or more of Tab2 7.0 Manual, *ChatON Tutorial, ICS Messaging*, *About.com*, *Gadgets360*, *Android Police*, *Gadgeteer*, Lavallee, Sirpal-486, Sirpal-000, Wang, Matthews, Nexus, Koch, *PC Mag*, *NBC News*, *Reuters*, and Yabuki |
| B5 | Samsung Galaxy Nexus in view of one or more of Nexus Manual, Lavallee, Sirpal-486, Sirpal-000, Wang, Matthews, and Yabuki |
| B6 | Zhuang in view of one or more of Koch, Sirpal-486, Sirpal-000, Lavallee, Wang, Matthews, Nexus, and Yabuki |
| B7 | Paek in view of one or more of Lavallee, Sirpal-486, Sirpal-000, Koch, Wang, Matthews, and Yabuki |

The prior art identified above, and in the attached ’922 Patent charts, individually anticipate and/or can properly be combined in multiple ways to demonstrate the obviousness of the Asserted Claims of the ’922 Patent. Various combinations of the references would have naturally been considered as part of the exercise of ordinary skill by one skilled in the art. The references disclosed in the attached charts and herein are also directed to the same or similar features as the purported invention claimed in the Asserted Claims of the ’922 Patent. To the extent Plaintiff contends that any of these features solved a problem in the art, the references cited herein show that that problem was known to those of ordinary skill and had already been solved using obvious solutions.

To that end, the Asserted Claims of the ’922 Patent simply combine elements already combined and well known in the art and yield no more than what one skilled in the art would have expected from such a combination. For example, with respect to the ’922 Patent, when confronted with the alleged problems described in the ’922 Patent, one of ordinary skill in the art at the time of the alleged inventions would have been motivated to consider the techniques taught by the prior art cited in these Invalidity Contentions. Consideration of the teachings of this prior art, both individually and in combination, would necessarily lead to the alleged invention claimed in the ’922 Patent. This is demonstrated by the cited prior art, which disclose all of the elements of the Asserted Claims of the ’922 Patent, as well as motivations to modify or combine their individual teachings. One of skill in the art would have been motivated to either modify the prior art identified in the claim charts or to combine that prior art in the manner indicated, by, for example, their background knowledge, design incentives, effects of demands known to the design community, or other market forces. Moreover, the cited prior art share commonalities. To the extent it is argued that any cited prior art does not expressly disclose a particular claim or element, it would have been inherent in the disclosure and/or obvious to a person of ordinary skill in the art to include the claimed element to perform the invention as claimed in the ’922 Patent.

As described in the attached charts, all the elements of the Asserted Claims of the ’922 Patent were commonplace before the alleged date of inventions. For each element, there exists evidence from the cited prior art that it was well known in the art prior to the date of invention. To the extent it is argued any of the cited prior art references, systems, and/or products do not anticipate the Asserted Claims, it would have been obvious to a person of ordinary skill in the art that the Asserted Claims are merely combinations of well-known methods and systems resulting in expected results.

Additionally, Defendants hereby incorporate by reference the motivations to combine references set forth during the prosecution of the Asserted Claims of the ’922 Patent, including the statements and reasoning set forth by the examiner, as to why it would have been obvious to modify or combine references to achieve the limitations of the Asserted Claims of the ’922 Patent.

### 3. ’144 Patent

**Table 6: Exemplary Anticipatory and Combinations for the Asserted Claims of the ’144 Patent**

| Chart | Prior Art References |
|---|---|
| C1 | Bast in view of one or more of Wedel, Rydbeck, Yamaguchi, Dutta, Nakano, Kobayashi, Benoit, Pensjo, Jambhekar, and Gupta |
| C2 | Pensjo in view of one or more of Bast, Wedel, Rydbeck, Yamaguchi, Dutta, Nakano, Kobayashi, Benoit, Jambhekar, and Gupta |
| C3 | Mouton in view of one or more of Bast, Wedel, Rydbeck, Yamaguchi, Dutta, Nakano, Kobayashi, Benoit, Pensjo, and Jambhekar |
| C4 | Nakano in view of one or more of Bast, Wedel, Rydbeck, Yamaguchi, Dutta, Kobayashi, Pensjo, Jambhekar, and Gupta |
| C5 | Gupta in view of one or more of Bast, Wedel, Rydbeck, Yamaguchi, Dutta, Kobayashi, Benoit, Pensjo, and Jambhekar |
| C6 | Dutta in view of one or more of Bast, Wedel, Rydbeck, Yamaguchi, Nakano, Kobayashi, Benoit, Jambhekar, and Gupta |
| C7 | MyOrigo Magazine in view of one or more of Bast, Wedel, Rydbeck, Yamaguchi, Dutta, Nakano, Benoit, Jambhekar, and Gupta |

| Chart | Prior Art References |
|---|---|
| C8 | MyOrigo Manual in view of one or more of Wedel, Rydbeck, Yamaguchi, Dutta, Nakano, Kobayashi, Benoit, Jambhekar, and Gupta |
| C9 | Sony P800 in view of one or more of Bast, Wedel, Rydbeck, Yamaguchi, Dutta, Nakano, Kobayashi, Benoit, Pensjo, Jambhekar, and Gupta |
| C10 | Apple Newton in view of one or more of Bast, Wedel, Rydbeck, Yamaguchi, Dutta, Nakano, Kobayashi, Benoit, Pensjo, Gupta, Mouton, MyOrigo Magazine, and Sony P800 |
| C11 | Motorola Moto E 2nd Gen. in view of one or more of Bast, Pensjo, Gupta, Wedel, Rydbeck, Yamaguchi, Dutta, and Benoit |
| C12 | Lumia 640 in view of one or more of Bast, Pensjo, Gupta, Wedel, Rydbeck, Yamaguchi, and Dutta |

The prior art identified above, and in the attached ’144 Patent charts, individually anticipate and/or can properly be combined in multiple ways to demonstrate the obviousness of the Asserted Claims of the ’144 Patent. Various combinations of the references would have naturally been considered as part of the exercise of ordinary skill by one skilled in the art. The references disclosed in the attached charts and herein are also directed to the same or similar features as the purported invention claimed in the Asserted Claims of the ’144 Patent. To the extent Plaintiff contends that any of these features solved a problem in the art, the references cited herein show that that problem was known to those of ordinary skill and had already been solved using obvious solutions.

To that end, the Asserted Claims of the ’144 Patent simply combine elements already combined and well known in the art and yield no more than what one skilled in the art would have expected from such a combination. For example, with respect to the ’144 Patent, when confronted with the alleged problems described in the ’144 Patent, one of ordinary skill in the art at the time of the alleged inventions would have been motivated to consider the techniques taught by the prior art cited in these Invalidity Contentions. Consideration of the teachings of this prior art, both individually and in combination, would necessarily lead to the alleged invention claimed in the ’144 Patent. This

is demonstrated by the cited prior art, which disclose all of the elements of the Asserted Claims of the ’144 Patent, as well as motivations to modify or combine their individual teachings. One of skill in the art would have been motivated to either modify the prior art identified in the claim charts or to combine that prior art in the manner indicated, by, for example, their background knowledge, design incentives, effects of demands known to the design community, or other market forces. Moreover, the cited prior art share commonalities. To the extent it is argued that any cited prior art does not expressly disclose a particular claim or element, it would have been inherent in the disclosure and/or obvious to a person of ordinary skill in the art to include the claimed element to perform the invention as claimed in the ’144 Patent.

As described in the attached charts, all the elements of the Asserted Claims of the ’144 Patent were commonplace before the alleged date of inventions. For each element, there exists evidence from the cited prior art that it was well known in the art prior to the date of invention. To the extent it is argued any of the cited prior art references, systems, and/or products do not anticipate the Asserted Claims, it would have been obvious to a person of ordinary skill in the art that the Asserted Claims are merely combinations of well-known methods and systems resulting in expected results.

Additionally, Defendants hereby incorporate by reference the motivations to combine references set forth during the prosecution of the Asserted Claims of the ’144 Patent, including the statements and reasoning set forth by the examiner, as to why it would have been obvious to modify or combine references to achieve the limitations of the Asserted Claims of the ’144 Patent.

## III. Priority

Defendants contend that none of the Asserted Claims are entitled to their claimed priority dates. As explained below, each Patent-in-Suit purports to claim priority to prior applications whose disclosures do not support the Asserted Claims. Accordingly, the Asserted Claims are not entitled to the benefit of the earlier filing dates of these applications. *See, e.g.*, *In re Katz Interactive Call*

*Processing Litig.*, 639 F.3d 1303, 1322 (Fed. Cir. 2011); *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1306 (Fed. Cir. 2008). To the extent the claims are not invalid for failing to comply with 35 U.S.C. § 112, including, for example, written description,[2] the earliest priority date for the Asserted Claims is, at most, no earlier than the following for each of the Patents-in-Suit:

- '602 Patent: February 11, 2010
- '922 Patent: December 24, 2013
- '144 Patent: January 22, 2017

**A. '602 Patent**

The Asserted Claims of the '602 Patent are not entitled to the claimed priority date. Plaintiff alleges that the Asserted Claims of the '602 Patent "are entitled to a priority date at least as early as December 20, 2009, and possibly earlier than this date." Plaintiff's PR 3-1 and 3-2 Disclosures. The '602 Patent purports to claim priority to the following provisional and/or foreign applications:

- U.S. Provisional No. 61/294,382 (filed January 12, 2010);
- Israel Application No. 202852 (filed December 20, 2009);
- Israel Application No. 203090 (filed December 31, 2009);
- Israel Application No. 203560 (filed January 27, 2010);
- Israel Application No. 203922 (filed February 11, 2010);

[2] For each of the Patents-in-Suit, there exists a wealth of prior art that leads to conclusions of prior art invalidity under Sections 102 and 103. In terms of the teachings provided by this prior art and the motivations to combine different individual prior art references within this wealth of art, these Invalidity Contentions provide numerous examples. Should Plaintiff try to later dispute the teachings provided by this prior art and/or dispute any of the motivations to combine individual references within this wealth of prior art, Plaintiff's later arguments in dispute of what would have been known to person of ordinary skill may well raise additional Section 112 bases for the invalidity of the Asserted Claims, including additional examples of written description deficiencies as well as a lack of an enabling disclosure. Since Plaintiff has not yet shared those positions, should it later choose to do so, Defendants reserve their rights to amend these contentions based on this later provided information.

- Israel Application No. 205052 (filed April 13, 2010);
- Israel Application No. 205329 (filed April 25, 2010);
- Israel Application No. 206257 (filed June 9, 2010);
- Israel Application No. 207114 (filed July 20, 2010);
- Israel Application No. 207545 (filed August 11, 2010);
- Israel Application No. 207665 (filed August 17, 2010);
- Israel Application No. 208140 (filed September 14, 2010);
- Israel Application No. 208740 (filed October 14, 2010);
- Israel Application No. 208790 (filed October 18, 2010);
- Israel Application No. 209218 (filed November 9, 2010);
- Israel Application No. 209305 (filed November 14, 2010);
- Israel Application No. 209416 (filed November 18, 2010); and
- Israel Application No. 209484 (filed November 21, 2010).

*See* '602 Patent at (60), (30).

However, none of the priority applications sufficiently supports the Asserted Claims of the '602 Patent, and there is no written description support for them in the '602 Patent, as explained below in Section IV with reference to exemplary claim elements that lack such support. Because the applications to which the '602 Patent claims priority do not support the claim elements identified in Section IV, the claims containing those claim elements—and any claim(s) depending directly or indirectly therefrom—are not entitled to the benefit of an earlier filing date. To the extent the Asserted Claims of the '602 Patent are not invalid for failing to comply with Section 112, the earliest possible priority date for these claims is February 11, 2010.

**B. '922 Patent**

The Asserted Claims of the '922 Patent are not entitled to the claimed priority date. Plaintiff

alleges that the Asserted Claims of the ’922 Patent “are entitled to a priority date at least as early as February 17, 2013, and possibly earlier than this date.” Plaintiff’s PR 3-1 and 3-2 Disclosures. The ’922 Patent purports to claim priority to the following U.S. patent applications and/or provisional applications:

- U.S. App. No. 14/767,606 (filed February 18, 2014), now abandoned;
- U.S. Provisional No. 61/765,751 (filed February 17, 2013);
- U.S. Provisional No. 61/766,747 (filed February 20, 2013);
- U.S. Provisional No. 61/769,285 (filed February 26, 2013);
- U.S. Provisional No. 61/772,066 (filed March 4, 2013);
- U.S. Provisional No. 61/774,605 (filed March 8, 2013);
- U.S. Provisional No. 61/777,102 (filed March 12, 2013);
- U.S. Provisional No. 61/778,888 (filed March 13, 2013);
- U.S. Provisional No. 61/802,690 (filed March 17, 2013);
- U.S. Provisional No. 61/803,456 (filed March 20, 2013);
- U.S. Provisional No. 61/804,681 (filed March 24, 2013);
- U.S. Provisional No. 61/810,805 (filed April 11, 2013);
- U.S. Provisional No. 61/811,756 (filed April 14, 2013);
- U.S. Provisional No. 61/813,271 (filed April 13, 2013);
- U.S. Provisional No. 61/814,290 (filed April 21, 2013);
- U.S. Provisional No. 61/819,598 (filed May 5, 2013);
- U.S. Provisional No. 61/821,331 (filed May 9, 2013);
- U.S. Provisional No. 61/822,934 (filed May 14, 2013);
- U.S. Provisional No. 61/823,971 (filed May 16, 2013);

- U.S. Provisional No. 61/825,049 (filed May 19, 2013);
- U.S. Provisional No. 61/827,020 (filed May 24, 2013);
- U.S. Provisional No. 61/830,114 (filed June 2, 2013);
- U.S. Provisional No. 61/833,512 (filed June 11, 2013);
- U.S. Provisional No. 61/833,991 (filed June 12, 2013);
- U.S. Provisional No. 61/834,889 (filed June 14, 2013);
- U.S. Provisional No. 61/835,704 (filed June 17, 2013);
- U.S. Provisional No. 61/837,662 (filed June 21, 2013);
- U.S. Provisional No. 61/838,288 (file June 23, 2013);
- U.S. Provisional No. 61/838,403 (filed June 24, 2013);
- U.S. Provisional No. 61/841,360 (filed June 30, 2013);
- U.S. Provisional No. 61/843,391 (filed July 7, 2013);
- U.S. Provisional No. 61/846,030 (filed July 14, 2013);
- U.S. Provisional No. 61/858,210 (filed July 25, 2013);
- U.S. Provisional No. 61/860,396 (filed July 31, 2013);
- U.S. Provisional No. 61/865,254 (filed August 13, 2013);
- U.S. Provisional No. 61/866,119 (filed August 15, 2013);
- U.S. Provisional No. 61/868,172 (filed August 21, 2013);
- U.S. Provisional No. 61/869,722 (filed August 25, 2013);
- U.S. Provisional No. 61/875,192 (filed September 9, 2013);
- U.S. Provisional No. 61/878,695 (filed September 17, 2013);
- U.S. Provisional No. 61/879,152 (filed September 18, 2013);
- U.S. Provisional No. 61/882,160 (filed September 25, 2013);

- U.S. Provisional No. 61/893,291 (filed October 21, 2013);
- U.S. Provisional No. 61/899,240 (filed November 3, 2013);
- U.S. Provisional No. 61/902,242 (filed November 10, 2013);
- U.S. Provisional No. 61/908,122 (filed November 24, 2013);
- U.S. Provisional No. 61/908,248 (filed November 25, 2013);
- U.S. Provisional No. 61/913,472 (filed December 9, 2013);
- U.S. Provisional No. 61/920,572 (filed December 24, 2013);
- U.S. Provisional No. 61/926,474 (filed January 13, 2014);
- U.S. Provisional No. 61/927,039 (filed January 14, 2014);
- U.S. Provisional No. 61/929,187 (filed January 20, 2014);
- U.S. Provisional No. 61/931,633 (filed January 26, 2014); and
- U.S. Provisional No. 61/937,545 (filed February 9, 2014).

*See* '922 Patent at (62), (60).

However, none of the priority applications sufficiently supports the Asserted Claims of the '922 Patent, and there is no written description support for them in the '922 Patent, as explained below in Section IV with reference to exemplary claim elements that lack such support. Because the applications to which the '922 Patent claims priority do not support the claim elements identified in Section IV, the claims containing those claim elements—and any claim(s) depending directly or indirectly therefrom—are not entitled to the benefit of an earlier filing date. To the extent the Asserted Claims of the '922 Patent are not invalid for failing to comply with Section 112, the earliest possible priority date for these claims is December 24, 2013.

**C. '144 Patent**

The Asserted Claims of the '144 Patent are not entitled to the claimed priority date. Plaintiff alleges that the Asserted Claims of the '144 Patent "are entitled to a priority date at least as early as

April 18, 2003, and possibly earlier than this date." Plaintiff's PR 3-1 and 3-2 Disclosures. The '144 Patent purports to claim priority to the following patent applications and/or provisional applications:

- U.S. App. No. 14/146,125 (filed January 2, 2014), now abandoned;
- U.S. App. No. 10/553,575 (filed September 26, 2006), now abandoned;
- PCT/US2004/012082 (filed April 19, 2004);
- U.S. Provisional No. 60/463,844 (filed April 18, 2003);
- U.S. Provisional No. 60/466,594 (filed April 30, 2003);
- U.S. Provisional No. 60/468,028 (filed May 5, 2003);
- U.S. Provisional No. 60/474,447 (filed May 30, 2003);
- U.S. Provisional No. 60/475,533 (filed June 3, 2003);
- U.S. Provisional No. 60/482,706 (filed June 26, 2003);
- U.S. Provisional No. 60/482,998 (filed June 27, 2003);
- U.S. Provisional No. 60/496,702 (filed August 20, 2003);
- U.S. Provisional No. 60/500,602 (filed September 5, 2003);
- U.S. Provisional No. 60/504,331 (filed September 19, 2003);
- U.S. Provisional No. 60/510,885 (filed October 14, 2003);
- U.S. Provisional No. 60/536,564 (filed January 14, 2004);
- U.S. Provisional No. 60/552,968 (filed March 11, 2004); and
- U.S. Provisional No. 60/557,140 (filed March 26, 2004);
- U.S. Provisional No. 60/496,702.

*See* '144 Patent at (63), (60).

However, none of the priority applications sufficiently supports the Asserted Claims of the '144 Patent, and there is no written description support for them in the '144 Patent, as explained

below in Section IV with reference to exemplary claim elements that lack such support. Because the applications to which the '144 Patent claims priority do not support the claim elements identified in Section IV, the claims containing those claim elements—and any claim(s) depending directly or indirectly therefrom—are not entitled to the benefit of an earlier filing date. To the extent the Asserted Claims of the '144 Patent are not invalid for failing to comply with Section 112, the earliest possible priority date for these claims is January 22, 2017, the filing date of the application that issued as the '144 Patent.

## IV. Invalidity Under 35 U.S.C. § 112

Defendants contend that one or more of the Asserted Claims are invalid under 35 U.S.C. § 112. As explained below, these claims are indefinite and/or fail to satisfy the written description and/or enablement requirements.

### A. '602 Patent

#### 1. Inadequate Section 112 Support

One or more of the Asserted Claims of the '602 Patent are invalid under 35 U.S.C. § 112, ¶ 1, or 35 U.S.C. § 112(a).

The '602 Patent does not provide sufficient written description support to establish that the alleged inventor possessed the alleged inventions recited in the Asserted Claims of the '602 Patent. *See Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). Nor does the '602 Patent permit a person of ordinary skill in the art to practice the full scope of the claimed invention without undue experimentation. *See Genentech Inc. v. Novo Nordisk, A/S*, 108 F.3d 1361, 1365 (Fed. Cir. 1997).

For example, the '602 Patent does not provide sufficient support—by itself or through any disclosure incorporated by reference—for at least the following claim terms in combination with the other recited limitations of the claim:

- "at least one window located in the touch screen on an edge of the touch screen . . . wherein . . . said gliding action at first interacting with said at least one window on the touch screen" (claim 1);
- "wherein said at least one window functions independently of an interface of an application in use on the touch screen" (Claim 1);
- "wherein a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen" (Claim 1);
- "wherein the system relates said gliding action to a function which is not related to a mouse function" (Claim 2);
- "the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface" (Claim 18);
- "a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone" (Claim 19);
- "wherein said zone is present on said edge regardless of the interface of an application on said touch screen" (Claim 19);
- "wherein said function is displaying a same interface for any said gliding action, said gliding action interacting with any portion of said zone" (Claim 32); and
- "wherein said gliding action is provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen" (claim 33).

Because the '602 Patent does not support these claim elements, the foregoing claims—and any claim(s) depending directly or indirectly therefrom—are invalid under 35 U.S.C. § 112, ¶ 1, or 35 U.S.C. § 112(a).

### 2. Indefiniteness

As explained below, one or more of the Asserted Claims of the '602 Patent are also invalid as indefinite under 35 U.S.C. § 112, ¶ 2, or 35 U.S.C. § 112(b). These claims fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014); *see also IPXL Holdings, L.L.C. v. amazon.com, Inc.*, 430 F.3d 1377, 1383-84 (Fed. Cir. 2005). Accordingly, these claims are invalid as indefinite. For example, an artisan of ordinary skill could not discern, with reasonable certainty, the scope of the following claim terms of the '602 Patent:

- "at least one window located in the touch screen on an edge of the touch screen" (Claim 1);
- "wherein said at least one window functions independently of an interface of an application in use on the touch screen" (Claim 1);
- "wherein a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said processor" (Claim 1);
- "the system relates said gliding action to a function which is not related to a mouse function" (Claim 2);
- "substantial portion" (Claims 4, 16, and 36);
- "line" (Claims 5 and 23);
- "substantially equal" (Claims 8, 11, 26, 30, and 35);
- "wherein the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface" (Claim 18);
- "a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone" (Claim 19); and

- "a zone in form of a bar located in the touch screen on an edge of the touch screen" where a "gliding action is provided from outside the touch screen, wherein said gliding action first interacts with said zone on said touch screen" (Claim 33).

Accordingly, these claims—and any claim(s) depending directly or indirectly therefrom—are invalid under 35 U.S.C. § 112, ¶ 2, or 35 U.S.C. § 112(b) as indefinite.

**B. '922 Patent**

**1. Inadequate Section 112 Support**

One or more of the Asserted Claims of the '922 Patent are invalid under 35 U.S.C. § 112, ¶ 1, or 35 U.S.C. § 112(a).

The '922 Patent does not provide sufficient written description support to establish that the alleged inventor possessed the alleged inventions recited in the Asserted Claims of the '922 Patent. *See Ariad Pharm.*, 598 F.3d at 1351. Nor does the '922 Patent permit a person of ordinary skill in the art to practice the full scope of the claimed invention without undue experimentation. *See Genentech*, 108 F.3d at 1365.

For example, the '922 Patent does not provide sufficient support—by itself or through any disclosure incorporated by reference—for at least the following claim terms in combination with the other recited limitations of the claim:

- "condition under the control of said keyboard" (claims 1 and 12);
- "wherein based on accomplishment of a condition under the control of said keyboard, the system activates a second application and displays an interface of the second application and a reduced interface corresponding to said keyboard on at least a portion of said second zone" (claims 1 and 12);
- "wherein upon interacting with the interface of any of said applications, the focus of the system is given to the interacted application" (claim 2 and 20);

- "wherein an information received from one of said applications is shared with at least the other application while said interface of said first application and said interface of said second application are simultaneously displayed on said touchscreen" (claims 4 and 18);
- "wherein said information is copied from one of said applications and pasted in the other application" (claim 6);
- "wherein said second application is a search application" (claim 8);
- "button of said keyboard assigned to activating said search application" / "button of said keyboard that is related to activating said search application" (claims 8 and 15);
- "wherein said search application use at least one keyword typed through said keyboard" (claims 9 and 16);
- "wherein said interface of said second application is displayed on the touch screen by using a search application" (claim 15); and
- "wherein said search application use at least one keyword typed through said keyboard after said search application is activated" (claim 17).

Because the '922 Patent does not support these claim elements, the foregoing claims—and any claim(s) depending directly or indirectly therefrom—are invalid under 35 U.S.C. § 112, ¶ 1, or 35 U.S.C. § 112(a).

**2. Indefiniteness**

As explained below, one or more of the Asserted Claims of the '922 Patent are also invalid as indefinite under 35 U.S.C. § 112, ¶ 2, or 35 U.S.C. § 112(b). These claims fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention. *Nautilus*, 572 U.S. at 901; *see also IPXL Holdings*, 430 F.3d at 1383-84. Accordingly, these claims are invalid as indefinite.

For example, an artisan of ordinary skill could not discern, with reasonable certainty, the scope of the following claim terms of the ’922 Patent:

- “reduced interface” (claim 1);
- “wherein based on accomplishment of a condition under the control of said keyboard” (claim 1);
- “the focus of the system” (claim 2);
- “wherein upon interacting with the interface of any of said applications, the focus of the system is given to the interacted application” (claim 2);
- “wherein said keyboard is used with both of said applications” (claim 3);
- “wherein said information is copied from one of said applications and pasted in the other application” (claim 6);
- “a search application activated by interacting with a button of said keyboard” (claim 8);
- “use at least one keyword typed through said keyboard” (claim 9); and
- “said interface of said second application is displayed on the touch screen by using a search application” (claim 15).

Accordingly, these claims—and any claim(s) depending directly or indirectly therefrom—are invalid under 35 U.S.C. § 112, ¶ 2, or 35 U.S.C. § 112(b) as indefinite.

### C. ’144 Patent

#### 1. Inadequate Section 112 Support

One or more of the Asserted Claims of the ’144 Patent are invalid under 35 U.S.C. § 112, ¶ 1, or 35 U.S.C. § 112(a).

The ’144 Patent does not provide sufficient written description support to establish that the alleged inventor possessed the alleged inventions recited in the Asserted Claims of the ’144 Patent.

*See Ariad Pharm.*, 598 F.3d at 1351. Nor does the '144 Patent permit a person of ordinary skill in the art to practice the full scope of the claimed invention without undue experimentation. *See Genentech*, 108 F.3d at 1365.

For example, the '144 Patent does not provide sufficient support—by itself or through any disclosure incorporated by reference—for at least the following claim terms in combination with the other recited limitations of the claim:

- "a display unit integrated within the front surface of said housing wherein said display unit practically covers the entire front surface of said housing" (Claims 1-5, 7, and 8);
- "wherein upon providing a sweeping action on said display unit, plurality of other icons corresponding to plurality of other applications are displayed on said display unit" (Claims 3, 4, 12 and 13);
- "display text entered through a keyboard in landscape direction and in portrait direction on said display unit when the device us used, respectively, in landscape position and in portrait position" (Claim 5);
- "wherein the width of the device is approximately half of said length" (Claim 7);
- "wherein the thickness of the device is less than 20 percent of said width" (Claim 8);
- "wherein said display unit, practically occupying the entire front surface of the mobile phone, is integrated within said mobile phone" (Claims 9-14);
- "display text, entered through the virtual keyboard, in landscape direction and in portrait direction when the mobile phone is used, respectively, in landscape position and in portrait position" (Claims 9-14);
- "display unit, said display unit occupying practically the entire surface of the front surface of said device is integrated within said device" (Claims 15-20);

- "wherein upon identifying an input corresponding to a sweeping action provided on a touch sensitive surface of said device, said processor displays plurality of other icons corresponding to plurality of other applications on said display unit" (Claims 15-20); and
- "display text entered through a keyboard in landscape direction and in portrait direction on said display unit when the device is used, respectively, in landscape position and in portrait position" (Claim 20).

Because the '144 Patent does not support these claim elements, the foregoing claims—and any claim(s) depending directly or indirectly therefrom—are invalid under 35 U.S.C. § 112, ¶ 1, or 35 U.S.C. § 112(a).

**2. Indefiniteness**

As explained below, one or more of the Asserted Claims of the '144 Patent are also invalid as indefinite under 35 U.S.C. § 112, ¶ 2, or 35 U.S.C. § 112(b). These claims fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention. *Nautilus*, 572 U.S. at 901; *see also IPXL Holdings*, 430 F.3d at 1383-84. Accordingly, these claims are invalid as indefinite. For example, an artisan of ordinary skill could not discern, with reasonable certainty, the scope of the following claim terms of the '144 Patent:

- "a practically rectangular-shaped housing within which the components of a mobile phone are integrated" (Claims 1-5, 7, and 8);
- "wherein the length of the front surface approximately corresponds to the distance between the ear and the mouth of a user" (Claims 1-5, 7, and 8);
- "wherein the width of the front surface is substantially shorter than the length" (Claims 1-5, 7, and 8);
- "wherein the housing has a thin thickness" (Claim 1-5, 7, and 8);

- "none of said components is noticeably extended out from said housing" (Claims 1-5, 7 and 8);
- "wherein the width of the device is approximately half of said length" (Claim 7);
- "a body having a practically rectangular shape" (Claims 9-20);
- "wherein the length of the front surface of the mobile phone corresponds to the distance between the ear and mouth of a user" (Claims 9-14);
- "wherein the width of the front surface of the mobile phone is significantly shorter than the length" (Claims 9-14);
- "wherein said body has a thin thickness" (Claim 9-14);
- "wherein the distance between said microphone and said speaker corresponds to the distance between the ear and mouth of a user" (Claim 10);
- "wherein said components of the mobile phone are integrated within the body such that none of said components is significantly extended out from the body" (Claim 14); and
- "none of said components is noticeably extended out from said the body" (Claim 19).

Accordingly, these claims—and any claim(s) depending directly or indirectly therefrom—are invalid under 35 U.S.C. § 112, ¶ 2, or 35 U.S.C. § 112(b) as indefinite.

## V. P.R. 3-4: Document Production Accompanying Invalidity Contentions

Defendants have produced documents, including SAM-KEY_00007560-SAM-KEY_00007857, SAM-KEY_00016296-SAM-KEY_00017636, SAM-KEY_00165914-SAM-KEY_00186727, SAM-KEY_00189708-SAM-KEY_00189925, SAM-KEY_00191151-SAM-KEY_00855960, SAM-KEY_00978651-SAM-KEY_00979942, SAM-KEY_00979947-SAM-

KEY_00993815, SAM-KEY_00993820-SAM-KEY_00994306, pursuant to P.R. 3-4(a) and P.R. 3-4(b). In addition, pursuant to P.R. 3-4(a) and under the Protective Order entered in this action, Defendants are making source code available in the Washington, D.C. office of their counsel.

## VI. Invalidity Under 35 U.S.C. § 101 and Defendants' Subject Matter Eligibility Contentions

The Asserted Claims of the Patents-in-Suit are invalid under 35 U.S.C. § 101 for failing to recite patent-eligible subject matter. Defendants incorporate by reference herein their Subject Matter Eligibility Contentions concurrently served with these Invalidity Contentions.

Dated: January 29, 2025

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**CERTIFICATE OF SERVICE**

I hereby certify that on January 29, 2025, I caused to be served copies of the foregoing **DEFENDANTS' INVALIDITY CONTENTIONS** on Plaintiff through its counsel of record via email.

Dated: January 29, 2025

/s/ *Seth D. Katz*
Seth D. Katz
Case Manager

# Appendix A1

**Exhibit A1**

**Invalidity of Asserted Claims of the '602 Patent**

**in view of Tseng**

U.S. Patent Application Publication No. 2009/0249247 to Tseng et al. ("Tseng"), filed on January 30, 2009, and published on October 1, 2009, claims priority to U.S. Provisional Application No. 61/024,869, filed January 30, 2008, qualifies as prior art to U.S. Patent No. 9,304,602 ("'602 patent") at least under pre-AIA 35 U.S.C. §§ 102(a), (b), and/or (e) and AIA 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2).[1] Tseng anticipates or, alone or with other references, renders obvious one or more of asserted claims 1-13, 15-19, and 21-36 of the '602 patent. To the extent Keyless contends Tseng does not disclose one or more limitations of the claims, it would have been obvious to combine Tseng with the knowledge of a person of ordinary skill in the art ("POSITA") and/or with one or more of the following references to render the claims at issue in the '602 patent invalid. The chart below illustrates how the asserted claims of the '602 patent are invalid in view of Tseng and/or additional secondary references listed below, including but not limited to the prior art identified in Defendant's Invalidity Contentions.

- U.S. Patent Application Publication No. 2004/0109013 A1 to Goertz ("Goertz"), filed December 10, 2002, and published on June 10, 2004. Goertz qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b) and/or (e).
- U.S. Patent Application Publication No. 2008/0207188 A1 to Ahn et al. ("Ahn"), filed on February 14, 2008, and published on August 28, 2008. Ahn qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b) and/or (e).
- U.S. Patent Application Publication No. 2009/0094562 A1 to Jeong et al. ("Jeong"), filed on October 3, 2008, and published on April 9, 2009. Jeong qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b) and/or (e).
- U.S. Patent Application Publication No. 2009/0295750 A1 to Yamazaki et al. ("Yamazaki"), filed on May 27, 2009, and published on December 3, 2009. Yamazaki qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b), and/or (e).

[1] Keyless Licensing LLC (or "Keyless") alleges that the asserted claims of the '602 patent are entitled to priority as early as December 20, 2009. However, as explained in the cover pleading, the asserted claims of the '602 patent are not entitled to Keyless's claimed priority date due to inadequate written description support. Assuming the claims are not invalid under Section 112 (*see, e.g.*, cover pleading), the earliest possible priority date for the asserted '602 patent claims is 2/11/2010 or later.

- U.S. Patent Application Publication No. 2010/0050076 A1 to Roth ("Roth"), filed on August 29, 2008, and published on February 25, 2010. Roth qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).
- U.S. Patent Application Publication No. 2010/0164959 A1 to Brown et al. ("Brown"), filed on December 26, 2008, and published on July 1, 2010. Brown qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).
- U.S. Patent Application Publication No. 2010/0302172 A1 to Wilairat ("Wilairat"), filed on May 27, 2009, and published on December 2, 2010. Wilairat qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).
- U.S. Patent Application Publication No. 2011/0209099 A1 to Hinckley et al. ("Hinckley"), filed on February 19, 2010, and published on August 25, 2011. Hinckley qualifies as prior art at least under 35 U.S.C. § 102(a)(2) as well as pre-AIA 35 U.S.C. §(e).
- Japanese Laid-Open Patent Application No. JP2003195998A to Hisatomi ("Hisatomi"), filed on December 26, 2001, and published on July 11, 2003. Hisatomi qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). [2]
- V. Roth & T. Turner, "Bezel Swipe: Conflict-Free Scrolling and Multiple Selection on Mobile Touch Screen Devices," CHI 2009 ~ Multimodal Mobile Interaction, pp. 1523-26 (ACM 2009) ("Roth Bezel Swipe"), published April 8, 2009. Roth Bezel Swipe qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).
- The Samsung Galaxy GT-i7500 running Android 1.5 ("Samsung Galaxy GT-i7500 1.5") was, on information and belief, publicly available in the United States on or about June 29, 2009. The Samsung Galaxy GT-i7500 1.5 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).
- The Samsung Behold II running Android and TouchWiz UI (Samsung Behold II") was, on information and belief, publicly available in the United States on or about November 18, 2009. The Samsung Behold II qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A4.

[2] Defendant's invalidity contentions rely on the certified translation of Hisatomi.

- The HTC G1 (also known as the HTC Dream) running Android 1.6 ("HTC G1 1.6") was, on information and belief, publicly available in the United States on or about September 15, 2009. The HTC G1 1.6 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A3.
- The HTC Hero running Android 1.5 ("HTC Hero 1.5") was, on information and belief, publicly available in the United States on or about October 11, 2009. The HTC Hero 1.5 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A6.
- The HTC Hero running Android 2.1 ("HTC Hero 2.1") was, on information and belief, publicly available in the United States on or about January 2010. The HTC Hero 2.1 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a). *See also* Ex. A6.
- The HTC Magic running Android 1.6 ("HTC Magic 1.6") was, on information and belief, publicly available in the United States on or about July 8, 2009. The HTC Magic 1.6 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).
- The Motorola Droid A855 ("Motorola Droid A855") was publicly available in the United States with Android 2.0 on or about November 6, 2009, and with Android 2.2 on or about May 2010. The Motorola Droid A855 running Android 2.0, on information and belief, was substantially the same with respect to the relied-upon functionality as the Motorola Droid A855 running Android 2.2. The Motorola Droid A855 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A5.
- The Palm Pre running Palm's WebOS ("Palm Pre") was, on information and belief, publicly available in the United States on or about February 2009. Although Palm WebOS 1.4.5 was not released until on or about July 2010, the relied-upon functionality was, on information and belief, substantially the same in the February 2009 WebOS release. The Palm Pre qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A7.
- The Neonode N2 ("Neonode N2") was, on information and belief, publicly available in the United States not later than 2008. *See also* Ex. A8.

With respect to the proposed modifications to Tseng, such modification would have been obvious to try, an obvious combination of prior art elements according to known methods to yield predictable results, a simple substitution of one known element for another to obtain predictable results, a use of known techniques to improve a similar devices or method in the same way, an application of a known technique to a known device or method ready for improvement to yield predictable results, a variation of a known work in one field of endeavor for use in either the same field or a different one based on design incentives or other market

forces with variations that are predictable to a POSITA, and/or obvious in view of teachings, suggestions, and motivations in the prior art that would have led a POSITA to modify or combine the prior art references.

The chart below illustrates how the asserted claims of the '602 patent are anticipated by Tseng and/or would have been obvious in view of by Tseng and/or additional secondary references. The excerpts cited herein are exemplary. For any claim limitation, Samsung may rely on excerpts cited for any other limitation and/or additional excerpts not set forth fully herein to the extent necessary to provide further explanation for a reference's disclosure of a limitation. Where an excerpt refers to or discusses a figure or figure items, that figure and any additional descriptions of that figure should be understood to be incorporated by reference as if set forth fully herein. Samsung reserves the right to further supplement this chart.

To the extent that these Invalidity Contentions rely on or otherwise embody particular interpretations of terms or phrases in the asserted claims, Samsung is not proposing any such interpretations as proper interpretations or constructions of those terms or phrases. Various positions put forth in this document are predicated on Keyless's apparent interpretation of its claims as evidenced by its Infringement Contentions. Those positions are not intended to and do not necessarily reflect Samsung's interpretation of the true and proper scope of the asserted claims. Samsung further incorporates by reference all reservations of rights set forth in the Invalidity Contentions, as if fully set forth herein.

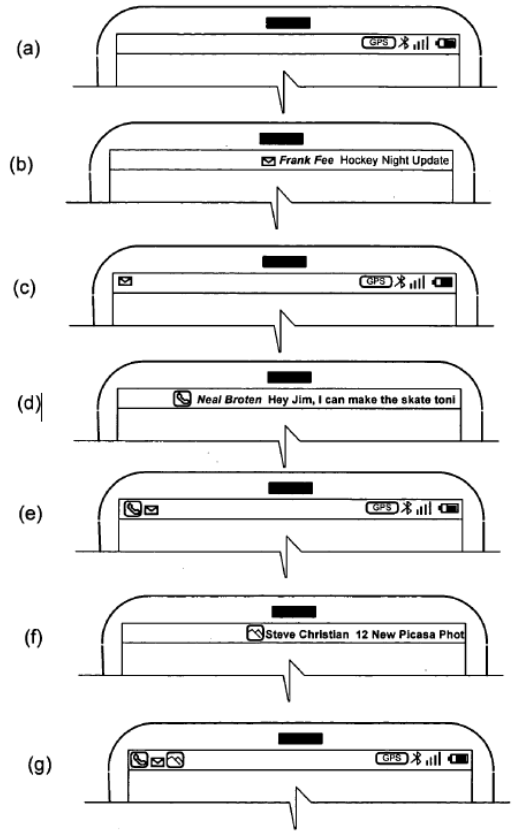
Defendants' arguments throughout these invalidity contentions are based on Keyless's apparent interpretation of the claims in its infringement contentions. Defendants do not agree that such interpretation is proper and reserve the right to argue that the mapped actions do not infringe any claims of the '602 patent. In the alternative, should the Court or factfinder construe and/or apply the claims in a manner consistent with Keyless's interpretations in its infringement contentions for the '602 patent, the claims are invalid for at least the reasons set forth herein.

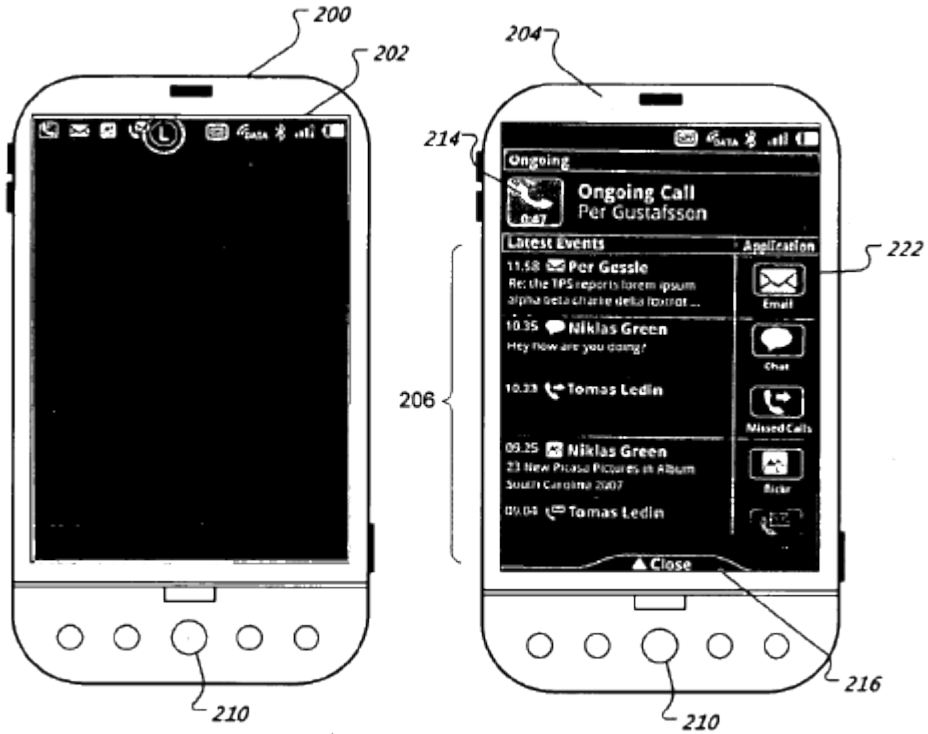
In some instances, the referenced prior art includes priority applications, including prior provisional applications, that provide adequate §112 support for the claim(s) in the referenced prior art. *See, e.g.*, Tseng at cover. In those instances, the consistent disclosures in those earlier applications, including prior provisional applications, are incorporated herein by reference. As such, those earlier disclosures apply equally in terms of their application to the elements of the asserted claims, and thus provide even earlier dates in terms of prior art, state of the art, and the knowledge base of those of ordinary skill in the art. *See Dynamic Drinkware LLC v. National Graphics Inc.*, 800 F.3d 1375 (Fed. Cir. 2015).

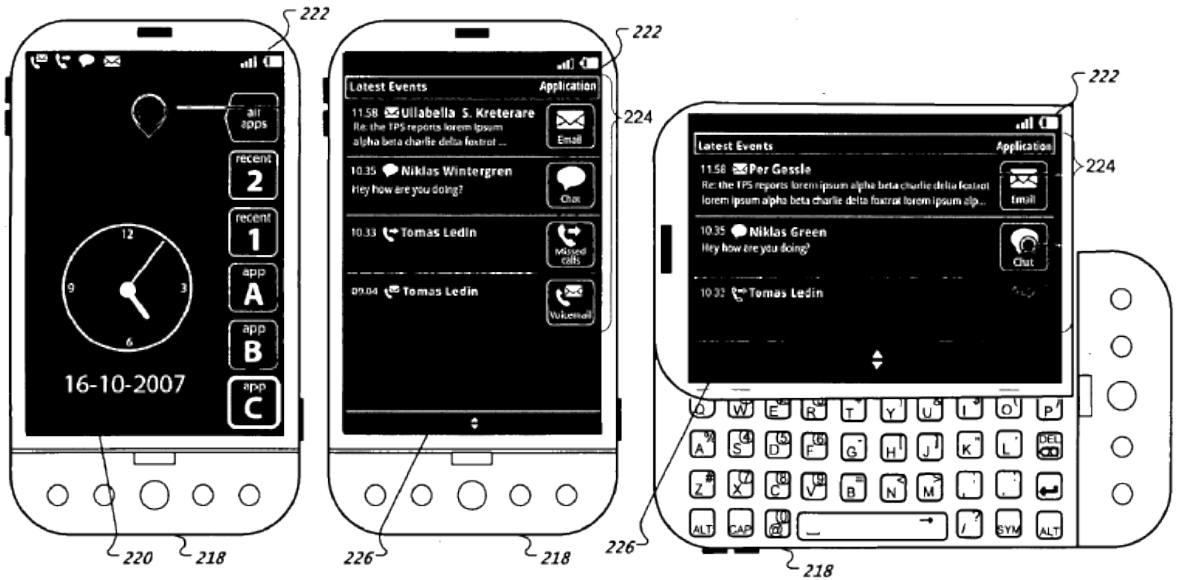
To the extent any of the art describes different embodiments of its inventions, a POSITA would have found it obvious to combine Tseng's teachings regarding these embodiments. A POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the embodiments, and would have a reasonable expectation of success in doing so, at least because the embodiments use known variations of existing technology to solve routine and

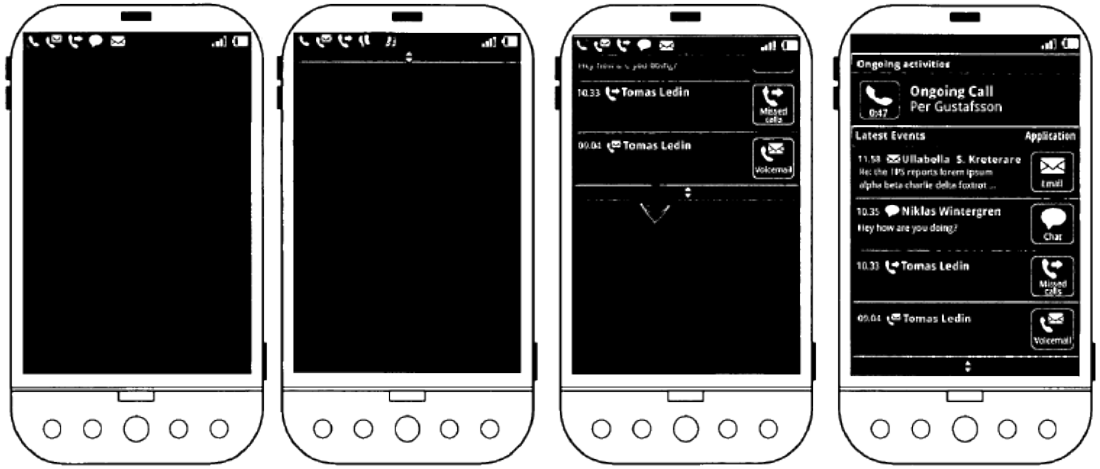
well understood problems in predictable ways. A POSITA would have recognized that Tseng's embodiments describe related advancements for mobile devices, and a POSITA would have been motivated to combine elements of the embodiments to achieve Tseng's goals.

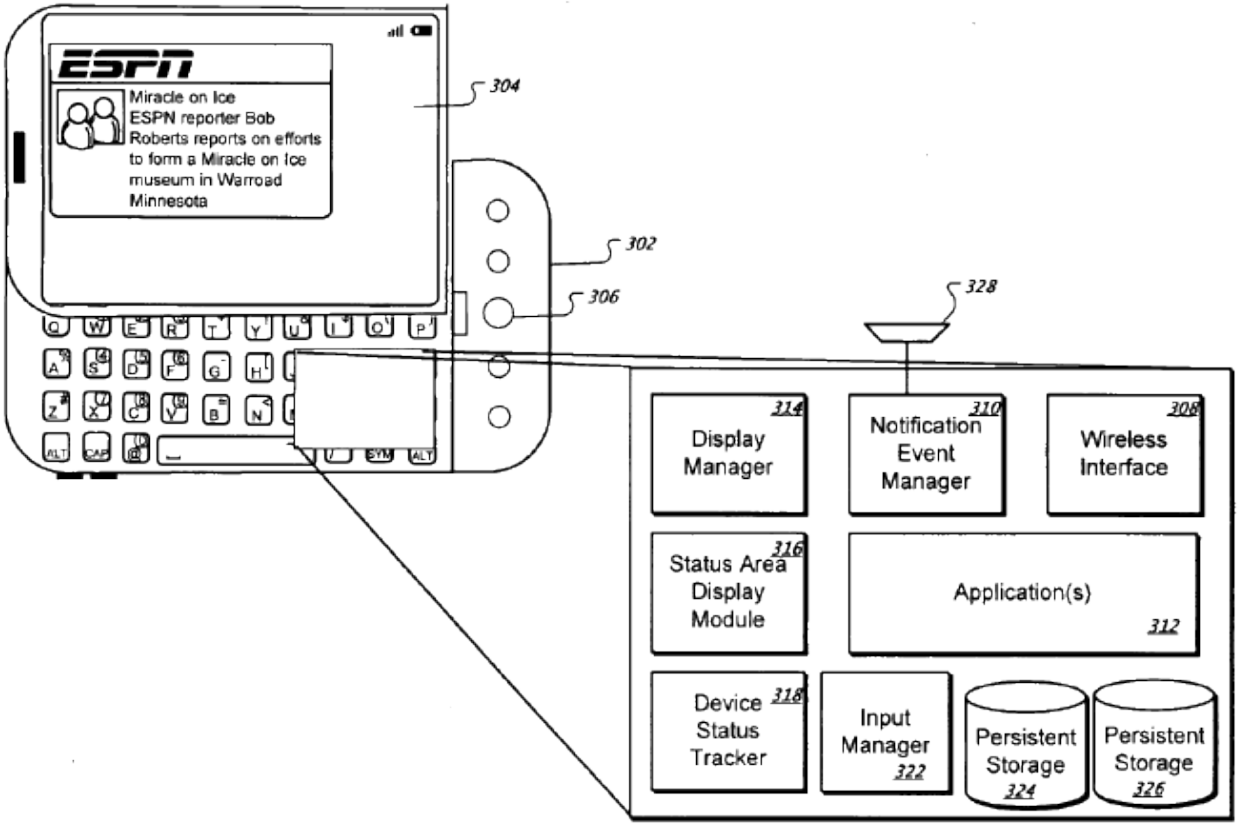
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[1Pre]** A system for capturing an event provided from an edge of a touch screen comprising: | To the extent that the preamble is held to be limiting, Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[a] system for capturing an event provided from an edge of a touch screen."<br><br>For example, Tseng discloses a "computer-implemented user notification method includes displaying, in a status area near a perimeter of a graphical interface, a notification of a recent alert event for a mobile device, receiving a user selection in the status area, and in response to the receipt of the user selection, displaying, in a central zone of the graphical interface, detail regarding a plurality of recent messaging events for the mobile device." Tseng at Abstract. Tseng also discloses the system receiving a user selection, such as "receiving a dragging manipulation of the slider mechanism across the graphical interface, moving the slider mechanism in response to the dragging mechanism, and displaying the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at [0011], FIGS. 2C, 4A.<br><br>Exemplary citations include: |

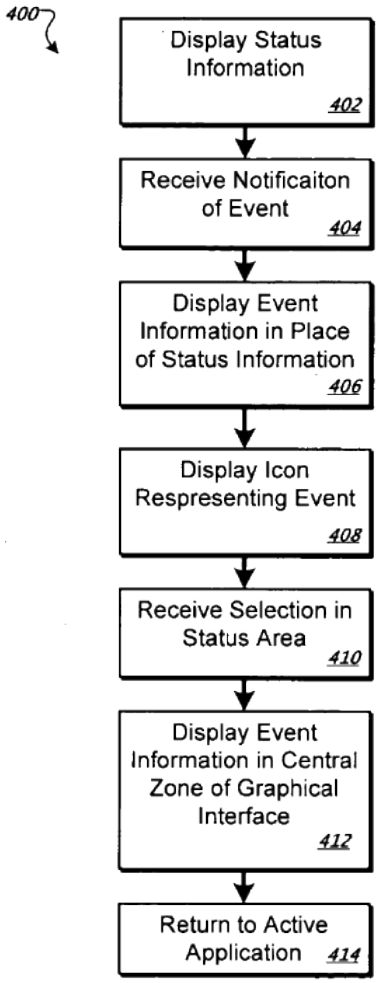
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 1<br>Tseng at FIG. 1. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 2A<br>Tseng at FIG. 2A. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 2B<br>Tseng at FIG. 2B. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 2C<br>Tseng at FIG. 2C. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 3<br>Tseng at FIG. 3. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 4A<br>Tseng at FIG. 4A. |

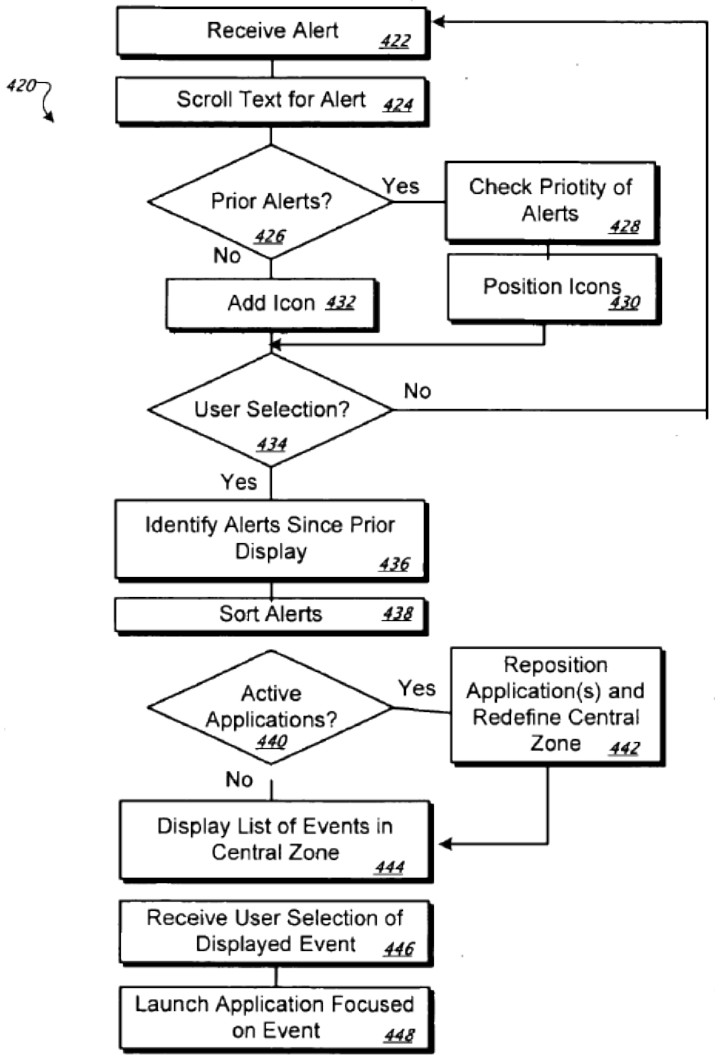
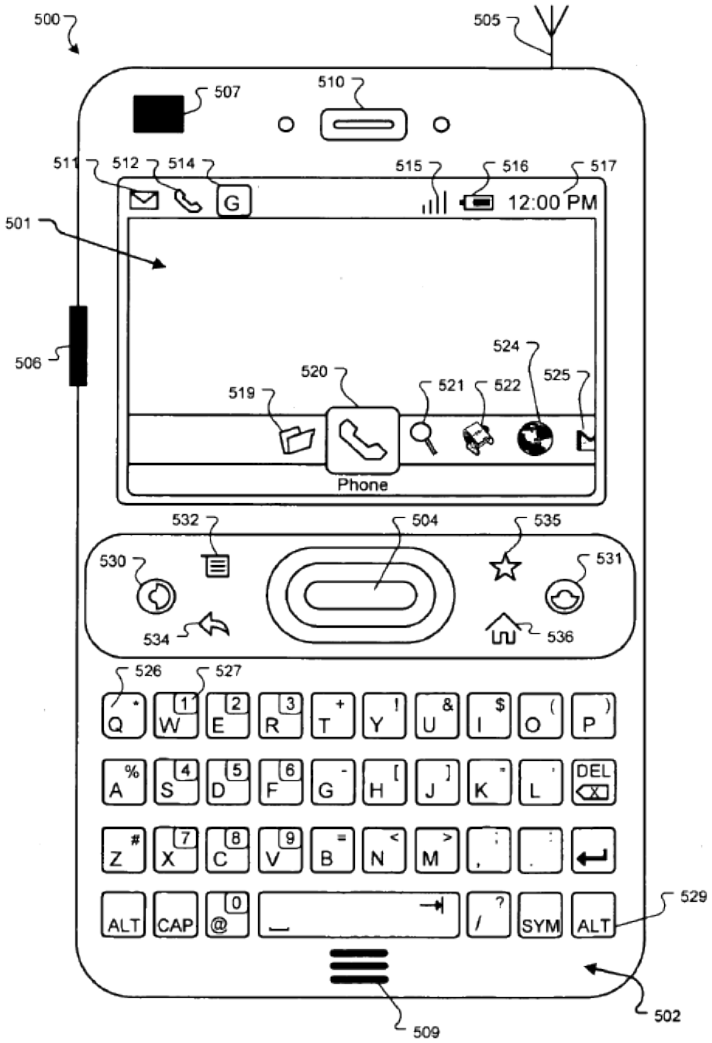
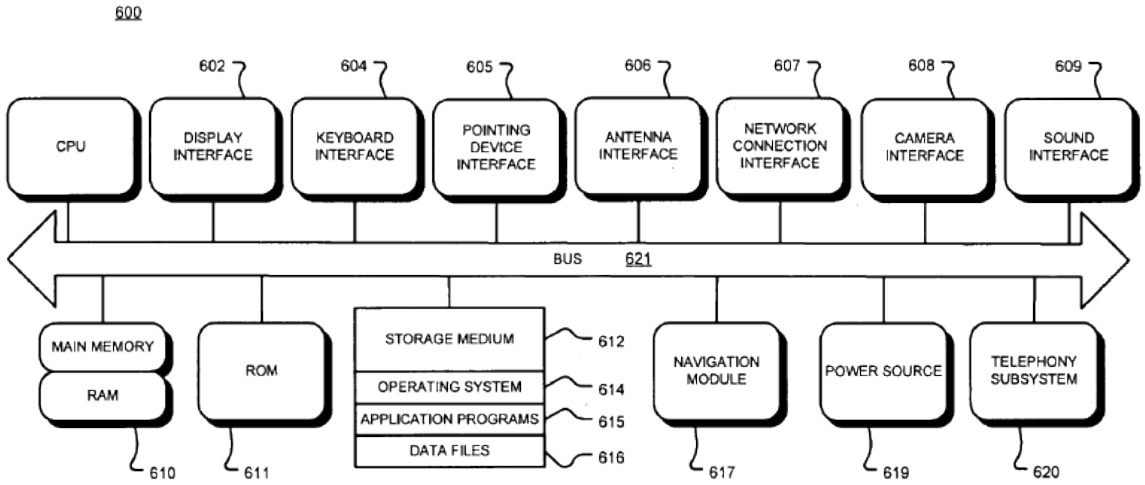
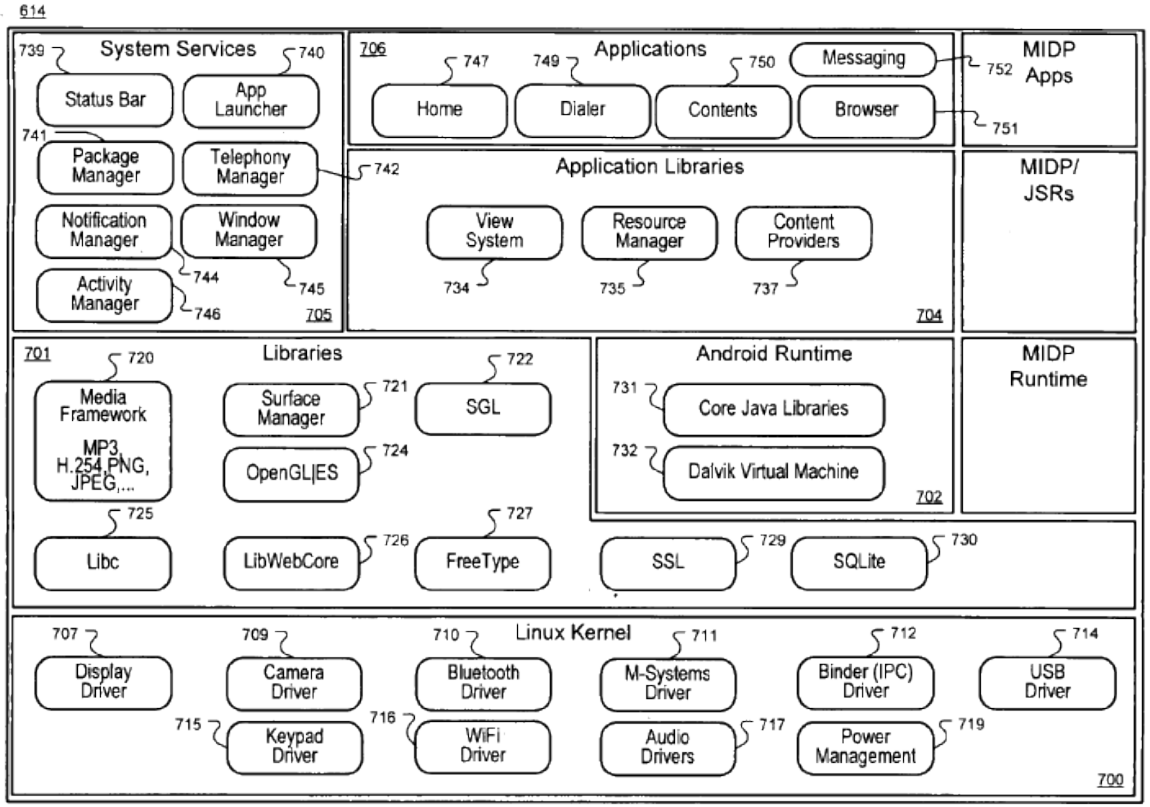



FIG. 4B

Tseng at FIG. 4B.

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 5<br>Tseng at FIG. 5. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 6<br>Tseng at FIG. 6. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 7<br>Tseng at FIG. 7. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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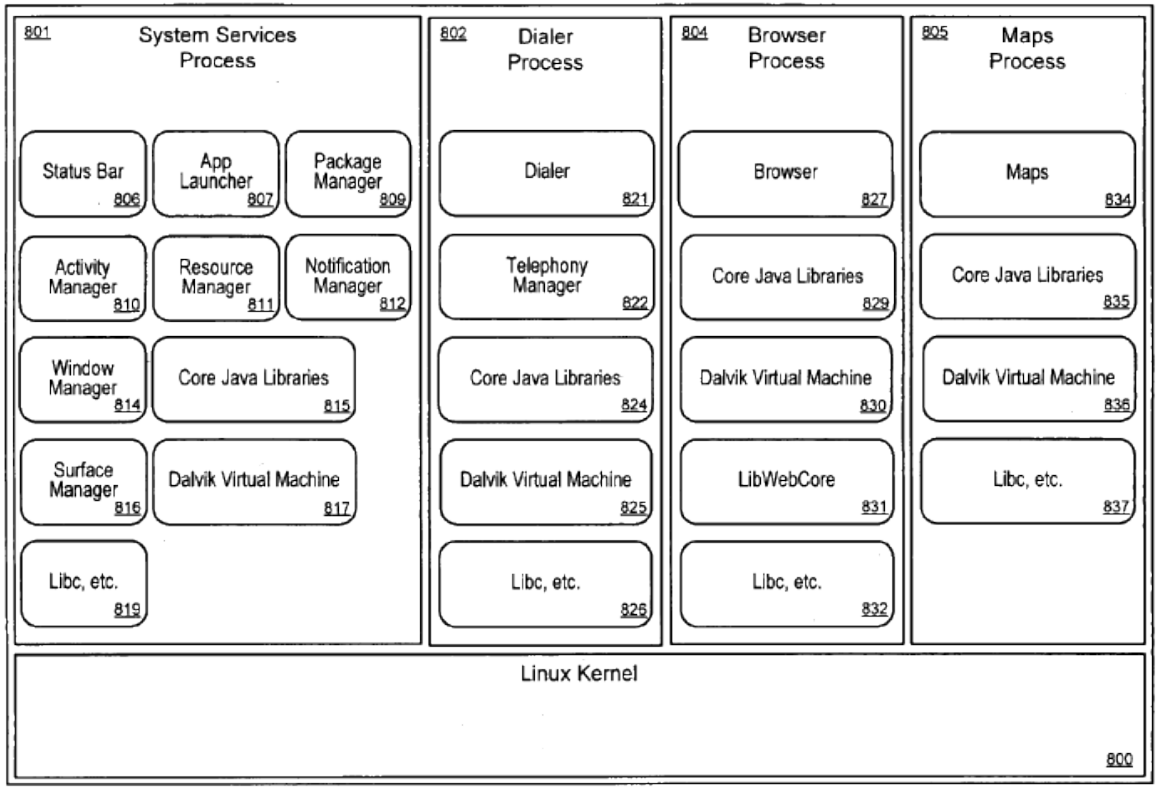



FIG. 8

Tseng at FIG. 8.

"A computer-implemented user notification method includes displaying, in a status area near a perimeter of a graphical interface, a notification of a recent alert event for a mobile device, receiving a user selection in the status area, and in response to the receipt of the user selection, displaying, in a central zone of the graphical interface, detail regarding a plurality of recent messaging events for the mobile device." Tseng at Abstract.

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "In yet other aspects, the display in the central zone comprises a list of messages from a plurality of messaging applications, and the method can also comprise displaying a user-manipulable slider mechanism in response to the user selection. In addition, the method may include receiving a dragging manipulation of the slider mechanism across the graphical interface, moving the slider mechanism in response to the dragging mechanism, and displaying the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at [0011].<br><br>"Also, the instructions can further comprise instructions to cause the one or more processors to receive a dragging manipulation on a touch screen display of the graphical interface, from the status area and across the display, and move the slider mechanism in response to the dragging mechanism, and display the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at [0013].<br><br>"The system comprises a wireless interface to receive data for a user of a mobile device, a notification manager to generate a notification message for a device event, including device events received through the wireless interface, where the notification message includes information that describes the device event, and a display manager to generate elements for a graphical display, to receive the notification message and to present the notification message in a first zone near a perimeter of the graphical display. The system can further comprise an input device to receive a user selection in the first zone, wherein in response to the user selection, the display manager displays, in a central zone of the graphical interface, detail information regarding a plurality of recent messaging events for the mobile device." Tseng at [0014].<br><br>"The system can further comprise means for generating, in response to a user selection, a display of detail information regarding a plurality of recent messaging events for the mobile device." Tseng at [0015].<br><br>"This document describes systems and techniques for providing a user of a mobile device with notifications about messaging events and other similar events for the device. Such messaging events may include missed calls, voice mails, e-mails, file transfers, file uploads, and other such events. The notifications may occur in such a manner so as to not disrupt a user from other actions they are performing on the device, such as talking on a telephone call or playing a music or video file. In general, the notifications may occur by having a notification message—which may be an |

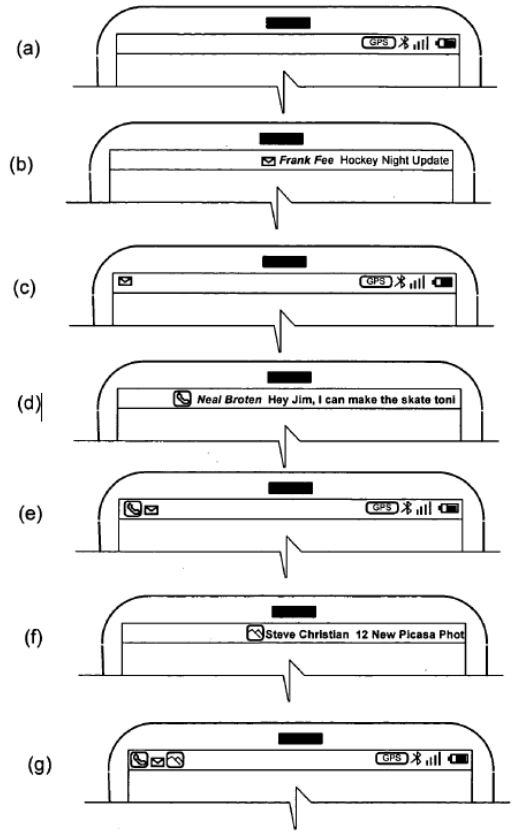
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | abbreviated form of the actual communication, e.g., a name and subject line for an incoming e-mail be displayed in a peripheral area at the edge of a display, such as a status area, or status bar, for the mobile device. The status bar is the area in which status indicators such as battery charge level and signal strength level are traditionally displayed typically at the top of a display. For example, a portion of the message may be scrolled across the top of the display in a ticker tape manner." Tseng at [0028].<br><br>"The status area may then also become selectable by the user, so that selection of the status area causes the display of accrued messages to occur. Such selection of the status area may occur by long press on the status area, or by pressing on the status area and dragging downward to pull out the messages as if they are mounted on or under a window shade. Where the device has a fairly flush front surface, the action may take the form of a finger swipe across the face of the display, where the edge of the element showing an extended view of the messaging events 'sticks' to the user's finger as the finger moves past." Tseng at [0029].<br><br>"The main zone of the left display is shown blank in this example simply to indicate that the current status of the zone may take a variety of forms. For example, a wallpaper background with various icons may be displayed with desktop icons—i.e., a mode for the device when the user is not focused on any particular application. Alternatively, one or more applications may be shown in the main zone. Such as an application tracking an ongoing telephone call, and displaying an image of the person with whom the call is occurring, a number for that person, and an elapsed time for the call, among other things." Tseng at [0040].<br><br>"The right screen in FIG. 2A shows the display 200 after the user has long-pressed or dragged downward on the status bar 202. In this example, the main zone has been filed [sic] with the various messages that were left since the last time the user had reviewed his or her messages. The messages are shown in a message area 206 in the main zone of the display 204, while the status bar 202 is shown with the message notification icons removed (because the user has now been shown the messages and does not need a notification about them). In this example, the first message is an e-mail from Per Gesele, the second is a GOOGLE TALK message from Niklas Green, the third is a missed incoming call from Tomas Ledin, the fourth is a posting of PICASA photos by Niklas Green, and the fifth is a missed call from Tomas Ledin. As shown, the messages are organized here from top to bottom in reverse chronological order." Tseng at [0041]. |

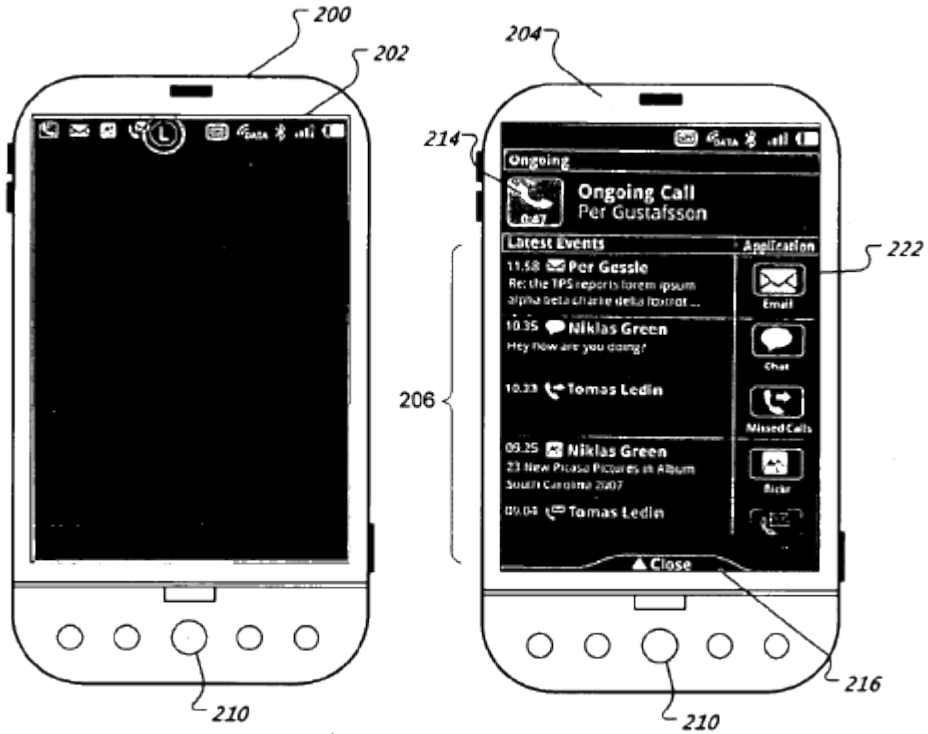
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | **“**An active application area 214 is shown above the message area 206. The active application area 214 shows a reduced-area view of an application that was running, or active, in the main zone when the user selected to expand the messaging information. In this example, the application is a telephone call that the user was conducting when they chose to look at their other outstanding messages. Before the user selected to see more about the messages, the application may have occupied all of the main zone, and may have included an extensive amount of information, such as an image of the person with whom the call was occurring. To make room for the messages, the application area 214 has been shrunk visually here to take up only about twenty percent of the display 204, and now shows only an elapsed time for the call in a telephone icon, a status of the call, and a name of the caller or callee.” Tseng at [0045].<br><br>**“**A tab 216 is shown visually at the bottom of the display 204. In this example, the tab is a thin bar extending fully across the bottom of the display 204, with a thickened area in its middle that is labeled with an instruction of ‘close’ for the user. Such an instruction indicates to the user that selecting the tab 216 (e.g., by pressing on it) will cause the message area 206 to disappear, so that the application area 214 will expand back to its original space. As described below, the tab 216 may take other forms, and may be dragged upward by a user in a manner like a window shade, to fully or partially close the message area 206. The user may also close the notifications area by dragging upward across it.” Tseng at [0046].<br><br>**“**The user may then drag the area back up under the taskbar 202, and may subsequently pull down from the status bar 202 to produce a main display area that shows messaging information again (like in FIG. 2A) rather than music player information.” Tseng at [0048].<br><br>**“**FIG. 2B shows another example of displays that may be generated to alert a user of a mobile device of messaging or other events.” Tseng at [0051].<br><br>“A status bar 222 is also shown across the top of the display 220. The status bar 222 in this example is like those status areas discussed above, and includes four different messaging icons, showing that, since the user has last checked or cleared messages, the device has received one or more voice mail messages, one or more missed calls, one or more text messages or chat messages, and one or more e-mail messages.” Tseng at [0052]. |

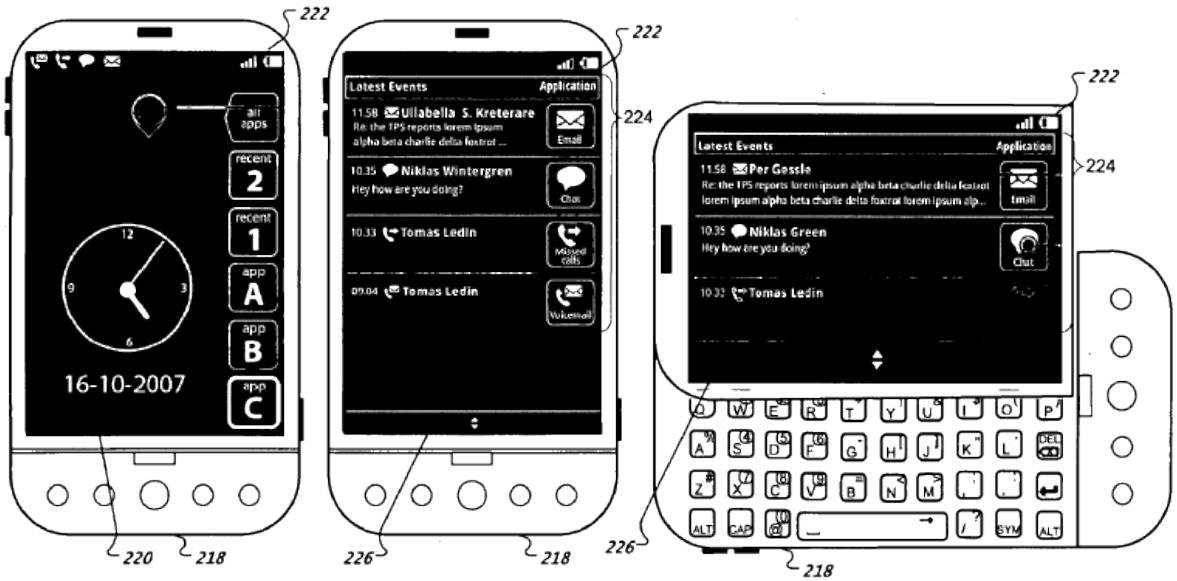
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | "The first display in FIG. 2B also shows a large circle surrounded by a ring having a downward pointing arrow. This element indicates a press by a user on the device 218 over the status bar 222, with a subsequent dragging downward of the status bar 222. (The element does not appear on the display.) Such action may be programmed to result in the expanding of a message area 224 into the main zone of the display 220. As with the message area 206 discussed above, the message area 224 may show the various messages that the user's device has received in the user's absence." Tseng at [0053].<br><br>**"**FIG. 2C shows four displays on a device 230 exhibiting similar functionality to that just described. The leftmost display shows the collection of five different notification icons in a status bar of the display. The main zone of the display is shown blank to indicate that a variety of elements may be shown there at this point, such as device-resident applications, gadgets, icons for launching applications, and other such elements." Tseng at [0057].<br><br>**"**The second display shows, by a circle having a ring around it in the status bar, a selection by a user, such as by moving a pointer to the status bar and pressing a selection mechanism such as a trackball, or by directly pressing on the display with a fingertip on top of the status bar. Upon the user selecting the status bar, the bar may expand slightly, and a 'slide down' indicator may be displayed, in the form of a notification bar with up and down arrows. The indicator may visually signal the user that they can pull the indicator down to show messages associated with the notification icons. Alternatively, a tab like that shown in FIG. 2A may be displayed below the status area." Tseng at [0058].<br><br>"The third display shows the user dragging the notification bar downward across the main part of the display, like a roll shade. At the point shown, more messages remain above the top of the display area, so that the top-displayed message is faded to black at its upper edge to indicate to the user that more messages are left to review. The initially shown message at the bottom of the pulled down section may be a message computed to be at the bottom of the message area once the bar is pulled all the way down to the bottom of the display. In this manner, the messages shown may be 'attached' to the notification bar and may move down with it. Alternatively, the messages may be unattached to the bar, so that sliding the bar down appears to open a window into the area where the messages sit. In such an implementation, the top message would appear first at the top of the display, and more messages would gradually appear as the user pulls the bar downward—opening |

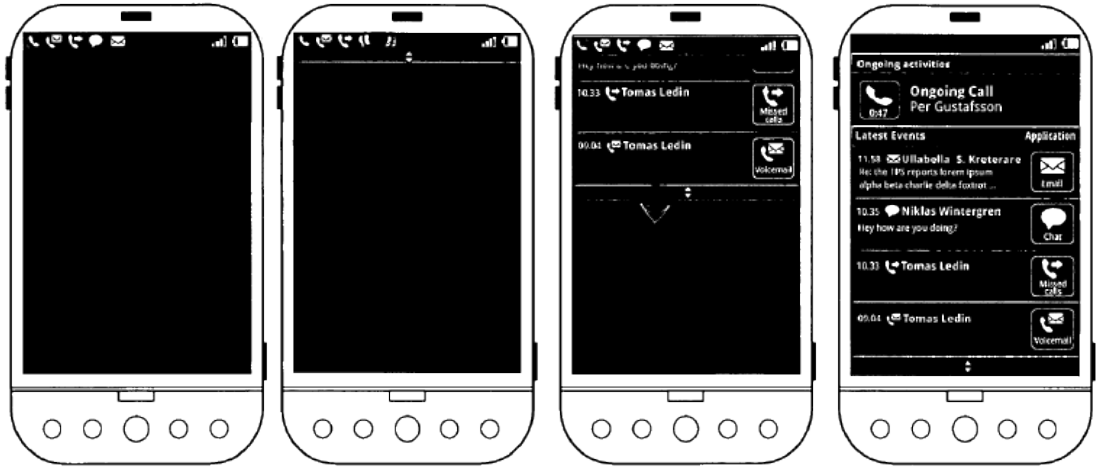
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | the metaphorical sliding window or cover on them (but with the bottom edge of the messages faded to black all the way down). In this manner, for example, if a gadget were running near the bottom of the display, the user could pull the bar down only so far, so as to not cover the gadget." Tseng at [0059].<br><br>"FIGS. 4A and 4B are flow charts of example processes for providing mobile device notifications. In general, FIG. 4A shows a process 400 by which notification events are received at a device and information indicative of the events is displayed in a status bar area of the device." Tseng at [0070].<br><br>"The device receives a user's selection of the status bar at box 410. Such a selection may include a selection like those described above, including by a user pressing on the status bar for a long press period, and/or the user pressing on the status bar and then dragging it downward across the top of the display." Tseng at [0074].<br><br>"The device then displays event information for the various events that have been received since the user last checked such events, in the central zone of the graphical interface (box 412). Such events may be displayed, for example, in reverse chronological order from top to bottom. The events may also be group by event type—such as by one line in the display listing the number of e-mails that have been received since the last time notifications were cleared, another listing the number of text messages, another listing the number of updates for downloaded applications, and the like. The user may then handle each message as he or she sees fit, such as by reviewing it and then deleting or moving it. If the user would like to see more about a particular message, they may select that particular message and may be taken to the relevant application for that message, with the message open." Tseng at [0075].<br><br>"Referring now to FIG. 5, the exterior appearance of an exemplary device 500 that implements the notification features described here is illustrated. Briefly, and among other things, the device 500 includes a processor configured to display notifications regarding events on the device 500, and to permit a user to conveniently pull down detail about the events relating to the notifications into an extended view of the events." Tseng at [0084].<br><br>"The display 501 can display video, graphics, images, and text that make up the user interface for the software applications used by the device 500, and the operating system programs used to operate the device 500." Tseng at [0086]. |

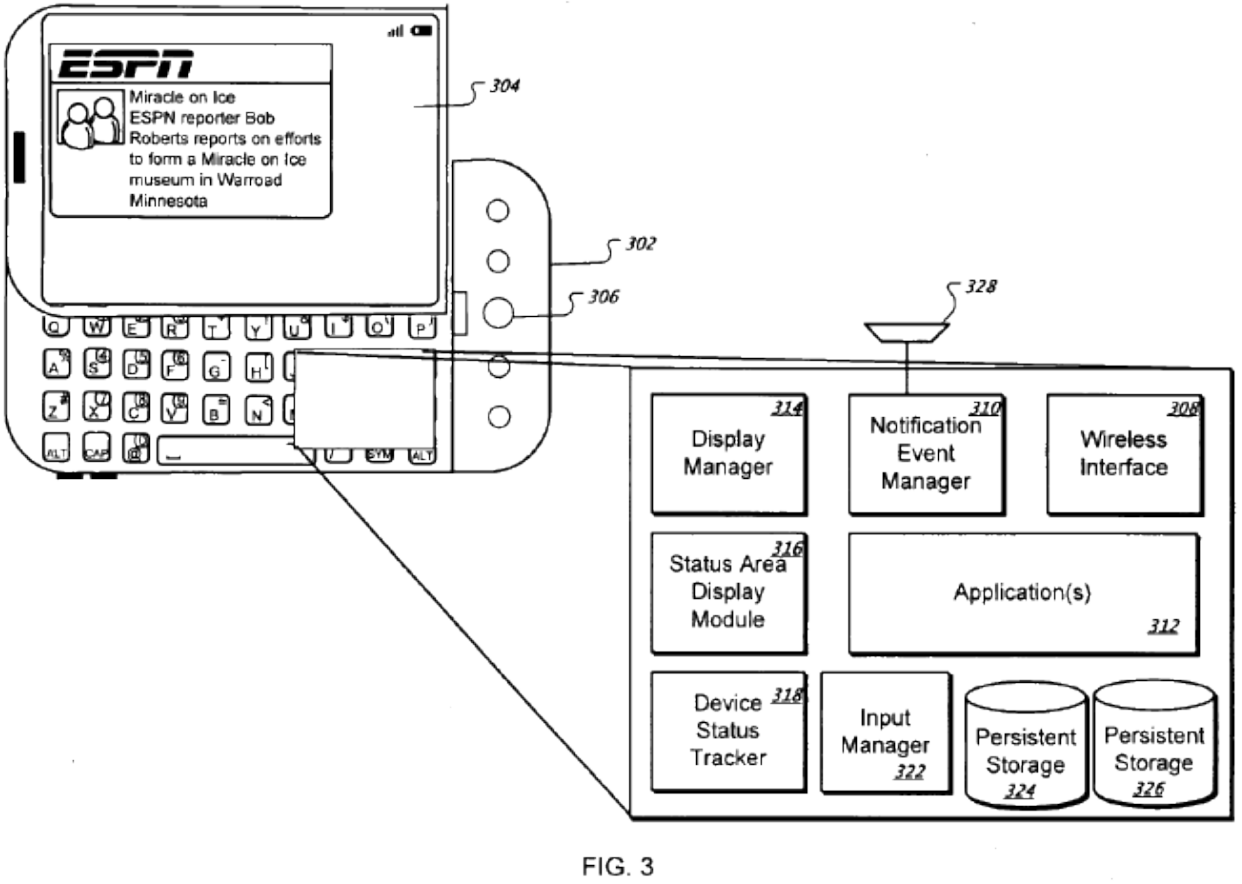
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | "The user uses the pointing device 504 to select and adjust graphics and text objects displayed on the display 501 as part of the interaction with and control of the device 500 and the applications invoked on the device 500. The pointing device 504 is any appropriate type of pointing device, and may be a joystick, a trackball, a touch-pad, a camera, a voice input device, a touch screen device implemented in combination with the display 501, or any other input device." Tseng at [0090]. |
| **[1A]** a device having a touch screen; | Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a device having a touch screen."<br><br>For example, Tseng discloses a device, such as the "mobile device" shown in FIGS. 1, 2A-2C, 3, 5, having a touch screen display, e.g. display 200, touch-screen 304, pointing device 504. *See, e.g.*, Tseng at [0028], [0031]-[0032], [0064], [0066], [0085], [0090], FIGS. 1, 2A-2C, 3, 5.<br><br>Exemplary citations include: |

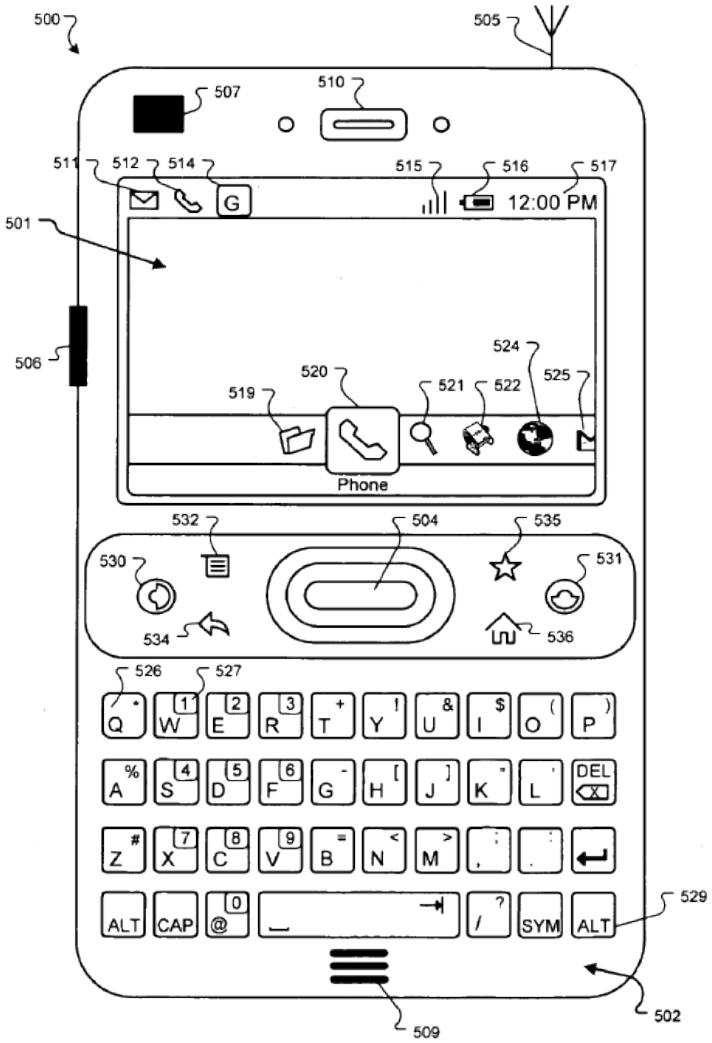
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 1<br>Tseng at FIG. 1. |

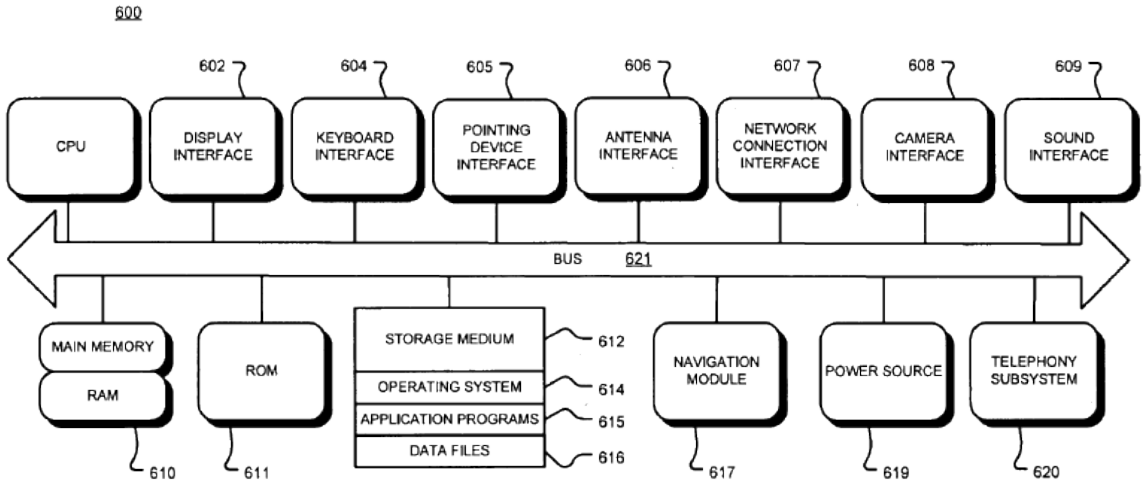
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 2A<br>Tseng at FIG. 2A. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 2B<br>Tseng at FIG. 2B. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 2C<br>Tseng at FIG. 2C. |

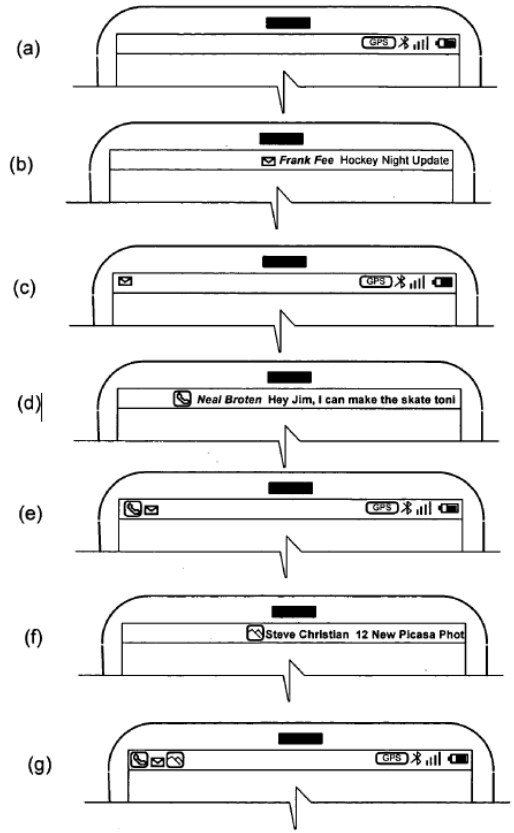
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 3<br>Tseng at FIG. 3. |

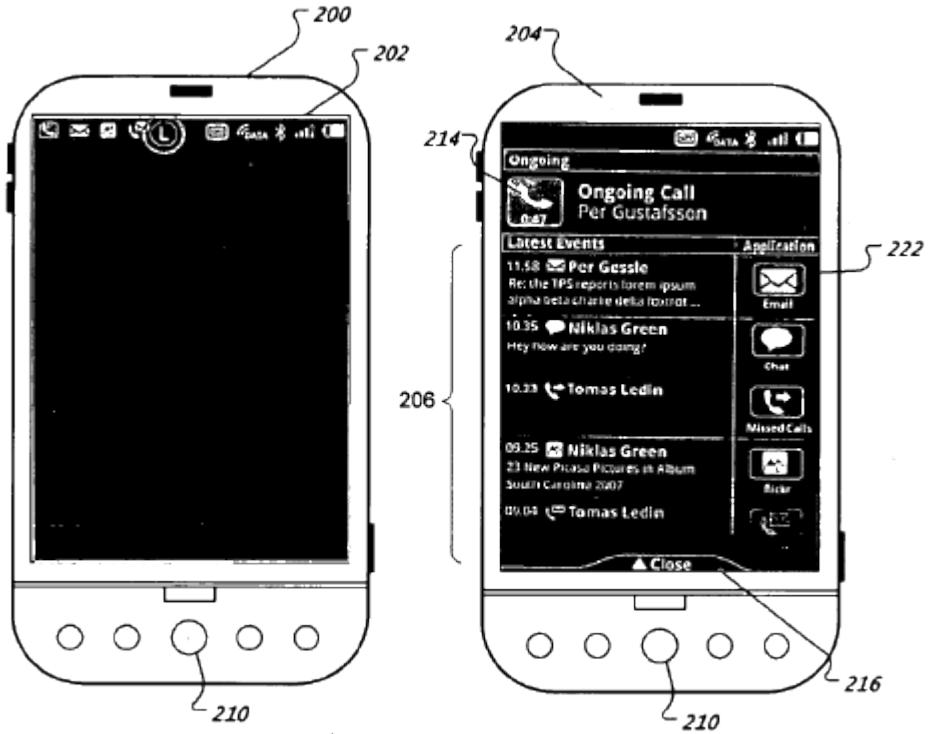
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 5<br>Tseng at FIG. 5. |

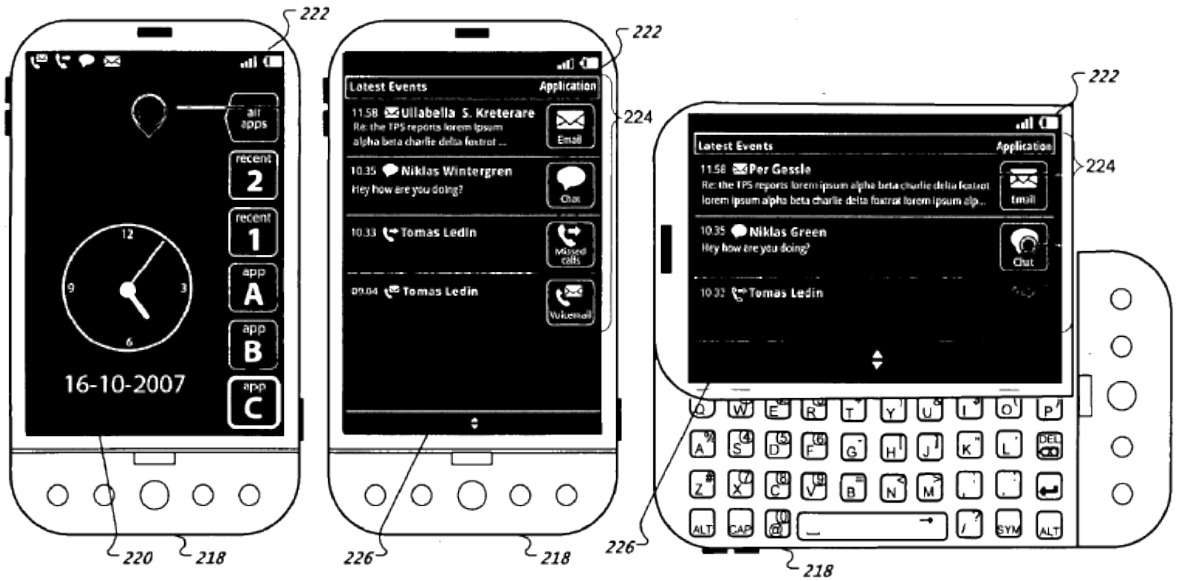
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 6<br><br>Tseng at FIG. 6.<br><br>"A computer-implemented user notification method includes displaying, in a status area near a perimeter of a graphical interface, a notification of a recent alert event for a mobile device, receiving a user selection in the status area, and in response to the receipt of the user selection, displaying, in a central zone of the graphical interface, detail regarding a plurality of recent messaging events for the mobile device." Tseng at Abstract.<br><br>"Also, the instructions can further comprise instructions to cause the one or more processors to receive a dragging manipulation on a touch screen display of the graphical interface, from the status area and across the display, and move the slider mechanism in response to the dragging mechanism, and display the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at [0013].<br><br>"This document describes systems and techniques for providing a user of a mobile device with notifications about messaging events and other similar events for the device." Tseng at [0028]. |

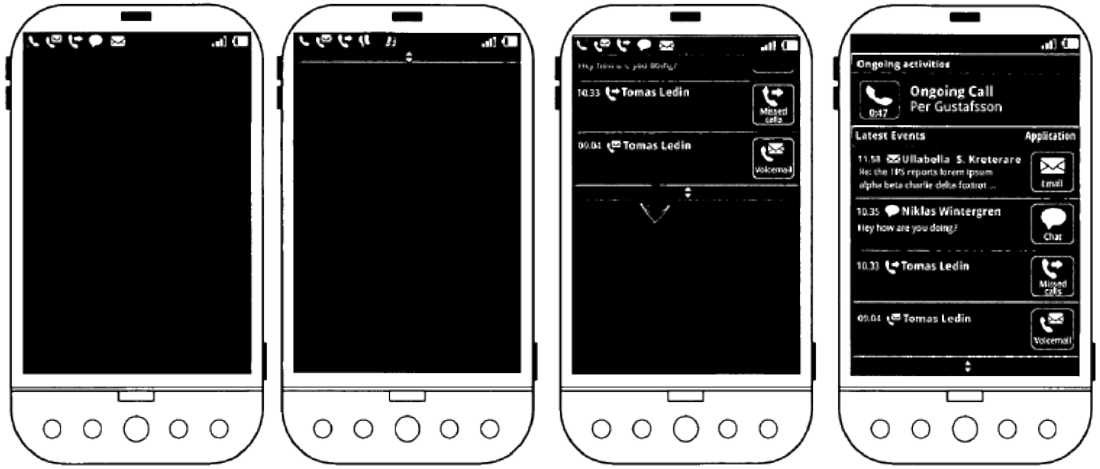
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| | "Referring now to FIG. 1, there is shown portions of a mobile device display demonstrating actions in a status bar." Tseng at [0031].<br><br>"FIGS. 2A-2C show screen shots of mobile devices exhibiting notification functionality. Referring to FIG. 2A, there is shown two screens from a mobile device having a touch screen input on its display surface." Tseng at [0039].<br><br>"FIG. 3 is a schematic diagram of a system 300 for providing notifications on a mobile device 302. In this example, the mobile device 302 is a slider-based smartphone having a touch-screen 304 for input and output and a trackball 306 as an alternative input mechanism, but the device 302 may take a variety of forms." Tseng at [0064].<br><br>"The device 302 includes a display manager 314 to control various elements to be shown to a user on the touch screen 304, while an input manager 322 manages inputs received from the touch-screen or other mechanisms such as trackball 306. Various applications 312 may run on the device and may provide data for graphics to be displayed through the display manager 314." Tseng at [0066].<br><br>"Information may also be passed, after processing, to a notification event manager 310, which may manage notifications that are presented to a user, through touch screen 304 and/or speaker 328." Tseng at [0068].<br><br>"In turn, the volatile storage may store information about ongoing applications and also store information needed to generate various graphical displays on the touch screen 304." Tseng at [0069].<br><br>"The user uses the pointing device 504 to select and adjust graphics and text objects displayed on the display 501 as part of the interaction with and control of the device 500 and the applications invoked on the device 500. The pointing device 504 is any appropriate type of pointing device, and may be … a touch screen device implemented in combination with the display 501, or any other input device." Tseng at [0090].<br><br>"The article of claim 13, wherein the instructions further comprise instructions to cause the one or more processors to receive a dragging manipulation on a touch screen display of the graphical interface, from the status area and across the display, and move the slider mechanism in response to |

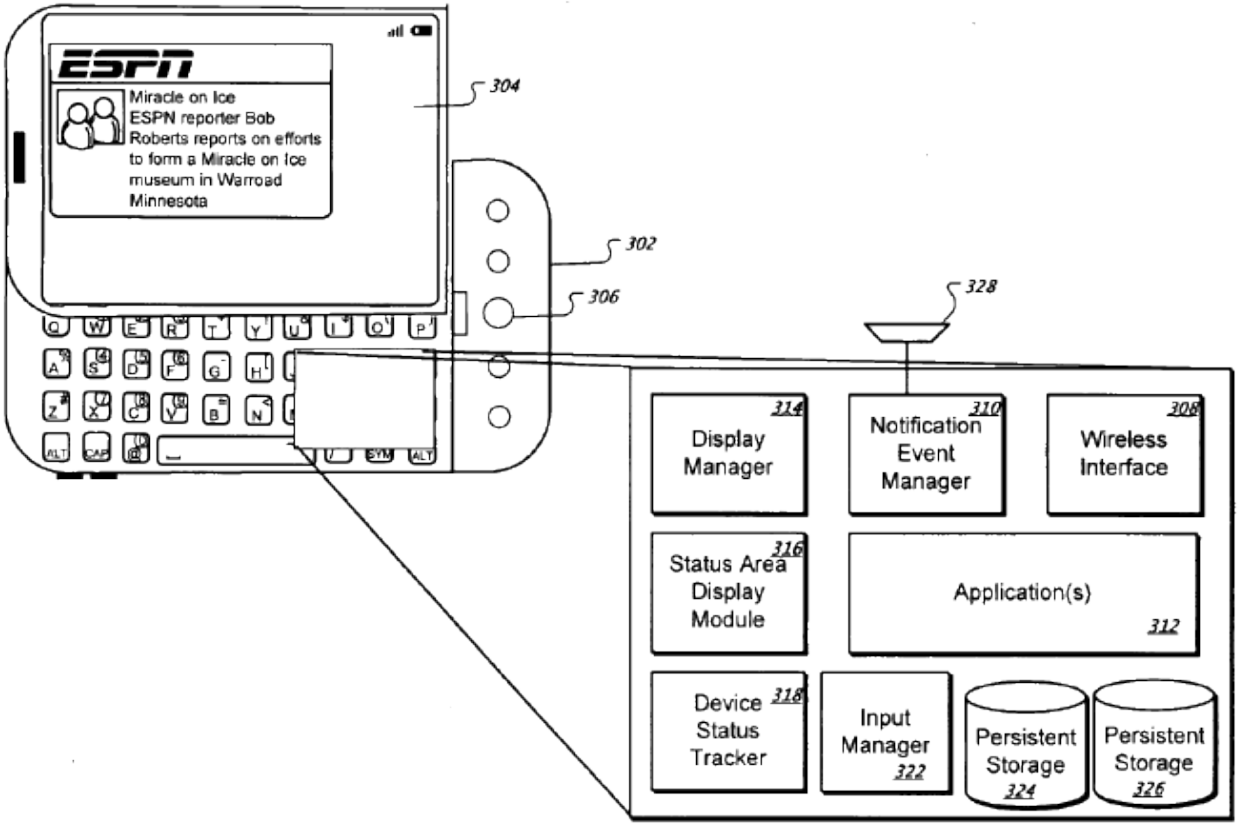
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | the dragging mechanism, and display the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at Claim 17. |
| **[1B]** at least one window located in the touch screen on an edge of the touch screen, wherein said at least one window functions independently of an interface of an application in use on the touch screen; and | Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "at least one window located in the touch screen on an edge of the touch screen, wherein said at least one window functions independently of an interface of an application in use on the touch screen."<br><br>For example, Tseng discloses at least one window, such as a "status bar" or "status area," located on the top edge of the touch screen. Tseng at Abstract, FIGS. 1, 2A-2C, 3, 4A-4B, 5, [0005], [0014], [0031]. Tseng explains that the status bar is capable of displaying notifications at the edge of the touch screen display. For example, "the notifications may occur by having a notification message … be displayed in a peripheral area at the edge of a display, such as a status area, or status bar, for the mobile device." Tseng at [0028], FIGS. 1, 2A-2C, 3, 4A-4B, 5. Tseng's "status bar" or "status area" is a window that functions independently of an interface of an application, such as the interface of the "active programs" or "active applications" being displayed in the touch screen display area. Tseng at [0005], [0014], [0028], [0032], [0040], FIGS. 1, 2A-2C, 3, 4A-4B, 5. The status bar is shown regardless of the application being displayed in the main display. "A status bar area is the typically-static area on a device that displays information such as bars for wireless signal strength, a remaining battery life indicator, an icon that shows the network over which wireless communication is occurring, and the like. The main area or zone of the display is generally the central, largest area of a display where active programs are displayed, while supplemental elements are typically displayed around the periphery of the main area …." Tseng at [0005]. As one example, "one or more applications may be shown in the main zone [of the touch screen]. Such as an application tracking an ongoing telephone call," which is independent of the status bar that is shown regardless of the application in the main display. Tseng at [0040].<br><br>Exemplary citations include: |

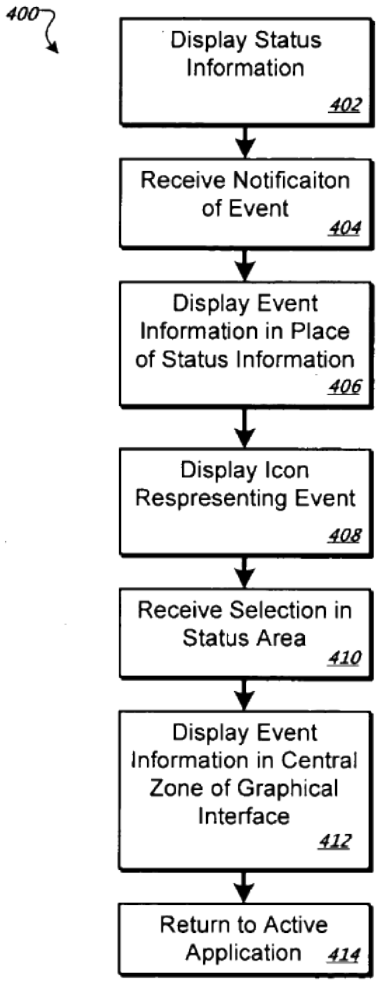
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| |  <br>FIG. 1<br>Tseng at FIG. 1. |

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| |  <br>FIG. 2A<br>Tseng at FIG. 2A. |

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| |  <br>FIG. 2B<br>Tseng at FIG. 2B. |

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| |  <br>FIG. 2C<br>Tseng at FIG. 2C. |

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| |  <br>FIG. 3<br>Tseng at FIG. 3. |

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| |  <br>FIG. 4A<br>Tseng at FIG. 4A. |

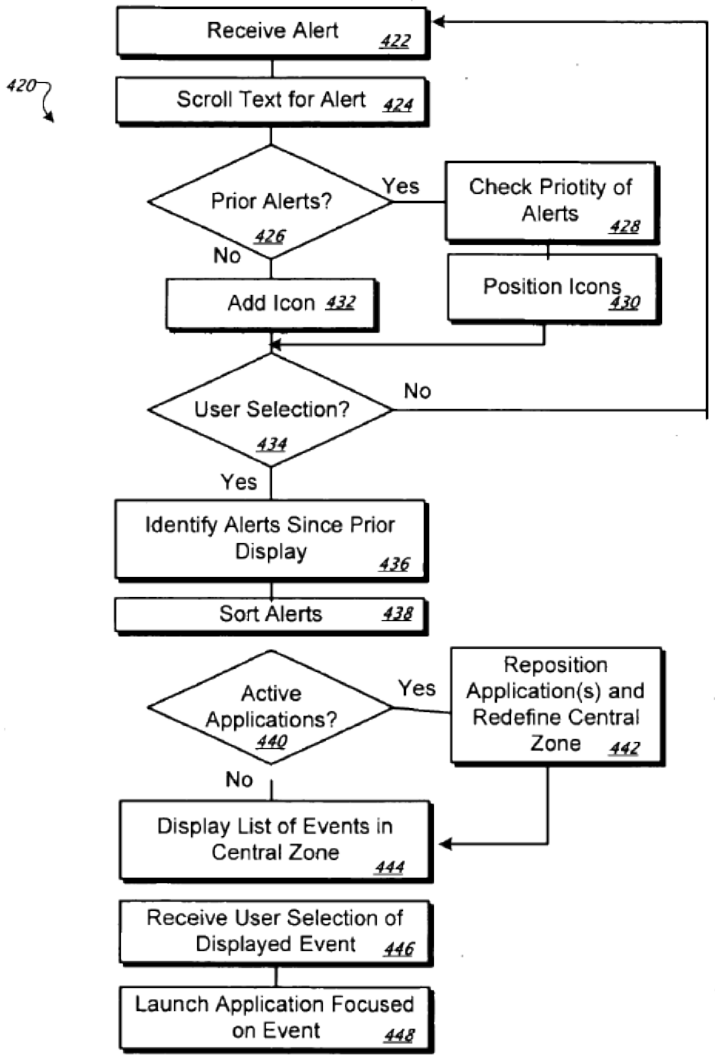
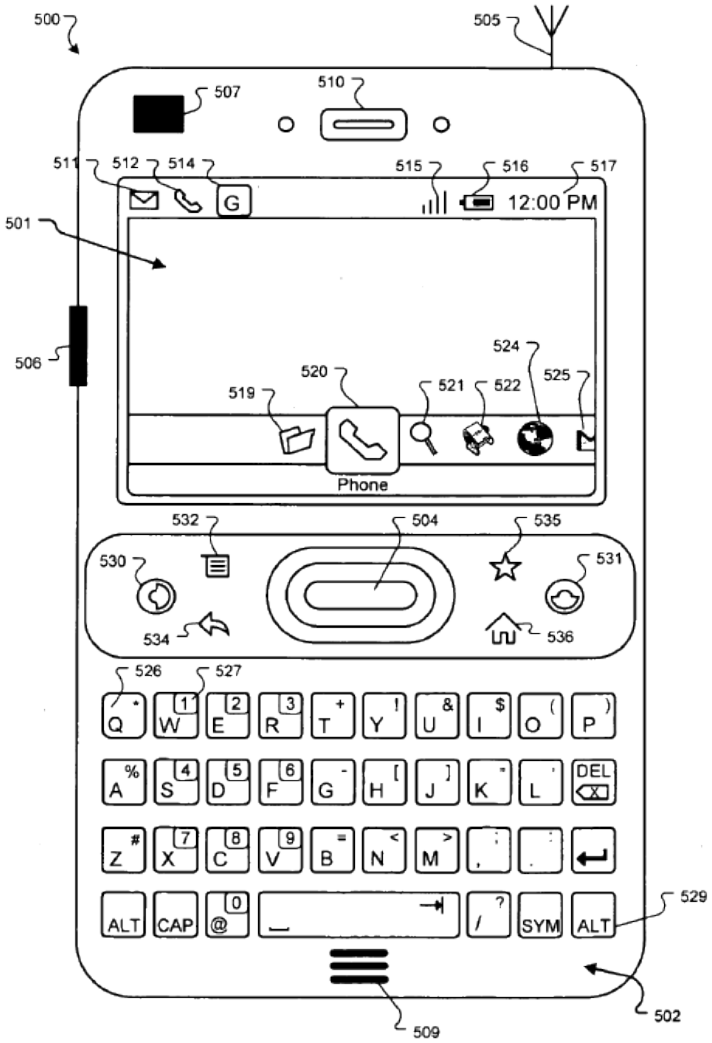
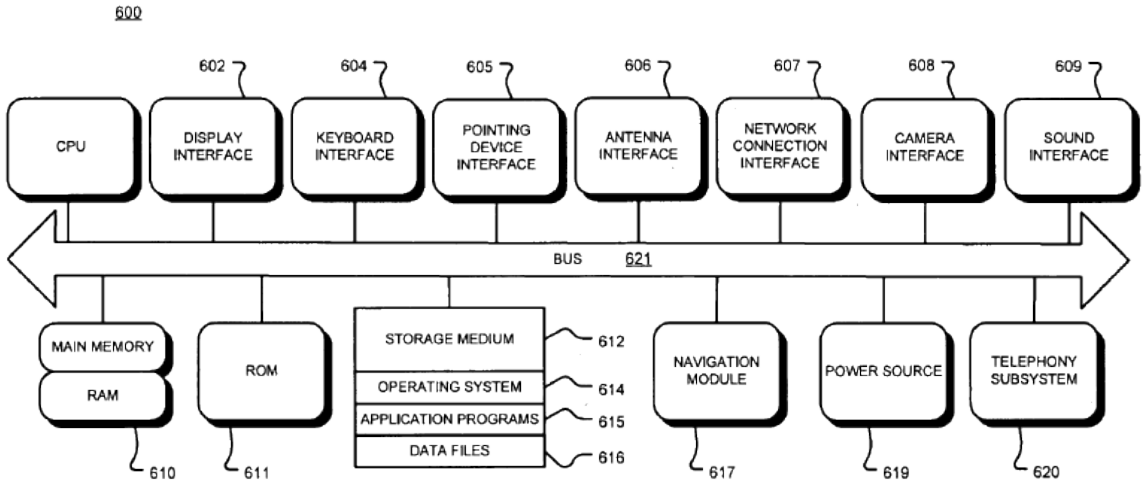
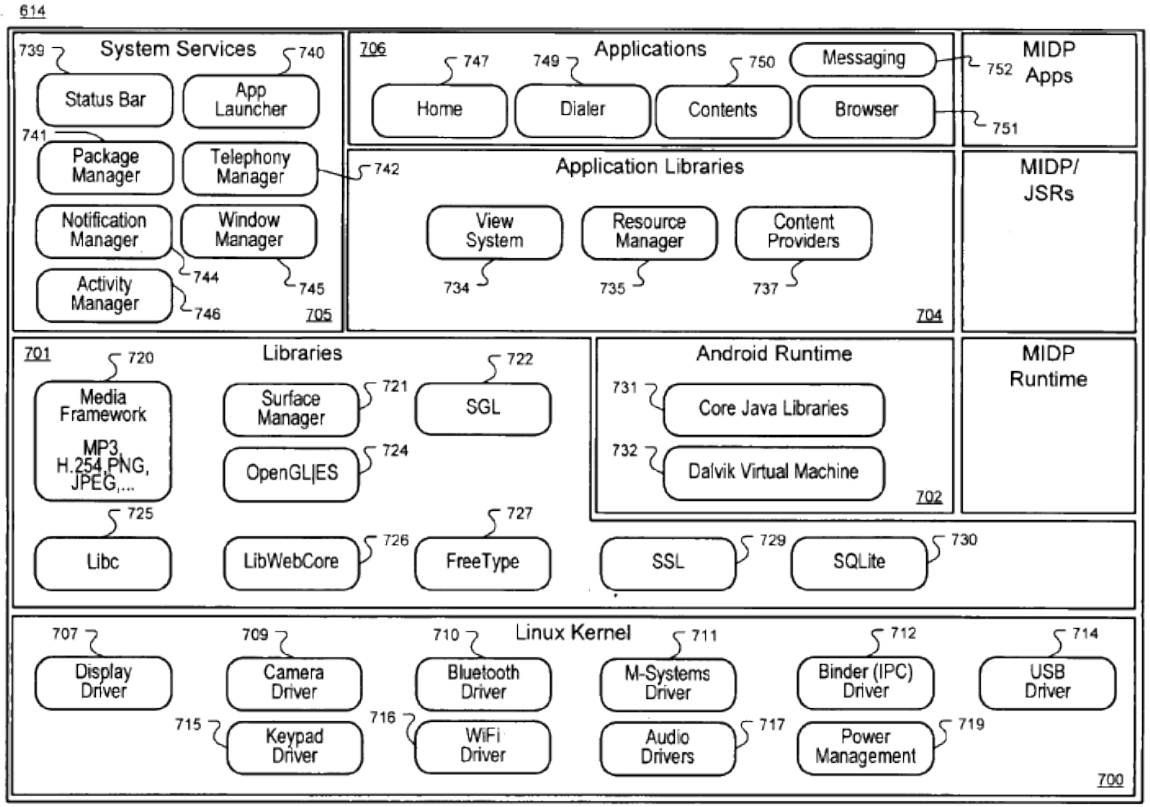



FIG. 4B

Tseng at FIG. 4B.

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| |  <br>FIG. 5<br>Tseng at FIG. 5. |

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| |  <br>FIG. 6<br>Tseng at FIG. 6. |

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| |  <br>FIG. 7<br>Tseng at FIG. 7. |

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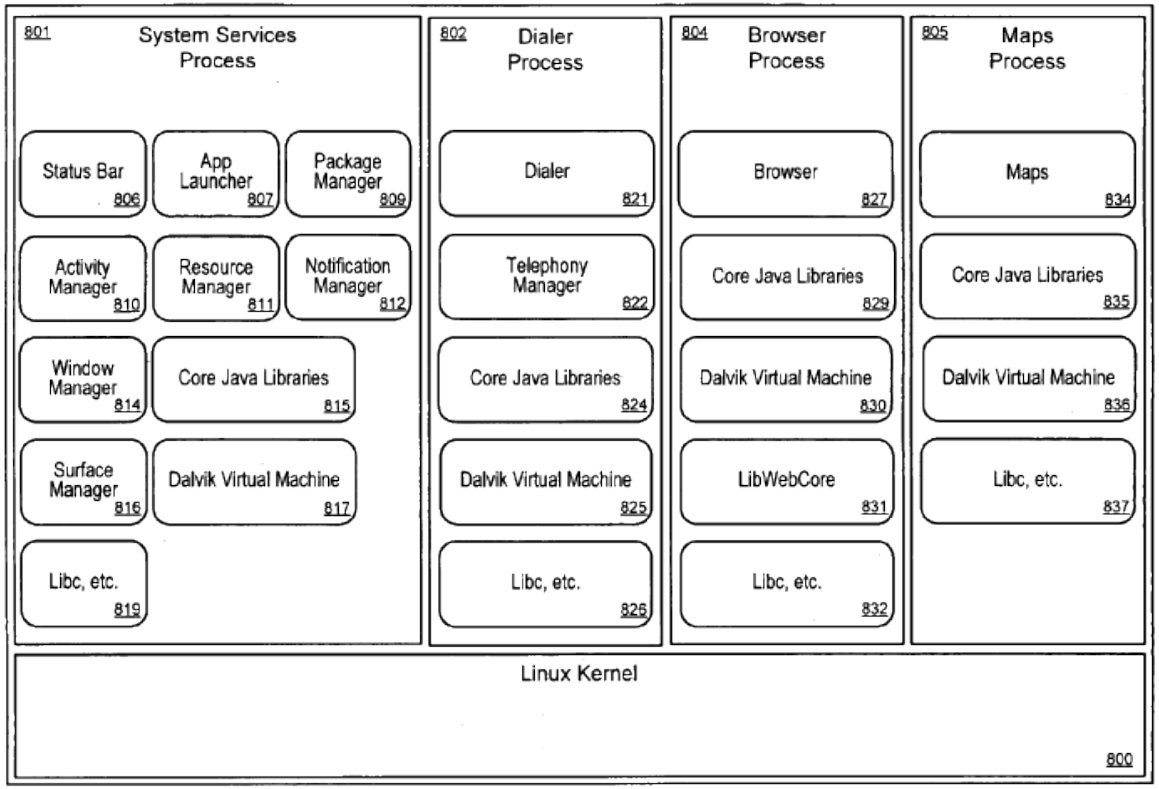



FIG. 8

Tseng at FIG. 8.

"A computer-implemented user notification method includes displaying, in a status area near a perimeter of a graphical interface, a notification of a recent alert event for a mobile device, receiving a user selection in the status area, and in response to the receipt of the user selection, displaying, in a central zone of the graphical interface, detail regarding a plurality of recent messaging events for the mobile device." Tseng at Abstract.

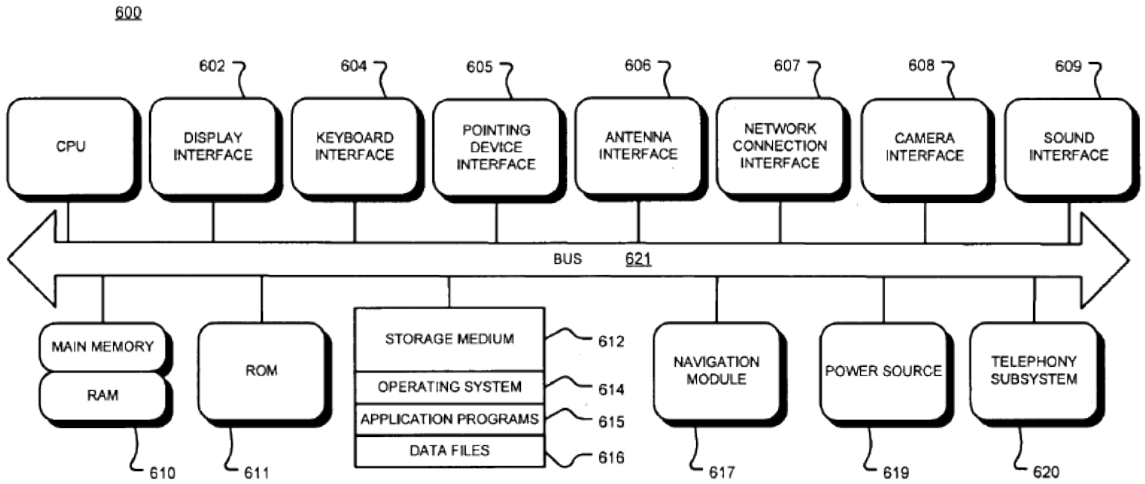
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| | "The main area or zone of the display is generally the central, largest area of a display where active programs are displayed, while supplemental elements are typically displayed around the periphery of the main area or over the main area in pop-up windows or similar graphical elements." Tseng at [0005].<br><br>"Where the alert is not a message, the scrolling notification may include other descriptive or suggestive text or graphics, such as the title of a song, the status of a device parameter that is being reported, the identity of an item (e.g., a physical good or a computer application) that currently became available at an on-line marketplace, and other such information." Tseng at [0006].<br><br>"In some aspects, the method further comprises aggregating, in the status bar, a plurality of icons that are each visually representative of one or more recently received messaging events. The text can include textual content from the alert event. Also, the alert event can correspond to a communication from a remote server reporting a message from the group of computer applications consisting of electronic mail, chat, text messaging, voice mail, and a posting of data to a shared networked data source. In certain aspects, the user selection comprises a long press on a display screen or a pointing device, and the display in the central zone comprises a reduced-size version of a display of an active application that was in the central area before the user selection." Tseng at [0010].<br><br>"In yet another implementation, a computer-implemented notification system is disclosed. The system comprises a wireless interface to receive data for a user of a mobile device, a notification manager to generate a notification message for a device event, including device events received through the wireless interface, where the notification message includes information that describes the device event, and a display manager to generate elements for a graphical display, to receive the notification message and to present the notification message in a first Zone near a perimeter of the graphical display. The system can further comprise an input device to receive a user selection in the first zone, wherein in response to the user selection, the display manager displays, in a central zone of the graphical interface, detail information regarding a plurality of recent messaging events for the mobile device. Also, the display manager can display the notification message as text that scrolls in a status bar area of the graphical display. Also, the display manager can be adapted to remove the text from the status bar and display in the status bar an icon that visually represents an application corresponding to the messaging event." Tseng at [0014]. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "FIG. 1 shows portions of a mobile device demonstrating actions in a status bar." Tseng at [0017].<br><br>"In general, the notifications may occur by having a notification message—which may be an abbreviated form of the actual communication, e.g., a name and subject line for an incoming e-mail be displayed in a peripheral area at the edge of a display, such as a status area, or status bar, for the mobile device." Tseng at [0028].<br><br>"Referring now to FIG. 1, there is shown portions of a mobile device display demonstrating actions in a status bar. In general, seven instances (labeled a through g) of the same display portion are shown in chronological order, to demonstrate an example of functionality that may be provided by a notification component on the device. The particular display portion shown here is the top of a graphical display, where a status bar is located." Tseng at [0031].<br><br>"Instance (a) shows a status bar of a mobile device in a normal state, with icons displayed to indicate that the device is currently using GPS and Bluetooth capabilities, and also showing the current signal strength and remaining battery power. At Such a time, the user may be doing nothing with the device (e.g., so that the device's desktop and wallpaper are being displayed in the main display area below the status bar) or may be operating an application in a main display area of the device, i.e., the central larger portion of the display, of which only the very top portion is shown here." Tseng at [0032].<br><br>"The main zone of the left display is shown blank in this example simply to indicate that the current status of the zone may take a variety of forms. For example, a wallpaper background with various icons may be displayed with desk top icons—i.e., a mode for the device when the user is not focused on any particular application. Alternatively, one or more applications may be shown in the main zone. Such as an application tracking an ongoing telephone call, and displaying an image of the person with whom the call is occurring, a number for that person, and an elapsed time for the call, among other things." Tseng at [0040]. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "The right screen in FIG. 2A shows the display 200 after the user has long-pressed or dragged downward on the status bar 202. In this example, the main zone has been filed [sic] with the various messages that were left since the last time the user had reviewed his or her messages. The messages are shown in a message area 206 in the main zone of the display 204, while the status bar 202 is shown with the message notification icons removed (because the user has now been shown the messages and does not need a notification about them)." Tseng at [0041].<br><br>"FIG. 2B shows another example of displays that may be generated to alert a user of a mobile device of messaging or other events. The displays are shown in three different images of the same mobile device, at different points in time. In the first instance, at the left, the device 218 is shown displaying a clock application on display 220, such as in an operating system desktop display mode. In addition, a number of application icons are arranged down a side of the main zone of the display 220. Those icons, in this example, represent a top icon that, when selected, causes icons for all applications on the device to be shown on the display 220 (e.g., by pushing the clock application out of the way or by appearing over the top of the clock application, or pushing the clock application downward into a smaller zone such as by changing the clock from an analog clock to a smaller digital clock). The two icons below that are icons for the last two applications used or launched on the device 218. And the remaining three icons are for applications that have been expressly selected to be on the main display 220 by the user, are applications that are most popular on the device (e.g., they have been launched the most times in the past X days), or otherwise qualify to be displayed in such a location." Tseng at [0051].<br><br>"A status bar 222 is also shown across the top of the display 220. The status bar 222 in this example is like those status areas discussed above, and includes four different messaging icons, showing that, since the user has last checked or cleared messages, the device has received one or more voice mail messages, one or more missed calls, one or more text messages or chat messages, and one or more e-mail messages."" Tseng at [0052].<br><br>"Also, the message area 224 has a semi-transparent background so that the active clock application can be viewed behind it. … For example, as the user pulls the status bar 222 downward, the pulling by the user may push down on the top edge of the application area, causing it to shrink until it reaches a minimum height like that shown in FIG. 2A, but with the application area located at the bottom of the display." Tseng at [0054]. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "FIG. 2C shows four displays on a device 230 exhibiting similar functionality to that just described. The leftmost display shows the collection of five different notification icons in a status bar of the display. The main zone of the display is shown blank to indicate that a variety of elements may be shown there at this point, such as device-resident applications, gadgets, icons for launching applications, and other such elements." Tseng at [0057].<br><br>"The second display shows, by a circle having a ring around it in the status bar, a selection by a user, such as by moving a pointer to the status bar and pressing a selection mechanism such as a trackball, or by directly pressing on the display with a fingertip on top of the status bar. Upon the user selecting the status bar, the bar may expand slightly, and a 'slide down' indicator may be displayed, in the form of a notification bar with up and down arrows. The indicator may visually signal the user that they can pull the indicator down to show messages associated with the notification icons. Alternatively, a tab like that shown in FIG. 2A may be displayed below the status area." Tseng at [0058].<br><br>"A status area display module 316 may be responsible for generating the information to be displayed in the status area of the display on device 302, such as in a status bar along a top periphery of the display. For example, the status area display module 316 may gather information needed to generate graphical display elements representing a battery level of signal strength level for the device 302, in addition to icons that represent various feature that are activated on the device 302. Such information may be obtained, for example, from a device status tracker 318." Tseng at [0067].<br><br>"FIGS. 4A and 4B are flow charts of example processes for providing mobile device notifications. In general, FIG. 4A shows a process 400 by which notification events are received at a device and information indicative of the events is displayed in a status bar area of the device." Tseng at [0070].<br><br>"In common implementations, status information is displayed in a status bar along a periphery of a display screen on a mobile device, such as along the top of a display screen." Tseng at [0071].<br><br>"The device receives a user's selection of the status bar at box 410. Such a selection may include a selection like those described above, including by a user pressing on the status bar for a long press period, and/or the user pressing on the status bar and then dragging it downward across the top of the display." Tseng at [0074]. |

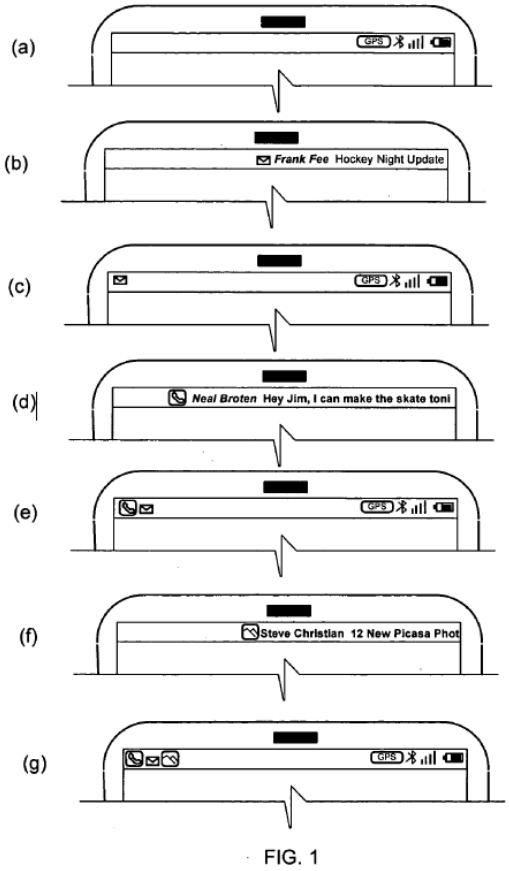
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| | "Before displaying the alerts or messages, the process 420 determines whether any applications are active on the device that cannot simply be hidden under the messages on the display. Applications that can be hidden include various gadgets such as clocks and the like, while applications that cannot include the applications shown in FIG. 2D above. If there are active applications that cannot be hidden, those applications are repositioned and the central zone of the device, where the messages will appear, is redefined (box 442). For example, the running application may be provided in a smaller area around the edge of the central zone, while the messages may then be allowed to fill the remainder of the central zone." Tseng at [0082].<br><br>"The method of claim 1, wherein the display in the central zone comprises a reduced-size version of a display of an active application that was in the central zone before the user selection." Tseng at claim 9. |
| **[1C]** a processor; | Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a processor."<br><br>For example, Tseng discloses that the mobile device includes a processor, such as CPU 601 or processor 952. Tseng at [0084], [0095], [0125], [0126], FIG. 6.<br><br>Exemplary citations include: |

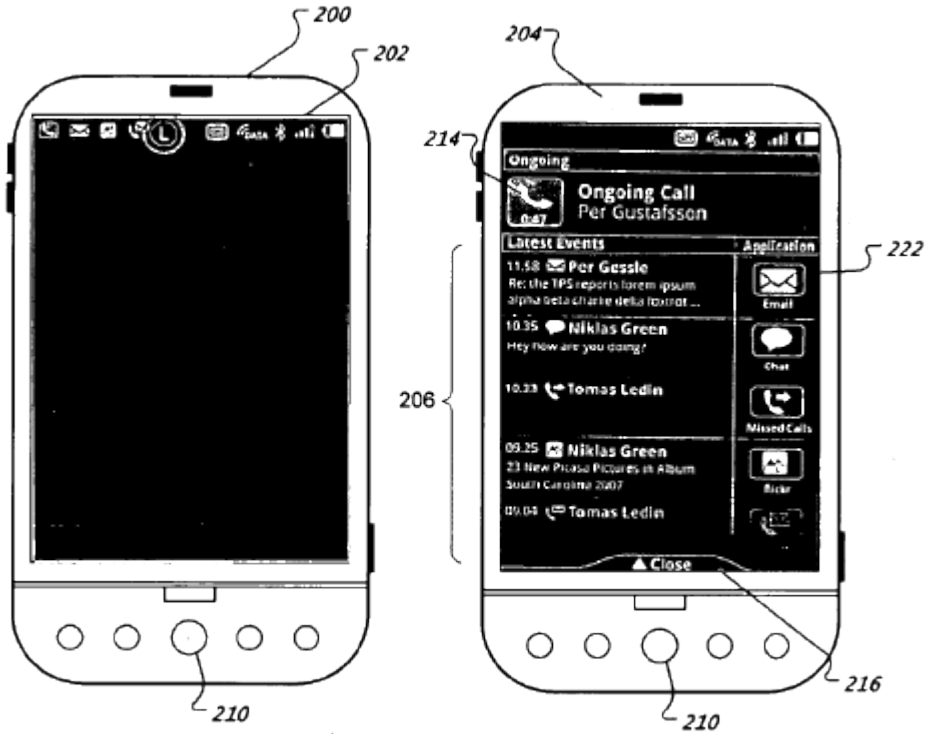
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 6<br><br>Tseng at FIG. 6.<br><br>"In another implementation, a machine-readable data storage medium is disclosed. The medium has instructions stored on it that, when executed, cause one or more processors to display, in a status area near a perimeter of a graphical interface, a notification of a recent alert event for a mobile device, receive a user selection in the status area, and in response to the receipt of the user selection, display, in a central zone of the graphical interface, detail regarding a plurality of recent messaging events for the mobile device. The notification can comprise text describing the recent alert event and is displayed in place of battery and signal elements in a status bar of the graphical interface. Also, the instructions can further cause the one or more processors to aggregate, in the status bar, a plurality of icons that are each visually representative of one or more recently received messaging events." Tseng at [0012].<br><br>"A number of components are shown schematically inside the device 302 to indicate components in the device associated with messaging notification functionality for the device 302. One or more of the components may be implemented as part of a programmable microprocessor on the device 302, |

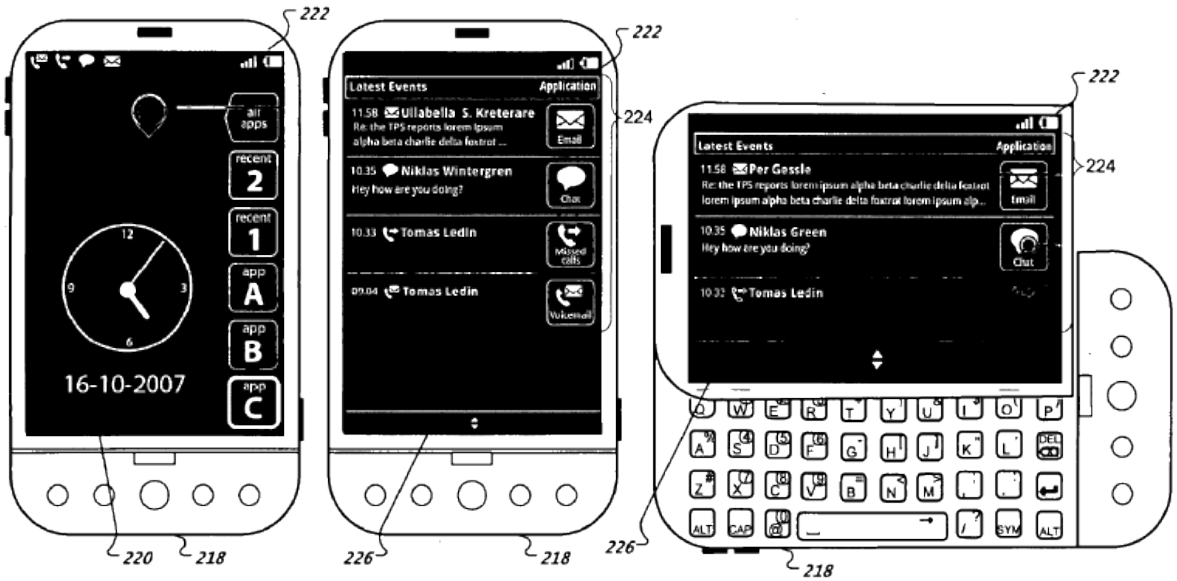
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | though the particular components are shown separately in this example for clarity of explanation." Tseng at [0065].<br><br>"Briefly, and among other things, the device 500 includes a processor configured to display notifications regarding events on the device 500, and to permit a user to conveniently 'pull down detail' about the events relating to the notifications into an extended view of the events." Tseng at [0084].<br><br>"FIG. 6 is a block diagram illustrating an internal architecture 600 of the device 500. The architecture includes a central processing unit (CPU) 601 where the computer instructions that comprise an operating system or an application are processed; a display interface 602 that provides a communication interface and processing functions for rendering video, graphics, images, and texts on the display 501, provides a set of built-in controls (such as buttons, text and lists), and supports diverse screen sizes; a keyboard interface 604 that provides a communication interface to the keyboard 502; a pointing device interface 605 that provides a communication interface to the pointing device 504; …." Tseng at [0095].<br><br>"The CPU 601 can be one of a number of computer processors. In one arrangement, the computer CPU 601 is more than one processing unit." Tseng at [0096].<br><br>"Computing device 900 includes a processor 902, memory 904, a storage device 906, a high-speed interface 908 connecting to memory 904 and high-speed expansion ports 910, and a low speed interface 912 connecting to low speed bus 914 and storage device 906. Each of the components 902, 904, 906, 908, 910, and 912, are interconnected using various busses, and may be mounted on a common motherboard or in other manners as appropriate. The processor 902 can process instructions for execution within the computing device 900, including instructions stored in the memory 904 or on the storage device 906 to display graphical information for a GUI on an external input/output device, such as display 916 coupled to high speed interface 908. In other implementations, multiple processors and/or multiple buses may be used, as appropriate, along with multiple memories and types of memory. Also, multiple computing devices 900 may be connected, with each device providing portions of the necessary operations (e.g., as a server bank, a group of blade servers, or a multi-processor system)." Tseng at [0120]. |

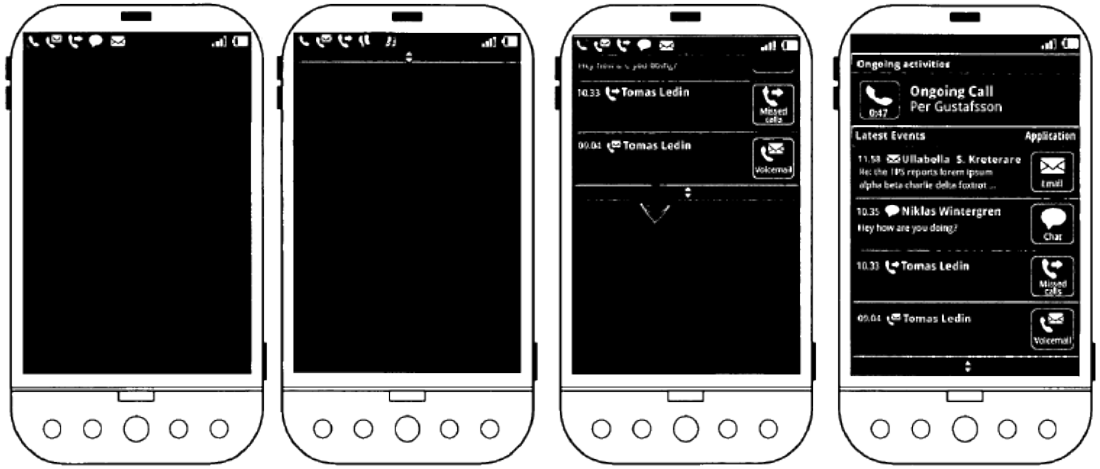
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| | "Computing device 950 includes a processor 952, memory 964, an input/output device such as a display 954, a communication interface 966, and a transceiver 968, among other components." Tseng at [0125].<br><br>"The processor 952 can execute instructions within the computing device 950, including instructions stored in the memory 964. The processor may be implemented as a chipset of chips that include separate and multiple analog and digital processors. The processor may provide, for example, for coordination of the other components of the device 950, such as control of user interfaces, applications run by device 950, and wireless communication by device 950." Tseng at [0126].<br><br>"Processor 952 may communicate with a user through control interface 958 and display interface 956 coupled to a display 954. The display 954 may be, for example, a TFT LCD (Thin-Film-Transistor Liquid Crystal Display) or an OLED (Organic Light Emitting Diode) display, or other appropriate display technology. The display interface 956 may comprise appropriate circuitry for driving the display 954 to present graphical and other information to a user. The control interface 958 may receive commands from a user and convert them for submission to the processor 952." Tseng at [0127]. |
| **[1D]** wherein a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said processor to cause an action assigned to said window, and | Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said processor to cause an action assigned to said window."<br><br>For example, Tseng discloses a gliding action that results in dragging the status bar downward to display a message area (e.g., message area 206, 224) showing new notifications, with the gliding action first interacting with the status bar or status area window on the touch screen during the gliding movement. Tseng at [0011], [0014], [0041], FIGS. 2A-2C, 3, 4A-4B, 5. Tseng's processor processes the gliding movement to drag or open a message area (e.g., 206, 224). For example, the mobile device may "comprise instructions [that] cause … one or more processors to receive a dragging manipulation on a touch screen display of the graphical interface, from the status area and |

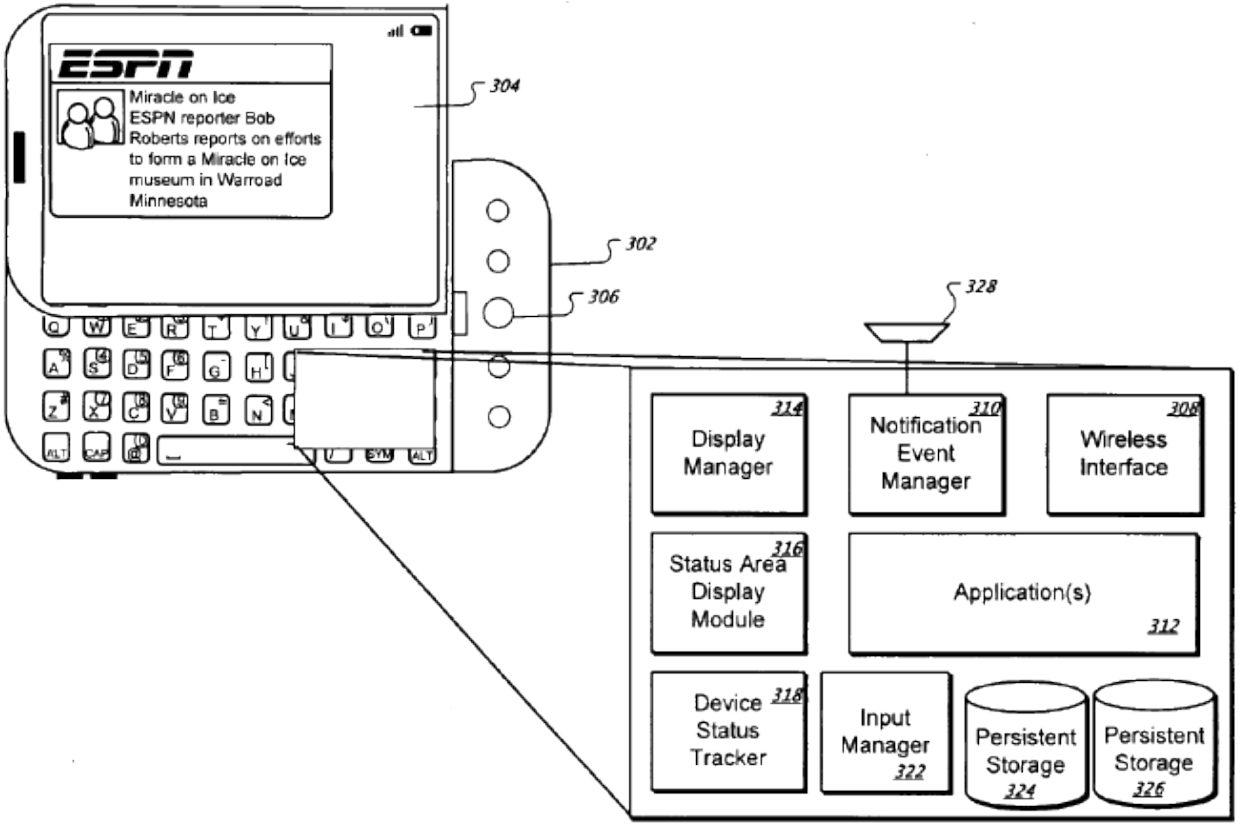
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| | across the display, and move the slider mechanism in response to the dragging mechanism, and display the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at [0013], FIGS. 2A-2C, 4A-4B.<br><br>As one example, "[t]he first display in FIG. 2B also shows a large circle surrounded by a ring having a downward pointing arrow. This element indicates a press by a user on the device 218 over the status bar 222, with a subsequent dragging downward of the status bar 222. (The element does not appear on the display.) Such action may be programmed to result in the expanding of a message area 224 into the main zone of the display 220. As with the message area 206 discussed above, the message area 224 may show the various messages that the user's device has received in the user's absence." Tseng at [0053], FIG. 2B. Also, in FIG. 2C, "[t]he second display shows, by a circle having a ring around it in the status bar, a selection by a user, such as … by directly pressing on the display with a fingertip on top of the status bar. Upon the user selecting the status bar, the bar may expand slightly, and a 'slide down' indicator may be displayed, in the form of a notification bar with up and down arrows. The indicator may visually signal the user that they can pull the indicator down to show messages associated with the notification icons. Alternatively, a tab like that shown in FIG. 2A may be displayed below the status area. The third display shows the user dragging the notification bar downward across the main part of the display, like a roll shade." Tseng at [0058]-[0059], FIG. 2C.<br><br>A POSITA would have recognized that a gliding action starting outside of the touch screen of Tseng and moving towards the inside of the touch screen towards the main application area would be processed the same way as a glide starting with a touch at the outermost pixel of the status bar closest to the upper bezel. This is because the processor would register the first interaction at the outermost edge of the status bar on the touch screen and determine the gliding action is occurring from the status bar being touched. Thus, the gliding movement from outside the touch screen towards the inside of the touch screen would first interact with the status bar on the touch screen as the finger crosses from outside of the touch screen to the status bar on the touch screen. Such interaction would then be processed to cause a function, e.g., opening the message area to display notifications.<br><br>Exemplary citations include: |

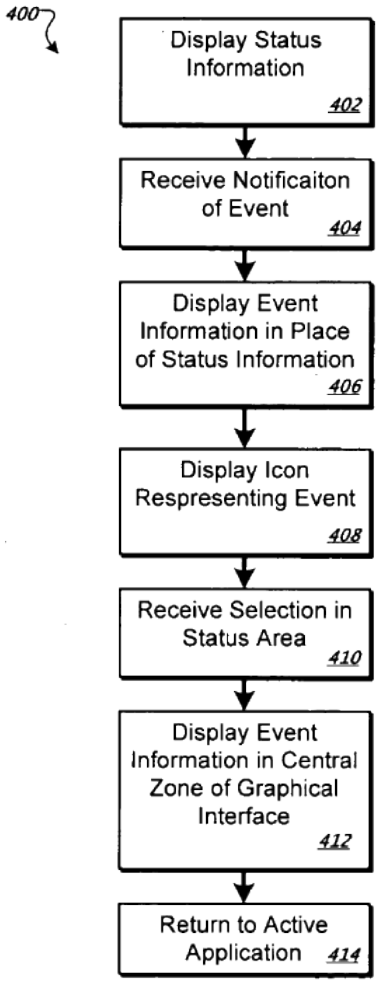
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| |  <br>FIG. 1<br>Tseng at FIG. 1. |

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| |  <br>FIG. 2A<br>Tseng at FIG. 2A. |

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| |  <br>FIG. 2B<br>Tseng at FIG. 2B. |

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| |  <br>FIG. 2C<br>Tseng at FIG. 2C. |

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| |  <br>FIG. 3<br>Tseng at FIG. 3. |

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| |  <br>FIG. 4A<br>Tseng at FIG. 4A. |

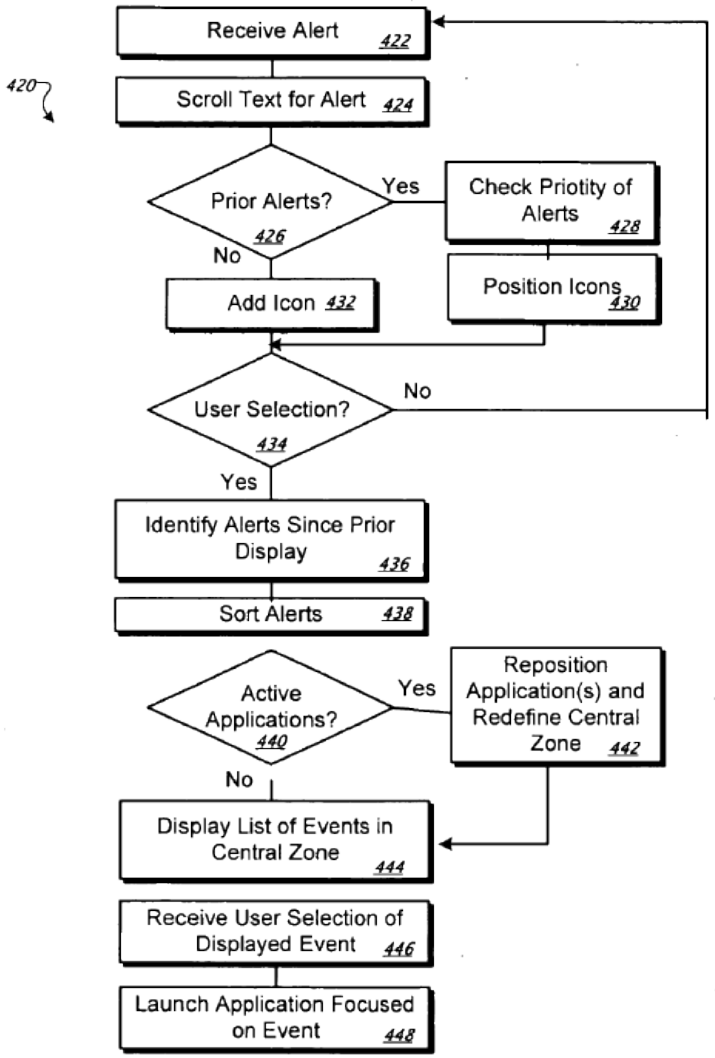
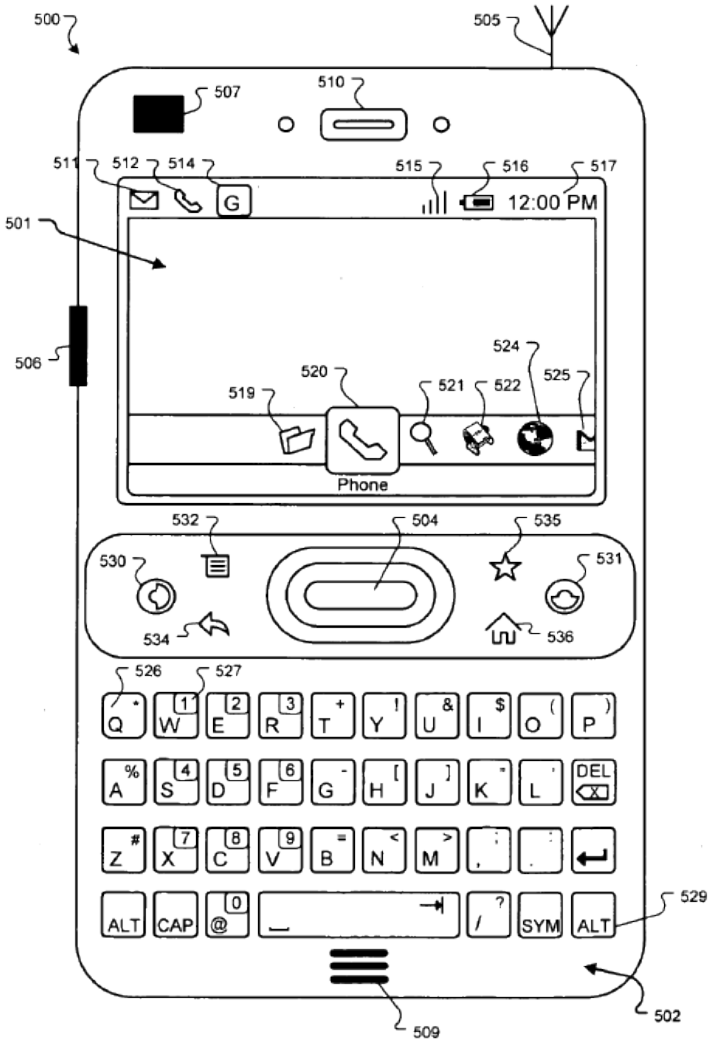
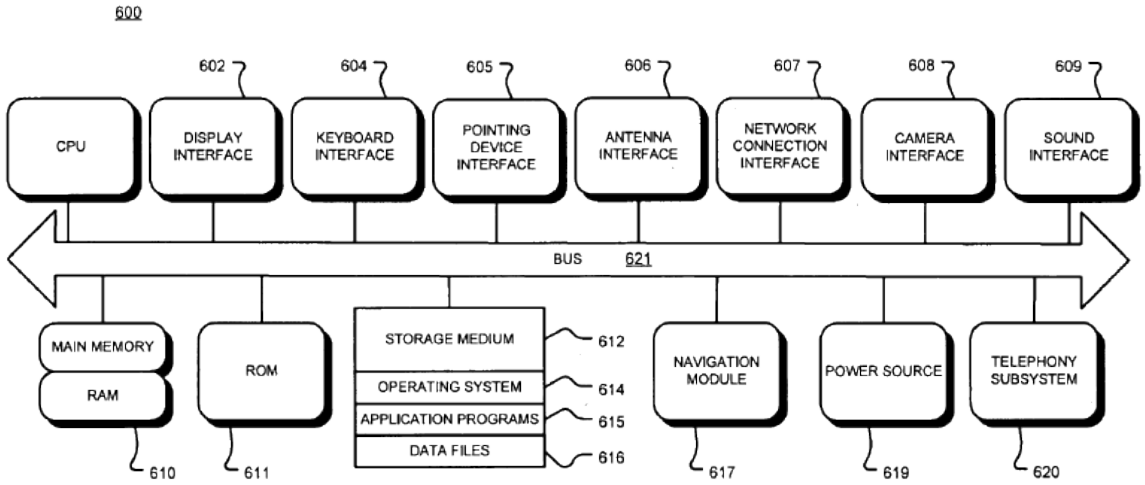
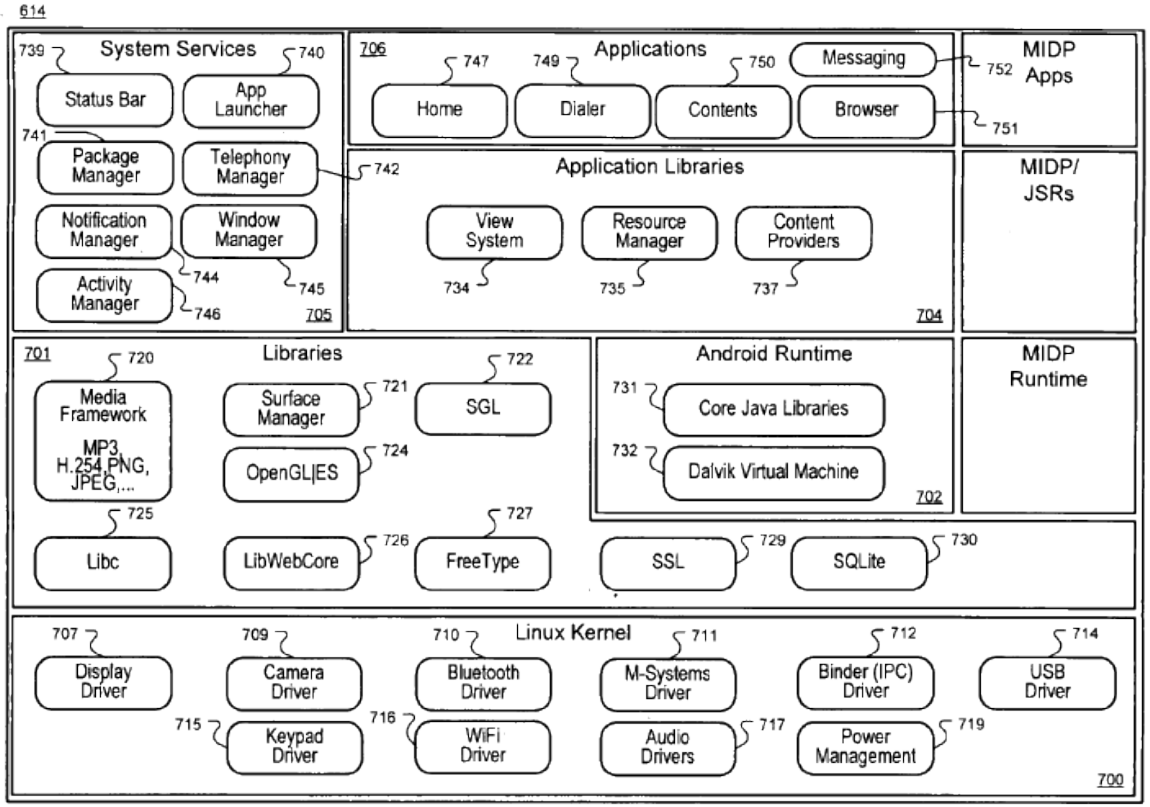



FIG. 4B

Tseng at FIG. 4B.

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| |  <br>FIG. 5<br>Tseng at FIG. 5. |

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| |  <br>FIG. 6<br>Tseng at FIG. 6. |

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| |  <br>FIG. 7<br>Tseng at FIG. 7. |

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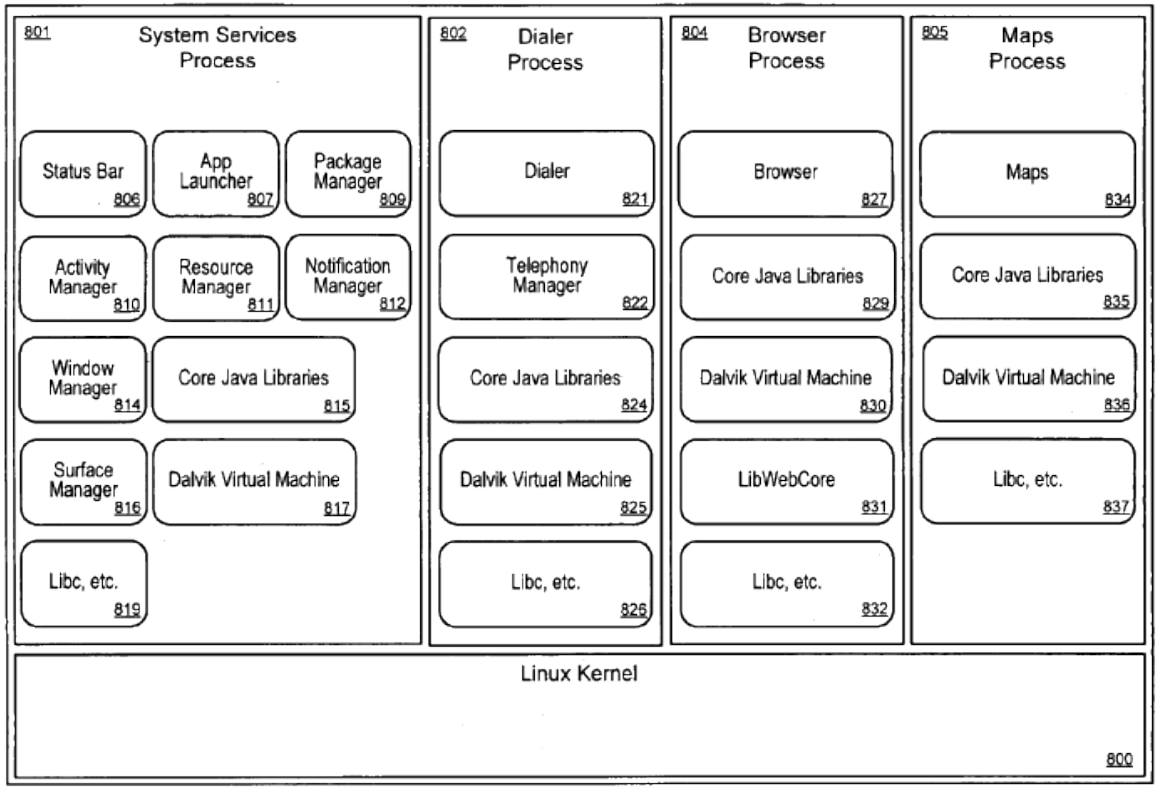



FIG. 8

Tseng at FIG. 8.

"A computer-implemented user notification method includes displaying, in a status area near a perimeter of a graphical interface, a notification of a recent alert event for a mobile device, receiving a user selection in the status area, and in response to the receipt of the user selection, displaying, in a central zone of the graphical interface, detail regarding a plurality of recent messaging events for the mobile device." Tseng at Abstract.

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "In yet other aspects, the display in the central zone comprises a list of messages from a plurality of messaging applications, and the method can also comprise displaying a user-manipulable slider mechanism in response to the user selection. In addition, the method may include receiving a dragging manipulation of the slider mechanism across the graphical interface, moving the slider mechanism in response to the dragging mechanism, and displaying the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at [0011].<br><br>"In another implementation, a machine-readable data storage medium is disclosed. The medium has instructions stored on it that, when executed, cause one or more processors to display, in a status area near a perimeter of a graphical interface, a notification of a recent alert event for a mobile device, receive a user selection in the status area, and in response to the receipt of the user selection, display, in a central zone of the graphical interface, detail regarding a plurality of recent messaging events for the mobile device. The notification can comprise text describing the recent alert event and is displayed in place of battery and signal elements in a status bar of the graphical interface. Also, the instructions can further cause the one or more processors to aggregate, in the status bar, a plurality of icons that are each visually representative of one or more recently received messaging events." Tseng at [0012].<br><br>"In certain aspects, the display in the central zone comprises a list of messages from a plurality of messaging applications. Also, the instructions can further comprise instructions to cause the one or more processors to receive a dragging manipulation on a touch screen display of the graphical interface, from the status area and across the display, and move the slider mechanism in response to the dragging mechanism, and display the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at [0013].<br><br>"The system comprises a wireless interface to receive data for a user of a mobile device, a notification manager to generate a notification message for a device event, including device events received through the wireless interface, where the notification message includes information that describes the device event, and a display manager to generate elements for a graphical display, to receive the notification message and to present the notification message in a first zone near a perimeter of the graphical display. The system can further comprise an input device to receive a user selection in the first zone, wherein in response to the user selection, the display manager |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | displays, in a central zone of the graphical interface, detail information regarding a plurality of recent messaging events for the mobile device." Tseng at [0014].<br><br>"The status area may then also become selectable by the user, so that selection of the status area causes the display of accrued messages to occur. Such selection of the status area may occur by long press on the status area, or by pressing on the status area and dragging downward to pull out the messages as if they are mounted on or under a window shade. Where the device has a fairly flush front surface, the action may take the form of a finger swipe across the face of the display, where the edge of the element showing an extended view of the messaging events 'sticks' to the user's finger as the finger moves past." Tseng at [0029].<br><br>"The right screen in FIG. 2A shows the display 200 after the user has long-pressed or dragged downward on the status bar 202. In this example, the main zone has been filed [sic] with the various messages that were left since the last time the user had reviewed his or her messages. The messages are shown in a message area 206 in the main zone of the display 204, while the status bar 202 is shown with the message notification icons removed (because the user has now been shown the messages and does not need a notification about them). In this example, the first message is an e-mail from Per Gesele, the second is a GOOGLE TALK message from Niklas Green, the third is a missed incoming call from Tomas Ledin, the fourth is a posting of PICASA photos by Niklas Green, and the fifth is a missed call from Tomas Ledin. As shown, the messages are organized here from top to bottom in reverse chronological order." Tseng at [0041].<br><br>"The first display in FIG. 2B also shows a large circle surrounded by a ring having a downward pointing arrow. This element indicates a press by a user on the device 218 over the status bar 222, with a subsequent dragging downward of the status bar 222. (The element does not appear on the display.) Such action may be programmed to result in the expanding of a message area 224 into the main zone of the display 220. As with the message area 206 discussed above, the message area 224 may show the various messages that the user's device has received in the user's absence. And again, details about a message are shown to the left, while an icon for the particular messaging application is shown on the right. Also, selection of a particular message may result in the full message being opened for the user in its corresponding application, while selection of an application icon may cause the application to be invoked, with its associated messages or other features arranged in a standard manner (e.g., reverse chronological order)." Tseng at [0053]. |

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| | "The third display shows the user dragging the notification bar downward across the main part of the display, like a roll shade. At the point shown, more messages remain above the top of the display area, so that the top-displayed message is faded to black at its upper edge to indicate to the user that more messages are left to review. The initially shown message at the bottom of the pulled down section may be a message computed to be at the bottom of the message area once the bar is pulled all the way down to the bottom of the display. In this manner, the messages shown may be "attached" to the notification bar and may move down with it. Alternatively, the messages may be unattached to the bar, so that sliding the bar down appears to open a window into the area where the messages sit. In such an implementation, the top message would appear first at the top of the display, and more messages would gradually appear as the user pulls the bar downward—opening the metaphorical sliding window or cover on them (but with the bottom edge of the messages faded to black all the way down). In this manner, for example, if a gadget were running near the bottom of the display, the user could pull the bar down only so far, so as to not cover the gadget." Tseng at [0059].<br><br>"Certain momentum effects may be provided for the interaction with the notification bar. For example, if the user releases the notification bar in the upper portion of the display, the messages may spring back upward into the status bar and disappear, much like a roll shade that has not yet caught in its first position would spring back. Alternatively, if a user drags the bar quickly and releases it, the bar may continue moving until its momentum runs out or until it hits the bottom of the display. Also, in some implementations, if the user pulls the bar below a determined level on the display, the bar may automatically keep moving until it reaches the bottom of the display, or until it reaches a graphical element that it is not allowed to pass over." Tseng at [0060].<br><br>"A number of components are shown schematically inside the device 302 to indicate components in the device associated with messaging notification functionality for the device 302. One or more of the components may be implemented as part of a programmable microprocessor on the device 302, though the particular components are shown separately in this example for clarity of explanation." Tseng at [0065].<br><br>"The device receives a user's selection of the status bar at box 410. Such a selection may include a selection like those described above, including by a user pressing on the status bar for a long press period, and/or the user pressing on the status bar and then dragging it downward across the top of |

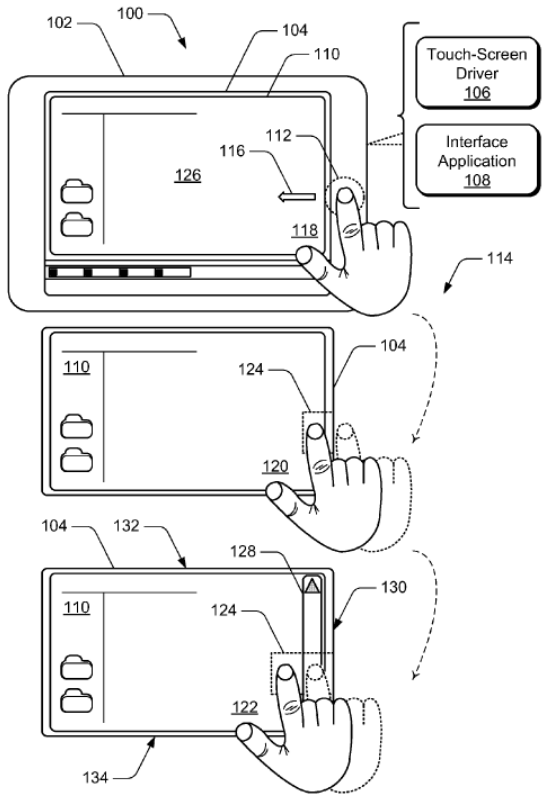
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| | the display. Alternatively, the user may select another element on the display. Such as a menu element, to have the outstanding un-reviewed events displayed." Tseng at [0074].<br><br>"The user may then interact as necessary with the various messages and/or applications. When the user is done handling the recently-received messages, the user may indicate an intent to remove the recent-received message elements from the display, such as by handling each of the messages or by selecting a graphical element to move the recent-received message elements up and off the display again so that the previously-operating application or applications may take their place again. The device and the user of the device may then continue on with their actions that did not depend on the recently-received messages. An [sic] selectable control. Such as an icon, may also be provided so that a user may 'clear' their alert events or messages. Such a control may be placed in the form of a bottom in the central display when a user drags down on a status bar, so that the user can re-set their notifications, and the icons in the status bar will be removed to indicate that there are no longer any messages to which the user needs to be directed." Tseng at [0076].<br><br>"At box 434, the process 420 waits for a user selection, such as a user selection in the status bar area (though in certain implementations, the selection may occur in other manners). If there is no user selection before the next alerting event occurs, the process 420 then repeats the steps just described when a new message next arrives." Tseng at [0080].<br><br>"Briefly, and among other things, the device 500 includes a processor configured to display notifications regarding events on the device 500, and to permit a user to conveniently "pull down detail about the events relating to the notifications into an extended view of the events." Tseng at [0084].<br><br>"FIG. 6 is a block diagram illustrating an internal architecture 600 of the device 500. The architecture includes a central processing unit (CPU) 601 where the computer instructions that comprise an operating system or an application are processed; a display interface 602 that provides a communication interface and processing functions for rendering video, graphics, images, and texts on the display 501, provides a set of built-in controls (such as buttons, text and lists), and supports diverse screen sizes; a keyboard interface 604 that provides a communication interface to the keyboard 502; a pointing device interface 605 that provides a communication interface to the pointing device 504; …." Tseng at [0095]. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "The CPU 601 can be one of a number of computer processors. In one arrangement, the computer CPU 601 is more than one processing unit." Tseng at [0096].<br><br>"Computing device 900 includes a processor 902, memory 904, a storage device 906, a high-speed interface 908 connecting to memory 904 and high-speed expansion ports 910, and a low speed interface 912 connecting to low speed bus 914 and storage device 906. Each of the components 902, 904, 906, 908, 910, and 912, are interconnected using various busses, and may be mounted on a common motherboard or in other manners as appropriate. The processor 902 can process instructions for execution within the computing device 900, including instructions stored in the memory 904 or on the storage device 906 to display graphical information for a GUI on an external input/output device, such as display 916 coupled to high speed interface 908. In other implementations, multiple processors and/or multiple buses may be used, as appropriate, along with multiple memories and types of memory. Also, multiple computing devices 900 may be connected, with each device providing portions of the necessary operations (e.g., as a server bank, a group of blade servers, or a multi-processor system)." Tseng at [0120].<br><br>"Computing device 950 includes a processor 952, memory 964, an input/output device such as a display 954, a communication interface 966, and a transceiver 968, among other components." Tseng at [0125].<br><br>"The processor 952 can execute instructions within the computing device 950, including instructions stored in the memory 964. The processor may be implemented as a chipset of chips that include separate and multiple analog and digital processors. The processor may provide, for example, for coordination of the other components of the device 950, such as control of user interfaces, applications run by device 950, and wireless communication by device 950." Tseng at [0126].<br><br>"Processor 952 may communicate with a user through control interface 958 and display interface 956 coupled to a display 954. The display 954 may be, for example, a TFT LCD (Thin-Film-Transistor Liquid Crystal Display) or an OLED (Organic Light Emitting Diode) display, or other appropriate display technology. The display interface 956 may comprise appropriate circuitry for driving the display 954 to present graphical and other information to a user. The control interface |

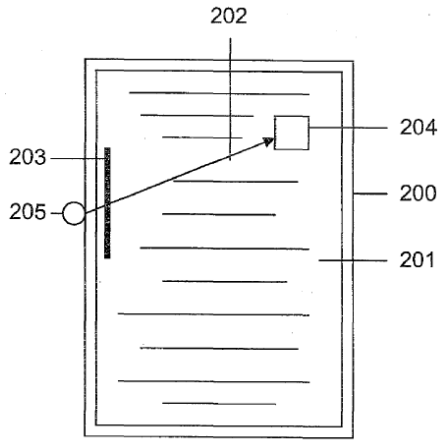
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | 958 may receive commands from a user and convert them for submission to the processor 952." Tseng at [0127].<br><br>"The method of claim 11, further comprising receiving a dragging manipulation of the slider mechanism across the graphical interface, moving the slider mechanism in response to the dragging mechanism, and displaying the detail regarding the plurality of recent alert events behind the slider mechanism as it is slid across the display." Tseng at claim 12.<br><br>"A machine-readable data storage medium having instructions stored thereon that, when executed, cause one or more processors to:<br><br>display, in a status area near a perimeter of a graphical interface for a mobile device, a notification of a recent alert event for the mobile device, wherein the alert event corresponds to a change in status of an application operating on the mobile device or of an account associated with the mobile device;<br><br>receive a user selection in the status area; and<br><br>in response to the receipt of the user selection, display, in a central zone of the graphical interface, detail regarding a plurality of alert events for the mobile device, wherein at least some of the plurality of alert events correspond to messages received by the mobile device and the detail includes text from the messages." Tseng at claim 13.<br><br>"The article of claim 13, wherein the instructions further comprise instructions to cause the one or more processors to receive a dragging manipulation on a touch screen display of the graphical interface, from the status area and across the display, and move the slider mechanism in response to the dragging mechanism, and display the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at claim 17.<br><br>"21. A computer-implemented notification system, comprising:<br><br>a wireless interface to receive data that includes messages for a user of a mobile device;<br><br>a notification manager, operable on a computer processor, to generate a notification message for a received message that includes information that describes the message; and means for generating a |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | display of information corresponding to the notification message on a graphical display." Tseng at claim 21.<br><br>To the extent Keyless argues that Tseng does not disclose or render obvious this limitation, it would have been obvious in view of Tseng, POSITA's pre-existing knowledge, and/or the teachings of Tseng combined with the other references charted for this patent in these invalidity contentions, including Wilairat, Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, Motorola Droid A855, the HTC G1 1.6, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Palm Pre, and the Neonode N2. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>For example, Wilairat further teaches an off-to-on-screen gliding action, referred to as a "pull-in gesture." Wilairat teaches that, although the gliding motion begins off of the touch screen, it first interacts with the touch screen as the finger enters the touch screen. Wilairat teaches that "a user can initiate a touch input with a finger just off an edge of the touch-screen and then motion a pull-in gesture across the touch-screen. When the motion of the touch pull-in gesture is initiated by the user, a progression of the motion as the touch input remains in contact with the touch-screen creates a contact region on the touch-screen that progressively expands and is detected. The progressive expansion of the contact region on the touch-screen is then determined or recognized as the touch pull-in gesture that initiates a display of a user interface component proximate a location of the touch pull-in gesture on the touch-screen. A user interface component can include any type of hidden menu, slide menu, drop-down menu, Scrollbar, and/or any other type of user interface displayable element." Wilairat at [0010].<br><br>Wilairat further teaches that "a user of portable device 102 can initiate a touch input 112 with a finger just off an edge of the touch-screen 104 and then motion a pull-in gesture 114 in a direction |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | 116 across the touch-screen. The motion of the touch pull-in gesture 114 is illustrated in the direction 116 as the hand moves from position 118, to position 120, and to position 122 (shown successively in the three views). When the motion of the touch pull-in gesture 114 is initiated by the user, a contact region 124 progressively expands. Such as illustrated when the hand moves from the edge of the touch-screen at position 118 to position 120, and then from position 120 to position 122. The progressive expansion of the contact region 124 is then determined or recognized as the touch pull-in gesture 114." Wilairat at [0012].<br><br>An exemplary pull-in gesture from off-screen to on-screen is shown in Wilairat FIG. 1. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Fig. 1<br>Wilairat at FIG. 1.<br>Moreover, each of Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC G1 1.6, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, the Palm Pre, and the Neonode N2 teaches a gliding action from off screen to on screen to activate a function assigned to the window when the gliding action is detected. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | Roth teaches using a swiping (e.g., gliding) action from outside a screen through a window in the form of a line at the edge of the screen on the screen towards the inside of the touch screen to activate a function associated with the window. For example, Roth describes "[a] crossing-based interface along the bounds of the display is a viable solution. Users can invoke actions with swiping gestures across a section of the display side from the outside to the inside." Roth at [0009]. Roth teaches advantages of such outside-to-inside gliding activations, for example, that "they can be more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to the distance vector between the line and the cursor," and "that a well positioned line requires significantly less display space than a button for similar performance characteristics." Roth at [0010]. "One example of such a gesture is a continuous swiping motion from the activation point representing a desired action or even from the bezel of the device, through the activation point and to the target on the display." Roth at [0015]. Roth explains that such outside-to-inside gliding actions "allow[] the active area of an activation point to be much smaller on a display due to the utilization of a greater average weight throughout a touch sensitive display, which creates a higher probability of activating on a narrow activation point or operating on a small target," "save[s] valuable display space on the screen, since the activation point can be made smaller on the display as a result," and may "begin from outside the display for ease of use." Roth at [0015]. As Roth explains, a "bar" may "represent[] the desired action." Roth at [0017]. "[A]n activation point 203 (represented as a bar in this example) displayed on the edge of the screen which represents the desired action of selecting. The bar is made small so as to not take up valuable space on the display. The user can then select the target 204 through the use of a gesture 202, such as swiping, pinching, tapping or other gestures …." Roth at [0036]. As shown in FIG. 2B, "[t]he user can begin his gesture from either on the bar itself or from outside the display 205 and continue the gesture through the bar and to target as if the user were bringing the action to the target. An example of such a gesture is if the user utilized a continuous swiping motion with his finger from the bar representing a desired action to the target on the display." Roth at [0039]. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Roth at FIG. 2B.<br><br>Roth Bezel Swipe teaches activation gestures related to mobile devices having touch screens. A bezel swipe gesture is an outside-to-inside swiping (e.g., gliding) gesture, in which "[t]he user starts a Bezel Swipe gesture on the bezel, which is the physical touch insensitive frame that surrounds the display. The finger is then swiped through a part of the display edge into the display, which enters selection mode. Next, the user moves the finger onto an object or display position and selects it by lifting the finger off the display, which ends selection mode. Different edge portions represent different actions and are distinctively marked." Roth Bezel Swipe at 1524. "Swipes are recognized by detecting touches inside a thin rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524. As such, "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display. Figure 2 illustrates this. A touch sensitive display translates the contact area of the finger with the display into an activation point." Roth Bezel Swipe at 1524. "The Bezel Swipe gesture … starts on the bezel and moves into the display. Therefore the contact area is gradually increased until it exceeds the contact threshold of the display. … Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. This outside-to-inside crossing gesture has advantages, for example, "the crossing of the touch-insensitive bezel in conjunction with the properties of touch sensitive displays enables the reliable activation of a button |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. |

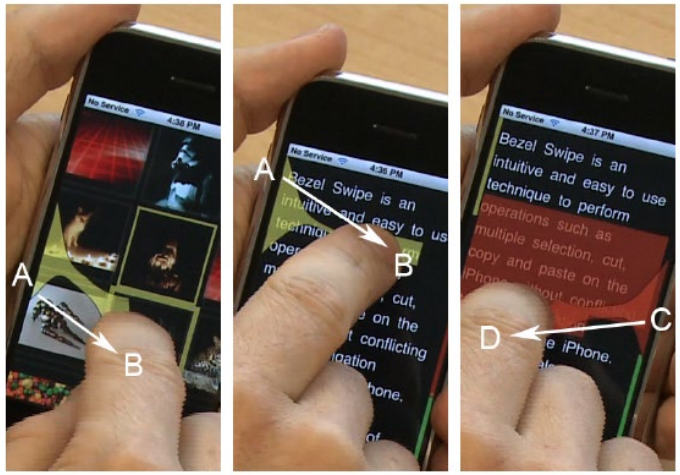



**Figure 1. The Bezel Swipe prototype in action. Left panel: A swipe from A to B selects an image. Middle panel: A swipe from A to B marks the beginning of a text selection. Right panel: A swipe from C to D marks the end of the text selection.**

Roth Bezel Swipe at Figure 1.

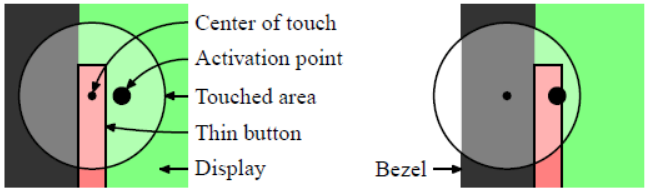
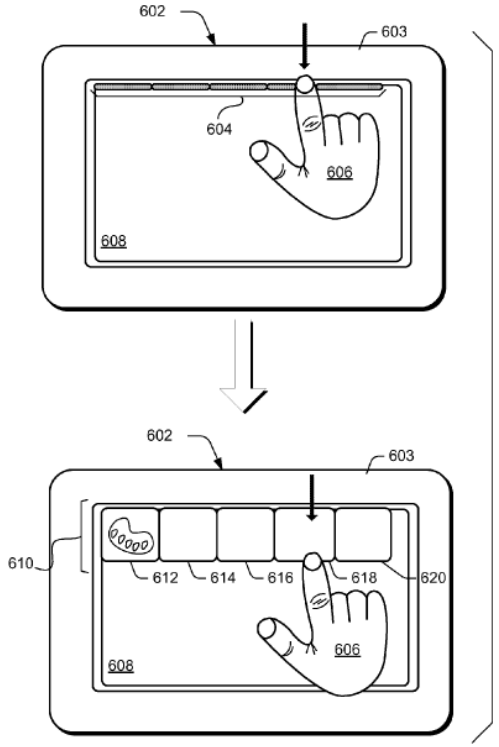
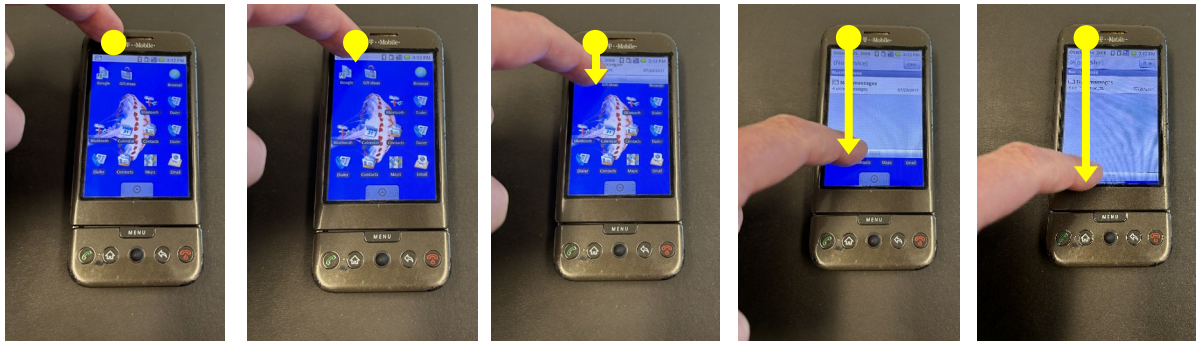
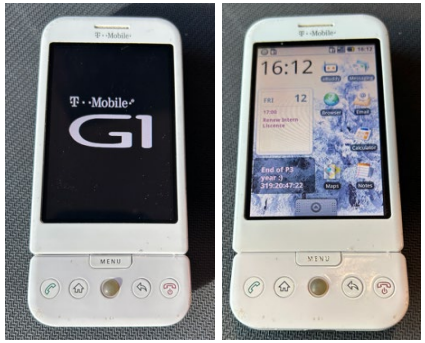


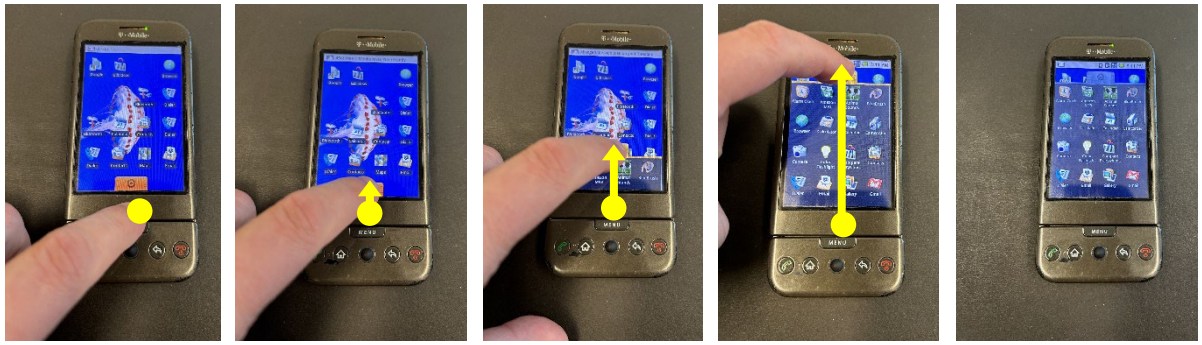

**Figure 2. Touching narrow targets close to the bezel: a touch (large circle) centered on the target (left) may not activate it whereas a touch significantly overlapping the bezel (right) does.**

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | Roth Bezel Swipe at Figure 2.<br><br>Hinckley teaches a visual affordance window indicating a pull-down bezel menu is shown at the edge of a mobile device using a gliding action from outside of the touch screen towards the inside of the touch screen. Hinckley at FIGS. 5, 6. For example, in FIG. 5, "[s]tep 500 displays a visual affordance on a display device associated with a computing device" and is shown at as a window or bar 604 being a five-part line in FIG. 6. Hinckley at [0068], [0072], FIGS. 5, 6. Then, "[s]tep 502 receives a bezel gesture input relative to the visual affordance," such as from off-screen to on-screen over the visual affordance. Hinckley at [0068], [0072], FIGS. 5, 6. After the off-screen to on-screen gesture, "[s]tep 504 accesses functionality associated with the received bezel gesture input." Hinckley at [0068], [0072], FIGS. 5, 6. Hinckley explains that "off-screen to on-screen motion (or vice versa) can be utilized as a mechanism to expose a menu or to access some other type of functionality." Hinckley at [0071]. As shown in FIG. 6, "device 602 includes a bezel 603 and a visual affordance 604 that is rendered on display device 608." Hinckley at [0072], FIG. 6. The "visual affordance 604" may appear as "in the form of a semi-transparent strip" and "can be utilized to provide a hint or indication of accessible functionality, in this case a bezel menu, associated with the bezel." Hinckley at [0072], FIG. 6. "[T]he bezel menu can be accessed through a bezel gesture in which a finger of user's hand 606 touches the bezel and then moves across the bezel and onto the display device 608 in the direction of the illustrated arrow." Hinckley at [0073], FIG. 6. After this off-screen to on-screen gesture, the "bezel menu 610 to be dropped down at which time it can become fully opaque." Hinckley at [0073], FIG. 6. Hinckley further explains that "bezel menu 610 includes multiple selectable icons or slots 612, 614, 616, 618, and 620. Each of the icons or slots is associated with a different functionality such as, for example, paint functionality, pen functionality, note functionality, object creation, object editing, and the like." Hinckley at [0074], FIG. 6. Hickley teaches, however, that "any type of functionality can be associated with the icons or slots." Hinckley at [0074], FIG. 6. The "bezel menu 610 can enable a user to access and activate commands, tools, and objects." Hinckley at [0075], FIG. 6. |

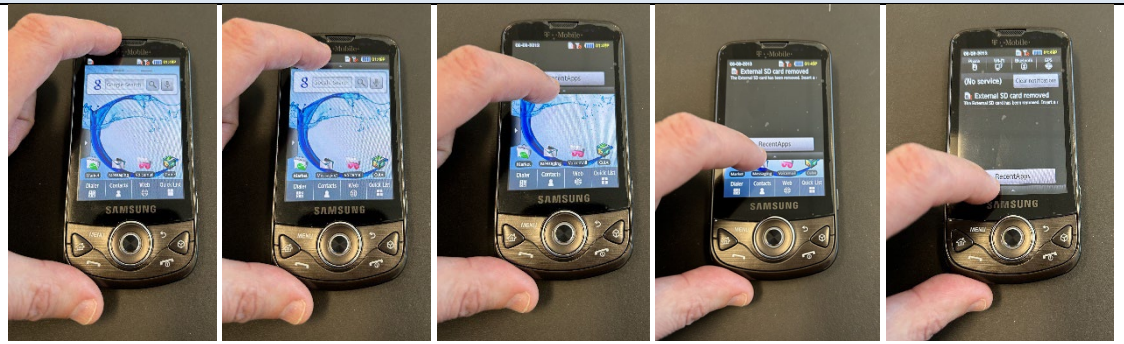
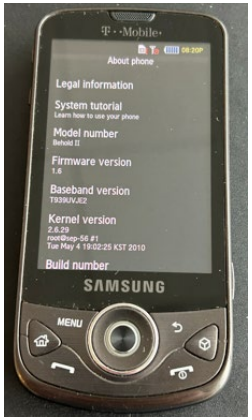
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Fig. 6<br>Hinckley at FIG. 6.<br>The HTC G1 1.6 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar.<br>  <br>HTC G1 1.6.<br>  <br>HTC G1 1.6.[3]<br>Alternatively, the HTC G1 1.6 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen below the tab window at the bottom of the screen (from |

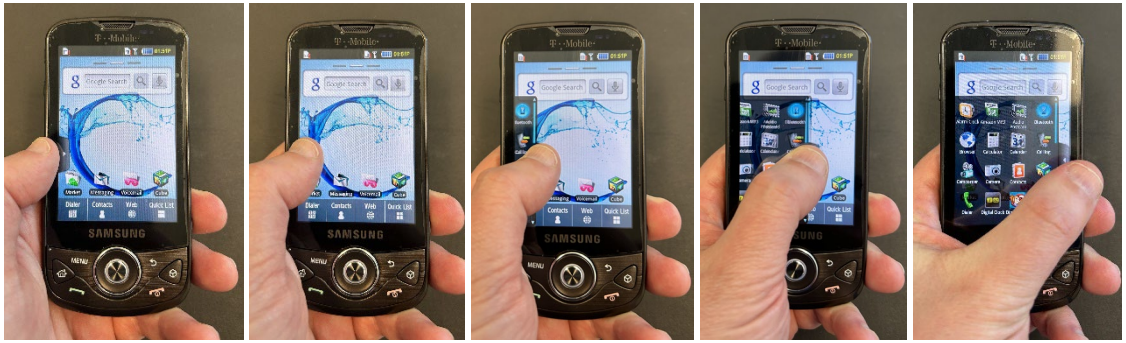
[3] Samsung reserves the right to rely on any HTC G1 device, including either or both of the HTC G1 devices shown here. On information and belief, such devices function substantially the same as disclosed in this chart.

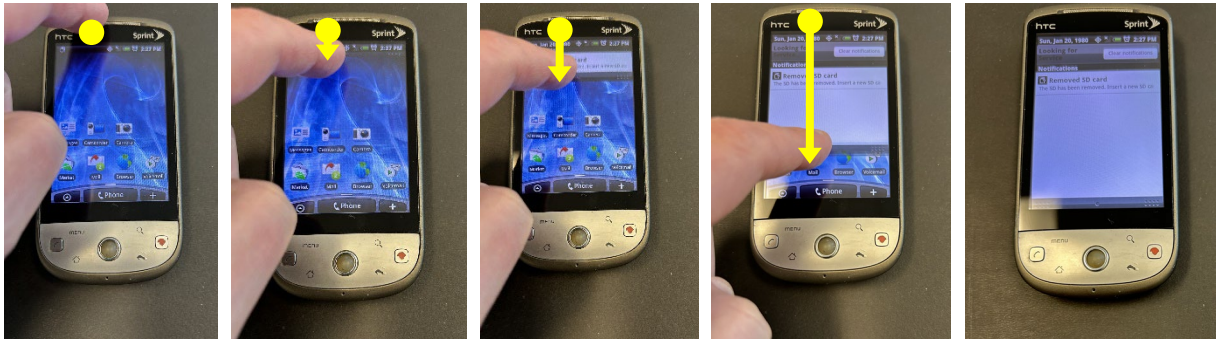
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | outside of the screen) over the tab towards the main application display the inside of the touch screen (e.g., crossing over the tab). The user's touch first interacts with the tab window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the tab window causes a processor to perform the action of displaying the applications list assigned to the tab window.<br>  <br>HTC G1 1.6.<br>On information and belief, the Samsung Galaxy GT-i7500 1.5 operates substantially the same with respect to the pull-down notifications interface as the HTC G1 1.6 and the HTC Magic 1.6. *See, e.g.*, https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface as the same, showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."); https://www.youtube.com/watch?v=rhBgLQSxfjE at 1:20-1:34 (describing as running Android 1.5 and similar to HTC G1 device, showing opening notification menu from status bar contact at 1:32). On information and belief, a user may perform a gliding action from the plastic housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar); https://www.youtube.com/watch?v=wVF8dLkgW7c at 0:40-0:56 (showing swipe down over |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | status bar to open notifications interface); https://www.youtube.com/watch?v=4Pv04Tw6wvQ at 3:30-3:35 (showing gliding gesture on status bar to show notification interface for Android 1.5 operating system). The user's touch first interacts with the status bar window on the touch screen because the bezel does not contain touch-sensitive elements. The gliding action over the status bar window causes a processor to perform the action of displaying the notifications window. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar). Furthermore, on information and belief, a user may perform a gliding action from the plastic housing bezel below the touch screen (i.e., from outside of the screen) over the tab shown at the bottom of the screen towards the main application display inside of the touch screen (e.g., over the tab window) to display an applications selection interface. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having the application selection interface tab); https://www.youtube.com/watch?v=wVF8dLkgW7c at 0:54-1:14 (showing swipe up over application selection tab at bottom of screen to open application selection interface); https://www.youtube.com/watch?v=4Pv04Tw6wvQ at 1:36-2:30 (showing gliding gesture on tab to show application selection interface for Android 1.5 operating system).<br><br>The Samsung Behold II operates substantially the same with respect to the pull-down notifications interface as the HTC G1 1.6 and the HTC Magic 1.6. *See, e.g.*, https://www.cnet.com/tech/mobile/hands-on-samsung-behold-ii-plus-release-details/ (explaining that the Samsung Behold II runs on Android 1.5); https://www.t-mobile.com/news/press/t-mobile-usa-launches-the-samsung-behold-ii-on-november-18. For the Samsung Behold II, a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar. |

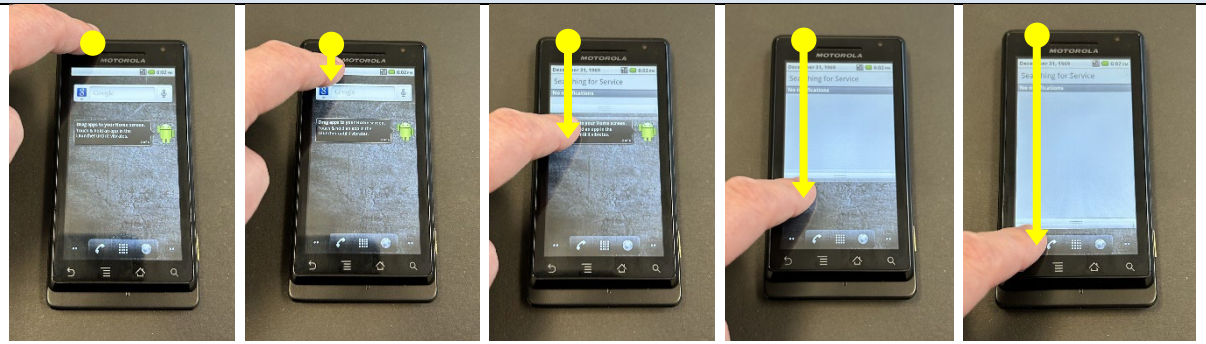
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>The Samsung Behold II device.<br>  <br>The Samsung Behold II device.[4]<br>Moreover, in the Samsung Behold II, a user may also perform a gliding action from the plastic housing surrounding the touch screen to the left of the applications drawer tab (from outside of the screen) over the applications tab towards the main application display the inside of the touch screen (e.g., crossing over the applications tab window). The user's touch first interacts with the |

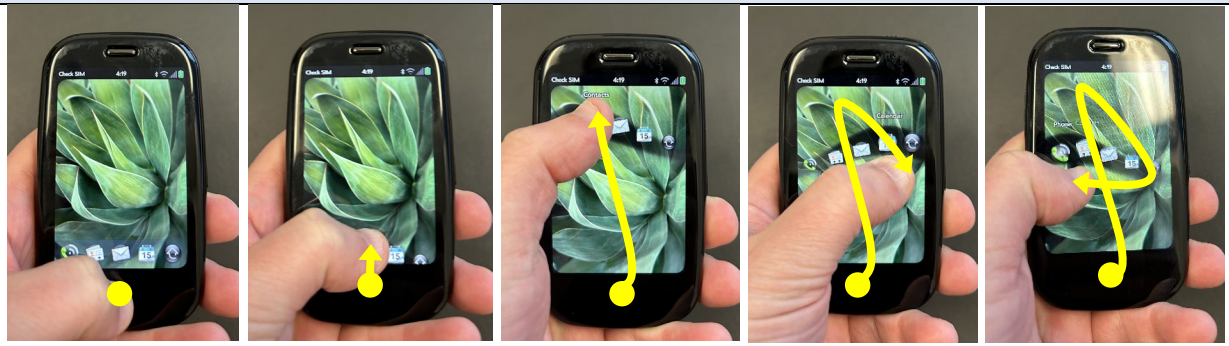
[4] Samsung reserves the right to rely on any Behold II device, including either or both of the Behold II devices shown here. On information and belief, such devices function substantially the same as disclosed in this chart.

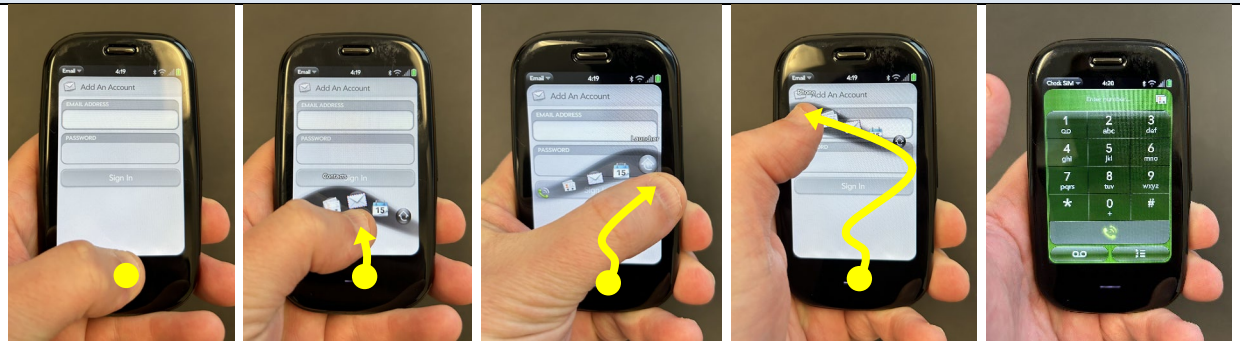
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | applications tab window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the applications tab causes a processor to perform the action of displaying the applications drawer menu from the side of the screen.<br>  <br>The Samsung Behold II device.<br>On information and belief, the HTC Magic 1.5 operates substantially the same with respect to the pull-down notifications interface as the HTC G1 1.6 and the Samsung Galaxy GT-i7500. *See, e.g.*, https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface as the same, showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."). On information and belief, a user may perform a gliding action from the plastic housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. The user's touch first interacts with the status bar window on the touch screen because the bezel does not contain touch-sensitive elements. The gliding action over the status bar window causes a processor to perform the action of displaying the notifications window. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 (In addition to being able to drag (or double tap if your fingers are a little tired) the menu bar up from the bottom of the screen, you can also drag from the top and find your notifications all grouped nicely together."); https://ianrenton.com/blog/review-htc-magic/ |

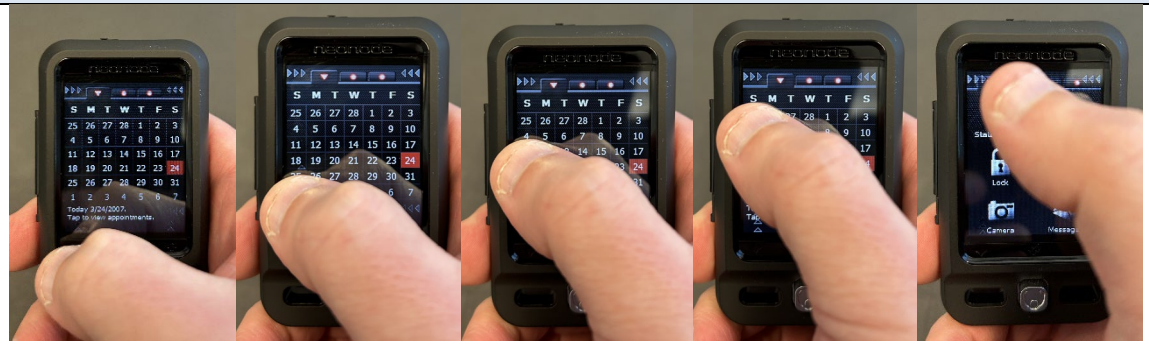
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | ("Dragging the top drawer (where app notifications, incoming messages etc. sit) is a lot more intuitive on an actual device than on the emulator, and the kinetic scrolling - you can 'throw' menus - feels just right."); https://www.youtube.com/watch?v=LghBOTZ-HuE at 5:08-5:20 (describing "drag-down notification drawer"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:35-8:55 (describing notification menu as "a drawer" that you "pull down" allowing you to "click" notifications to open the corresponding application).<br><br>Furthermore, on information and belief, a user may perform a gliding action from the plastic housing bezel below the touch screen (i.e., from outside of the screen) over the tab shown at the bottom of the screen towards the main application display inside of the touch screen (e.g., over the tab window) to display an applications selection interface. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 ("you can simply drag up the menu from the bottom and access all your recently downloaded applications and menu functions, sorted alphabetically"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:15-7:35, 8:17-8:55 (showing swipe-up action to open application selection interface).<br><br>The HTC Hero 1.5 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar.<br><br>  |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | HTC Hero 1.5.<br><br>The HTC Hero 2.1 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar.<br><br>  <br><br>HTC Hero 2.1.<br><br>The Motorola Droid A855 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status towards to the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Droid A855.<br>The Palm Pre teaches, as one example, that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen (e.g., crossing over the Quick Launch window showing five application icons and identifying the movement from off-to-on screen). The user's touch first interacts with the Quick Launch window on the touch screen because the Quick Launch window is not displayed in the gesture area. The gliding action over the Quick Launch window from off-to-on screen causes a processor to perform the action associated with the window, such as moving the Quick Launch window with the user's finger in any arbitrary direction around the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. For example, lifting on the "Phone" icon opens the Phone application. |

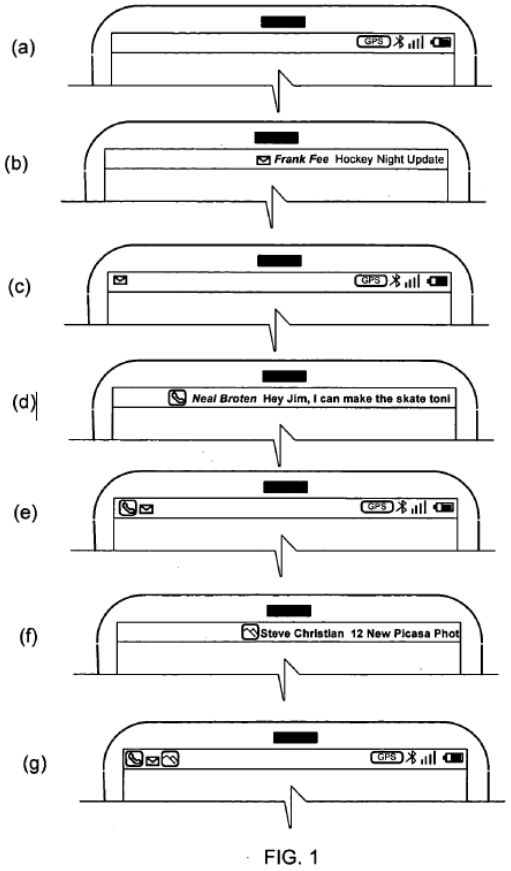
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Palm Pre.<br>The Palm Pre also teaches, as another example, that, when an application is open on the Palm Pre device (such as the mail application shown below), a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen to display the Quick Launch window (e.g., crossing from off-to-on screen to display the Quick Launch window). The user's touch first interacts with the Quick Launch window on the touch screen because the Quick Launch window is not displayed in the gesture area, but as shown below, appears with the user's off-to-on screen gesture as the finger moves onto the screen. The gliding action causes a processor to perform the action associated with the Quick Launch window, such as moving the Quick Launch window with the user's finger in any arbitrary direction around the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. As shown below, lifting on the "Phone" icon opens the Phone application. |

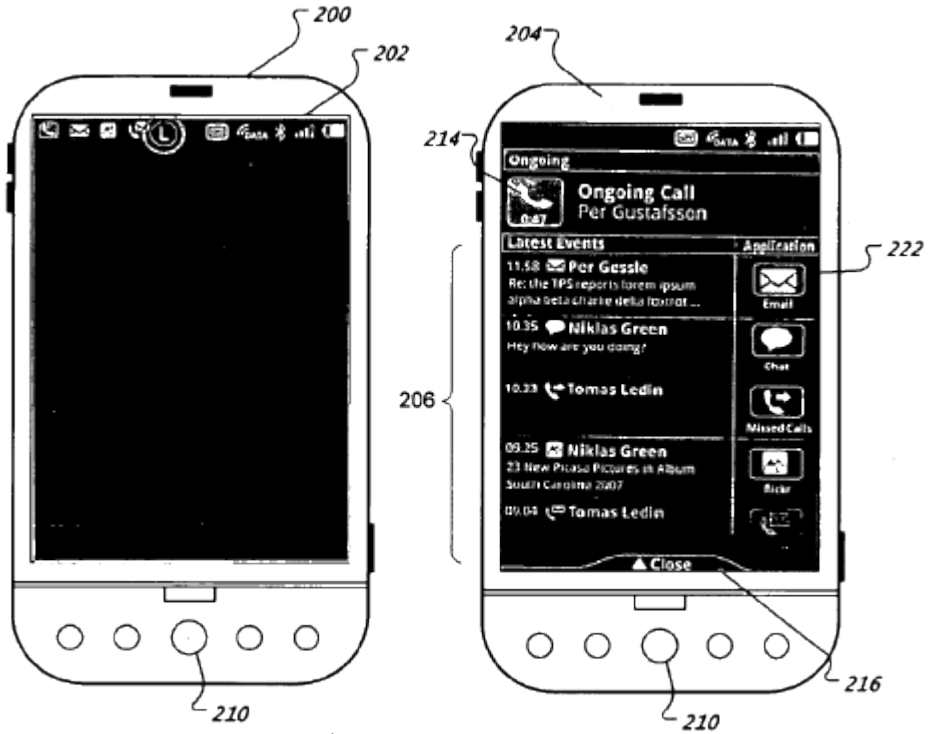
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Palm Pre.<br>The Neonode N2 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen over the indicated icons or from the sides of the screen as indicated by the various arrows (from outside of the screen), over the arrows towards the main application display toward the inside of the touch screen (e.g., crossing over the window identifying the movement from off-to-on screen). The user's touch first interacts with the window showing the arrows on the touch screen because the outer housing does not contain touch-sensitive elements. The gliding action over the arrows from off-to-on screen causes a processor to perform the action associated with one of the three icons printed below the touch screen or from the side of the touch screen.<br>  <br>Neonode N2. |

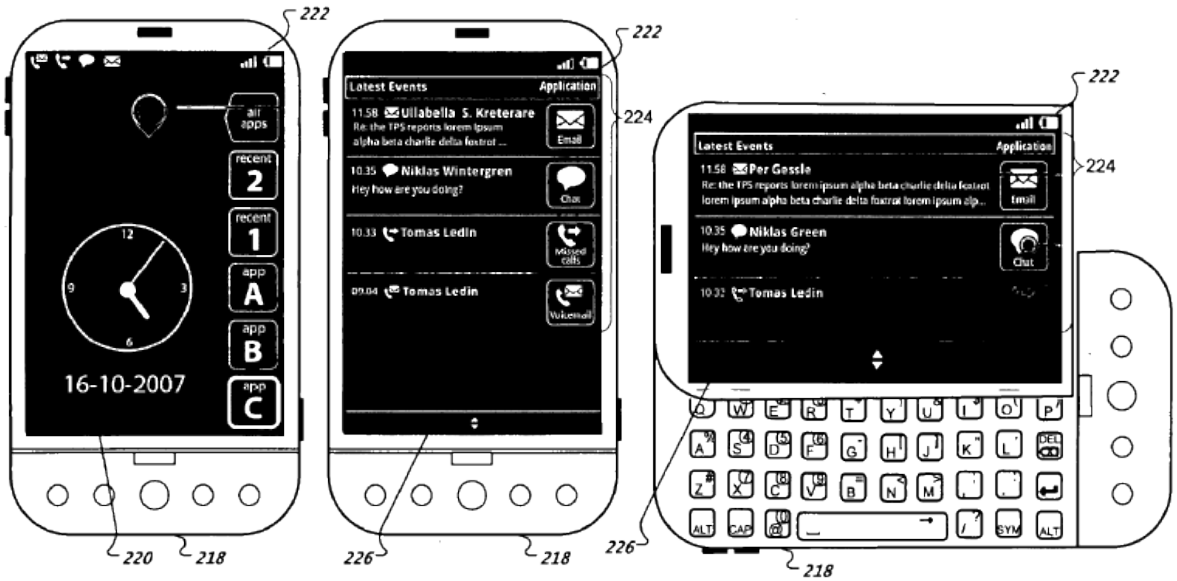
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Neonode N2.<br>A POSITA would have found it obvious to incorporate the functionality of permitting an off-to-on-screen gliding action, where the gliding action first interacts with the touch screen of Tseng's status bar window, to cause the notifications menu to be displayed as described in Tseng, as claimed. Each of Tseng, Wilairat, Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC G1 1.6, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, the Palm Pre, and/or the Neonode N2, teaches causing an action assigned to the window when the gliding action is detected that may be an off-to-on-screen gesture, such as causing Tseng's notification menu to be slid open using a gesture that starts off screen and glides towards the main display area. A POSITA would have been motivated to provide for opening (e.g., sliding open, as taught by Tseng) Tseng's notification menu using a gesture that starts off screen and glides towards the main display area because it allows for the same operation as Tseng discloses, but simplifies the user's experience of opening the notifications menu. For example, by registering the touch as the user's finger slides onto the screen (e.g., either as a regular touch on the status bar, as taught by Tseng, or as a pull-in gesture, such as taught by Wilairat) results in effectively increasing the size of the status bar. This simplifies the user's experience because the user does not have to try to specifically touch the narrow status bar and may instead start the gliding gesture off-screen to cross over the status bar to pull it down. As explained by Roth Bezel Swipe, "screens of mobile devices are necessarily small," which leads to the development of "smaller widgets" that "are harder to hit." Roth Bezel Swipe at 1523. But out-to-in swiping gestures that "start on the bezel and move[] into the display" allows for contacting "a narrow target (the red bar) |

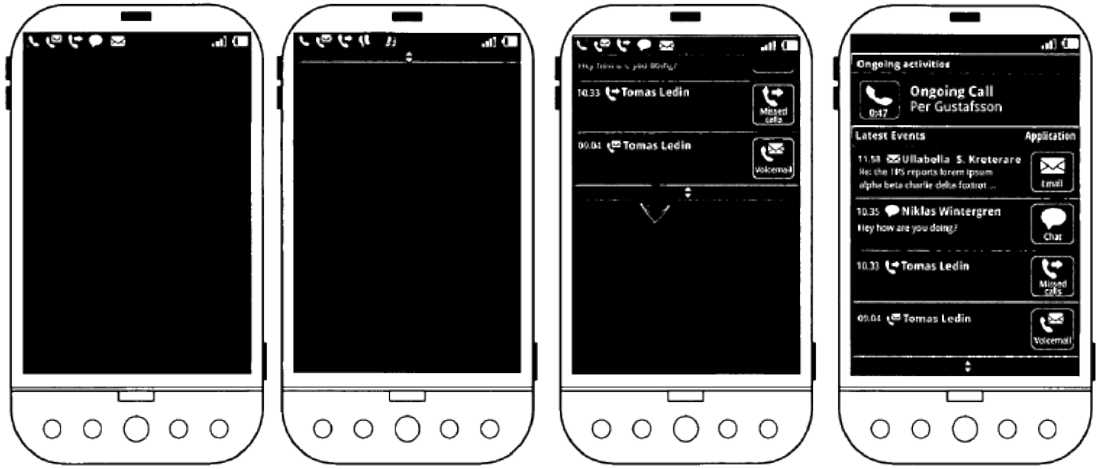
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | positioned flush against the display edge." Roth Bezel Swipe at 1524. In other words, "[s]wipes" from outside-to-inside the touch screen "are recognized by detecting touches inside a thin rectangular area [window] positioned flush against the display screen." Roth Bezel Swipe at 1524. This "enables the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524.<br><br>It was well known to a POSITA that activating a function when a user performs an out-to-in gliding gesture, such as over Tseng's status bar, "enables the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524. Activating functions where "[u]sers can invoke actions with swiping features across a section of the display [touch screen] side from the outside to the inside" also "requires minimal display real estate," whereby being beneficial to mobile devices that have small screens. Roth, [0009]. A POSITA would have known that such activation operations, like crossing activations, "can be more efficient than pointing tasks," especially on small-screen devices, such as mobile phones. Roth, [0009]. When outside-to-inside gliding activations are used, a POSITA would have known that the activation bar or window can be "made small so as to not take up valuable space on the display." Roth, [0036].<br><br>Activating a function when a user performs an out-to-in gliding gesture over a window on a touch screen, such as over Tseng's status bar, was routine and conventional to POSITAs, as shown by Tseng, Wilairat, Roth, and/or Roth Bezel Swipe. Moreover, it was successfully implemented in commercial prior art devices, such as the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC G1 1.6, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, the Palm Pre, and the Neonode N2. Incorporating a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, being processed by the processor to cause an action assigned to said window into Tseng's system, shown above, represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in |

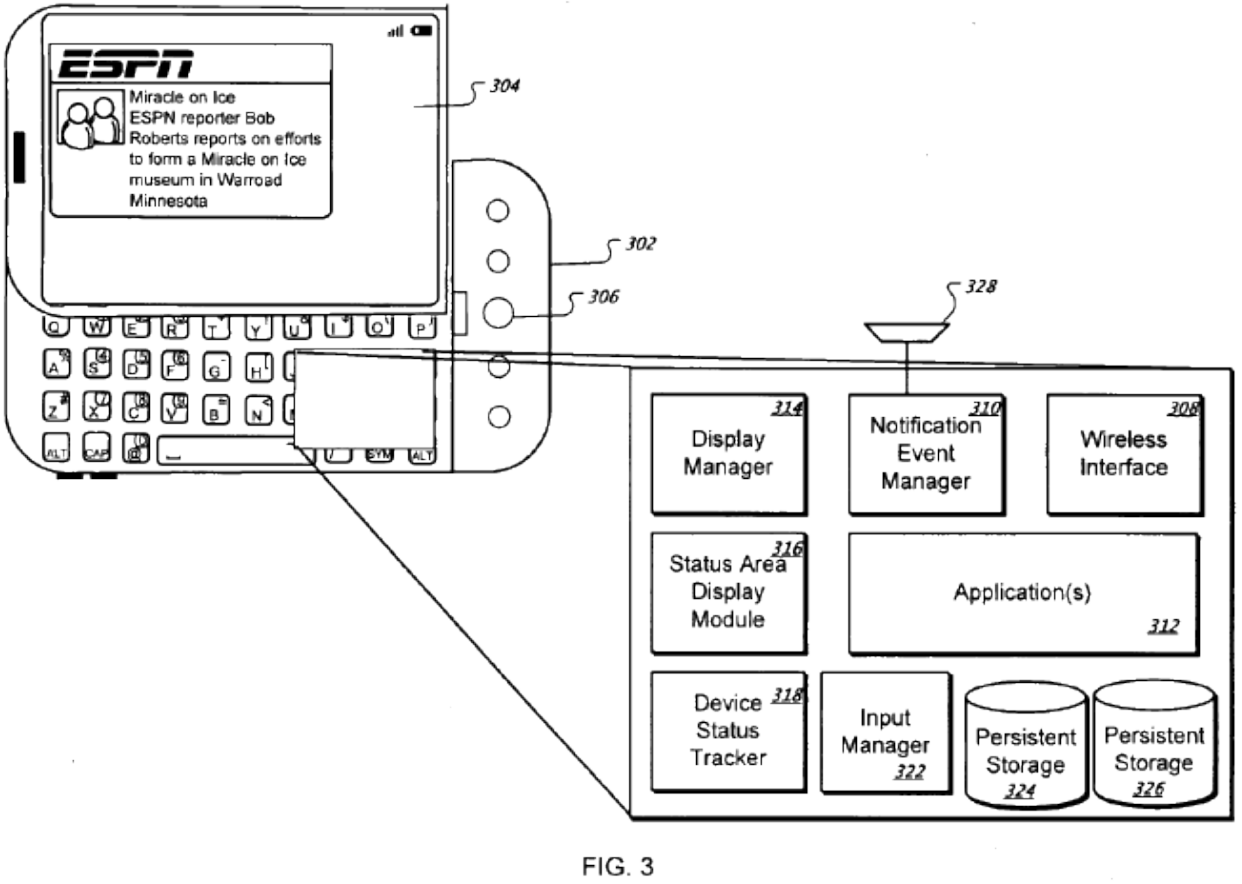
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with Tseng, represent nothing more than combining prior art elements according to known methods and techniques (registering a user's gliding action when it first crosses into the status bar of Tseng and then moves towards the inside of the touch screen) to yield predictable results (to open Tseng's notification menu, such as by sliding it open, as disclosed by Tseng). |
| **[1E]** wherein said at least one window is located on the touch screen before said gliding action begins. | Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said at least one window is located on the touch screen before said gliding action begins."<br><br>For example, Tseng discloses that the "status bar" or "status area" is located on the touch screen before the gliding action begins at least because the status bar displays notifications of events (e.g., new emails or messages) that are then shown in the message area 224 in response to the user's gliding action. Tseng at Abstract, [0010], [0014], FIGS. 1, 2A-2C, 3, 4A-4B, 5. For example, the status bar is shown in FIG. 2c (first image) before the touch-and-glide gesture is applied on the status bar in FIG. 2C (second image) to pull down the message area shown in FIG. 2C (third and fourth images). Tseng at [0067]-[0061], FIG. 2C. Tseng describes "aggregating, in the status bar, a plurality of icons that are each visually representative of one or more recently received messaging events." Tseng at [0010], FIGS. 1, 2A, 2C, 5. Tseng explains that "the notifications may occur by having a notification message—which may be an abbreviated form of the actual communication, e.g., a name and subject line for an incoming e-mail be displayed in a peripheral area at the edge of a display, such as a status area, or status bar, for the mobile device." Tseng at [0028], FIGS. 1, 2A, 2C, 5. Tseng explains that, more detail about the notifications shown in the status bar can be shown by "the user pressing on the status bar and then dragging it downward across the top of the display," which describes the status bar already displayed so that the dragging or gliding action can occur. Tseng at [0074], FIGS. 2A, 2C.<br><br>*See, e.g.*, claim [1B], [1D]. |

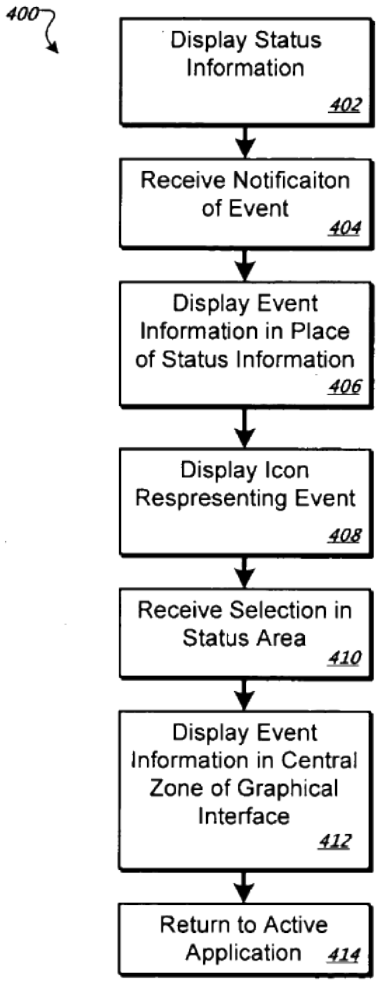
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | Exemplary citations include:<br>  <br><br>FIG. 1<br>Tseng at FIG. 1. |

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| |  <br>FIG. 2A<br>Tseng at FIG. 2A. |

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| |  <br>FIG. 2B<br>Tseng at FIG. 2B. |

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| |  <br>FIG. 2C<br>Tseng at FIG. 2C. |

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| |  <br>FIG. 3<br>Tseng at FIG. 3. |

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| |  <br>FIG. 4A<br>Tseng at FIG. 4A. |

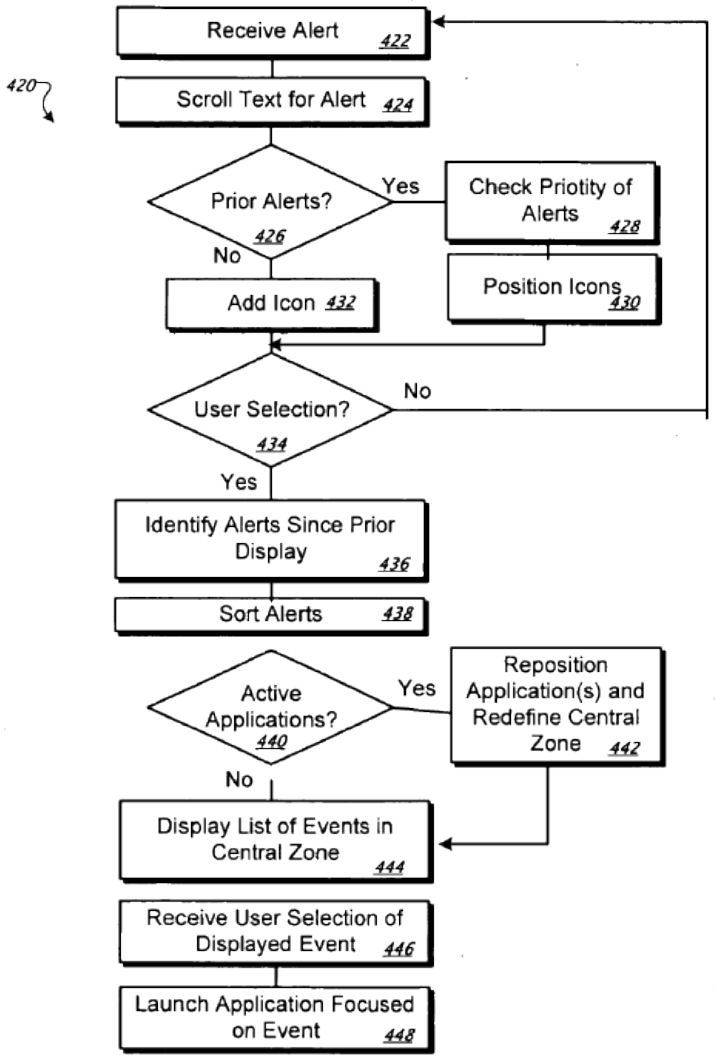
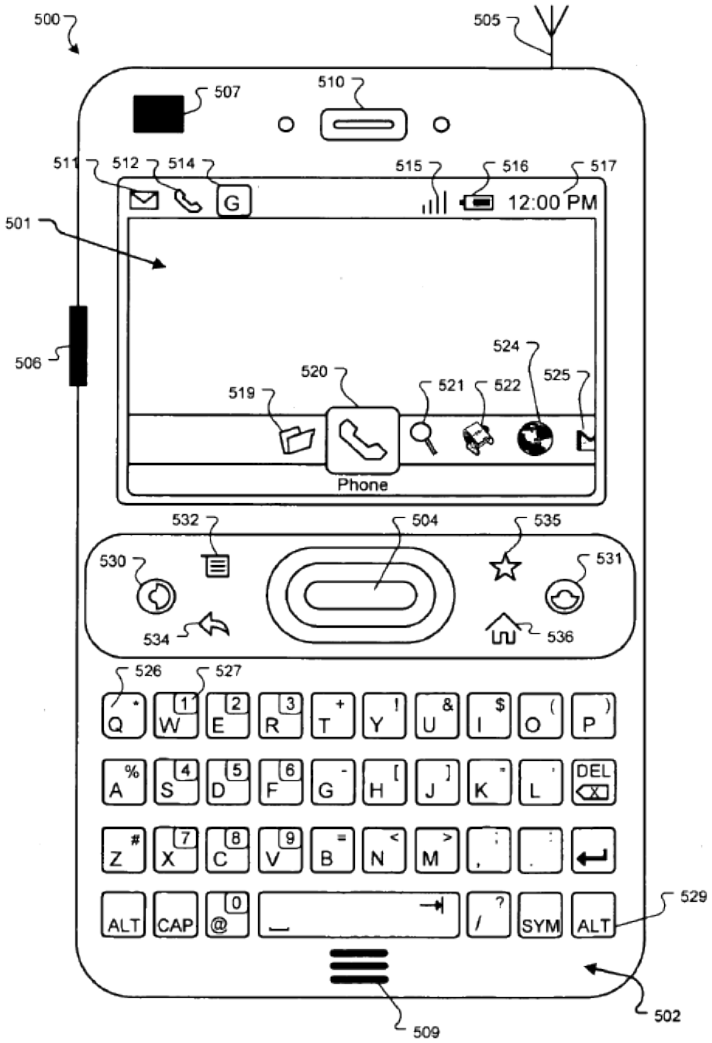
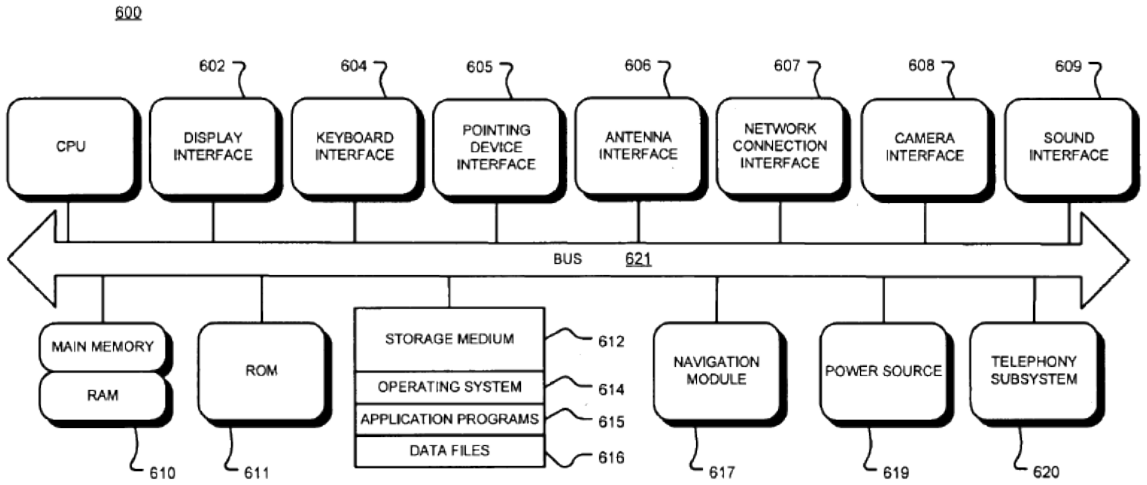
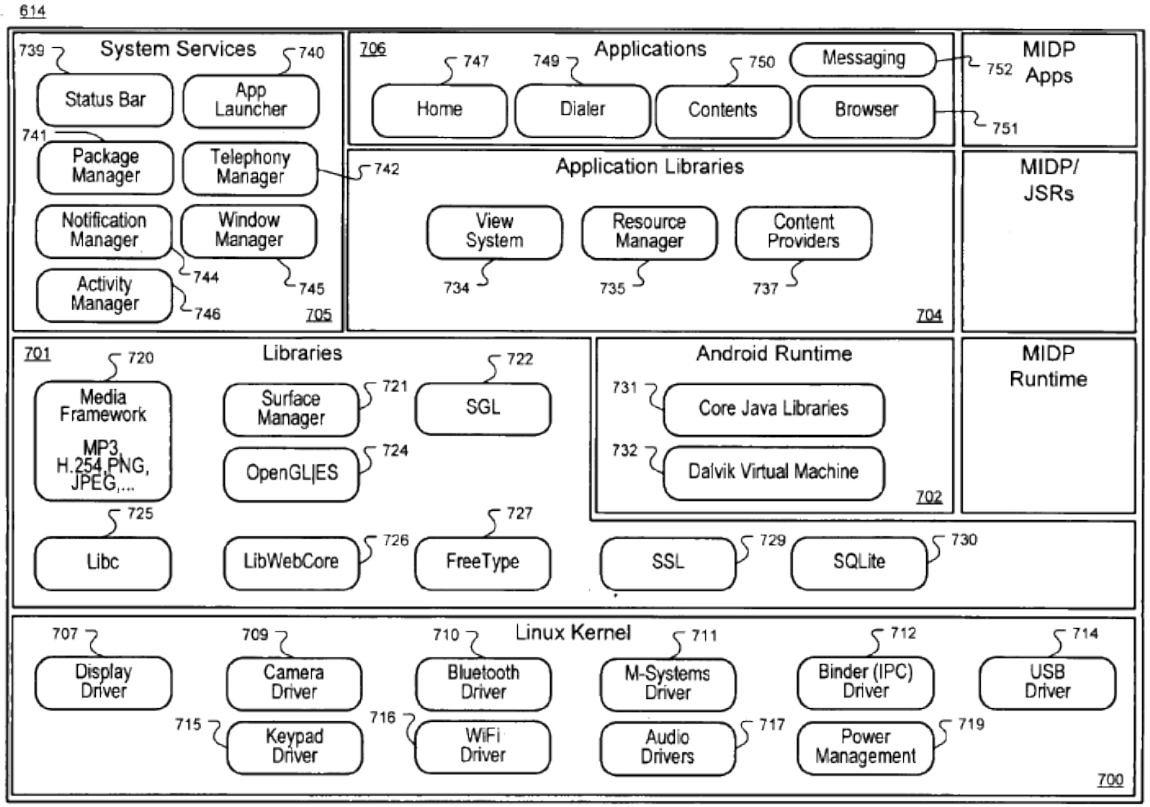



FIG. 4B

Tseng at FIG. 4B.

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| |  <br>FIG. 5<br>Tseng at FIG. 5. |

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| |  <br>FIG. 6<br>Tseng at FIG. 6. |

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| |  <br>FIG. 7<br>Tseng at FIG. 7. |

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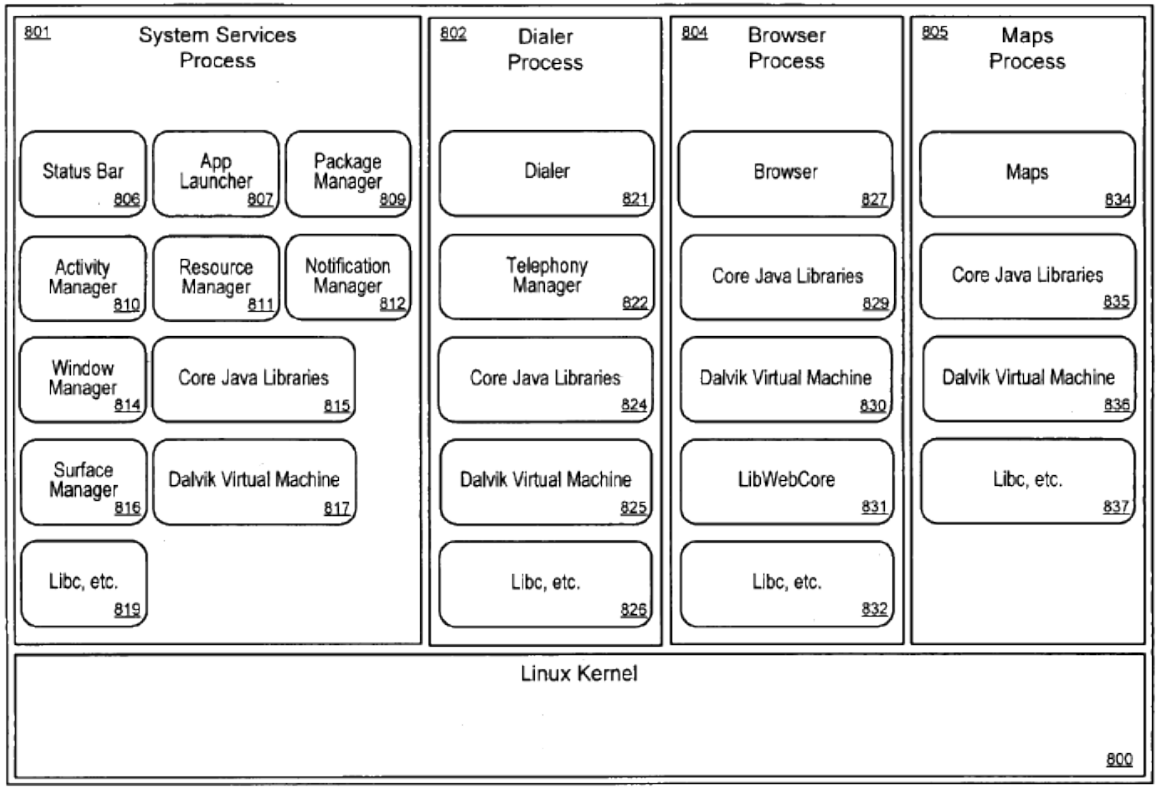



FIG. 8

Tseng at FIG. 8.

"The main area or zone of the display is generally the central, largest area of a display where active programs are displayed, while supplemental elements are typically displayed around the periphery of the main area or over the main area in pop-up windows or similar graphical elements." Tseng at [0005].

"Where the alert is not a message, the scrolling notification may include other descriptive or suggestive text or graphics, such as the title of a song, the status of a device parameter that is being

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | reported, the identity of an item (e.g., a physical good or a computer application) that currently became available at an on-line marketplace, and other such information." Tseng at [0006].<br><br>"In some aspects, the method further comprises aggregating, in the status bar, a plurality of icons that are each visually representative of one or more recently received messaging events. The text can include textual content from the alert event. Also, the alert event can correspond to a communication from a remote server reporting a message from the group of computer applications consisting of electronic mail, chat, text messaging, voice mail, and a posting of data to a shared networked data source. In certain aspects, the user selection comprises a long press on a display screen or a pointing device, and the display in the central zone comprises a reduced-size version of a display of an active application that was in the central area before the user selection." Tseng at [0010].<br><br>"In yet other aspects, the display in the central zone comprises a list of messages from a plurality of messaging applications, and the method can also comprise displaying a user-manipulable slider mechanism in response to the user selection. In addition, the method may include receiving a dragging manipulation of the slider mechanism across the graphical interface, moving the slider mechanism in response to the dragging mechanism, and displaying the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at [0011].<br><br>"In another implementation, a machine-readable data storage medium is disclosed. The medium has instructions stored on it that, when executed, cause one or more processors to display, in a status area near a perimeter of a graphical interface, a notification of a recent alert event for a mobile device, receive a user selection in the status area, and in response to the receipt of the user selection, display, in a central zone of the graphical interface, detail regarding a plurality of recent messaging events for the mobile device. The notification can comprise text describing the recent alert event and is displayed in place of battery and signal elements in a status bar of the graphical interface. Also, the instructions can further cause the one or more processors to aggregate, in the status bar, a plurality of icons that are each visually representative of one or more recently received messaging events." Tseng at [0012].<br><br>"In certain aspects, the display in the central zone comprises a list of messages from a plurality of messaging applications. Also, the instructions can further comprise instructions to cause the one or |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | more processors to receive a dragging manipulation on a touch screen display of the graphical interface, from the status area and across the display, and move the slider mechanism in response to the dragging mechanism, and display the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at [0013].<br><br>"The system comprises a wireless interface to receive data for a user of a mobile device, a notification manager to generate a notification message for a device event, including device events received through the wireless interface, where the notification message includes information that describes the device event, and a display manager to generate elements for a graphical display, to receive the notification message and to present the notification message in a first zone near a perimeter of the graphical display. The system can further comprise an input device to receive a user selection in the first zone, wherein in response to the user selection, the display manager displays, in a central zone of the graphical interface, detail information regarding a plurality of recent messaging events for the mobile device." Tseng at [0014].<br><br>"FIG. 1 shows portions of a mobile device demonstrating actions in a status bar." Tseng at [0017].<br><br>"In general, the notifications may occur by having a notification message—which may be an abbreviated form of the actual communication, e.g., a name and subject line for an incoming e-mail be displayed in a peripheral area at the edge of a display, such as a status area, or status bar, for the mobile device." Tseng at [0028].<br><br>"The status area may then also become selectable by the user, so that selection of the status area causes the display of accrued messages to occur. Such selection of the status area may occur by long press on the status area, or by pressing on the status area and dragging downward to pull out the messages as if they are mounted on or under a window shade. Where the device has a fairly flush front surface, the action may take the form of a finger swipe across the face of the display, where the edge of the element showing an extended view of the messaging events 'sticks' to the user's finger as the finger moves past." Tseng at [0029].<br><br>"Referring now to FIG. 1, there is shown portions of a mobile device display demonstrating actions in a status bar. In general, seven instances (labeled a through g) of the same display portion are shown in chronological order, to demonstrate an example of functionality that may be provided by |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | a notification component on the device. The particular display portion shown here is the top of a graphical display, where a status bar is located." Tseng at [0031].<br><br>"The main zone of the left display is shown blank in this example simply to indicate that the current status of the zone may take a variety of forms. For example, a wallpaper background with various icons may be displayed with desk top icons—i.e., a mode for the device when the user is not focused on any particular application. Alternatively, one or more applications may be shown in the main zone. Such as an application tracking an ongoing telephone call, and displaying an image of the person with whom the call is occurring, a number for that person, and an elapsed time for the call, among other things." Tseng at [0040].<br><br>"The right screen in FIG. 2A shows the display 200 after the user has long-pressed or dragged downward on the status bar 202. In this example, the main zone has been filed [sic] with the various messages that were left since the last time the user had reviewed his or her messages. The messages are shown in a message area 206 in the main zone of the display 204, while the status bar 202 is shown with the message notification icons removed (because the user has now been shown the messages and does not need a notification about them). In this example, the first message is an e-mail from Per Gesele, the second is a GOOGLE TALK message from Niklas Green, the third is a missed incoming call from Tomas Ledin, the fourth is a posting of PICASA photos by Niklas Green, and the fifth is a missed call from Tomas Ledin. As shown, the messages are organized here from top to bottom in reverse chronological order." Tseng at [0041].<br><br>"FIG. 2B shows another example of displays that may be generated to alert a user of a mobile device of messaging or other events. The displays are shown in three different images of the same mobile device, at different points in time. In the first instance, at the left, the device 218 is shown displaying a clock application on display 220, such as in an operating system desktop display mode. In addition, a number of application icons are arranged down a side of the main zone of the display 220. Those icons, in this example, represent a top icon that, when selected, causes icons for all applications on the device to be shown on the display 220 (e.g., by pushing the clock application out of the way or by appearing over the top of the clock application, or pushing the clock application downward into a smaller zone such as by changing the clock from an analog clock to a smaller digital clock). The two icons below that are icons for the last two applications used or launched on the device 218. And the remaining three icons are for applications that have been |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | expressly selected to be on the main display 220 by the user, are applications that are most popular on the device (e.g., they have been launched the most times in the past X days), or otherwise qualify to be displayed in such a location." Tseng at [0051].<br><br>"A status bar 222 is also shown across the top of the display 220. The status bar 222 in this example is like those status areas discussed above, and includes four different messaging icons, showing that, since the user has last checked or cleared messages, the device has received one or more voice mail messages, one or more missed calls, one or more text messages or chat messages, and one or more e-mail messages." Tseng at [0052].<br><br>"The first display in FIG. 2B also shows a large circle surrounded by a ring having a downward pointing arrow. This element indicates a press by a user on the device 218 over the status bar 222, with a subsequent dragging downward of the status bar 222. (The element does not appear on the display.) Such action may be programmed to result in the expanding of a message area 224 into the main zone of the display 220. As with the message area 206 discussed above, the message area 224 may show the various messages that the user's device has received in the user's absence. And again, details about a message are shown to the left, while an icon for the particular messaging application is shown on the right. Also, selection of a particular message may result in the full message being opened for the user in its corresponding application, while selection of an application icon may cause the application to be invoked, with its associated messages or other features arranged in a standard manner (e.g., reverse chronological order)." Tseng at [0053].<br><br>"Also, the message area 224 has a semi-transparent background so that the active clock application can be viewed behind it. … For example, as the user pulls the status bar 222 downward, the pulling by the user may push down on the top edge of the application area, causing it to shrink until it reaches a minimum height like that shown in FIG. 2A, but with the application area located at the bottom of the display." Tseng at [0054].<br><br>"FIG. 2C shows four displays on a device 230 exhibiting similar functionality to that just described. The leftmost display shows the collection of five different notification icons in a status bar of the display. The main zone of the display is shown blank to indicate that a variety of elements may be shown there at this point, such as device-resident applications, gadgets, icons for launching applications, and other such elements." Tseng at [0057]. |

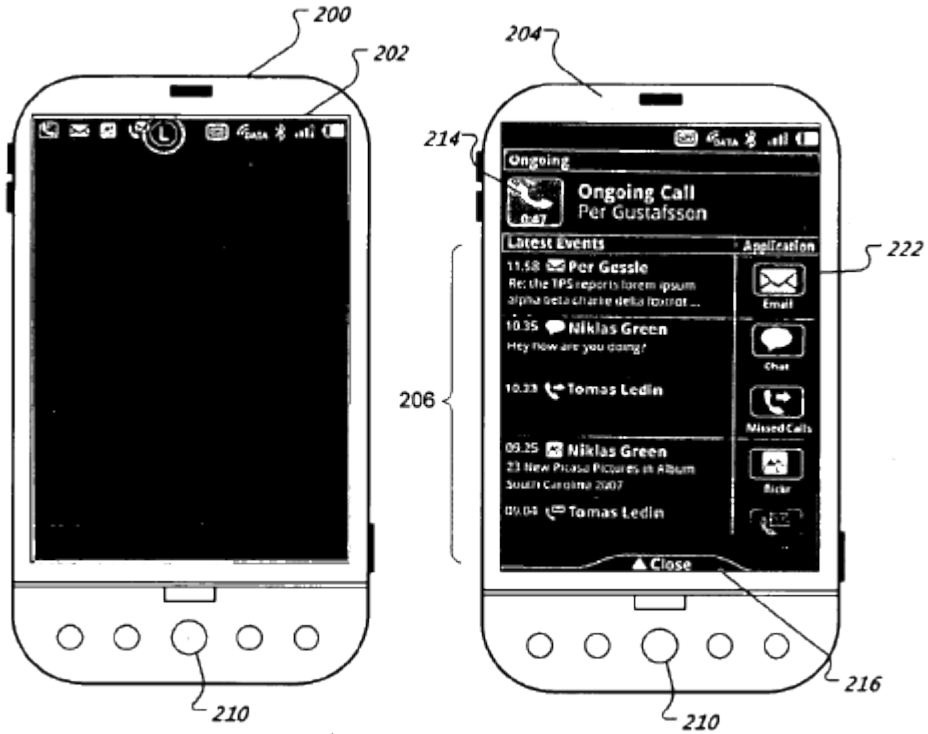
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "The second display shows, by a circle having a ring around it in the status bar, a selection by a user, such as by moving a pointer to the status bar and pressing a selection mechanism such as a trackball, or by directly pressing on the display with a fingertip on top of the status bar. Upon the user selecting the status bar, the bar may expand slightly, and a 'slide down' indicator may be displayed, in the form of a notification bar with up and down arrows. The indicator may visually signal the user that they can pull the indicator down to show messages associated with the notification icons. Alternatively, a tab like that" Tseng at [0058].<br><br>"The third display shows the user dragging the notification bar downward across the main part of the display, like a roll shade. At the point shown, more messages remain above the top of the display area, so that the top-displayed message is faded to black at its upper edge to indicate to the user that more messages are left to review. The initially shown message at the bottom of the pulled down section may be a message computed to be at the bottom of the message area once the bar is pulled all the way down to the bottom of the display. In this manner, the messages shown may be "attached" to the notification bar and may move down with it. Alternatively, the messages may be unattached to the bar, so that sliding the bar down appears to open a window into the area where the messages sit. In such an implementation, the top message would appear first at the top of the display, and more messages would gradually appear as the user pulls the bar downward—opening the metaphorical sliding window or cover on them (but with the bottom edge of the messages faded to black all the way down). In this manner, for example, if a gadget were running near the bottom of the display, the user could pull the bar down only so far, so as to not cover the gadget." Tseng at [0059].<br><br>"Certain momentum effects may be provided for the interaction with the notification bar. For example, if the user releases the notification bar in the upper portion of the display, the messages may spring back upward into the status bar and disappear, much like a roll shade that has not yet caught in its first position would spring back. Alternatively, if a user drags the bar quickly and releases it, the bar may continue moving until its momentum runs out or until it hits the bottom of the display. Also, in some implementations, if the user pulls the bar below a determined level on the display, the bar may automatically keep moving until it reaches the bottom of the display, or until it reaches a graphical element that it is not allowed to pass over." Tseng at [0060]. |

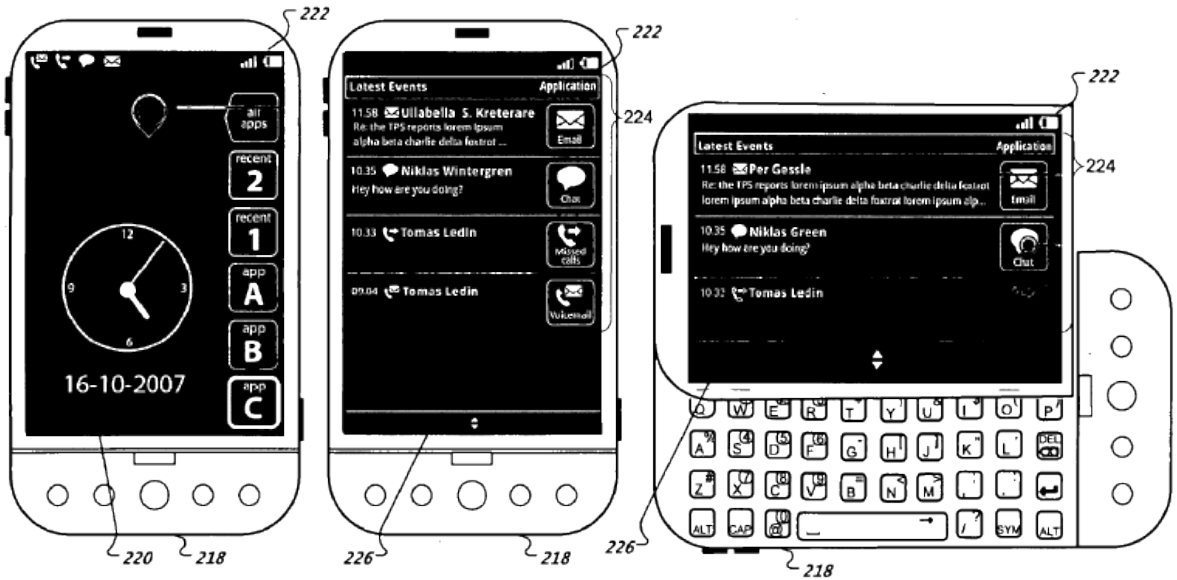
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "A number of components are shown schematically inside the device 302 to indicate components in the device associated with messaging notification functionality for the device 302. One or more of the components may be implemented as part of a programmable microprocessor on the device 302, though the particular components are shown separately in this example for clarity of explanation." Tseng at [0065].<br><br>"A status area display module 316 may be responsible for generating the information to be displayed in the status area of the display on device 302, such as in a status bar along a top periphery of the display. For example, the status area display module 316 may gather information needed to generate graphical display elements representing a battery level of signal strength level for the device 302, in addition to icons that represent various feature that are activated on the device 302. Such information may be obtained, for example, from a device status tracker 318." Tseng at [0067].<br><br>"FIGS. 4A and 4B are flow charts of example processes for providing mobile device notifications. In general, FIG. 4A shows a process 400 by which notification events are received at a device and information indicative of the events is displayed in a status bar area of the device." Tseng at [0070].<br><br>"In common implementations, status information is displayed in a status bar along a periphery of a display screen on a mobile device, such as along the top of a display screen." Tseng at [0071].<br><br>"The device receives a user's selection of the status bar at box 410. Such a selection may include a selection like those described above, including by a user pressing on the status bar for a long press period, and/or the user pressing on the status bar and then dragging it downward across the top of the display." Tseng at [0074].<br><br>"The user may then interact as necessary with the various messages and/or applications. When the user is done handling the recently-received messages, the user may indicate an intent to remove the recent-received message elements from the display, such as by handling each of the messages or by selecting a graphical element to move the recent-received message elements up and off the display again so that the previously-operating application or applications may take their place again. The device and the user of the device may then continue on with their actions that did not depend on the recently-received messages. An [sic] selectable control. Such as an icon, may also be provided so that a user may 'clear' their alert events or messages. Such a control may be placed in the form of a |

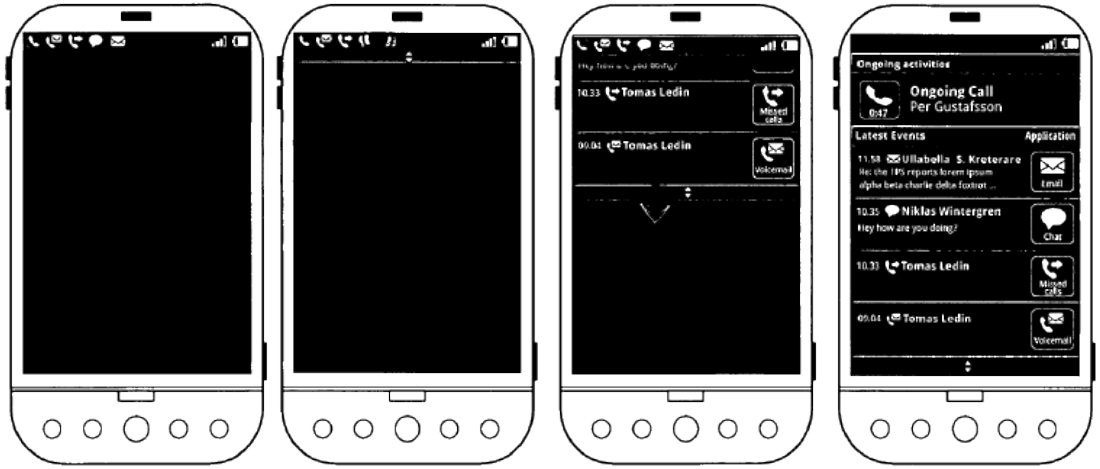
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | bottom in the central display when a user drags down on a status bar, so that the user can re-set their notifications, and the icons in the status bar will be removed to indicate that there are no longer any messages to which the user needs to be directed." Tseng at [0076].<br><br>"At box 434, the process 420 waits for a user selection, such as a user selection in the status bar area (though in certain implementations, the selection may occur in other manners). If there is no user selection before the next alerting event occurs, the process 420 then repeats the steps just described when a new message next arrives." Tseng at [0080].<br><br>"Before displaying the alerts or messages, the process 420 determines whether any applications are active on the device that cannot simply be hidden under the messages on the display. Applications that can be hidden include various gadgets such as clocks and the like, while applications that cannot include the applications shown in FIG. 2D above. If there are active applications that cannot be hidden, those applications are repositioned and the central zone of the device, where the messages will appear, is redefined (box 442). For example, the running application may be provided in a smaller area around the edge of the central zone, while the messages may then be allowed to fill the remainder of the central zone." Tseng at [0082].<br><br>"1. A computer-implemented user notification method, comprising:<br><br>displaying, in a status area near a perimeter of a graphical interface for a mobile device, a notification of a recent alert event for the mobile device, wherein the alert event corresponds to a change in status of an application operating on the mobile device or of an account associated with the mobile device;<br><br>receiving a selection in the status area by a user of the mobile device; and<br><br>in response to the receipt of the selection, displaying, in a central zone of the graphical interface, detail regarding a plurality of alert events for the mobile device, wherein at least some of the plurality of alert events correspond to messages received by the mobile device and the detail includes text from the messages." Tseng at claim 1.<br><br>"The method of claim 1, wherein the display in the central zone comprises a reduced-size version of a display of an active application that was in the central zone before the user selection." Tseng at claim 9. |

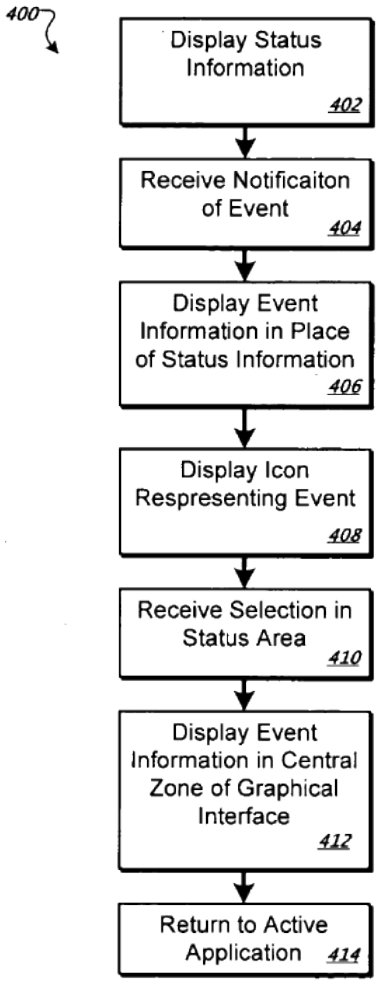
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "The method of claim 11, further comprising receiving a dragging manipulation of the slider mechanism across the graphical interface, moving the slider mechanism in response to the dragging mechanism, and displaying the detail regarding the plurality of recent alert events behind the slider mechanism as it is slid across the display." Tseng at claim 12.<br><br>"A machine-readable data storage medium having instructions stored thereon that, when executed, cause one or more processors to:<br><br>display, in a status area near a perimeter of a graphical interface for a mobile device, a notification of a recent alert event for the mobile device, wherein the alert event corresponds to a change in status of an application operating on the mobile device or of an account associated with the mobile device;<br><br>receive a user selection in the status area; and<br><br>in response to the receipt of the user selection, display, in a central zone of the graphical interface, detail regarding a plurality of alert events for the mobile device, wherein at least some of the plurality of alert events correspond to messages received by the mobile device and the detail includes text from the messages." Tseng at claim 13.<br><br>"The article of claim 13, wherein the instructions further comprise instructions to cause the one or more processors to receive a dragging manipulation on a touch screen display of the graphical interface, from the status area and across the display, and move the slider mechanism in response to the dragging mechanism, and display the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at claim 17.<br><br>"21. A computer-implemented notification system, comprising:<br><br>a wireless interface to receive data that includes messages for a user of a mobile device;<br><br>a notification manager, operable on a computer processor, to generate a notification message for a received message that includes information that describes the message; and means for generating a display of information corresponding to the notification message on a graphical display." Tseng at claim 21. |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| **[2]** The system of claim 1, wherein the system relates said gliding action to a function which is not related to a mouse function. | Claim 2 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 2 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "the system relates said gliding action to a function which is not related to a mouse function."<br><br>For example, Tseng relates the gliding function to the function of opening the message area 206/224, as explained in claim 1, which is not related to a mouse function. *Supra* claim 1.<br><br>Exemplary citations include: |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 2A<br>Tseng at FIG. 2A. |

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| |  <br>FIG. 2B<br>Tseng at FIG. 2B. |

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| |  <br>FIG. 2C<br>Tseng at FIG. 2C. |

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| |  <br>FIG. 4A<br>Tseng at FIG. 4A. |

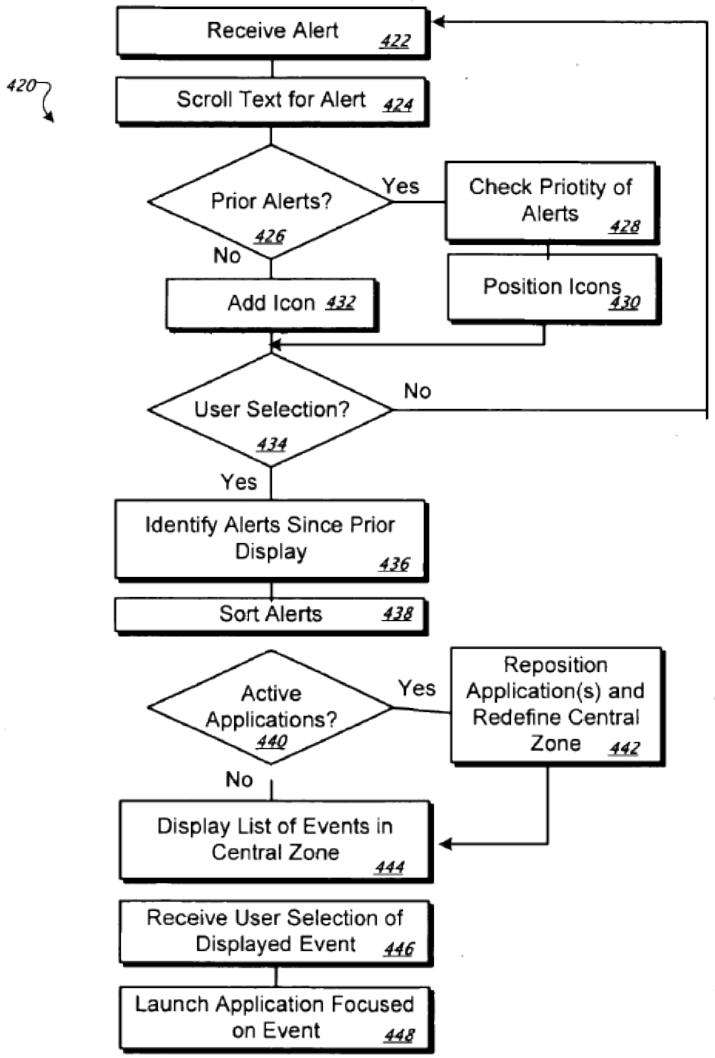
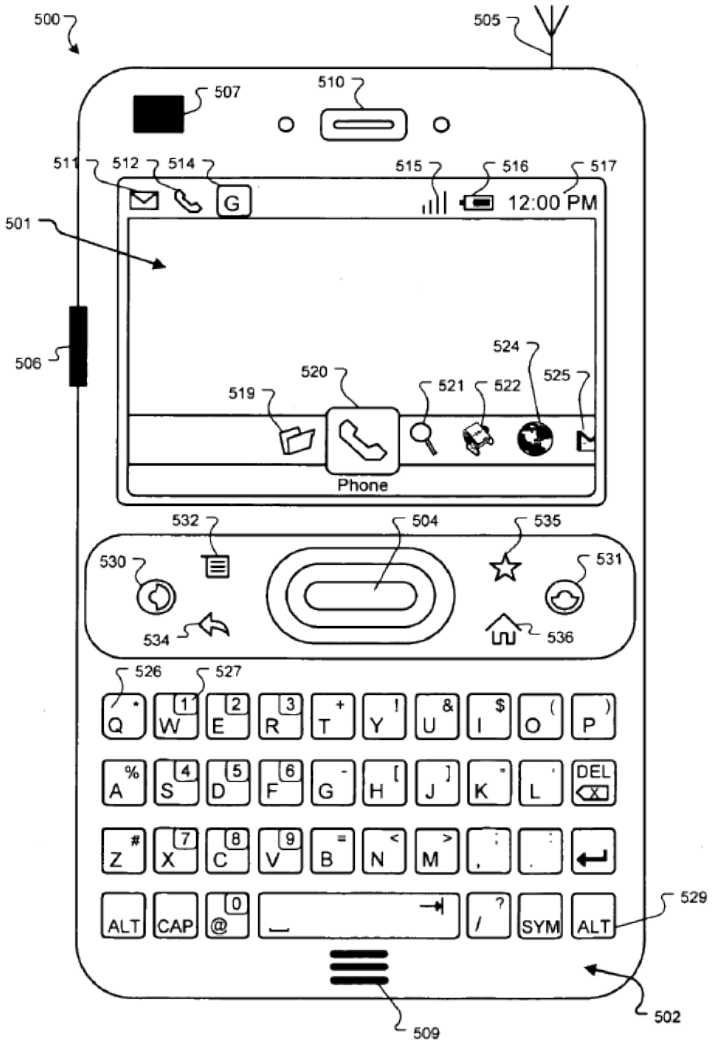



FIG. 4B

Tseng at FIG. 4B.

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 5<br>Tseng at FIG. 5. |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "A computer-implemented user notification method includes displaying, in a status area near a perimeter of a graphical interface, a notification of a recent alert event for a mobile device, receiving a user selection in the status area, and in response to the receipt of the user selection, displaying, in a central zone of the graphical interface, detail regarding a plurality of recent messaging events for the mobile device." Tseng at Abstract.<br><br>"In yet other aspects, the display in the central zone comprises a list of messages from a plurality of messaging applications, and the method can also comprise displaying a user-manipulable slider mechanism in response to the user selection. In addition, the method may include receiving a dragging manipulation of the slider mechanism across the graphical interface, moving the slider mechanism in response to the dragging mechanism, and displaying the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at [0011].<br><br>"In another implementation, a machine-readable data storage medium is disclosed. The medium has instructions stored on it that, when executed, cause one or more processors to display, in a status area near a perimeter of a graphical interface, a notification of a recent alert event for a mobile device, receive a user selection in the status area, and in response to the receipt of the user selection, display, in a central zone of the graphical interface, detail regarding a plurality of recent messaging events for the mobile device. The notification can comprise text describing the recent alert event and is displayed in place of battery and signal elements in a status bar of the graphical interface. Also, the instructions can further cause the one or more processors to aggregate, in the status bar, a plurality of icons that are each visually representative of one or more recently received messaging events." Tseng at [0012].<br><br>"In certain aspects, the display in the central zone comprises a list of messages from a plurality of messaging applications. Also, the instructions can further comprise instructions to cause the one or more processors to receive a dragging manipulation on a touch screen display of the graphical interface, from the status area and across the display, and move the slider mechanism in response to the dragging mechanism, and display the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at [0013]. |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "The system comprises a wireless interface to receive data for a user of a mobile device, a notification manager to generate a notification message for a device event, including device events received through the wireless interface, where the notification message includes information that describes the device event, and a display manager to generate elements for a graphical display, to receive the notification message and to present the notification message in a first zone near a perimeter of the graphical display. The system can further comprise an input device to receive a user selection in the first zone, wherein in response to the user selection, the display manager displays, in a central zone of the graphical interface, detail information regarding a plurality of recent messaging events for the mobile device." Tseng at [0014].<br><br>"The status area may then also become selectable by the user, so that selection of the status area causes the display of accrued messages to occur. Such selection of the status area may occur by long press on the status area, or by pressing on the status area and dragging downward to pull out the messages as if they are mounted on or under a window shade. Where the device has a fairly flush front surface, the action may take the form of a finger swipe across the face of the display, where the edge of the element showing an extended view of the messaging events 'sticks' to the user's finger as the finger moves past." Tseng at [0029].<br><br>"The right screen in FIG. 2A shows the display 200 after the user has long-pressed or dragged downward on the status bar 202. In this example, the main zone has been filed [sic] with the various messages that were left since the last time the user had reviewed his or her messages. The messages are shown in a message area 206 in the main zone of the display 204, while the status bar 202 is shown with the message notification icons removed (because the user has now been shown the messages and does not need a notification about them). In this example, the first message is an e-mail from Per Gesele, the second is a GOOGLE TALK message from Niklas Green, the third is a missed incoming call from Tomas Ledin, the fourth is a posting of PICASA photos by Niklas Green, and the fifth is a missed call from Tomas Ledin. As shown, the messages are organized here from top to bottom in reverse chronological order." Tseng at [0041].<br><br>"The first display in FIG. 2B also shows a large circle surrounded by a ring having a downward pointing arrow. This element indicates a press by a user on the device 218 over the status bar 222, with a subsequent dragging downward of the status bar 222. (The element does not appear on the display.) Such action may be programmed to result in the expanding of a message area 224 into the |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | main zone of the display 220. As with the message area 206 discussed above, the message area 224 may show the various messages that the user's device has received in the user's absence. And again, details about a message are shown to the left, while an icon for the particular messaging application is shown on the right. Also, selection of a particular message may result in the full message being opened for the user in its corresponding application, while selection of an application icon may cause the application to be invoked, with its associated messages or other features arranged in a standard manner (e.g., reverse chronological order).” Tseng at [0053].<br><br>“The third display shows the user dragging the notification bar downward across the main part of the display, like a roll shade. At the point shown, more messages remain above the top of the display area, so that the top-displayed message is faded to black at its upper edge to indicate to the user that more messages are left to review. The initially shown message at the bottom of the pulled down section may be a message computed to be at the bottom of the message area once the bar is pulled all the way down to the bottom of the display. In this manner, the messages shown may be “attached” to the notification bar and may move down with it. Alternatively, the messages may be unattached to the bar, so that sliding the bar down appears to open a window into the area where the messages sit. In such an implementation, the top message would appear first at the top of the display, and more messages would gradually appear as the user pulls the bar downward—opening the metaphorical sliding window or cover on them (but with the bottom edge of the messages faded to black all the way down). In this manner, for example, if a gadget were running near the bottom of the display, the user could pull the bar down only so far, so as to not cover the gadget.” Tseng at [0059].<br><br>“Certain momentum effects may be provided for the interaction with the notification bar. For example, if the user releases the notification bar in the upper portion of the display, the messages may spring back upward into the status bar and disappear, much like a roll shade that has not yet caught in its first position would spring back. Alternatively, if a user drags the bar quickly and releases it, the bar may continue moving until its momentum runs out or until it hits the bottom of the display. Also, in some implementations, if the user pulls the bar below a determined level on the display, the bar may automatically keep moving until it reaches the bottom of the display, or until it reaches a graphical element that it is not allowed to pass over.” Tseng at [0060]. |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "A number of components are shown schematically inside the device 302 to indicate components in the device associated with messaging notification functionality for the device 302. One or more of the components may be implemented as part of a programmable microprocessor on the device 302, though the particular components are shown separately in this example for clarity of explanation." Tseng at [0065].<br><br>"The device receives a user's selection of the status bar at box 410. Such a selection may include a selection like those described above, including by a user pressing on the status bar for a long press period, and/or the user pressing on the status bar and then dragging it downward across the top of the display. Alternatively, the user may select another element on the display. Such as a menu element, to have the outstanding un-reviewed events displayed." Tseng at [0074].<br><br>"The user may then interact as necessary with the various messages and/or applications. When the user is done handling the recently-received messages, the user may indicate an intent to remove the recent-received message elements from the display, such as by handling each of the messages or by selecting a graphical element to move the recent-received message elements up and off the display again so that the previously-operating application or applications may take their place again. The device and the user of the device may then continue on with their actions that did not depend on the recently-received messages. An [sic] selectable control. Such as an icon, may also be provided so that a user may 'clear' their alert events or messages. Such a control may be placed in the form of a bottom in the central display when a user drags down on a status bar, so that the user can re-set their notifications, and the icons in the status bar will be removed to indicate that there are no longer any messages to which the user needs to be directed." Tseng at [0076].<br><br>"At box 434, the process 420 waits for a user selection, such as a user selection in the status bar area (though in certain implementations, the selection may occur in other manners). If there is no user selection before the next alerting event occurs, the process 420 then repeats the steps just described when a new message next arrives." Tseng at [0080].<br><br>"Briefly, and among other things, the device 500 includes a processor configured to display notifications regarding events on the device 500, and to permit a user to conveniently "pull down detail about the events relating to the notifications into an extended view of the events." Tseng at [0084]. |

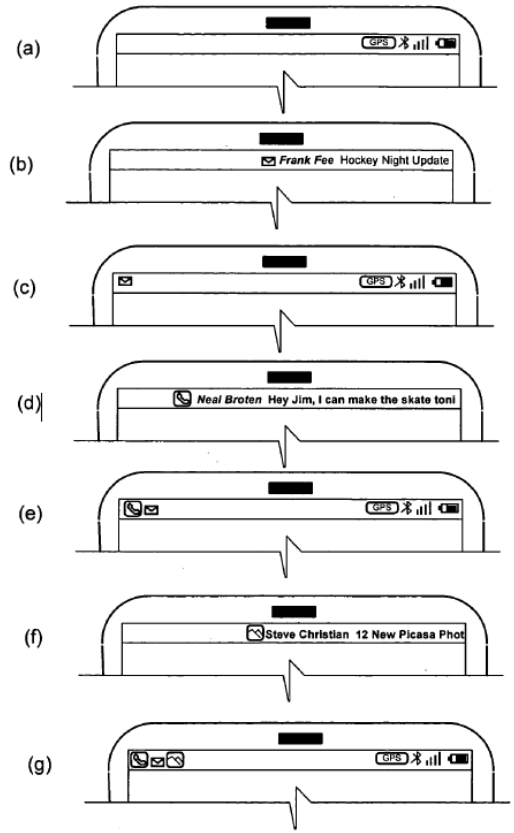
| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "FIG. 6 is a block diagram illustrating an internal architecture 600 of the device 500. The architecture includes a central processing unit (CPU) 601 where the computer instructions that comprise an operating system or an application are processed; a display interface 602 that provides a communication interface and processing functions for rendering video, graphics, images, and texts on the display 501, provides a set of built-in controls (such as buttons, text and lists), and supports diverse screen sizes; a keyboard interface 604 that provides a communication interface to the keyboard 502; a pointing device interface 605 that provides a communication interface to the pointing device 504; …." Tseng at [0095].<br><br>"The CPU 601 can be one of a number of computer processors. In one arrangement, the computer CPU 601 is more than one processing unit." Tseng at [0096].<br><br>"Computing device 900 includes a processor 902, memory 904, a storage device 906, a high-speed interface 908 connecting to memory 904 and high-speed expansion ports 910, and a low speed interface 912 connecting to low speed bus 914 and storage device 906. Each of the components 902, 904, 906, 908, 910, and 912, are interconnected using various busses, and may be mounted on a common motherboard or in other manners as appropriate. The processor 902 can process instructions for execution within the computing device 900, including instructions stored in the memory 904 or on the storage device 906 to display graphical information for a GUI on an external input/output device, such as display 916 coupled to high speed interface 908. In other implementations, multiple processors and/or multiple buses may be used, as appropriate, along with multiple memories and types of memory. Also, multiple computing devices 900 may be connected, with each device providing portions of the necessary operations (e.g., as a server bank, a group of blade servers, or a multi-processor system)." Tseng at [0120].<br><br>"Computing device 950 includes a processor 952, memory 964, an input/output device such as a display 954, a communication interface 966, and a transceiver 968, among other components." Tseng at [0125].<br><br>"The processor 952 can execute instructions within the computing device 950, including instructions stored in the memory 964. The processor may be implemented as a chipset of chips that include separate and multiple analog and digital processors. The processor may provide, for example, for coordination of the other components of the device 950, such as control of user |

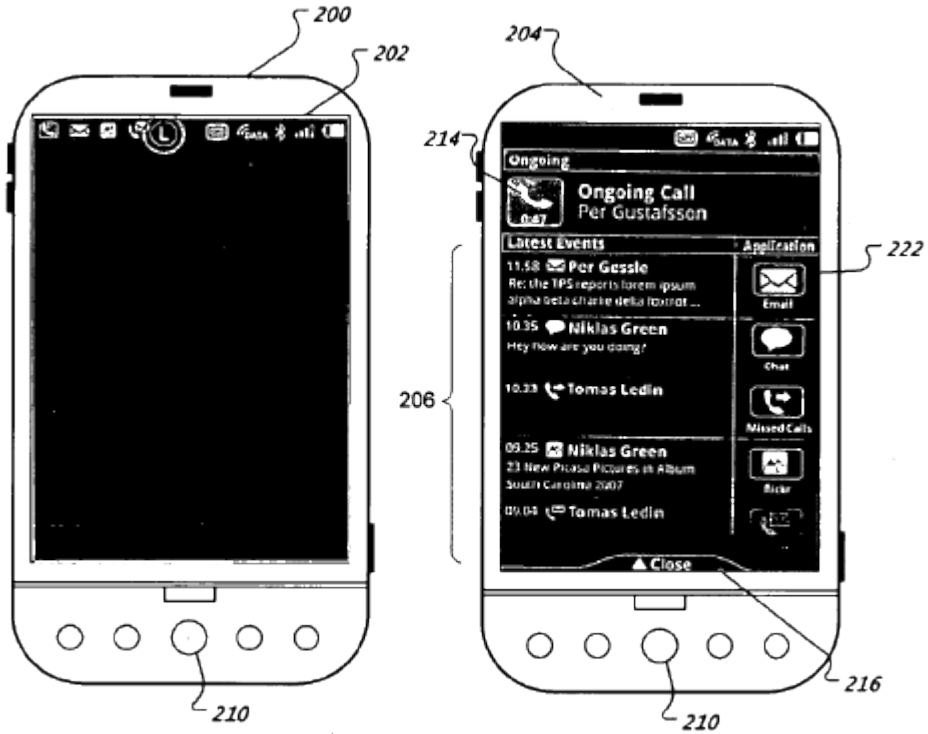
| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | interfaces, applications run by device 950, and wireless communication by device 950." Tseng at [0126].<br><br>"Processor 952 may communicate with a user through control interface 958 and display interface 956 coupled to a display 954. The display 954 may be, for example, a TFT LCD (Thin-Film-Transistor Liquid Crystal Display) or an OLED (Organic Light Emitting Diode) display, or other appropriate display technology. The display interface 956 may comprise appropriate circuitry for driving the display 954 to present graphical and other information to a user. The control interface 958 may receive commands from a user and convert them for submission to the processor 952." Tseng at [0127].<br><br>"The method of claim 11, further comprising receiving a dragging manipulation of the slider mechanism across the graphical interface, moving the slider mechanism in response to the dragging mechanism, and displaying the detail regarding the plurality of recent alert events behind the slider mechanism as it is slid across the display." Tseng at claim 12.<br><br>"A machine-readable data storage medium having instructions stored thereon that, when executed, cause one or more processors to:<br><br>display, in a status area near a perimeter of a graphical interface for a mobile device, a notification of a recent alert event for the mobile device, wherein the alert event corresponds to a change in status of an application operating on the mobile device or of an account associated with the mobile device;<br><br>receive a user selection in the status area; and<br><br>in response to the receipt of the user selection, display, in a central zone of the graphical interface, detail regarding a plurality of alert events for the mobile device, wherein at least some of the plurality of alert events correspond to messages received by the mobile device and the detail includes text from the messages." Tseng at claim 13.<br><br>"The article of claim 13, wherein the instructions further comprise instructions to cause the one or more processors to receive a dragging manipulation on a touch screen display of the graphical interface, from the status area and across the display, and move the slider mechanism in response to |

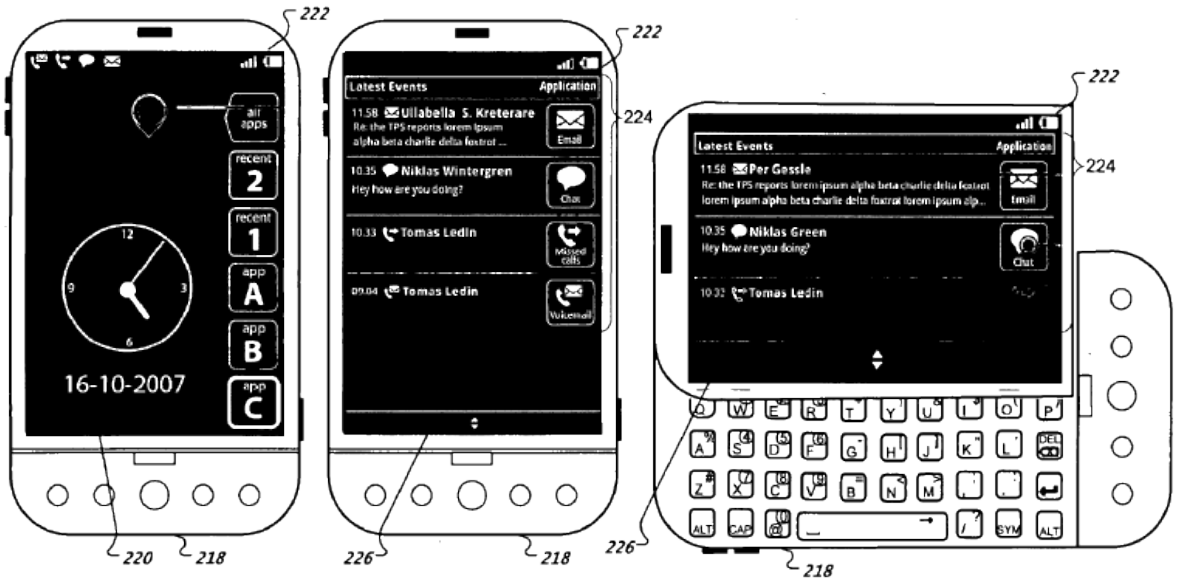
| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | the dragging mechanism, and display the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at claim 17.<br>"21. A computer-implemented notification system, comprising:<br>a wireless interface to receive data that includes messages for a user of a mobile device;<br>a notification manager, operable on a computer processor, to generate a notification message for a received message that includes information that describes the message; and means for generating a display of information corresponding to the notification message on a graphical display." Tseng at claim 21. |

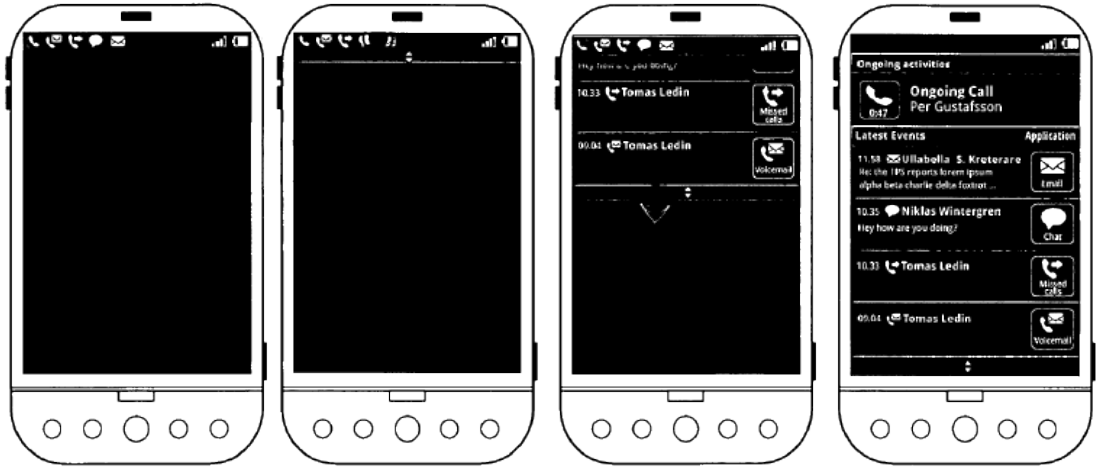
| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| **[3]** The system of claim 1, wherein said at least one window comprises at least one bar located on said edge of the screen. | Claim 3 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 3 are anticipated and/or obvious for the same reasons set out in claim 1.<br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window comprises at least one bar located on said edge of the screen." |

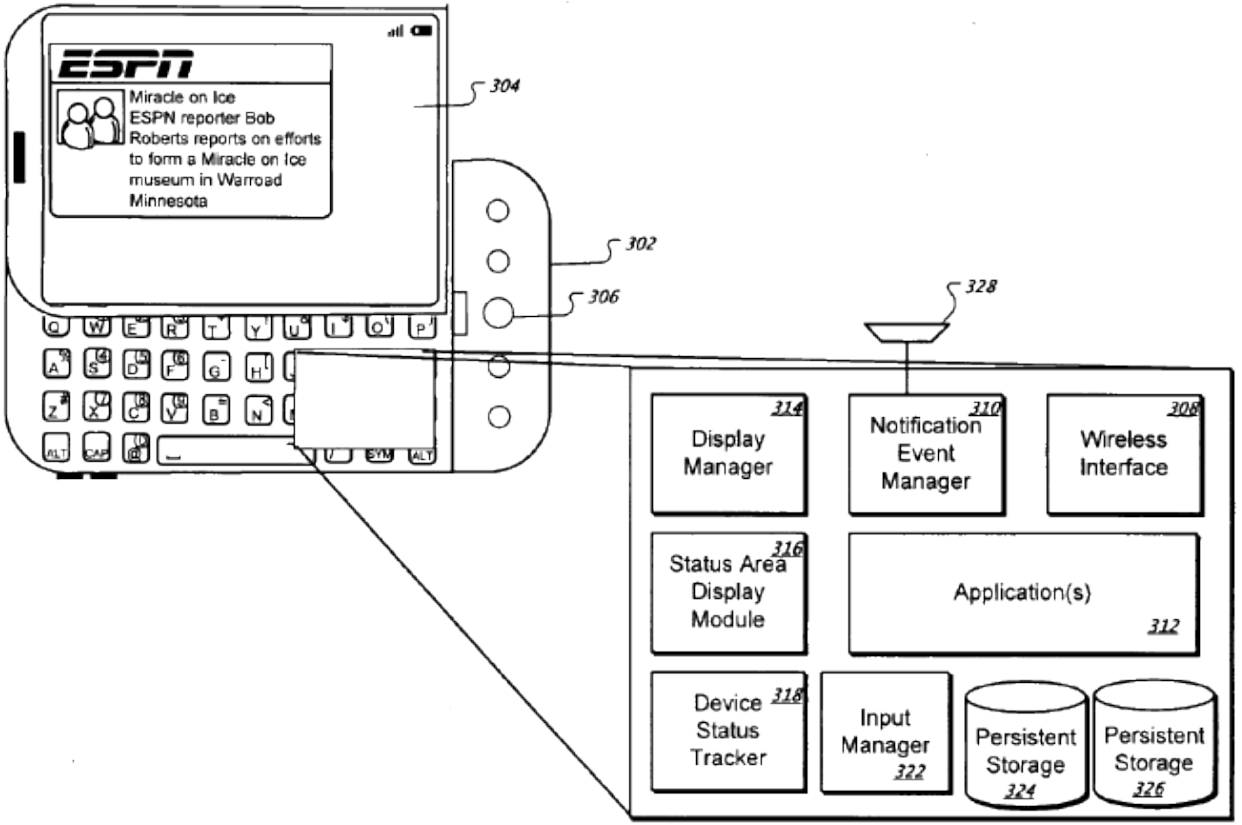
| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | For example, Tseng discloses at least one window, such as a "status bar" or "status area," located on the top edge of the touch screen. Tseng at Abstract, FIGS. 1, 2A-2C, 3, 4A-4B, 5, [0005], [0014], [0031]. Tseng explains that the status bar is capable of displaying notifications at the edge of the touch screen display. For example, "the notifications may occur by having a notification message … be displayed in a peripheral area at the edge of a display, such as a status area, or status bar, for the mobile device." Tseng at [0028], FIGS. 1, 2A-2C, 3, 4A-4B, 5. "A status bar area is the typically-static area on a device that displays information such as bars for wireless signal strength, a remaining battery life indicator, an icon that shows the network over which wireless communication is occurring, and the like. The main area or zone of the display is generally the central, largest area of a display where active programs are displayed, while supplemental elements are typically displayed around the periphery of the main area …." Tseng at [0005]. As one example, "one or more applications may be shown in the main zone [of the touch screen]. Such as an application tracking an ongoing telephone call," which is independent of the status bar that is shown regardless of the application in the main display. Tseng at [0040].<br><br>Exemplary citations include: |

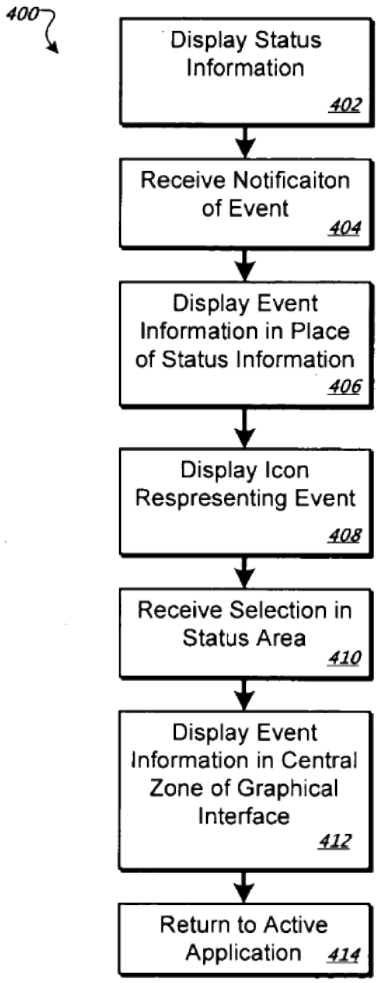
| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 1<br>Tseng at FIG. 1. |

| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 2A<br>Tseng at FIG. 2A. |

| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 2B<br>Tseng at FIG. 2B. |

| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 2C<br>Tseng at FIG. 2C. |

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| |  <br>FIG. 3<br>Tseng at FIG. 3. |

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| |  <br>FIG. 4A<br>Tseng at FIG. 4A. |

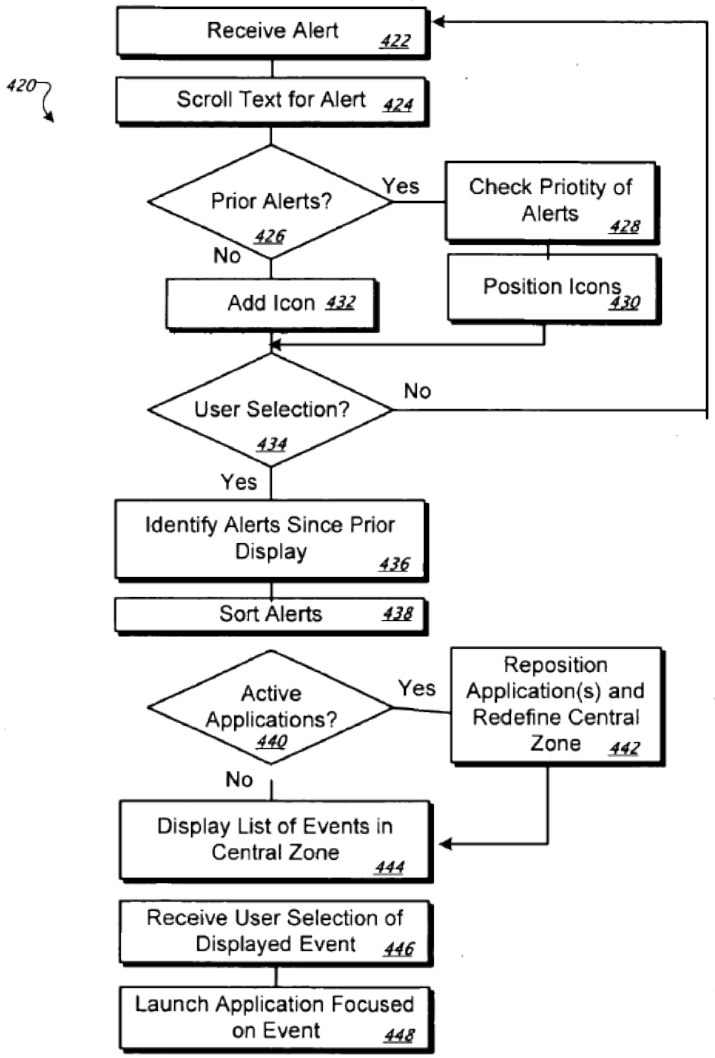
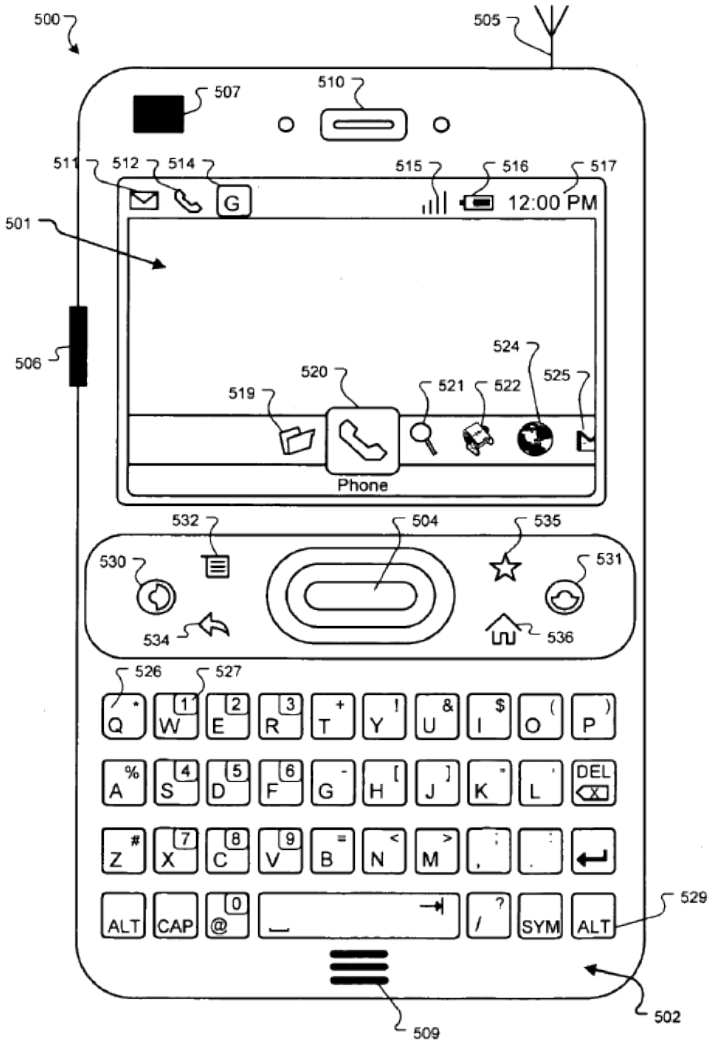
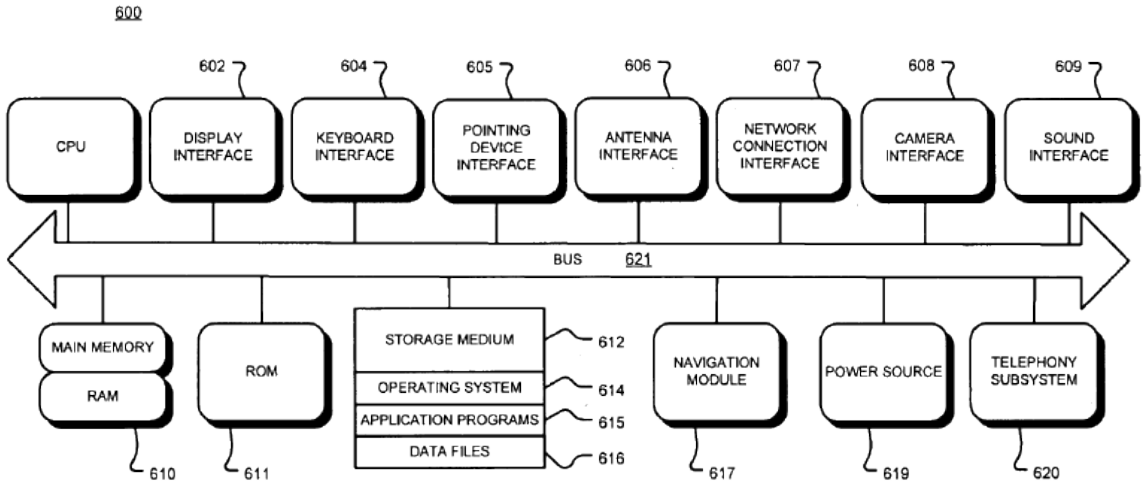
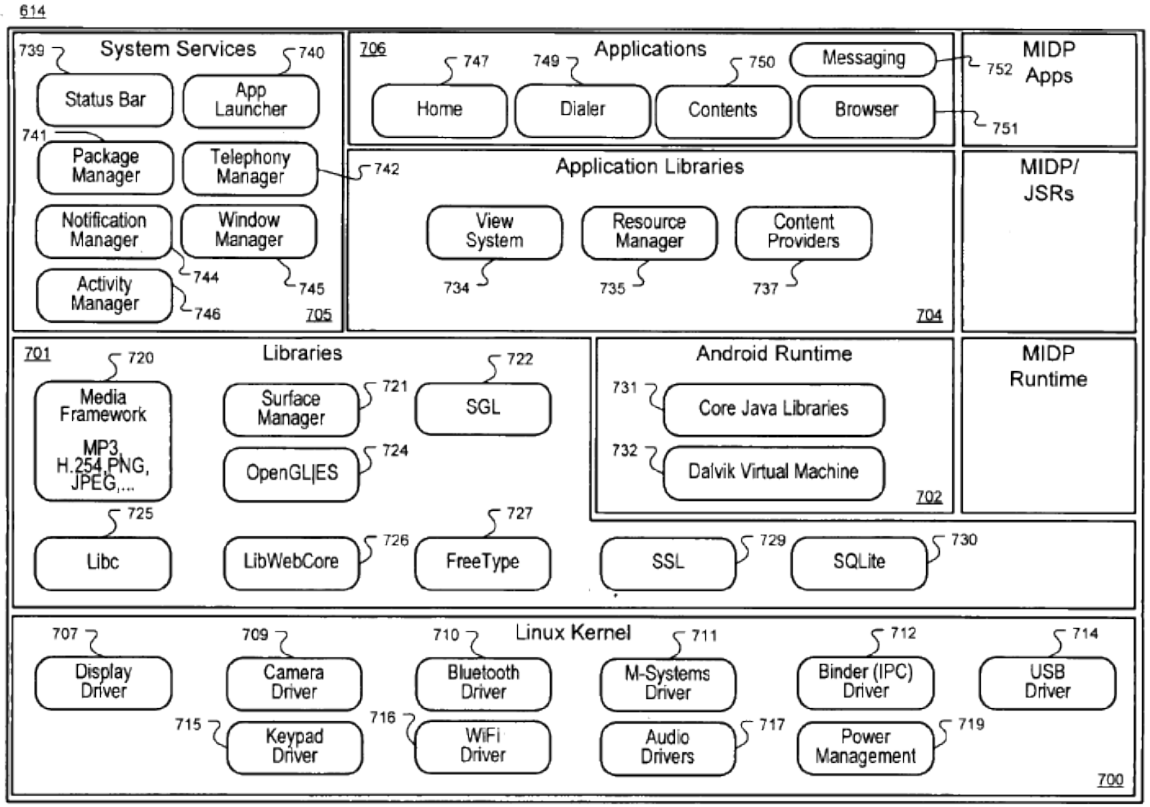



FIG. 4B

Tseng at FIG. 4B.

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| |  <br>FIG. 5<br>Tseng at FIG. 5. |

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| |  <br>FIG. 6<br>Tseng at FIG. 6. |

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| |  <br>FIG. 7<br>Tseng at FIG. 7. |

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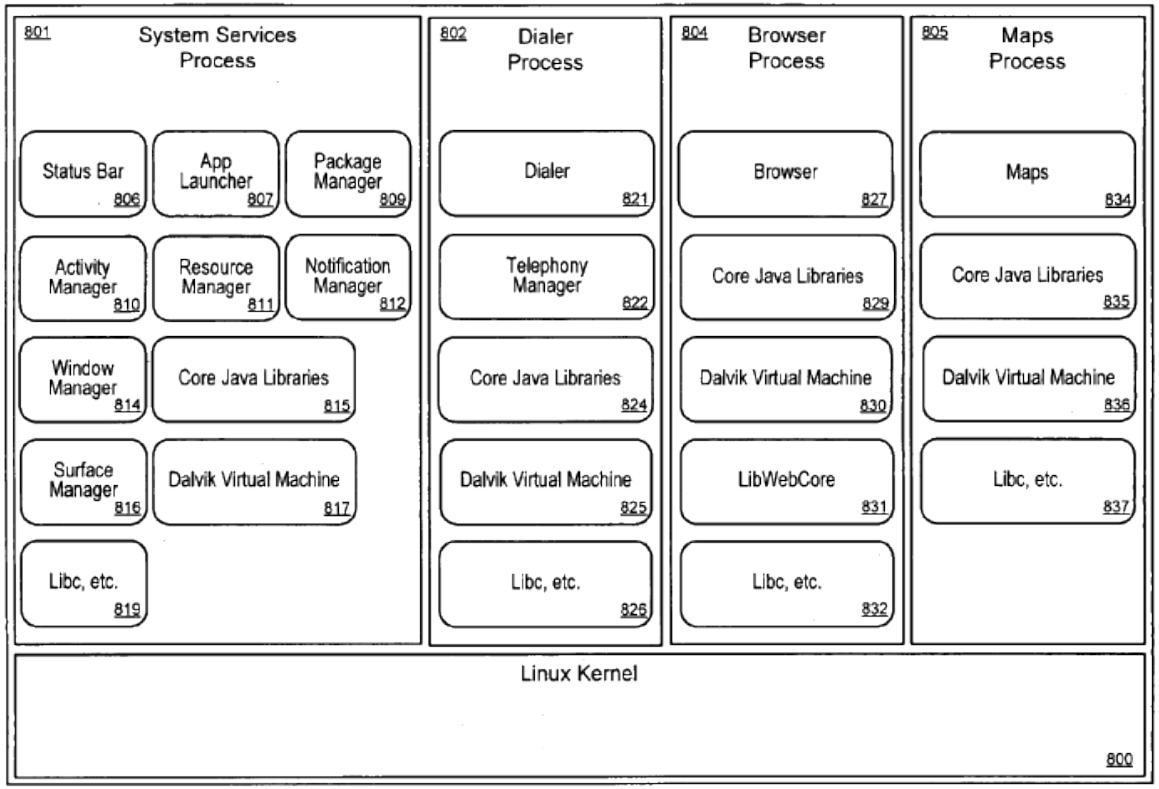



FIG. 8

Tseng at FIG. 8.

"A computer-implemented user notification method includes displaying, in a status area near a perimeter of a graphical interface, a notification of a recent alert event for a mobile device, receiving a user selection in the status area, and in response to the receipt of the user selection, displaying, in a central zone of the graphical interface, detail regarding a plurality of recent messaging events for the mobile device." Tseng at Abstract.

| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "The main area or zone of the display is generally the central, largest area of a display where active programs are displayed, while supplemental elements are typically displayed around the periphery of the main area or over the main area in pop-up windows or similar graphical elements." Tseng at [0005].<br><br>"Where the alert is not a message, the scrolling notification may include other descriptive or suggestive text or graphics, such as the title of a song, the status of a device parameter that is being reported, the identity of an item (e.g., a physical good or a computer application) that currently became available at an on-line marketplace, and other such information." Tseng at [0006].<br><br>"In some aspects, the method further comprises aggregating, in the status bar, a plurality of icons that are each visually representative of one or more recently received messaging events. The text can include textual content from the alert event. Also, the alert event can correspond to a communication from a remote server reporting a message from the group of computer applications consisting of electronic mail, chat, text messaging, voice mail, and a posting of data to a shared networked data source. In certain aspects, the user selection comprises a long press on a display screen or a pointing device, and the display in the central zone comprises a reduced-size version of a display of an active application that was in the central area before the user selection." Tseng at [0010].<br><br>"In yet another implementation, a computer-implemented notification system is disclosed. The system comprises a wireless interface to receive data for a user of a mobile device, a notification manager to generate a notification message for a device event, including device events received through the wireless interface, where the notification message includes information that describes the device event, and a display manager to generate elements for a graphical display, to receive the notification message and to present the notification message in a first Zone near a perimeter of the graphical display. The system can further comprise an input device to receive a user selection in the first zone, wherein in response to the user selection, the display manager displays, in a central zone of the graphical interface, detail information regarding a plurality of recent messaging events for the mobile device. Also, the display manager can display the notification message as text that scrolls in a status bar area of the graphical display. Also, the display manager can be adapted to remove the text from the status bar and display in the status bar an icon that visually represents an application corresponding to the messaging event." Tseng at [0014]. |

| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "FIG. 1 shows portions of a mobile device demonstrating actions in a status bar." Tseng at [0017].<br><br>"In general, the notifications may occur by having a notification message—which may be an abbreviated form of the actual communication, e.g., a name and subject line for an incoming e-mail be displayed in a peripheral area at the edge of a display, such as a status area, or status bar, for the mobile device." Tseng at [0028].<br><br>"Referring now to FIG. 1, there is shown portions of a mobile device display demonstrating actions in a status bar. In general, seven instances (labeled a through g) of the same display portion are shown in chronological order, to demonstrate an example of functionality that may be provided by a notification component on the device. The particular display portion shown here is the top of a graphical display, where a status bar is located." Tseng at [0031].<br><br>"Instance (a) shows a status bar of a mobile device in a normal state, with icons displayed to indicate that the device is currently using GPS and Bluetooth capabilities, and also showing the current signal strength and remaining battery power. At Such a time, the user may be doing nothing with the device (e.g., so that the device's desktop and wallpaper are being displayed in the main display area below the status bar) or may be operating an application in a main display area of the device, i.e., the central larger portion of the display, of which only the very top portion is shown here." Tseng at [0032].<br><br>"The main zone of the left display is shown blank in this example simply to indicate that the current status of the zone may take a variety of forms. For example, a wallpaper background with various icons may be displayed with desk top icons—i.e., a mode for the device when the user is not focused on any particular application. Alternatively, one or more applications may be shown in the main zone. Such as an application tracking an ongoing telephone call, and displaying an image of the person with whom the call is occurring, a number for that person, and an elapsed time for the call, among other things." Tseng at [0040]. |

| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "The right screen in FIG. 2A shows the display 200 after the user has long-pressed or dragged downward on the status bar 202. In this example, the main zone has been filed [sic] with the various messages that were left since the last time the user had reviewed his or her messages. The messages are shown in a message area 206 in the main zone of the display 204, while the status bar 202 is shown with the message notification icons removed (because the user has now been shown the messages and does not need a notification about them)." Tseng at [0041].<br><br>"FIG. 2B shows another example of displays that may be generated to alert a user of a mobile device of messaging or other events. The displays are shown in three different images of the same mobile device, at different points in time. In the first instance, at the left, the device 218 is shown displaying a clock application on display 220, such as in an operating system desktop display mode. In addition, a number of application icons are arranged down a side of the main zone of the display 220. Those icons, in this example, represent a top icon that, when selected, causes icons for all applications on the device to be shown on the display 220 (e.g., by pushing the clock application out of the way or by appearing over the top of the clock application, or pushing the clock application downward into a smaller zone such as by changing the clock from an analog clock to a smaller digital clock). The two icons below that are icons for the last two applications used or launched on the device 218. And the remaining three icons are for applications that have been expressly selected to be on the main display 220 by the user, are applications that are most popular on the device (e.g., they have been launched the most times in the past X days), or otherwise qualify to be displayed in such a location." Tseng at [0051].<br><br>"A status bar 222 is also shown across the top of the display 220. The status bar 222 in this example is like those status areas discussed above, and includes four different messaging icons, showing that, since the user has last checked or cleared messages, the device has received one or more voice mail messages, one or more missed calls, one or more text messages or chat messages, and one or more e-mail messages."" Tseng at [0052].<br><br>"Also, the message area 224 has a semi-transparent background so that the active clock application can be viewed behind it. … For example, as the user pulls the status bar 222 downward, the pulling by the user may push down on the top edge of the application area, causing it to shrink until it reaches a minimum height like that shown in FIG. 2A, but with the application area located at the bottom of the display." Tseng at [0054]. |

| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "FIG. 2C shows four displays on a device 230 exhibiting similar functionality to that just described. The leftmost display shows the collection of five different notification icons in a status bar of the display. The main zone of the display is shown blank to indicate that a variety of elements may be shown there at this point, such as device-resident applications, gadgets, icons for launching applications, and other such elements." Tseng at [0057].<br><br>"The second display shows, by a circle having a ring around it in the status bar, a selection by a user, such as by moving a pointer to the status bar and pressing a selection mechanism such as a trackball, or by directly pressing on the display with a fingertip on top of the status bar. Upon the user selecting the status bar, the bar may expand slightly, and a 'slide down' indicator may be displayed, in the form of a notification bar with up and down arrows. The indicator may visually signal the user that they can pull the indicator down to show messages associated with the notification icons. Alternatively, a tab like that shown in FIG. 2A may be displayed below the status area." Tseng at [0058].<br><br>"A status area display module 316 may be responsible for generating the information to be displayed in the status area of the display on device 302, such as in a status bar along a top periphery of the display. For example, the status area display module 316 may gather information needed to generate graphical display elements representing a battery level of signal strength level for the device 302, in addition to icons that represent various feature that are activated on the device 302. Such information may be obtained, for example, from a device status tracker 318." Tseng at [0067].<br><br>"FIGS. 4A and 4B are flow charts of example processes for providing mobile device notifications. In general, FIG. 4A shows a process 400 by which notification events are received at a device and information indicative of the events is displayed in a status bar area of the device." Tseng at [0070].<br><br>"In common implementations, status information is displayed in a status bar along a periphery of a display screen on a mobile device, such as along the top of a display screen." Tseng at [0071].<br><br>"The device receives a user's selection of the status bar at box 410. Such a selection may include a selection like those described above, including by a user pressing on the status bar for a long press period, and/or the user pressing on the status bar and then dragging it downward across the top of the display." Tseng at [0074]. |

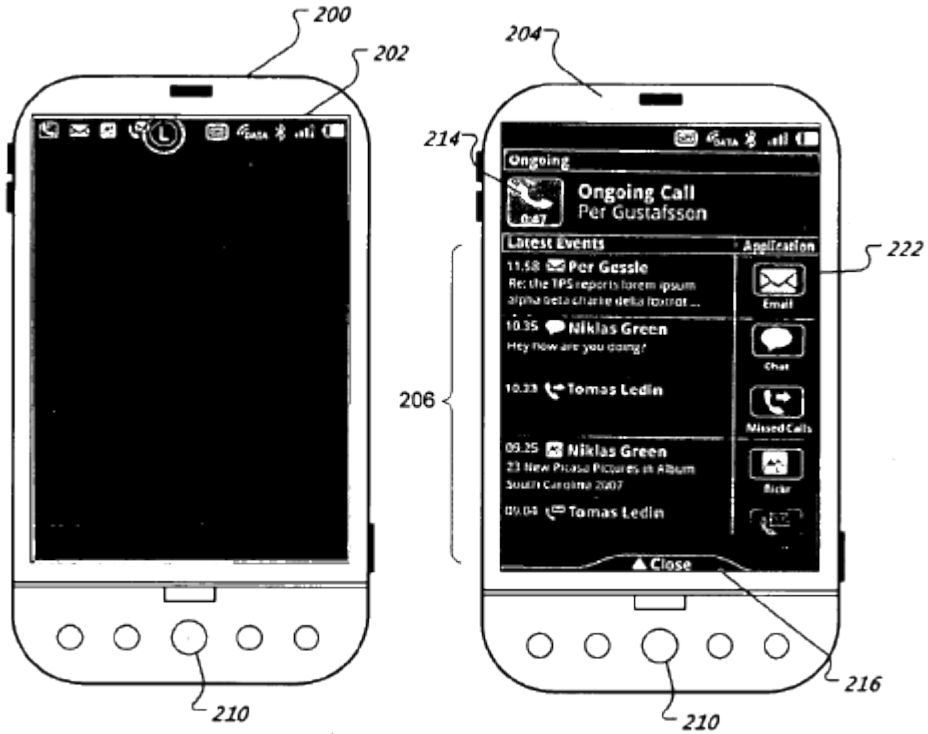
| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "Before displaying the alerts or messages, the process 420 determines whether any applications are active on the device that cannot simply be hidden under the messages on the display. Applications that can be hidden include various gadgets such as clocks and the like, while applications that cannot include the applications shown in FIG. 2D above. If there are active applications that cannot be hidden, those applications are repositioned and the central zone of the device, where the messages will appear, is redefined (box 442). For example, the running application may be provided in a smaller area around the edge of the central zone, while the messages may then be allowed to fill the remainder of the central zone." Tseng at [0082]. |

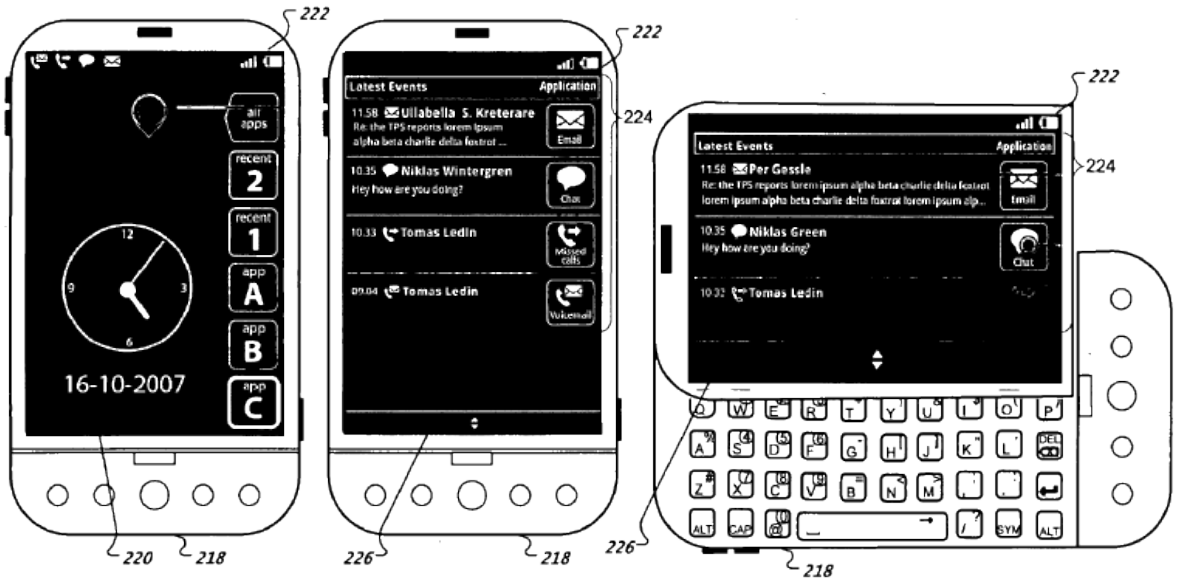
| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[4]** The system of claim 3, wherein said at least one bar extends along a substantial portion of an edge of the touch screen. | Claim 4 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 4 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one bar extends along a substantial portion of an edge of the touch screen."<br><br>For example, Tseng discloses that the status bar extends along the top edge of the touch screen, such as shown in FIGS. 1, 2A-2C, and 5, and explained above in claims 1 and 3. Tseng at FIGS. 1, 2A-2C, 4A-4B, 5; *supra* claims 1, 3. |

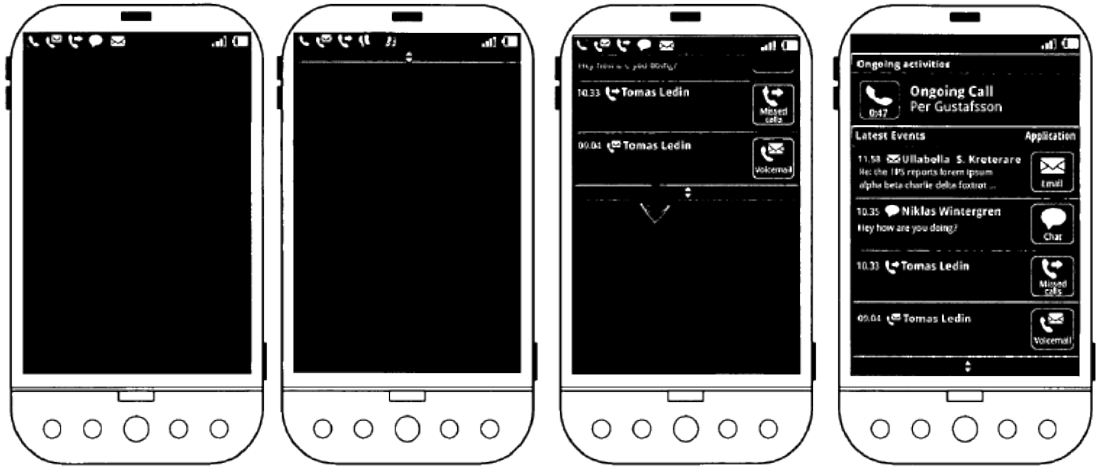
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[5]** The system of claim 3, wherein said bar is in a form of a line. | Claim 5 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 5 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said bar is in a form of a line."<br><br>For example, Tseng discloses that the status bar is in the form of a line on the top edge of the touch screen, such as shown in FIGS. 1, 2A-2C, and 5, and explained above in claims 1 and 3. Tseng at FIGS. 1, 2A-2C, 4A-4B, 5; *supra* claims 1, 3. |

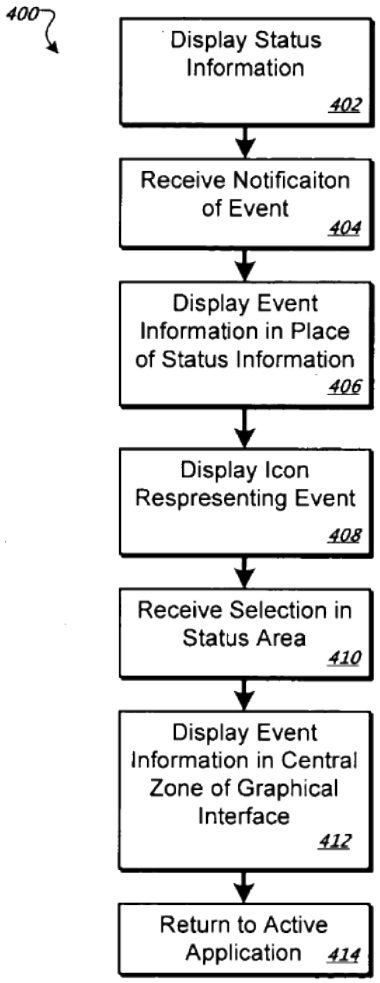
| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[6]** The system of claim 5, wherein said action is displaying an interface on the screen. | Claim 6 depends from claims 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 1, 3, and 5 here, which anticipate and/or render claims 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 5, 3, and 1 to show the additional limitations of claim 6 are anticipated and/or obvious for the same reasons set out in claims 5, 3, and 1.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying an interface on the screen."<br><br>For example, Tseng discloses that the action is displaying the "message area" 206/224 interface on the touch screen where the user can interact with or select a notification to view the corresponding alert, open the corresponding application, handle, move, and/or delete the corresponding message, as explained above in claim 1. Tseng at [0042], [0075], *supra* claim 1. For example, Tseng explains |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | that "[s]election by a user on any one of the lines [or messages] may cause the corresponding application to be launched or made the focus on the device." Tseng at [0042]. A user selection of one of the messages in the message area 206 will bring up the application opened to that message, while the selection of one of the application icons 212 will bring up the particular selected application with its various messages displayed, e.g., in reverse chronological order." Tseng at [0044]. The user can select either the message or the application icon in the message area to perform different operations, for example, "selection of a particular message may result in the full message being opened for the user in its corresponding application, while selection of an application icon may cause the application to be invoked, with its associated messages or other features arranged in a standard manner (e.g., reverse chronological order)." Tseng at [0053]. Similarly, "[i]f the user would like to see more about a particular message, they may select that particular message and may be taken to the relevant application for that message, with the message open." Tseng at [0075], FIG. 4B.<br><br>As another example, the user may interact with the message area interface by scrolling up or down to view additional messages, which may be shown as "curving back into the dark portion of the device." Tseng at [0043]. The user "may slide their finger upward across the display to scroll down and see the additional messages." Tseng at [0043].<br><br>Exemplary citations include: |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 2A<br>Tseng at FIG. 2A. |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 2B<br>Tseng at FIG. 2B. |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 2C<br>Tseng at FIG. 2C. |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 4A<br>Tseng at FIG. 4A. |

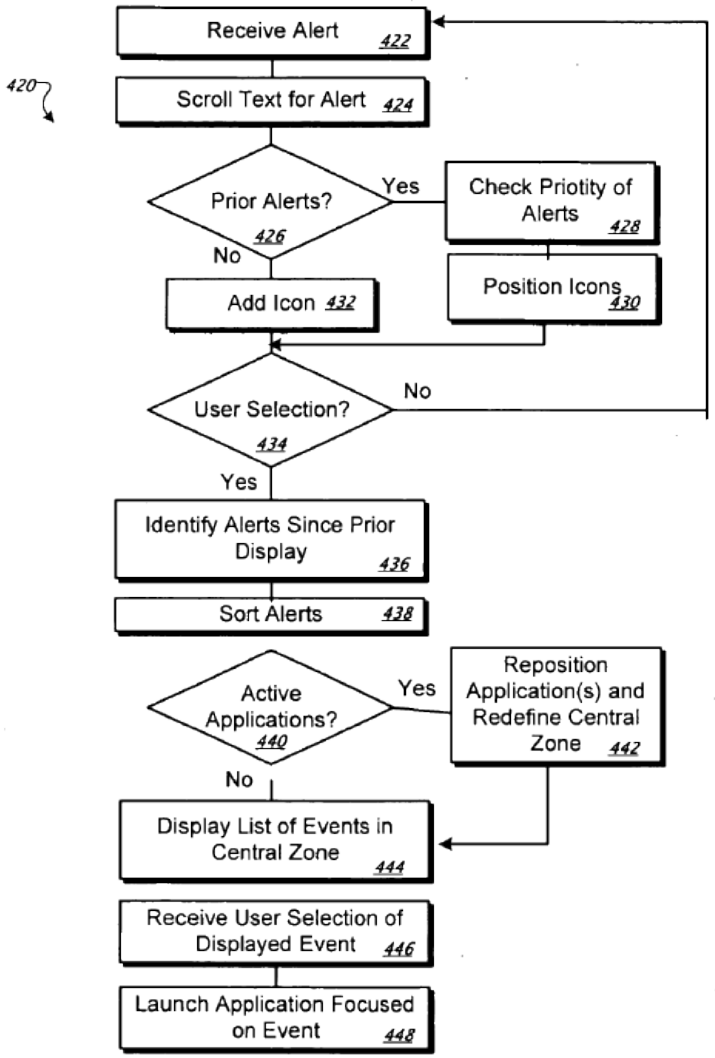
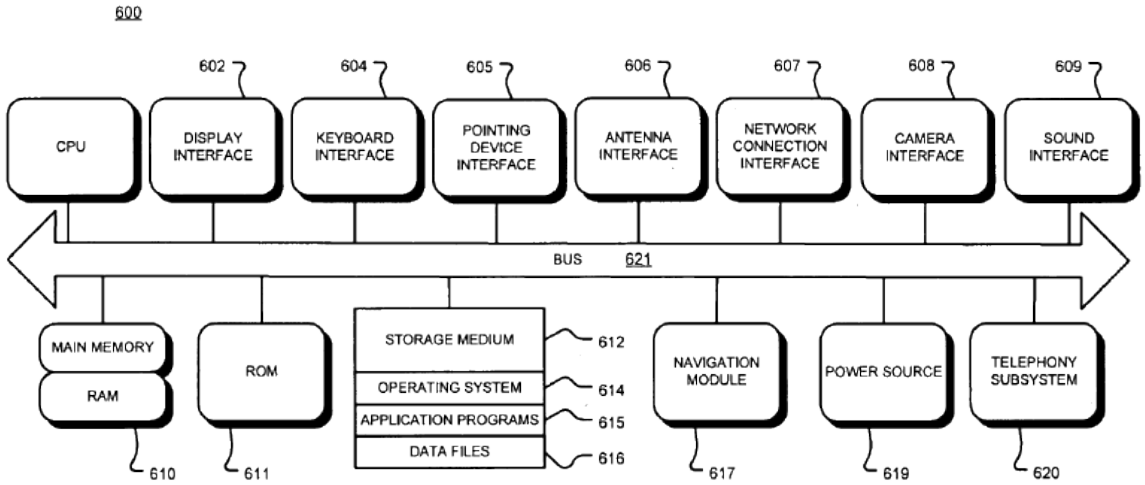
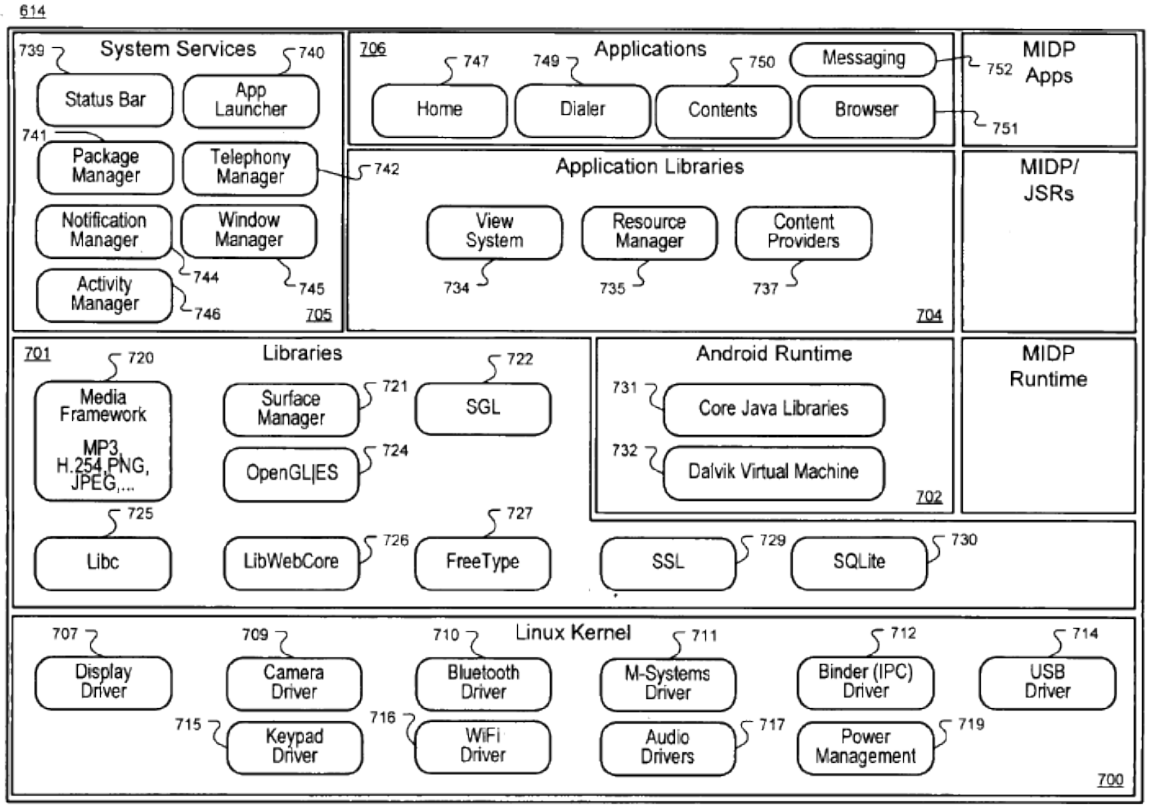



FIG. 4B

Tseng at FIG. 4B.

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 6<br>Tseng at FIG. 6. |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 7<br>Tseng at FIG. 7. |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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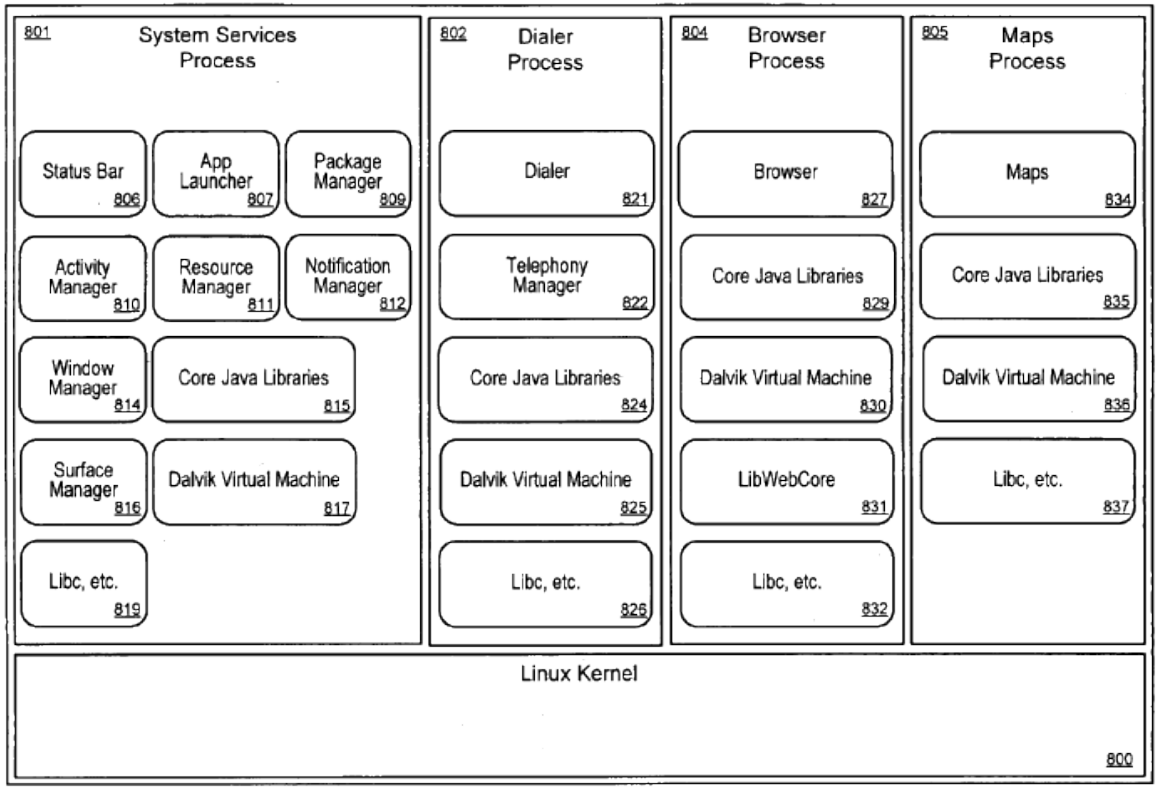



FIG. 8

Tseng at FIG. 8.

"A computer-implemented user notification method includes displaying, in a status area near a perimeter of a graphical interface, a notification of a recent alert event for a mobile device, receiving a user selection in the status area, and in response to the receipt of the user selection, displaying, in a central zone of the graphical interface, detail regarding a plurality of recent messaging events for the mobile device." Tseng at Abstract.

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "In yet other aspects, the display in the central zone comprises a list of messages from a plurality of messaging applications, and the method can also comprise displaying a user-manipulable slider mechanism in response to the user selection. In addition, the method may include receiving a dragging manipulation of the slider mechanism across the graphical interface, moving the slider mechanism in response to the dragging mechanism, and displaying the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at [0011].<br><br>"In another implementation, a machine-readable data storage medium is disclosed. The medium has instructions stored on it that, when executed, cause one or more processors to display, in a status area near a perimeter of a graphical interface, a notification of a recent alert event for a mobile device, receive a user selection in the status area, and in response to the receipt of the user selection, display, in a central zone of the graphical interface, detail regarding a plurality of recent messaging events for the mobile device. The notification can comprise text describing the recent alert event and is displayed in place of battery and signal elements in a status bar of the graphical interface. Also, the instructions can further cause the one or more processors to aggregate, in the status bar, a plurality of icons that are each visually representative of one or more recently received messaging events." Tseng at [0012].<br><br>"In certain aspects, the display in the central zone comprises a list of messages from a plurality of messaging applications. Also, the instructions can further comprise instructions to cause the one or more processors to receive a dragging manipulation on a touch screen display of the graphical interface, from the status area and across the display, and move the slider mechanism in response to the dragging mechanism, and display the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at [0013].<br><br>"The system comprises a wireless interface to receive data for a user of a mobile device, a notification manager to generate a notification message for a device event, including device events received through the wireless interface, where the notification message includes information that describes the device event, and a display manager to generate elements for a graphical display, to receive the notification message and to present the notification message in a first zone near a perimeter of the graphical display. The system can further comprise an input device to receive a user selection in the first zone, wherein in response to the user selection, the display manager |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | displays, in a central zone of the graphical interface, detail information regarding a plurality of recent messaging events for the mobile device." Tseng at [0014].<br><br>"The status area may then also become selectable by the user, so that selection of the status area causes the display of accrued messages to occur. Such selection of the status area may occur by long press on the status area, or by pressing on the status area and dragging downward to pull out the messages as if they are mounted on or under a window shade. Where the device has a fairly flush front surface, the action may take the form of a finger swipe across the face of the display, where the edge of the element showing an extended view of the messaging events 'sticks' to the user's finger as the finger moves past." Tseng at [0029].<br><br>"The right screen in FIG. 2A shows the display 200 after the user has long-pressed or dragged downward on the status bar 202. In this example, the main zone has been filed [sic] with the various messages that were left since the last time the user had reviewed his or her messages. The messages are shown in a message area 206 in the main zone of the display 204, while the status bar 202 is shown with the message notification icons removed (because the user has now been shown the messages and does not need a notification about them). In this example, the first message is an e-mail from Per Gesele, the second is a GOOGLE TALK message from Niklas Green, the third is a missed incoming call from Tomas Ledin, the fourth is a posting of PICASA photos by Niklas Green, and the fifth is a missed call from Tomas Ledin. As shown, the messages are organized here from top to bottom in reverse chronological order." Tseng at [0041].<br><br>"Messages may also be sorted by application. For example, a single line of the display may indicate the number of e-mail messages a user has received since they last launched or focused on their e-mail application, while a next line can do the same for text messages, downloads, and other such notification events. Selection by a user on any one of the lines may cause the corresponding application to be launched or made the focus on the device, with the messages received since the user last employed the application listed in the most prominent location in the application." Tseng at [0042].<br><br>"The messages near the bottom of the message area 206 fade to black in order to provide a visual impression that they are curving back into the dark inside portion of the device. In this manner, the display 204 provides the user with a visual indication that there are additional messages off the bottom of the list. The user may employ a trackball 210 or may slide their finger upward across the |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | display to scroll down and see the additional messages. After such scrolling downward, the message that is at the top of message area 206 will fade to black to indicate that there are more messages above the message area 206 and that the user can thus scroll back in that direction." Tseng at [0043].<br><br>"A group of application icons 212 are shown to the right side of the main zone of the display 204. A user selection of one of the messages in the message area 206 will bring up the application opened to that message, while the selection of one of the application icons 212 will bring up the particular selected application with its various messages displayed, e.g., in reverse chronological order." Tseng at [0044].<br><br>"The first display in FIG. 2B also shows a large circle surrounded by a ring having a downward pointing arrow. This element indicates a press by a user on the device 218 over the status bar 222, with a subsequent dragging downward of the status bar 222. (The element does not appear on the display.) Such action may be programmed to result in the expanding of a message area 224 into the main zone of the display 220. As with the message area 206 discussed above, the message area 224 may show the various messages that the user's device has received in the user's absence. And again, details about a message are shown to the left, while an icon for the particular messaging application is shown on the right. Also, selection of a particular message may result in the full message being opened for the user in its corresponding application, while selection of an application icon may cause the application to be invoked, with its associated messages or other features arranged in a standard manner (e.g., reverse chronological order)." Tseng at [0053].<br><br>"The third display shows the user dragging the notification bar downward across the main part of the display, like a roll shade. At the point shown, more messages remain above the top of the display area, so that the top-displayed message is faded to black at its upper edge to indicate to the user that more messages are left to review. The initially shown message at the bottom of the pulled down section may be a message computed to be at the bottom of the message area once the bar is pulled all the way down to the bottom of the display. In this manner, the messages shown may be "attached" to the notification bar and may move down with it. Alternatively, the messages may be unattached to the bar, so that sliding the bar down appears to open a window into the area where the messages sit. In such an implementation, the top message would appear first at the top of the display, and more messages would gradually appear as the user pulls the bar downward—opening |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | the metaphorical sliding window or cover on them (but with the bottom edge of the messages faded to black all the way down). In this manner, for example, if a gadget were running near the bottom of the display, the user could pull the bar down only so far, so as to not cover the gadget." Tseng at [0059].<br><br>"Certain momentum effects may be provided for the interaction with the notification bar. For example, if the user releases the notification bar in the upper portion of the display, the messages may spring back upward into the status bar and disappear, much like a roll shade that has not yet caught in its first position would spring back. Alternatively, if a user drags the bar quickly and releases it, the bar may continue moving until its momentum runs out or until it hits the bottom of the display. Also, in some implementations, if the user pulls the bar below a determined level on the display, the bar may automatically keep moving until it reaches the bottom of the display, or until it reaches a graphical element that it is not allowed to pass over." Tseng at [0060].<br><br>"A number of components are shown schematically inside the device 302 to indicate components in the device associated with messaging notification functionality for the device 302. One or more of the components may be implemented as part of a programmable microprocessor on the device 302, though the particular components are shown separately in this example for clarity of explanation." Tseng at [0065].<br><br>"The device receives a user's selection of the status bar at box 410. Such a selection may include a selection like those described above, including by a user pressing on the status bar for a long press period, and/or the user pressing on the status bar and then dragging it downward across the top of the display. Alternatively, the user may select another element on the display. Such as a menu element, to have the outstanding un-reviewed events displayed." Tseng at [0074].<br><br>"Such events may be displayed, for example, in reverse chronological order from top to bottom. The events may also be group by event type—such as by one line in the display listing the number of e-mails that have been received since the last time notifications were cleared, another listing the number of text messages, another listing the number of updates for downloaded applications, and the like. The user may then handle each message as he or she sees fit, such as by reviewing it and then deleting or moving it. If the user would like to see more about a particular message, they may select that particular message and may be taken to the relevant application for that message, with the message open. The user may also select an icon to open the relevant application (or they may |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | select a line that lists the number of messages of a certain type, when such a display is provided), and the message previously shown in the display will generally be the top message when the application opens." Tseng at [0075].<br><br>"The user may then interact as necessary with the various messages and/or applications. When the user is done handling the recently-received messages, the user may indicate an intent to remove the recent-received message elements from the display, such as by handling each of the messages or by selecting a graphical element to move the recent-received message elements up and off the display again so that the previously-operating application or applications may take their place again. The device and the user of the device may then continue on with their actions that did not depend on the recently-received messages. An [sic] selectable control. Such as an icon, may also be provided so that a user may 'clear' their alert events or messages. Such a control may be placed in the form of a bottom in the central display when a user drags down on a status bar, so that the user can re-set their notifications, and the icons in the status bar will be removed to indicate that there are no longer any messages to which the user needs to be directed." Tseng at [0076].<br><br>"At box 434, the process 420 waits for a user selection, such as a user selection in the status bar area (though in certain implementations, the selection may occur in other manners). If there is no user selection before the next alerting event occurs, the process 420 then repeats the steps just described when a new message next arrives." Tseng at [0080].<br><br>"If there are no such active applications, then a list of the messages or events that have arrived since the last such display are displayed in the central zone. Such as in reverse chronological order (box 444). The system may then wait for input from the user, such as a user selection of a displayed event (box 446), and may then launch or make active the application that is associated with any selected event. For example, if the user selects an e-mail event, then the full e-mail may be displayed in an e-mail application so that the user may respond to the message, file it, forward it, or conduct the wide variety of other actions permitted by a typical e-mail program. The particular displays that provide such display of events or messages, and permit user interaction with them, may include displays like those shown in the various figures above. Other interaction with the various displayed messages or events may also be accomplished in a similar manner." Tseng at [0083]. |

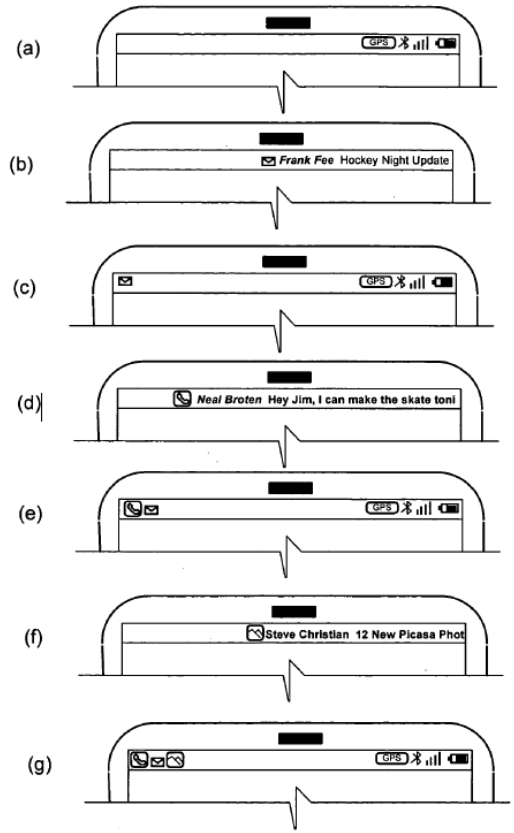
| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | "Briefly, and among other things, the device 500 includes a processor configured to display notifications regarding events on the device 500, and to permit a user to conveniently "pull down detail about the events relating to the notifications into an extended view of the events." Tseng at [0084].<br><br>"FIG. 6 is a block diagram illustrating an internal architecture 600 of the device 500. The architecture includes a central processing unit (CPU) 601 where the computer instructions that comprise an operating system or an application are processed; a display interface 602 that provides a communication interface and processing functions for rendering video, graphics, images, and texts on the display 501, provides a set of built-in controls (such as buttons, text and lists), and supports diverse screen sizes; a keyboard interface 604 that provides a communication interface to the keyboard 502; a pointing device interface 605 that provides a communication interface to the pointing device 504; …." Tseng at [0095].<br><br>"The CPU 601 can be one of a number of computer processors. In one arrangement, the computer CPU 601 is more than one processing unit." Tseng at [0096].<br><br>"Computing device 900 includes a processor 902, memory 904, a storage device 906, a high-speed interface 908 connecting to memory 904 and high-speed expansion ports 910, and a low speed interface 912 connecting to low speed bus 914 and storage device 906. Each of the components 902, 904, 906, 908, 910, and 912, are interconnected using various busses, and may be mounted on a common motherboard or in other manners as appropriate. The processor 902 can process instructions for execution within the computing device 900, including instructions stored in the memory 904 or on the storage device 906 to display graphical information for a GUI on an external input/output device, such as display 916 coupled to high speed interface 908. In other implementations, multiple processors and/or multiple buses may be used, as appropriate, along with multiple memories and types of memory. Also, multiple computing devices 900 may be connected, with each device providing portions of the necessary operations (e.g., as a server bank, a group of blade servers, or a multi-processor system)." Tseng at [0120].<br><br>"Computing device 950 includes a processor 952, memory 964, an input/output device such as a display 954, a communication interface 966, and a transceiver 968, among other components." Tseng at [0125]. |

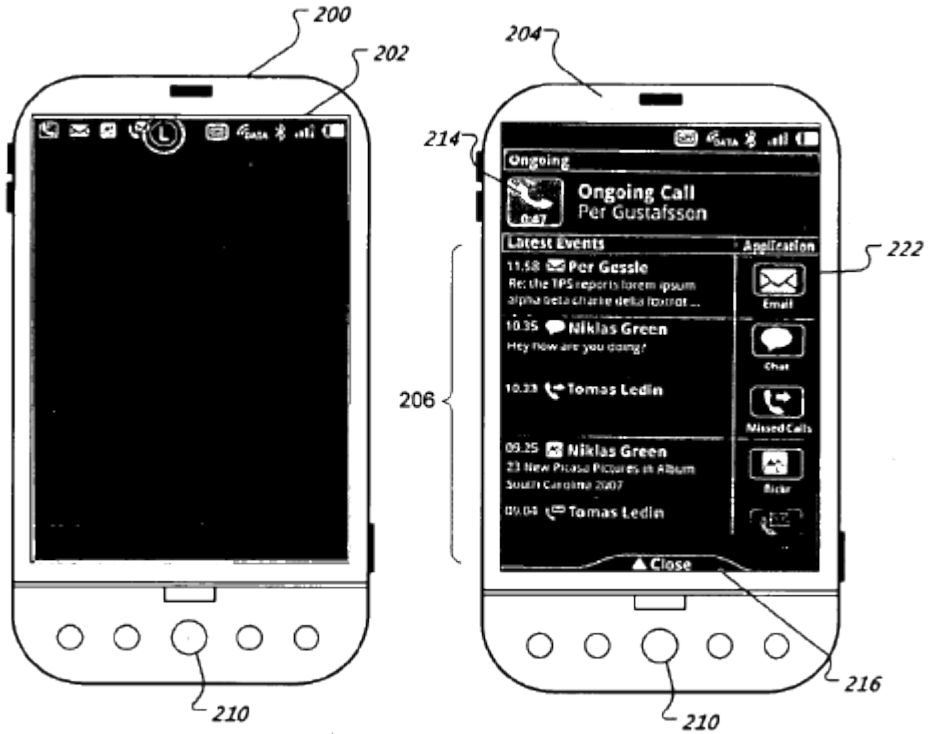
| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "The processor 952 can execute instructions within the computing device 950, including instructions stored in the memory 964. The processor may be implemented as a chipset of chips that include separate and multiple analog and digital processors. The processor may provide, for example, for coordination of the other components of the device 950, such as control of user interfaces, applications run by device 950, and wireless communication by device 950." Tseng at [0126].<br><br>"Processor 952 may communicate with a user through control interface 958 and display interface 956 coupled to a display 954. The display 954 may be, for example, a TFT LCD (Thin-Film-Transistor Liquid Crystal Display) or an OLED (Organic Light Emitting Diode) display, or other appropriate display technology. The display interface 956 may comprise appropriate circuitry for driving the display 954 to present graphical and other information to a user. The control interface 958 may receive commands from a user and convert them for submission to the processor 952." Tseng at [0127].<br><br>"The method of claim 11, further comprising receiving a dragging manipulation of the slider mechanism across the graphical interface, moving the slider mechanism in response to the dragging mechanism, and displaying the detail regarding the plurality of recent alert events behind the slider mechanism as it is slid across the display." Tseng at claim 12.<br><br>"A machine-readable data storage medium having instructions stored thereon that, when executed, cause one or more processors to:<br><br>display, in a status area near a perimeter of a graphical interface for a mobile device, a notification of a recent alert event for the mobile device, wherein the alert event corresponds to a change in status of an application operating on the mobile device or of an account associated with the mobile device;<br><br>receive a user selection in the status area; and<br><br>in response to the receipt of the user selection, display, in a central zone of the graphical interface, detail regarding a plurality of alert events for the mobile device, wherein at least some of the plurality of alert events correspond to messages received by the mobile device and the detail includes text from the messages." Tseng at claim 13. |

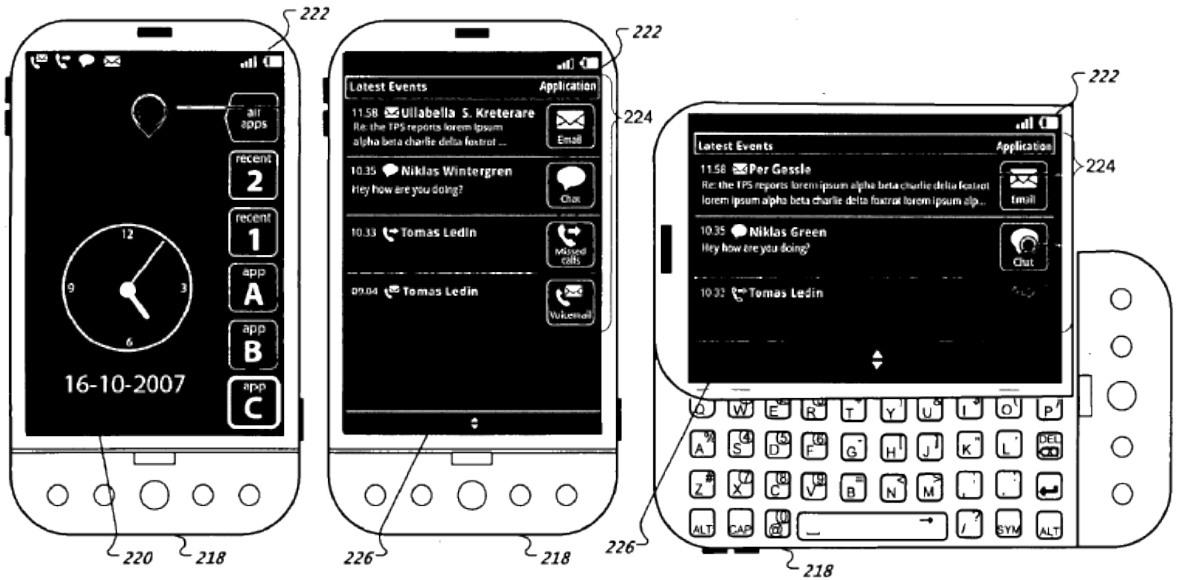
| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "The article of claim 13, wherein the instructions further comprise instructions to cause the one or more processors to receive a dragging manipulation on a touch screen display of the graphical interface, from the status area and across the display, and move the slider mechanism in response to the dragging mechanism, and display the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at claim 17.<br><br>"21. A computer-implemented notification system, comprising:<br><br>a wireless interface to receive data that includes messages for a user of a mobile device;<br><br>a notification manager, operable on a computer processor, to generate a notification message for a received message that includes information that describes the message; and means for generating a display of information corresponding to the notification message on a graphical display." Tseng at claim 21. |

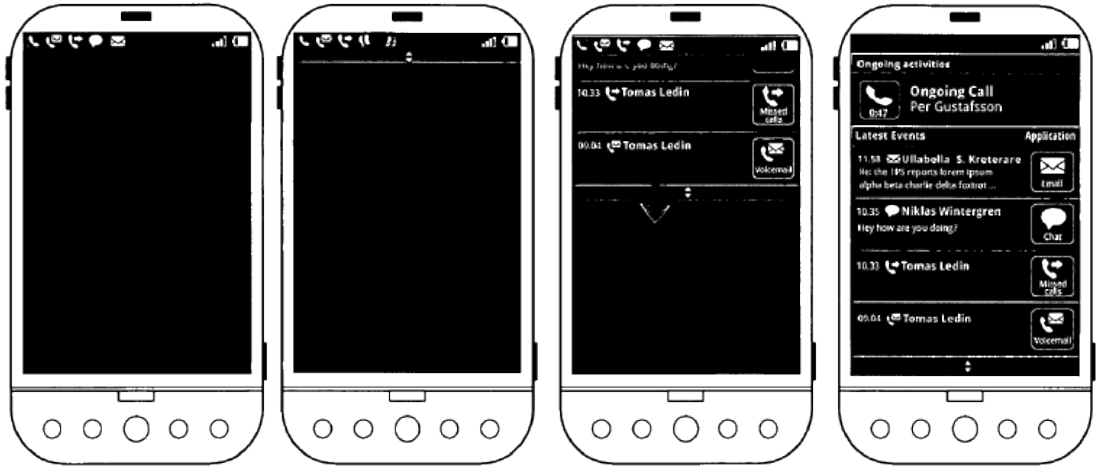
| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[7]** The system of claim 5, wherein said action is displaying a portion of an interface on the screen. | Claim 7 depends from claims 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 5, 3, and 1 here, which anticipate and/or render claims 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 5, 3, and 1 to show the additional limitations of claim 7 are anticipated and/or obvious for the same reasons set out in claims 5, 3 and 1.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying a portion of an interface on the screen."<br><br>For example, Tseng discloses the action is displaying a portion of the message area interface on the screen as the user glides because the exposed portion "sticks" to the user's finger, as explained in claims 1, 3, and 5. *Supra* claims 1, 3, 5. For example, Tseng discloses a gliding action that results in |

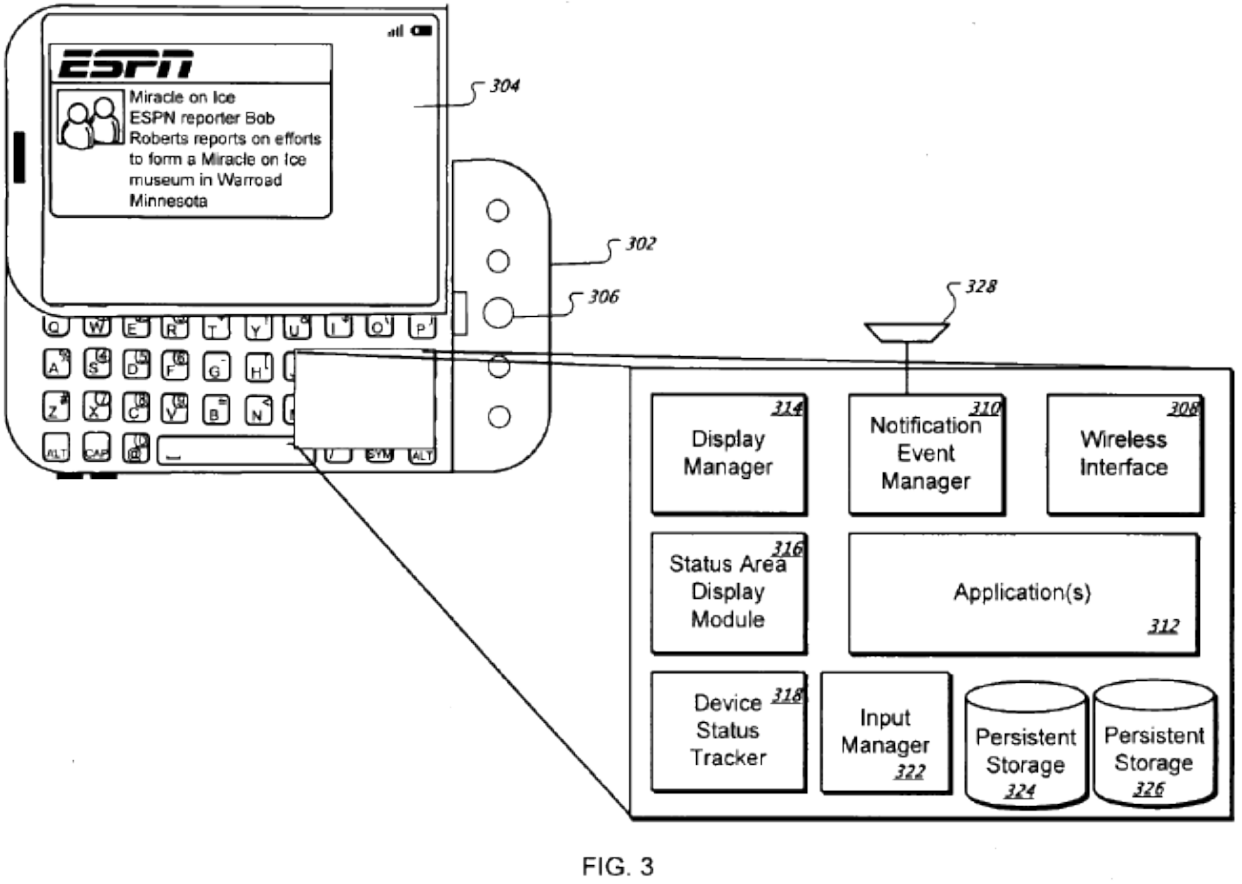
| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | dragging the status bar downward to display a message area (e.g., message area 206, 224) showing new notifications. Tseng at [0011], [0014], [0041], FIGS. 2A-2C, 3, 4A-4B, 5. Tseng explains that, when "one or more processors to receive a dragging manipulation on a touch screen display of the graphical interface, from the status area and across the display," it executes instructions to "move the slider mechanism in response to the dragging mechanism, and display the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at [0013], FIGS. 2A-2C, 4A-4B.<br><br>As one example, "[t]he first display in FIG. 2B also shows a large circle surrounded by a ring having a downward pointing arrow. This element indicates a press by a user on the device 218 over the status bar 222, with a subsequent dragging downward of the status bar 222. (The element does not appear on the display.) Such action may be programmed to result in the expanding of a message area 224 into the main zone of the display 220. As with the message area 206 discussed above, the message area 224 may show the various messages that the user's device has received in the user's absence." Tseng at [0053], FIG. 2B. Also, in FIG. 2C, "[t]he second display shows, by a circle having a ring around it in the status bar, a selection by a user, such as … by directly pressing on the display with a fingertip on top of the status bar. Upon the user selecting the status bar, the bar may expand slightly, and a 'slide down' indicator may be displayed, in the form of a notification bar with up and down arrows. The indicator may visually signal the user that they can pull the indicator down to show messages associated with the notification icons. Alternatively, a tab like that shown in FIG. 2A may be displayed below the status area. The third display shows the user dragging the notification bar downward across the main part of the display, like a roll shade." Tseng at [0058]-[0059], FIG. 2C.<br><br>Exemplary citations include: |

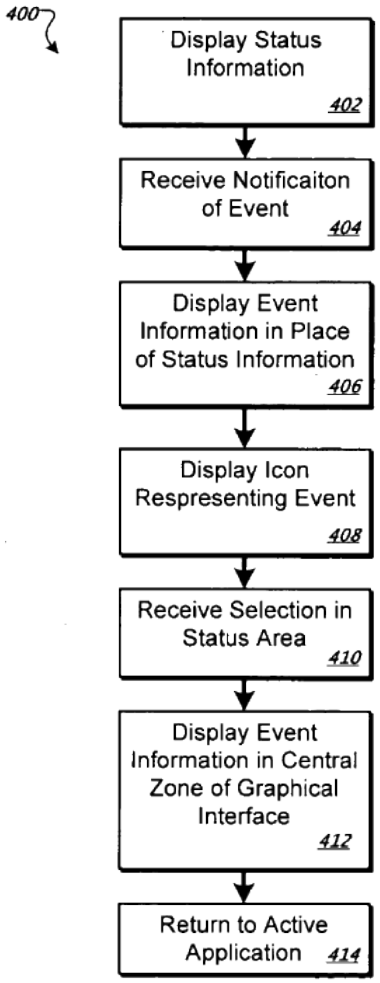
| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 1<br>Tseng at FIG. 1. |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 2A<br>Tseng at FIG. 2A. |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 2B<br>Tseng at FIG. 2B. |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 2C<br>Tseng at FIG. 2C. |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 3<br>Tseng at FIG. 3. |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 4A<br>Tseng at FIG. 4A. |

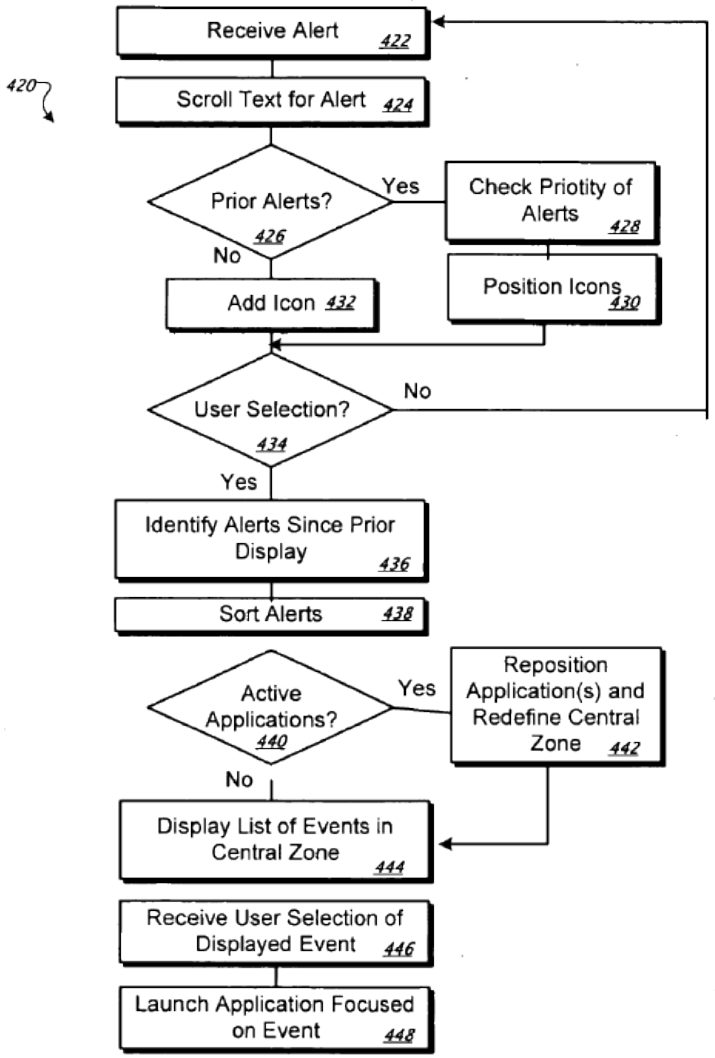
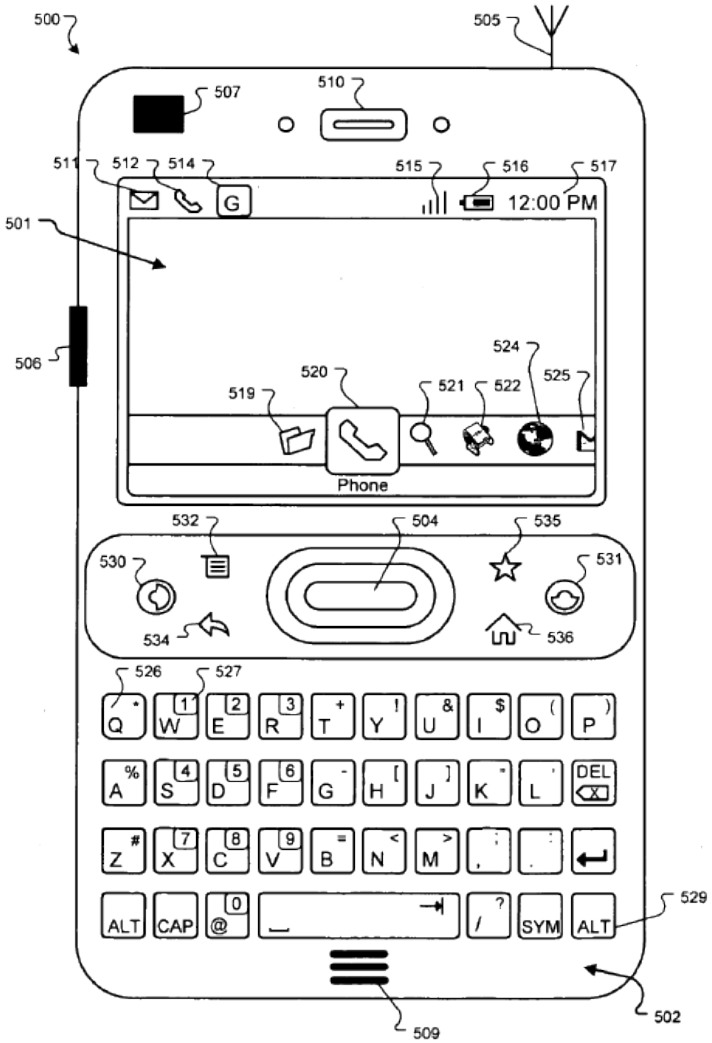
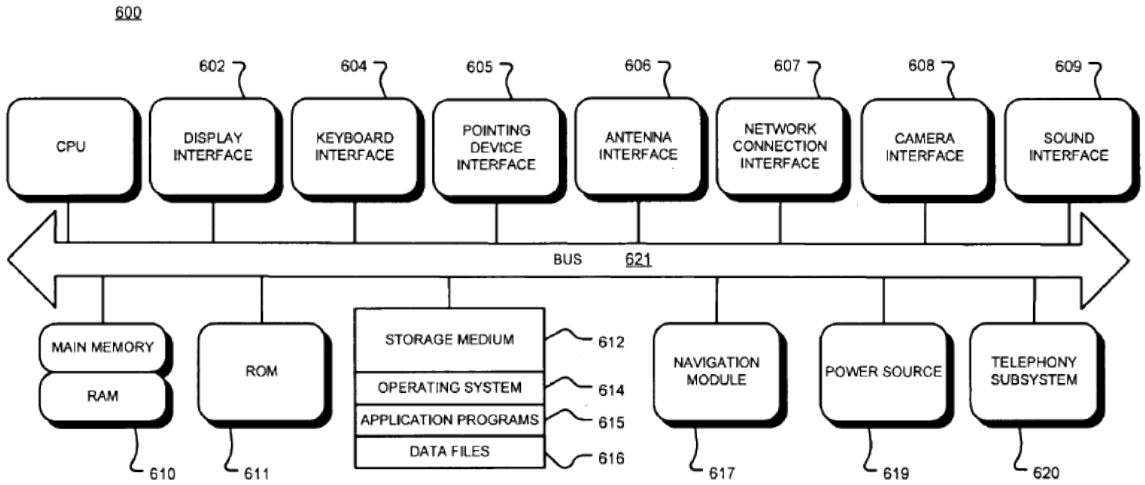
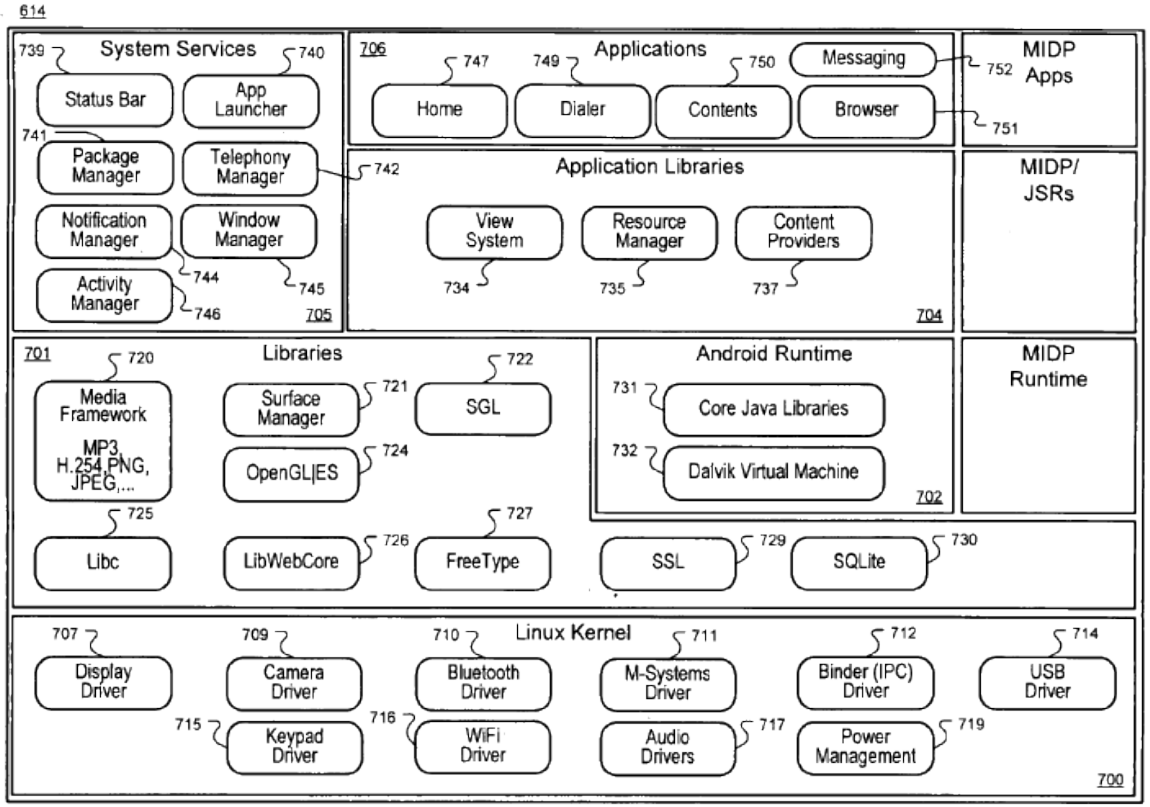



FIG. 4B

Tseng at FIG. 4B.

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 5<br>Tseng at FIG. 5. |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 6<br>Tseng at FIG. 6. |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 7<br>Tseng at FIG. 7. |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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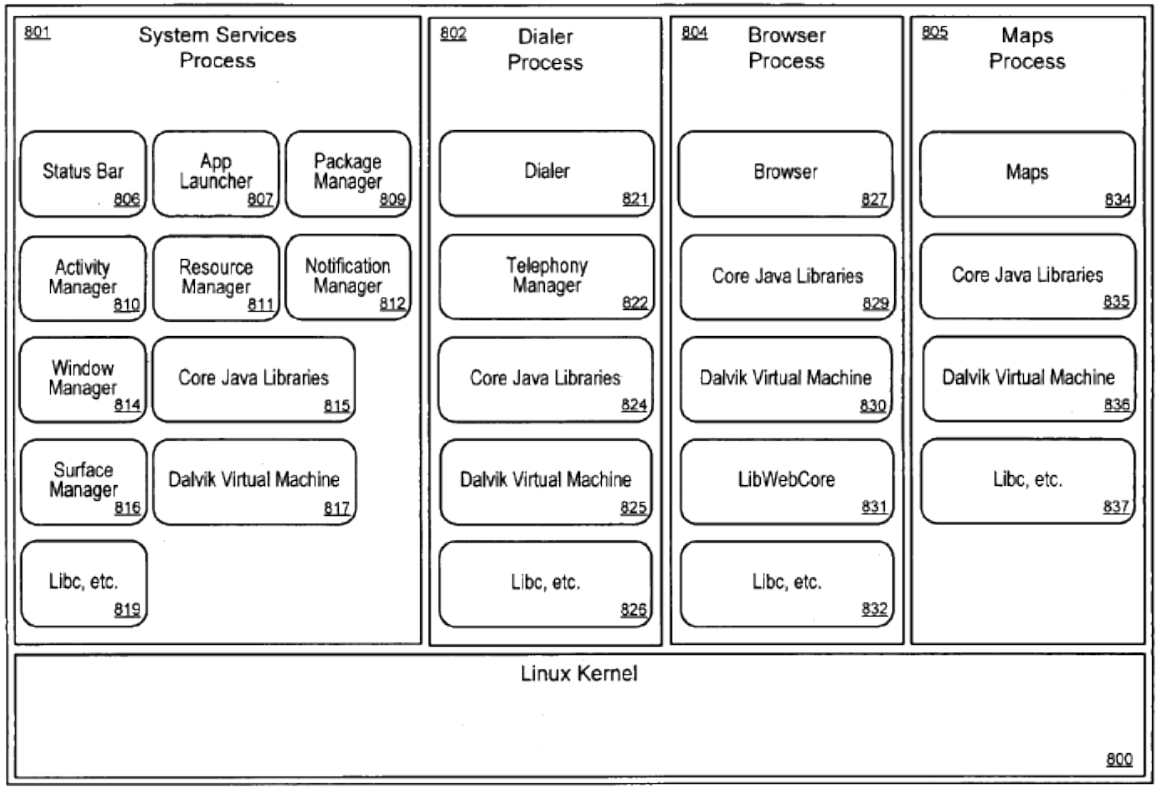



FIG. 8

Tseng at FIG. 8.

"A computer-implemented user notification method includes displaying, in a status area near a perimeter of a graphical interface, a notification of a recent alert event for a mobile device, receiving a user selection in the status area, and in response to the receipt of the user selection, displaying, in a central zone of the graphical interface, detail regarding a plurality of recent messaging events for the mobile device." Tseng at Abstract.

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "In yet other aspects, the display in the central zone comprises a list of messages from a plurality of messaging applications, and the method can also comprise displaying a user-manipulable slider mechanism in response to the user selection. In addition, the method may include receiving a dragging manipulation of the slider mechanism across the graphical interface, moving the slider mechanism in response to the dragging mechanism, and displaying the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at [0011].<br><br>"In another implementation, a machine-readable data storage medium is disclosed. The medium has instructions stored on it that, when executed, cause one or more processors to display, in a status area near a perimeter of a graphical interface, a notification of a recent alert event for a mobile device, receive a user selection in the status area, and in response to the receipt of the user selection, display, in a central zone of the graphical interface, detail regarding a plurality of recent messaging events for the mobile device. The notification can comprise text describing the recent alert event and is displayed in place of battery and signal elements in a status bar of the graphical interface. Also, the instructions can further cause the one or more processors to aggregate, in the status bar, a plurality of icons that are each visually representative of one or more recently received messaging events." Tseng at [0012].<br><br>"In certain aspects, the display in the central zone comprises a list of messages from a plurality of messaging applications. Also, the instructions can further comprise instructions to cause the one or more processors to receive a dragging manipulation on a touch screen display of the graphical interface, from the status area and across the display, and move the slider mechanism in response to the dragging mechanism, and display the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at [0013].<br><br>"The system comprises a wireless interface to receive data for a user of a mobile device, a notification manager to generate a notification message for a device event, including device events received through the wireless interface, where the notification message includes information that describes the device event, and a display manager to generate elements for a graphical display, to receive the notification message and to present the notification message in a first zone near a perimeter of the graphical display. The system can further comprise an input device to receive a user selection in the first zone, wherein in response to the user selection, the display manager |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | displays, in a central zone of the graphical interface, detail information regarding a plurality of recent messaging events for the mobile device." Tseng at [0014].<br><br>"The status area may then also become selectable by the user, so that selection of the status area causes the display of accrued messages to occur. Such selection of the status area may occur by long press on the status area, or by pressing on the status area and dragging downward to pull out the messages as if they are mounted on or under a window shade. Where the device has a fairly flush front surface, the action may take the form of a finger swipe across the face of the display, where the edge of the element showing an extended view of the messaging events 'sticks' to the user's finger as the finger moves past." Tseng at [0029].<br><br>"The right screen in FIG. 2A shows the display 200 after the user has long-pressed or dragged downward on the status bar 202. In this example, the main zone has been filed [sic] with the various messages that were left since the last time the user had reviewed his or her messages. The messages are shown in a message area 206 in the main zone of the display 204, while the status bar 202 is shown with the message notification icons removed (because the user has now been shown the messages and does not need a notification about them). In this example, the first message is an e-mail from Per Gesele, the second is a GOOGLE TALK message from Niklas Green, the third is a missed incoming call from Tomas Ledin, the fourth is a posting of PICASA photos by Niklas Green, and the fifth is a missed call from Tomas Ledin. As shown, the messages are organized here from top to bottom in reverse chronological order." Tseng at [0041].<br><br>"The first display in FIG. 2B also shows a large circle surrounded by a ring having a downward pointing arrow. This element indicates a press by a user on the device 218 over the status bar 222, with a subsequent dragging downward of the status bar 222. (The element does not appear on the display.) Such action may be programmed to result in the expanding of a message area 224 into the main zone of the display 220. As with the message area 206 discussed above, the message area 224 may show the various messages that the user's device has received in the user's absence. And again, details about a message are shown to the left, while an icon for the particular messaging application is shown on the right. Also, selection of a particular message may result in the full message being opened for the user in its corresponding application, while selection of an application icon may cause the application to be invoked, with its associated messages or other features arranged in a standard manner (e.g., reverse chronological order)." Tseng at [0053]. |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | "The third display shows the user dragging the notification bar downward across the main part of the display, like a roll shade. At the point shown, more messages remain above the top of the display area, so that the top-displayed message is faded to black at its upper edge to indicate to the user that more messages are left to review. The initially shown message at the bottom of the pulled down section may be a message computed to be at the bottom of the message area once the bar is pulled all the way down to the bottom of the display. In this manner, the messages shown may be "attached" to the notification bar and may move down with it. Alternatively, the messages may be unattached to the bar, so that sliding the bar down appears to open a window into the area where the messages sit. In such an implementation, the top message would appear first at the top of the display, and more messages would gradually appear as the user pulls the bar downward—opening the metaphorical sliding window or cover on them (but with the bottom edge of the messages faded to black all the way down). In this manner, for example, if a gadget were running near the bottom of the display, the user could pull the bar down only so far, so as to not cover the gadget." Tseng at [0059].<br><br>"Certain momentum effects may be provided for the interaction with the notification bar. For example, if the user releases the notification bar in the upper portion of the display, the messages may spring back upward into the status bar and disappear, much like a roll shade that has not yet caught in its first position would spring back. Alternatively, if a user drags the bar quickly and releases it, the bar may continue moving until its momentum runs out or until it hits the bottom of the display. Also, in some implementations, if the user pulls the bar below a determined level on the display, the bar may automatically keep moving until it reaches the bottom of the display, or until it reaches a graphical element that it is not allowed to pass over." Tseng at [0060].<br><br>"A number of components are shown schematically inside the device 302 to indicate components in the device associated with messaging notification functionality for the device 302. One or more of the components may be implemented as part of a programmable microprocessor on the device 302, though the particular components are shown separately in this example for clarity of explanation." Tseng at [0065].<br><br>"The device receives a user's selection of the status bar at box 410. Such a selection may include a selection like those described above, including by a user pressing on the status bar for a long press period, and/or the user pressing on the status bar and then dragging it downward across the top of |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | the display. Alternatively, the user may select another element on the display. Such as a menu element, to have the outstanding un-reviewed events displayed." Tseng at [0074].<br><br>"The user may then interact as necessary with the various messages and/or applications. When the user is done handling the recently-received messages, the user may indicate an intent to remove the recent-received message elements from the display, such as by handling each of the messages or by selecting a graphical element to move the recent-received message elements up and off the display again so that the previously-operating application or applications may take their place again. The device and the user of the device may then continue on with their actions that did not depend on the recently-received messages. An [sic] selectable control. Such as an icon, may also be provided so that a user may 'clear' their alert events or messages. Such a control may be placed in the form of a bottom in the central display when a user drags down on a status bar, so that the user can re-set their notifications, and the icons in the status bar will be removed to indicate that there are no longer any messages to which the user needs to be directed." Tseng at [0076].<br><br>"At box 434, the process 420 waits for a user selection, such as a user selection in the status bar area (though in certain implementations, the selection may occur in other manners). If there is no user selection before the next alerting event occurs, the process 420 then repeats the steps just described when a new message next arrives." Tseng at [0080].<br><br>"Briefly, and among other things, the device 500 includes a processor configured to display notifications regarding events on the device 500, and to permit a user to conveniently "pull down detail about the events relating to the notifications into an extended view of the events." Tseng at [0084].<br><br>"FIG. 6 is a block diagram illustrating an internal architecture 600 of the device 500. The architecture includes a central processing unit (CPU) 601 where the computer instructions that comprise an operating system or an application are processed; a display interface 602 that provides a communication interface and processing functions for rendering video, graphics, images, and texts on the display 501, provides a set of built-in controls (such as buttons, text and lists), and supports diverse screen sizes; a keyboard interface 604 that provides a communication interface to the keyboard 502; a pointing device interface 605 that provides a communication interface to the pointing device 504; …." Tseng at [0095]. |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | "The CPU 601 can be one of a number of computer processors. In one arrangement, the computer CPU 601 is more than one processing unit." Tseng at [0096].<br><br>"Computing device 900 includes a processor 902, memory 904, a storage device 906, a high-speed interface 908 connecting to memory 904 and high-speed expansion ports 910, and a low speed interface 912 connecting to low speed bus 914 and storage device 906. Each of the components 902, 904, 906, 908, 910, and 912, are interconnected using various busses, and may be mounted on a common motherboard or in other manners as appropriate. The processor 902 can process instructions for execution within the computing device 900, including instructions stored in the memory 904 or on the storage device 906 to display graphical information for a GUI on an external input/output device, such as display 916 coupled to high speed interface 908. In other implementations, multiple processors and/or multiple buses may be used, as appropriate, along with multiple memories and types of memory. Also, multiple computing devices 900 may be connected, with each device providing portions of the necessary operations (e.g., as a server bank, a group of blade servers, or a multi-processor system)." Tseng at [0120].<br><br>"Computing device 950 includes a processor 952, memory 964, an input/output device such as a display 954, a communication interface 966, and a transceiver 968, among other components." Tseng at [0125].<br><br>"The processor 952 can execute instructions within the computing device 950, including instructions stored in the memory 964. The processor may be implemented as a chipset of chips that include separate and multiple analog and digital processors. The processor may provide, for example, for coordination of the other components of the device 950, such as control of user interfaces, applications run by device 950, and wireless communication by device 950." Tseng at [0126].<br><br>"Processor 952 may communicate with a user through control interface 958 and display interface 956 coupled to a display 954. The display 954 may be, for example, a TFT LCD (Thin-Film-Transistor Liquid Crystal Display) or an OLED (Organic Light Emitting Diode) display, or other appropriate display technology. The display interface 956 may comprise appropriate circuitry for driving the display 954 to present graphical and other information to a user. The control interface |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | 958 may receive commands from a user and convert them for submission to the processor 952." Tseng at [0127].<br><br>"The method of claim 11, further comprising receiving a dragging manipulation of the slider mechanism across the graphical interface, moving the slider mechanism in response to the dragging mechanism, and displaying the detail regarding the plurality of recent alert events behind the slider mechanism as it is slid across the display." Tseng at claim 12.<br><br>"A machine-readable data storage medium having instructions stored thereon that, when executed, cause one or more processors to:<br><br>display, in a status area near a perimeter of a graphical interface for a mobile device, a notification of a recent alert event for the mobile device, wherein the alert event corresponds to a change in status of an application operating on the mobile device or of an account associated with the mobile device;<br><br>receive a user selection in the status area; and<br><br>in response to the receipt of the user selection, display, in a central zone of the graphical interface, detail regarding a plurality of alert events for the mobile device, wherein at least some of the plurality of alert events correspond to messages received by the mobile device and the detail includes text from the messages." Tseng at claim 13.<br><br>"The article of claim 13, wherein the instructions further comprise instructions to cause the one or more processors to receive a dragging manipulation on a touch screen display of the graphical interface, from the status area and across the display, and move the slider mechanism in response to the dragging mechanism, and display the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at claim 17.<br><br>"21. A computer-implemented notification system, comprising:<br><br>a wireless interface to receive data that includes messages for a user of a mobile device;<br><br>a notification manager, operable on a computer processor, to generate a notification message for a received message that includes information that describes the message; and means for generating a |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | display of information corresponding to the notification message on a graphical display." Tseng at claim 21. |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[8]** The system of claim 7, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 8 depends from claims 7, 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 7, 5, 3, and 1 here, which anticipate and/or render claims 7, 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 7, 5, 3, and 1 to show the additional limitations of claim 8 are anticipated and/or obvious for the same reasons set out in claims 7, 5, 3, and 1.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>For example, Tseng discloses that, during the gliding action ("finger swipe"), the edge of the message area "sticks" to the user's finger, as explained in claims 1, 3, 5, and 7. *Supra* claims 1, 3, 5, 7. Specifically, Tseng explains that "[w]here the device has a fairly flush front surface, the action may take the form of a finger swipe across the face of the display, where the edge of the element showing an extended view of the messaging events 'sticks' to the user's finger as the finger moves past." Tseng at [0029]. |

| Claim 9 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[9]** The system of claim 3, wherein said action is | Claim 9 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. |

| Claim 9 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| displaying an interface on the screen. | Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 9 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying an interface on the screen."<br><br>Claim 9 recites substantially the same limitations as claim 6 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 6. *See, e.g.*, *supra* claim 6.<br><br>As discussed *supra* claim 6, Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said action is displaying an interface on the screen." *See supra* claim 6. |

| Claim 10 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[10]** The system of claim 3, wherein said action is displaying a portion of an interface on the screen. | Claim 10 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 10 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying a portion of an interface on the screen."<br><br>Claim 10 recites substantially the same limitations as claim 7 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 7. *See, e.g.*, *supra* claim 7. |

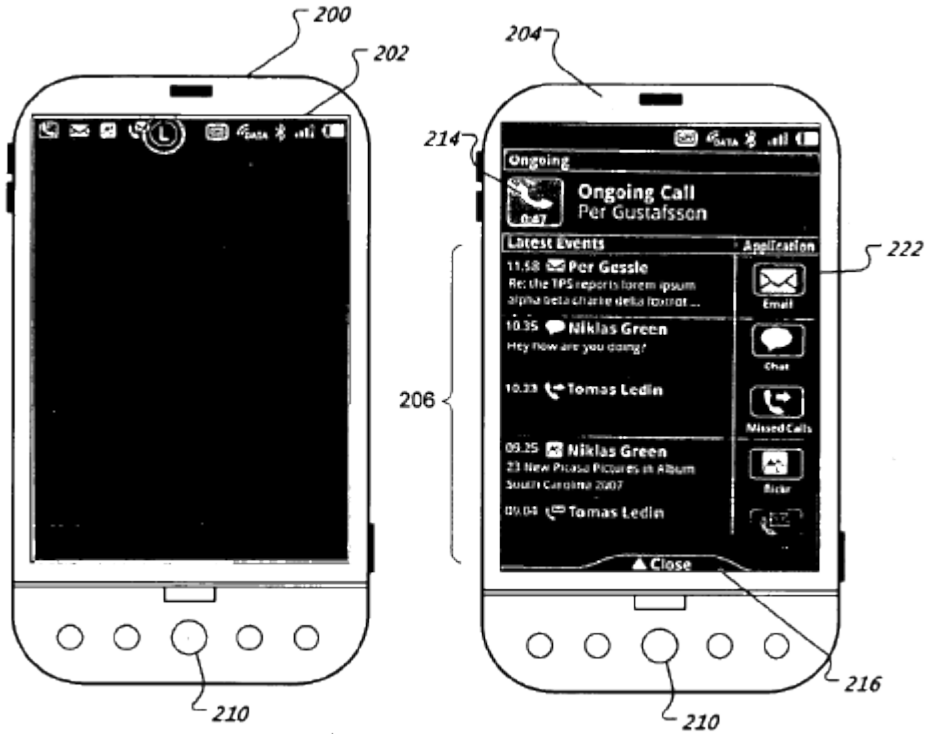
| Claim 10 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | As discussed *supra* claim 7, Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said action is displaying a portion of an interface on the screen." *See supra* claim 7. |

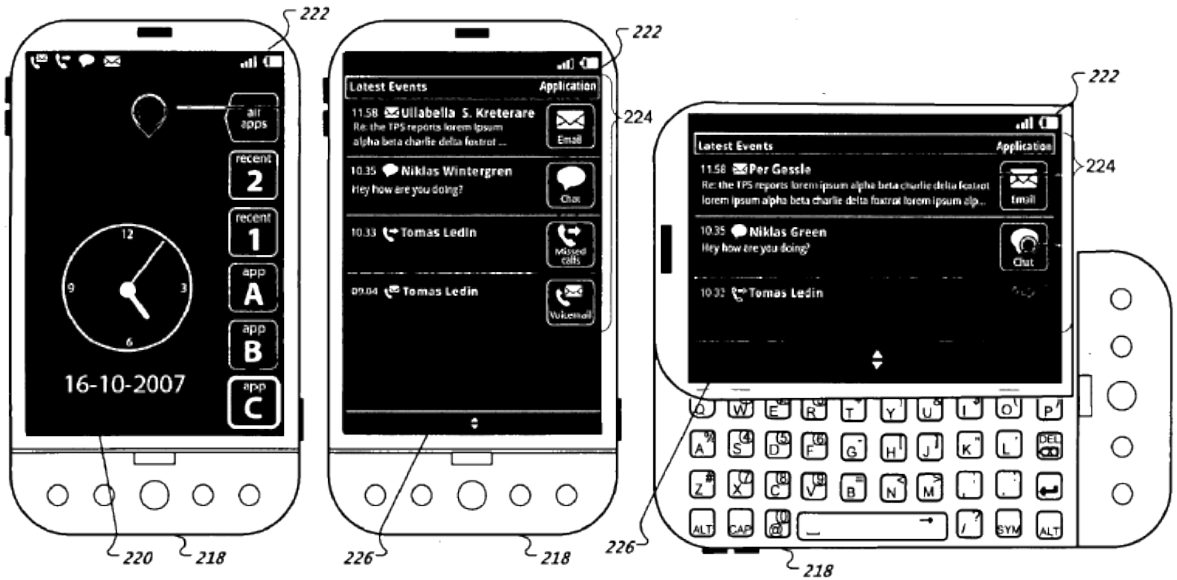
| Claim 11 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[11]** The system of claim 10, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 11 depends from claims 10, 3, and 1. Defendants incorporate all the prior art disclosures from claims 10, 3, and 1 here, which anticipate and/or render claims 10, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 10, 3, and 1 to show the additional limitations of claim 11 are anticipated and/or obvious for the same reasons set out in claims 10, 3, and 1.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>Claim 11 recites substantially the same limitations as claim 8 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 8. *See, e.g.*, *supra* claim 8.<br><br>As discussed *supra* claim 8, Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claim 8. |

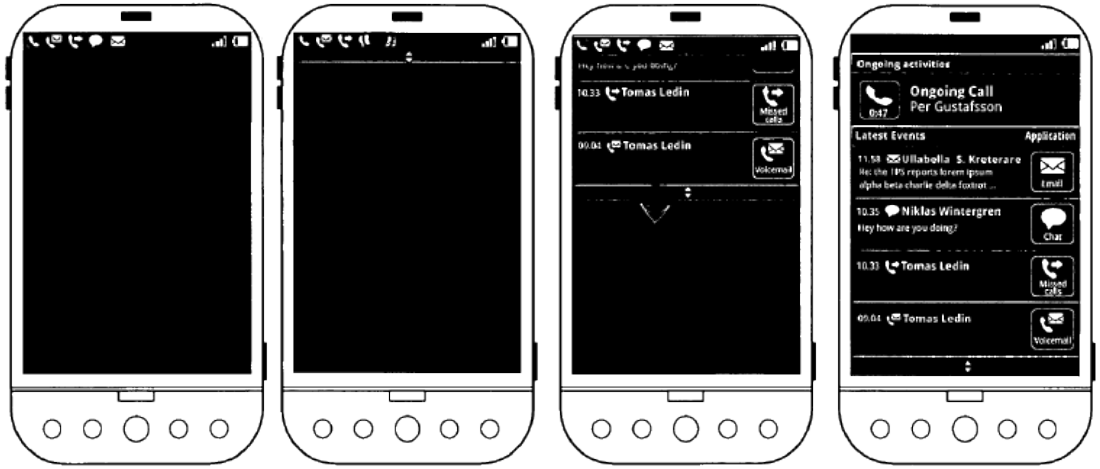
| Claim 12 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[12]** The system of claim 1, wherein upon detecting said gliding action, the system displays an interface on said touch screen. | Claim 12 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 12 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said gliding action, the system displays an interface on said touch screen."<br><br>Claim 12 recites substantially the same limitations as claims 6 and 9 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6 and 9. *See, e.g.*, *supra* claims 6, 9.<br><br>As discussed *supra* claims 6 and 9, Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "upon detecting said gliding action, the system displays an interface on said touch screen." *See supra* claims 6, 9. |

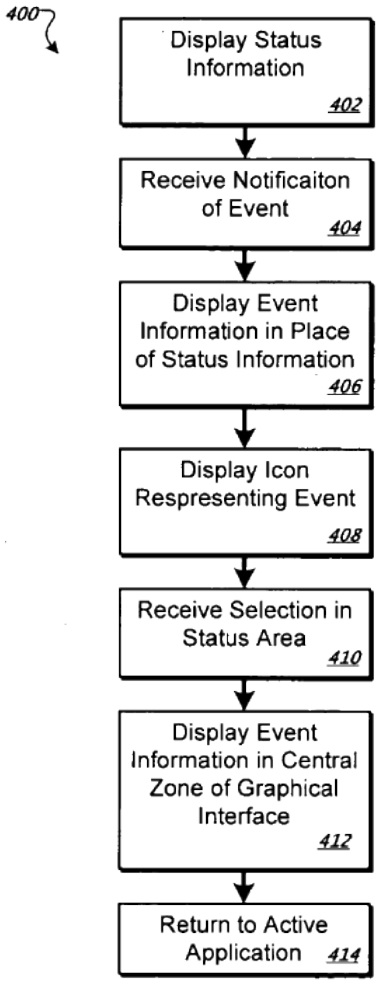
| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[13]** The system of claim 12, wherein upon detecting said gliding action, the system relates said gliding action to setting the location of said interface on said touch screen. | Claim 13 depends from claims 12 and 1. Defendants incorporate all the prior art disclosures from claims 12 and 1 here, which anticipate and/or render claims 12 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 12 and 1 to show the additional limitations of claim 13 are anticipated and/or obvious for the same reasons set out in claims 12 and 1.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said gliding |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | action, the system relates said gliding action to setting the location of said interface on said touch screen."<br><br>For example, Tseng discloses that, upon detecting the user's gliding action, the system relates the gliding action to setting the location of the message area interface on the touch screen by "stick[ing]" the edge of the interface to the user's finger, as explained in claims 1, 3, 5, 7, and 8. *Supra* claims 1, 3, 5, 7, 8. Tseng explains the message area 206/226 may remain "partially" open. Tseng at [0046]. As another example, Tseng explains that, in one embodiment, "if a user drags the bar quickly and releases it, the bar may continue moving until its momentum runs out *or* until it hits the bottom of the display," meaning that it is possible for the message area to stop before the bottom of the display is reached. Tseng at [0060]. As another example, Tseng explains that, in one embodiment, "if the user pulls the bar below a determined level on the display, the bar may automatically keep moving until it reaches the bottom of the display, or until it reaches a graphical element that it is not allowed to pass over." Tseng at [0060].<br><br>Exemplary citations include: |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 2A<br>Tseng at FIG. 2A. |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 2B<br>Tseng at FIG. 2B. |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 2C<br>Tseng at FIG. 2C. |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 4A<br>Tseng at FIG. 4A. |

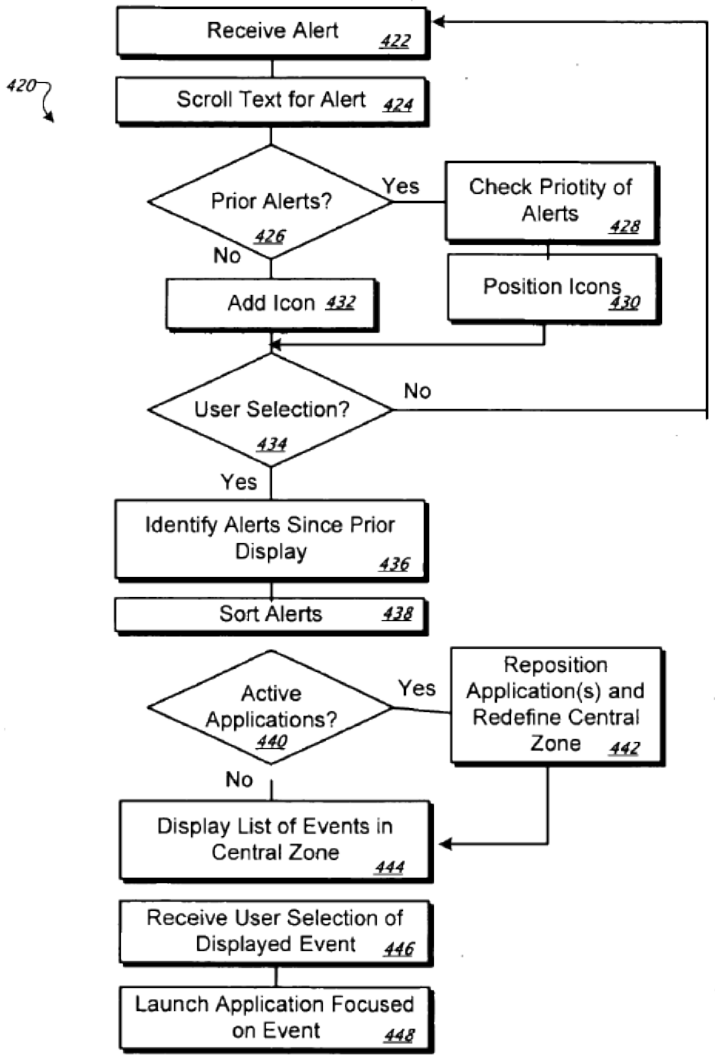



FIG. 4B

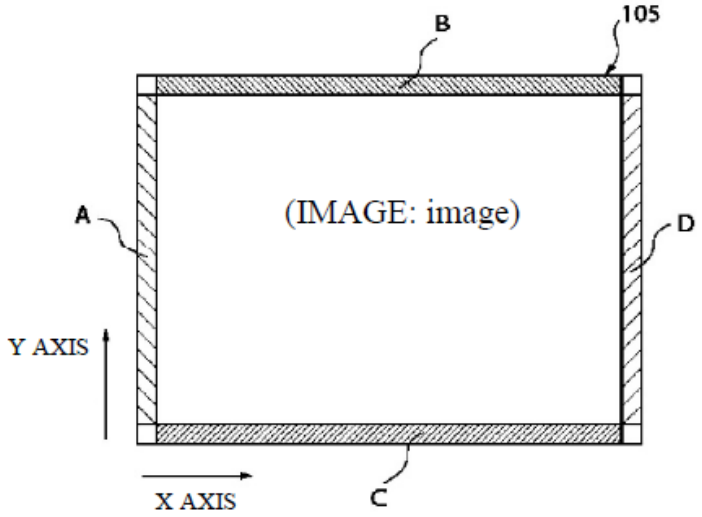
Tseng at FIG. 4B.

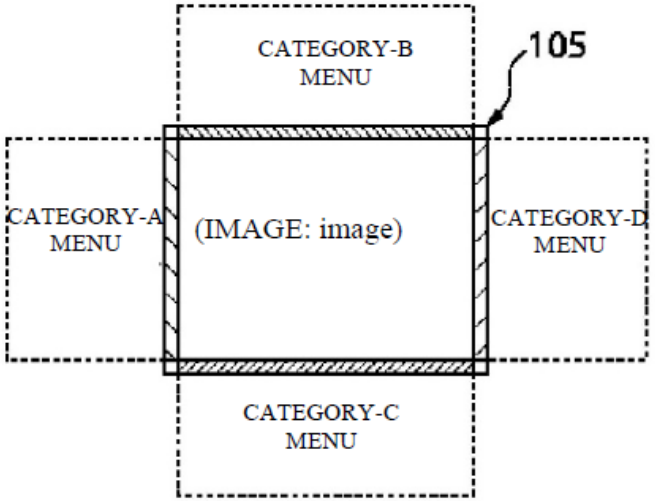
| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | "The status area may then also become selectable by the user, so that selection of the status area causes the display of accrued messages to occur. Such selection of the status area may occur by long press on the status area, or by pressing on the status area and dragging downward to pull out the messages as if they are mounted on or under a window shade. Where the device has a fairly flush front surface, the action may take the form of a finger swipe across the face of the display, where the edge of the element showing an extended view of the messaging events 'sticks' to the user's finger as the finger moves past." Tseng at [0029].<br><br>**"**A tab 216 is shown visually at the bottom of the display 204. In this example, the tab is a thin bar extending fully across the bottom of the display 204, with a thickened area in its middle that is labeled with an instruction of 'close' for the user. Such an instruction indicates to the user that selecting the tab 216 (e.g., by pressing on it) will cause the message area 206 to disappear, so that the application area 214 will expand back to its original space. As described below, the tab 216 may take other forms, and may be dragged upward by a user in a manner like a window shade, to fully or partially close the message area 206. The user may also close the notifications area by dragging upward across it." Tseng at [0046].<br><br>"Certain momentum effects may be provided for the interaction with the notification bar. For example, if the user releases the notification bar in the upper portion of the display, the messages may spring back upward into the status bar and disappear, much like a roll shade that has not yet caught in its first position would spring back. Alternatively, if a user drags the bar quickly and releases it, the bar may continue moving until its momentum runs out or until it hits the bottom of the display. Also, in some implementations, if the user pulls the bar below a determined level on the display, the bar may automatically keep moving until it reaches the bottom of the display, or until it reaches a graphical element that it is not allowed to pass over." Tseng at [0060].<br><br>"The device then displays event information for the various events that have been received since the user last checked such events, in the central zone of the graphical interface (box 412). Such events may be displayed, for example, in reverse chronological order from top to bottom. The events may also be group by event type—such as by one line in the display listing the number of e-mails that have been received since the last time notifications were cleared, another listing the number of text messages, another listing the number of updates for downloaded applications, and the like. The user may then handle each message as he or she sees fit, such as by reviewing it and |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | then deleting or moving it. If the user would like to see more about a particular message, they may select that particular message and may be taken to the relevant application for that message, with the message open." Tseng at [0075]. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[15]** The system of claim 1, wherein said at least one window comprises more than one window located on one or more edges of the touch screen. | Claim 15 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 15 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window comprises more than one window located on one or more edges of the touch screen."<br><br>To the extent Keyless argues that Tseng does not disclose or render obvious claim 15, it would have been obvious in view of Tseng, POSITA's pre-existing knowledge, and/or the teachings of Tseng combined with the other references charted for this patent in these invalidity contentions, including Hisatomi, Wilairat, Roth, Roth Bezel Swipe, the Samsung Behold II, the HTC G1 1.6, and the Neonode N2. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>For example, Hisatomi discloses "FIG. 5 to FIG. 7 are drawings showing examples of coordinate definitions for 'drawer menu display-triggering areas' on the display 105." Hisatomi at [0029], FIGS. 5-7. In Hisatomi, "FIG. 5 to FIG. 7, functions that have been pre-sorted into four broad categories, i.e., A, B, C, and D, are assigned to the edges of the oblong display 105 in a layout resembling virtual drawers. Hereinafter, these functions will be referred to as "drawer menus.'" Hisatomi at [0030], FIGS. 5-7. "[I]n FIG. 5 to FIG. 7, category A, which is a bundle of functions for procedures performed before an image is displayed on the display screen, is on the left side of the display screen the display 105, and search functions, for example, are assigned to this category-A menu. In addition, categories B and C, which are bundles of additional functions that can be applied to a displayed image, are on the upper and lower sides of the display screen; text input functions, for example, are assigned to the category-B menu on the upper side of the display screen and processing/editing functions, for example, are assigned to the category-C menu on the lower side of the display screen. In particular, it is appropriate, as shown in FIG. 7, to lay out the category-B menu at a location such that the image will not be hidden by the input device 107 or by a hand even when writing text onto the image with the menu in a slid-in state, as shown in FIG. 7, or when selecting the menu. Furthermore, a category D, which is a bundle of functions for specifying destinations for processed image data, is on the right side of the display screen; saving/organizing functions or the like, for example, are assigned to this category-D menu, and a list of icons or the like for processing various related functions is displayed therein." Hisatomi at [0032]. "The user can display the menus for the respective categories by performing an operation resembling pulling out from the edges of the display 105 according to the required function. With repeated use, it is possible to memorize the display triggers for the major categories at the locations of the four edges relative to the display 105." Hisatomi at [0033]. "FIG. 7 shows a state in which the category-B menu is being displayed (a stored image of the drawer menu). That is, a state is shown in which the "drawer menu" for category B is displayed via a manipulation means, wherein coordinates within the category-B region shown in FIG. 5 are indicated by the dedicated input device (pen-type pointing device) 107 and, in that state, sliding the input device 107 in the direction of arrow E toward the center of the display screen." Hisatomi at [0034], FIG. 7. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 5<br>  <br><br>Hisatomi at FIG. 5. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 6<br>  <br><br>Hisatomi at FIG. 6. |

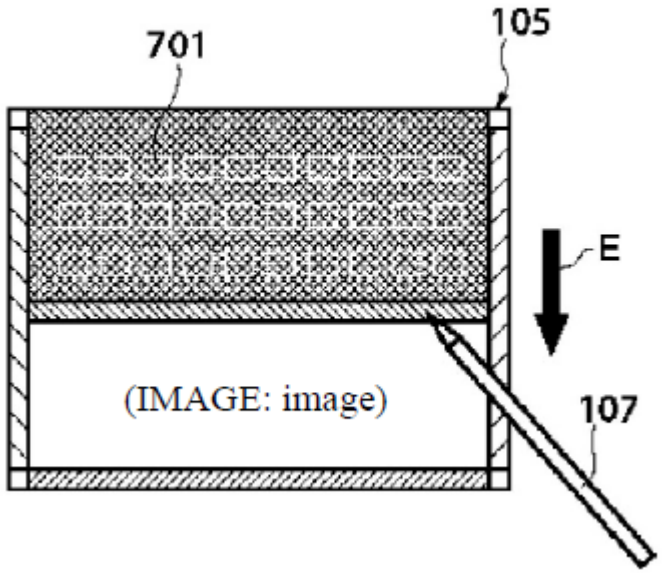
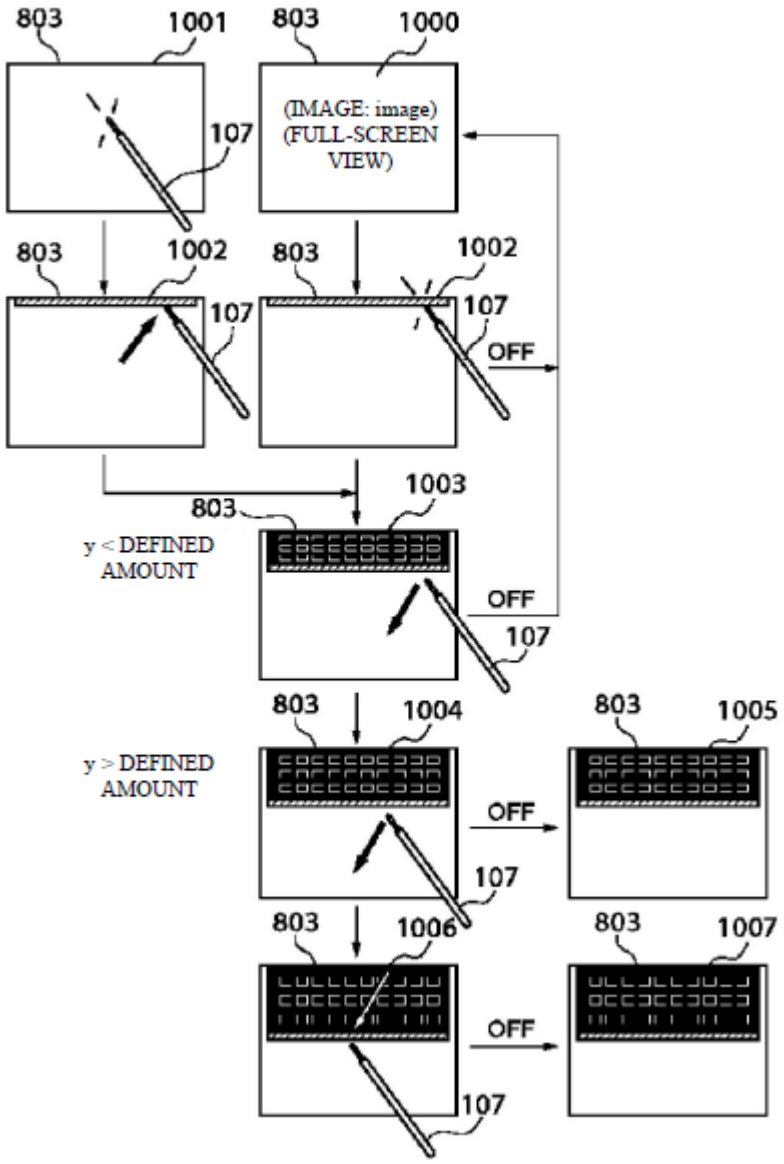
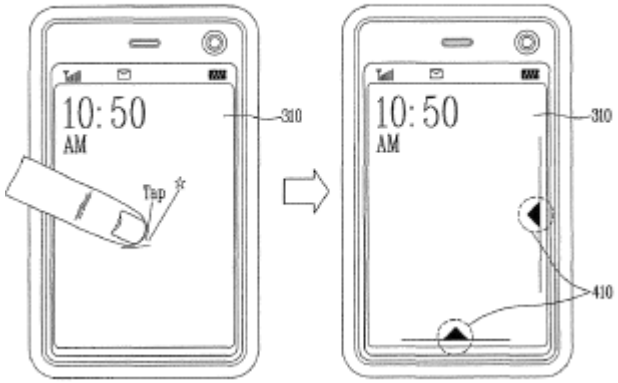
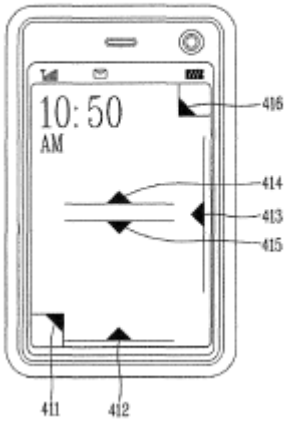
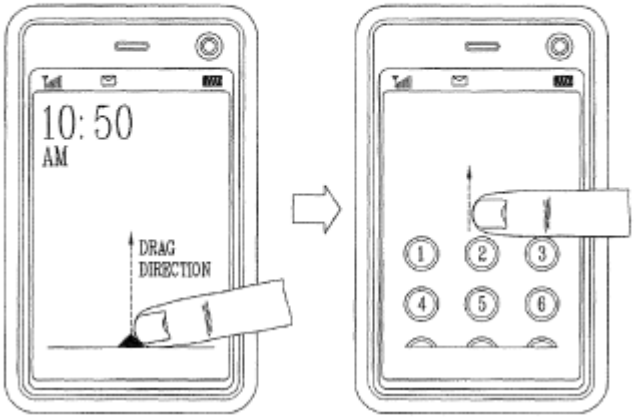
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7<br>  <br><br>Hisatomi at FIG. 7. |

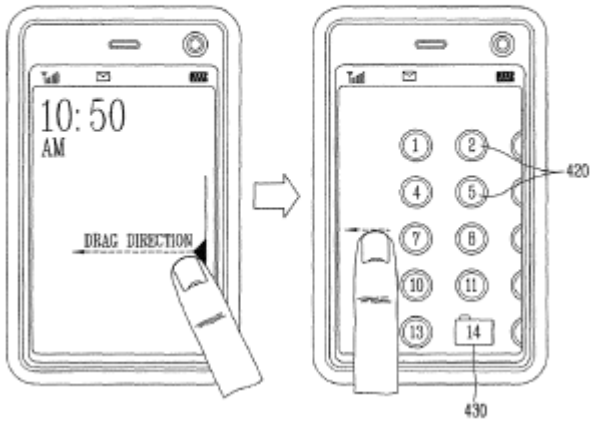
FIG. 10


803
1001
803
1000
(IMAGE: image)
(FULL-SCREEN VIEW)
107
803
1002
803
1002
107
107
OFF
803
1003
y < DEFINED AMOUNT
OFF
107
803
1004
803
1005
y > DEFINED AMOUNT
OFF
107
803
1006
803
1007
OFF
107

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Hisatomi at FIG. 10; *see also id.* FIGS. 11-47.<br><br>Jeong discloses that, "when a touch is inputted with nothing displayed on the background screen image 310, the tags 410 related to the menu screen image 320 are displayed (Sl0l to S103)." Jeong at [0057], FIGS. 5, 6A. "As shown in FIG. 6B, one or more tags 411 to 416 may be displayed, and the tags 410 may be displayed at one of a side, a corner or an internal region of the touch screen." Jeong at [0058]. "With the tags 410 displayed, when the user touches one of the tags 410 and drags it (S104), the controller 180 exposes a menu screen image 320, which has been hidden, in the direction in which the tag is dragged as shown in FIGS. 7A to 7C. Likewise, if the tag is dragged in a different direction, an exposed menu screen image 320 may be hidden (S105)." Jeong at [0058], FIGS. 7A-7C.<br><br>FIG. 6A<br>  <br><br>Jeong at FIG. 6A. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 6B<br>  <br><br>Jeong at FIG. 6B. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7B<br>  <br><br>Jeong at FIG. 7B. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7C<br>  <br><br>Jeong at FIG. 7C.<br>Moreover, each of Wilairat, Roth, Roth Bezel Swipe, the Samsung Behold II, the HTC G1 1.6, the Neonode N2, teaches wherein said at least one window comprises more than one window located on one or more edges of the touch screen.<br>For example, Wilairat discloses "[e]mbodiments of a touch pull-in gesture provide techniques for a user of a portable device to motion a pull-in gesture which gives the appearance of dragging a user interface component onto a touch-screen of the device for display. For example, a user can initiate a touch input with a finger just off an edge of the touch-screen and then motion a pull-in gesture across the touch-screen." Wilairat at [0009]. "When the motion of the touch pull-in gesture is initiated by the user, a progression of the motion as the touch input remains in contact with the touch-screen creates a contact region on the touch-screen that progressively expands and is detected. The progressive expansion of the contact region on the touch-screen is then determined or recognized as the touch pull-in gesture that initiates a display of a user interface component proximate a location of the touch pull-in gesture on the touch-screen. A user interface component |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | can include any type of hidden menu, slide menu, drop-down menu, scrollbar, and/or any other type of user interface displayable element." Wilairat at [0009]. "In an embodiment of a touch pull-in gesture, a user of portable device 102 can initiate a touch input 112 with a finger just off an edge of the touch-screen 104 and then motion a pull-in gesture 114 in a direction 116 across the touch-screen. The motion of the touch pull-in gesture 114 is illustrated in the direction 116 as the hand moves from position 118, to position 120, and to position 122 (shown successively in the three views). When the motion of the touch pull-in gesture 114 is initiated by the user, a contact region 124 progressively expands. Such as illustrated when the hand moves from the edge of the touch-screen at position 118 to position 120, and then from position 120 to position 122. The progressive expansion of the contact region 124 is then determined or recognized as the touch pull-in gesture 114." Wilairat at [0012]. Wilairat describes that the pull-in gesture can be facilitated from multiple edges (e.g., top, side, and/or bottom). "In various implementations, the interface application 108 can initiate a display of a vertical scrollbar 128 as a user interface component when the touch pull-in gesture 114 starts at a side edge 130 of the touch-screen 104. Alternatively or in addition, the interface application 108 can initiate a display of a drop-down menu (not shown) as a user interface component when the touch pull-in gesture 114 starts at a top edge 132 of the touch-screen 104. Alternatively or in addition, the interface application 108 can initiate a display of a horizontal scrollbar (not shown), or other user interface component, when the touch pull-in gesture 114 starts at a bottom edge 134 of the touch-screen 104." Wilairat at [0014]. "A user interface component can include any type of hidden menu, slide menu, drop-down menu, scrollbar, image, graphic, text, user-selectable control, menu selection, map element, and/or any other type of user interface displayable feature or item." Wilairat at [0015]. Wilairat explains that indications of the pull-in gestures may appear on the touch screen. "When embodiments of a touch pull-in gesture are implemented, the various representations and indications may or may not appear on the touch-screen and/or on a user interface." Wilairat at [0017]. |

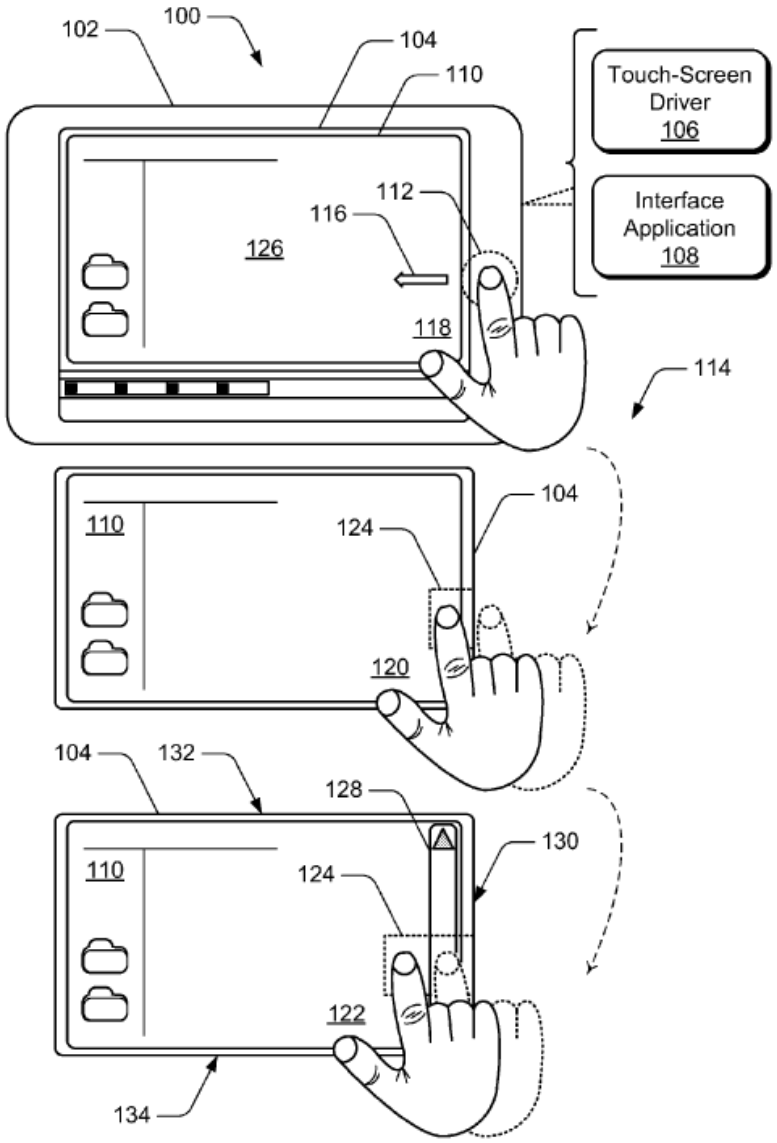
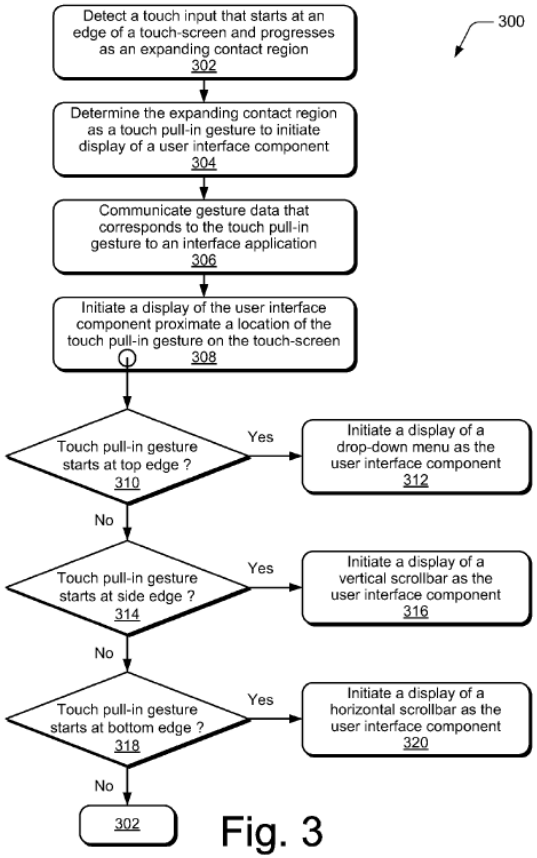
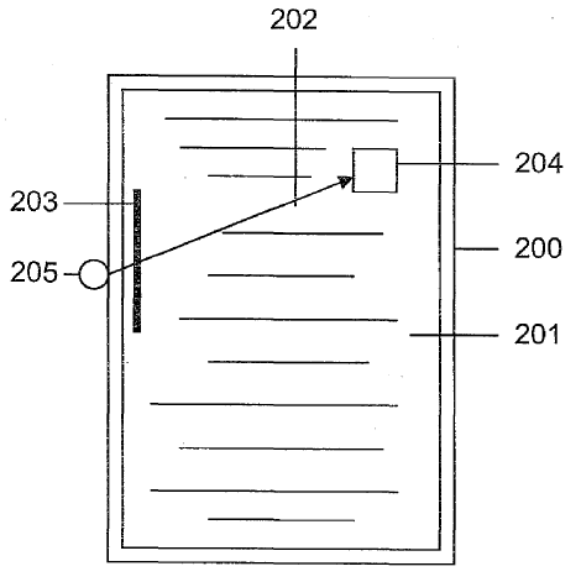
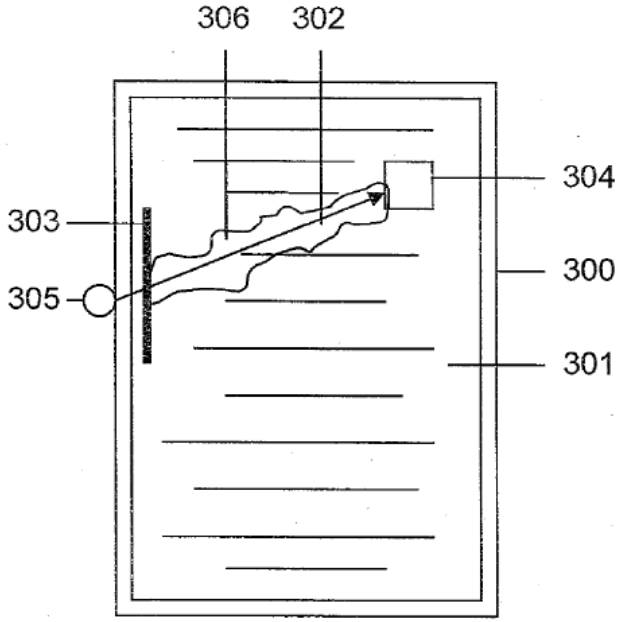

102
100
104
110
Touch-Screen Driver 106
Interface Application 108
112
116
126
118
114
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124
104
120
104
132
128
130
110
124
122
134

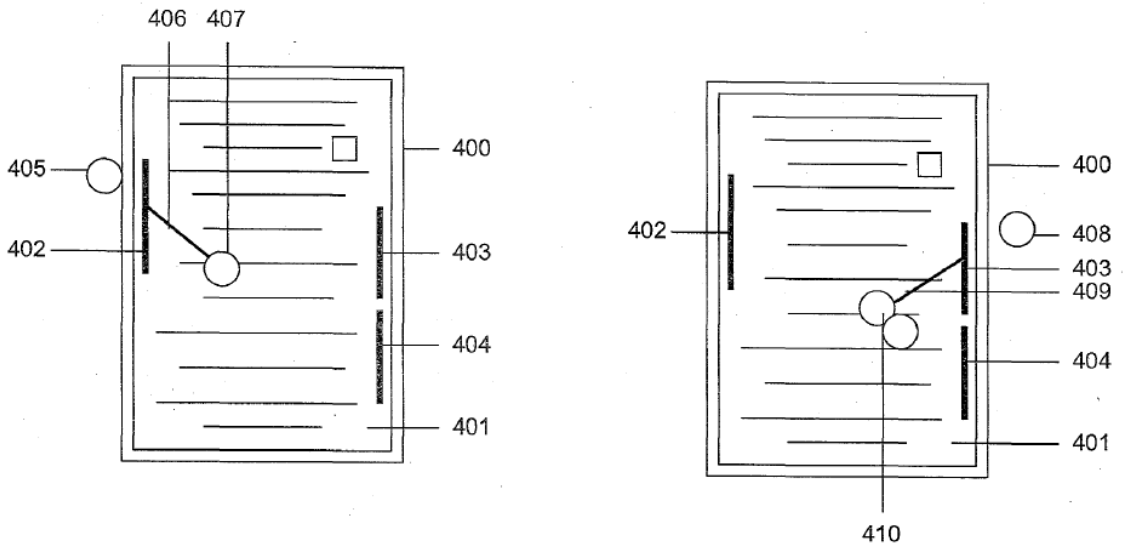
Fig. 1

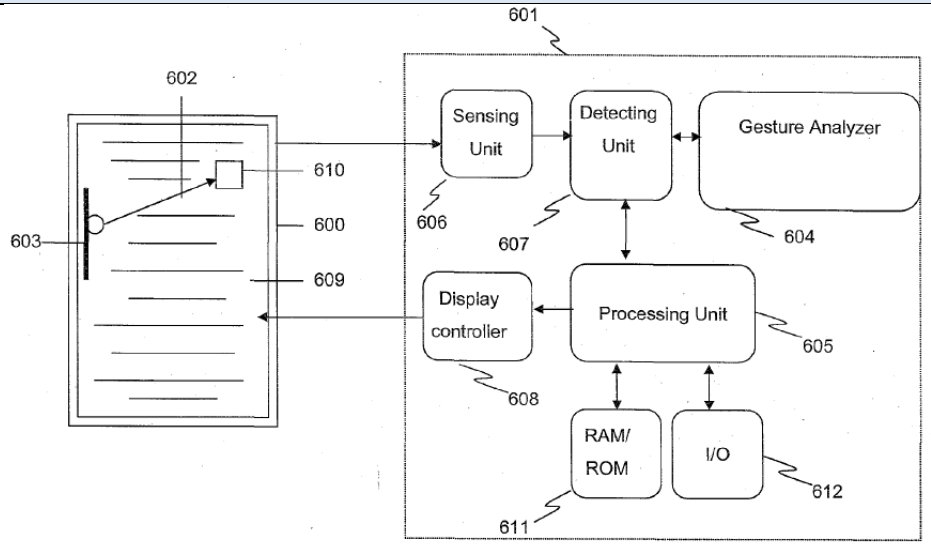
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Wilairat at FIG. 1.<br>  <br><br>Fig. 3<br>Wilairat at FIG. 3.<br>Roth discloses "[a] crossing-based interface along the bounds of the display" where "[u]sers can invoke actions with swiping gestures across a section of the display side from the outside to the inside." Roth at [0009]. "One example of such a gesture is a continuous swiping motion from the |

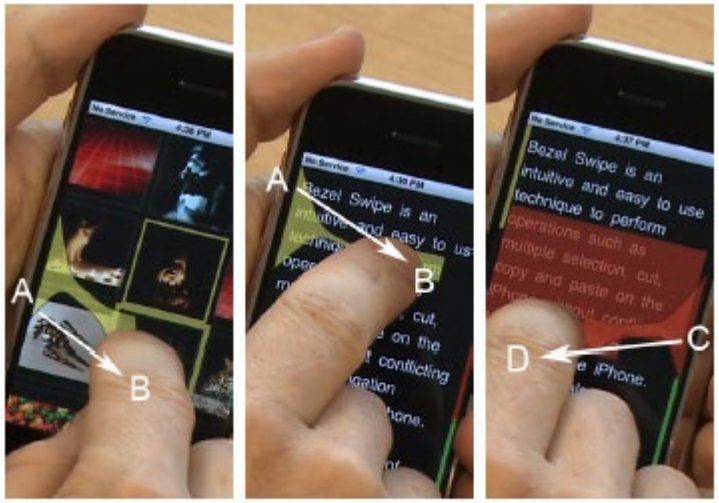
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | activation point representing a desired action or even from the bezel of the device, through the activation point and to the target on the display. Such a gesture allows the active area of an activation point to be much smaller on a display due to the utilization of a greater average weight throughout a touch sensitive display, which creates a higher probability of activating on a narrow activation point or operating on a small target." Roth at [0015]. "The continuous swiping motion may also begin from outside the display for ease of use." Roth at [0015]. In FIG. 2A, "[t]he user can then select the target 204 through the use of a gesture 202, such as swiping, pinching, tapping or other gestures, between the bar representing the desired action and the target." Roth at [0036]. Roth provides for multiple bars on the screen, such as shown in FIG. 4. "Of course, the present invention is not limited to merely having a singular bar representing an action. Several such bars may be dispersed around the edges of the screen so as to allow the user access to several different desired actions. These bars may be color coded to represent different actions, or the bars may utilize patterns or other color-independent markings to assist color blind users. Furthermore, the shape of the activation point is not limited to a bar-like shape; other shapes such as a dot, circle, star, gap or so forth may be used to represent the edge portion." Roth at [0037]. "In FIG. 4, we demonstrate several different embodiments of the invention, including the use of multiple bars, multiple gestures, and the placing of markers to indicate a desired action. The placing of a marker is useful in utilizing multiple gestures with multiple bars to execute a desired action in tandem." Roth at [0043]. |

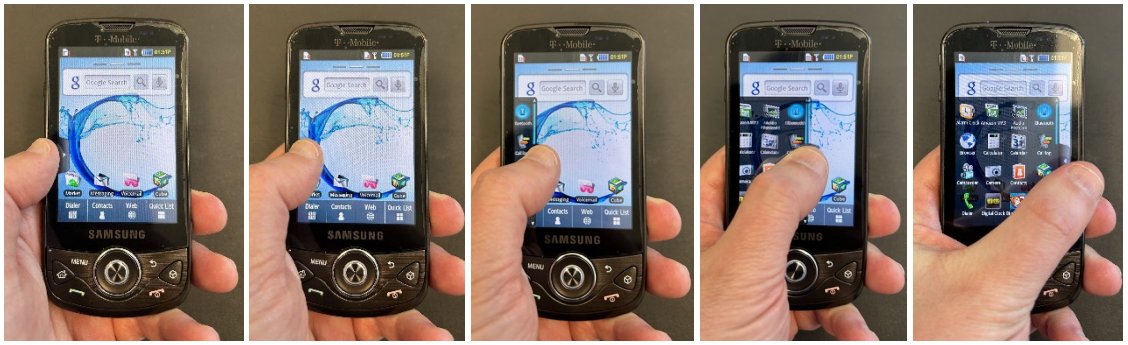
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Fig. 2B<br>  <br><br>Roth at FIG. 2B. |

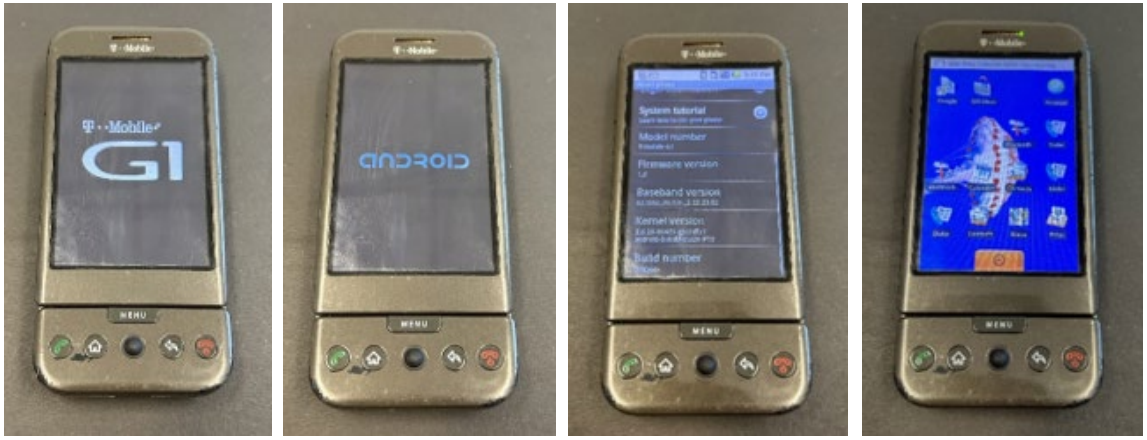
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Fig. 3<br>  <br><br>Roth at FIG. 3. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Fig. 4<br>  <br><br>Roth at FIG. 4. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 6<br>Roth at FIG. 6.<br>Roth Bezel Swipe discloses "screens of mobile devices are necessarily small, which limits the size of displayed pages and the space that can be devoted to user interface widgets" and "smaller widgets are harder to hit." Roth Bezel Swipe at 1523. Roth Bezel Swipe describes a "bezel swipe" activation gesture, where "[t]he user starts a Bezel Swipe gesture on the bezel, which is the physical touch insensitive frame that surrounds the display. The finger is then swiped through a part of the display edge into the display, which enters selection mode." Roth Bezel Swipe at 1524. Multiple such bars are described. " In our prototype, we used a colored line that stretches from the activation bar to the user's fingertip on the display." Roth Bezel Swipe at 1524. "A touch sensitive display translates the contact area of the finger with the display into an activation point." Roth Bezel Swipe at 1524. "The Bezel Swipe gesture … starts on the bezel and moves into the display." Roth Bezel |

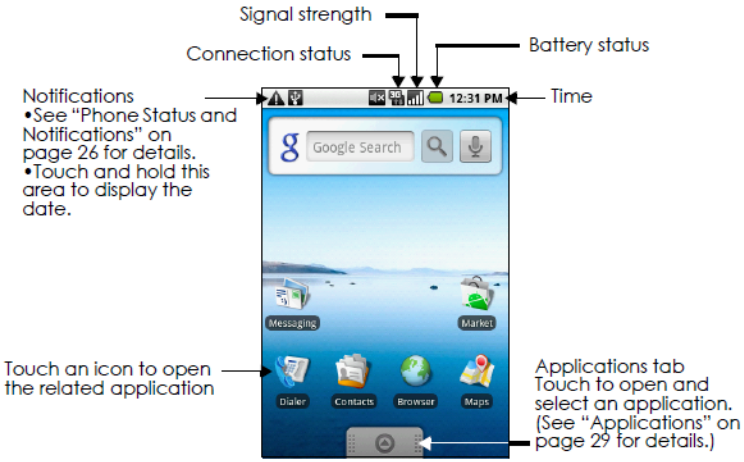
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Swipe at 1524. "Bezel Swipe relies on flat bezels and gestures from the bezel into the display …." Roth Bezel Swipe at 1524.<br>  <br><br>**Figure 1. The Bezel Swipe prototype in action. Left panel: A swipe from A to B selects an image. Middle panel: A swipe from A to B marks the beginning of a text selection. Right panel: A swipe from C to D marks the end of the text selection.**<br>Roth Bezel Swipe at FIG. 1.<br>The Samsung Behold II includes the status bar window and the applications tab window (more than one window) located on the top and left (one or more window) edges of the touch screen. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>  <br>  <br>The Samsung Behold II device. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | The HTC G1 1.6 includes the status bar window and the applications tab window (more than one window) located on the top and bottom (one or more window) edges of the touch screen.   HTC G1 1.6 Device.   HTC G1 1.6 Device |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC G1 1.6 Device.<br>  <br>HTC G1 1.6 Device.[5] |

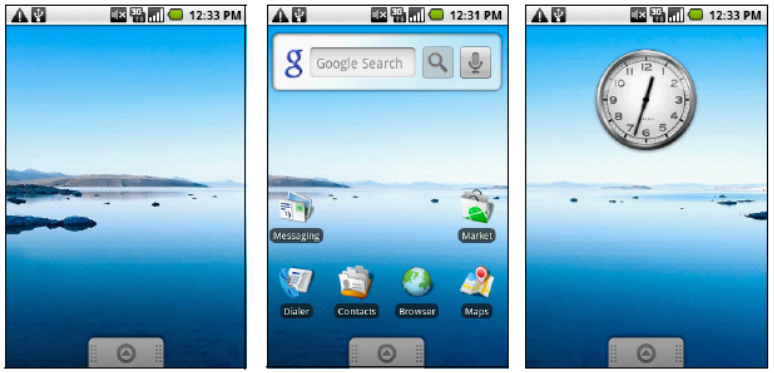
[5] Samsung reserves the right to rely on any HTC G1 device in this chart, including either or both of the HTC G1 devices shown here. On information and belief, such devices function substantially the same as disclosed in this chart.

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **1.7 Home Screen**<br><br>The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.<br><br>  <br><br><br>**Tip** While in any application, press **HOME** to go back to the Home screen. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

## Extended Home screen

The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.




Extended Home screen left

Extended Home screen right

G1 User Manual 24.

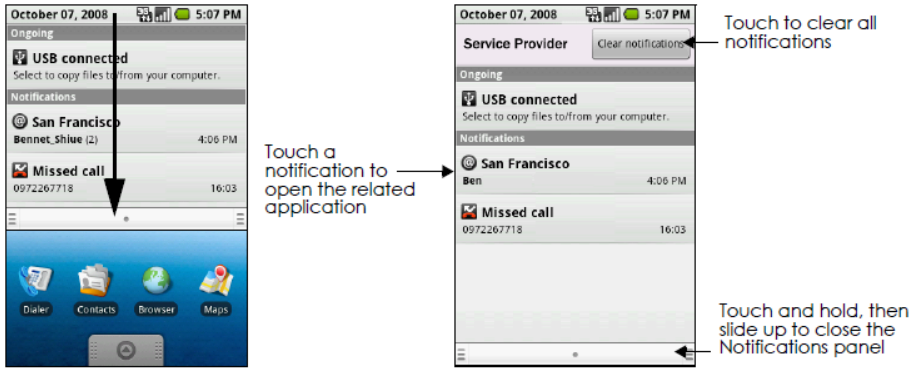
## Notifications panel

Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.

**To open the Notifications panel**

When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|




If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

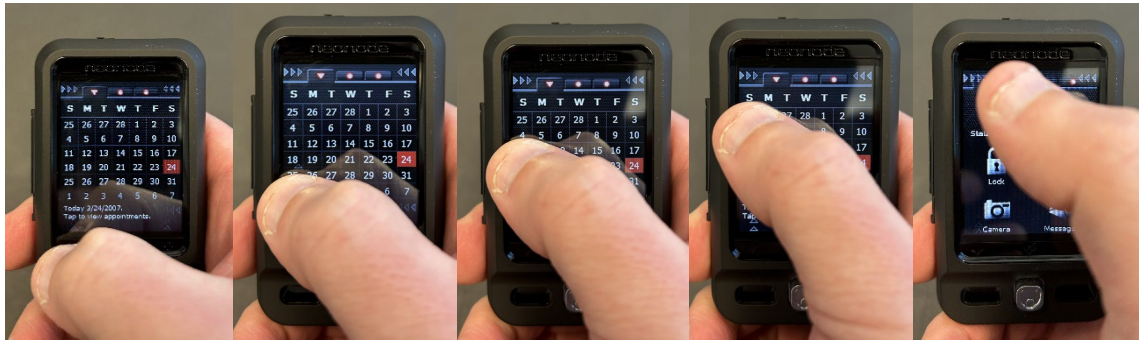
**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

**To close the Applications tab**

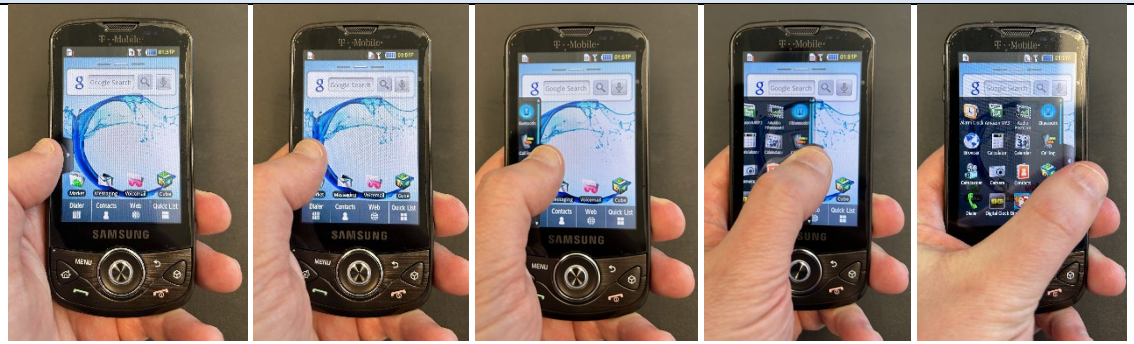
Touch  .

G1 User Manual 29.

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, G1 Launch Event; G1 Unveiled; Engadget Review; Google Mobile Products on Android; T-Mobile G1 Review; T-Mobile G1 Android Phone Hands-On; T-Mobile G1 Expanded Demo; T-Mobile G1 User Interface Review; T-Mobile G1 Physical Design Review; The Gadget Show, T-Mobile G1 Live Demo; T-Mobile G1 Tour; T-Mobile G1 Impressions; HTC Dream User Manual.<br><br>The Neonode N2 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen from multiple sides with multiple windows showing arrows indicating that a gliding action is available. For example, the screen over the indicated icons or from the sides of the screen as indicated by the various arrows (from outside of the screen), over the arrows towards the main application display toward the inside of the touch screen (e.g., crossing over the window identifying the movement from off-to-on screen) or from the side of the display (e.g., crossing over the arrow window shown on the screen). As one example, both opening applications menu (gliding action up) and returning to the home screen (bottom right-to-left gliding action) are shown below.<br><br>  <br><br>Neonode N2. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Neonode N2.<br>  <br>Neonode N2.<br>  |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Neonode N2<br><br>The Samsung Behold II includes the status bar window and the applications tab window (more than one window) located on the top and side (one or more window) edges of the touch screen.<br><br>  <br>  |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>The Samsung Behold II device.<br><br>A POSITA would have found it obvious to incorporate more than one window located on one or more edges of the touch screen in Tseng's system, as claimed. Each of Hisatomi, Wilairat, Jeong, Roth, Roth Bezel Swipe, the Samsung Behold II, the HTC G1 1.6, and/or the Neonode N2, teaches including more than on window located on one or more edges of the touch screen being responsive to the user's gliding action.<br><br>A POSITA would have been motivated to incorporate additional windows of one or more of Hisatomi, Wilairat, Jeong, Roth, Roth Bezel Swipe, the Samsung Behold II, the HTC G1 1.6, and/or the Neonode N2 into Tseng's system to provide additional functionality for a user. For example, a POSITA would have been motivated to provide a second pull-out menu at a second edge of Tseng's screen to allow a user to quickly access other applications and/or interfaces, as was known in the prior art. For example, T-Mobile had released a device that allowed a user to drag open a status bar notifications panel and drag open an applications selection interface. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **To open the Notifications panel**<br>When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.<br>  <br><br>Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.<br>T-Mobile G1 User Manual at 27-29.<br>A POSITA would have been motivated to, for example, provide a second menu for users to access other functions, such as quickly switching between applications, in Tseng by including a second window located on the touch screen, such as at the bottom shown in Figure A below. *See, e.g.*, T-Mobile G1 User Manual at 27-29 (describing slide-in menus to show notifications and applications); Jeong at [0052], [0053], FIG. 6A (describing a pull-in menu having "a plurality of menu items (or icons)" used "for executing a program"); Hisatomi at [0030], [0032]-[0034], FIGS. 5-7, 10-47. A POSITA also would have been motivated to use the second window to provide additional functionality, such as a keyboard taught by Wilairat, the "back" or "close" function of the Neonode N2 device, or any other user interface component, such as a "hidden menu, slide menu, drop-down menu, scrollbar, image, graphic, text, user-selectable control, menu selection, map element, and/or any other type of user interface displayable feature or item." Wilairat at [0015]. |

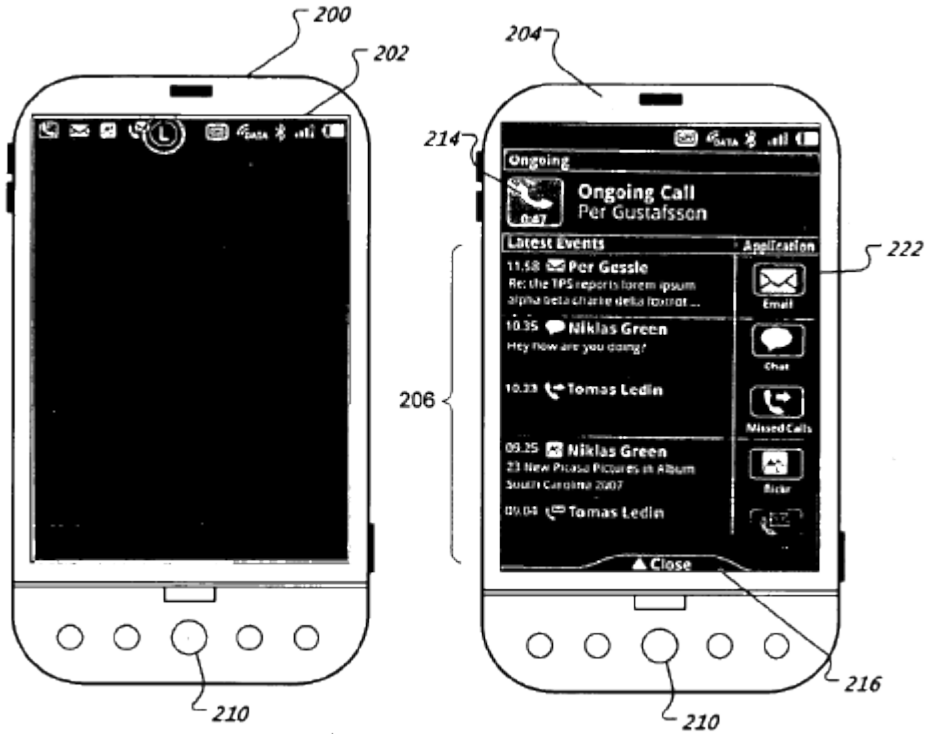
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | As explained above for [1D], a POSITA would have been motivated to provide the second window of the at least one windows using a very thin window, such as only a few pixels as was known in the art (*see* Roth Bezel Swipe at 1424-1525, Figure 1 (describing 8-pixel window; Roth at FIG. 2B). A POSITA also would have been motivated by the teachings in the prior art itself. Roth Bezel Swipe describes using off-to-on screen gliding gestures allows a user to "start [a swiping gesture] on the bezel and move[] into the display" to contact "a narrow target (the red bar) positioned flush against the display edge" along with other colored bars on the same or different display edges. Roth Bezel Swipe at 1524, Figure 1. A POSITA would have recognized that such bezel swipe gesture are "recognized by detecting touches inside a thin rectangular area [e.g. red application bar window of Figure A] positioned flush against the display screen," which "enables the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch." Roth Bezel Swipe at 1524, Figures 1, 2 (emphasis added). A POSITA also would have been motivated to use a very thin indicator to provide a second window because it "requires minimal display real estate" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]," which a POSITA would have recognized makes it ideal for smaller device screens, as in Tseng. Roth Bezel Swipe at 1524; Roth at [0009].<br><br>A POSITA would have been motivated to provide more than one window with varying functions and/or sizes, depending on the design preferences, such as shown in Jeong, Roth Bezel Swipe, Roth, and the T-Mobile G1 User Manual, or the entire edge, as shown in Tseng. Roth Bezel Swipe at Figures 1, 2; Roth at FIGS. 2A-4; T-Mobile G1 User Manual at 27-29, Tseng at FIGS. 2A-2C. In such cases, a POSITA would have known that the design would not have hindered the user's use of the application in Tseng's main application area because, by design, the second window would have been "is so narrow that it would be difficult to activate by direct touch." Roth Bezel Swipe at 1524. Furthermore, if a "finger swipe" is required activate the pull-out menu, as taught by Tseng, even an accidental direct touch by a user on the thin second window would not accidentally activate it if it is activated by a gliding action. A POSITA would have found this obvious, for example, by using the thin bars taught by Roth or Roth Bezel Swipe that are too thin to be activated by direct touch or by making a determination of a pull-in gesture, using, for example, the expanding contact method taught by Wilairat. A POSITA would have recognized this would further safeguard against accidental activation from direct touch. |

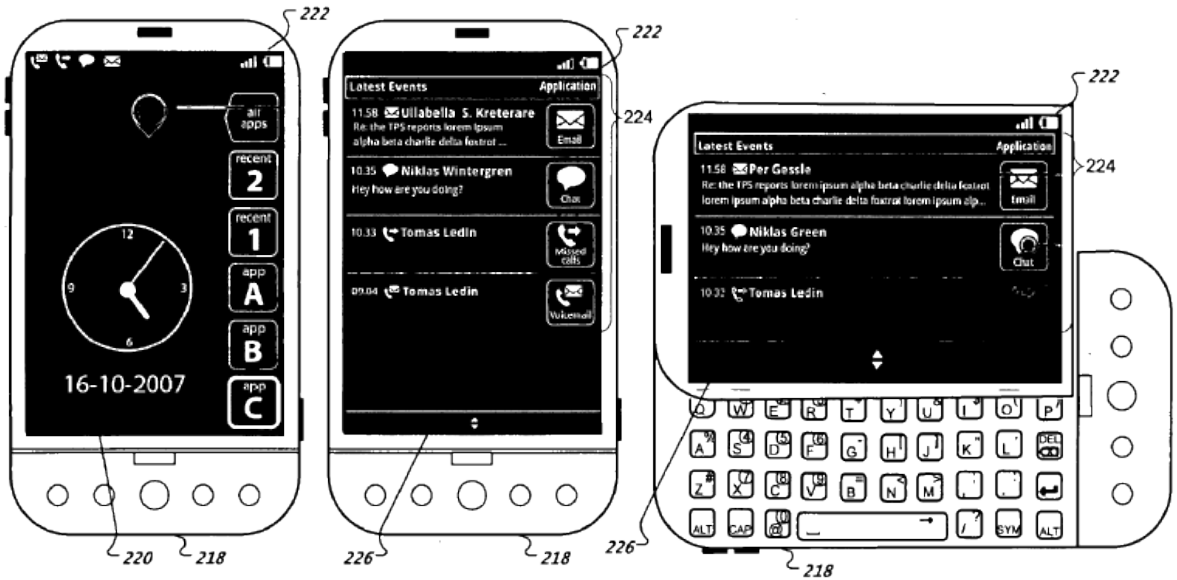
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | It was well known to a POSITA that including more than one window for activating gliding actions would have provided additional functionality for user. Including more than one window for activation by a gliding action would have "enable[d] the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524. Activating functions where "[u]sers can invoke actions with swiping features across a section of the display [touch screen] side from the outside to the inside" also "requires minimal display real estate," whereby being beneficial to mobile devices that have small screens. Roth at [0009]. A POSITA would have known that such activation operations, like crossing activations, "can be more efficient than pointing tasks," especially on small-screen devices, such as mobile phones and can each be "made small so as to not take up valuable space on the display." Roth at [0009], [0036].<br><br>Including more than one window located on one or more edges of the touch screen was routine and conventional to POSITAs, as shown by Hisatomi, Wilairat, Jeong, Roth, Roth Bezel Swipe, the Samsung Behold II, the HTC G1 1.6, and/or the Neonode N2. Moreover, it was successfully implemented in commercial prior art devices, such as the Samsung Behold II, the HTC G1 1.6 and the Neonode N2. Incorporating more than one window located on one or more edges of the touch screen into Tseng's system, explained above, represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with Tseng, represent nothing more than combining prior art elements according to known methods and techniques (including a second glide-activated window, such as known in Hisatomi, Wilairat, Jeong, Roth, Roth Bezel Swipe, the Samsung Behold II, the HTC G1 1.6, and/or the Neonode N2) to yield predictable results (performing the function associated with the window(s)). |

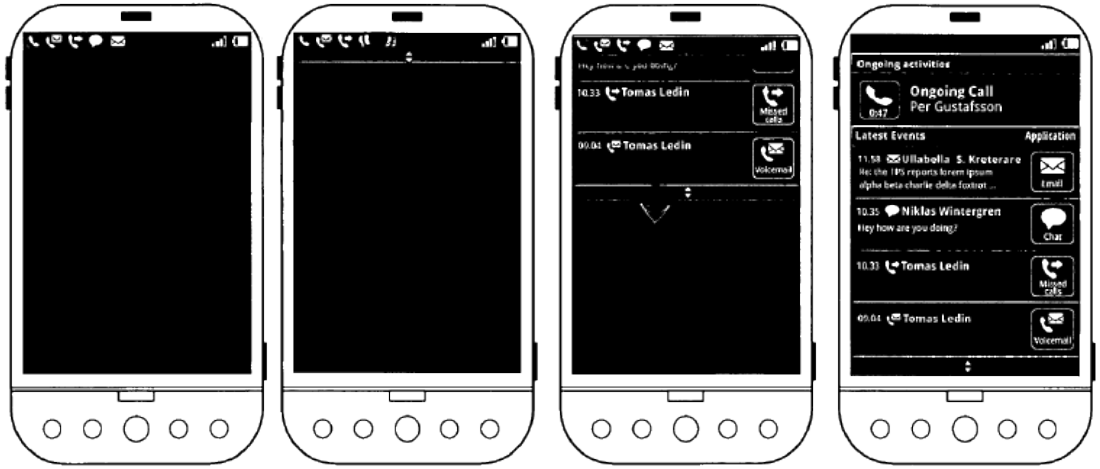
| Claim 16 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[16]** The system of claim 15, wherein said at least one window extends along a substantial portion of an edge of the touch screen. | Claim 16 depends from claims 15 and 1. Defendants incorporate all the prior art disclosures from claims 15 and 1 here, which anticipate and/or render claims 15 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 15 and 1 to show the additional limitations of claim 16 are anticipated and/or obvious for the same reasons set out in claims 15 and 1.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window extends along a substantial portion of an edge of the touch screen."<br><br>Claim 16 recites substantially the same limitations as claim 4 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 4. *See, e.g.*, *supra* claim 4.<br><br>As discussed *supra* claim 4, Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said at least one window extends along a substantial portion of an edge of the touch screen." *See supra* claim 4. |

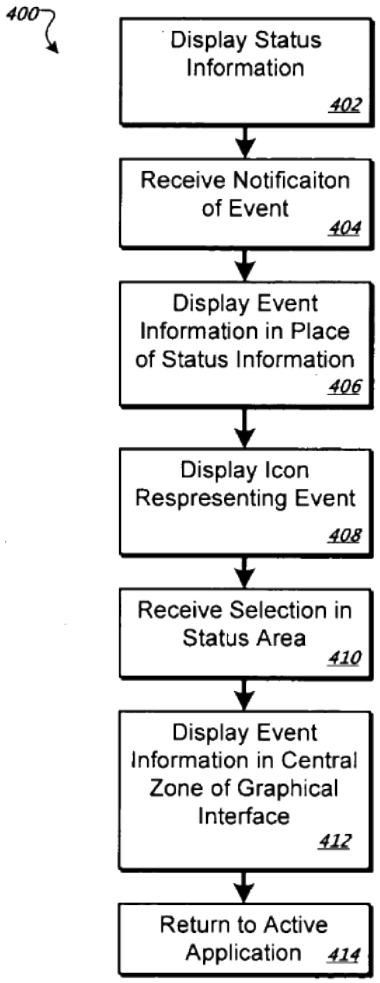
| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[17]** The system of claim 1, wherein during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen. | Claim 17 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 17 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during providing said gliding |

| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen."<br><br>For example, Tseng discloses, during providing the gliding action from the status bar window, the edge of the message area "sticks" to the user's finger to dynamically drag and show the message area interface or a portion of the interface, as explained in claims 1, 3, 5, 7, 8, and 13. *Supra* claims 1, 3, 5, 7, 8, and 13. For example, Tseng discloses a gliding action that results in dragging the status bar downward to display a message area (e.g., message area 206, 224) showing new notifications. Tseng at [0011], [0014], [0041], FIGS. 2A-2C, 3, 4A-4B, 5. Tseng explains that, when "one or more processors to receive a dragging manipulation on a touch screen display of the graphical interface, from the status area and across the display," it executes instructions to "move the slider mechanism in response to the dragging mechanism, and display the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at [0013], FIGS. 2A-2C, 4A-4B.<br><br>As one example, "[t]he first display in FIG. 2B also shows a large circle surrounded by a ring having a downward pointing arrow. This element indicates a press by a user on the device 218 over the status bar 222, with a subsequent dragging downward of the status bar 222. (The element does not appear on the display.) Such action may be programmed to result in the expanding of a message area 224 into the main zone of the display 220. As with the message area 206 discussed above, the message area 224 may show the various messages that the user's device has received in the user's absence." Tseng at [0053], FIG. 2B. Also, in FIG. 2C, "[t]he second display shows, by a circle having a ring around it in the status bar, a selection by a user, such as … by directly pressing on the display with a fingertip on top of the status bar. Upon the user selecting the status bar, the bar may expand slightly, and a 'slide down' indicator may be displayed, in the form of a notification bar with up and down arrows. The indicator may visually signal the user that they can pull the indicator down to show messages associated with the notification icons. Alternatively, a tab like that shown in FIG. 2A may be displayed below the status area. The third display shows the user dragging the notification bar downward across the main part of the display, like a roll shade." Tseng at [0058]-[0059], FIG. 2C. Similarly, "[a] tab 216 is shown visually at the bottom of the display 204. In this example, the tab is a thin bar extending fully across the bottom of the display 204, with a thickened area in its middle that is labeled with an instruction of 'close' for the user. Such an instruction indicates to the user that selecting the tab 216 (e.g., by pressing on it) will cause the |

| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | message area 206 to disappear, so that the application area 214 will expand back to its original space. As described below, the tab 216 may take other forms, and may be dragged upward by a user in a manner like a window shade, to fully or partially close the message area 206. The user may also close the notifications area by dragging upward across it." Tseng at [0046].<br><br>Exemplary citations include:<br>  <br><br>FIG. 2A<br><br>Tseng at FIG. 2A. |

| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 2B<br>Tseng at FIG. 2B. |

| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 2C<br>Tseng at FIG. 2C. |

| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 4A<br>Tseng at FIG. 4A. |

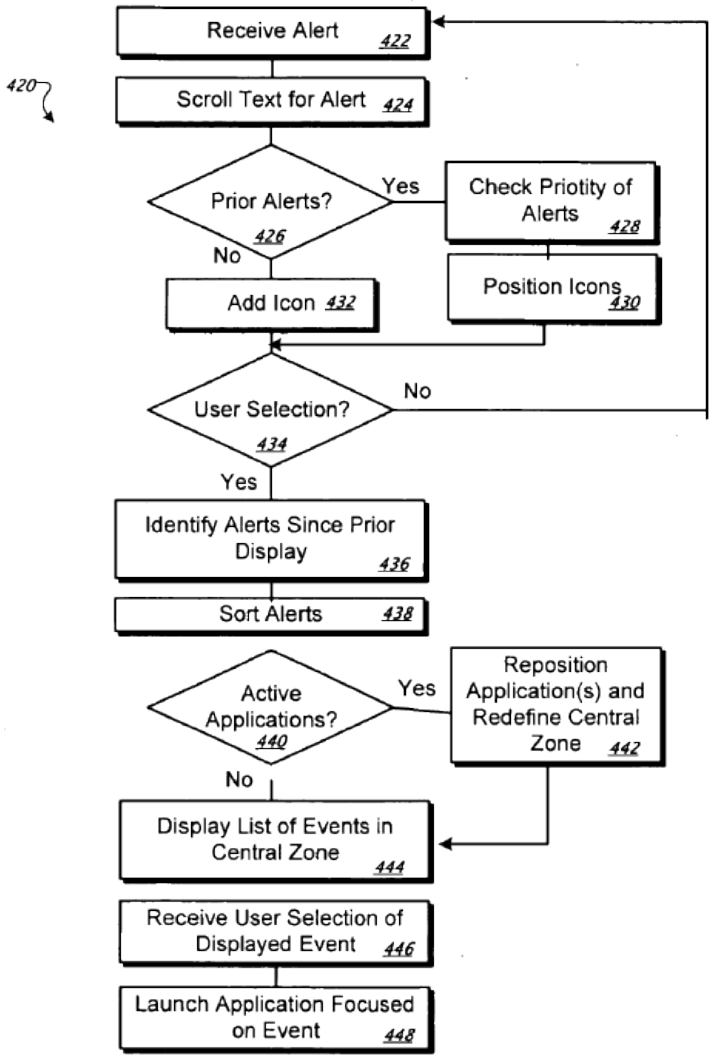



FIG. 4B

Tseng at FIG. 4B.

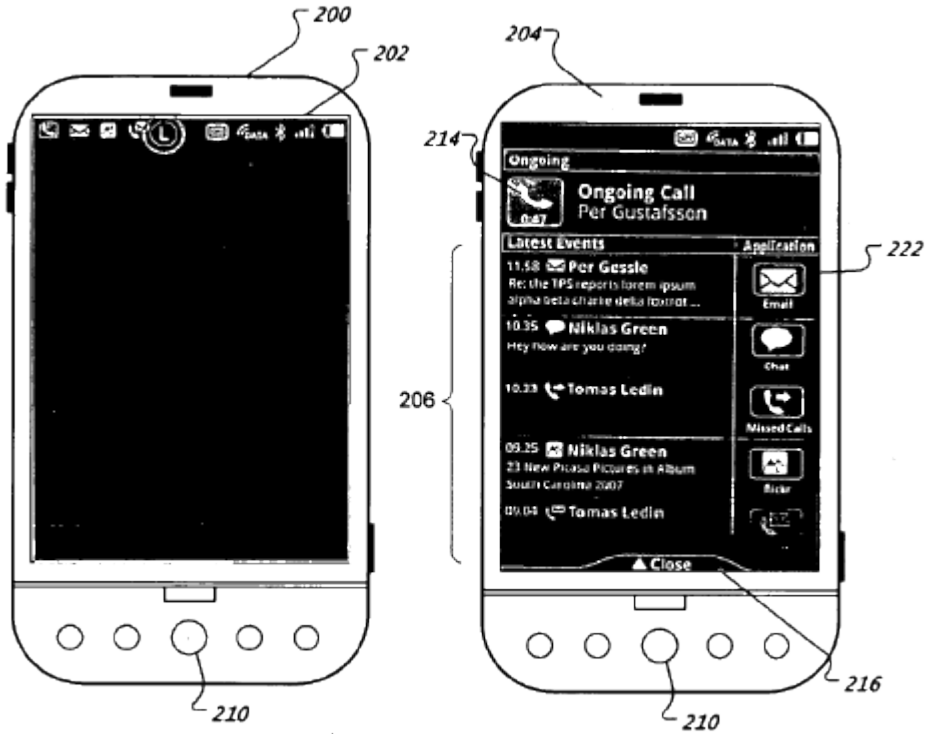
| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | "In yet other aspects, the display in the central zone comprises a list of messages from a plurality of messaging applications, and the method can also comprise displaying a user-manipulable slider mechanism in response to the user selection. In addition, the method may include receiving a dragging manipulation of the slider mechanism across the graphical interface, moving the slider mechanism in response to the dragging mechanism, and displaying the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at [0011].<br><br>"In certain aspects, the display in the central zone comprises a list of messages from a plurality of messaging applications. Also, the instructions can further comprise instructions to cause the one or more processors to receive a dragging manipulation on a touch screen display of the graphical interface, from the status area and across the display, and move the slider mechanism in response to the dragging mechanism, and display the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at [0013].<br><br>"The system comprises a wireless interface to receive data for a user of a mobile device, a notification manager to generate a notification message for a device event, including device events received through the wireless interface, where the notification message includes information that describes the device event, and a display manager to generate elements for a graphical display, to receive the notification message and to present the notification message in a first zone near a perimeter of the graphical display. The system can further comprise an input device to receive a user selection in the first zone, wherein in response to the user selection, the display manager displays, in a central zone of the graphical interface, detail information regarding a plurality of recent messaging events for the mobile device." Tseng at [0014].<br><br>**"**The status area may then also become selectable by the user, so that selection of the status area causes the display of accrued messages to occur. Such selection of the status area may occur by long press on the status area, or by pressing on the status area and dragging downward to pull out the messages as if they are mounted on or under a window shade. Where the device has a fairly flush front surface, the action may take the form of a finger swipe across the face of the display, where the edge of the element showing an extended view of the messaging events 'sticks' to the user's finger as the finger moves past." Tseng at [0029]. |

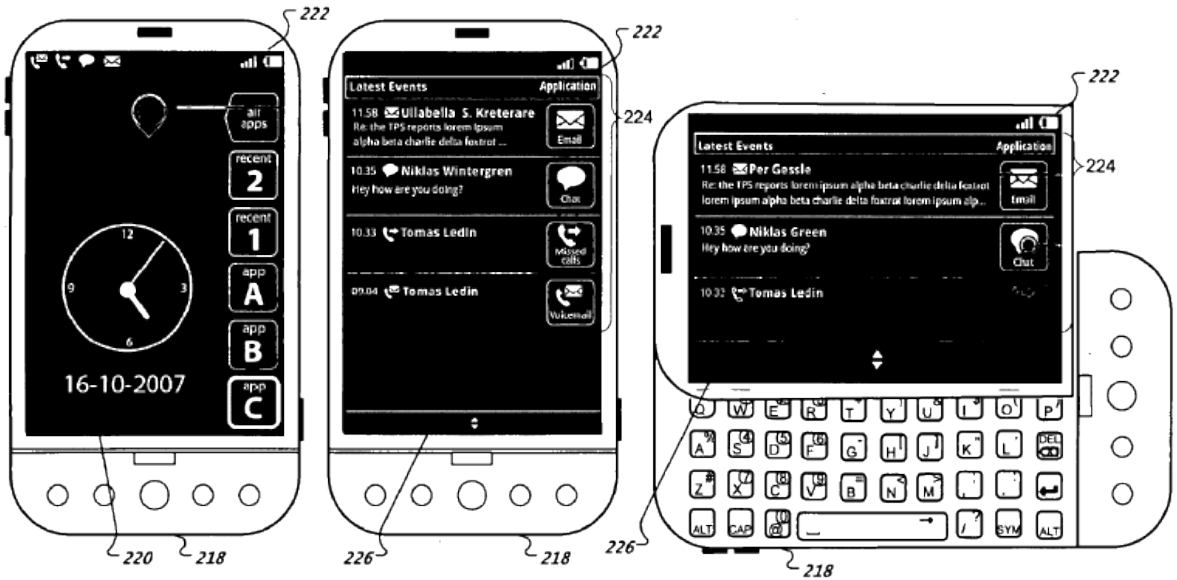
| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | "The right screen in FIG. 2A shows the display 200 after the user has long-pressed or dragged downward on the status bar 202. In this example, the main zone has been filed [sic] with the various messages that were left since the last time the user had reviewed his or her messages. The messages are shown in a message area 206 in the main zone of the display 204, while the status bar 202 is shown with the message notification icons removed (because the user has now been shown the messages and does not need a notification about them). In this example, the first message is an e-mail from Per Gesele, the second is a GOOGLE TALK message from Niklas Green, the third is a missed incoming call from Tomas Ledin, the fourth is a posting of PICASA photos by Niklas Green, and the fifth is a missed call from Tomas Ledin. As shown, the messages are organized here from top to bottom in reverse chronological order." Tseng at [0041].<br><br>**"**A tab 216 is shown visually at the bottom of the display 204. In this example, the tab is a thin bar extending fully across the bottom of the display 204, with a thickened area in its middle that is labeled with an instruction of 'close' for the user. Such an instruction indicates to the user that selecting the tab 216 (e.g., by pressing on it) will cause the message area 206 to disappear, so that the application area 214 will expand back to its original space. As described below, the tab 216 may take other forms, and may be dragged upward by a user in a manner like a window shade, to fully or partially close the message area 206. The user may also close the notifications area by dragging upward across it." Tseng at [0046].<br><br>"The first display in FIG. 2B also shows a large circle surrounded by a ring having a downward pointing arrow. This element indicates a press by a user on the device 218 over the status bar 222, with a subsequent dragging downward of the status bar 222. (The element does not appear on the display.) Such action may be programmed to result in the expanding of a message area 224 into the main zone of the display 220. As with the message area 206 discussed above, the message area 224 may show the various messages that the user's device has received in the user's absence." Tseng at [0053].<br><br>**"**FIG. 2C shows four displays on a device 230 exhibiting similar functionality to that just described. The leftmost display shows the collection of five different notification icons in a status bar of the display. The main zone of the display is shown blank to indicate that a variety of elements may be shown there at this point, such as device-resident applications, gadgets, icons for launching applications, and other such elements." Tseng at [0057]. |

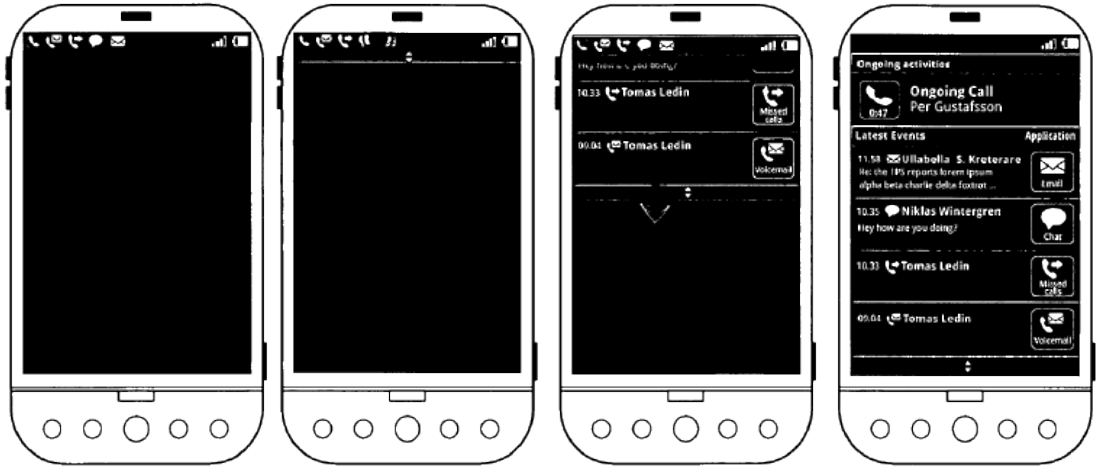
| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **“**The second display shows, by a circle having a ring around it in the status bar, a selection by a user, such as by moving a pointer to the status bar and pressing a selection mechanism such as a trackball, or by directly pressing on the display with a fingertip on top of the status bar. Upon the user selecting the status bar, the bar may expand slightly, and a ‘slide down’ indicator may be displayed, in the form of a notification bar with up and down arrows. The indicator may visually signal the user that they can pull the indicator down to show messages associated with the notification icons. Alternatively, a tab like that shown in FIG. 2A may be displayed below the status area.” Tseng at [0058].<br><br>“The third display shows the user dragging the notification bar downward across the main part of the display, like a roll shade. At the point shown, more messages remain above the top of the display area, so that the top-displayed message is faded to black at its upper edge to indicate to the user that more messages are left to review. The initially shown message at the bottom of the pulled down section may be a message computed to be at the bottom of the message area once the bar is pulled all the way down to the bottom of the display. In this manner, the messages shown may be ‘attached’ to the notification bar and may move down with it. Alternatively, the messages may be unattached to the bar, so that sliding the bar down appears to open a window into the area where the messages sit. In such an implementation, the top message would appear first at the top of the display, and more messages would gradually appear as the user pulls the bar downward—opening the metaphorical sliding window or cover on them (but with the bottom edge of the messages faded to black all the way down). In this manner, for example, if a gadget were running near the bottom of the display, the user could pull the bar down only so far, so as to not cover the gadget.” Tseng at [0059].<br><br>“FIGS. 4A and 4B are flow charts of example processes for providing mobile device notifications. In general, FIG. 4A shows a process 400 by which notification events are received at a device and information indicative of the events is displayed in a status bar area of the device.” Tseng at [0070].<br><br>“The device receives a user's selection of the status bar at box 410. Such a selection may include a selection like those described above, including by a user pressing on the status bar for a long press period, and/or the user pressing on the status bar and then dragging it downward across the top of the display.” Tseng at [0074]. |

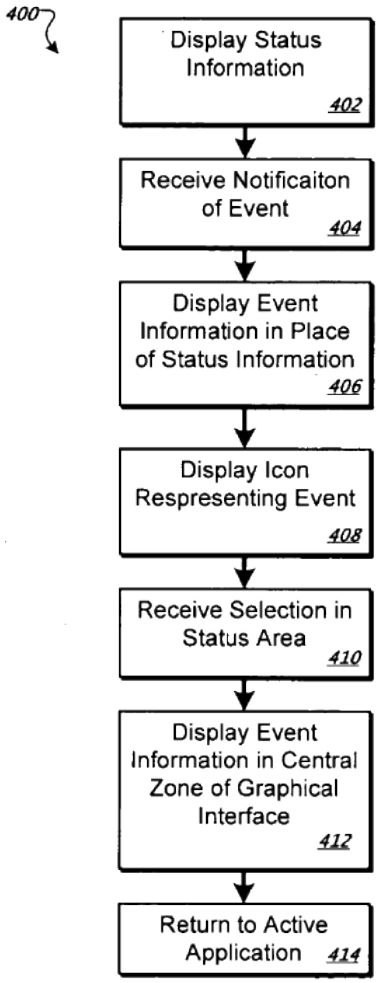
| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | "The device then displays event information for the various events that have been received since the user last checked such events, in the central zone of the graphical interface (box 412). Such events may be displayed, for example, in reverse chronological order from top to bottom. The events may also be group by event type—such as by one line in the display listing the number of e-mails that have been received since the last time notifications were cleared, another listing the number of text messages, another listing the number of updates for downloaded applications, and the like. The user may then handle each message as he or she sees fit, such as by reviewing it and then deleting or moving it. If the user would like to see more about a particular message, they may select that particular message and may be taken to the relevant application for that message, with the message open." Tseng at [0075].<br><br>"Referring now to FIG. 5, the exterior appearance of an exemplary device 500 that implements the notification features described here is illustrated. Briefly, and among other things, the device 500 includes a processor configured to display notifications regarding events on the device 500, and to permit a user to conveniently pull down detail about the events relating to the notifications into an extended view of the events." Tseng at [0084].<br><br>"The display 501 can display video, graphics, images, and text that make up the user interface for the software applications used by the device 500, and the operating system programs used to operate the device 500." Tseng at [0086].<br><br>"The user uses the pointing device 504 to select and adjust graphics and text objects displayed on the display 501 as part of the interaction with and control of the device 500 and the applications invoked on the device 500. The pointing device 504 is any appropriate type of pointing device, and may be a joystick, a trackball, a touch-pad, a camera, a voice input device, a touch screen device implemented in combination with the display 501, or any other input device." Tseng at [0090]. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[18]** The system of claim 1, wherein the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface. | Claim 18 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 18 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface."<br><br>For example, Tseng discloses that "a finger swipe across the face of the display, where the edge of the element showing an extended view of the messaging events 'sticks' to the user's finger as the finger moves past." Tseng at [0029], [0058], [0059], FIG. 2C. Tseng also discloses that the message area travels up and down with the user's finger, as explained above. Tsend does not limit the direction of the user's finger swipe inside the screen and each direction from the status bar present the same message area interface. A POSITA would have recognized that the edge of the message area "stick[ing]" to the user's finger would have allowed the user's finger to glide in any arbitrary direction inside the screen to reveal the message area.<br><br>A POSITA would have recognized that, because Tseng describes a pull-down message area interface, the device would have used the Y-coordinate of the user's gliding action to "stick[]" the message area to the user's gliding action. Thus, the user's gliding action would be able to proceed in any direction inside the interface, but the pull-down action would show the same interface that comprises the entire width of the screen, as shown, for example, in FIGS. 2A-2C. Tseng, FIGS. 2A-2C.<br><br>Exemplary citations include: |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 2A<br>Tseng at FIG. 2A. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>FIG. 2B<br>Tseng at FIG. 2B. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 2C<br>Tseng at FIG. 2C. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 4A<br>Tseng at FIG. 4A. |

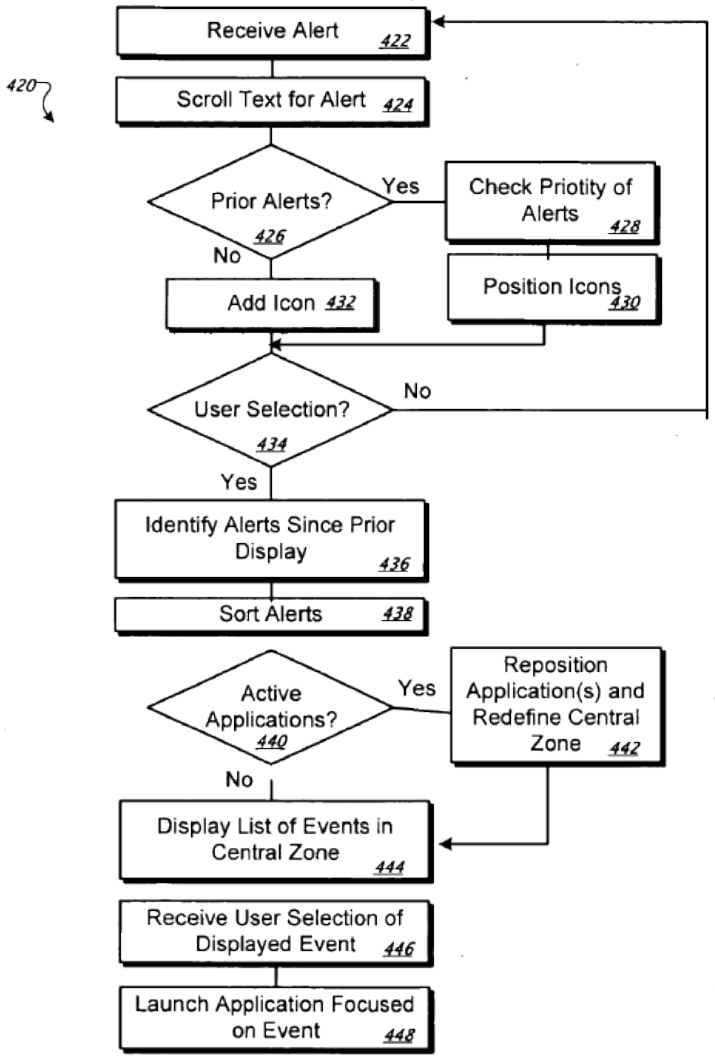


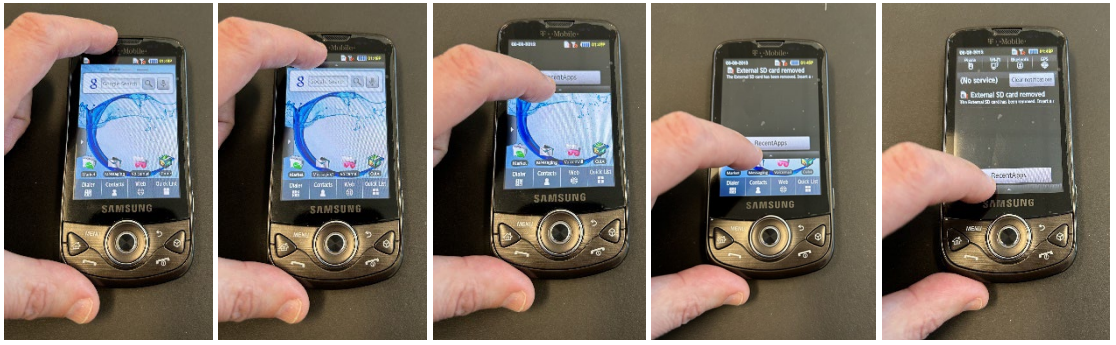

FIG. 4B

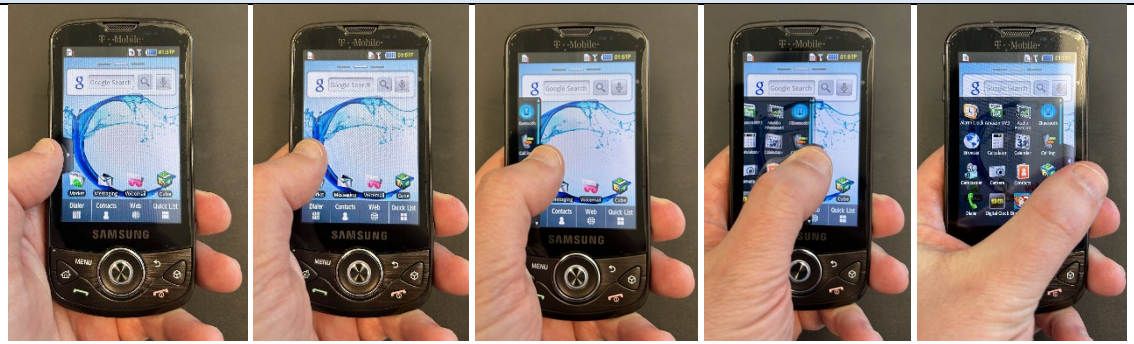
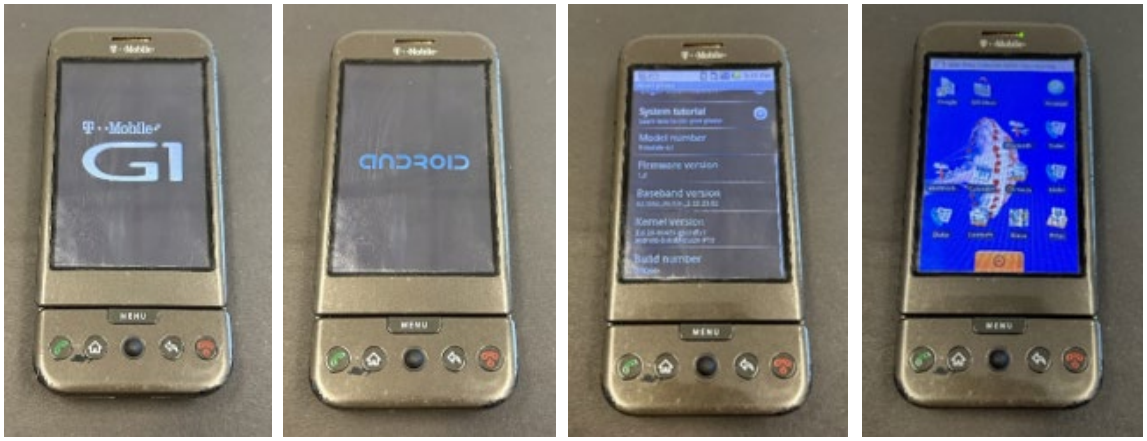
Tseng at FIG. 4B.

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **“**The status area may then also become selectable by the user, so that selection of the status area causes the display of accrued messages to occur. Such selection of the status area may occur by long press on the status area, or by pressing on the status area and dragging downward to pull out the messages as if they are mounted on or under a window shade. Where the device has a fairly flush front surface, the action may take the form of a finger swipe across the face of the display, where the edge of the element showing an extended view of the messaging events ‘sticks’ to the user's finger as the finger moves past.” Tseng at [0029].<br><br>**“**The second display shows, by a circle having a ring around it in the status bar, a selection by a user, such as by moving a pointer to the status bar and pressing a selection mechanism such as a trackball, or by directly pressing on the display with a fingertip on top of the status bar. Upon the user selecting the status bar, the bar may expand slightly, and a ‘slide down’ indicator may be displayed, in the form of a notification bar with up and down arrows. The indicator may visually signal the user that they can pull the indicator down to show messages associated with the notification icons. Alternatively, a tab like that shown in FIG. 2A may be displayed below the status area.” Tseng at [0058].<br><br>“The third display shows the user dragging the notification bar downward across the main part of the display, like a roll shade. At the point shown, more messages remain above the top of the display area, so that the top-displayed message is faded to black at its upper edge to indicate to the user that more messages are left to review. The initially shown message at the bottom of the pulled down section may be a message computed to be at the bottom of the message area once the bar is pulled all the way down to the bottom of the display. In this manner, the messages shown may be ‘attached’ to the notification bar and may move down with it. Alternatively, the messages may be unattached to the bar, so that sliding the bar down appears to open a window into the area where the messages sit. In such an implementation, the top message would appear first at the top of the display, and more messages would gradually appear as the user pulls the bar downward—opening the metaphorical sliding window or cover on them (but with the bottom edge of the messages faded to black all the way down). In this manner, for example, if a gadget were running near the bottom of the display, the user could pull the bar down only so far, so as to not cover the gadget.” Tseng at [0059]. |

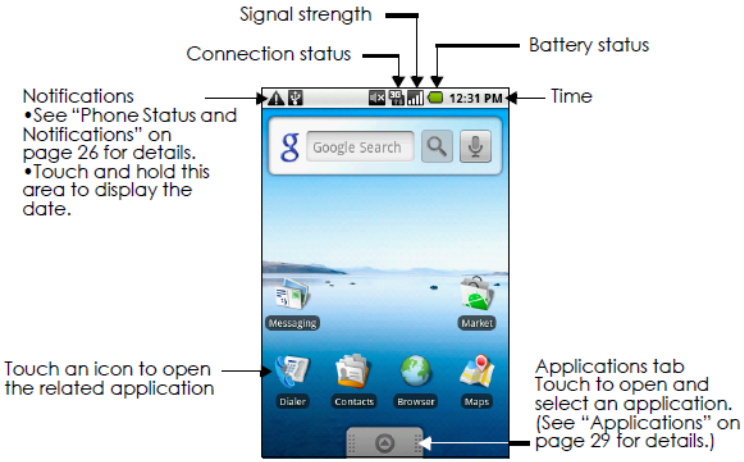
| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | "FIGS. 4A and 4B are flow charts of example processes for providing mobile device notifications. In general, FIG. 4A shows a process 400 by which notification events are received at a device and information indicative of the events is displayed in a status bar area of the device." Tseng at [0070].<br><br>"The device receives a user's selection of the status bar at box 410. Such a selection may include a selection like those described above, including by a user pressing on the status bar for a long press period, and/or the user pressing on the status bar and then dragging it downward across the top of the display." Tseng at [0074].<br><br>"The device then displays event information for the various events that have been received since the user last checked such events, in the central zone of the graphical interface (box 412). Such events may be displayed, for example, in reverse chronological order from top to bottom. The events may also be group by event type—such as by one line in the display listing the number of e-mails that have been received since the last time notifications were cleared, another listing the number of text messages, another listing the number of updates for downloaded applications, and the like. The user may then handle each message as he or she sees fit, such as by reviewing it and then deleting or moving it. If the user would like to see more about a particular message, they may select that particular message and may be taken to the relevant application for that message, with the message open." Tseng at [0075].<br><br>"Referring now to FIG. 5, the exterior appearance of an exemplary device 500 that implements the notification features described here is illustrated. Briefly, and among other things, the device 500 includes a processor configured to display notifications regarding events on the device 500, and to permit a user to conveniently pull down detail about the events relating to the notifications into an extended view of the events." Tseng at [0084].<br><br>"The display 501 can display video, graphics, images, and text that make up the user interface for the software applications used by the device 500, and the operating system programs used to operate the device 500." Tseng at [0086].<br><br>"The user uses the pointing device 504 to select and adjust graphics and text objects displayed on the display 501 as part of the interaction with and control of the device 500 and the applications invoked on the device 500. The pointing device 504 is any appropriate type of pointing device, and |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | may be a joystick, a trackball, a touch-pad, a camera, a voice input device, a touch screen device implemented in combination with the display 501, or any other input device." Tseng at [0090].<br><br>To the extent Keyless argues that Tseng does not disclose or render obvious claim 18, it would have been obvious in view of Tseng, POSITA's pre-existing knowledge, and/or the teachings of Tseng combined with the other references charted for this patent in these invalidity contentions, including Hisatomi, the Samsung Behold II, the HTC G1 1.6, and the Palm Pre. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>For example, Hisatomi discloses that, when sliding open the drawer menus, "if the interior of any [menu] regions is detected, then the respective coordinate data are mapped" and when "the coordinates [of the touch/slide] are continuously updated toward the center portion of the display screen of the image-displaying display 803, the display region of the drawer is slid in the indicated direction." Hisatomi at [0059]. In tracking the slide direction, for example, up-and-down sliding of menus B and C in Hisatomi's FIGS. 5-7 (like Tseng's pull-down status bar notification menu), "X-axis information is ignored and only Y-axis information is reflected in the process." Hisatomi at [0069]. For example, the system "stands by to receive Y-coordinate information and ignores the X[-]coordinate, and … the bar display position is continuously updated in accordance with the Y-coordinate information." Hisatomi at [0065], [0069] (describing ignoring X-axis information for category-B menu). A POSITA would have recognized that, because only the Y-coordinate information is used, then then the same category-B menu is presented for this example pull-down menu, but the user's direction may be in any arbitrary direction towards the interior of the touch screen.<br><br>The Samsung Behold II's processor relates the gliding action from the status bar window and/or the applications tab window provided in any arbitrary direction inside the touch screen to presenting |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | the same notifications menu or applications menu interface, respectively, because the user's gliding action can proceed in any direction or path while the edge of the respective menu travels with the user's finger.<br>  <br>  |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>The Samsung Behold II device.<br>The HTC G1 1.6's processor relates the gliding action from the status bar window and/or the applications tab window provided in any arbitrary direction inside the touch screen to presenting the same notifications menu or applications menu interface, respectively, because the user's gliding action can proceed in any direction or path while the edge of the respective menu travels with the user's finger.<br>  <br>HTC G1 1.6 Device. |

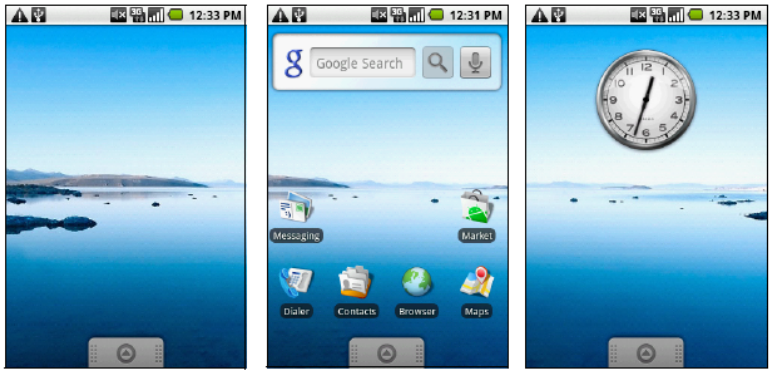
| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC G1 1.6 Device<br>  <br>HTC G1 1.6 Device. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | **1.7 Home Screen**<br><br>The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.<br><br>  <br><br><br>**Tip** While in any application, press **HOME** to go back to the Home screen. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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## Extended Home screen

The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.




Extended Home screen left

Extended Home screen right

G1 User Manual 24.

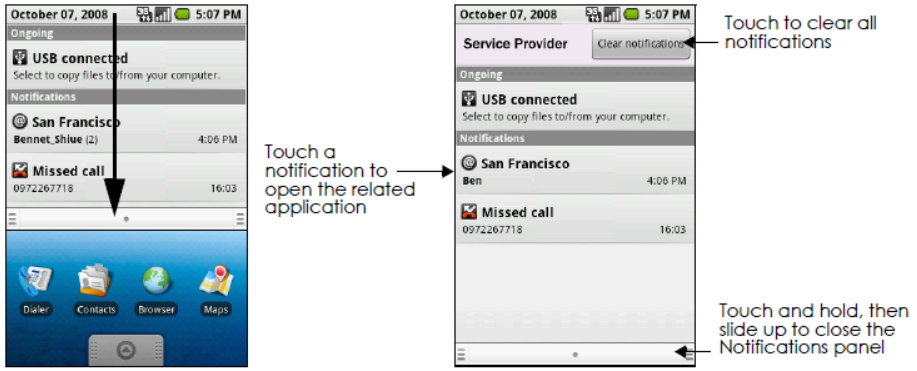
## Notifications panel

Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.

**To open the Notifications panel**

When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

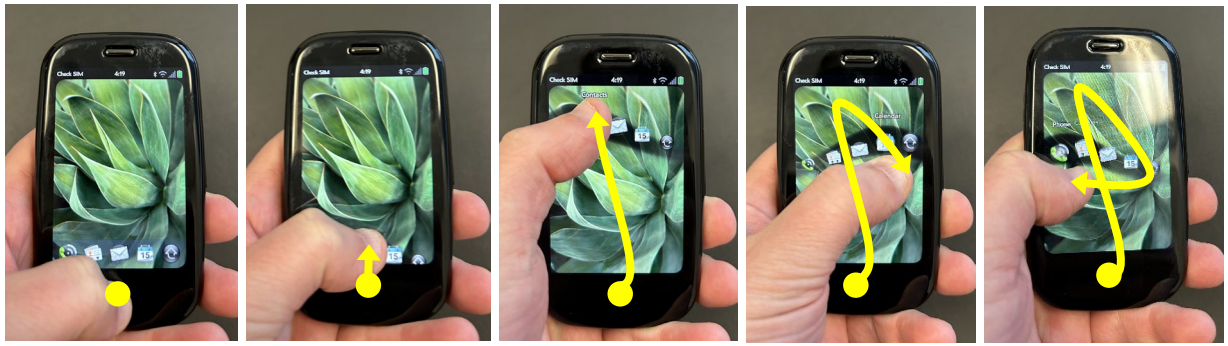
Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

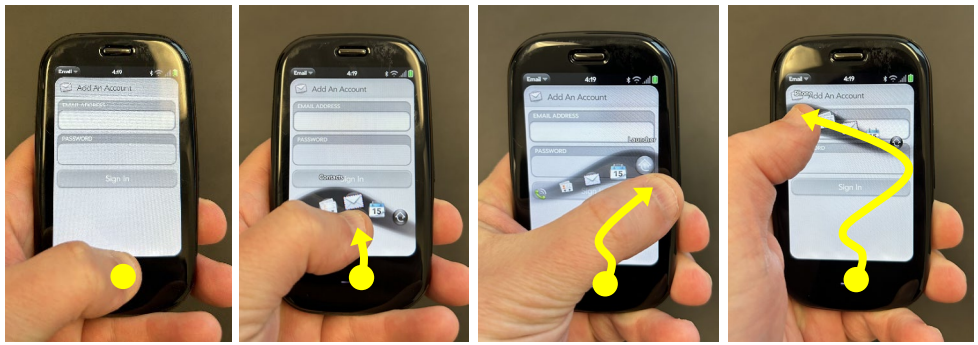
**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

**To close the Applications tab**

Touch  .

G1 User Manual 29.

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, G1 Launch Event; G1 Unveiled; Engadget Review; Google Mobile Products on Android; T-Mobile G1 Review; T-Mobile G1 Android Phone Hands-On; T-Mobile G1 Expanded Demo; T-Mobile G1 User Interface Review; T-Mobile G1 Physical Design Review; The Gadget Show, T-Mobile G1 Live Demo; T-Mobile G1 Tour; T-Mobile G1 Impressions; HTC Dream User Manual.<br><br>The Palm Pre's processor relates a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards any arbitrary direction inside the touch screen (e.g., crossing over the Quick Launch window showing five application icons and identifying the movement from off-to-on screen). The same Quick Launch menu is presented regardless of the arbitrary direction of the gliding action, as shown below.<br><br>  <br><br>Palm Pre.<br><br>The Palm Pre also teaches, as another example, that, when an application is open on the Palm Pre device (such as the mail application shown below), a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display towards any arbitrary direction inside of the touch screen to display the Quick Launch window. The gliding action causes a processor to perform the action associated with the Quick Launch window, such as moving the Quick Launch window with the user's finger in any arbitrary direction around the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | The same Quick Launch menu is presented regardless of the arbitrary direction of the gliding action, as shown below.<br>  <br>Palm Pre.<br>A POSITA would have found it obvious to incorporate the processor relating a gliding action provided towards any arbitrary direction inside the screen to present a same interface in Tseng's system, as claimed. Each of Hisatomi, the Samsung Behold II, the HTC G1 1.6, and/or the Palm Pre, teaches the processor relating a gliding action provided towards any arbitrary direction inside the screen to present a same interface.<br>A POSITA would have been motivated to allow the user's gliding action to display the message area in Tseng be towards any arbitrary direction inside the screen to presenting a same interface Hisatomi, the Samsung Behold II, the HTC G1 1.6, and/or the Palm Pre into Tseng's system to simplify the user's activation of the message area. For example, a POSITA would have been motivated to permit a gliding action in any arbitrary direction to open the message area because it would allow for low-precision gesture that do not require the user to stay within a particular region, as was known in the prior art. For example, the HTC G1 1.6, released by T-Mobile, allowed a user to drag open a status bar notifications panel and drag open an applications selection by pulling down, but does not restrict the direction towards the inside of the screen. A POSITA also would have been motivated to incorporate allowing the user's gliding action to be towards any arbitrary direction inside the screen because it would provide the user more control over how far to open the message area. For example, if the user desires to merely "peek" at a single message, he or she can |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | slide their finger obliquely across the screen to provide greater control over the distance the message area is opened.<br><br>**To open the Notifications panel**<br>When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.<br>  <br><br>Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.<br><br>T-Mobile G1 User Manual at 27-29.<br><br>It was well known to a POSITA to have a processor relate a gliding action provided towards any arbitrary direction inside the screen to present a same interface. As Hisatomi explains, this can be accomplished by considering only the Y-coordinate (vertical direction in Tseng), while ignoring the X-coordinate of the gliding action. *See, e.g.*, Hisatomi at [0064], [0065], [0069], [0084], [0211], [0219], FIGS. 7, 10, 12, 15, 16, 17, 21, 47. A POSITA would have recognized that having a processor relate a gliding action provided towards any arbitrary direction inside the screen to present a same interface would have "enable[d] the reliable activation of a button" because it |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | removes user errors that could be introduced by requiring the glide to stay within a narrow direction, which could lead to user frustration. Roth Bezel Swipe at 1524.<br><br>Having a processor relate a gliding action provided towards any arbitrary direction inside the screen to present a same interface was routine and conventional to POSITAs, as shown by Hisatomi, the HTC G1 1.6, and/or the Neonode N2. Moreover, it was successfully implemented in commercial prior art devices, such as the Samsung Behold II, the HTC G1 1.6 and the Palm Pre. Having a processor relate a gliding action provided towards any arbitrary direction inside the screen to present a same interface in Tseng's system, explained above, represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such operations, when combined with Tseng, represent nothing more than combining prior art elements according to known methods and techniques (allowing the user's gliding action to be in any arbitrary direction inside the touch screen, such as known in Hisatomi, the Samsung Behold II, the HTC G1 1.6, and/or the Palm Pre) to yield predictable results (performing the function associated with the window for the gliding action). |

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[19Pre]**[6] A system for capturing an event provided from an edge of a touch screen comprising: | To the extent that the preamble is held to be limiting, Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[a] system for capturing an event provided from an edge of a touch screen."<br><br>[19Pre] recites substantially the same limitations as [1Pre] and is therefore anticipated or rendered obvious for substantially the same reasons as [1Pre]. *See, e.g.*, *supra* [1Pre]. |

[6] Claim 19 as corrected in the Certificate of Correction issued February 16, 2021.

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | As discussed *supra* [1Pre], Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "[a] system for capturing an event provided from an edge of a touch screen." *See supra* [1Pre]. |
| **[19A]** a device having a touch screen; | Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a device having a touch screen."<br><br>[19A] recites substantially the same limitations as [1A] and is therefore anticipated or rendered obvious for substantially the same reasons as [1A]. *See, e.g.*, *supra* [1A].<br><br>As discussed *supra* [1A], Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "a device having a touch screen." *See supra* [1A]. |
| **[19B]** a zone in form of a bar located in the touch screen on an edge of the touch screen; and | Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a zone in form of a bar located in the touch screen on an edge of the touch screen."<br><br>[19B] recites substantially the same limitations as [1B] and claim 3 and is therefore anticipated or rendered obvious for substantially the same reasons as [1B] and claim 3. *See, e.g.*, *supra* [1B] and claim 3.<br><br>As discussed *supra* [1B] and claim 3, Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "a zone in form of a bar located in the touch screen on an edge of the touch screen." *See supra* [1B] and claim 3. |

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[19C]** a processor; | [19C] recites substantially the same limitations as [1C] and is therefore anticipated or rendered obvious for substantially the same reasons as [1C]. *See, e.g.*, *supra* [1C].<br><br>As discussed *supra* [1C], Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, of "a processor." *See supra* [1C]. |
| **[19D]** wherein a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone, and wherein the processor executes a function related to said zone, and wherein said zone is present on said edge regardless of the interface of an application on said touch screen, and | Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone, and wherein the processor executes a function related to said zone, and wherein said zone is present on said edge regardless of the interface of an application on said touch screen."<br><br>[19D] recites substantially the same limitations as [1B] ("said at least one window functions independently of an interface of an application in use on the touch screen"), [1D] ("a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said processor to cause an action assigned to said window"), and claim 18 ("the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface"), except that it does not recite that the gliding action to begins off screen, and is therefore anticipated or rendered obvious for substantially the same reasons as [1B], [1D], and claim 18. *See, e.g.*, *supra* [1B], [1D], and claim 18.<br><br>As discussed *supra* [1B], [1D], and claim 18, Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "wherein a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone, and wherein the processor |

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | executes a function related to said zone, and wherein said zone is present on said edge regardless of the interface of an application on said touch screen." *See supra* [1B], [1D], and claim 18. |
| **[19E]** wherein said zone is located on the touch screen before said gliding action begins. | Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said zone is located on the touch screen before said gliding action begins."<br>[19E] recites substantially the same limitations as [1E], except that it recites "said zone" instead of "said at least one window," and is therefore anticipated or rendered obvious for substantially the same reasons as [1E] and [19B]. *See, e.g.*, *supra* [1E] and [19B].<br>As discussed *supra* [1E] and [19B], Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "wherein said zone is located on the touch screen before said gliding action begins." *See supra* [1E] and [19B]. |

| Claim 21 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[21]** The system of claim 19, wherein upon detecting said gliding action, the system relates said gliding action to setting the location of an interface on the touch screen. | Claim 21 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 21 are anticipated and/or obvious for the same reasons set out in claim 19.<br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said gliding |

| Claim 21 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | action, the system relates said gliding action to setting the location of an interface on the touch screen."<br><br>Claim 21 recites substantially the same limitations as claim 13 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 13. *See, e.g.*, *supra* claim 13.<br><br>As discussed *supra* claim 13, Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "upon detecting said gliding action, the system relates said gliding action to setting the location of an interface on the touch screen." *See supra* claim 13. |

| Claim 22 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[22]** The system of claim 19, wherein said bar comprises more than one bar located on one or more edges of the touch screen. | Claim 22 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 22 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said bar comprises more than one bar located on one or more edges of the touch screen."<br><br>Claim 22 recites substantially the same limitations as claim 15 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 15. *See, e.g.*, *supra* claim 15.<br><br>As discussed *supra* claim 15, Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said bar |

| Claim 22 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | comprises more than one bar located on one or more edges of the touch screen." *See supra* claim 15. |

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[23]** The system of claim 19, wherein said zone is in a form of a visible or invisible line. | Claim 23 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 23 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said zone is in a form of a visible or invisible line."<br><br>Claim 23 recites substantially the same limitations as claim 5 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 5. *See, e.g.*, *supra* claim 5.<br><br>As discussed *supra* claim 5, Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said zone is in a form of a visible or invisible line." *See supra* claim 5. |

| Claim 24 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[24]** The system of claim 23, wherein said function is | Claim 24 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale |

| Claim 24 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| displaying an interface on the screen. | and evidence set out for claims 23 and 19 to show the additional limitations of claim 24 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying an interface on the screen."<br><br>Claim 24 recites substantially the same limitations as claims 6, 9, and 12 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6, 9, and 12. *See, e.g.*, *supra* claims 6, 9, 12.<br><br>As discussed *supra* claims 6, 9, and 12, Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying an interface on the screen." *See supra* claims 6, 9, 12. |

| Claim 25 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[25]** The system of claim 23, wherein said function is displaying a portion of an interface on the screen. | Claim 25 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 23 and 19 to show the additional limitations of claim 25 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen." |

| Claim 25 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Claim 25 recites substantially the same limitations as claims 7 and 10 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7 and 10. *See, e.g.*, *supra* claims 7 and 10.<br><br>As discussed *supra* claims 7 and 10, Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10. |

| Claim 26 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[26]** The system of claim 23, wherein said function is displaying a portion of an interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action. | Claim 26 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 23 and 19 to show the additional limitations of claim 26 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action."<br><br>Claim 26 recites substantially the same limitations as claims 8 and 11 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8 and 11. *See, e.g.*, *supra* claims 8, 11.<br><br>As discussed *supra* claims 8 and 11, Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said |

| Claim 26 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | function is displaying a portion of an interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action." *See supra* claims 8, 11. |

| Claim 27 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[27]** The system of claim 19, wherein said bar is visible or invisible. | Claim 27 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 27 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said bar is visible or invisible."<br><br>Claim 27 recites substantially the same limitations as claim 23 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 23. *See, e.g.*, *supra* claim 23.<br><br>As discussed *supra* claim 23, Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said bar is visible or invisible." *See supra* claim 23. |

| Claim 28 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[28]** The system of claim 27, wherein said function is displaying an interface on the screen. | Claim 28 depends from claims 27 and 19. Defendants incorporate all the prior art disclosures from claims 27 and 19 here, which anticipate and/or render claims 27 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale |

| | |
|---|---|
| | and evidence set out for claims 27 and 19 to show the additional limitations of claim 28 are anticipated and/or obvious for the same reasons set out in claims 27 and 19.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying an interface on the screen."<br><br>Claim 28 recites substantially the same limitations as claims 6, 9, 12, and 24 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6, 9, 12, and 24. *See, e.g.*, *supra* claims 6, 9, 12, 24.<br><br>As discussed *supra* claims 6, 9, 12, and 24, Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying an interface on the screen." *See supra* claims 6, 9, 12, 24. |

| **Claim 29** | **Exemplary Disclosures (Express and/or Inherent) and Citations** |
|---|---|
| **[29]** The system of claim 27, wherein said function is displaying a portion of an interface on the screen. | Claim 29 depends from claims 27 and 19. Defendants incorporate all the prior art disclosures from claims 27 and 19 here, which anticipate and/or render claims 27 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 27 and 19 to show the additional limitations of claim 29 are anticipated and/or obvious for the same reasons set out in claims 27 and 19.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen."<br><br>Claim 29 recites substantially the same limitations as claims 7, 10, and 25 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7, 10, and 25. *See, e.g.*, *supra* claims 7, 10, 25. |

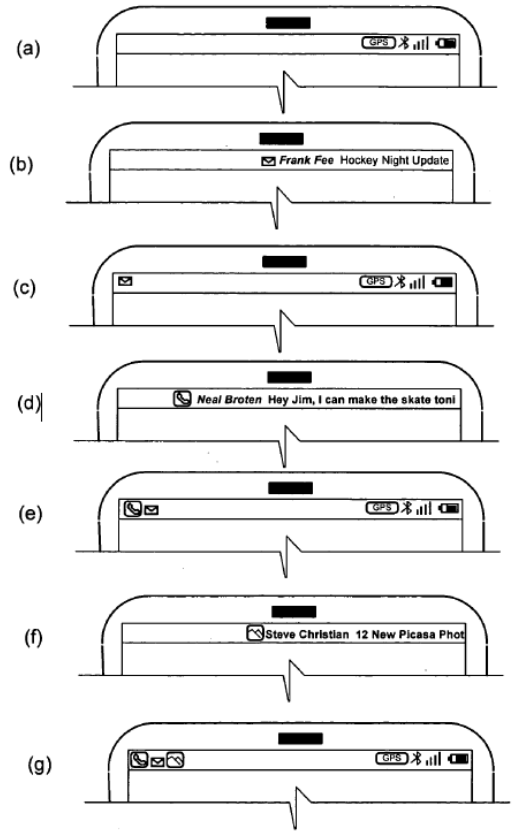
| Claim 29 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | As discussed *supra* claims 7, 10, and 25, Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10, 25. |

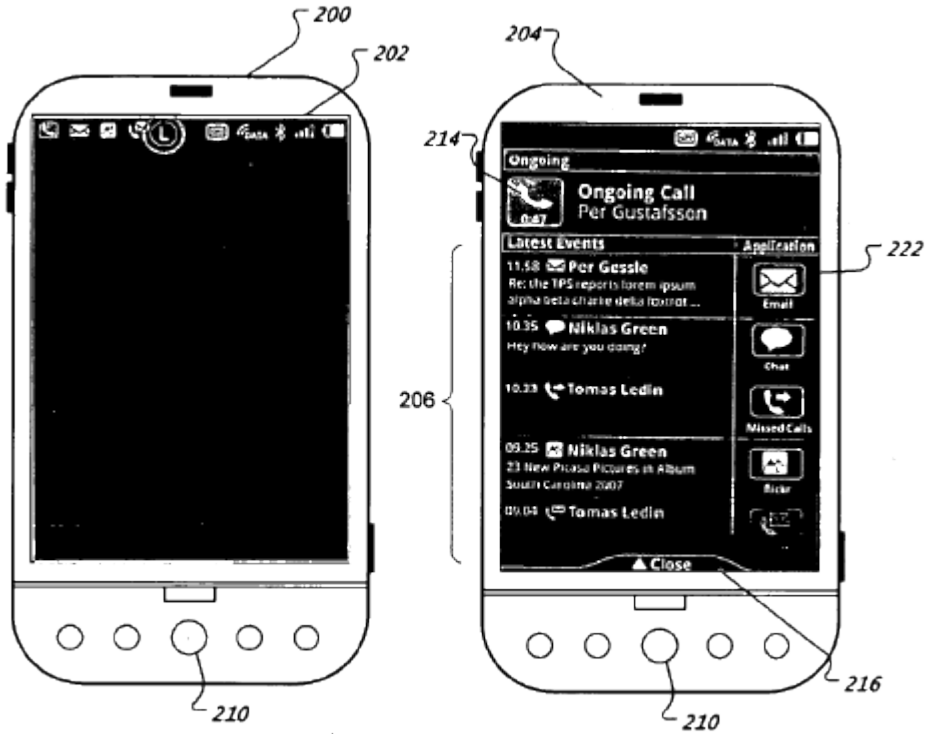
| Claim 30 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[30]** The system of claim 29, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 30 depends from claims 29, 27, and 19. Defendants incorporate all the prior art disclosures from claims 29, 27, and 19 here, which anticipate and/or render claims 29, 27, and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 29, 27, and 19 to show the additional limitations of claim 30 are anticipated and/or obvious for the same reasons set out in claims 29, 27, and 19.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>Claim 30 recites substantially the same limitations as claims 8, 11, and 26 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8, 11, and 26. *See, e.g.*, *supra* claims 8, 11, 26.<br><br>As discussed *supra* claims 8, 11, and 26, Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claims 8, 11, 26. |

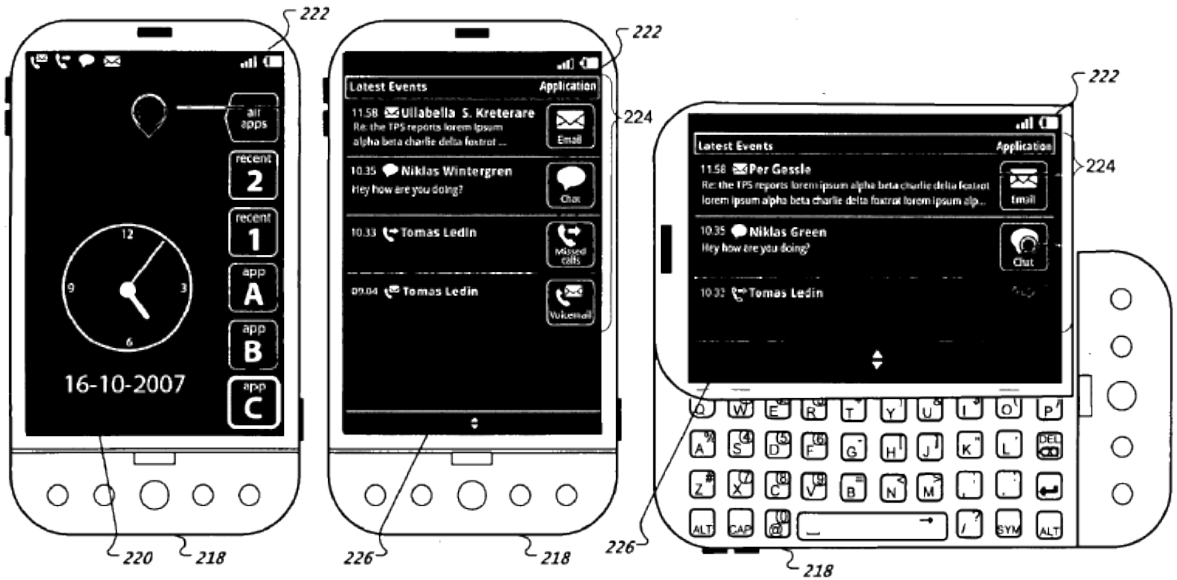
| Claim 31 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[31]** The system of claim 19, wherein during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen. | Claim 31 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 31 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen."<br><br>Claim 31 recites substantially the same limitations as claim 17 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 17. *See, e.g.*, *supra* claim 17.<br><br>As discussed *supra* claim 17, Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen." *See supra* claim 17. |

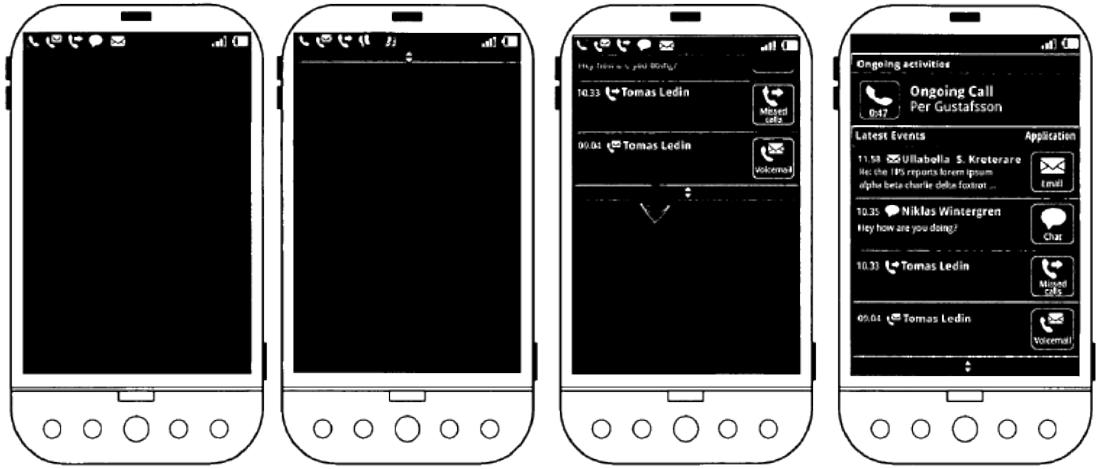
| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[32]** The system of claim 19, wherein said function is displaying a same interface for any said gliding action, said gliding action interacting with any portion of said zone. | Claim 32 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 32 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>Claim 31 includes substantially the same limitations as claim 18 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 18. *See, e.g.*, *supra* claim 18. |

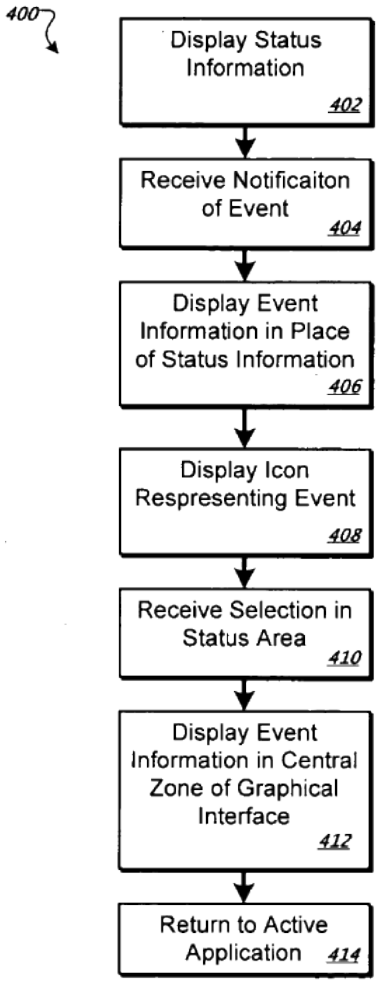
| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | As discussed *supra* claim 18, Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "wherein said function is displaying a same interface for any said gliding action." *See supra* claim 18.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a same interface for any said gliding action, said gliding action interacting with any portion of said zone."<br><br>For example, Tseng does not require touching any particular part of the status bar, which a POSITA would have also recognized describes the user being able to interact with any portion of the status bar when performing the gliding action. Tseng discloses that the user "may select more generally in the status bar" and drag to display the message area, which describes the user's gliding action interacting with any portion of the status bar zone. Tseng at [0038]. *Tseng* also discloses that the user's gliding action may be "a press by a user on the device 218 over the status bar 222, with a subsequent dragging downward of the status bar 222." Tseng at [0053]; *see also* Tseng at [0029] (describing the user "pressing on the status area and dragging downward to pull out the messages"), [0058] (describing the user "pressing on the display with a fingertip on top of the status bar"), [0074] (describing "the user pressing on the status bar and then dragging it downward across the top of the display"), FIGS. 2A-2C.<br><br>Exemplary citations include: |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 1<br>Tseng at FIG. 1. |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 2A<br>Tseng at FIG. 2A. |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 2B<br>Tseng at FIG. 2B. |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 2C<br>Tseng at FIG. 2C. |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 4A<br>Tseng at FIG. 4A. |

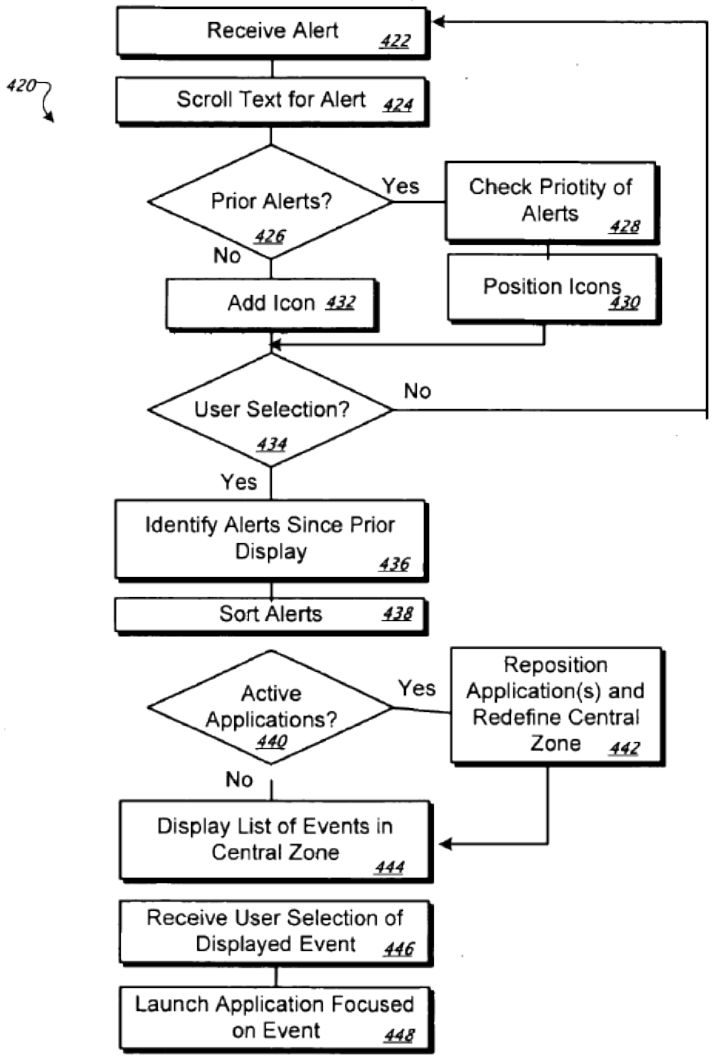
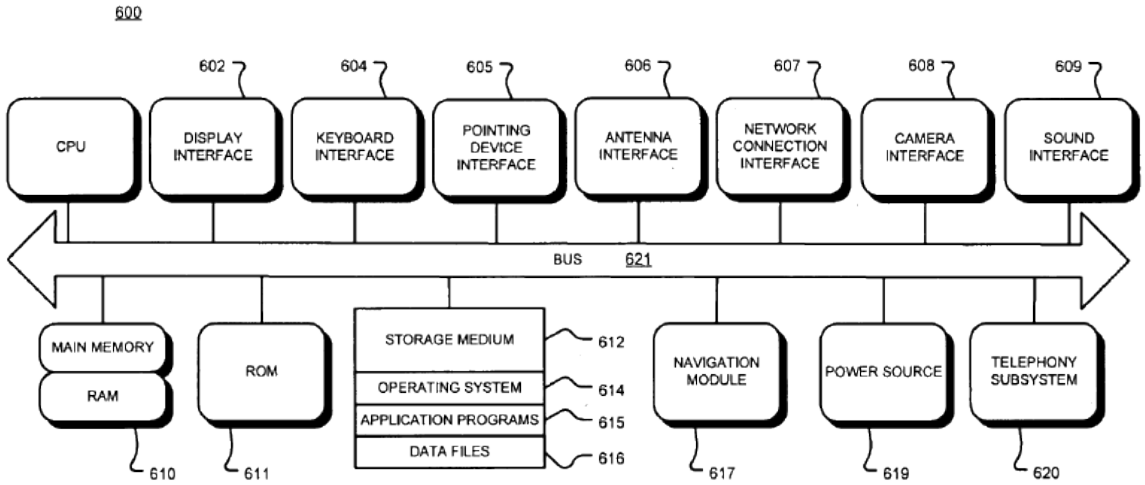
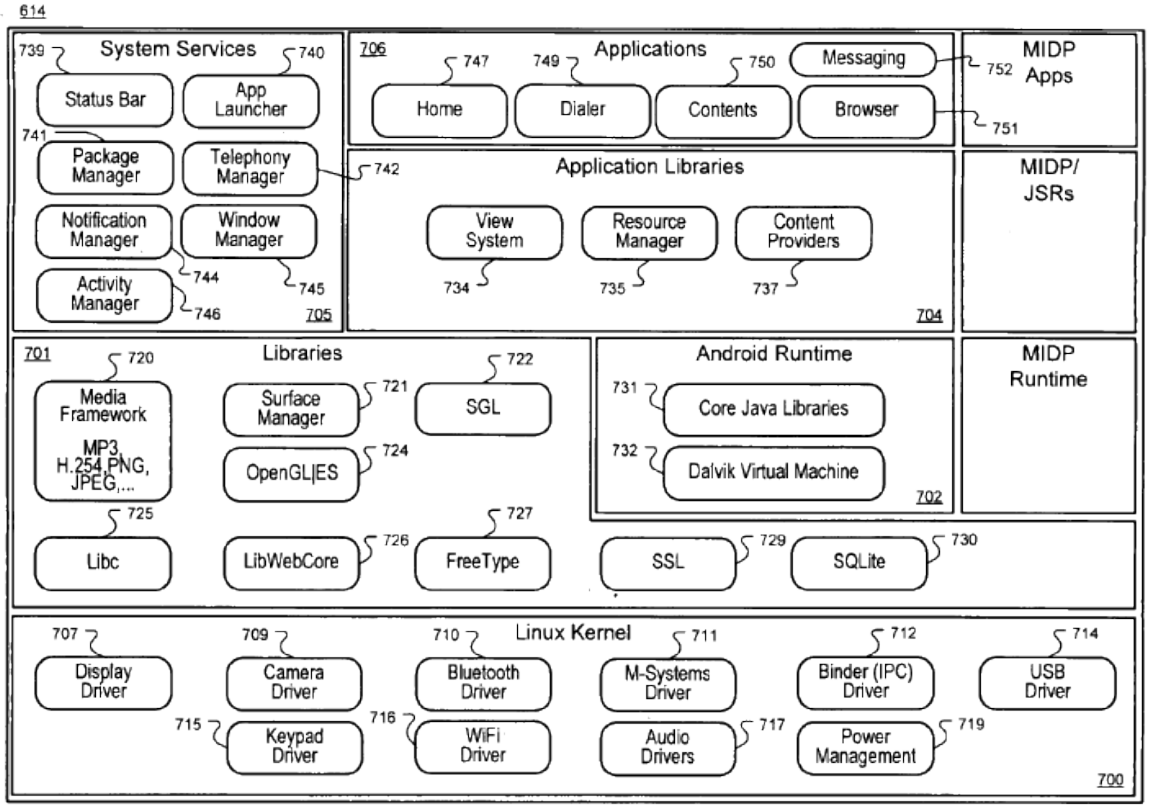



FIG. 4B

Tseng at FIG. 4B.

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 6<br>Tseng at FIG. 6. |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 7<br>Tseng at FIG. 7. |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

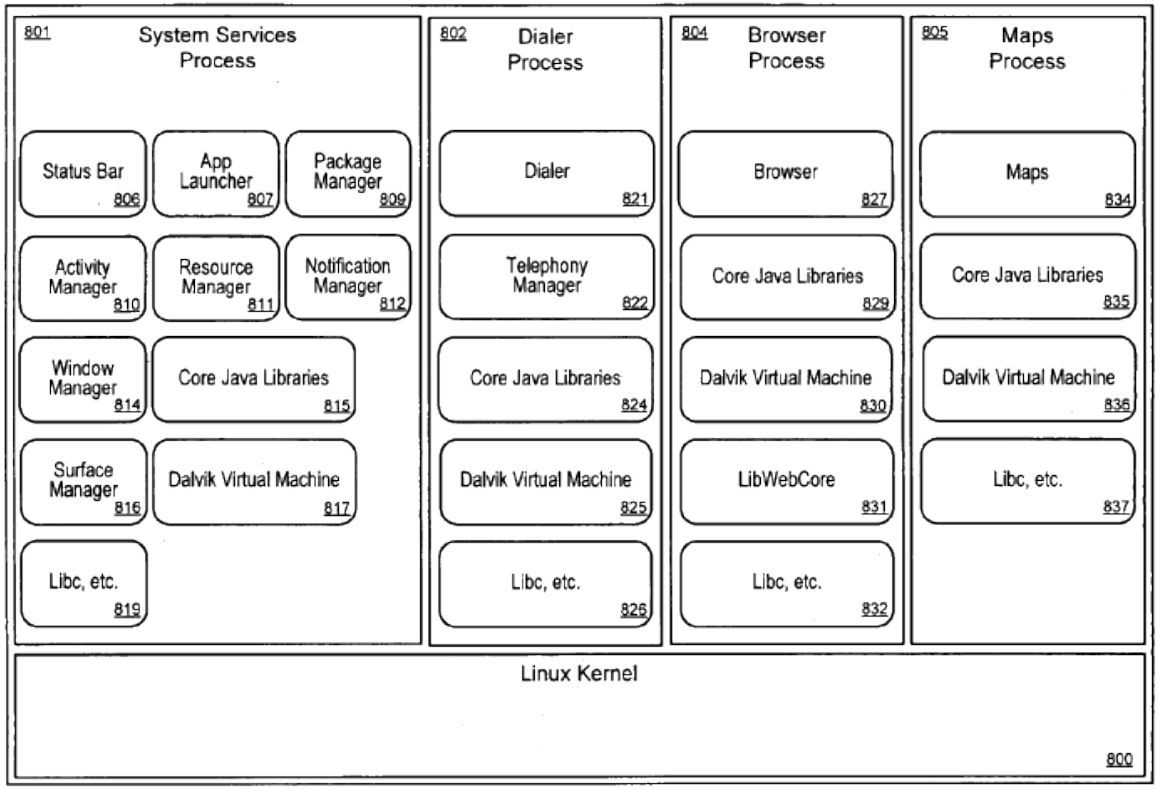



FIG. 8

Tseng at FIG. 8.

"A computer-implemented user notification method includes displaying, in a status area near a perimeter of a graphical interface, a notification of a recent alert event for a mobile device, receiving a user selection in the status area, and in response to the receipt of the user selection, displaying, in a central zone of the graphical interface, detail regarding a plurality of recent messaging events for the mobile device." Tseng at Abstract.

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | "In yet other aspects, the display in the central zone comprises a list of messages from a plurality of messaging applications, and the method can also comprise displaying a user-manipulable slider mechanism in response to the user selection. In addition, the method may include receiving a dragging manipulation of the slider mechanism across the graphical interface, moving the slider mechanism in response to the dragging mechanism, and displaying the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at [0011].<br><br>"In another implementation, a machine-readable data storage medium is disclosed. The medium has instructions stored on it that, when executed, cause one or more processors to display, in a status area near a perimeter of a graphical interface, a notification of a recent alert event for a mobile device, receive a user selection in the status area, and in response to the receipt of the user selection, display, in a central zone of the graphical interface, detail regarding a plurality of recent messaging events for the mobile device. The notification can comprise text describing the recent alert event and is displayed in place of battery and signal elements in a status bar of the graphical interface. Also, the instructions can further cause the one or more processors to aggregate, in the status bar, a plurality of icons that are each visually representative of one or more recently received messaging events." Tseng at [0012].<br><br>"In certain aspects, the display in the central zone comprises a list of messages from a plurality of messaging applications. Also, the instructions can further comprise instructions to cause the one or more processors to receive a dragging manipulation on a touch screen display of the graphical interface, from the status area and across the display, and move the slider mechanism in response to the dragging mechanism, and display the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at [0013].<br><br>"The system comprises a wireless interface to receive data for a user of a mobile device, a notification manager to generate a notification message for a device event, including device events received through the wireless interface, where the notification message includes information that describes the device event, and a display manager to generate elements for a graphical display, to receive the notification message and to present the notification message in a first zone near a perimeter of the graphical display. The system can further comprise an input device to receive a user selection in the first zone, wherein in response to the user selection, the display manager |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | displays, in a central zone of the graphical interface, detail information regarding a plurality of recent messaging events for the mobile device." Tseng at [0014].<br><br>"The status area may then also become selectable by the user, so that selection of the status area causes the display of accrued messages to occur. Such selection of the status area may occur by long press on the status area, or by pressing on the status area and dragging downward to pull out the messages as if they are mounted on or under a window shade. Where the device has a fairly flush front surface, the action may take the form of a finger swipe across the face of the display, where the edge of the element showing an extended view of the messaging events 'sticks' to the user's finger as the finger moves past." Tseng at [0029].<br><br>"Whenever the notification icons (e.g., for e-mail, voice mail, or photo posts in this example) are displayed, a user may select them or may select more generally in the status bar to display more information about the messages represented by the notification icons, as discussed more fully with respect to the following figures. Such selection is discussed next." Tseng at [0038].<br><br>"The right screen in FIG. 2A shows the display 200 after the user has long-pressed or dragged downward on the status bar 202. In this example, the main zone has been filed [sic] with the various messages that were left since the last time the user had reviewed his or her messages. The messages are shown in a message area 206 in the main zone of the display 204, while the status bar 202 is shown with the message notification icons removed (because the user has now been shown the messages and does not need a notification about them). In this example, the first message is an e-mail from Per Gesele, the second is a GOOGLE TALK message from Niklas Green, the third is a missed incoming call from Tomas Ledin, the fourth is a posting of PICASA photos by Niklas Green, and the fifth is a missed call from Tomas Ledin. As shown, the messages are organized here from top to bottom in reverse chronological order." Tseng at [0041].<br><br>"Messages may also be sorted by application. For example, a single line of the display may indicate the number of e-mail messages a user has received since they last launched or focused on their e-mail application, while a next line can do the same for text messages, downloads, and other such notification events. Selection by a user on any one of the lines may cause the corresponding application to be launched or made the focus on the device, with the messages received since the |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | user last employed the application listed in the most prominent location in the application." Tseng at [0042].<br><br>"The messages near the bottom of the message area 206 fade to black in order to provide a visual impression that they are curving back into the dark inside portion of the device. In this manner, the display 204 provides the user with a visual indication that there are additional messages off the bottom of the list. The user may employ a trackball 210 or may slide their finger upward across the display to scroll down and see the additional messages. After such scrolling downward, the message that is at the top of message area 206 will fade to black to indicate that there are more messages above the message area 206 and that the user can thus scroll back in that direction." Tseng at [0043].<br><br>"A group of application icons 212 are shown to the right side of the main zone of the display 204. A user selection of one of the messages in the message area 206 will bring up the application opened to that message, while the selection of one of the application icons 212 will bring up the particular selected application with its various messages displayed, e.g., in reverse chronological order." Tseng at [0044].<br><br>"The first display in FIG. 2B also shows a large circle surrounded by a ring having a downward pointing arrow. This element indicates a press by a user on the device 218 over the status bar 222, with a subsequent dragging downward of the status bar 222. (The element does not appear on the display.) Such action may be programmed to result in the expanding of a message area 224 into the main zone of the display 220. As with the message area 206 discussed above, the message area 224 may show the various messages that the user's device has received in the user's absence. And again, details about a message are shown to the left, while an icon for the particular messaging application is shown on the right. Also, selection of a particular message may result in the full message being opened for the user in its corresponding application, while selection of an application icon may cause the application to be invoked, with its associated messages or other features arranged in a standard manner (e.g., reverse chronological order)." Tseng at [0053].<br><br>"The second display shows, by a circle having a ring around it in the status bar, a selection by a user, such as by moving a pointer to the status bar and pressing a selection mechanism such as a trackball, or by directly pressing on the display with a fingertip on top of the status bar. Upon the user selecting the status bar, the bar may expand slightly, and a 'slide down' indicator may be |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | displayed, in the form of a notification bar with up and down arrows. The indicator may visually signal the user that they can pull the indicator down to show messages associated with the notification icons. Alternatively, a tab like that shown in FIG. 2A may be displayed below the status area." Tseng at [0058].<br><br>"The third display shows the user dragging the notification bar downward across the main part of the display, like a roll shade. At the point shown, more messages remain above the top of the display area, so that the top-displayed message is faded to black at its upper edge to indicate to the user that more messages are left to review. The initially shown message at the bottom of the pulled down section may be a message computed to be at the bottom of the message area once the bar is pulled all the way down to the bottom of the display. In this manner, the messages shown may be "attached" to the notification bar and may move down with it. Alternatively, the messages may be unattached to the bar, so that sliding the bar down appears to open a window into the area where the messages sit. In such an implementation, the top message would appear first at the top of the display, and more messages would gradually appear as the user pulls the bar downward—opening the metaphorical sliding window or cover on them (but with the bottom edge of the messages faded to black all the way down). In this manner, for example, if a gadget were running near the bottom of the display, the user could pull the bar down only so far, so as to not cover the gadget." Tseng at [0059].<br><br>"Certain momentum effects may be provided for the interaction with the notification bar. For example, if the user releases the notification bar in the upper portion of the display, the messages may spring back upward into the status bar and disappear, much like a roll shade that has not yet caught in its first position would spring back. Alternatively, if a user drags the bar quickly and releases it, the bar may continue moving until its momentum runs out or until it hits the bottom of the display. Also, in some implementations, if the user pulls the bar below a determined level on the display, the bar may automatically keep moving until it reaches the bottom of the display, or until it reaches a graphical element that it is not allowed to pass over." Tseng at [0060].<br><br>"A number of components are shown schematically inside the device 302 to indicate components in the device associated with messaging notification functionality for the device 302. One or more of the components may be implemented as part of a programmable microprocessor on the device 302, |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | though the particular components are shown separately in this example for clarity of explanation." Tseng at [0065].<br><br>"The device receives a user's selection of the status bar at box 410. Such a selection may include a selection like those described above, including by a user pressing on the status bar for a long press period, and/or the user pressing on the status bar and then dragging it downward across the top of the display. Alternatively, the user may select another element on the display. Such as a menu element, to have the outstanding un-reviewed events displayed." Tseng at [0074].<br><br>"Such events may be displayed, for example, in reverse chronological order from top to bottom. The events may also be group by event type—such as by one line in the display listing the number of e-mails that have been received since the last time notifications were cleared, another listing the number of text messages, another listing the number of updates for downloaded applications, and the like. The user may then handle each message as he or she sees fit, such as by reviewing it and then deleting or moving it. If the user would like to see more about a particular message, they may select that particular message and may be taken to the relevant application for that message, with the message open. The user may also select an icon to open the relevant application (or they may select a line that lists the number of messages of a certain type, when such a display is provided), and the message previously shown in the display will generally be the top message when the application opens." Tseng at [0075].<br><br>"The user may then interact as necessary with the various messages and/or applications. When the user is done handling the recently-received messages, the user may indicate an intent to remove the recent-received message elements from the display, such as by handling each of the messages or by selecting a graphical element to move the recent-received message elements up and off the display again so that the previously-operating application or applications may take their place again. The device and the user of the device may then continue on with their actions that did not depend on the recently-received messages. An [sic] selectable control. Such as an icon, may also be provided so that a user may 'clear' their alert events or messages. Such a control may be placed in the form of a bottom in the central display when a user drags down on a status bar, so that the user can re-set their notifications, and the icons in the status bar will be removed to indicate that there are no longer any messages to which the user needs to be directed." Tseng at [0076]. |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | "At box 434, the process 420 waits for a user selection, such as a user selection in the status bar area (though in certain implementations, the selection may occur in other manners). If there is no user selection before the next alerting event occurs, the process 420 then repeats the steps just described when a new message next arrives." Tseng at [0080].<br><br>"If there are no such active applications, then a list of the messages or events that have arrived since the last such display are displayed in the central zone. Such as in reverse chronological order (box 444). The system may then wait for input from the user, such as a user selection of a displayed event (box 446), and may then launch or make active the application that is associated with any selected event. For example, if the user selects an e-mail event, then the full e-mail may be displayed in an e-mail application so that the user may respond to the message, file it, forward it, or conduct the wide variety of other actions permitted by a typical e-mail program. The particular displays that provide such display of events or messages, and permit user interaction with them, may include displays like those shown in the various figures above. Other interaction with the various displayed messages or events may also be accomplished in a similar manner." Tseng at [0083]. |

| Claim 33 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[33]** The system of claim 32, wherein said gliding action is provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen. | Claim 33 depends from claims 32 and 19. Defendants incorporate all the prior art disclosures from claims 32 and 19 here, which anticipate and/or render claims 32 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 32 and 19 to show the additional limitations of claim 33 are anticipated and/or obvious for the same reasons set out in claims 32 and 19.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said gliding action is provided |

| Claim 33 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen."<br><br>Claim 33 recites substantially the same limitations as [1D] and is therefore anticipated or rendered obvious for substantially the same reasons as [1D]. *See, e.g.*, *supra* [1D].<br><br>As discussed *supra* [1D], Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "wherein said gliding action is provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen." *See supra* [1D]. |

| Claim 34 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[34]** The system of claim 19, wherein said function is displaying a portion of an interface on the screen. | Claim 34 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 34 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen."<br><br>Claim 34 recites substantially the same limitations as claims 7, 10, 25, and 29 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7, 10, 25, and 29. *See, e.g.*, *supra* claims 7, 10, 25, 29.<br><br>As discussed *supra* claims 7, 10, 25, and 29, Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further |

| Claim 34 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10, 25, 29. |

| Claim 35 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[35]** The system of claim 34, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 35 depends from claims 34 and 19. Defendants incorporate all the prior art disclosures from claims 34 and 19 here, which anticipate and/or render claims 34 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 34 and 19 to show the additional limitations of claim 35 are anticipated and/or obvious for the same reasons set out in claims 34 and 19.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>Claim 35 recites substantially the same limitations as claims 8, 11, 26, and 30 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8, 11, 26, and 30. *See, e.g.*, *supra* claims 8, 11, 26, 30.<br><br>As discussed *supra* claims 8, 11, 26, and 30, Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claims 8, 11, 26, 30. |

| Claim 36 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[36]** The system of claim 19, wherein said zone extends along a substantial portion of said edge. | Claim 36 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 36 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>Tseng, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said zone extends along a substantial portion of said edge."<br><br>Claim 36 recites substantially the same limitations as claims 4 and 16 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 4 and 16. *See, e.g.*, *supra* claims 4, 16.<br><br>As discussed *supra* claims 4 and 16, Tseng teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said zone extends along a substantial portion of said edge." *See supra* claims 4, 16. |

# Appendix A2

**Exhibit A2**

**Invalidity of Asserted Claims of the '602 Patent**

**in view of Jeong**

U.S. Patent Application Publication No. 2009/0094562 to Jeong et al. ("Jeong"), filed on October 3, 2008, and published on April 9, 2009, qualifies as prior art to U.S. Patent No. 9,304,602 ("'602 patent") at least under pre-AIA 35 U.S.C. §§ 102(a), (b), and/or (e) and AIA 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2).[1] Jeong anticipates or, alone or with other references, renders obvious one or more of asserted claims 1-13, 15-19, and 21-36 of the '602 patent. To the extent Keyless contends Jeong does not disclose one or more limitations of the claims, it would have been obvious to combine Jeong with the knowledge of a person of ordinary skill in the art ("POSITA") and/or with one or more of the following references to render the claims at issue in the '602 patent invalid. The chart below illustrates how the asserted claims of the '602 patent are invalid in view of Jeong and/or additional secondary references listed below, including but not limited to the prior art identified in Defendant's Invalidity Contentions.

- U.S. Patent Application Publication No. 2004/0109013 A1 to Goertz ("Goertz"), filed December 10, 2002, and published on June 10, 2004. Goertz qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b) and/or (e).
- U.S. Patent Application Publication No. 2008/0207188 A1 to Ahn et al. ("Ahn"), filed on February 14, 2008, and published on August 28, 2008. Ahn qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b) and/or (e).
- U.S. Patent Application Publication No. 2009/0249247 to Tseng et al. ("Tseng"), filed on January 30, 2009, and published on October 1, 2009, claims priority to U.S. Provisional Application No. 61/024,869, filed January 30, 2008. Tseng qualifies as prior art at least under pre-AIA 35 U.S.C. §§ 102(a), (b), and/or (e) and AIA 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2).
- U.S. Patent Application Publication No. 2009/0295750 A1 to Yamazaki et al. ("Yamazaki"), filed on May 27, 2009, and published on December 3, 2009. Yamazaki qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b), and/or (e).

[1] Keyless Licensing LLC (or "Keyless") alleges that the asserted claims of the '602 patent are entitled to priority as early as December 20, 2009. However, as explained in the cover pleading, the asserted claims of the '602 patent are not entitled to Keyless's claimed priority date due to inadequate written description support. Assuming the claims are not invalid under Section 112 (*see, e.g.*, cover pleading), the earliest possible priority date for the asserted '602 patent claims is 2/11/2010 or later.

- U.S. Patent Application Publication No. 2010/0050076 A1 to Roth ("Roth"), filed on August 29, 2008, and published on February 25, 2010. Roth qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).
- U.S. Patent Application Publication No. 2010/0164959 A1 to Brown et al. ("Brown"), filed on December 26, 2008, and published on July 1, 2010. Brown qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).
- U.S. Patent Application Publication No. 2010/0302172 A1 to Wilairat ("Wilairat"), filed on May 27, 2009, and published on December 2, 2010. Wilairat qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).
- U.S. Patent Application Publication No. 2011/0209099 A1 to Hinckley et al. ("Hinckley"), filed on February 19, 2010, and published on August 25, 2011. Hinckley qualifies as prior art at least under 35 U.S.C. § 102(a)(2) as well as pre-AIA 35 U.S.C. §(e).
- Japanese Laid-Open Patent Application No. JP2003195998A to Hisatomi ("Hisatomi"), filed on December 26, 2001, and published on July 11, 2003. Hisatomi qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).[2]
- V. Roth & T. Turner, "Bezel Swipe: Conflict-Free Scrolling and Multiple Selection on Mobile Touch Screen Devices," CHI 2009 ~ Multimodal Mobile Interaction, pp. 1523-26 (ACM 2009) ("Roth Bezel Swipe"), published April 8, 2009. Roth Bezel Swipe qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).
- The Samsung Galaxy GT-i7500 running Android 1.5 ("Samsung Galaxy GT-i7500 1.5") was, on information and belief, publicly available in the United States on or about June 29, 2009. The Samsung Galaxy GT-i7500 1.5 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).
- The Samsung Behold II running Android and TouchWiz UI (Samsung Behold II") was, on information and belief, publicly available in the United States on or about November 18, 2009. The Samsung Behold II qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A4.

[2] Defendants' invalidity contentions rely on the certified translation of Hisatomi.

- The HTC G1 (also known as the HTC Dream) running Android 1.6 ("HTC G1 1.6") was, on information and belief, publicly available in the United States on or about September 15, 2009. The HTC G1 1.6 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A3.
- The HTC Hero running Android 1.5 ("HTC Hero 1.5") was, on information and belief, publicly available in the United States on or about October 11, 2009. The HTC Hero 1.5 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A6.
- The HTC Hero running Android 2.1 ("HTC Hero 2.1") was, on information and belief, publicly available in the United States on or about January 2010. The HTC Hero 2.1 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a). *See also* Ex. A6.
- The HTC Magic running Android 1.6 ("HTC Magic 1.6") was, on information and belief, publicly available in the United States on or about July 8, 2009. The HTC Magic 1.6 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).
- The Motorola Droid A855 ("Motorola Droid A855") was publicly available in the United States with Android 2.0 on or about November 6, 2009, and with Android 2.2 on or about May 2010. The Motorola Droid A855 running Android 2.0, on information and belief, was substantially the same with respect to the relied-upon functionality as the Motorola Droid A855 running Android 2.2. The Motorola Droid A855 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A5.
- The Palm Pre running Palm's WebOS ("Palm Pre") was, on information and belief, publicly available in the United States on or about February 2009. Although Palm WebOS 1.4.5 was not released until on or about July 2010, the relied-upon functionality was, on information and belief, substantially the same in the February 2009 WebOS release. The Palm Pre qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A7.
- The Neonode N2 ("Neonode N2") was, on information and belief, publicly available in the United States not later than 2008. *See also* Ex. A8.

With respect to the proposed modifications to Jeong, such modification would have been obvious to try, an obvious combination of prior art elements according to known methods to yield predictable results, a simple substitution of one known element for another to obtain predictable results, a use of known techniques to improve a similar devices or method in the same way, an application of a known technique to a known device or method ready for improvement to yield predictable results, a variation of a known work in one field of endeavor for use in either the same field or a different one based on design incentives or other market

forces with variations that are predictable to a POSITA, and/or obvious in view of teachings, suggestions, and motivations in the prior art that would have led a POSITA to modify or combine the prior art references.

The chart below illustrates how the asserted claims of the ’602 patent are anticipated by Jeong and/or would have been obvious in view of by Jeong and/or additional secondary references. The excerpts cited herein are exemplary. For any claim limitation, Samsung may rely on excerpts cited for any other limitation and/or additional excerpts not set forth fully herein to the extent necessary to provide further explanation for a reference’s disclosure of a limitation. Where an excerpt refers to or discusses a figure or figure items, that figure and any additional descriptions of that figure should be understood to be incorporated by reference as if set forth fully herein. Samsung reserves the right to further supplement this chart.

To the extent that these Invalidity Contentions rely on or otherwise embody particular interpretations of terms or phrases in the asserted claims, Samsung is not proposing any such interpretations as proper interpretations or constructions of those terms or phrases. Various positions put forth in this document are predicated on Keyless’s apparent interpretation of its claims as evidenced by its Infringement Contentions. Those positions are not intended to and do not necessarily reflect Samsung’s interpretation of the true and proper scope of the asserted claims. Samsung further incorporates by reference all reservations of rights set forth in the Invalidity Contentions, as if fully set forth herein.

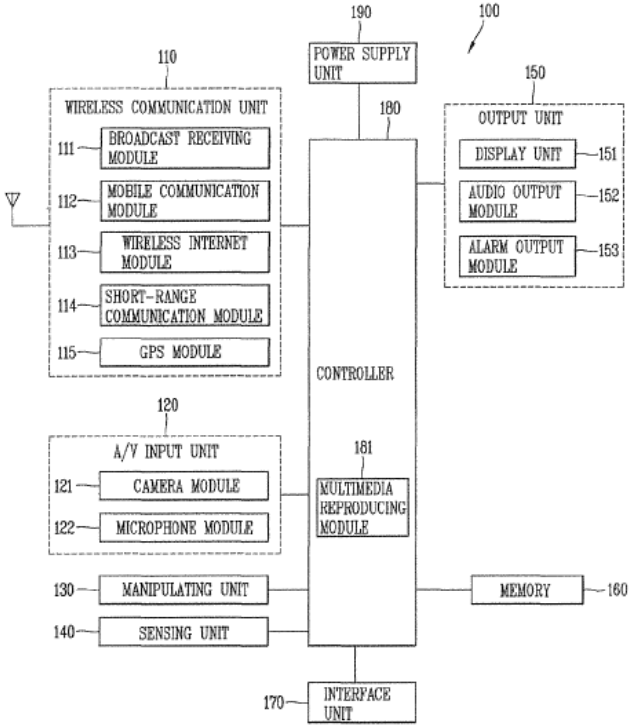
Defendants’ arguments throughout these invalidity contentions are based on Keyless’s apparent interpretation of the claims in its infringement contentions. Defendants do not agree that such interpretation is proper and reserve the right to argue that the mapped actions do not infringe any claims of the ’602 patent. In the alternative, should the Court or factfinder construe and/or apply the claims in a manner consistent with Keyless’s interpretations in its infringement contentions for the ’602 patent, the claims are invalid for at least the reasons set forth herein.

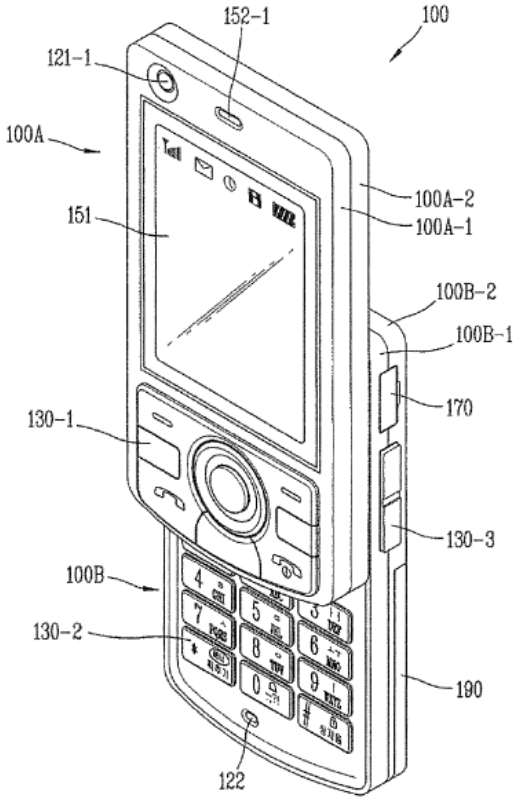
In some instances, the referenced prior art includes priority applications, including prior provisional applications, that provide adequate §112 support for the claim(s) in the referenced prior art. *See, e.g.*, Tseng at Cover. In those instances, the consistent disclosures in those earlier applications, including prior provisional applications, are incorporated herein by reference. As such, those earlier disclosures apply equally in terms of their application to the elements of the asserted claims, and thus provide even earlier dates in terms of prior art, state of the art, and the knowledge base of those of ordinary skill in the art. *See Dynamic Drinkware LLC v. National Graphics Inc*., 800 F.3d 1375 (Fed. Cir. 2015).

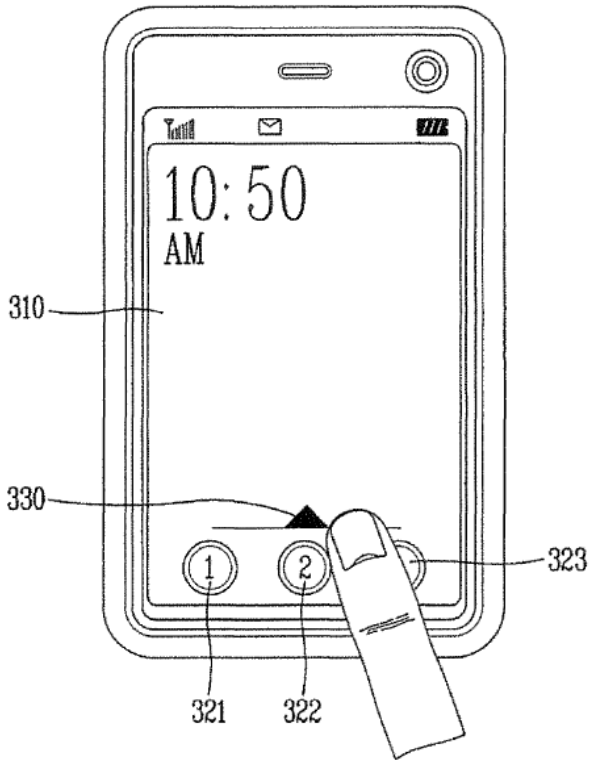
To the extent any of the art describes different embodiments of its inventions, a POSITA would have found it obvious to combine Jeong’s teachings regarding these embodiments. A POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the embodiments, and would have a reasonable expectation of success in doing so, at least because the embodiments use known variations of existing technology to solve routine and

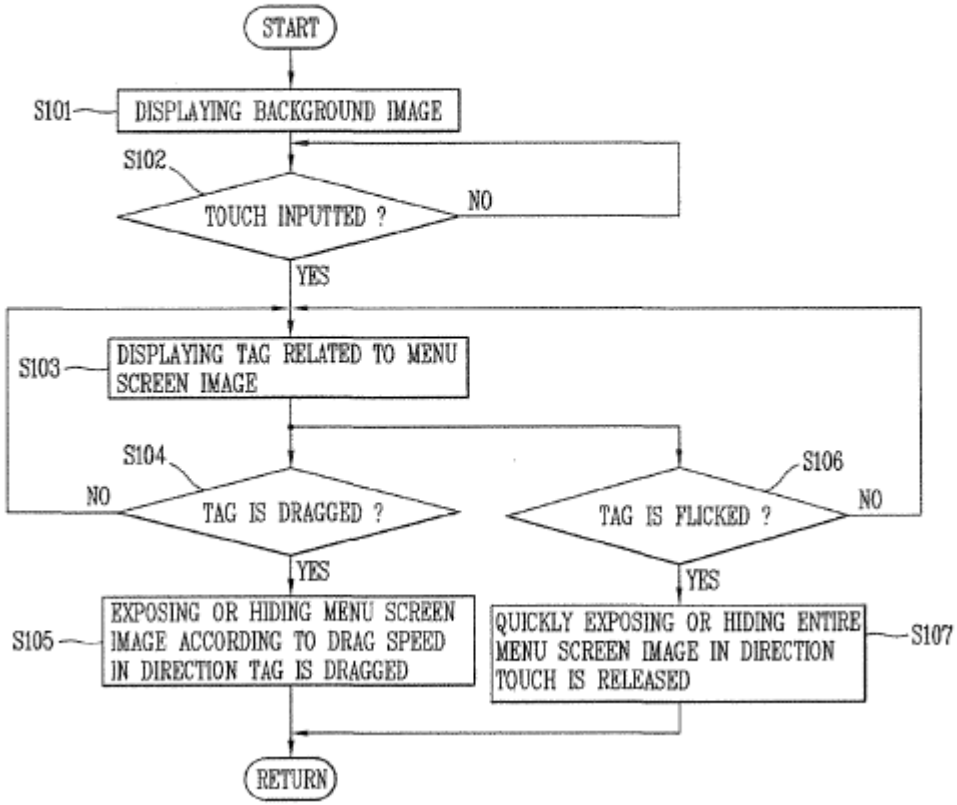
well understood problems in predictable ways. A POSITA would have recognized that Jeong's embodiments describe related advancements for mobile devices, and a POSITA would have been motivated to combine elements of the embodiments to achieve Jeong's goals.

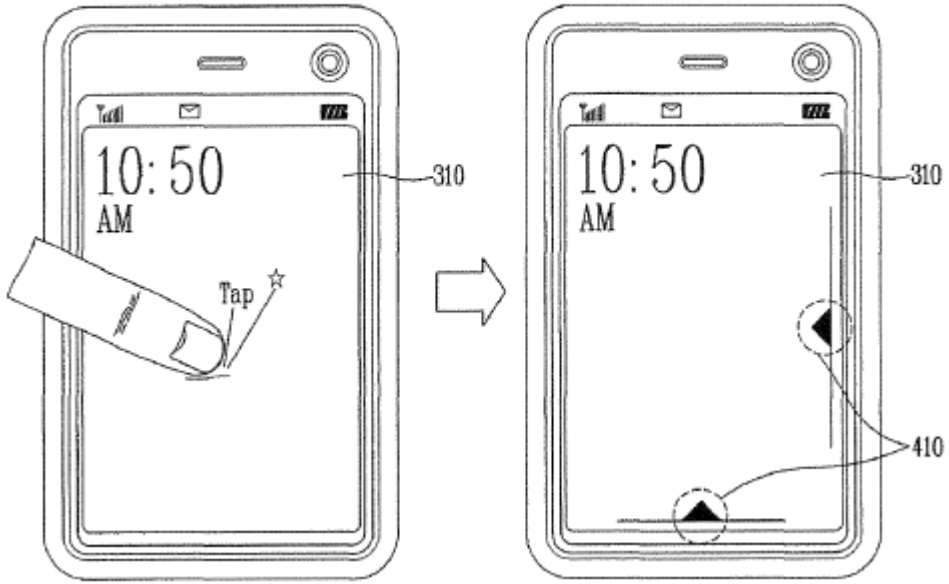
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[1Pre]** A system for capturing an event provided from an edge of a touch screen comprising: | To the extent that the preamble is held to be limiting, Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[a] system for capturing an event provided from an edge of a touch screen."<br><br>For example, Jeong discloses "[a] mobile terminal" that "compris[es] a display module to display a tag and to display a menu screen image related to the tag at one portion of a background image as the tag is dragged." Jeong at Abstract. Jeong's tags, for example, tags 330 or 410 "may be [a] graphical user interface (GUI) object associated with a functional interface which allows a user to expose or hide from view other GUI objects on the mobile terminal 100's display." Jeong at [0050]. The user may perform a dragging event by gliding his or her finger from an edge of the touch screen to "drag[] a menu screen image in a tactile manner to allow the menu screen image to be exposed or hidden." Jeong at [0002].<br><br>Exemplary citations include: |

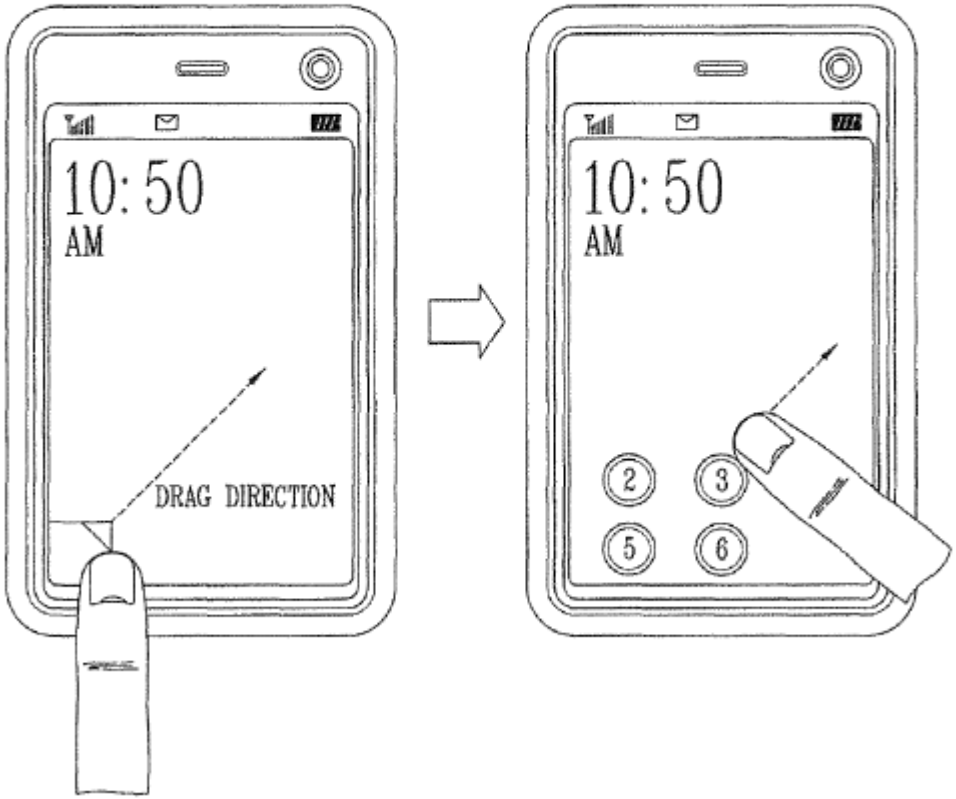
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 1<br>  <br><br>Jeong at FIG. 1. |

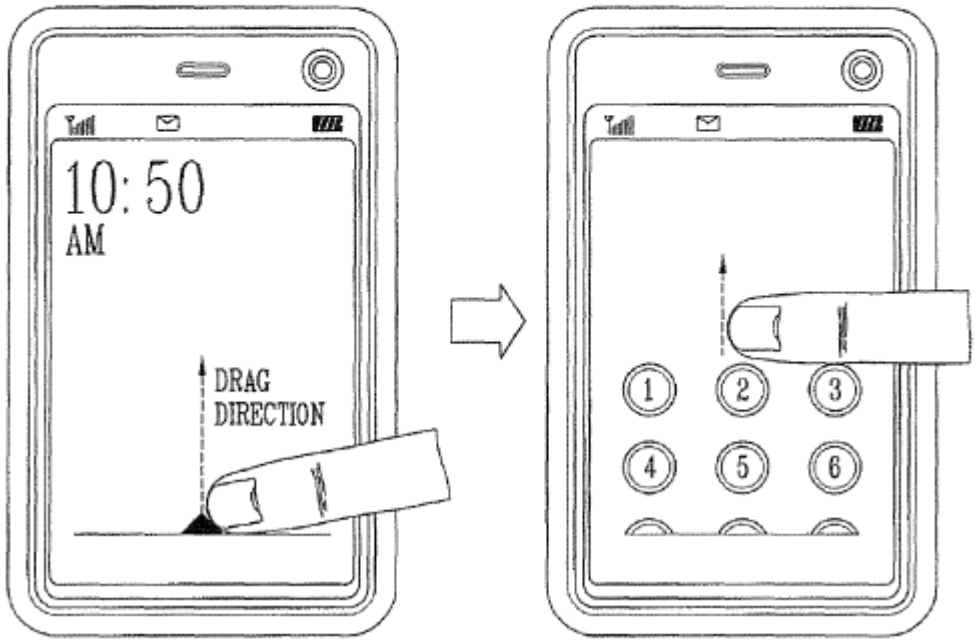
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 2<br>  <br><br>Jeong at FIG. 2. |

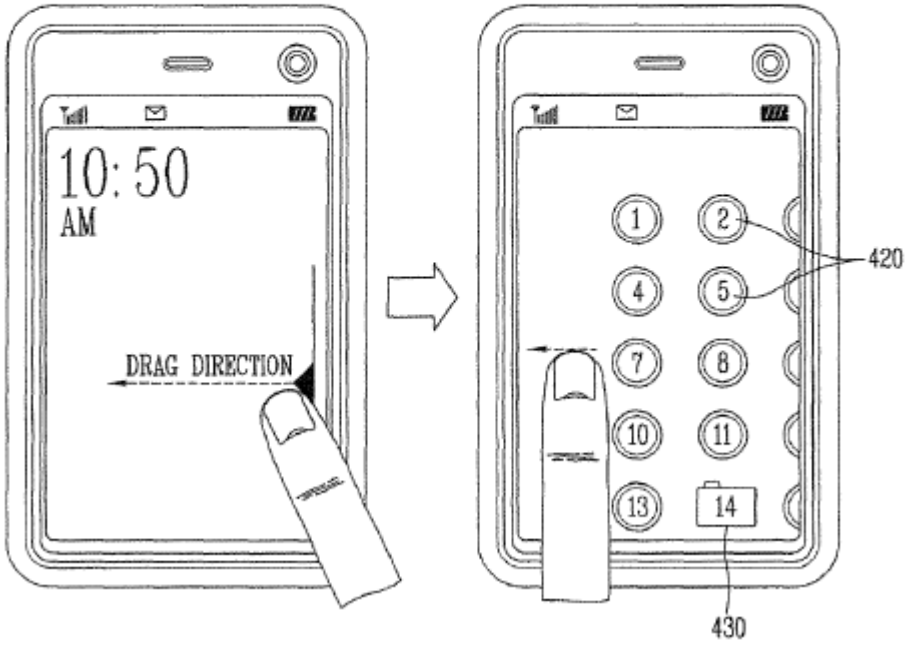
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 4<br>  <br><br>Jeong at FIG. 4. |

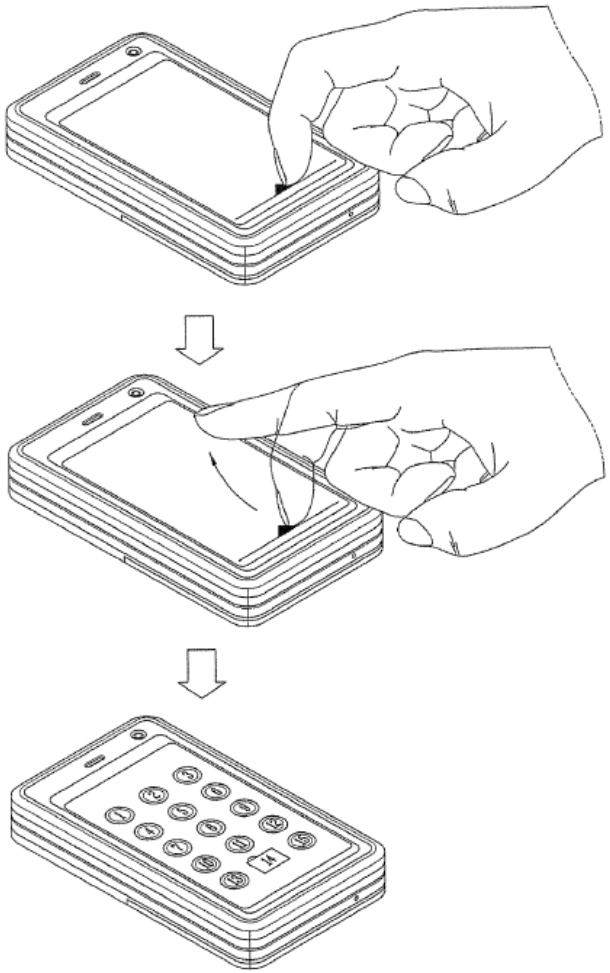
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 5<br>  <br><br>Jeong at FIG. 5. |

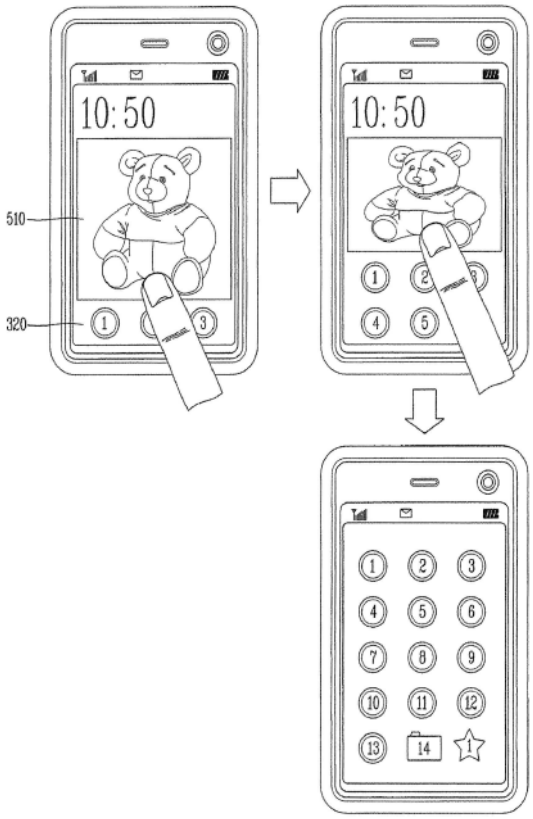
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 6A<br>  <br><br>Jeong at FIG. 6A. |

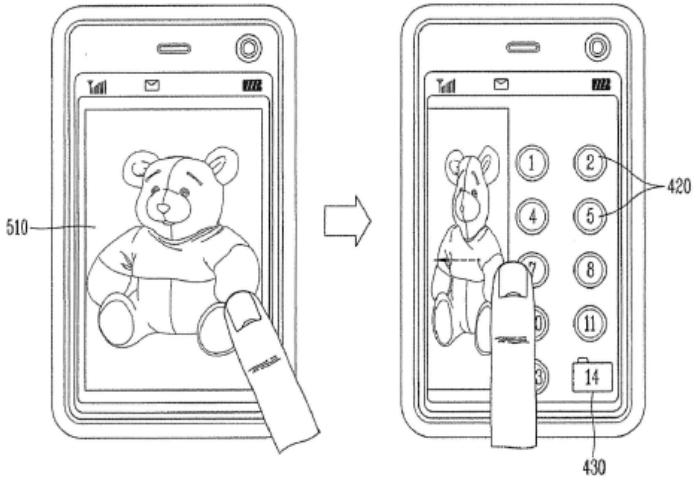
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7A<br>  <br><br>Jeong at FIG. 7A. |

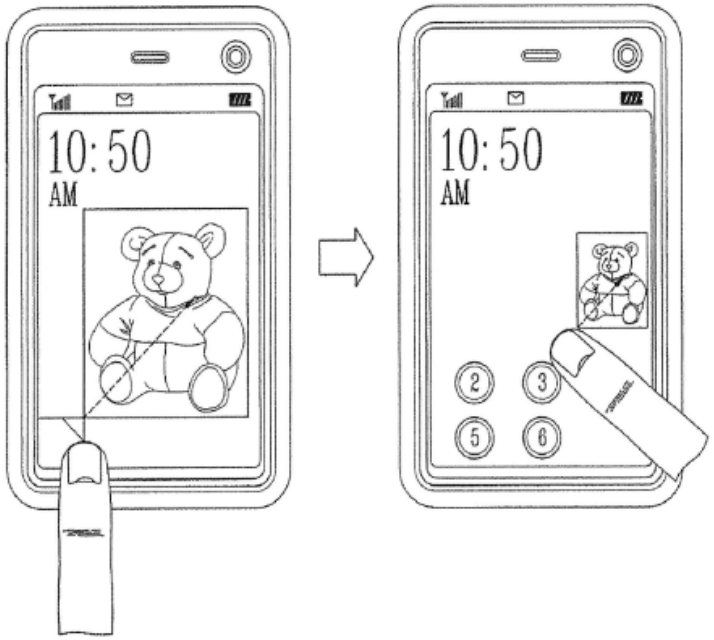
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 7B<br>  <br><br>Jeong at FIG. 7B. |

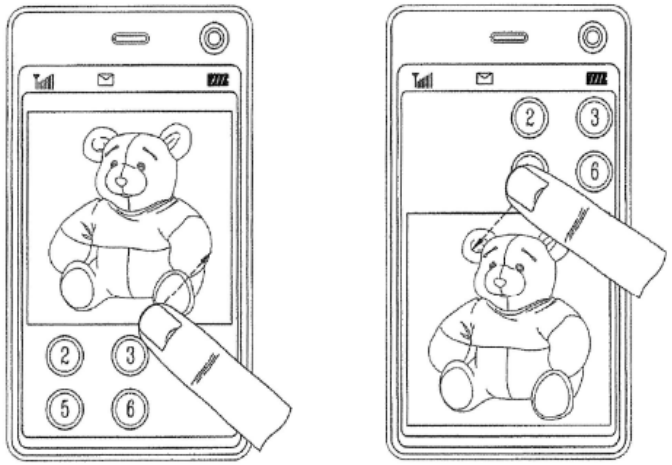
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 7C<br>  <br><br>Jeong at FIG. 7C. |

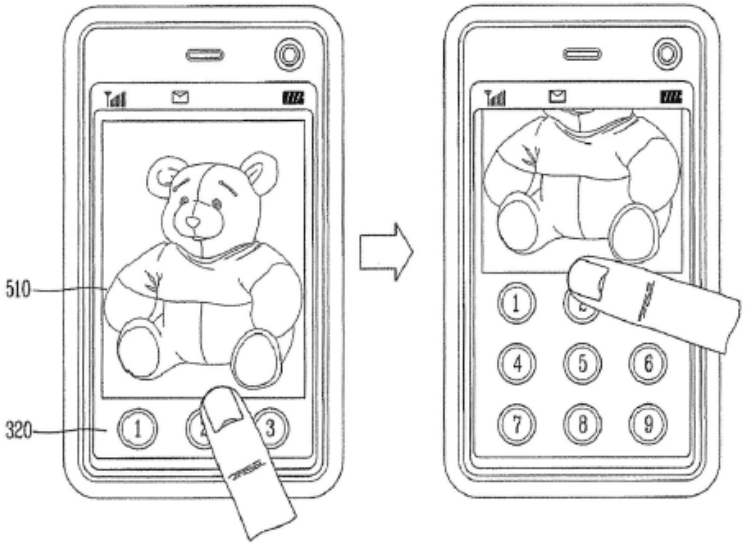
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 8<br>  <br>Jeong at FIG. 8. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 9A<br>  <br><br>Jeong at FIG. 9A. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 9B<br>  <br><br>Jeong at FIG. 9B. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 9C<br>  <br><br>Jeong at FIG. 9C. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 9D<br>  <br><br>(a) (b)<br>Jeong at FIG. 9D. |

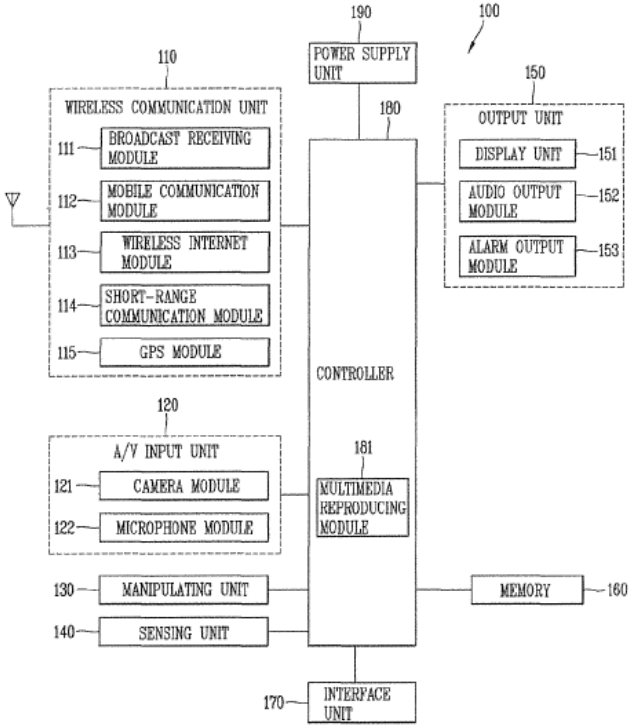
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 9E<br>  <br><br>Jeong at FIG. 9E.<br><br>"A mobile terminal comprising a display module to display a tag and to display a menu screen image related to the tag at one portion of a background image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance; an input unit to detect a touch input with respect to the display module or the tag to determine the dragging direction and the dragging distance; and a controller to expose or hide the menu screen image according to the dragging direction the dragging distance of the inputted touch." Jeong at Abstract. |

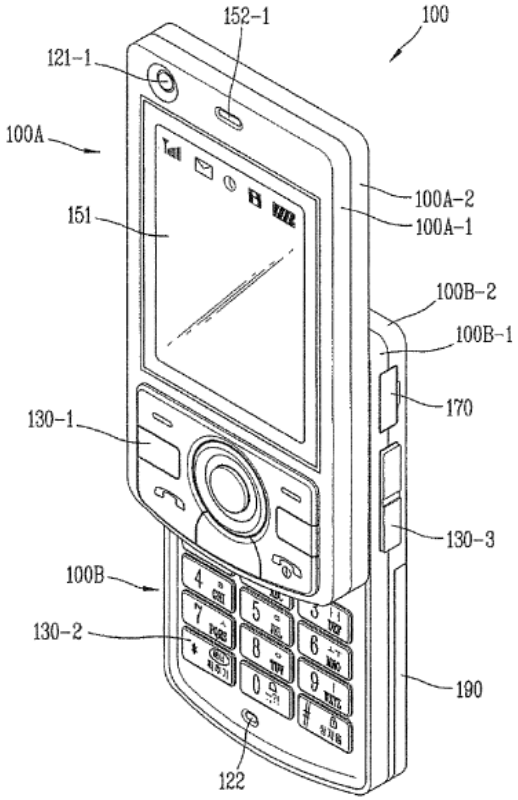
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | "The present disclosure relates to a method for dragging a menu screen image in a tactile manner to allow the menu screen image to be exposed or hidden by a background screen image, and a mobile terminal implementing the same." Jeong at [0002].<br><br>"To achieve these and other objectives and in accordance with the purpose of the present disclosure, as embodied and broadly described herein, the present disclosure provides in one aspect a mobile terminal comprising: a display module to display a tag (i.e., an interactive object) and to display a menu screen image related to the tag at one portion of a background screen image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance; an input unit to detect a touch input with respect to the display module or the tag to determine the dragging direction and the dragging distance; and a controller to expose or hide the menu screen image according to the dragging direction the dragging distance of the inputted touch." Jeong at [0006].<br><br>"To achieve these and other advantages and in accordance with the purpose of the present disclosure, as embodied and broadly described herein, the present disclosure provides in another aspect a method for displaying a menu of a mobile terminal, comprising: a means of displaying a tag and a menu screen image related to the tag at one portion of a background screen image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance; a means of detecting a touch input with respect to a display module or the tag to determine the dragging direction and the dragging distance; and a means of exposing or hiding the menu screen image according to the dragging direction and the dragging distance of the inputted touch." Jeong at [0007].<br><br>"Referring to FIG. 1, a mobile terminal 100 according to one embodiment, may be implemented in various configurations or form factors. Examples of such terminals include mobile phones, smart phones, notebook computers, navigation devices, digital broadcast terminals, personal digital assistants (PD As), or portable multimedia players (PMP). The mobile terminal 100 may include a wireless communication unit 110, an A/V (Audio/Video) input unit 120, a manipulating unit 130, a sensing unit 140, an output unit 150, a storage unit 160, an interface unit 170, a controller 180, and a power supply unit 190, etc. Greater or fewer components may alternatively be implemented." Jeong at [0023]. |

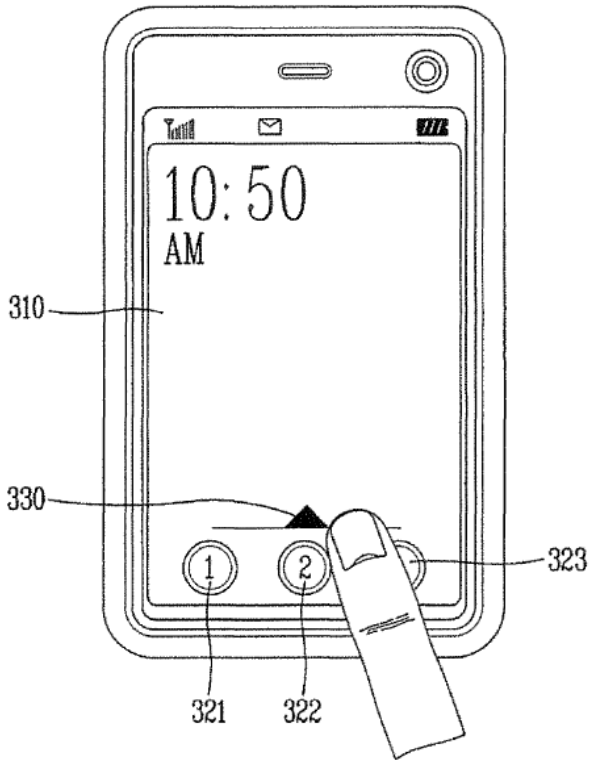
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | "The manipulating unit 130 may generate key input data inputted by a user to control various operations of the mobile terminal 100. The manipulating unit 130 may include a keypad, a dome switch, a touch pad (e.g., a touch sensitive member that detects changes in resistance, pressure, capacitance, etc.), a jog wheel, a jog switch, and the like. In particular, when the touch pad is overlaid on the display module 151 in a layered manner, it may be called a touch screen." Jeong at [0030].<br><br>"FIG. 4 shows a background screen image of the mobile terminal 100 according to one embodiment. As shown, the mobile terminal 100 may not display any menu item on a background image 310 in a standby mode or may simply display some menu items 321-323. A tag 330 related to a menu display may be displayed to allow the user to touch the tag 330 to drag it in a certain direction to expose the other remaining menu items that are usually hidden. A tag may be graphical user interface (GUI) object associated with a functional interface which allows a user to expose or hide from view other GUI objects on the mobile terminal 100's display." Jeong at [0050].<br><br>"The tag 330 may be displayed in a shape (e.g., an arrow) indicating a direction in which the menu screen image 320 is exposed or a direction in which the tag 330 can be dragged. For example, the tag 330 may have a triangular shape or an arrow shape. Accordingly, the tag 330 may be displayed by changing its direction according to whether the menu screen image 320 is exposed or hidden from view. The menu item displayed on the background screen image 310 may include an icon for executing a program. In addition, the menu item may include a 'group menu item' 430 for retrieving a menu item of a different group and displaying it on the background screen." Jeong at [0052].<br><br>"The type of touch may include pushing or pulling (or otherwise moving) the tag 330 or icon on the screen in an upward, downward or some other direction in a rather abrupt movement, which may be referred to as 'flicking' because the movement, in one embodiment, may be compared to the motion associated with flicking a page of a book, for example. When the tag 330 is flicked in such a manner, the entire menu screen image 320 can be automatically shown (or exposed) or hidden such that the image appears to be unfolding on the screen without having to drag the entire menu screen image 320 all the way across the screen." Jeong at [0055].<br><br>"The menu screen image 320 may be shown at or be hidden from a particular region of the screen, by setting at least one of a side portion, a corner portion, or a central portion of the touch screen as |

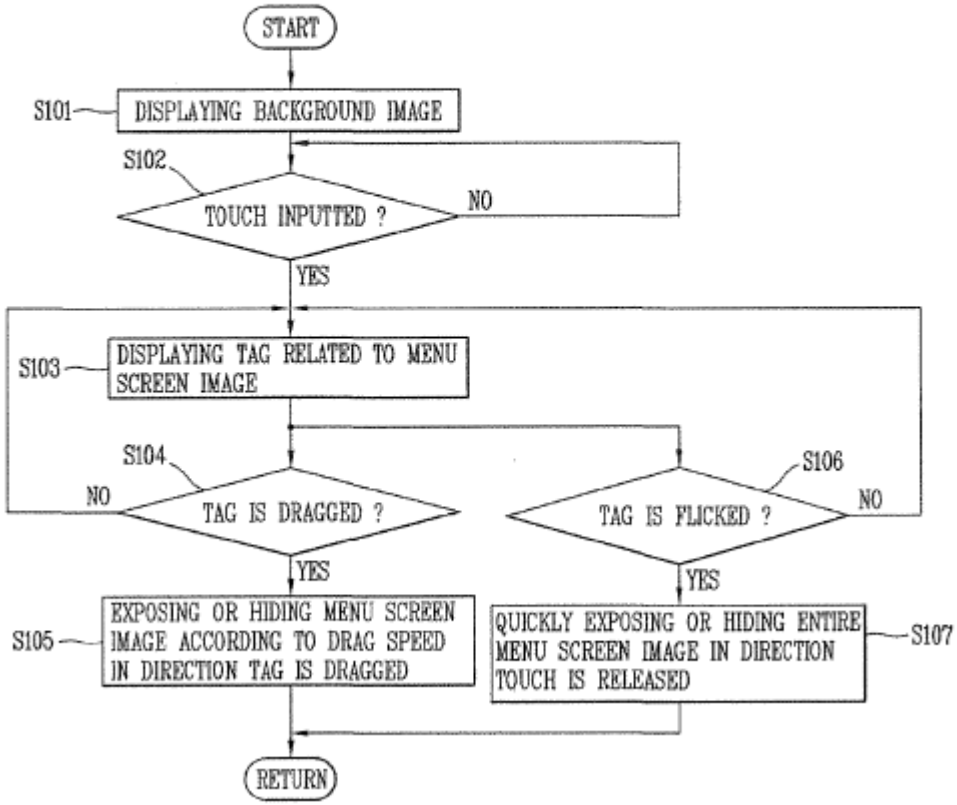
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | a boundary region from which the menu screen image 320 can appear or disappear, and the tag 330 (or other graphical indicator) can be used to indicate the boundary region." Jeong at [0056].<br><br>"FIG. 5 is a flow chart illustrating the process of displaying a menu of the mobile terminal 100 according to one embodiment. The method of display process of the mobile terminal 100 according to the present disclosure will now be described with reference to FIGS. 5, 6A, 6B, 7 A, 7B, 7C and 8. For the sake of example, it is assumed that no menu item is displayed on the background screen image 310 of the mobile terminal 100. As shown in FIG. 6A, if there is nothing displayed on the background screen image 310 with respect to a menu item, the user may touch the background screen image 310 to display tags 410 to display a menu screen image 320. That is, when a touch is inputted with nothing displayed on the background screen image 310, the tags 410 related to the menu screen image 320 are displayed (Sl0l to S103)." Jeong at [0057].<br><br>"As shown in FIG. 6B, one or more tags 411 to 416 may be displayed, and the tags 410 may be displayed at one of a side, a corner or an internal region of the touch screen. If a tag related to the menu display is already displayed on the background screen image 310, the tag calling process may be omitted. After the tag is displayed, if there is no dragging or flicking during a pre-set time, the displayed tag may be released. With the tags 410 displayed, when the user touches one of the tags 410 and drags it (S104), the controller 180 exposes a menu screen image 320, which has been hidden, in the direction in which the tag is dragged as shown in FIGS. 7A to 7C. Likewise, if the tag is dragged in a different direction, an exposed menu screen image 320 may be hidden (S105)." Jeong at [0058].<br><br>"The menu items displayed on the menu screen image 320 may include a group menu item 430 indicating a menu item included in a different menu group, and it may be displayed to be different from the menu items 420 for executing a program. If tag dragging is stopped before the entire menu screen image 320 is exposed, or when the touch to the tag being dragged is released, the menu screen maintains a currently exposed state as it is. That is, while flicking results in exposing or hiding the entire menu screen image 320, dragging allows adjusting of the degree of exposing or hiding of the menu screen image 320 in accordance with the speed and direction of the dragging motion." Jeong at [0059].<br><br>"Notably, referring back for FIG. 5, if the user wants to quickly expose or hide the entire menu screen image 320, he may flick a desired tag by for example interactive with the tag successively |

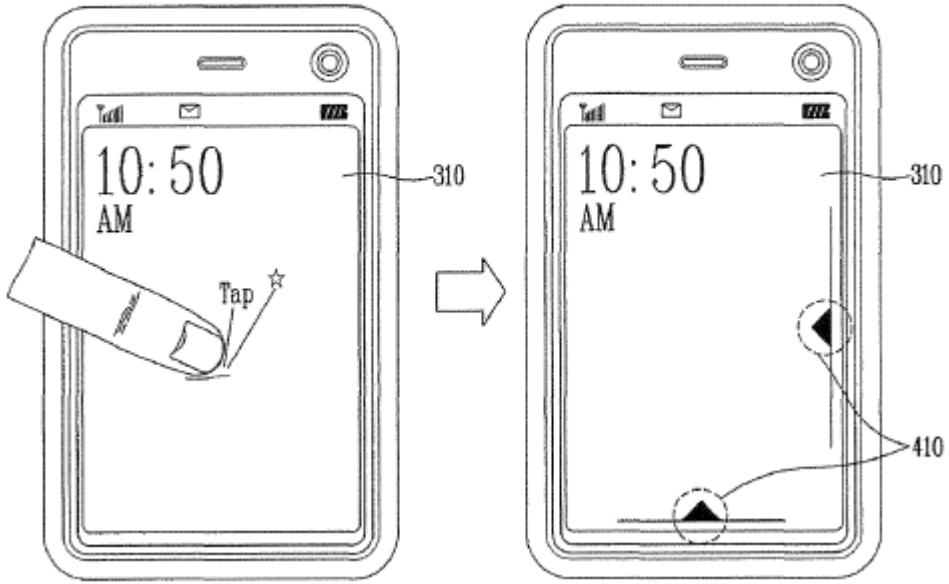
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | (e.g., tapping on the tag), or as shown in FIG. 8, the user may push the tag up or down in a bouncing manner (S106, S107). In order to determine a touch input type (i.e., whether the user means to flick or drag the tag), the controller 180 may use one or more factors associated with user interaction with the tag. These factors may include time, speed, direction, pressure and area to which the touch is applied or released." Jeong at [0060]. |
| **[1A]** a device having a touch screen; | Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a device having a touch screen."<br>For example, Jeong discloses a device (e.g., "mobile terminal") having "a touch screen." Jeong at [0030], [0034], [0041], [0058], FIGS. 4-9E, claim 2.<br>Exemplary citations include: |

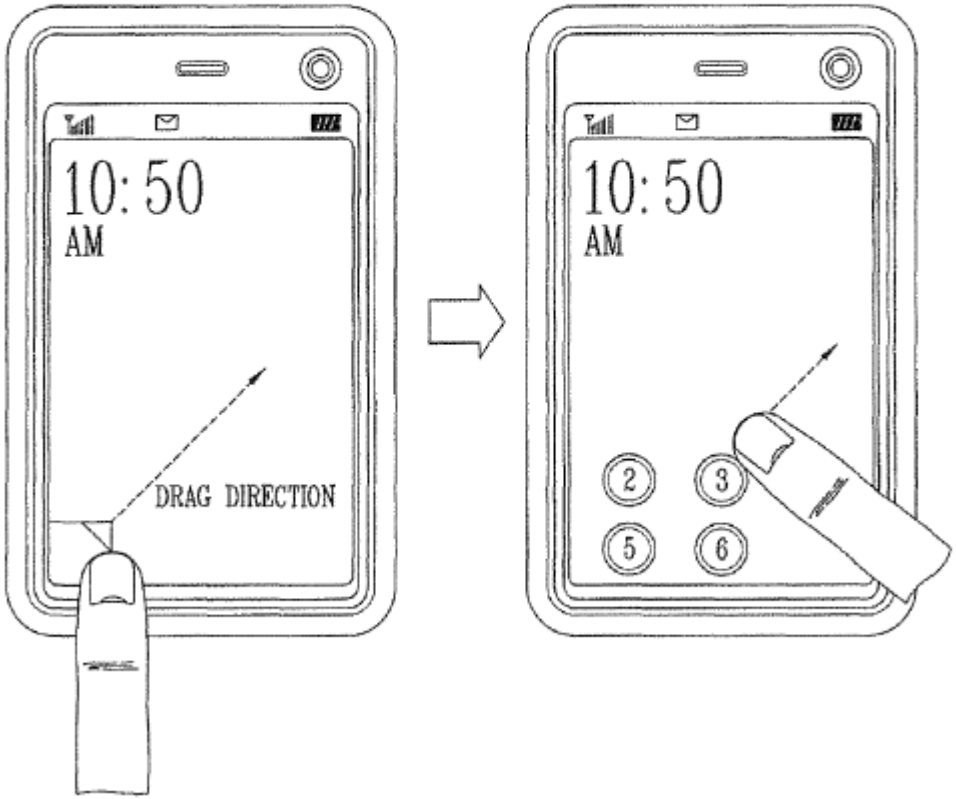
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 1<br>  <br><br>Jeong at FIG. 1. |

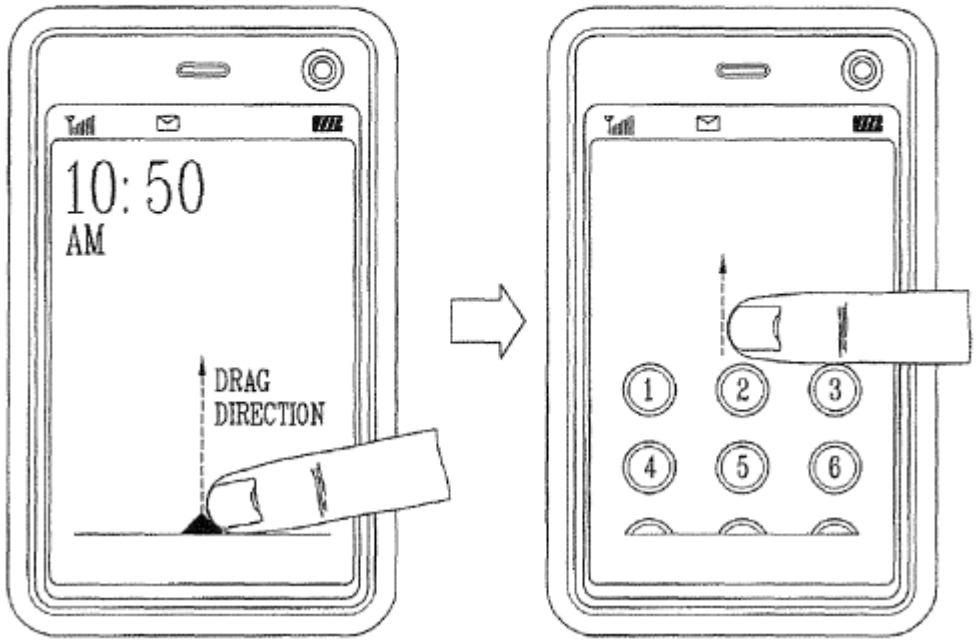
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 2<br>  <br><br>Jeong at FIG. 2. |

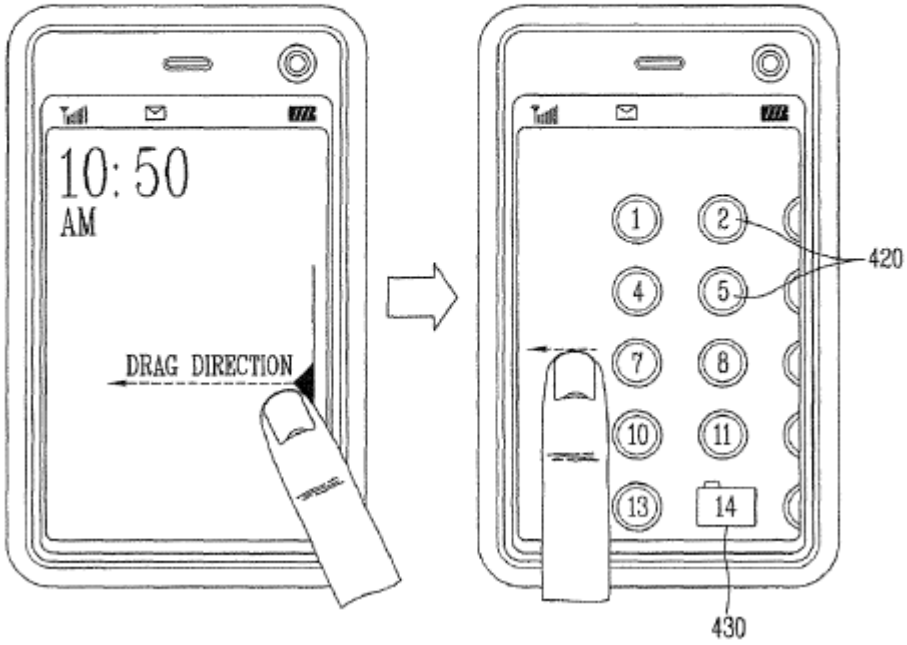
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 4<br>  <br><br>Jeong at FIG. 4. |

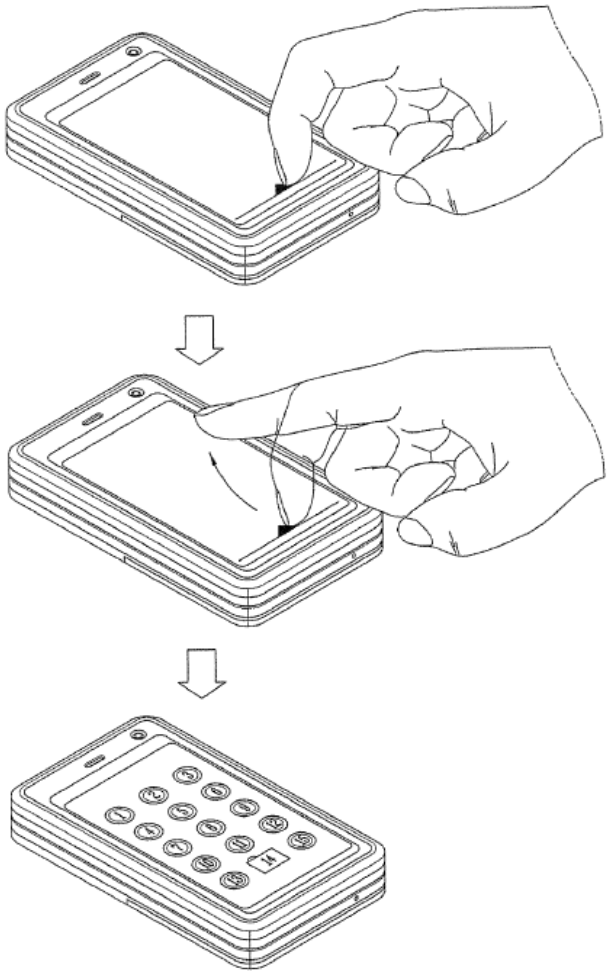
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 5<br>  <br><br>Jeong at FIG. 5. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 6A<br>  <br><br>Jeong at FIG. 6A. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7A<br>  <br><br>Jeong at FIG. 7A. |

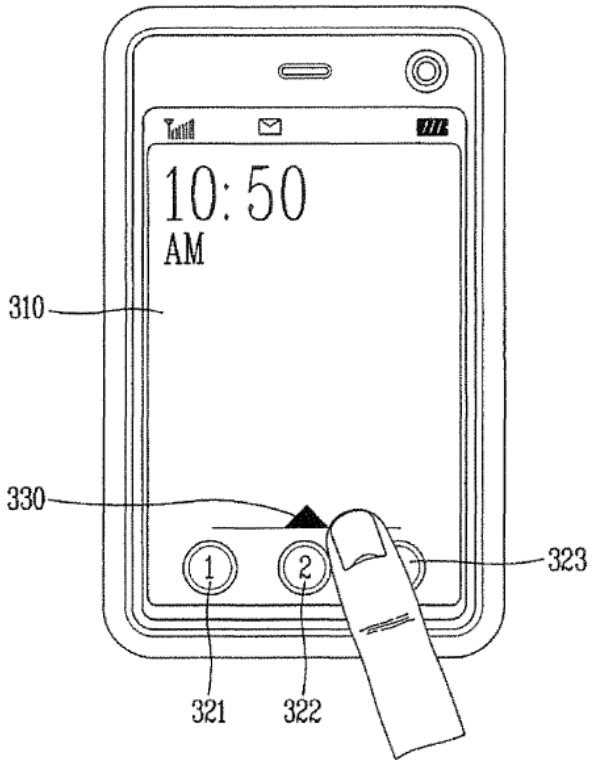
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 7B<br>  <br><br>Jeong at FIG. 7B. |

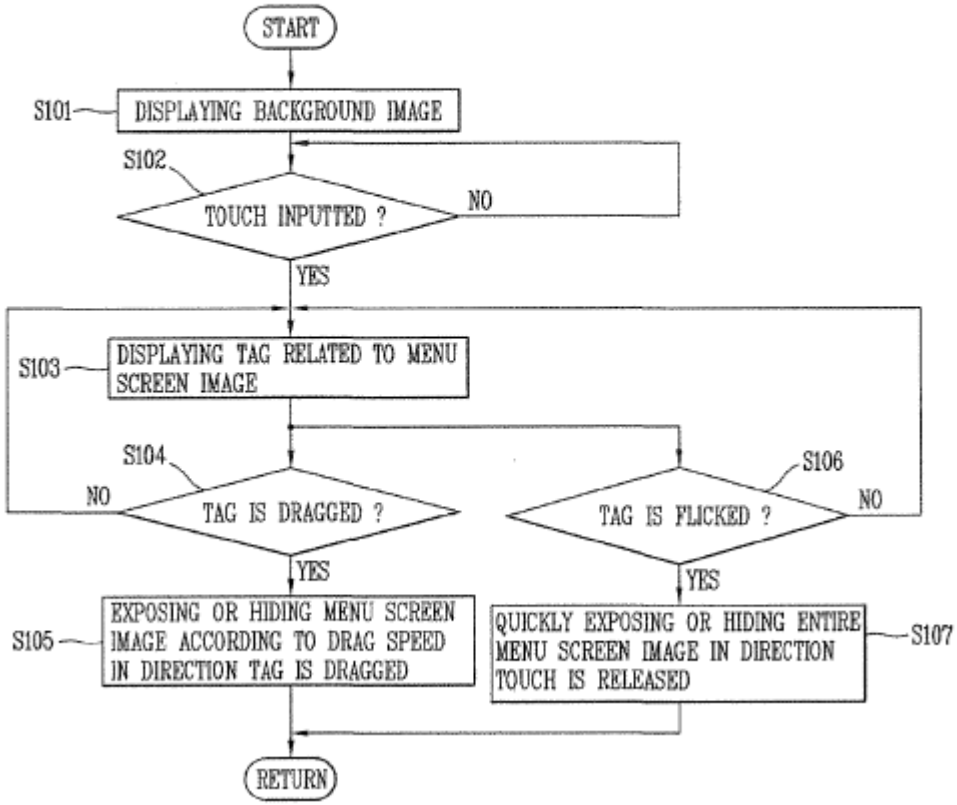
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 7C<br>  <br><br>Jeong at FIG. 7C. |

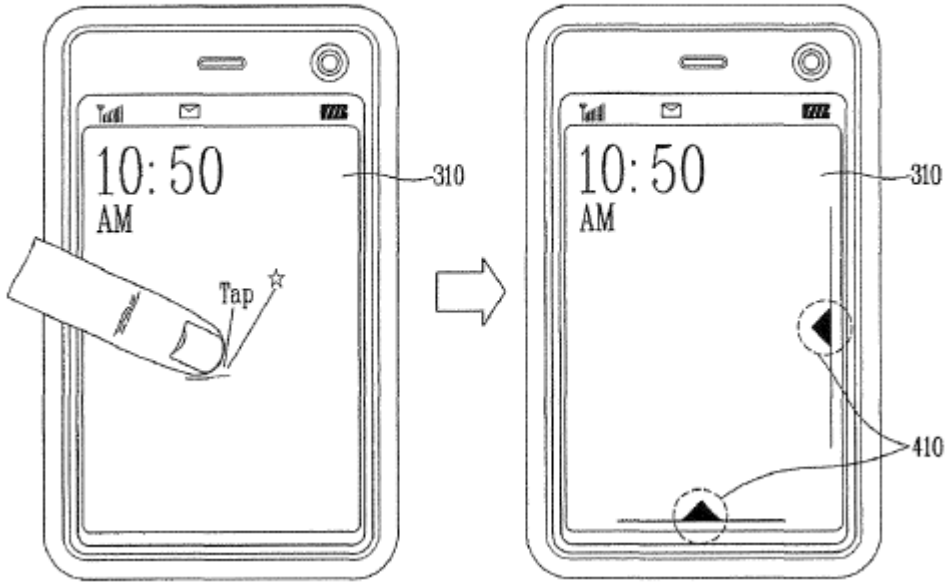
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 8<br>  <br>Jeong at FIG. 8. |

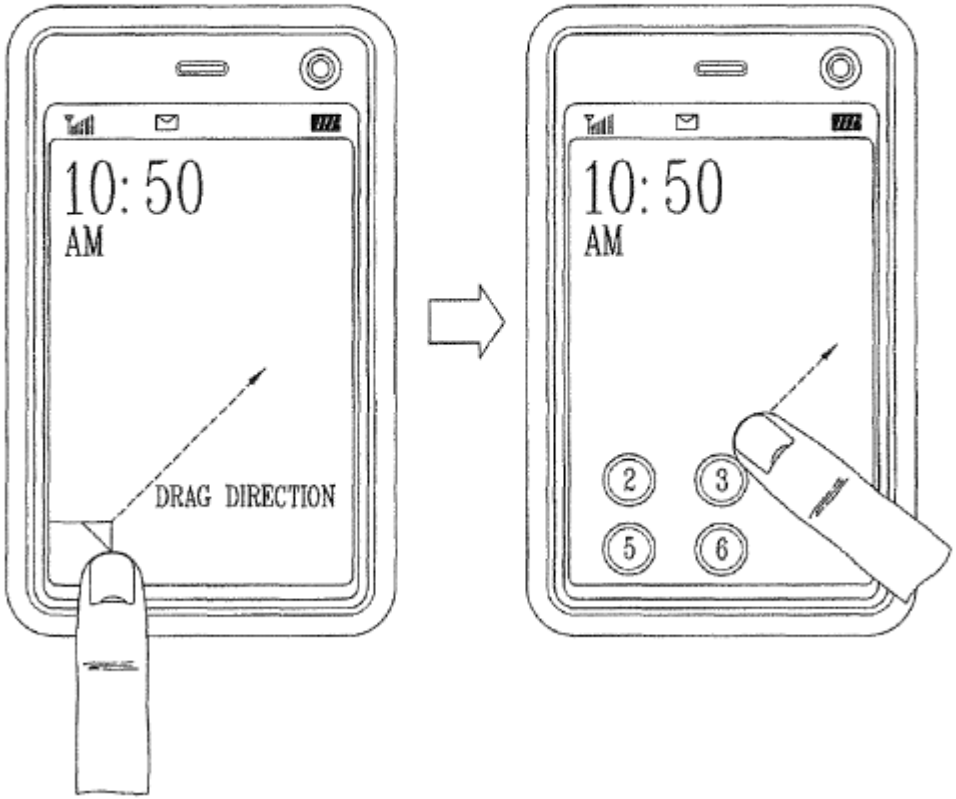
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "The manipulating unit 130 may generate key input data inputted by a user to control various operations of the mobile terminal 100. The manipulating unit 130 may include a keypad, a dome switch, a touch pad (e.g., a touch sensitive member that detects changes in resistance, pressure, capacitance, etc.), a jog wheel, a jog switch, and the like. In particular, when the touch pad is overlaid on the display module 151 in a layered manner, it may be called a touch screen." Jeong at [0030].<br>"When the display module 151 and the touch pad are overlaid in a layered manner to form a touch screen, the display module 151 may function as both an input device and an output device." Jeong at [0034].<br>"A touch pad may be overlaid in a layered manner on the display module 151 to allow the display module 151 to function as a touch screen to input information." Jeong at [0041].<br>"As shown in FIG. 6B, one or more tags 411 to 416 may be displayed, and the tags 410 may be displayed at one of a side, a corner or an internal region of the touch screen." Jeong at [0058].<br>"The mobile terminal of claim 1, wherein the display module is a touch screen." Jeong at claim 2. |
| **[1B]** at least one window located in the touch screen on an edge of the touch screen, wherein said at least one window functions independently of an interface of an application in use on the touch screen; and | Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "at least one window located in the touch screen on an edge of the touch screen, wherein said at least one window functions independently of an interface of an application in use on the touch screen."<br>For example, Jeong discloses "[t]he menu screen image 320 may be shown at or be hidden from a particular region of the screen, by setting at least one of a side portion, a corner portion, or a central portion of the touch screen as a boundary region from which the menu screen image 320 can appear or disappear, and the tag 330 (or other graphical indicator) can be used to indicate the boundary region." Jeong at [0056]. A POSITA would have understood that tags 330/410 are windows because they are drawn or rendered over the screen image. Jeong at [0057], [0058], FIG. 6A. Jeong |

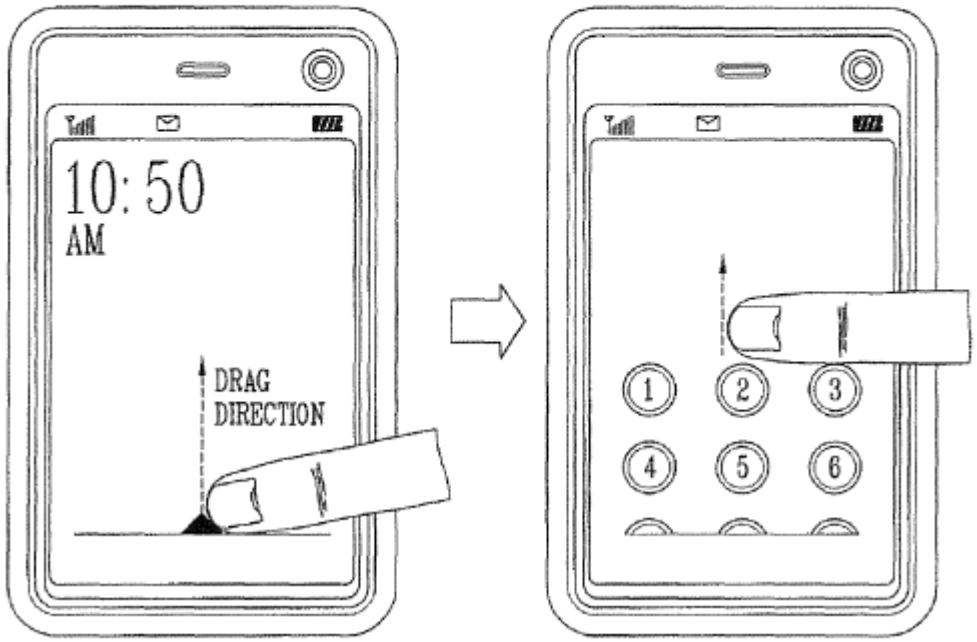
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | discloses that the window extends to the edge of the screen because the tag 330/410 forms "a boundary region for the "side portion" or "corner portion" "from which the menu screen image 320 can appear or disappear" and the "tag 330 (or other graphical indicator) can be used to indicate the boundary region." Jeong at [0056]. Jeong's tags function independently of an interface of an application in use on the touch screen, such as a widget application, the status bar application shown at the top of Jeong's figures, and/or an execution screen image corresponding to an application that has been already executed. Jeong at [0052], [0061], FIGS. 6A-9E<br><br>Exemplary citations include: |

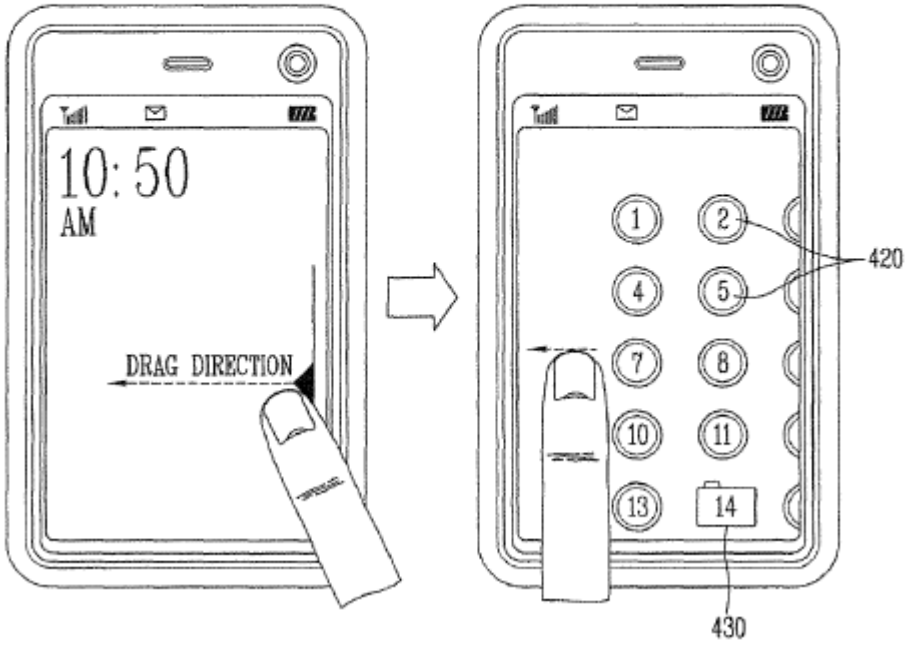
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 4<br>  <br><br>Jeong at FIG. 4. |

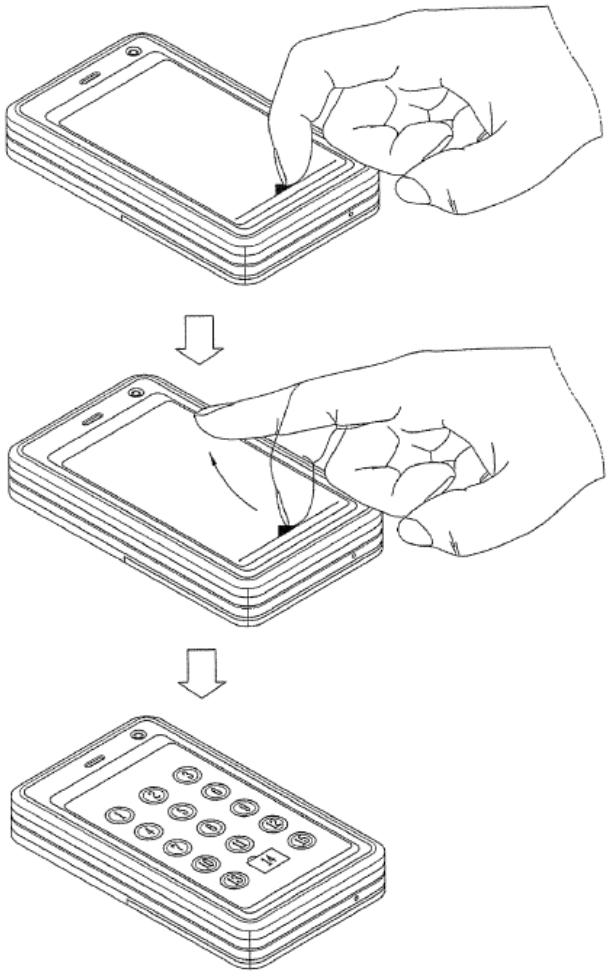
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 5<br>  <br><br>Jeong at FIG. 5. |

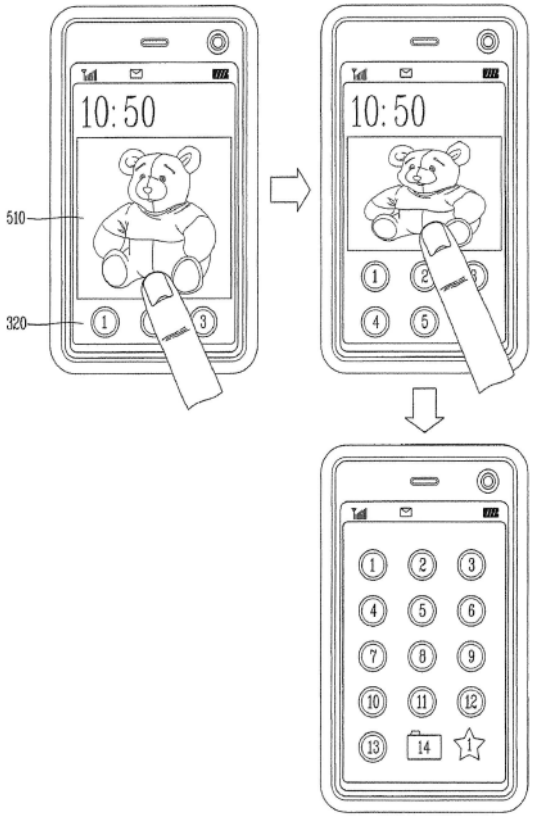
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 6A<br>  <br><br>Jeong at FIG. 6A. |

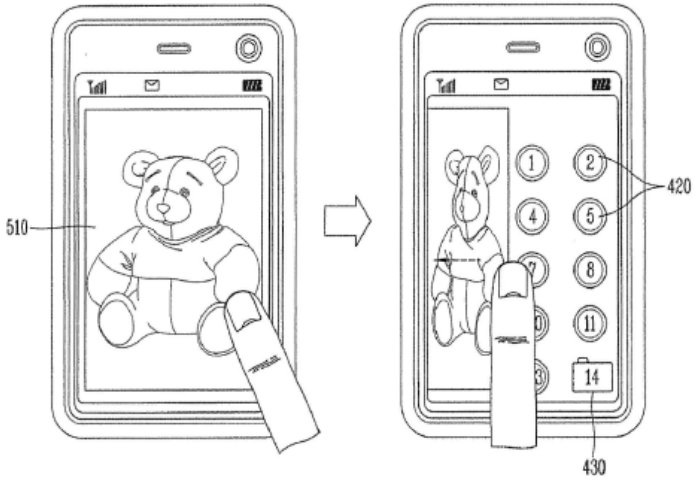
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 7A<br>  <br><br>Jeong at FIG. 7A. |

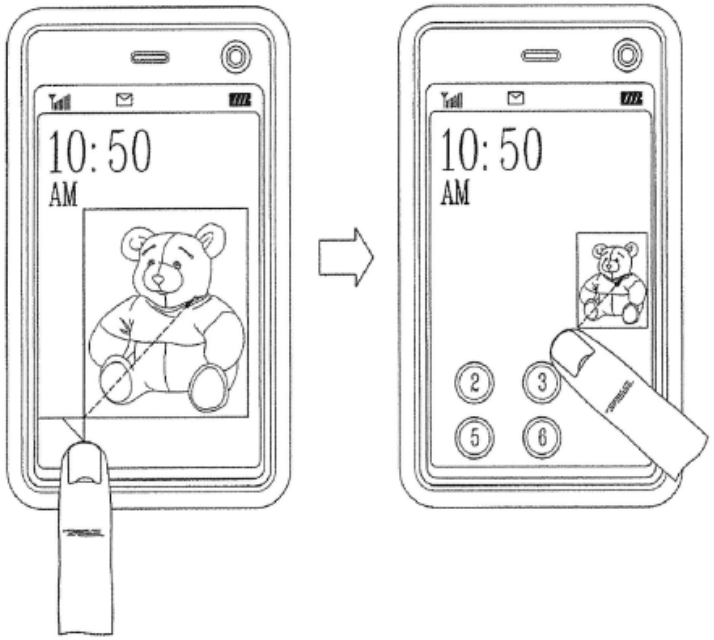
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 7B<br>  <br><br>Jeong at FIG. 7B. |

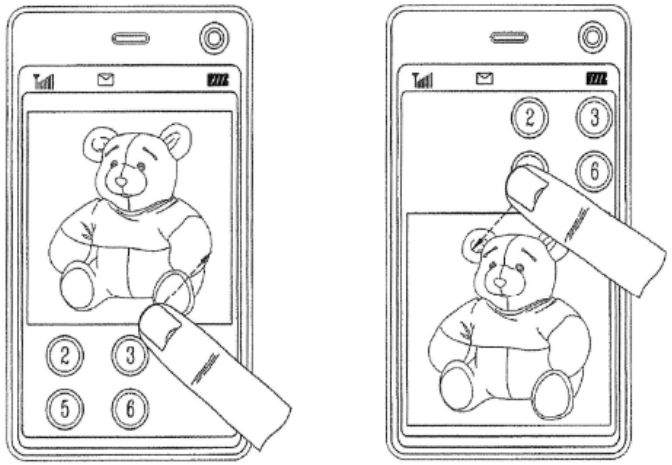
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 7C<br>  <br><br>Jeong at FIG. 7C. |

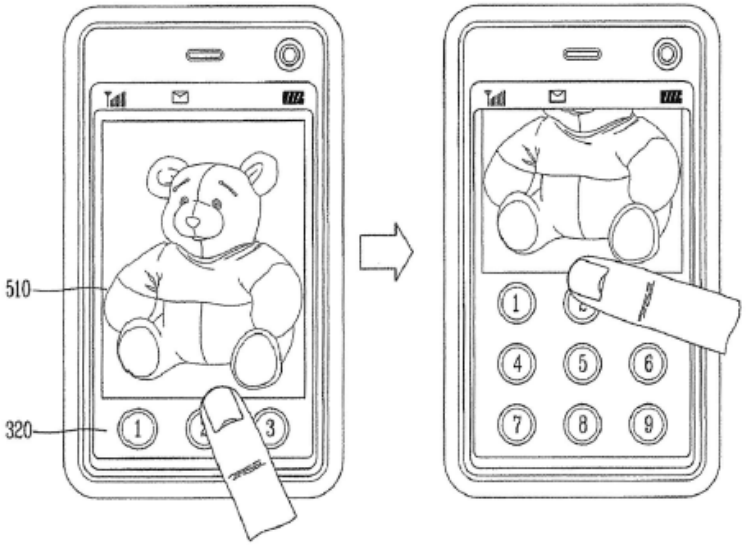
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 8<br>  <br>Jeong at FIG. 8. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 9A<br>  <br><br>Jeong at FIG. 9A. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 9B<br>  <br><br>Jeong at FIG. 9B. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 9C<br>  <br><br>Jeong at FIG. 9C. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 9D<br>  <br><br>(a) (b)<br>Jeong at FIG. 9D. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 9E<br>  <br><br>Jeong at FIG. 9E.<br><br>"A mobile terminal comprising a display module to display a tag and to display a menu screen image related to the tag at one portion of a background image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance; an input unit to detect a touch input with respect to the display module or the tag to determine the dragging direction and the dragging distance; and a controller to expose or hide the menu screen image according to the dragging direction the dragging distance of the inputted touch." Jeong at Abstract. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "The present disclosure relates to a method for dragging a menu screen image in a tactile manner to allow the menu screen image to be exposed or hidden by a background screen image, and a mobile terminal implementing the same." Jeong at [0002].<br><br>"To achieve these and other objectives and in accordance with the purpose of the present disclosure, as embodied and broadly described herein, the present disclosure provides in one aspect a mobile terminal comprising: a display module to display a tag (i.e., an interactive object) and to display a menu screen image related to the tag at one portion of a background screen image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance; an input unit to detect a touch input with respect to the display module or the tag to determine the dragging direction and the dragging distance; and a controller to expose or hide the menu screen image according to the dragging direction the dragging distance of the inputted touch." Jeong at [0006].<br><br>"To achieve these and other advantages and in accordance with the purpose of the present disclosure, as embodied and broadly described herein, the present disclosure provides in another aspect a method for displaying a menu of a mobile terminal, comprising: a means of displaying a tag and a menu screen image related to the tag at one portion of a background screen image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance; a means of detecting a touch input with respect to a display module or the tag to determine the dragging direction and the dragging distance; and a means of exposing or hiding the menu screen image according to the dragging direction and the dragging distance of the inputted touch." Jeong at [0007].<br><br>"Referring to FIG. 1, a mobile terminal 100 according to one embodiment, may be implemented in various configurations or form factors. Examples of such terminals include mobile phones, smart phones, notebook computers, navigation devices, digital broadcast terminals, personal digital assistants (PD As), or portable multimedia players (PMP). The mobile terminal 100 may include a wireless communication unit 110, an A/V (Audio/Video) input unit 120, a manipulating unit 130, a sensing unit 140, an output unit 150, a storage unit 160, an interface unit 170, a controller 180, and a power supply unit 190, etc. Greater or fewer components may alternatively be implemented." Jeong at [0023]. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "The manipulating unit 130 may generate key input data inputted by a user to control various operations of the mobile terminal 100. The manipulating unit 130 may include a keypad, a dome switch, a touch pad (e.g., a touch sensitive member that detects changes in resistance, pressure, capacitance, etc.), a jog wheel, a jog switch, and the like. In particular, when the touch pad is overlaid on the display module 151 in a layered manner, it may be called a touch screen." Jeong at [0030].<br><br>"FIG. 4 shows a background screen image of the mobile terminal 100 according to one embodiment. As shown, the mobile terminal 100 may not display any menu item on a background image 310 in a standby mode or may simply display some menu items 321-323. A tag 330 related to a menu display may be displayed to allow the user to touch the tag 330 to drag it in a certain direction to expose the other remaining menu items that are usually hidden. A tag may be graphical user interface (GUI) object associated with a functional interface which allows a user to expose or hide from view other GUI objects on the mobile terminal 100's display." Jeong at [0050].<br><br>"The tag 330 may be displayed in a shape (e.g., an arrow) indicating a direction in which the menu screen image 320 is exposed or a direction in which the tag 330 can be dragged. For example, the tag 330 may have a triangular shape or an arrow shape. Accordingly, the tag 330 may be displayed by changing its direction according to whether the menu screen image 320 is exposed or hidden from view. The menu item displayed on the background screen image 310 may include an icon for executing a program. In addition, the menu item may include a 'group menu item' 430 for retrieving a menu item of a different group and displaying it on the background screen." Jeong at [0052].<br><br>"The type of touch may include pushing or pulling (or otherwise moving) the tag 330 or icon on the screen in an upward, downward or some other direction in a rather abrupt movement, which may be referred to as 'flicking' because the movement, in one embodiment, may be compared to the motion associated with flicking a page of a book, for example. When the tag 330 is flicked in such a manner, the entire menu screen image 320 can be automatically shown (or exposed) or hidden such that the image appears to be unfolding on the screen without having to drag the entire menu screen image 320 all the way across the screen." Jeong at [0055].<br><br>"The respective menu items displayed on the menu screen image 320 may be indicated by icons of certain shapes or images. The menu items may be arranged in an arbitrary format by combining rows and columns or may be arranged randomly by disregarding rows and columns. The menu |

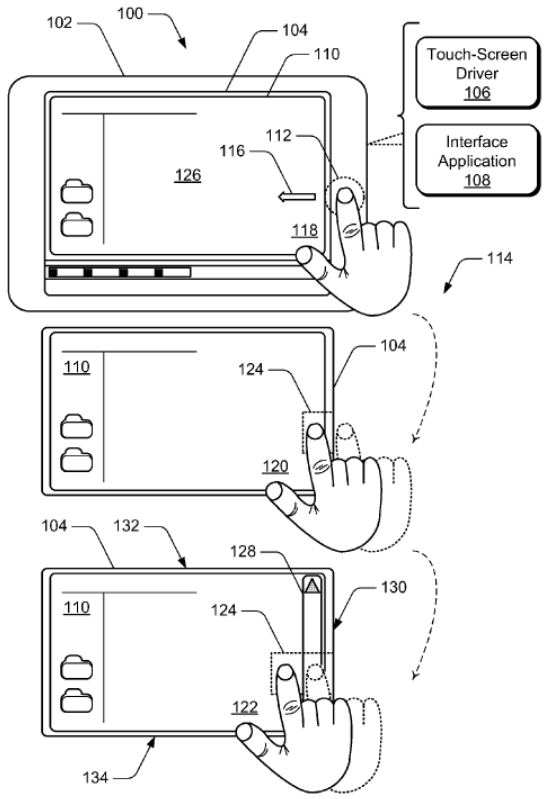
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | screen image 320 may be shown at or be hidden from a particular region of the screen, by setting at least one of a side portion, a corner portion, or a central portion of the touch screen as a boundary region from which the menu screen image 320 can appear or disappear, and the tag 330 (or other graphical indicator) can be used to indicate the boundary region." Jeong at [0056].<br><br>"FIG. 5 is a flow chart illustrating the process of displaying a menu of the mobile terminal 100 according to one embodiment. The method of display process of the mobile terminal 100 according to the present disclosure will now be described with reference to FIGS. 5, 6A, 6B, 7 A, 7B, 7C and 8. For the sake of example, it is assumed that no menu item is displayed on the background screen image 310 of the mobile terminal 100. As shown in FIG. 6A, if there is nothing displayed on the background screen image 310 with respect to a menu item, the user may touch the background screen image 310 to display tags 410 to display a menu screen image 320. That is, when a touch is inputted with nothing displayed on the background screen image 310, the tags 410 related to the menu screen image 320 are displayed (Sl0l to S103)." Jeong at [0057].<br><br>"As shown in FIG. 6B, one or more tags 411 to 416 may be displayed, and the tags 410 may be displayed at one of a side, a corner or an internal region of the touch screen. If a tag related to the menu display is already displayed on the background screen image 310, the tag calling process may be omitted. After the tag is displayed, if there is no dragging or flicking during a pre-set time, the displayed tag may be released. With the tags 410 displayed, when the user touches one of the tags 410 and drags it (S104), the controller 180 exposes a menu screen image 320, which has been hidden, in the direction in which the tag is dragged as shown in FIGS. 7A to 7C. Likewise, if the tag is dragged in a different direction, an exposed menu screen image 320 may be hidden (S105)." Jeong at [0058].<br><br>"The menu items displayed on the menu screen image 320 may include a group menu item 430 indicating a menu item included in a different menu group, and it may be displayed to be different from the menu items 420 for executing a program. If tag dragging is stopped before the entire menu screen image 320 is exposed, or when the touch to the tag being dragged is released, the menu screen maintains a currently exposed state as it is. That is, while flicking results in exposing or hiding the entire menu screen image 320, dragging allows adjusting of the degree of exposing or hiding of the menu screen image 320 in accordance with the speed and direction of the dragging motion." Jeong at [0059]. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "Notably, referring back for FIG. 5, if the user wants to quickly expose or hide the entire menu screen image 320, he may flick a desired tag by for example interactive with the tag successively (e.g., tapping on the tag), or as shown in FIG. 8, the user may push the tag up or down in a bouncing manner (S106, S107). In order to determine a touch input type (i.e., whether the user means to flick or drag the tag), the controller 180 may use one or more factors associated with user interaction with the tag. These factors may include time, speed, direction, pressure and area to which the touch is applied or released." Jeong at [0060].<br><br>"The method for displaying a menu screen image 320 when a screen image executing a particular menu is displayed on a background screen will now be described with reference to FIGS. 9A to 9E. As shown in FIG. 9A, if it is assumed that a particular menu has been already executed and the corresponding execution screen image 510 is displayed on the background screen image 310, if the region of the exposed menu screen increases, the size of the region where the executed screen image 510 is displayed would be reduced inverse-proportionally. For example, if the menu screen image 320 is dragged to appear in a state that a video reproduction image has been displayed, the region of the exposed menu screen image 320 is gradually increased while the size of region where the video reproduction image is displayed is gradually reduced." Jeong at [0061].<br><br>"A display position of the re-sized executed screen image 510 may vary according to a direction in which the menu screen image 320 is dragged. For example, as shown in FIG. 9A, when the menu screen image 320 is dragged in a downward direction, the re-sized executed screen image 510 may be displayed at an upper portion. As shown in FIG. 9B, if the menu screen image 320 is dragged from the right side, it may be displayed at the left portion. In addition, as shown in FIG. 9C, if the menu screen image 320 is dragged from one corner portion, the executed screen image 510 may be displayed at a corner potion of its opposite side. As shown in FIG. 9D, even if the menu screen image 320 is dragged from one corner portion, the executed screen image 510 may be displayed at up/down portion (a) or left/right portion (b)." Jeong at [0062].<br><br>"With reference to FIGS. 9A and 9C, the re-sizing method of the executed screen image 510 may vary according to the direction in which the menu screen image 320 is dragged. For example, if the menu screen image 320 is dragged in an upward direction or in a downward direction, the length of the vertical direction (up/down direction) of the executed screen image 510 is adjusted while the length of the horizontal direction of the executed screen image 510 is maintained. If the menu |

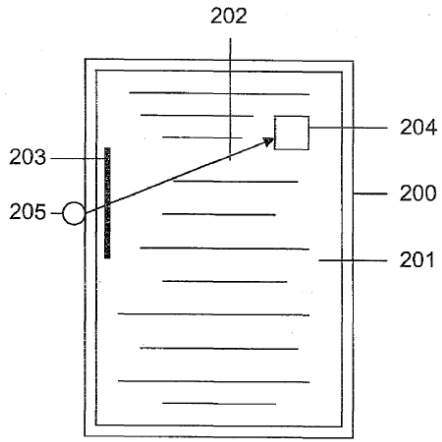
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | screen image 320 is dragged in a left direction or in a right direction, the length of the horizontal direction (left/right direction) of the executed screen image 510 is adjusted while the length of the vertical direction of the executed screen image 510 is maintained. If the menu screen image 320 is dragged from a corner portion, the both lengths of the horizontal and vertical directions of the executed screen image 510 can be adjusted." Jeong at [0063].<br><br>"Instead of adjusting the size of the executed screen image 510 according to an environment setting option, a portion of the region where the executed screen image 510 like the menu screen image 320 is displayed may be allowed to appear or be hidden as shown in FIG. 9E. Namely, as the exposure region of the menu screen image 320 increases, the exposure region of the executed screen image 510 may be reduced inverse-proportionally. Also, as the exposure region of the menu screen image 320 is reduced, the exposure region of the executed screen image 510 may be increased inverse-proportionally." Jeong at [0064].<br><br>"The controller 180 controls the operation of resizing or exposing/hiding the executed screen image 510 according to an exposing/hiding operation of the menu screen image 320. In the above description, tags 410 are displayed on the menu screen image 320 and a desired tag being displayed is touched to be dragged or flicked to display a menu screen image 320. However, even without tags 410 for controlling display of the menu screen image 320, the above-described menu screen display function may be executed when the background screen image 310 is touched for a particular time period and then dragged or flicked. In this case, a touch unit for touching, dragging and flicking may be the user's finger or a stylus, or any other means that have not been mentioned."<br><br>"The method of claim 8, wherein the menu screen image is shown at or hidden from a particular region of the screen, by setting at least one of a side portion, a corner portion, or a central portion of the display module as a boundary region from which the menu screen image can appear or disappear." Jeong at claim 8.<br><br>To the extent Keyless argues that Jeong does not disclose or render obvious this limitation, it would have been obvious in view of Jeong, POSITA's pre-existing knowledge, and/or the teachings of Jeong combined with the other references charted for this patent in these invalidity contentions, including Tseng, Wilairat, Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, |

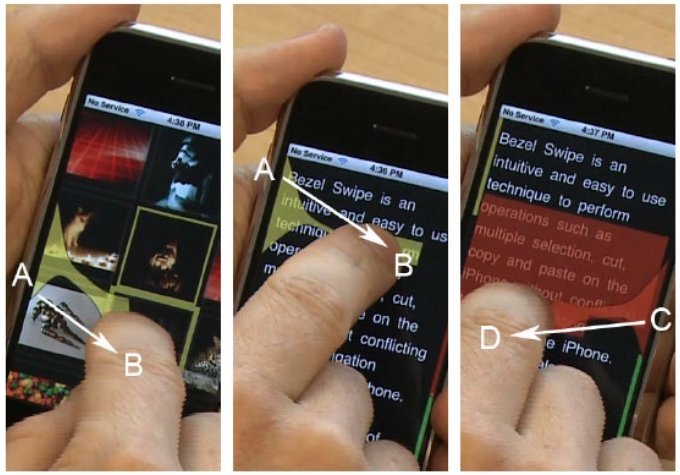
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | the Samsung Behold II, the HTC G1 1.6, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Palm Pre, and the Neonode N2. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>For example, Tseng discloses at least one window, such as a "status bar" or "status area," located on the top edge of the touch screen that functions independently of an interface of an application inn use on the touch screen. Tseng at Abstract, FIGS. 1, 2A-2C, 3, 4A-4B, 5, [0005], [0014], [0031]. Tseng explains that the status bar is capable of displaying notifications at the edge of the touch screen display. For example, "the notifications may occur by having a notification message … be displayed in a peripheral area at the edge of a display, such as a status area, or status bar, for the mobile device." Tseng at [0028], FIGS. 1, 2A-2C, 3, 4A-4B, 5. Tseng's "status bar" or "status area" is a window that functions independently of an interface of an application, such as the interface of the "active programs" or "active applications" being displayed in the touch screen display area. Tseng at [0005], [0014], [0028], [0032], [0040], FIGS. 1, 2A-2C, 3, 4A-4B, 5. The status bar is shown regardless of the application being displayed in the main display. "A status bar area is the typically-static area on a device that displays information such as bars for wireless signal strength, a remaining battery life indicator, an icon that shows the network over which wireless communication is occurring, and the like. The main area or zone of the display is generally the central, largest area of a display where active programs are displayed, while supplemental elements are typically displayed around the periphery of the main area …." Tseng at [0005]. As one example, "one or more applications may be shown in the main zone [of the touch screen]. Such as an application tracking an ongoing telephone call," which is independent of the status bar that is shown regardless of the application in the main display. Tseng at [0040].<br><br>Moreover, each of Wilairat, Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC G1 1.6, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, the Palm Pre, and the Neonode N2 teaches a gliding action from off |

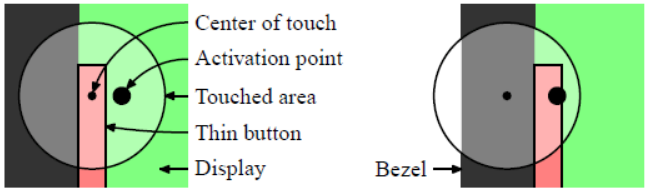
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | screen to on screen to activate a function assigned to the window when the gliding action is detected.<br><br>Wilairat teaches that "a user can initiate a touch input with a finger just off an edge of the touch-screen and then motion a pull-in gesture across the touch-screen. When the motion of the touch pull-in gesture is initiated by the user, a progression of the motion as the touch input remains in contact with the touch-screen creates a contact region on the touch-screen that progressively expands and is detected. The progressive expansion of the contact region on the touch-screen is then determined or recognized as the touch pull-in gesture that initiates a display of a user interface component proximate a location of the touch pull-in gesture on the touch-screen. A user interface component can include any type of hidden menu, slide menu, drop-down menu, scrollbar, and/or any other type of user interface displayable element." Wilairat at [0010]. Wilairat further teaches that "a user of portable device 102 can initiate a touch input 112 with a finger just off an edge of the touch-screen 104 and then motion a pull-in gesture 114 in a direction 116 across the touch-screen. The motion of the touch pull-in gesture 114 is illustrated in the direction 116 as the hand moves from position 118, to position 120, and to position 122 (shown successively in the three views). When the motion of the touch pull-in gesture 114 is initiated by the user, a contact region 124 progressively expands. Such as illustrated when the hand moves from the edge of the touch-screen at position 118 to position 120, and then from position 120 to position 122. The progressive expansion of the contact region 124 is then determined or recognized as the touch pull-in gesture 114." Wilairat at [0012]. Wilairat does not require that the pull-in gesture be related to an application shown on the touch screen.<br><br>An exemplary pull-in gesture from off-screen to on-screen is shown in Wilairat FIG. 1. |

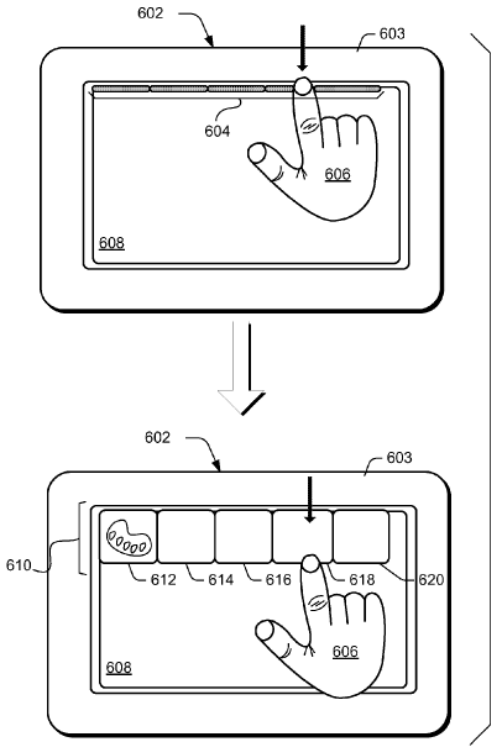
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Fig. 1<br>Wilairat at FIG. 1.<br>Roth teaches using a swiping (e.g., gliding) action from outside a screen through a window in the form of a line at the edge of the screen on the screen towards the inside of the touch screen to activate a function associated with the window. For example, Roth describes "[a] crossing-based interface along the bounds of the display is a viable solution. Users can invoke actions with swiping gestures across a section of the display side from the outside to the inside." Roth at [0009]. Roth teaches advantages of such outside-to-inside gliding activations, for example, that "they can be |

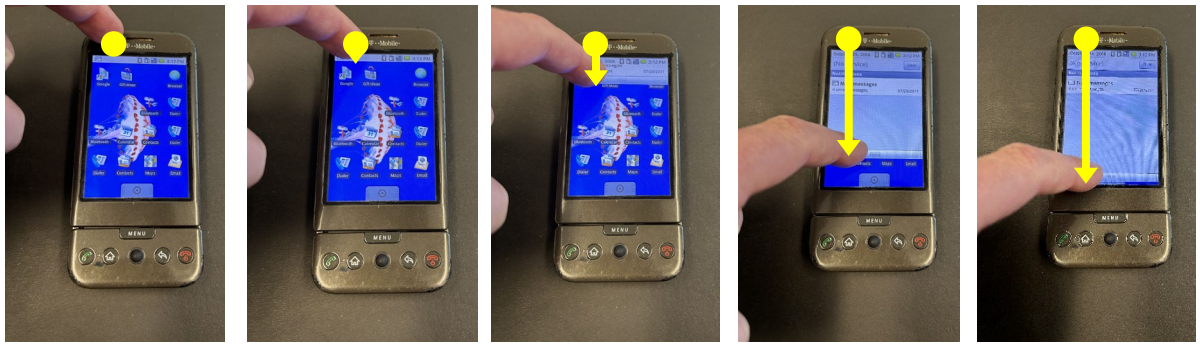
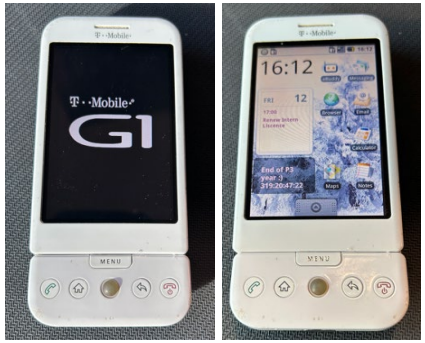
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to the distance vector between the line and the cursor," and "that a well positioned line requires significantly less display space than a button for similar performance characteristics." Roth at [0010]. "One example of such a gesture is a continuous swiping motion from the activation point representing a desired action or even from the bezel of the device, through the activation point and to the target on the display." Roth at [0015]. Roth explains that such outside-to-inside gliding actions "allow[] the active area of an activation point to be much smaller on a display due to the utilization of a greater average weight throughout a touch sensitive display, which creates a higher probability of activating on a narrow activation point or operating on a small target," "save[s] valuable display space on the screen, since the activation point can be made smaller on the display as a result," and may "begin from outside the display for ease of use." Roth at [0015]. As Roth explains, a "bar" may "represent[] the desired action." Roth at [0017]. "[A]n activation point 203 (represented as a bar in this example) displayed on the edge of the screen which represents the desired action of selecting. The bar is made small so as to not take up valuable space on the display. The user can then select the target 204 through the use of a gesture 202, such as swiping, pinching, tapping or other gestures …." Roth at [0036]. As shown in FIG. 2B, "[t]he user can begin his gesture from either on the bar itself or from outside the display 205 and continue the gesture through the bar and to target as if the user were bringing the action to the target. An example of such a gesture is if the user utilized a continuous swiping motion with his finger from the bar representing a desired action to the target on the display." Roth at [0039]. |

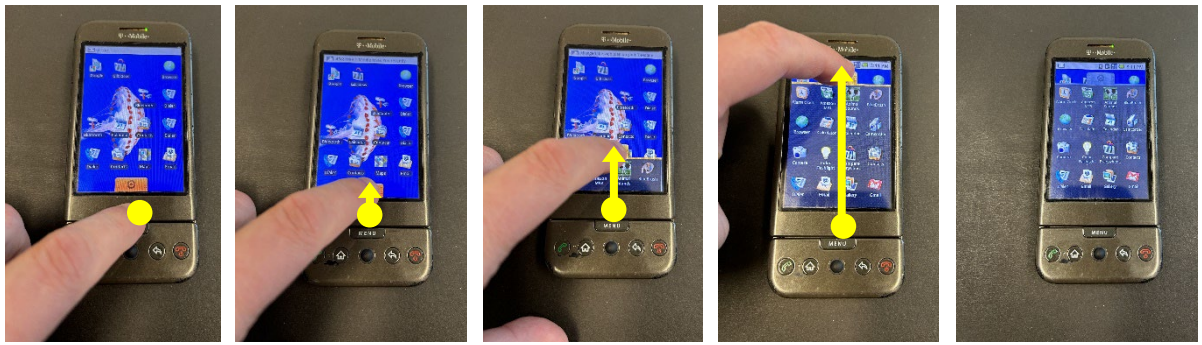
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Roth at FIG. 2B.<br><br>Roth Bezel Swipe teaches activation gestures related to mobile devices having touch screens. A bezel swipe gesture is an outside-to-inside swiping (e.g., gliding) gesture across a window in the form of a line or bar, in which "[t]he user starts a Bezel Swipe gesture on the bezel, which is the physical touch insensitive frame that surrounds the display. The finger is then swiped through a part of the display edge into the display, which enters selection mode. Next, the user moves the finger onto an object or display position and selects it by lifting the finger off the display, which ends selection mode. Different edge portions represent different actions and are distinctively marked." Roth Bezel Swipe at 1524. "Swipes are recognized by detecting touches inside a thin rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524. As such, "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display. Figure 2 illustrates this. A touch sensitive display translates the contact area of the finger with the display into an activation point." Roth Bezel Swipe at 1524. "The Bezel Swipe gesture … starts on the bezel and moves into the display. Therefore the contact area is gradually increased until it exceeds the contact threshold of the display. … Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. This outside-to-inside crossing gesture has advantages, for example, "the crossing of the touch-insensitive bezel in conjunction with the |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | properties of touch sensitive displays enables the reliable activation of a button that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524.<br>  <br>**Figure 1. The Bezel Swipe prototype in action. Left panel: A swipe from A to B selects an image. Middle panel: A swipe from A to B marks the beginning of a text selection. Right panel: A swipe from C to D marks the end of the text selection.**<br>Roth Bezel Swipe at Figure 1. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>**Figure 2. Touching narrow targets close to the bezel: a touch (large circle) centered on the target (left) may not activate it whereas a touch significantly overlapping the bezel (right) does.**<br><br>Roth Bezel Swipe at Figure 2.<br><br>Hinckley teaches a visual affordance window indicating a pull-down bezel menu is shown at the edge of a mobile device using a gliding action from outside of the touch screen towards the inside of the touch screen. Hinckley at FIGS. 5, 6. For example, in FIG. 5, "[s]tep 500 displays a visual affordance on a display device associated with a computing device" and is shown at as a window or bar 604 being a five-part line in FIG. 6. Hinckley at [0068], [0072], FIGS. 5, 6. Then, "[s]tep 502 receives a bezel gesture input relative to the visual affordance," such as from off-screen to on-screen over the visual affordance. Hinckley at [0068], [0072], FIGS. 5, 6. After the off-screen to on-screen gesture, "[s]tep 504 accesses functionality associated with the received bezel gesture input." Hinckley at [0068], [0072], FIGS. 5, 6. Hinckley explains that "off-screen to on-screen motion (or vice versa) can be utilized as a mechanism to expose a menu or to access some other type of functionality." Hinckley at [0071]. As shown in FIG. 6, "device 602 includes a bezel 603 and a visual affordance 604 that is rendered on display device 608." Hinckley at [0072], FIG. 6. The "visual affordance 604" may appear as "in the form of a semi-transparent strip" and "can be utilized to provide a hint or indication of accessible functionality, in this case a bezel menu, associated with the bezel." Hinckley at [0072], FIG. 6. "[T]he bezel menu can be accessed through a bezel gesture in which a finger of user's hand 606 touches the bezel and then moves across the bezel and onto the display device 608 in the direction of the illustrated arrow." Hinckley at [0073], FIG. 6. After this off-screen to on-screen gesture, the "bezel menu 610 to be dropped down at which time it can become fully opaque." Hinckley at [0073], FIG. 6. Hinckley further explains that "bezel menu 610 includes multiple selectable icons or slots 612, 614, 616, 618, and 620. Each of the icons or slots is associated with a different functionality such as, for example, paint |

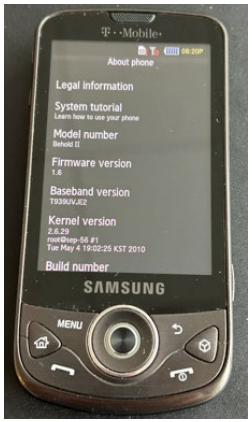
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | functionality, pen functionality, note functionality, object creation, object editing, and the like." Hinckley at [0074], FIG. 6. Hickley teaches, however, that "any type of functionality can be associated with the icons or slots." Hinckley at [0074], FIG. 6. The "bezel menu 610 can enable a user to access and activate commands, tools, and objects." Hinckley at [0075], FIG. 6.   Fig. 6 |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | Hinckley at FIG. 6.<br><br>The HTC G1 1.6 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar window (from outside of the screen) over the status bar window towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The status bar window functions independently of an interface of an application in use on the touch screen (for example, a widget application on a home screen or an application, such as mail or messaging, open on the touch screen).<br><br>  <br><br>HTC G1 1.6.<br><br>  |

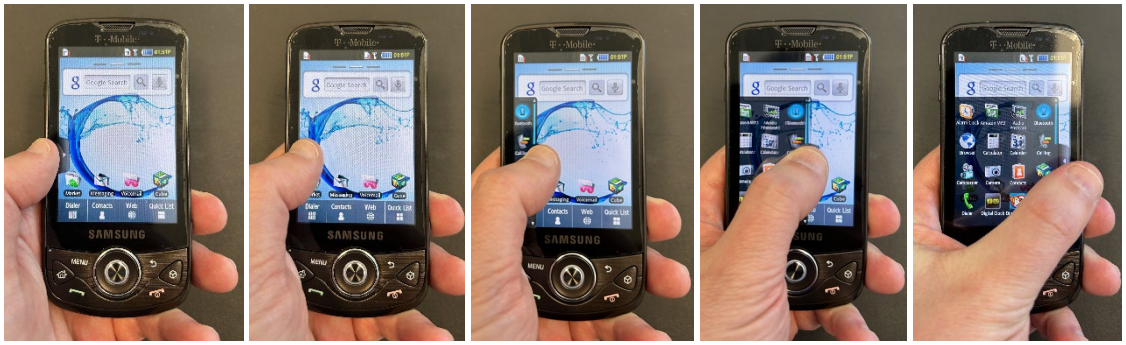
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| | HTC G1 1.6.[3]<br><br>Alternatively, the HTC G1 1.6 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen below the tab window at the bottom of the screen (from outside of the screen) over the tab towards the main application display the inside of the touch screen (e.g., crossing over the tab). The application tab window functions independently of an interface of an application in use on the touch screen (for example, a widget application on a home screen).<br><br>  <br><br>HTC G1 1.6.<br><br>On information and belief, the Samsung Galaxy GT-i7500 1.5 operates substantially the same with respect to the pull-down notifications interface as the HTC G1 1.6 and the HTC Magic 1.6. *See, e.g.*, https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface as the same, showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."); https://www.youtube.com/watch?v=rhBgLQSxfjE at 1:20-1:34 (describing as running Android 1.5 and similar to HTC G1 device, showing opening notification menu from status bar contact at 1:32). On information and belief, a user may perform a gliding action from the plastic |

[3] Samsung reserves the right to rely on any HTC G1 device, including either or both of the HTC G1 devices shown here. On information and belief, such devices function substantially the same as disclosed in this chart.

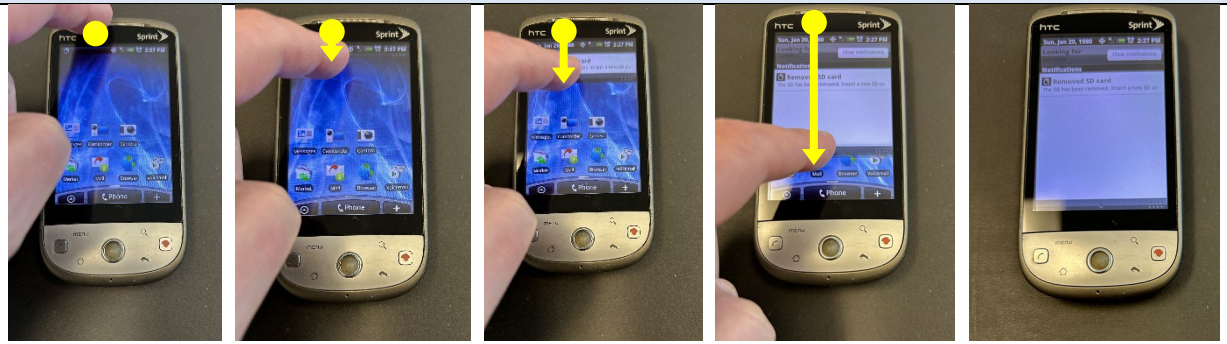
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar); https://www.youtube.com/watch?v=wVF8dLkgW7c at 0:40-0:56 (showing swipe down over status bar to open notifications interface); https://www.youtube.com/watch?v=4Pv04Tw6wvQ at 3:30-3:35 (showing gliding gesture on status bar to show notification interface for Android 1.5 operating system). The user's touch first interacts with the status bar window on the touch screen because the bezel does not contain touch-sensitive elements. The gliding action over the status bar window causes a processor to perform the action of displaying the notifications window. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar). Furthermore, on information and belief, a user may perform a gliding action from the plastic housing bezel below the touch screen (i.e., from outside of the screen) over the tab shown at the bottom of the screen towards the main application display inside of the touch screen (e.g., over the tab window) to display an applications selection interface. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having the application selection interface tab); https://www.youtube.com/watch?v=wVF8dLkgW7c at 0:54-1:14 (showing swipe up over application selection tab at bottom of screen to open application selection interface); https://www.youtube.com/watch?v=4Pv04Tw6wvQ at 1:36-2:30 (showing gliding gesture on tab to show application selection interface for Android 1.5 operating system).<br><br>The Samsung Behold II operates substantially the same with respect to the pull-down notifications interface as the HTC G1 1.6 and the HTC Magic 1.6. *See, e.g.*, https://www.cnet.com/tech/mobile/hands-on-samsung-behold-ii-plus-release-details/ (explaining that the Samsung Behold II runs on Android 1.5); https://www.t-mobile.com/news/press/t-mobile-usa-launches-the-samsung-behold-ii-on-november-18. For the Samsung Behold II, a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar window (from outside of the screen) over the status bar window towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The status bar window functions independently of an interface of an application in |

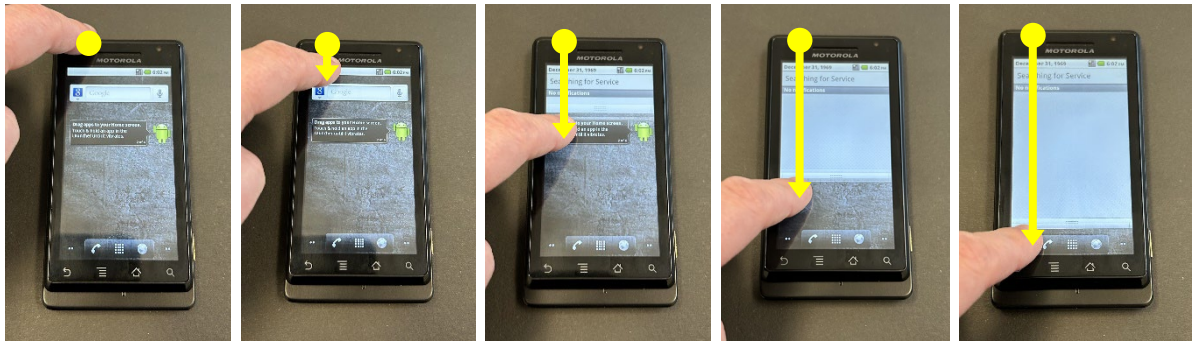
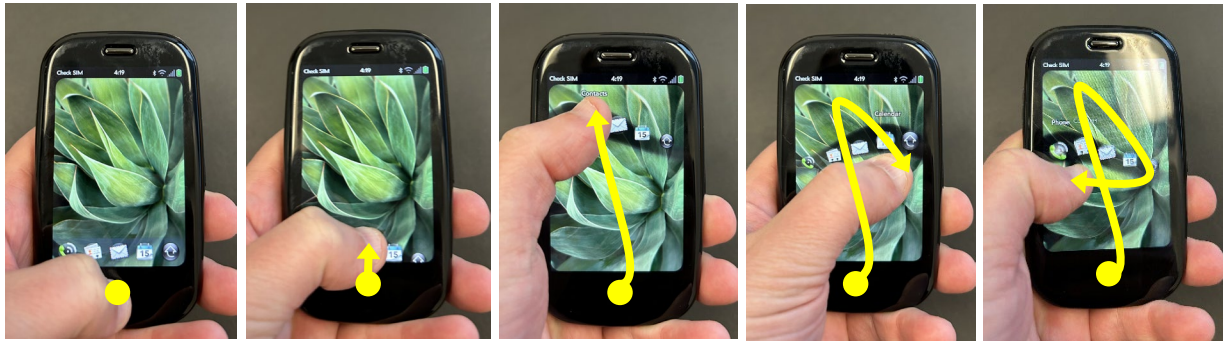
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | use on the touch screen (for example, a widget application on a home screen or an application, such as mail or messaging, open on the touch screen).<br>  <br>The Samsung Behold II device.<br>  <br>The Samsung Behold II device.[4]<br>Moreover, in the Samsung Behold II, a user may also perform a gliding action from the plastic housing surrounding the touch screen to the left of the applications drawer tab window (from |

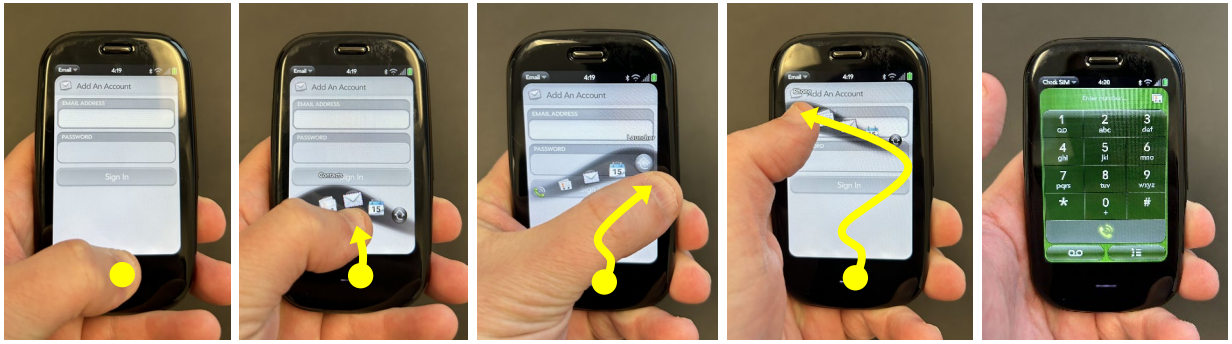
[4] Samsung reserves the right to rely on any Behold II device, including either or both of the Behold II devices shown here. On information and belief, such devices function substantially the same as disclosed in this chart.

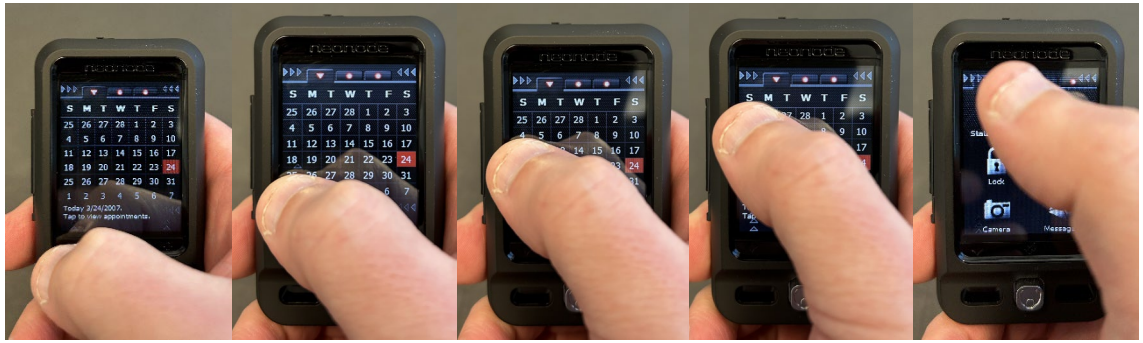
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | outside of the screen) over the applications tab towards the main application display the inside of the touch screen (e.g., crossing over the applications tab window). The status bar window functions independently of an interface of an application in use on the touch screen (for example, a widget application on a home screen).<br>  <br>The Samsung Behold II device.<br>On information and belief, the HTC Magic 1.5 operates substantially the same with respect to the pull-down notifications interface as the HTC G1 1.6 and the Samsung Galaxy GT-i7500. *See, e.g.*, https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface as the same, showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."). On information and belief, a user may perform a gliding action from the plastic housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. The user's touch first interacts with the status bar window on the touch screen because the bezel does not contain touch-sensitive elements. The gliding action over the status bar window causes a processor to perform the action of displaying the notifications window. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 (In addition to being able to drag (or double tap if your fingers are a little tired) the menu bar up from the bottom of the screen, you can also drag from the top and find your |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | notifications all grouped nicely together."); https://ianrenton.com/blog/review-htc-magic/ ("Dragging the top drawer (where app notifications, incoming messages etc. sit) is a lot more intuitive on an actual device than on the emulator, and the kinetic scrolling - you can 'throw' menus - feels just right."); https://www.youtube.com/watch?v=LghBOTZ-HuE at 5:08-5:20 (describing "drag-down notification drawer"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:35-8:55 (describing notification menu as "a drawer" that you "pull down" allowing you to "click" notifications to open the corresponding application).<br><br>Furthermore, on information and belief, a user may perform a gliding action from the plastic housing bezel below the touch screen (i.e., from outside of the screen) over the tab window shown at the bottom of the screen towards the main application display inside of the touch screen (e.g., over the tab window) to display an applications selection interface and functions independently of an application shown on the touch screen. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 ("you can simply drag up the menu from the bottom and access all your recently downloaded applications and menu functions, sorted alphabetically"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:15-7:35, 8:17-8:55 (showing swipe-up action to open application selection interface).<br><br>The HTC Hero 1.5 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar window (from outside of the screen) over the status bar window towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The status bar window functions independently of an interface of an application in use on the touch screen (for example, a widget application on a home screen or an application, such as mail or messaging, open on the touch screen). |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>HTC Hero 1.5.<br>The HTC Hero 2.1 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar window (from outside of the screen) over the status bar window towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The status bar window functions independently of an interface of an application in use on the touch screen (for example, a widget application on a home screen or an application, such as mail or messaging, open on the touch screen).<br>  <br>HTC Hero 2.1.<br>The Motorola Droid A855 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar window (from outside of the screen) over the status bar window towards to the main application display the inside of the touch screen |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | (e.g., crossing over the status/notification bar window). The status bar window functions independently of an interface of an application in use on the touch screen (for example, a widget application on a home screen or an application, such as mail or messaging, open on the touch screen).<br>  <br>Droid A855.<br>The Palm Pre teaches, as one example, that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen (e.g., crossing over the Quick Launch window showing five application icons and identifying the movement from off-to-on screen). The status bar window functions independently of an interface of an application in use on the touch screen (for example, a widget application on a home screen).<br>  |

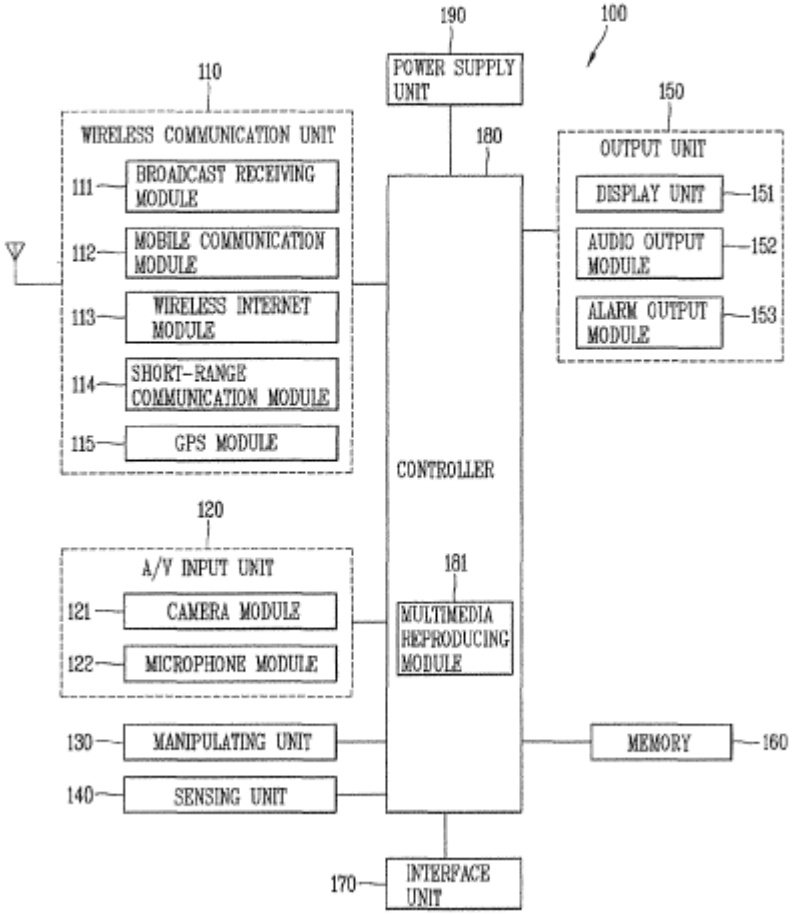
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | Palm Pre.<br><br>The Palm Pre also teaches, as another example, that, when an application is open on the Palm Pre device (such as the mail application shown below), a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen to display the Quick Launch window (e.g., crossing from off-to-on screen to display the Quick Launch window). The status bar window functions independently of an interface of an application in use on the touch screen (for example, an application, such as mail or messaging, open on the touch screen).<br><br>  <br><br>Palm Pre.<br><br>The Neonode N2 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen over the indicated icons or from the sides of the screen as indicated by the various arrows (from outside of the screen), over the arrows towards the main application display toward the inside of the touch screen (e.g., crossing over the window identifying the movement from off-to-on screen). The arrow window functions independently of an interface of an application in use on the touch screen (for example, an application, such as mail or messaging, open on the touch screen). |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br><br>Neonode N2.<br>  <br>Neonode N2.<br>A POSITA would have found it obvious to incorporate the functionality of permitting said at least one window at an edge of the touch screen that functions independently of an interface of an application in use on the touch screen, as claimed. Each of Jeong, Tseng, Wilairat, Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC G1 1.6, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, the Palm Pre, and/or the Neonode N2, teaches using a gliding action over a window on an edge of a touch screen, where the window is independent of an application shown on the touch screen, such as causing Jeong's menu to be pulled open using a gesture that a gliding action over the tag region window. A POSITA would have been motivated to provide for opening (e.g., sliding open, as |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | taught by Jeong) Jeong's menu using at least one window that functions independently of an interface of an application in use on the touch screen because it allows for the same operation as Jeong discloses, but would have improved the user's experience of opening the menu by allowing the user to take the action regardless of another application shown on the touch screen (as already known in the Tseng, Wilairat, Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC G1 1.6, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, the Palm Pre, and/or the Neonode N2). Indeed, Jeong already discloses the ability to drag open a menu screen image that functions independently of an executed screen image corresponding to an already executed program, for example, by resizing or hiding the executed screen image as the menu screen image corresponding to a tag is displayed. Moreover, a POSITA would have recognized that providing a narrower or smaller tag window on the edge of the touch screen, as known in the prior art, would have the benefit of avoiding obscuring an application shown on the touch screen display, which would have allowed for the size of the tag window to be reduced while still enabling reliable activation on a small tag interactive object (such as taught by Roth and Roth Bezel Swipe). This improves the user's experience because the user can still activate the function associated with the window, such as Jeong's menu, but does not reduce the side of the displayed application in a meaningful way because the window may be "a narrow target (the red bar) positioned flush against the display edge." Roth Bezel Swipe at 1524. In other words, "[s]wipes" from outside-to-inside the touch screen "are recognized by detecting touches inside a thin rectangular area [window] positioned flush against the display screen." Roth Bezel Swipe at 1524. This "enables the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524.<br><br>It was well known to a POSITA that activating a function of at least one window at an edge of the touch screen that functions independently of an interface of an application in use on the touch screen continues to "enable[] the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524. Activating functions where "[u]sers can invoke actions with swiping features across a section of the display [touch screen] side from the |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | outside to the inside" also "requires minimal display real estate," whereby being beneficial to mobile devices that have small screens and does not obscure the active applications. Roth, [0009], [0036].<br><br>Activating a function using at least one window on an edge of the touch screen that functions independently of an interface of an application in use on the touch screen, was routine and conventional to POSITAs, as shown by Tseng, Wilairat, Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC G1 1.6, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, the Palm Pre, and/or the Neonode N2. Moreover, it was successfully implemented in commercial prior art devices, such as the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC G1 1.6, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, the Palm Pre, and/or the Neonode N2. Incorporating an operation at least one window located at an edge of the touch screen that functions independently of an interface of an application in use on the touch screen into Jeong's system, shown above, represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with Jeong, represent nothing more than combining prior art elements according to known methods and techniques (rendering a window at the edge of Jeong' touch screen, which is independent of an application in use on the touch screen) to yield predictable results (to open Jeong's menu, such as by sliding it open, as disclosed by Jeong). |
| **[1C]** a processor; | Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a processor."<br><br>For example, Jeong discloses that "[t]he controller 180 typically controls the general operations of the mobile terminal 100." Jeong at [0037]. "[T]he controller 180 may determine the type of touch that was or is being performed when the user touches or releases the tag (icon) 330 based upon at least one of the number of touches, a contact time, contact speed, contact direction, contact pressure |

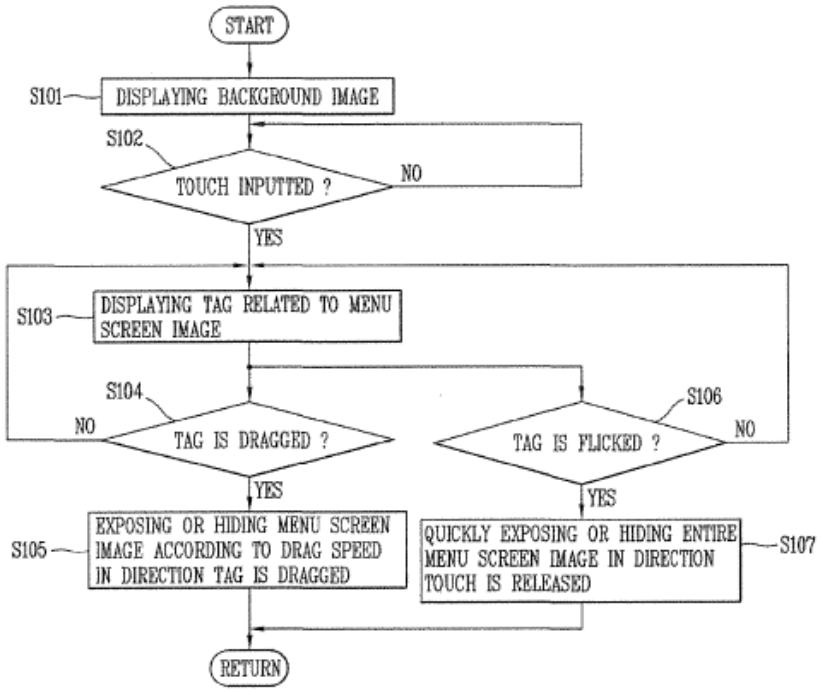
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | and contact surface area, or any combination thereof." Jeong at [0054]. Jeong's controller also determines how the menu screen image is shown or hidden. "With the tags 410 displayed, when the user touches one of the tags 410 and drags it (S104), the controller 180 exposes a menu screen image 320, which has been hidden, in the direction in which the tag is dragged as shown in FIGS. 7A to 7C. Likewise, if the tag is dragged in a different direction, an exposed menu screen image 320 may be hidden (S105)." Jeong at [0058].<br><br>Exemplary citations include: |

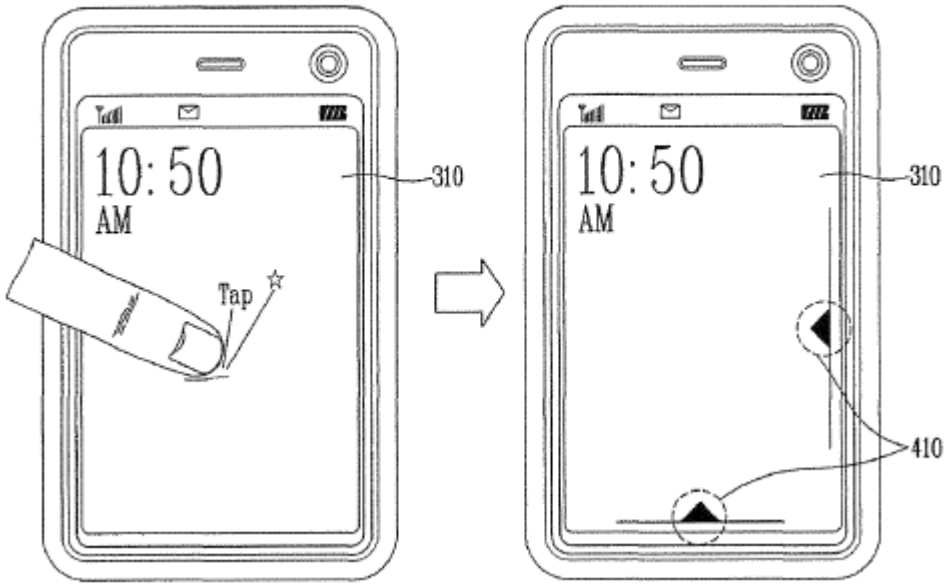
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 1<br>  <br><br>Jeong at FIG. 1. |

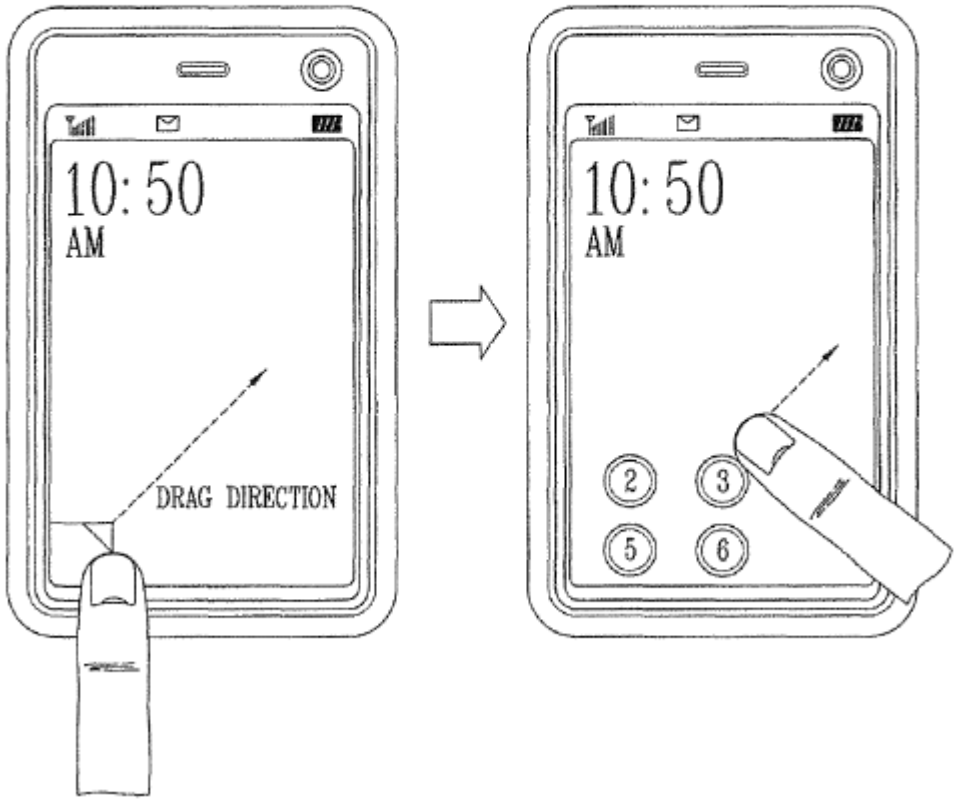
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | "To achieve these and other objectives and in accordance with the purpose of the present disclosure, as embodied and broadly described herein, the present disclosure provides in one aspect a mobile terminal comprising: a display module to display a tag (i.e., an interactive object) and to display a menu screen image related to the tag at one portion of a background screen image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance; an input unit to detect a touch input with respect to the display module or the tag to determine the dragging direction and the dragging distance; and a controller to expose or hide the menu screen image according to the dragging direction the dragging distance of the inputted touch." Jeong at [0006].<br><br>"The mobile terminal 100 may include a wireless communication unit 110, an A/V (Audio/Video) input unit 120, a manipulating unit 130, a sensing unit 140, an output unit 150, a storage unit 160, an interface unit 170, a controller 180, and a power supply unit 190, etc." Jeong at [0023].<br><br>"The storage unit 160 may store software programs or the like used for the processing and controlling performed by the controller 180, or may temporarily store inputted/outputted data (e.g., a phonebook, messages, still images, video, etc.)." Jeong at [0036].<br><br>"The controller 180 typically controls the general operations of the mobile terminal 100. For example, the controller 180 performs controlling and processing associated with voice calls, data communications, video calls, and the like. In addition, the controller 180 may include a multimedia reproducing module 181 for reproducing (or playing back) multimedia data. The multimedia reproducing module 181 may be configured within the controller 180 or may be configured to be separated from the controller 180." Jeong at [0037].<br><br>"Also, the controller 180 may determine the type of touch that was or is being performed when the user touches or releases the tag (icon) 330 based upon at least one of the number of touches, a contact time, contact speed, contact direction, contact pressure and contact surface area, or any combination thereof." Jeong at [0054].<br><br>"With the tags 410 displayed, when the user touches one of the tags 410 and drags it (S104), the controller 180 exposes a menu screen image 320, which has been hidden, in the direction in which |

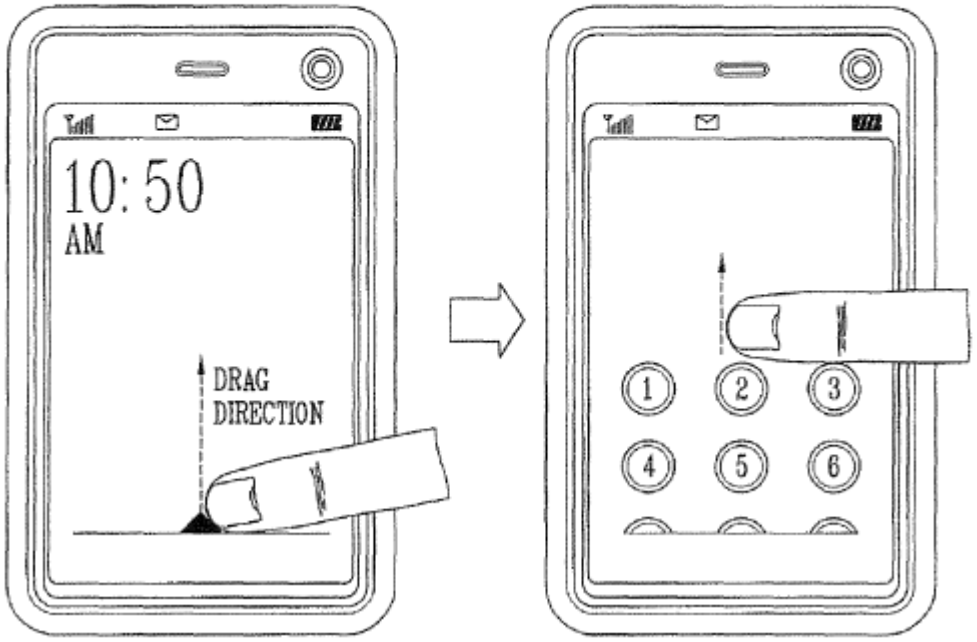
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | the tag is dragged as shown in FIGS. 7A to 7C. Likewise, if the tag is dragged in a different direction, an exposed menu screen image 320 may be hidden (S105).” Jeong at [0058].<br><br>“In order to determine a touch input type (i.e., whether the user means to flick or drag the tag), the controller 180 may use one or more factors associated with user interaction with the tag. These factors may include time, speed, direction, pressure and area to which the touch is applied or released.” Jeong at [0060].<br><br>“The controller 180 controls the operation of resizing or exposing/hiding the executed screen image 510 according to an exposing/hiding operation of the menu screen image 320. In the above description, tags 410 are displayed on the menu screen image 320 and a desired tag being displayed is touched to be dragged or flicked to display a menu screen image 320.” Jeong at [0065].<br><br>“A mobile terminal comprising: … a controller to expose or hide the menu screen image according to the dragging direction the dragging distance of the inputted touch.” Jeong at claim 1.<br><br>“The mobile terminal of claim 1, wherein when the display module is touched, the controller provides a control mechanism to display the tag and to display the menu screen image related to the tag.” Jeong at claim 3. |
| **[1D]** wherein a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said processor to cause an action assigned to said window, and | Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses “wherein a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said processor to cause an action assigned to said window.”<br><br>For example, Jeong discloses “dragging a menu screen image in a tactile manner to allow the menu screen image to be exposed or hidden.” Jeong at [0002]. Jeong describes “display[ing] a menu screen image related to the tag at one portion of a background screen image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance.” Jeong at [0006]. As shown in example FIGS. 7B and 7C, the drag direction is from the edge of the screen towards the inside of the touch screen, first interacting with the tag window 330/410 on the |

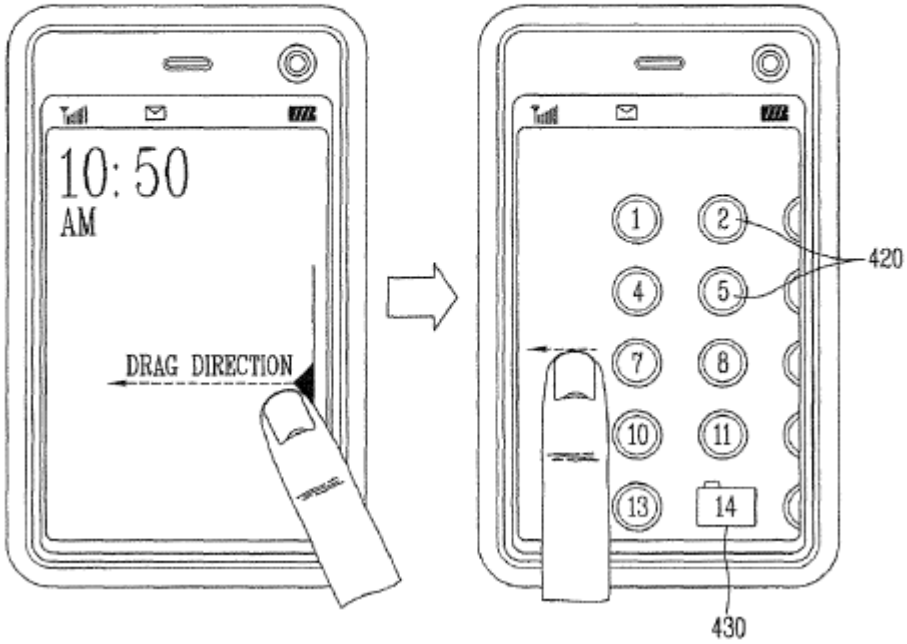
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | touch screen. "The tag 330 may be displayed in a shape (e.g., an arrow) indicating a direction in which the menu screen image 320 is exposed or a direction in which the tag 330 can be dragged." Jeong at [0052], FIGS. 5, 7A-7C. "The menu screen image 320 may expose some of the menu items while hiding other items according to the distance along which the tag 330 is dragged." Jeong at [0054].<br><br>Jeong explains that the user's gliding action to drag the tag 440/410 is processed by the controller 180 to cause an action assigned to the tag, such as displaying a menu screen image 320. Jeong at [0037], [0054], [0057]-[0059], [0065], FIGS. 5, 7A-7C. As one example, Jeong explains that "when the display module is touched, the controller provides a control mechanism to display the tag and to display the menu screen image related to the tag." Jeong at claim 3;<br><br>Exemplary citations include: |

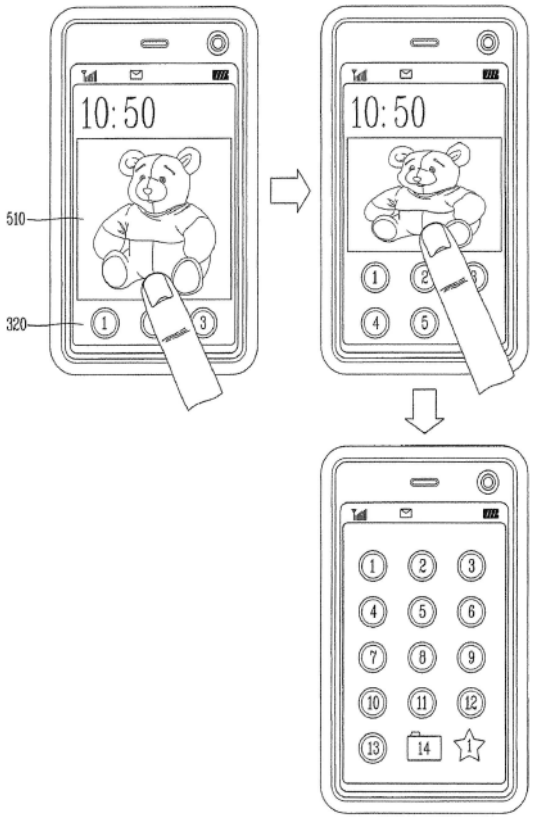
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 5<br>  <br><br>Jeong at FIG. 5. |

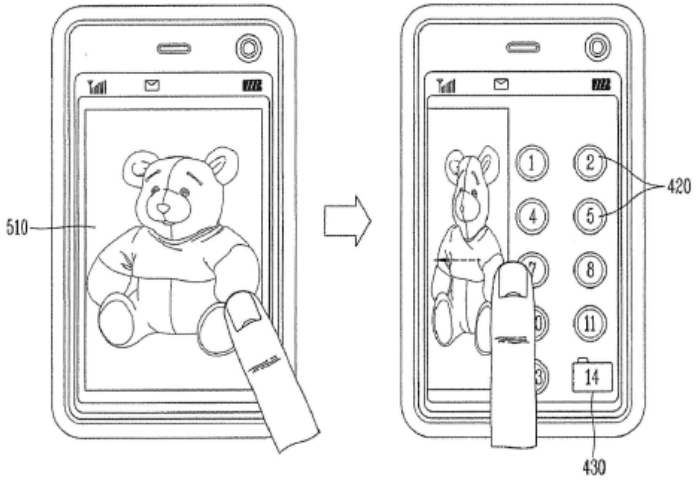
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 6A<br>  <br><br>Jeong at FIG. 6A. |

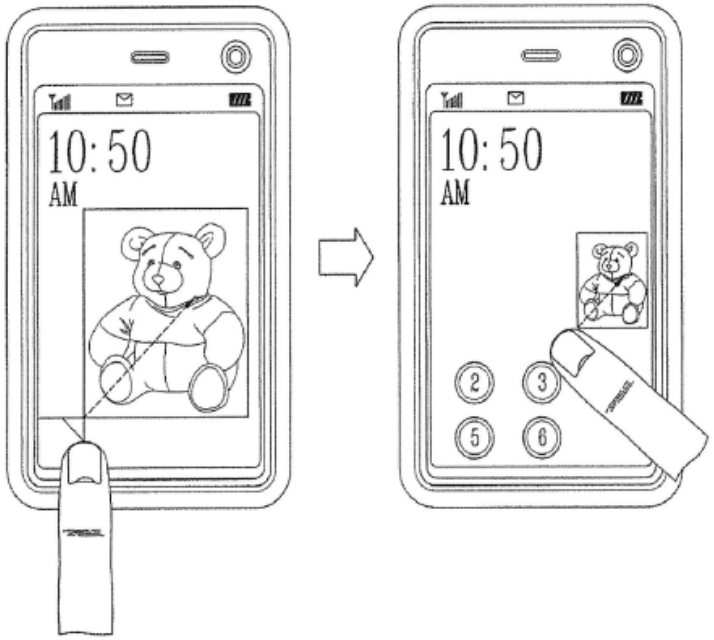
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 7A<br>  <br><br>Jeong at FIG. 7A. |

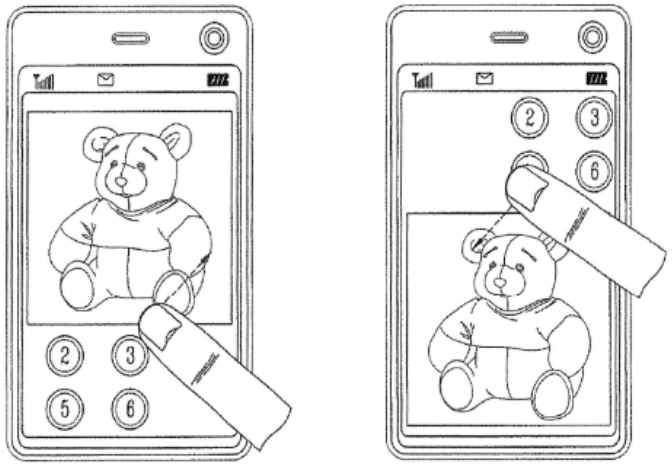
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7B<br>  <br><br>Jeong at FIG. 7B. |

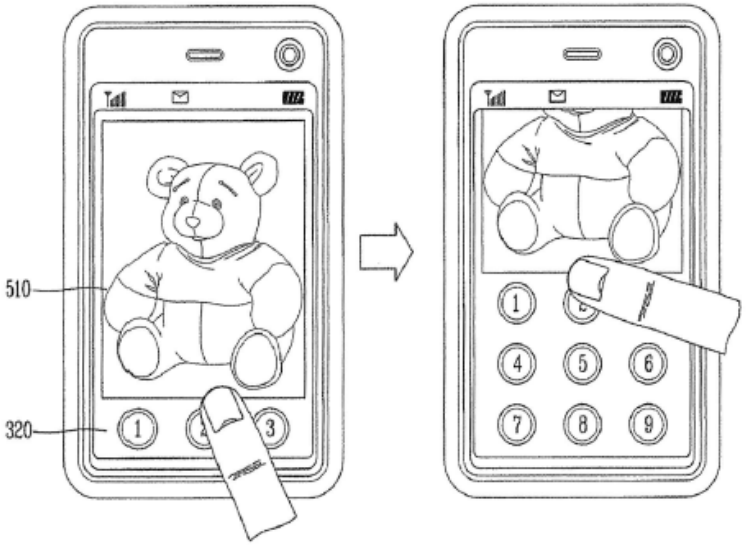
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 7C<br>  <br><br>Jeong at FIG. 7C. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 9A<br>  <br><br>Jeong at FIG. 9A. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 9B<br>  <br><br>Jeong at FIG. 9B. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 9C<br>  <br><br>Jeong at FIG. 9C. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 9D<br>  <br><br>(a) (b)<br>Jeong at FIG. 9D. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 9E<br>  <br><br>Jeong at FIG. 9E.<br>"A mobile terminal comprising a display module to display a tag and to display a menu screen image related to the tag at one portion of a background image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance; an input unit to detect a touch input with respect to the display module or the tag to determine the dragging direction and the dragging distance; and a controller to expose or hide the menu screen image according to the dragging direction the dragging distance of the inputted touch." Jeong at Abstract.<br>"The present disclosure relates to a method for dragging a menu screen image in a tactile manner to allow the menu screen image to be exposed or hidden by a background screen image, and a mobile terminal implementing the same." Jeong at [0002]. |

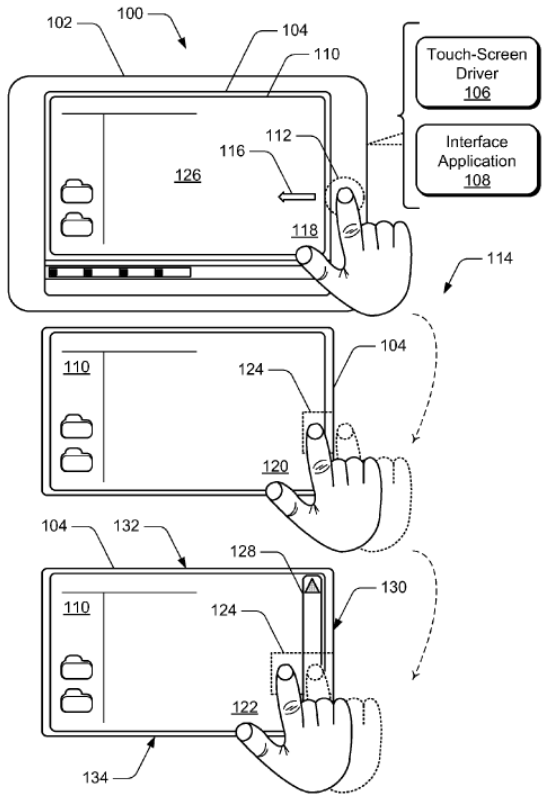
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | "To achieve these and other objectives and in accordance with the purpose of the present disclosure, as embodied and broadly described herein, the present disclosure provides in one aspect a mobile terminal comprising: a display module to display a tag (i.e., an interactive object) and to display a menu screen image related to the tag at one portion of a background screen image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance; an input unit to detect a touch input with respect to the display module or the tag to determine the dragging direction and the dragging distance; and a controller to expose or hide the menu screen image according to the dragging direction the dragging distance of the inputted touch." Jeong at [0006].<br><br>"To achieve these and other advantages and in accordance with the purpose of the present disclosure, as embodied and broadly described herein, the present disclosure provides in another aspect a method for displaying a menu of a mobile terminal, comprising: a means of displaying a tag and a menu screen image related to the tag at one portion of a background screen image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance; a means of detecting a touch input with respect to a display module or the tag to determine the dragging direction and the dragging distance; and a means of exposing or hiding the menu screen image according to the dragging direction and the dragging distance of the inputted touch." Jeong at [0007].<br><br>"The controller 180 typically controls the general operations of the mobile terminal 100. For example, the controller 180 performs controlling and processing associated with voice calls, data communications, video calls, and the like. In addition, the controller 180 may include a multimedia reproducing module 181 for reproducing (or playing back) multimedia data. The multimedia reproducing module 181 may be configured within the controller 180 or may be configured to be separated from the controller 180." Jeong at [0037].<br><br>"FIG. 4 shows a background screen image of the mobile terminal 100 according to one embodiment. As shown, the mobile terminal 100 may not display any menu item on a background image 310 in a standby mode or may simply display some menu items 321-323. A tag 330 related to a menu display may be displayed to allow the user to touch the tag 330 to drag it in a certain direction to expose the other remaining menu items that are usually hidden. A tag may be graphical |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | user interface (GUI) object associated with a functional interface which allows a user to expose or hide from view other GUI objects on the mobile terminal 100's display." Jeong at [0050].<br><br>"The tag 330 may be displayed in a shape (e.g., an arrow) indicating a direction in which the menu screen image 320 is exposed or a direction in which the tag 330 can be dragged. For example, the tag 330 may have a triangular shape or an arrow shape. Accordingly, the tag 330 may be displayed by changing its direction according to whether the menu screen image 320 is exposed or hidden from view. The menu item displayed on the background screen image 310 may include an icon for executing a program. In addition, the menu item may include a 'group menu item' 430 for retrieving a menu item of a different group and displaying it on the background screen." Jeong at [0052].<br><br>"Also, the controller 180 may determine the type of touch that was or is being performed when the user touches or releases the tag (icon) 330 based upon at least one of the number of touches, a contact time, contact speed, contact direction, contact pressure and contact surface area, or any combination thereof." Jeong at [0054].<br><br>"The respective menu items displayed on the menu screen image 320 may be indicated by icons of certain shapes or images. The menu items may be arranged in an arbitrary format by combining rows and columns or may be arranged randomly by disregarding rows and columns. The menu screen image 320 may be shown at or be hidden from a particular region of the screen, by setting at least one of a side portion, a corner portion, or a central portion of the touch screen as a boundary region from which the menu screen image 320 can appear or disappear, and the tag 330 (or other graphical indicator) can be used to indicate the boundary region." Jeong at [0056].<br><br>"FIG. 5 is a flow chart illustrating the process of displaying a menu of the mobile terminal 100 according to one embodiment. The method of display process of the mobile terminal 100 according to the present disclosure will now be described with reference to FIGS. 5, 6A, 6B, 7 A, 7B, 7C and 8. For the sake of example, it is assumed that no menu item is displayed on the background screen image 310 of the mobile terminal 100. As shown in FIG. 6A, if there is nothing displayed on the background screen image 310 with respect to a menu item, the user may touch the background screen image 310 to display tags 410 to display a menu screen image 320. That is, when a touch is inputted with nothing displayed on the background screen image 310, the tags 410 related to the menu screen image 320 are displayed (Sl0l to S103)." Jeong at [0057]. |

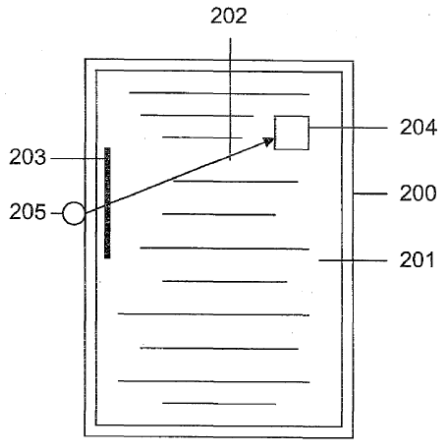
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "As shown in FIG. 6B, one or more tags 411 to 416 may be displayed, and the tags 410 may be displayed at one of a side, a corner or an internal region of the touch screen. If a tag related to the menu display is already displayed on the background screen image 310, the tag calling process may be omitted. After the tag is displayed, if there is no dragging or flicking during a pre-set time, the displayed tag may be released. With the tags 410 displayed, when the user touches one of the tags 410 and drags it (S104), the controller 180 exposes a menu screen image 320, which has been hidden, in the direction in which the tag is dragged as shown in FIGS. 7A to 7C. Likewise, if the tag is dragged in a different direction, an exposed menu screen image 320 may be hidden (S105)." Jeong at [0058].<br><br>"The menu items displayed on the menu screen image 320 may include a group menu item 430 indicating a menu item included in a different menu group, and it may be displayed to be different from the menu items 420 for executing a program. If tag dragging is stopped before the entire menu screen image 320 is exposed, or when the touch to the tag being dragged is released, the menu screen maintains a currently exposed state as it is. That is, while flicking results in exposing or hiding the entire menu screen image 320, dragging allows adjusting of the degree of exposing or hiding of the menu screen image 320 in accordance with the speed and direction of the dragging motion." Jeong at [0059].<br><br>"Notably, referring back for FIG. 5, if the user wants to quickly expose or hide the entire menu screen image 320, he may flick a desired tag by for example interactive with the tag successively (e.g., tapping on the tag), or as shown in FIG. 8, the user may push the tag up or down in a bouncing manner (S106, S107). In order to determine a touch input type (i.e., whether the user means to flick or drag the tag), the controller 180 may use one or more factors associated with user interaction with the tag. These factors may include time, speed, direction, pressure and area to which the touch is applied or released." Jeong at [0060].<br><br>"The controller 180 controls the operation of resizing or exposing/hiding the executed screen image 510 according to an exposing/hiding operation of the menu screen image 320. In the above description, tags 410 are displayed on the menu screen image 320 and a desired tag being displayed is touched to be dragged or flicked to display a menu screen image 320." Jeong at [0065]. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "A mobile terminal comprising: … a controller to expose or hide the menu screen image according to the dragging direction the dragging distance of the inputted touch." Jeong at claim 1.<br><br>"The mobile terminal of claim 1, wherein when the display module is touched, the controller provides a control mechanism to display the tag and to display the menu screen image related to the tag." Jeong at claim 3.<br><br>"The mobile terminal of claim 1, wherein if the tag is not displayed on the background screen image, the controller detects whether or not the display module is touched according to a particular pre-set touch, and after a touch is inputted according to the particular pre-set touch, the controller provides a control mechanism to expose a pre-set menu screen image according to the dragging direction and the dragging distance." Jeong at claim 4.<br><br>To the extent Keyless argues that Jeong does not disclose or render obvious this limitation, it would have been obvious in view of Jeong, POSITA's pre-existing knowledge, and/or the teachings of Jeong combined with the other references charted for this patent in these invalidity contentions, including Wilairat, Roth, Roth Bezel Swipe, Hinckley, Tseng, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC G1 1.6, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Palm Pre, and the Neonode N2. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>For example, Wilairat further teaches an off-to-on-screen gliding action, referred to as a "pull-in gesture." Wilairat teaches that, although the gliding motion begins off of the touch screen, it first interacts with the touch screen as the finger enters the touch screen. Wilairat teaches that "a user can initiate a touch input with a finger just off an edge of the touch-screen and then motion a pull-in gesture across the touch-screen. When the motion of the touch pull-in gesture is initiated by the |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | user, a progression of the motion as the touch input remains in contact with the touch-screen creates a contact region on the touch-screen that progressively expands and is detected. The progressive expansion of the contact region on the touch-screen is then determined or recognized as the touch pull-in gesture that initiates a display of a user interface component proximate a location of the touch pull-in gesture on the touch-screen. A user interface component can include any type of hidden menu, slide menu, drop-down menu, Scrollbar, and/or any other type of user interface displayable element." Wilairat at [0010].<br><br>Wilairat further teaches that "a user of portable device 102 can initiate a touch input 112 with a finger just off an edge of the touch-screen 104 and then motion a pull-in gesture 114 in a direction 116 across the touch-screen. The motion of the touch pull-in gesture 114 is illustrated in the direction 116 as the hand moves from position 118, to position 120, and to position 122 (shown successively in the three views). When the motion of the touch pull-in gesture 114 is initiated by the user, a contact region 124 progressively expands. Such as illustrated when the hand moves from the edge of the touch-screen at position 118 to position 120, and then from position 120 to position 122. The progressive expansion of the contact region 124 is then determined or recognized as the touch pull-in gesture 114." Wilairat at [0012].<br><br>An exemplary pull-in gesture from off-screen to on-screen is shown in Wilairat FIG. 1. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Fig. 1<br>Wilairat at FIG. 1.<br>Moreover, each of Roth, Roth Bezel Swipe, Hinckley, Tseng, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC G1 1.6, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, the Palm Pre, and the Neonode N2 teaches a gliding action from off screen to on screen to activate a function assigned to the window when the gliding action is detected. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | Roth teaches using a swiping (e.g., gliding) action from outside a screen through a window in the form of a line at the edge of the screen on the screen towards the inside of the touch screen to activate a function associated with the window. For example, Roth describes "[a] crossing-based interface along the bounds of the display is a viable solution. Users can invoke actions with swiping gestures across a section of the display side from the outside to the inside." Roth at [0009]. Roth teaches advantages of such outside-to-inside gliding activations, for example, that "they can be more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to the distance vector between the line and the cursor," and "that a well positioned line requires significantly less display space than a button for similar performance characteristics." Roth at [0010]. "One example of such a gesture is a continuous swiping motion from the activation point representing a desired action or even from the bezel of the device, through the activation point and to the target on the display." Roth at [0015]. Roth explains that such outside-to-inside gliding actions "allow[] the active area of an activation point to be much smaller on a display due to the utilization of a greater average weight throughout a touch sensitive display, which creates a higher probability of activating on a narrow activation point or operating on a small target," "save[s] valuable display space on the screen, since the activation point can be made smaller on the display as a result," and may "begin from outside the display for ease of use." Roth at [0015]. As Roth explains, a "bar" may "represent[] the desired action." Roth at [0017]. "[A]n activation point 203 (represented as a bar in this example) displayed on the edge of the screen which represents the desired action of selecting. The bar is made small so as to not take up valuable space on the display. The user can then select the target 204 through the use of a gesture 202, such as swiping, pinching, tapping or other gestures …." Roth at [0036]. As shown in FIG. 2B, "[t]he user can begin his gesture from either on the bar itself or from outside the display 205 and continue the gesture through the bar and to target as if the user were bringing the action to the target. An example of such a gesture is if the user utilized a continuous swiping motion with his finger from the bar representing a desired action to the target on the display." Roth at [0039]. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Roth at FIG. 2B.<br><br>Roth Bezel Swipe teaches activation gestures related to mobile devices having touch screens. A bezel swipe gesture is an outside-to-inside swiping (e.g., gliding) gesture, in which "[t]he user starts a Bezel Swipe gesture on the bezel, which is the physical touch insensitive frame that surrounds the display. The finger is then swiped through a part of the display edge into the display, which enters selection mode. Next, the user moves the finger onto an object or display position and selects it by lifting the finger off the display, which ends selection mode. Different edge portions represent different actions and are distinctively marked." Roth Bezel Swipe at 1524. "Swipes are recognized by detecting touches inside a thin rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524. As such, "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display. Figure 2 illustrates this. A touch sensitive display translates the contact area of the finger with the display into an activation point." Roth Bezel Swipe at 1524. "The Bezel Swipe gesture … starts on the bezel and moves into the display. Therefore the contact area is gradually increased until it exceeds the contact threshold of the display. … Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. This outside-to-inside crossing gesture has advantages, for example, "the crossing of the touch-insensitive bezel in conjunction with the properties of touch sensitive displays enables the reliable activation of a button |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. |

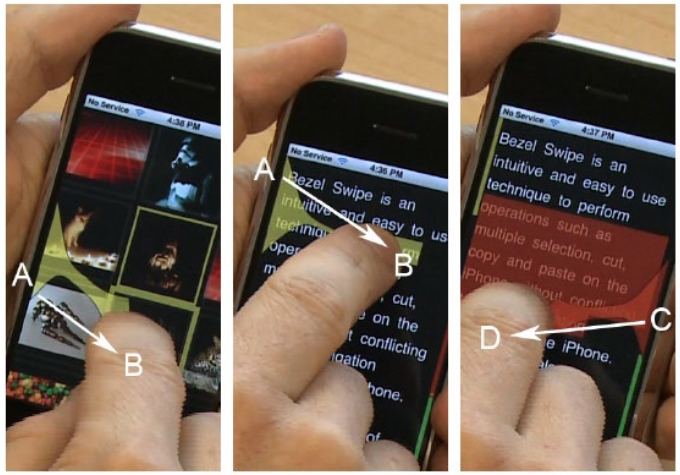



**Figure 1. The Bezel Swipe prototype in action. Left panel: A swipe from A to B selects an image. Middle panel: A swipe from A to B marks the beginning of a text selection. Right panel: A swipe from C to D marks the end of the text selection.**

Roth Bezel Swipe at Figure 1.

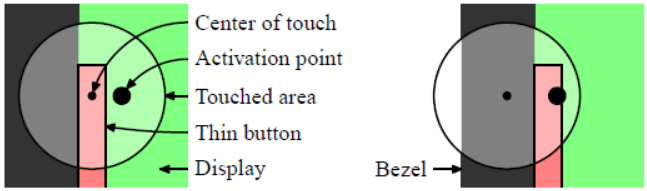
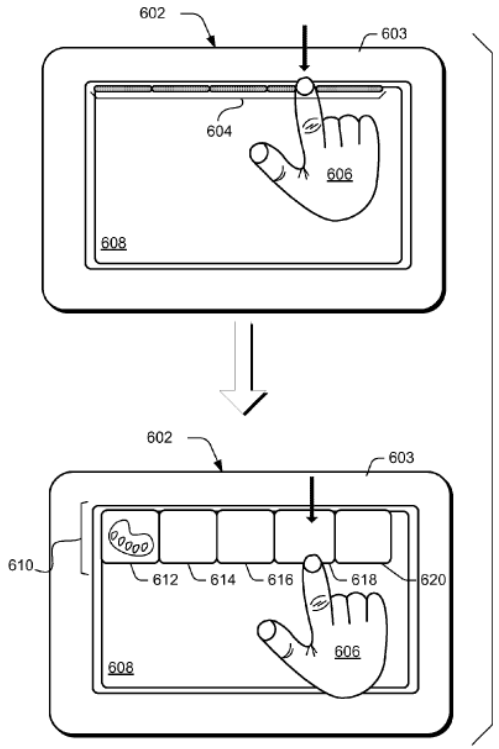
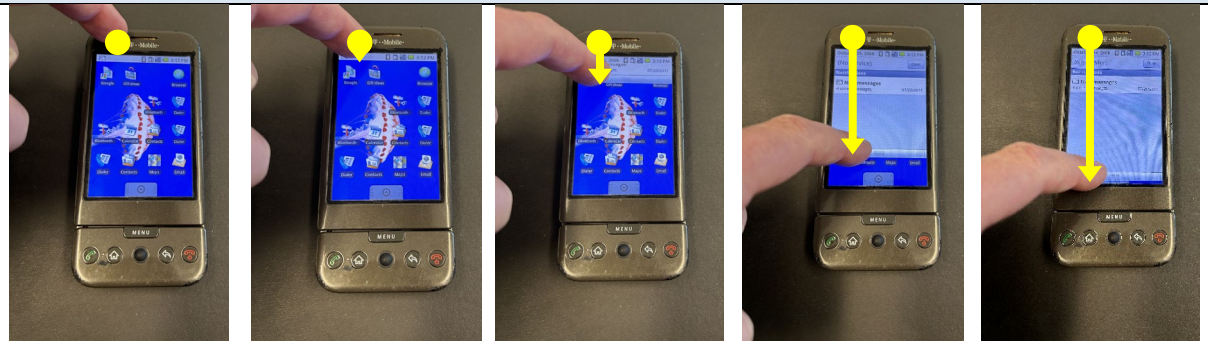
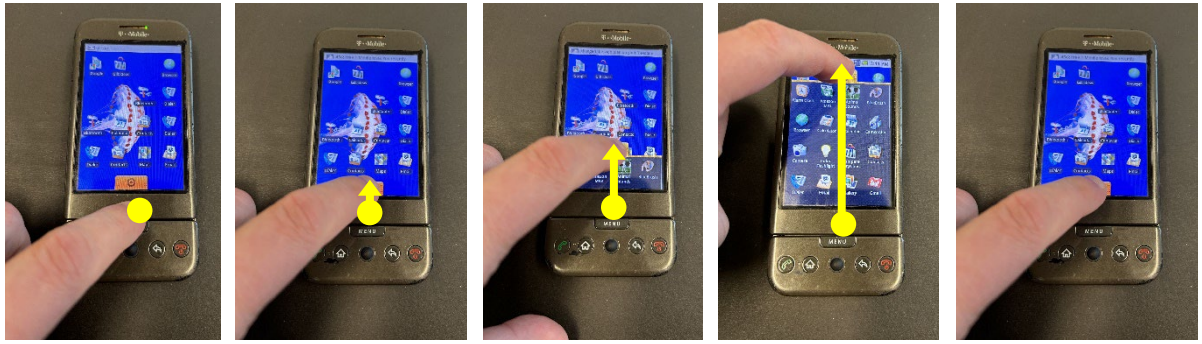



**Figure 2. Touching narrow targets close to the bezel: a touch (large circle) centered on the target (left) may not activate it whereas a touch significantly overlapping the bezel (right) does.**

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | Roth Bezel Swipe at Figure 2.<br><br>Hinckley teaches a visual affordance window indicating a pull-down bezel menu is shown at the edge of a mobile device using a gliding action from outside of the touch screen towards the inside of the touch screen. Hinckley at FIGS. 5, 6. For example, in FIG. 5, "[s]tep 500 displays a visual affordance on a display device associated with a computing device" and is shown at as a window or bar 604 being a five-part line in FIG. 6. Hinckley at [0068], [0072], FIGS. 5, 6. Then, "[s]tep 502 receives a bezel gesture input relative to the visual affordance," such as from off-screen to on-screen over the visual affordance. Hinckley at [0068], [0072], FIGS. 5, 6. After the off-screen to on-screen gesture, "[s]tep 504 accesses functionality associated with the received bezel gesture input." Hinckley at [0068], [0072], FIGS. 5, 6. Hinckley explains that "off-screen to on-screen motion (or vice versa) can be utilized as a mechanism to expose a menu or to access some other type of functionality." Hinckley at [0071]. As shown in FIG. 6, "device 602 includes a bezel 603 and a visual affordance 604 that is rendered on display device 608." Hinckley at [0072], FIG. 6. The "visual affordance 604" may appear as "in the form of a semi-transparent strip" and "can be utilized to provide a hint or indication of accessible functionality, in this case a bezel menu, associated with the bezel." Hinckley at [0072], FIG. 6. "[T]he bezel menu can be accessed through a bezel gesture in which a finger of user's hand 606 touches the bezel and then moves across the bezel and onto the display device 608 in the direction of the illustrated arrow." Hinckley at [0073], FIG. 6. After this off-screen to on-screen gesture, the "bezel menu 610 to be dropped down at which time it can become fully opaque." Hinckley at [0073], FIG. 6. Hinckley further explains that "bezel menu 610 includes multiple selectable icons or slots 612, 614, 616, 618, and 620. Each of the icons or slots is associated with a different functionality such as, for example, paint functionality, pen functionality, note functionality, object creation, object editing, and the like." Hinckley at [0074], FIG. 6. Hickley teaches, however, that "any type of functionality can be associated with the icons or slots." Hinckley at [0074], FIG. 6. The "bezel menu 610 can enable a user to access and activate commands, tools, and objects." Hinckley at [0075], FIG. 6. |

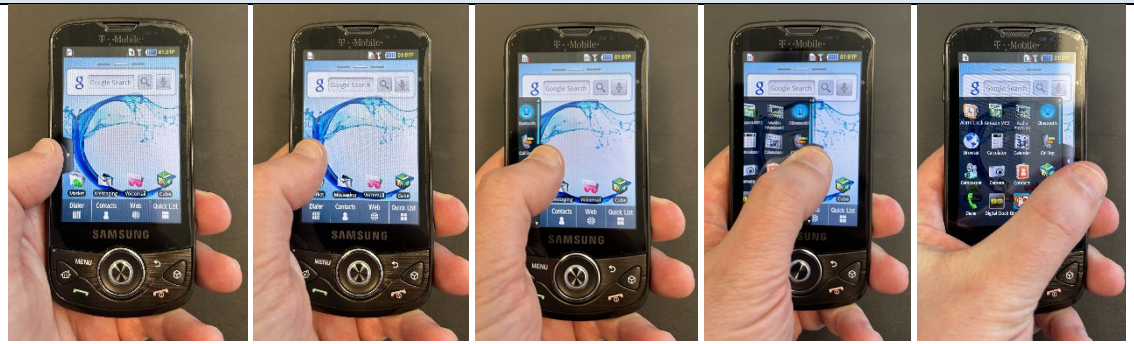
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Fig. 6<br>Hinckley at FIG. 6.<br>Tseng teaches that a gliding action that results in dragging the status bar downward to display a message area (e.g., message area 206, 224) showing new notifications, with the gliding action first interacting with the status bar or status area window on the touch screen during the gliding |

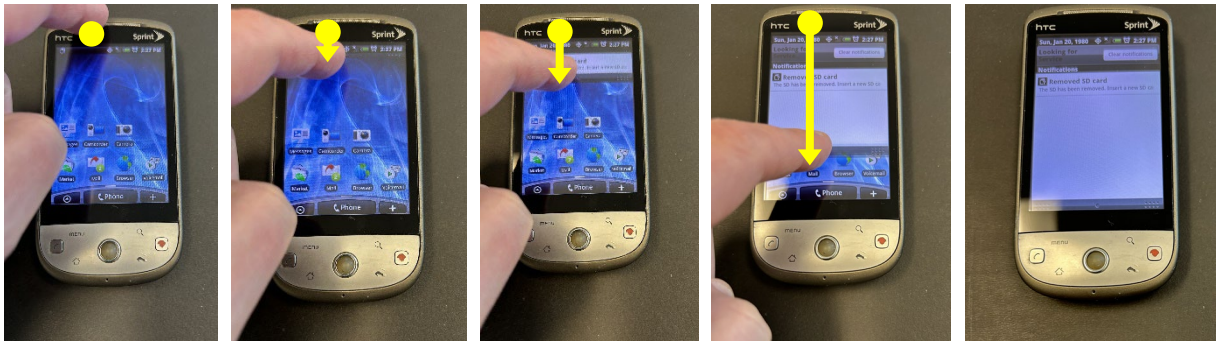
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | movement. Tseng at [0011], [0014], [0041], FIGS. 2A-2C, 3, 4A-4B, 5. Tseng's processor processes the gliding movement to drag or open a message area (e.g., 206, 224). For example, the mobile device may "comprise instructions [that] cause … one or more processors to receive a dragging manipulation on a touch screen display of the graphical interface, from the status area and across the display, and move the slider mechanism in response to the dragging mechanism, and display the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at [0013], FIGS. 2A-2C, 4A-4B. As one example, "[t]he first display in FIG. 2B also shows a large circle surrounded by a ring having a downward pointing arrow. This element indicates a press by a user on the device 218 over the status bar 222, with a subsequent dragging downward of the status bar 222. (The element does not appear on the display.) Such action may be programmed to result in the expanding of a message area 224 into the main zone of the display 220. As with the message area 206 discussed above, the message area 224 may show the various messages that the user's device has received in the user's absence." Tseng at [0053], FIG. 2B. Also, in FIG. 2C, "[t]he second display shows, by a circle having a ring around it in the status bar, a selection by a user, such as … by directly pressing on the display with a fingertip on top of the status bar. Upon the user selecting the status bar, the bar may expand slightly, and a 'slide down' indicator may be displayed, in the form of a notification bar with up and down arrows. The indicator may visually signal the user that they can pull the indicator down to show messages associated with the notification icons. Alternatively, a tab like that shown in FIG. 2A may be displayed below the status area. The third display shows the user dragging the notification bar downward across the main part of the display, like a roll shade." Tseng at [0058]-[0059], FIG. 2C.<br><br>The HTC G1 1.6 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar. |

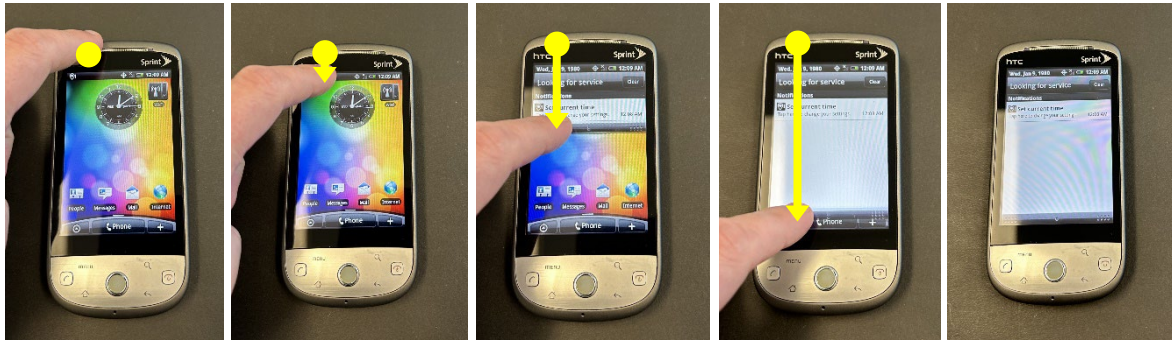
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>HTC G1 1.6.<br>Alternatively, the HTC G1 1.6 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen below the tab window at the bottom of the screen (from outside of the screen) over the tab towards the main application display the inside of the touch screen (e.g., crossing over the tab). The user's touch first interacts with the tab window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the tab window causes a processor to perform the action of displaying the applications list assigned to the tab window.<br>  <br>HTC G1 1.6.<br>On information and belief, the Samsung Galaxy GT-i7500 1.5 operates substantially the same with respect to the pull-down notifications interface as the HTC G1 1.6 and the HTC Magic 1.6. *See,* |

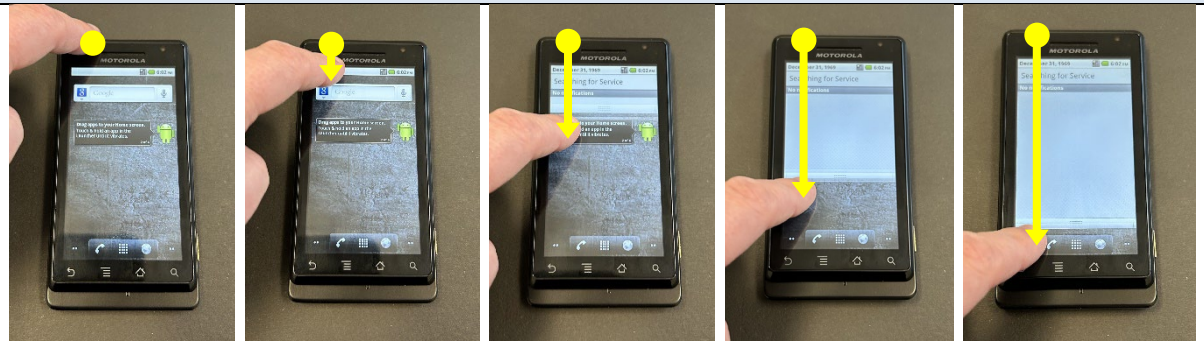
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | *e.g.*, https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface as the same, showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."); https://www.youtube.com/watch?v=rhBgLQSxfjE at 1:20-1:34 (describing as running Android 1.5 and similar to HTC G1 device, showing opening notification menu from status bar contact at 1:32). On information and belief, a user may perform a gliding action from the plastic housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar); https://www.youtube.com/watch?v=wVF8dLkgW7c at 0:40-0:56 (showing swipe down over status bar to open notifications interface); https://www.youtube.com/watch?v=4Pv04Tw6wvQ at 3:30-3:35 (showing gliding gesture on status bar to show notification interface for Android 1.5 operating system). The user's touch first interacts with the status bar window on the touch screen because the bezel does not contain touch-sensitive elements. The gliding action over the status bar window causes a processor to perform the action of displaying the notifications window. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar). Furthermore, on information and belief, a user may perform a gliding action from the plastic housing bezel below the touch screen (i.e., from outside of the screen) over the tab shown at the bottom of the screen towards the main application display inside of the touch screen (e.g., over the tab window) to display an applications selection interface. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having the application selection interface tab); https://www.youtube.com/watch?v=wVF8dLkgW7c at 0:54-1:14 (showing swipe up over application selection tab at bottom of screen to open application selection interface); https://www.youtube.com/watch?v=4Pv04Tw6wvQ at 1:36-2:30 (showing gliding gesture on tab to show application selection interface for Android 1.5 operating system).<br><br>The Samsung Behold II operates substantially the same with respect to the pull-down notifications interface as the HTC G1 1.6 and the HTC Magic 1.6. *See, e.g.*, |

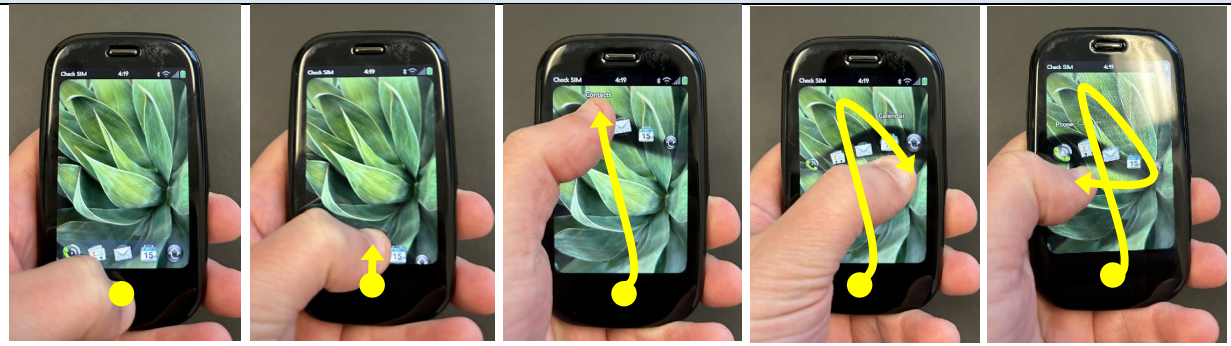
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | https://www.cnet.com/tech/mobile/hands-on-samsung-behold-ii-plus-release-details/ (explaining that the Samsung Behold II runs on Android 1.5); https://www.t-mobile.com/news/press/t-mobile-usa-launches-the-samsung-behold-ii-on-november-18. For the Samsung Behold II, a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar.<br>  <br>The Samsung Behold II device.<br>Moreover, in the Samsung Behold II, a user may also perform a gliding action from the plastic housing surrounding the touch screen to the left of the applications drawer tab (from outside of the screen) over the applications tab towards the main application display the inside of the touch screen (e.g., crossing over the applications tab window). The user's touch first interacts with the applications tab window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the applications tab causes a processor to perform the action of displaying the applications drawer menu from the side of the screen. |

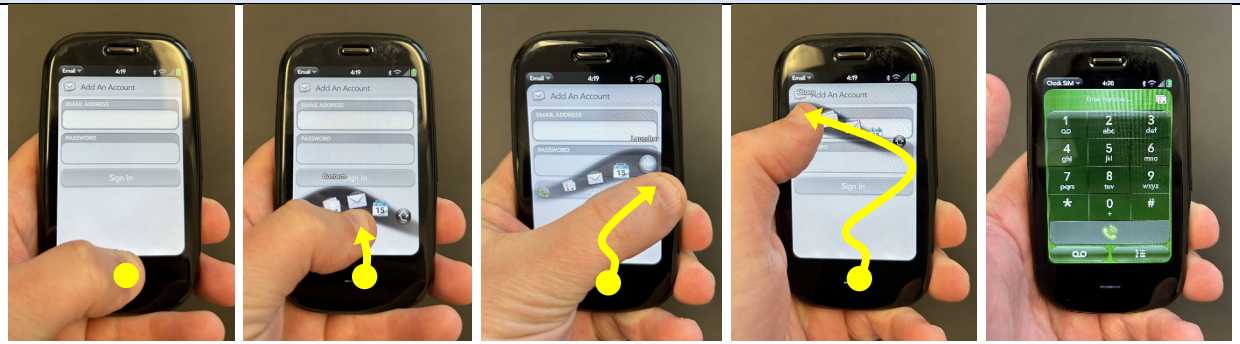
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>The Samsung Behold II device.<br>On information and belief, the HTC Magic 1.5 operates substantially the same with respect to the pull-down notifications interface as the HTC G1 1.6 and the Samsung Galaxy GT-i7500. *See, e.g.*, https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface as the same, showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."). On information and belief, a user may perform a gliding action from the plastic housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. The user's touch first interacts with the status bar window on the touch screen because the bezel does not contain touch-sensitive elements. The gliding action over the status bar window causes a processor to perform the action of displaying the notifications window. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 (In addition to being able to drag (or double tap if your fingers are a little tired) the menu bar up from the bottom of the screen, you can also drag from the top and find your notifications all grouped nicely together."); https://ianrenton.com/blog/review-htc-magic/ ("Dragging the top drawer (where app notifications, incoming messages etc. sit) is a lot more intuitive on an actual device than on the emulator, and the kinetic scrolling - you can 'throw' menus - feels just right."); https://www.youtube.com/watch?v=LghBOTZ-HuE at 5:08-5:20 (describing |

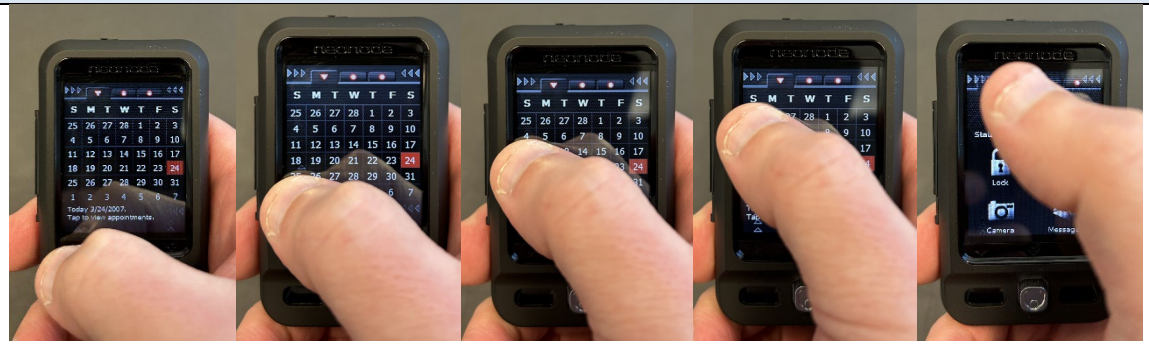
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "drag-down notification drawer"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:35-8:55 (describing notification menu as "a drawer" that you "pull down" allowing you to "click" notifications to open the corresponding application).<br><br>Furthermore, on information and belief, a user may perform a gliding action from the plastic housing bezel below the touch screen (i.e., from outside of the screen) over the tab shown at the bottom of the screen towards the main application display inside of the touch screen (e.g., over the tab window) to display an applications selection interface. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 ("you can simply drag up the menu from the bottom and access all your recently downloaded applications and menu functions, sorted alphabetically"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:15-7:35, 8:17-8:55 (showing swipe-up action to open application selection interface).<br><br>The HTC Hero 1.5 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar.<br><br>  <br>HTC Hero 1.5. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | The HTC Hero 2.1 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar.<br>  <br>HTC Hero 2.1.<br>The Motorola Droid A855 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status towards to the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Droid A855.<br>The Palm Pre teaches, as one example, that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen (e.g., crossing over the Quick Launch window showing five application icons and identifying the movement from off-to-on screen). The user's touch first interacts with the Quick Launch window on the touch screen because the Quick Launch window is not displayed in the gesture area. The gliding action over the Quick Launch window from off-to-on screen causes a processor to perform the action associated with the window, such as moving the Quick Launch window with the user's finger in any arbitrary direction around the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. For example, lifting on the "Phone" icon opens the Phone application. |

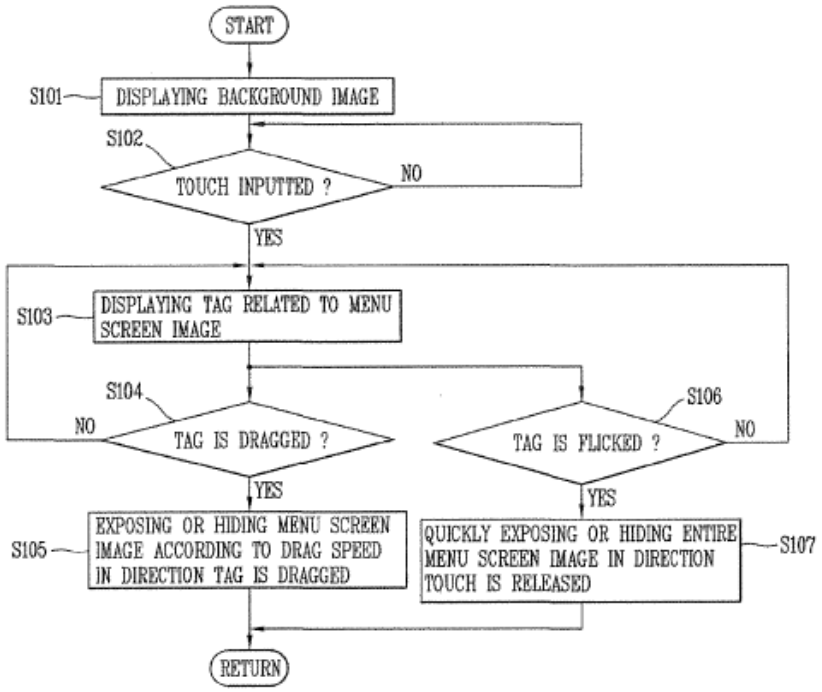
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Palm Pre.<br>The Palm Pre also teaches, as another example, that, when an application is open on the Palm Pre device (such as the mail application shown below), a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen to display the Quick Launch window (e.g., crossing from off-to-on screen to display the Quick Launch window). The user's touch first interacts with the Quick Launch window on the touch screen because the Quick Launch window is not displayed in the gesture area, but as shown below, appears with the user's off-to-on screen gesture as the finger moves onto the screen. The gliding action causes a processor to perform the action associated with the Quick Launch window, such as moving the Quick Launch window with the user's finger in any arbitrary direction around the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. As shown below, lifting on the "Phone" icon opens the Phone application. |

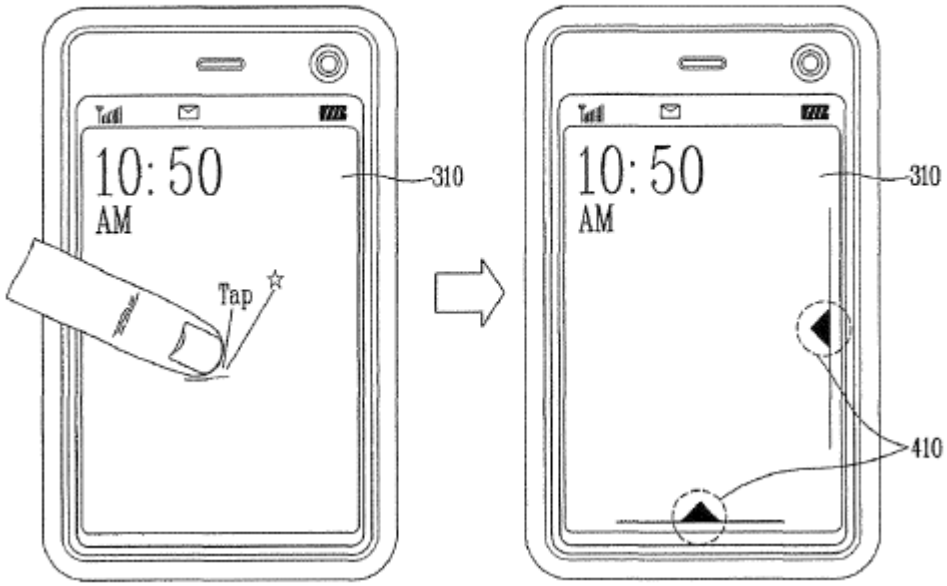
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Palm Pre.<br>The Neonode N2 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen over the indicated icons or from the sides of the screen as indicated by the various arrows (from outside of the screen), over the arrows towards the main application display toward the inside of the touch screen (e.g., crossing over the window identifying the movement from off-to-on screen). The user's touch first interacts with the window showing the arrows on the touch screen because the outer housing does not contain touch-sensitive elements. The gliding action over the arrows from off-to-on screen causes a processor to perform the action associated with one of the three icons printed below the touch screen or from the side of the touch screen.<br>  <br>Neonode N2. |

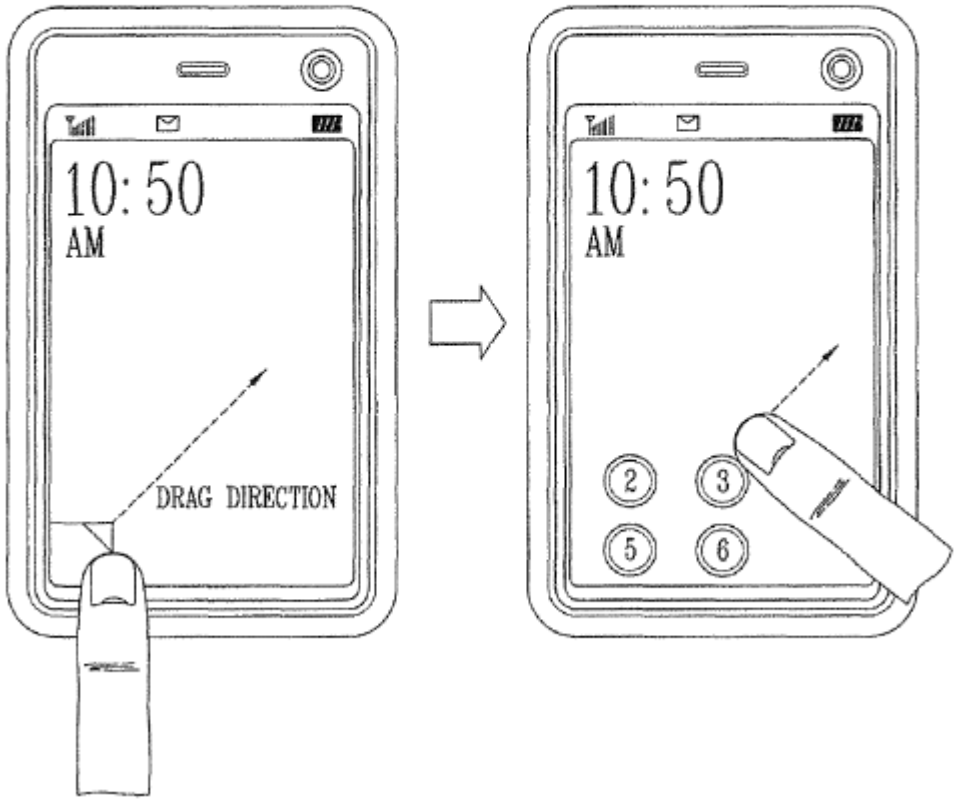
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Neonode N2.<br>A POSITA would have found it obvious to incorporate the functionality of permitting an off-to-on-screen gliding action, where the gliding action first interacts with the touch screen of Jeong's tag regions window, to cause the menu to be displayed as described in Jeong, as claimed. Each of Jeong, Wilairat, Roth, Roth Bezel Swipe, Hinckley, Tseng, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC G1 1.6, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, the Palm Pre, and/or the Neonode N2, teaches causing an action assigned to the window when the gliding action is detected that may be an off-to-on-screen gesture, such as causing Jeong's menu to be pulled open using a gesture that starts off screen and glides towards the main display area over the tag region window. A POSITA would have been motivated to provide for opening (e.g., sliding open, as taught by Jeong) Jeong's menu using a gesture that starts off screen and glides towards the main display area across the tag region window because it allows for the same operation as Jeong discloses, but simplifies the user's experience of opening the menu and/or alternatively provides for a narrower or smaller tag window region to avoid obscuring an application shown on the touch screen display. For example, by registering the touch as the user's finger slides onto the screen (e.g., either as a regular touch on the tag window, as taught by Jeong, or as a pull-in gesture, such as taught by Wilairat) results in effectively increasing the size of the tag window and/or allows for the size of the tag window to be reduced by enabling a more reliable activation on a small tag interactive object (such as taught by Roth and Roth Bezel Swipe). This simplifies the user's experience because the user does not have to try to specifically touch the narrow tag illustration and may instead start the gliding gesture off-screen to cross over the line of |

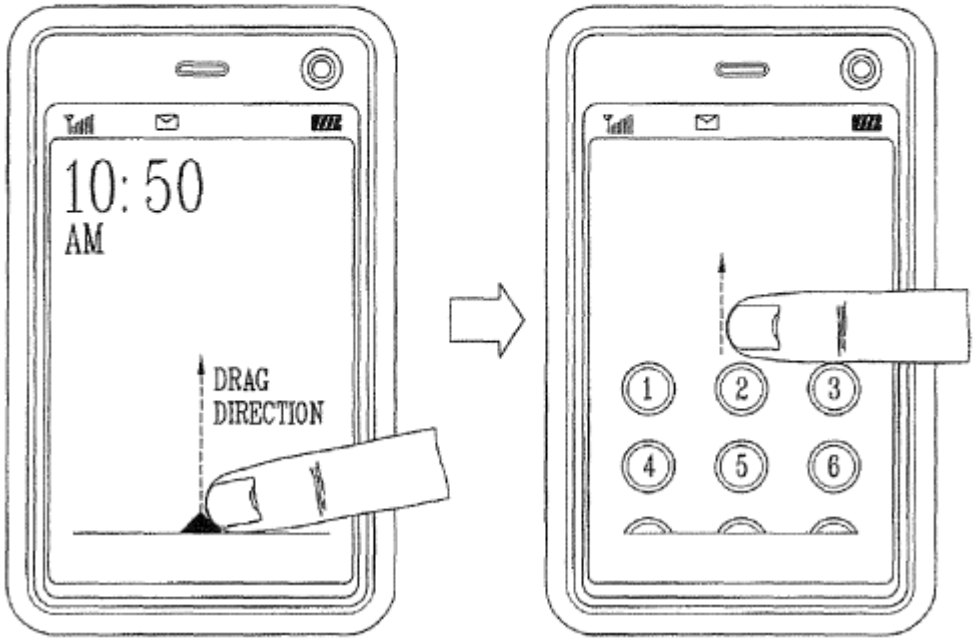
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | the tag illustration to pull open the menu. As explained by Roth Bezel Swipe, "screens of mobile devices are necessarily small," which leads to the development of "smaller widgets" that "are harder to hit." Roth Bezel Swipe at 1523. But out-to-in swiping gestures that "start on the bezel and move[] into the display" allow for contacting "a narrow target (the red bar) positioned flush against the display edge." Roth Bezel Swipe at 1524. In other words, "[s]wipes" from outside-to-inside the touch screen "are recognized by detecting touches inside a thin rectangular area [window] positioned flush against the display screen." Roth Bezel Swipe at 1524. This "enables the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524.<br><br>It was well known to a POSITA that activating a function when a user performs an out-to-in gliding gesture, such as over Jeong's tag window (either as shown or in a substantially narrower form facilitated by the off-to-on screen swiping gesture, *see* Roth Bezel Swipe), "enables the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524. Activating functions where "[u]sers can invoke actions with swiping features across a section of the display [touch screen] side from the outside to the inside" also "requires minimal display real estate," whereby being beneficial to mobile devices that have small screens. Roth, [0009]. A POSITA would have known that such activation operations, like crossing activations, "can be more efficient than pointing tasks," especially on small-screen devices, such as mobile phones. Roth, [0009]. When outside-to-inside gliding activations are used, a POSITA would have known that the activation bar or window can be "made small so as to not take up valuable space on the display." Roth, [0036].<br><br>Activating a function when a user performs an out-to-in gliding gesture over a window on a touch screen, such as over Jeong's tag window, was routine and conventional to POSITAs, as shown by Jeong, Tseng, Wilairat, Roth, and/or Roth Bezel Swipe. Moreover, it was successfully implemented in commercial prior art devices, such as the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC G1 1.6, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, the Palm Pre, and the Neonode N2. Incorporating a gliding action provided from outside of |

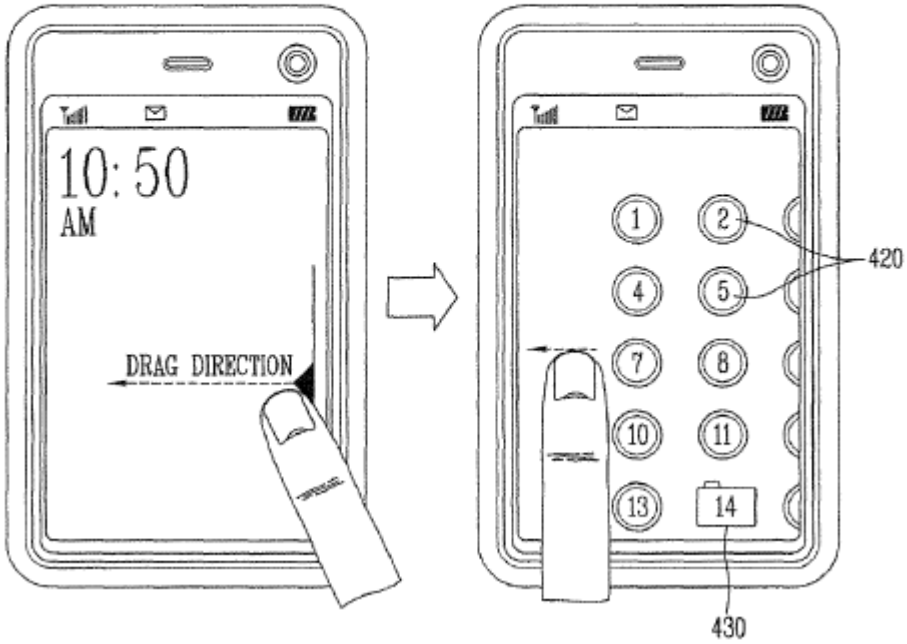
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, being processed by the processor to cause an action assigned to said window into Jeong's system, shown above, represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with Jeong, represent nothing more than combining prior art elements according to known methods and techniques (registering a user's gliding action when it first crosses from the bezel into the screen at the tag region window of Jeong and then moves towards the inside of the touch screen) to yield predictable results (to open Jeong's menu, such as by sliding it open, as disclosed by Jeong). |
| **[1E]** wherein said at least one window is located on the touch screen before said gliding action begins. | Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said at least one window is located on the touch screen before said gliding action begins."<br><br>For example, Jeong discloses that, after "the tags 410 [are] displayed, when the user touches one of the tags 410 and drags it (S104), the controller 180 exposes a menu screen image 320, which has been hidden, in the direction in which the tag is dragged as shown in FIGS. 7A to 7C." Jeong at [0058], FIGS. 5, 6A, 7A-7C. Because the user "touches one of the tags" shown on the screen and "drags" it, the tag window is located on the touch screen before the gliding action begins. Moreover, Jeong discloses a "tag calling" embodiment where, "when a touch is inputted with nothing displayed on the background screen image 310, the tags 410 related to the menu screen image 320 are displayed (Sl0l to S103)." Jeong at [0057], FIG. 6A.<br><br>Exemplary citations include: |

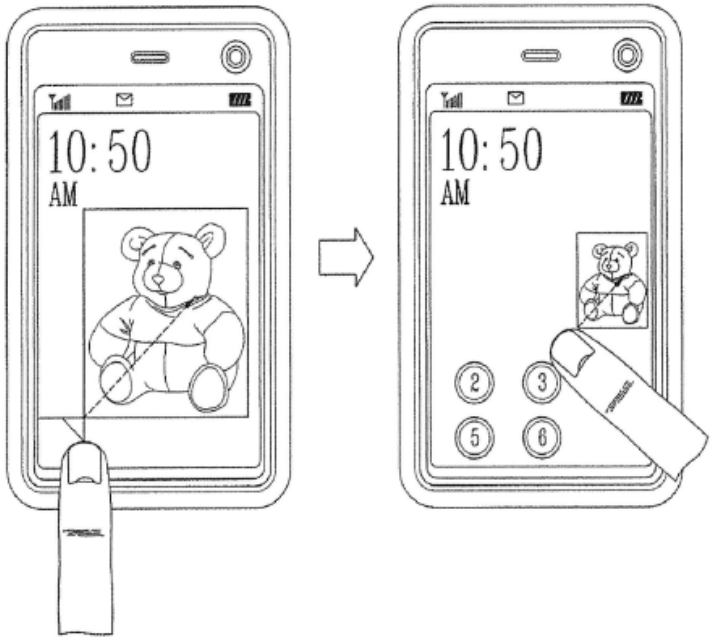
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 5<br>  <br><br>Jeong at FIG. 5. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 6A<br>  <br><br>Jeong at FIG. 6A. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7A<br>  <br><br>Jeong at FIG. 7A. |

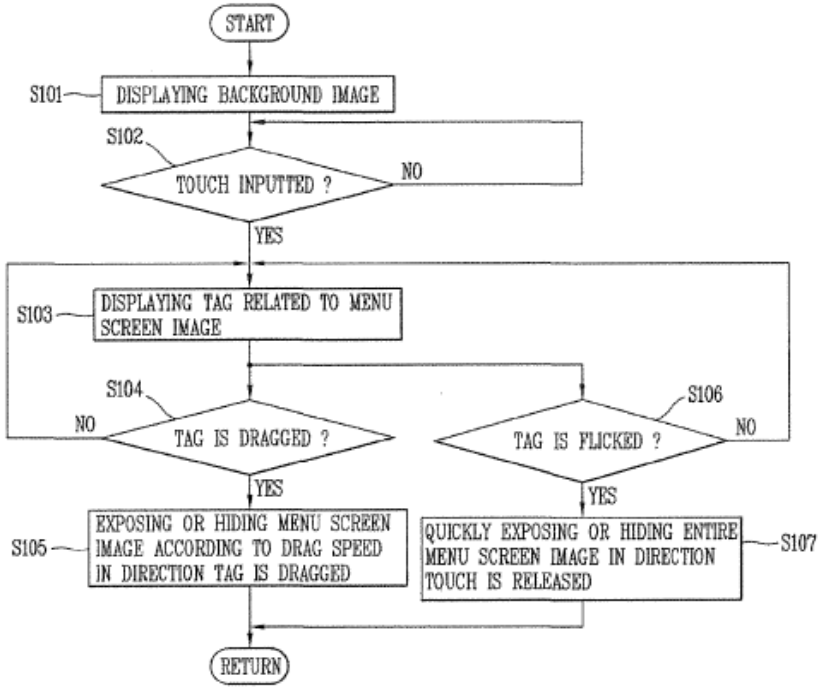
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7B<br>  <br><br>Jeong at FIG. 7B. |

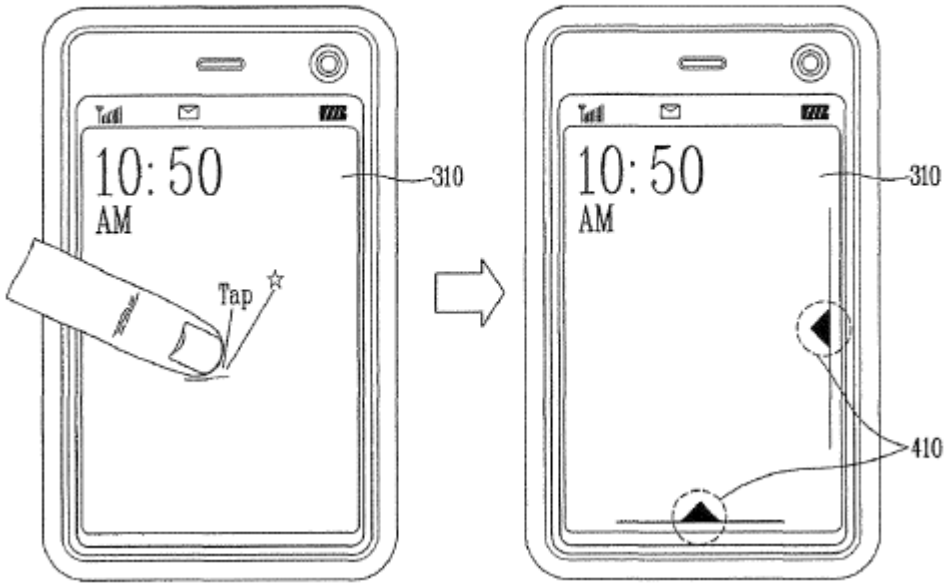
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | FIG. 7C<br>  <br><br>Jeong at FIG. 7C. |

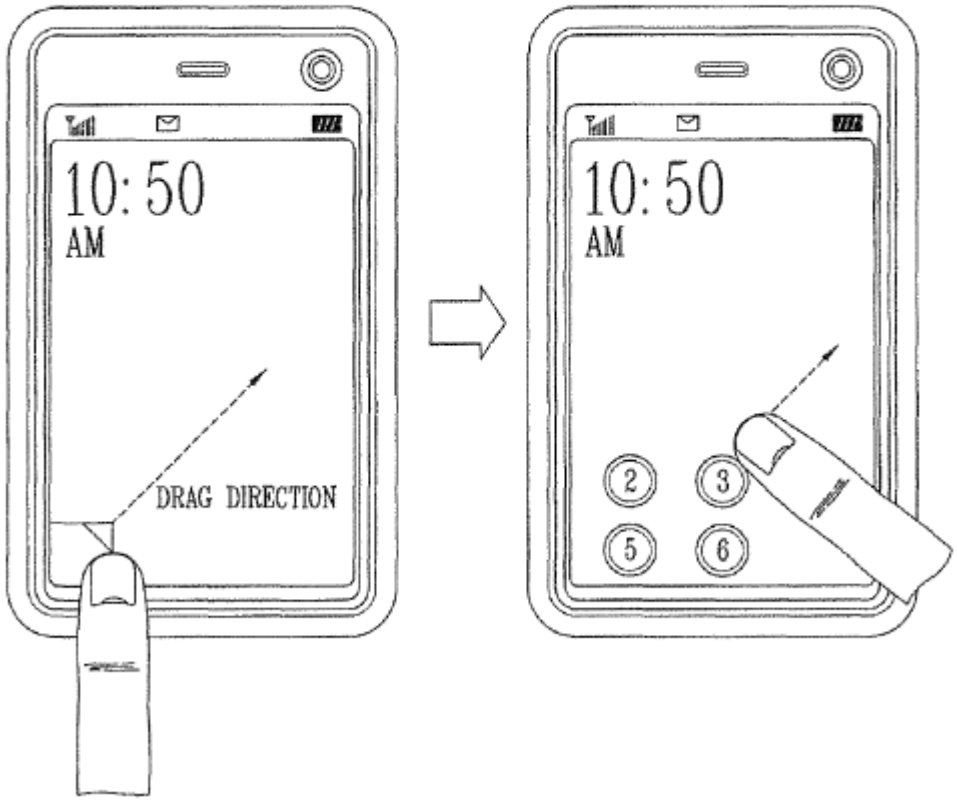
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 9C<br>  <br><br>Jeong at FIG. 9C.<br>"FIG. 5 is a flow chart illustrating the process of displaying a menu of the mobile terminal 100 according to one embodiment. The method of display process of the mobile terminal 100 according to the present disclosure will now be described with reference to FIGS. 5, 6A, 6B, 7A, 7B, 7C and 8. For the sake of example, it is assumed that no menu item is displayed on the background screen image 310 of the mobile terminal 100. As shown in FIG. 6A, if there is nothing displayed on the background screen image 310 with respect to a menu item, the user may touch the background |

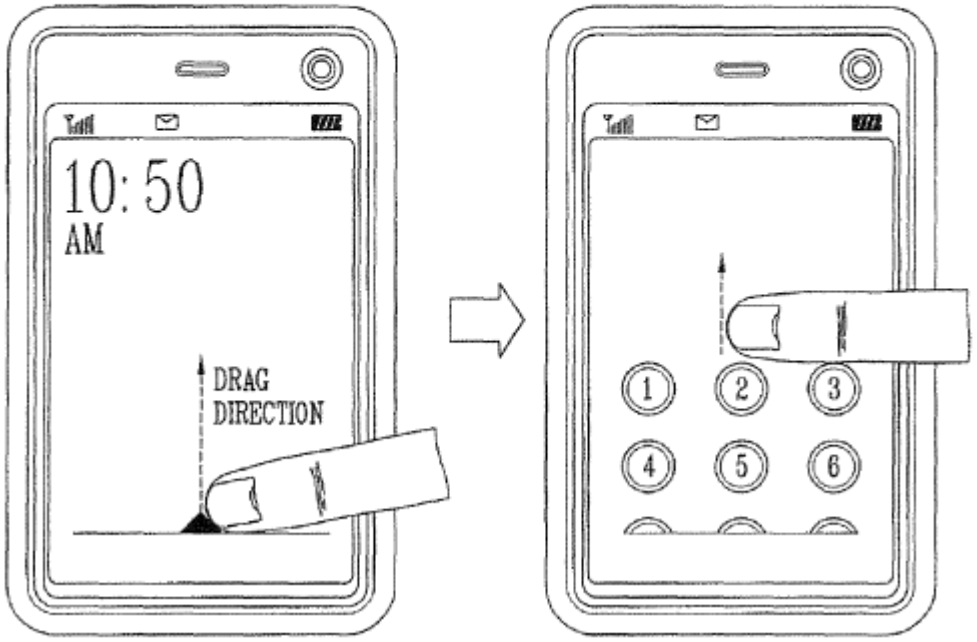
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | screen image 310 to display tags 410 to display a menu screen image 320. That is, when a touch is inputted with nothing displayed on the background screen image 310, the tags 410 related to the menu screen image 320 are displayed (Sl0l to S103).” Jeong at [0057].<br><br>“As shown in FIG. 6B, one or more tags 411 to 416 may be displayed, and the tags 410 may be displayed at one of a side, a corner or an internal region of the touch screen. If a tag related to the menu display is already displayed on the background screen image 310, the tag calling process may be omitted. After the tag is displayed, if there is no dragging or flicking during a pre-set time, the displayed tag may be released. With the tags 410 displayed, when the user touchesone of the tags 410 and drags it (S104), the controller 180 exposes a menu screen image 320, which has been hidden, in the direction in which the tag is dragged as shown in FIGS. 7A to 7C. Likewise, if the tag is dragged in a different direction, an exposed menu screen image 320 may be hidden (S105).” Jeong at [0058]. |

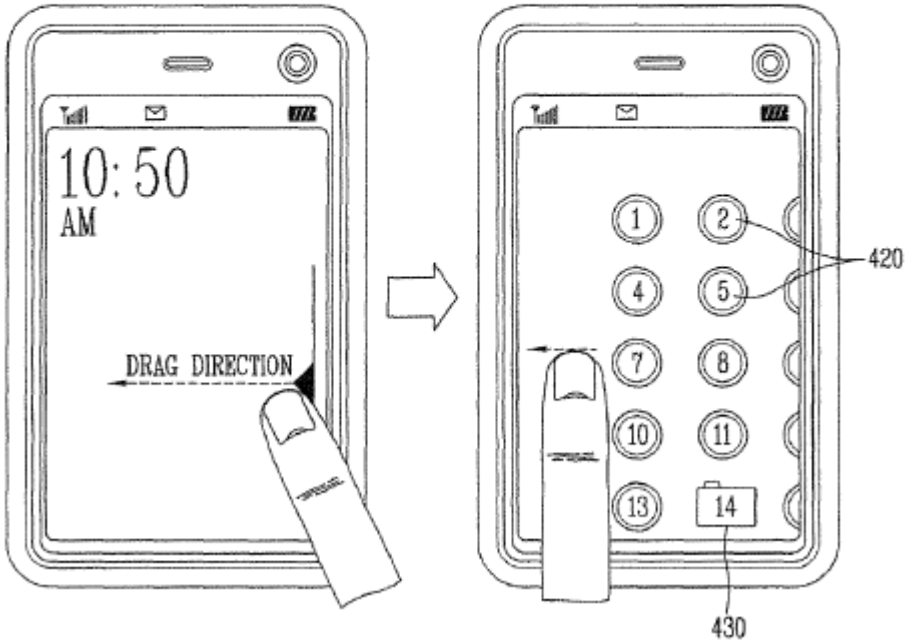
| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[2]** The system of claim 1, wherein the system relates said gliding action to a function which is not related to a mouse function. | Claim 2 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 2 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants’ invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless’s apparent interpretation of this limitation, discloses that “the system relates said gliding action to a function which is not related to a mouse function.”<br><br>For example, Jeong relates the gliding function to the function of opening an applications or other menu, as explained in claim 1, which is not related to a mouse function. *Supra* claim 1. |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Exemplary citations include:<br>FIG. 5<br>  <br><br>Jeong at FIG. 5. |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 6A<br>  <br><br>Jeong at FIG. 6A. |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7A<br>  <br><br>Jeong at FIG. 7A. |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7B<br>  <br><br>Jeong at FIG. 7B. |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7C<br>  <br><br>Jeong at FIG. 7C.<br>"A mobile terminal comprising a display module to display a tag and to display a menu screen image related to the tag at one portion of a background image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance; an input unit to detect a touch input with respect to the display module or the tag to determine the dragging |

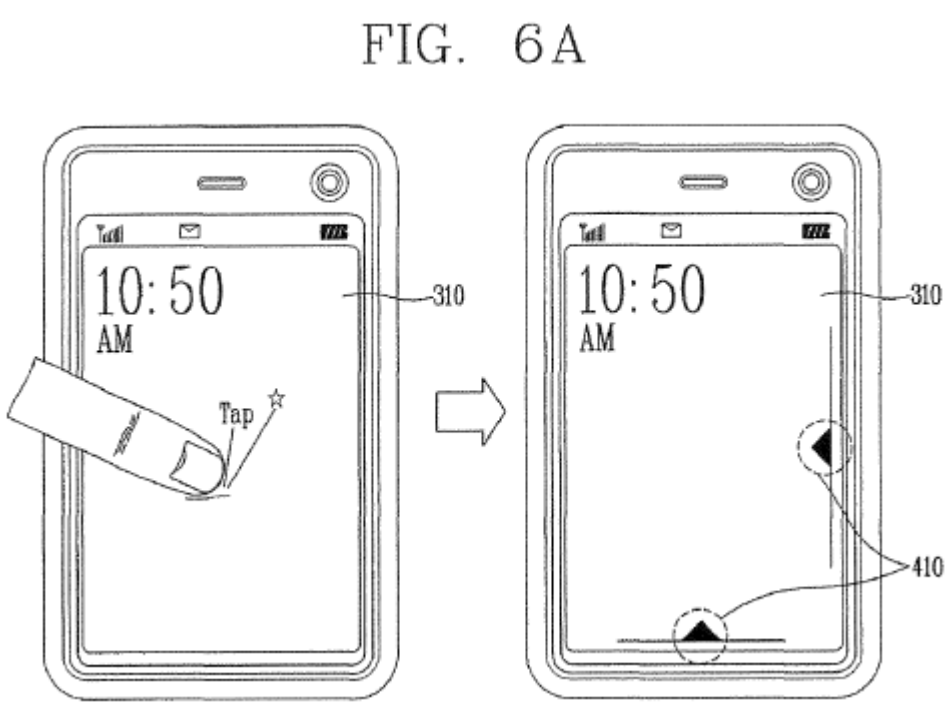
| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | direction and the dragging distance; and a controller to expose or hide the menu screen image according to the dragging direction the dragging distance of the inputted touch." Jeong at Abstract.<br><br>"The present disclosure relates to a method for dragging a menu screen image in a tactile manner to allow the menu screen image to be exposed or hidden by a background screen image, and a mobile terminal implementing the same." Jeong at [0002].<br><br>"To achieve these and other objectives and in accordance with the purpose of the present disclosure, as embodied and broadly described herein, the present disclosure provides in one aspect a mobile terminal comprising: a display module to display a tag (i.e., an interactive object) and to display a menu screen image related to the tag at one portion of a background screen image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance; an input unit to detect a touch input with respect to the display module or the tag to determine the dragging direction and the dragging distance; and a controller to expose or hide the menu screen image according to the dragging direction the dragging distance of the inputted touch." Jeong at [0006].<br><br>"To achieve these and other advantages and in accordance with the purpose of the present disclosure, as embodied and broadly described herein, the present disclosure provides in another aspect a method for displaying a menu of a mobile terminal, comprising: a means of displaying a tag and a menu screen image related to the tag at one portion of a background screen image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance; a means of detecting a touch input with respect to a display module or the tag to determine the dragging direction and the dragging distance; and a means of exposing or hiding the menu screen image according to the dragging direction and the dragging distance of the inputted touch." Jeong at [0007].<br><br>"The controller 180 typically controls the general operations of the mobile terminal 100. For example, the controller 180 performs controlling and processing associated with voice calls, data communications, video calls, and the like. In addition, the controller 180 may include a multimedia reproducing module 181 for reproducing (or playing back) multimedia data. The multimedia reproducing module 181 may be configured within the controller 180 or may be configured to be separated from the controller 180." Jeong at [0037]. |

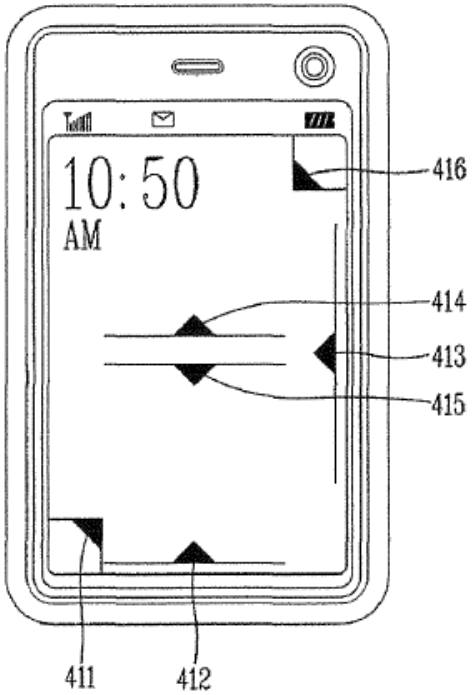
| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | "FIG. 4 shows a background screen image of the mobile terminal 100 according to one embodiment. As shown, the mobile terminal 100 may not display any menu item on a background image 310 in a standby mode or may simply display some menu items 321-323. A tag 330 related to a menu display may be displayed to allow the user to touch the tag 330 to drag it in a certain direction to expose the other remaining menu items that are usually hidden. A tag may be graphical user interface (GUI) object associated with a functional interface which allows a user to expose or hide from view other GUI objects on the mobile terminal 100's display." Jeong at [0050].<br><br>"The tag 330 may be displayed in a shape (e.g., an arrow) indicating a direction in which the menu screen image 320 is exposed or a direction in which the tag 330 can be dragged. For example, the tag 330 may have a triangular shape or an arrow shape. Accordingly, the tag 330 may be displayed by changing its direction according to whether the menu screen image 320 is exposed or hidden from view. The menu item displayed on the background screen image 310 may include an icon for executing a program. In addition, the menu item may include a 'group menu item' 430 for retrieving a menu item of a different group and displaying it on the background screen." Jeong at [0052].<br><br>"Also, the controller 180 may determine the type of touch that was or is being performed when the user touches or releases the tag (icon) 330 based upon at least one of the number of touches, a contact time, contact speed, contact direction, contact pressure and contact surface area, or any combination thereof." Jeong at [0054].<br><br>"The respective menu items displayed on the menu screen image 320 may be indicated by icons of certain shapes or images. The menu items may be arranged in an arbitrary format by combining rows and columns or may be arranged randomly by disregarding rows and columns. The menu screen image 320 may be shown at or be hidden from a particular region of the screen, by setting at least one of a side portion, a corner portion, or a central portion of the touch screen as a boundary region from which the menu screen image 320 can appear or disappear, and the tag 330 (or other graphical indicator) can be used to indicate the boundary region." Jeong at [0056].<br><br>"FIG. 5 is a flow chart illustrating the process of displaying a menu of the mobile terminal 100 according to one embodiment. The method of display process of the mobile terminal 100 according to the present disclosure will now be described with reference to FIGS. 5, 6A, 6B, 7 A, 7B, 7C and 8. For the sake of example, it is assumed that no menu item is displayed on the background screen image 310 of the mobile terminal 100. As shown in FIG. 6A, if there is nothing displayed on the |

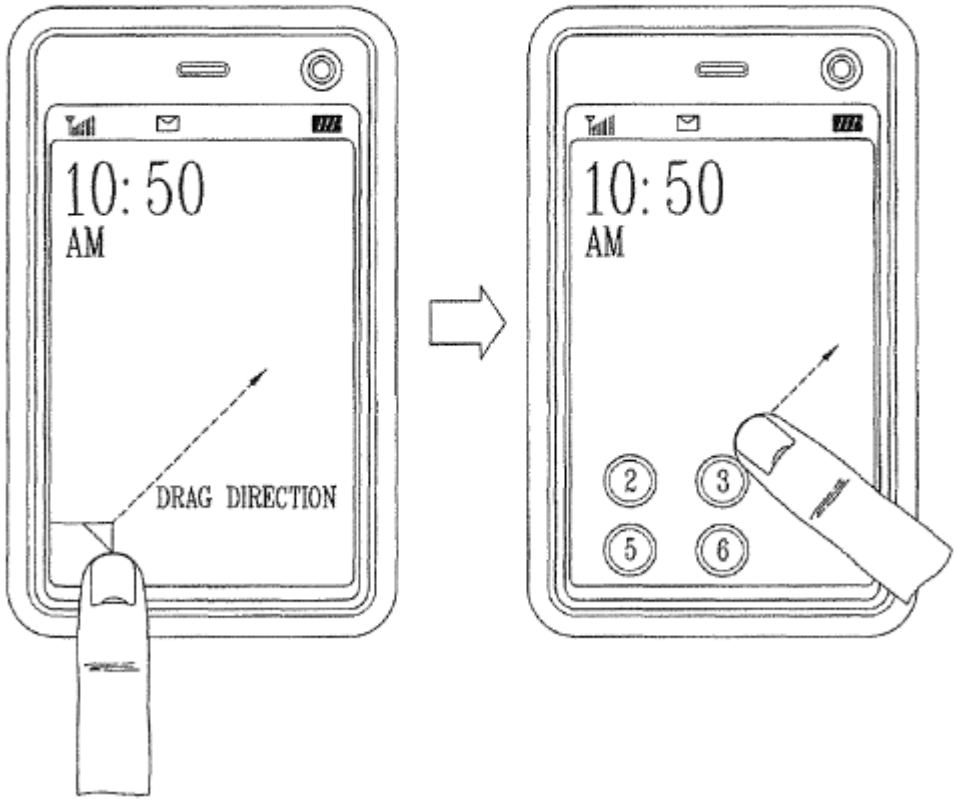
| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | background screen image 310 with respect to a menu item, the user may touch the background screen image 310 to display tags 410 to display a menu screen image 320. That is, when a touch is inputted with nothing displayed on the background screen image 310, the tags 410 related to the menu screen image 320 are displayed (Sl0l to S103).” Jeong at [0057].<br><br>“As shown in FIG. 6B, one or more tags 411 to 416 may be displayed, and the tags 410 may be displayed at one of a side, a corner or an internal region of the touch screen. If a tag related to the menu display is already displayed on the background screen image 310, the tag calling process may be omitted. After the tag is displayed, if there is no dragging or flicking during a pre-set time, the displayed tag may be released. With the tags 410 displayed, when the user touches one of the tags 410 and drags it (S104), the controller 180 exposes a menu screen image 320, which has been hidden, in the direction in which the tag is dragged as shown in FIGS. 7A to 7C. Likewise, if the tag is dragged in a different direction, an exposed menu screen image 320 may be hidden (S105).” Jeong at [0058].<br><br>“The menu items displayed on the menu screen image 320 may include a group menu item 430 indicating a menu item included in a different menu group, and it may be displayed to be different from the menu items 420 for executing a program. If tag dragging is stopped before the entire menu screen image 320 is exposed, or when the touch to the tag being dragged is released, the menu screen maintains a currently exposed state as it is. That is, while flicking results in exposing or hiding the entire menu screen image 320, dragging allows adjusting of the degree of exposing or hiding of the menu screen image 320 in accordance with the speed and direction of the dragging motion.” Jeong at [0059].<br><br>“Notably, referring back for FIG. 5, if the user wants to quickly expose or hide the entire menu screen image 320, he may flick a desired tag by for example interactive with the tag successively (e.g., tapping on the tag), or as shown in FIG. 8, the user may push the tag up or down in a bouncing manner (S106, S107). In order to determine a touch input type (i.e., whether the user means to flick or drag the tag), the controller 180 may use one or more factors associated with user interaction with the tag. These factors may include time, speed, direction, pressure and area to which the touch is applied or released.” Jeong at [0060]. |

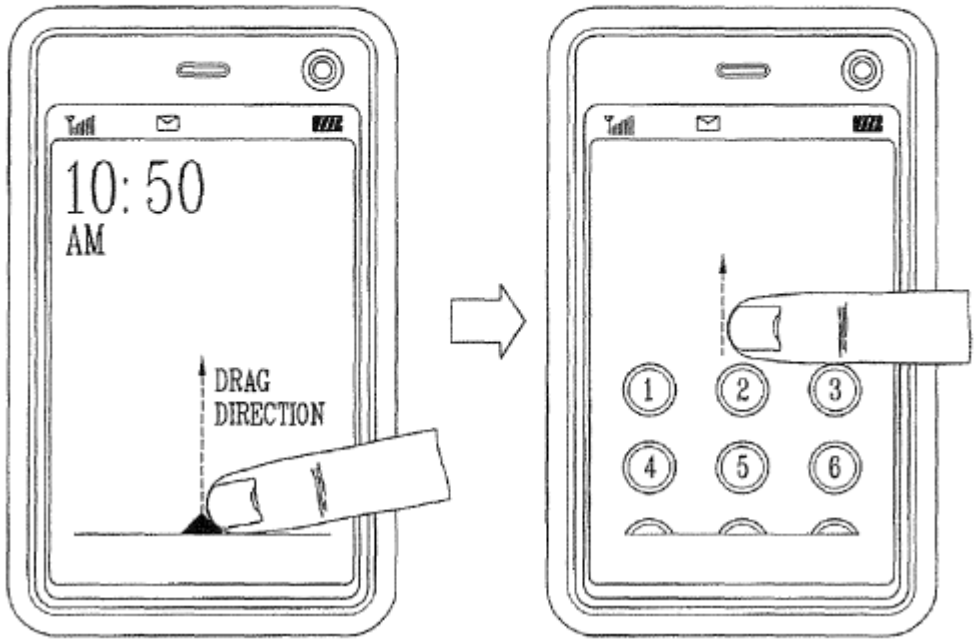
| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | "A mobile terminal comprising: … a controller to expose or hide the menu screen image according to the dragging direction the dragging distance of the inputted touch." Jeong at claim 1.<br><br>"The mobile terminal of claim 1, wherein when the display module is touched, the controller provides a control mechanism to display the tag and to display the menu screen image related to the tag." Jeong at claim 3.<br><br>"The mobile terminal of claim 1, wherein if the tag is not displayed on the background screen image, the controller detects whether or not the display module is touched according to a particular pre-set touch, and after a touch is inputted according to the particular pre-set touch, the controller provides a control mechanism to expose a pre-set menu screen image according to the dragging direction and the dragging distance." Jeong at claim 4. |

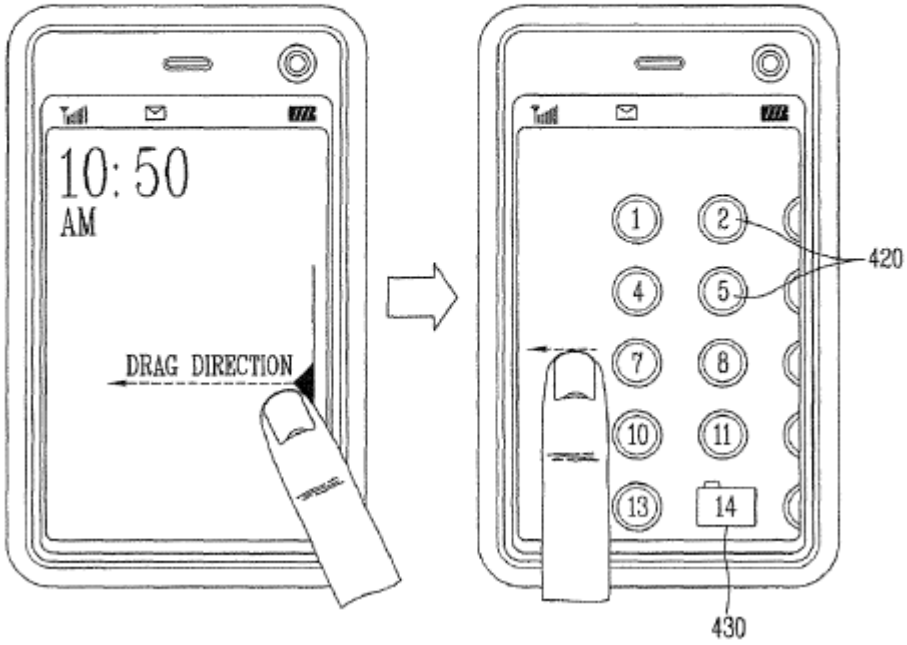
| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[3]** The system of claim 1, wherein said at least one window comprises at least one bar located on said edge of the screen. | Claim 3 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 3 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window comprises at least one bar located on said edge of the screen."<br><br>For example, Jeong discloses that the tags 330/410 may be in the shape of a bar in the form of a line and an arrow indicating the drag direction, such as shown in FIGS. 6A, 6B, 7B, 7C. Jeong also discloses that the tags may be in the shape of a bar located on a corner of the screen, such as shown in FIGS. 6B, 7A, 9C. |

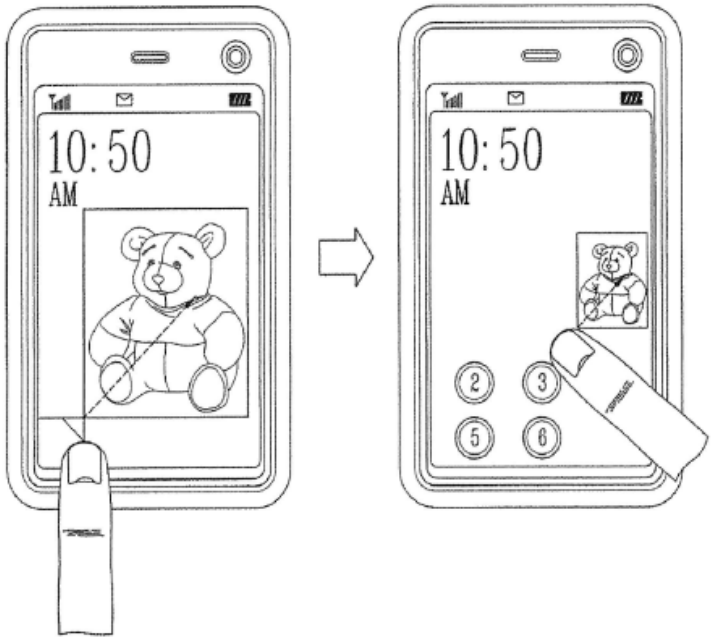
| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Exemplary citations include:<br>  <br><br>Jeong at FIG. 6A. |

| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 6B<br>  <br><br>Jeong at FIG. 6B. |

| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7A<br>  <br><br>Jeong at FIG. 7A. |

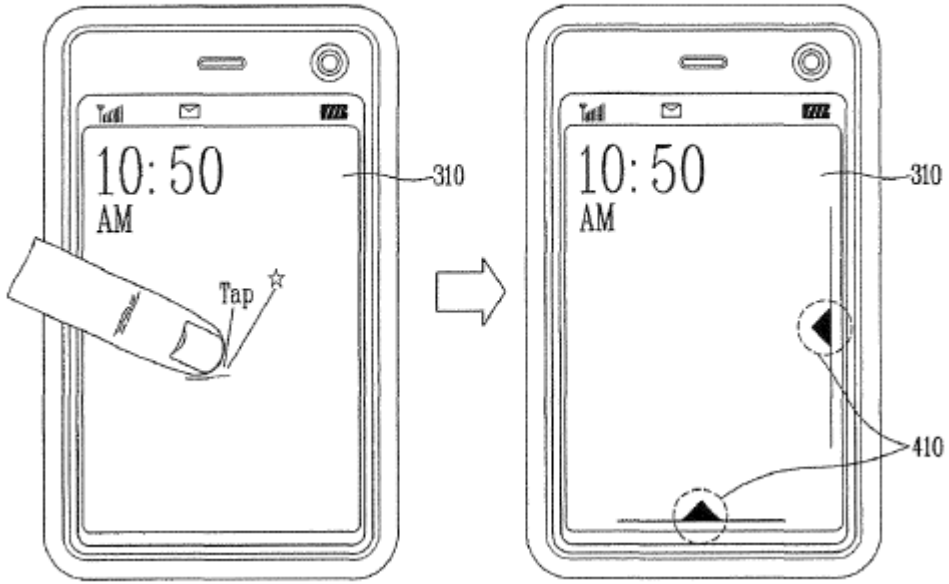
| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7B<br>  <br><br>Jeong at FIG. 7B. |

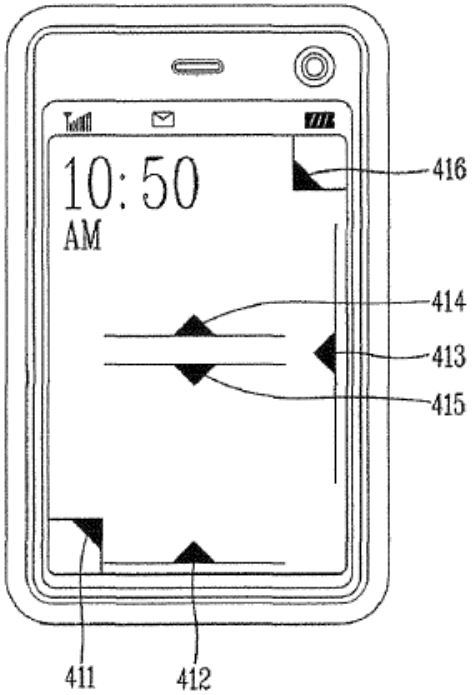
| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7C<br>  <br><br>Jeong at FIG. 7C. |

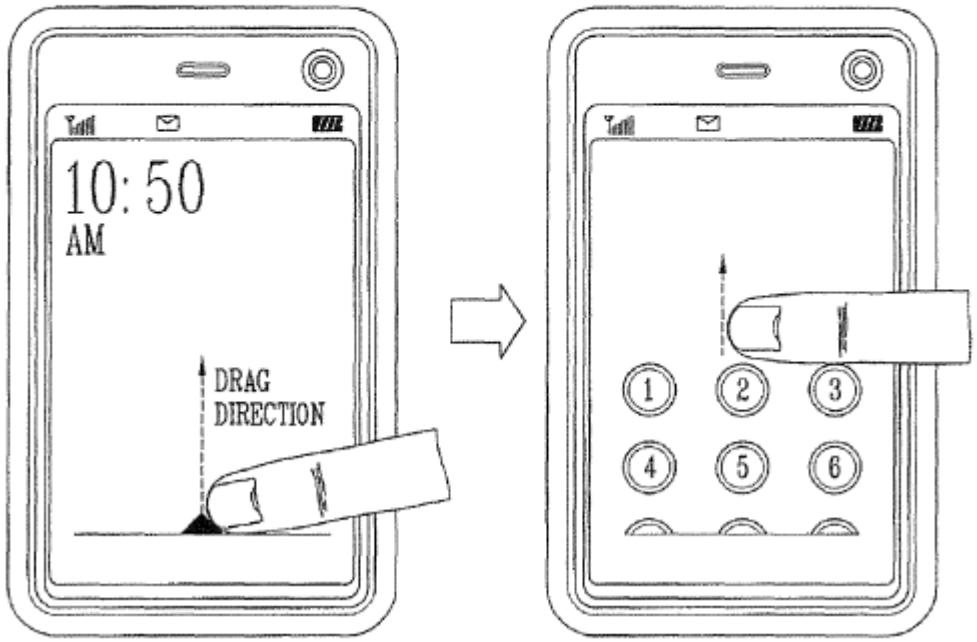
| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 9C<br>  <br><br>Jeong at FIG. 9C. |

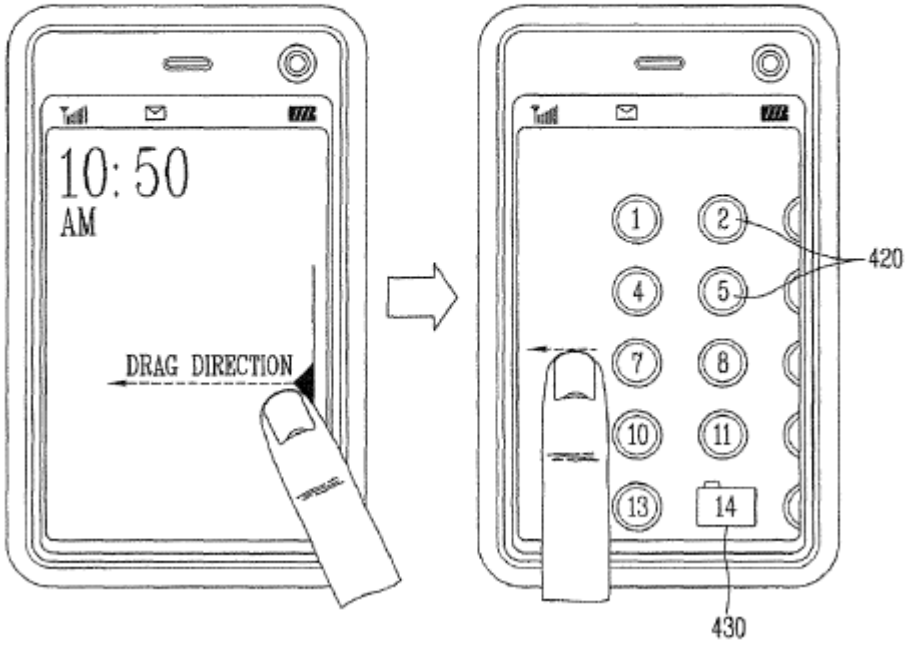
| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[4]** The system of claim 3, wherein said at least one bar | Claim 4 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. |

| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| extends along a substantial portion of an edge of the touch screen. | Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 4 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one bar extends along a substantial portion of an edge of the touch screen."<br><br>For example, Jeong discloses that the at least one bar extends along a substantial portion of an edge of the touch screen, such as along a substantial portion of the bottom and/or side edges, as shown in FIGS. 6A, 7B, and 7C.<br><br>Exemplary citations include: |

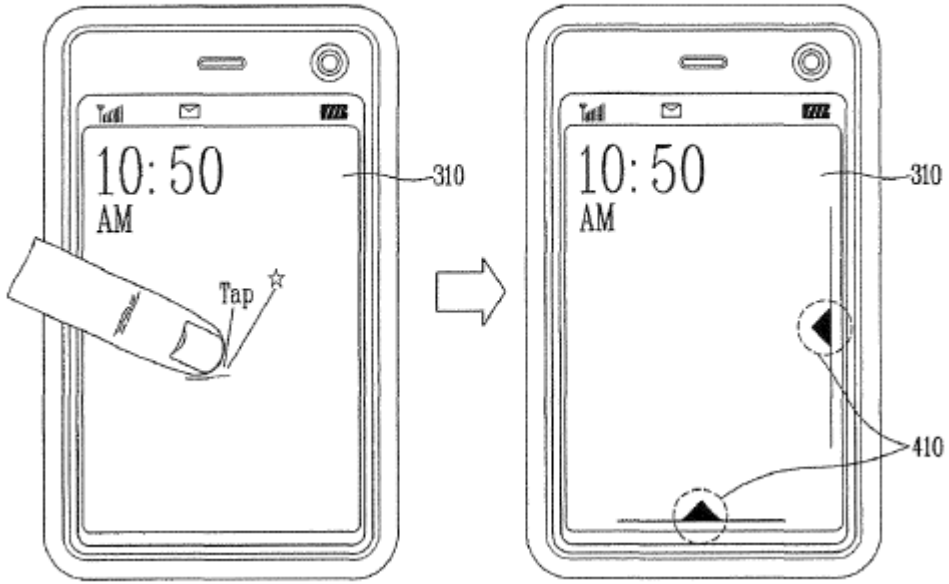
| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 6A<br>  <br><br>Jeong at FIG. 6A. |

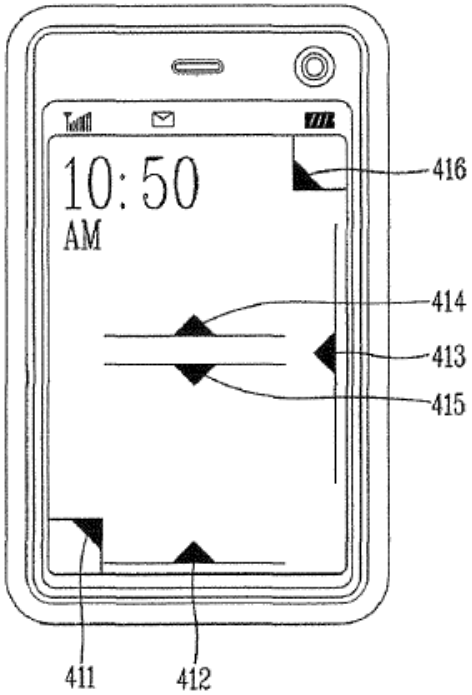
| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 6B<br>  <br><br>Jeong at FIG. 6B. |

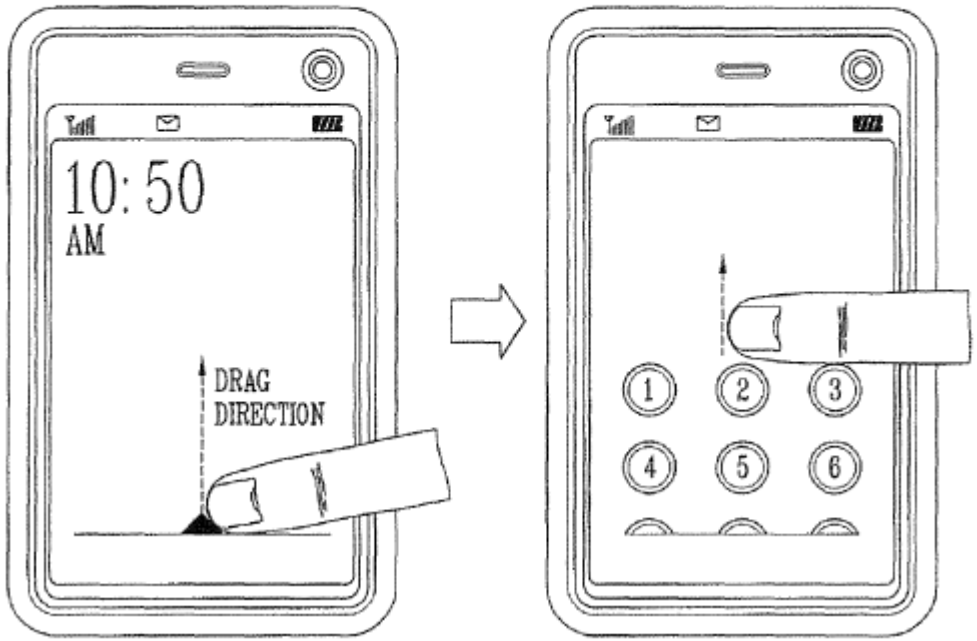
| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7B<br>  <br><br>Jeong at FIG. 7B. |

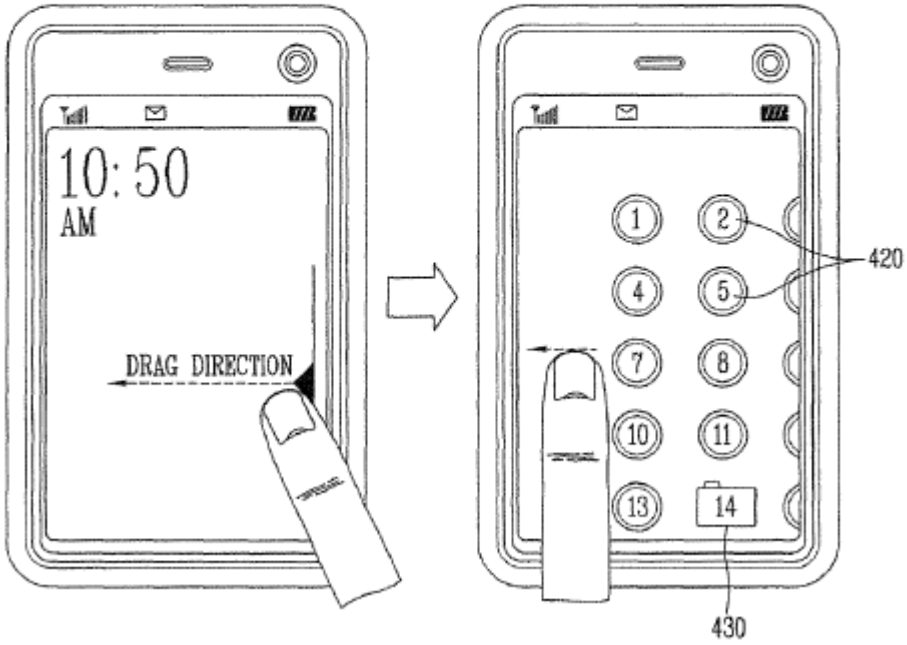
| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7C<br>  <br><br>Jeong at FIG. 7C. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[5]** The system of claim 3, wherein said bar is in a form of a line. | Claim 5 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 5 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said bar is in a form of a line."<br><br>For example, Jeong discloses that the tags 330/410 may be in the shape of a bar in the form of a line indicating the boundary region from which the menu screen image appears, such as shown in FIGS. 6A, 6B, 7B, 7C. Jeong at [0056].<br><br>Exemplary citations include: |

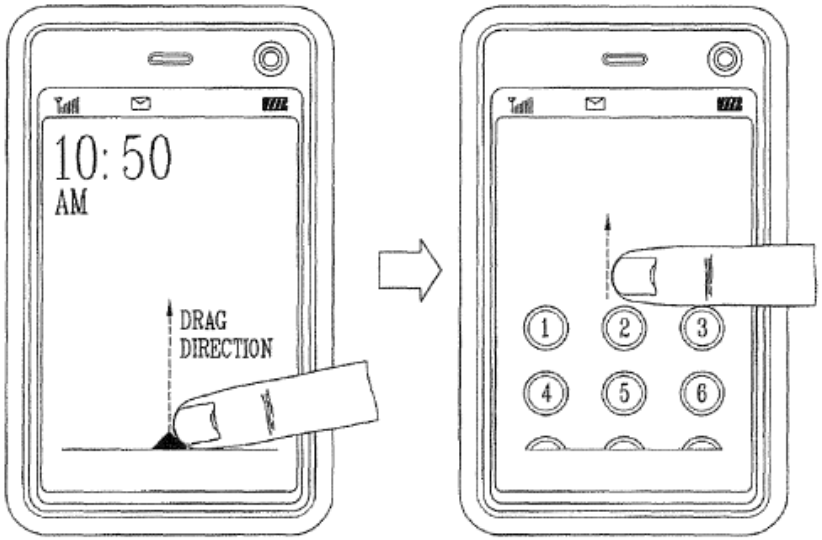
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 6A<br>  <br><br>Jeong at FIG. 6A. |

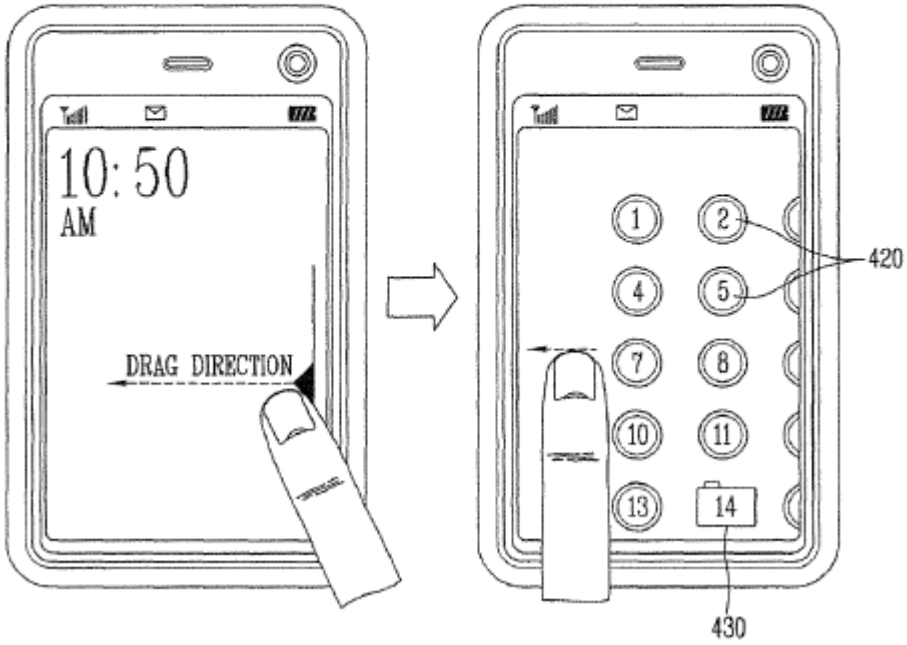
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 6B<br>  <br><br>Jeong at FIG. 6B. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7B<br>  <br><br>Jeong at FIG. 7B. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7C<br>  <br><br>Jeong at FIG. 7C. |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[6]** The system of claim 5, wherein said action is displaying an interface on the screen. | Claim 6 depends from claims 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 1, 3, and 5 here, which anticipate and/or render claims 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 5, 3, and 1 to show the additional limitations of claim 6 are anticipated and/or obvious for the same reasons set out in claims 5, 3, and 1.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying an interface on the screen."<br><br>For example, Jeong discloses that "[a] tag may be graphical user interface (GUI) object associated with a functional interface which allows a user to expose or hide from view other GUI objects on the mobile terminal 100's display" Jeong at [0049], FIGS. 5, 6A-6B, 7A-7C. Jeong discloses that "[t]he menu item displayed on the background screen image 310 may include an icon for executing a program" and "the menu item may include a 'group menu item' 430 for retrieving a menu item of a different group and displaying it on the background screen." *Jeong*, [0052], [0053], FIGS. 7B-7C. The user may select a menu item icon to execute a program. "The menu item displayed on the background screen image 310 may include an icon for executing a program." Jeong at [0052].<br><br>Exemplary citations include: |

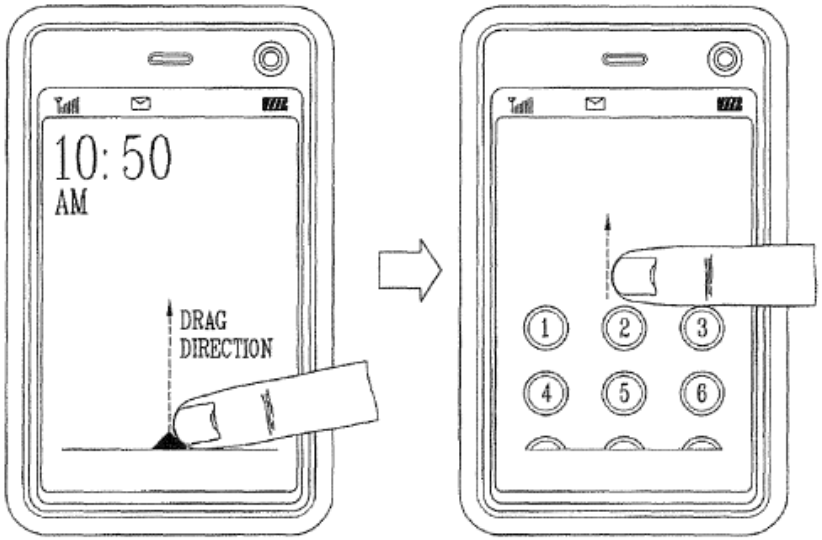
| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7B<br>  <br><br>Jeong at FIG. 7B. |

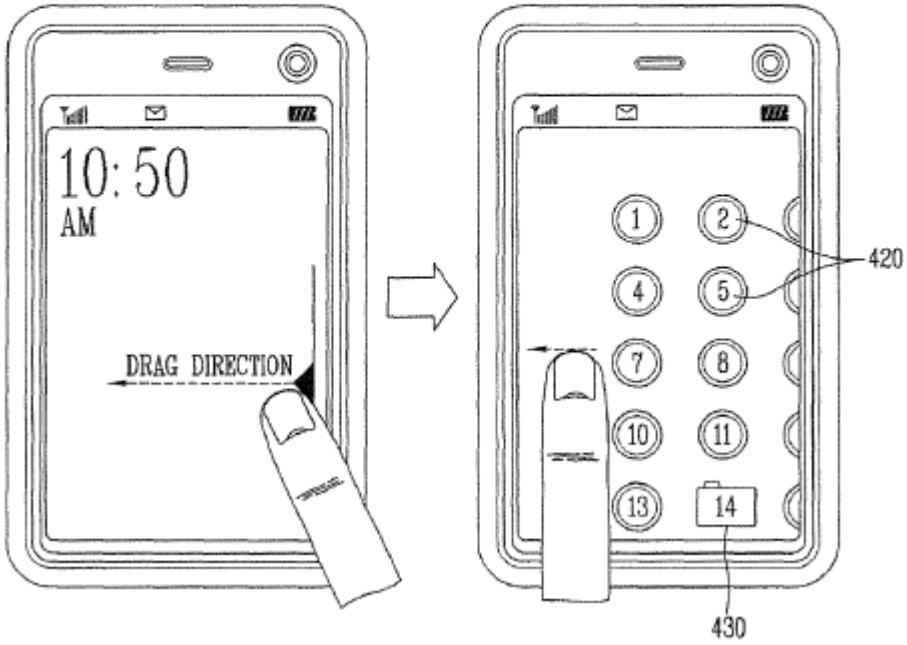
| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7C<br>  <br><br>Jeong at FIG. 7C.<br>"The tag 330 may be displayed in a shape (e.g., an arrow) indicating a direction in which the menu screen image 320 is exposed or a direction in which the tag 330 can be dragged. For example, the tag 330 may have a triangular shape or an arrow shape. Accordingly, the tag 330 may be displayed by changing its direction according to whether the menu screen image 320 is exposed or hidden from view. The menu item displayed on the background screen image 310 may include an icon for |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | executing a program. In addition, the menu item may include a 'group menu item' 430 for retrieving a menu item of a different group and displaying it on the background screen." Jeong at [0052].<br><br>"As shown in FIG. 7C, a 'group menu item' 430 may be displayed in the shape that can be discriminated from the menu item for executing the program. However, it may not be limited to the shape as shown in FIG. 7C. Menu screen image 320, which refers to a screen image including a plurality of menu items (or icons), is visually distinguished from the background screen image(s) 310 and may be translucent (i.e., semi-transparent) to allow the background screen image(s) 310 to be seen there through. In this case, an environment setting menu may be provided to allow the degree of transparency of the menu screen to be adjusted." Jeong at [0053].<br><br>"The respective menu items displayed on the menu screen image 320 may be indicated by icons of certain shapes or images. The menu items may be arranged in an arbitrary format by combining rows and columns or may be arranged randomly by disregarding rows and columns. The menu screen image 320 may be shown at or be hidden from a particular region of the screen, by setting at least one of a side portion, a corner portion, or a central portion of the touch screen as a boundary region from which the menu screen image 320 can appear or disappear, and the tag 330 (or other graphical indicator) can be used to indicate the boundary region." Jeong at [0056].<br><br>"The menu items displayed on the menu screen image 320 may include a group menu item 430 indicating a menu item included in a different menu group, and it may be displayed to be different from the menu items 420 for executing a program." Jeong at [0059]. |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[7]** The system of claim 5, wherein said action is | Claim 7 depends from claims 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 5, 3, and 1 here, which anticipate and/or render claims 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| displaying a portion of an interface on the screen. | and evidence set out for claims 5, 3, and 1 to show the additional limitations of claim 7 are anticipated and/or obvious for the same reasons set out in claims 5, 3 and 1.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying a portion of an interface on the screen."<br><br>For example, Jeong discloses that "[a] tag may be graphical user interface (GUI) object associated with a functional interface which allows a user to expose or hide from view other GUI objects on the mobile terminal 100's display" Jeong at [0049], FIGS. 5, 6A-6B, 7A-7C. Jeong discloses that "[t]he menu item displayed on the background screen image 310 may include an icon for executing a program" and "the menu item may include a 'group menu item' 430 for retrieving a menu item of a different group and displaying it on the background screen." Jeong, [0052], [0053], FIGS. 7B-7C. The user may select a menu item icon to execute a program. "The menu item displayed on the background screen image 310 may include an icon for executing a program." Jeong at [0052].<br><br>Exemplary citations include: |

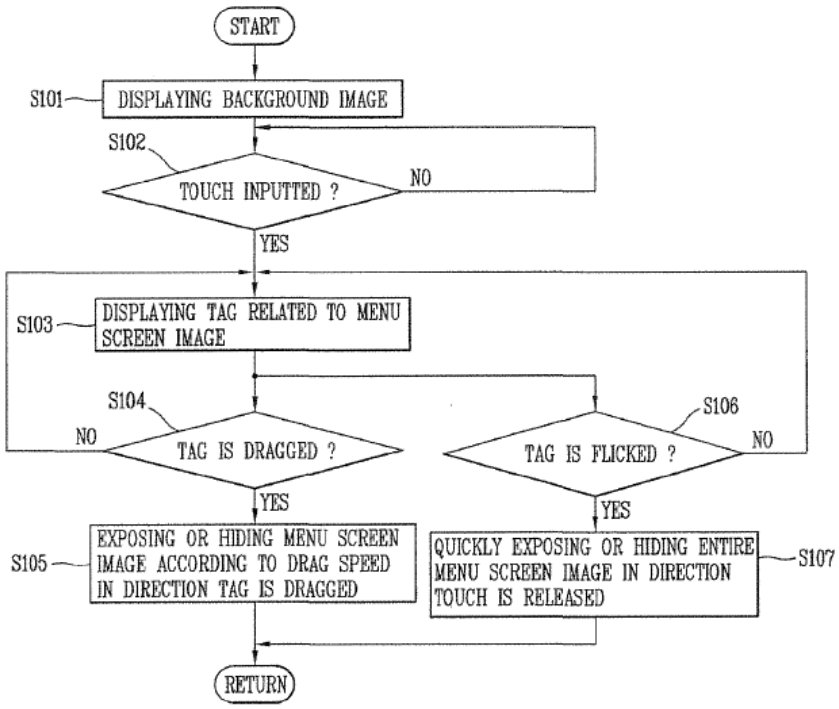
| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7B<br>  <br><br>Jeong at FIG. 7B. |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7C<br>  <br><br>Jeong at FIG. 7C.<br>"The tag 330 may be displayed in a shape (e.g., an arrow) indicating a direction in which the menu screen image 320 is exposed or a direction in which the tag 330 can be dragged. For example, the tag 330 may have a triangular shape or an arrow shape. Accordingly, the tag 330 may be displayed by changing its direction according to whether the menu screen image 320 is exposed or hidden from view. The menu item displayed on the background screen image 310 may include an icon for |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | executing a program. In addition, the menu item may include a 'group menu item' 430 for retrieving a menu item of a different group and displaying it on the background screen." Jeong at [0052].<br><br>"As shown in FIG. 7C, a 'group menu item' 430 may be displayed in the shape that can be discriminated from the menu item for executing the program. However, it may not be limited to the shape as shown in FIG. 7C. Menu screen image 320, which refers to a screen image including a plurality of menu items (or icons), is visually distinguished from the background screen image(s) 310 and may be translucent (i.e., semi-transparent) to allow the background screen image(s) 310 to be seen there through. In this case, an environment setting menu may be provided to allow the degree of transparency of the menu screen to be adjusted." Jeong at [0053].<br><br>"The respective menu items displayed on the menu screen image 320 may be indicated by icons of certain shapes or images. The menu items may be arranged in an arbitrary format by combining rows and columns or may be arranged randomly by disregarding rows and columns. The menu screen image 320 may be shown at or be hidden from a particular region of the screen, by setting at least one of a side portion, a corner portion, or a central portion of the touch screen as a boundary region from which the menu screen image 320 can appear or disappear, and the tag 330 (or other graphical indicator) can be used to indicate the boundary region." Jeong at [0056].<br><br>"The menu items displayed on the menu screen image 320 may include a group menu item 430 indicating a menu item included in a different menu group, and it may be displayed to be different from the menu items 420 for executing a program." Jeong at [0059]. |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[8]** The system of claim 7, wherein during said gliding action, a length of the portion of the interface being | Claim 8 depends from claims 7, 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 7, 5, 3, and 1 here, which anticipate and/or render claims 7, 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| displayed is substantially equal to a length of the gliding action. | rationale and evidence set out for claims 7, 5, 3, and 1 to show the additional limitations of claim 8 are anticipated and/or obvious for the same reasons set out in claims 7, 5, 3, and 1.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>For example, Jeong discloses the length of the portion of the menu screen image shown is proportional to the "drag distance," which may cause "some of the menu items [to] be displayed while others may not be displayed "according to the drag distance." Jeong at [0054]. For example, Jeong explains that "[i]f [the] tag dragging is stopped before the entire menu screen image 320 is exposed, or when the touch to the tag being dragged is released, the menu screen maintains a currently exposed state as it is." Jeong at [0059].<br><br>Exemplary citations include: |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 5<br>  <br><br>Jeong at FIG. 5.<br>"A mobile terminal comprising a display module to display a tag and to display a menu screen image related to the tag at one portion of a background image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance; an input unit to detect a touch input with respect to the display module or the tag to determine the dragging |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | direction and the dragging distance; and a controller to expose or hide the menu screen image according to the dragging direction the dragging distance of the inputted touch." Jeong at Abstract.<br><br>"To achieve these and other objectives and in accordance with the purpose of the present disclosure, as embodied and broadly described herein, the present disclosure provides in one aspect a mobile terminal comprising: a display module to display a tag (i.e., an interactive object) and to display a menu screen image related to the tag at one portion of a background screen image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance; an input unit to detect a touch input with respect to the display module or the tag to determine the dragging direction and the dragging distance; and a controller to expose or hide the menu screen image according to the dragging direction the dragging distance of the inputted touch." Jeong at [0006].<br><br>"To achieve these and other advantages and in accordance with the purpose of the present disclosure, as embodied and broadly described herein, the present disclosure provides in another aspect a method for displaying a menu of a mobile terminal, comprising: a means of displaying a tag and a menu screen image related to the tag at one portion of a background screen image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance; a means of detecting a touch input with respect to a display module or the tag to determine the dragging direction and the dragging distance; and a means of exposing or hiding the menu screen image according to the dragging direction and the dragging distance of the inputted touch." Jeong at [0007].<br><br>"The menu screen image 320 may expose some of the menu items while hiding other items according to the distance along which the tag 330 is dragged. Namely, some of the menu items may be displayed while others may not be displayed according to the drag distance. Also, the controller 180 may determine the type of touch that was or is being performed when the user touches or releases the tag (icon) 330 based upon at least one of the number of touches, a contact time, contact speed, contact direction, contact pressure and contact surface area, or any combination thereof." Jeong at [0054].<br><br>"The menu items displayed on the menu screen image 320 may include a group menu item 430 indicating a menu item included in a different menu group, and it may be displayed to be different from the menu items 420 for executing a program. If tag dragging is stopped before the entire menu |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | screen image 320 is exposed, or when the touch to the tag being dragged is released, the menu screen maintains a currently exposed state as it is. That is, while flicking results in exposing or hiding the entire menu screen image 320, dragging allows adjusting of the degree of exposing or hiding of the menu screen image 320 in accordance with the speed and direction of the dragging motion." Jeong at [0059].<br><br>"The method for displaying a menu screen image 320 when a screen image executing a particular menu is displayed on a background screen will now be described with reference to FIGS. 9A to 9E. As shown in FIG. 9A, if it is assumed that a particular menu has been already executed and the corresponding execution screen image 510 is displayed on the background screen image 310, if the region of the exposed menu screen increases, the size of the region where the executed screen image 510 is displayed would be reduced inverse-proportionally. For example, if the menu screen image 320 is dragged to appear in a state that a video reproduction image has been displayed, the region of the exposed menu screen image 320 is gradually increased while the size of region where the video reproduction image is displayed is gradually reduced." Jeong at [0061].<br><br>"Instead of adjusting the size of the executed screen image 510 according to an environment setting option, a portion of the region where the executed screen image 510 like the menu screen image 320 is displayed may be allowed to appear or be hidden as shown in FIG. 9E. Namely, as the exposure region of the menu screen image 320 increases, the exposure region of the executed screen image 510 may be reduced inverse-proportionally. Also, as the exposure region of the menu screen image 320 is reduced, the exposure region of the executed screen image 510 may be increased inverse-proportionally." Jeong at [0064]. |

| Claim 9 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[9]** The system of claim 3, wherein said action is displaying an interface on the screen. | Claim 9 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale |

| Claim 9 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | and evidence set out for claims 3 and 1 to show the additional limitations of claim 9 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying an interface on the screen."<br><br>Claim 9 recites substantially the same limitations as claim 6 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 6. *See, e.g.*, *supra* claim 6.<br><br>As discussed *supra* claim 6, Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said action is displaying an interface on the screen." *See supra* claim 6. |

| Claim 10 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[10]** The system of claim 3, wherein said action is displaying a portion of an interface on the screen. | Claim 10 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 10 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying a portion of an interface on the screen."<br><br>Claim 10 recites substantially the same limitations as claim 7 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 7. *See, e.g.*, *supra* claim 7. |

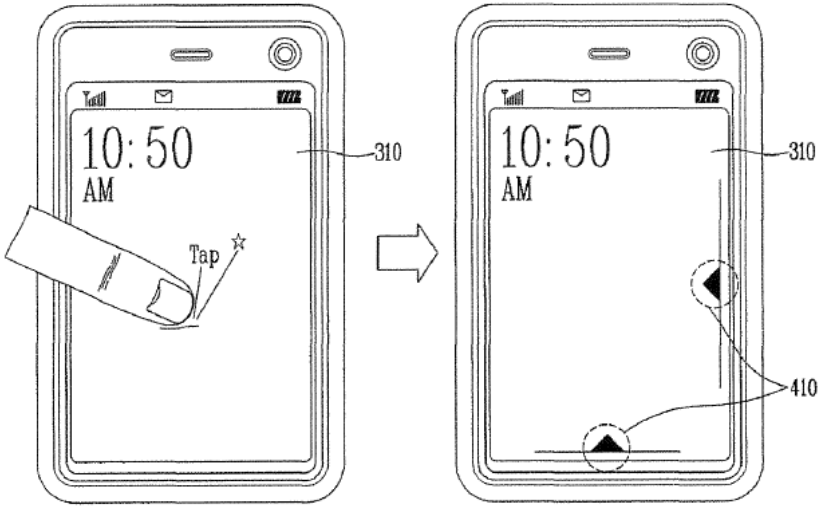
| Claim 10 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | As discussed *supra* claim 7, Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said action is displaying a portion of an interface on the screen." *See supra* claim 7. |

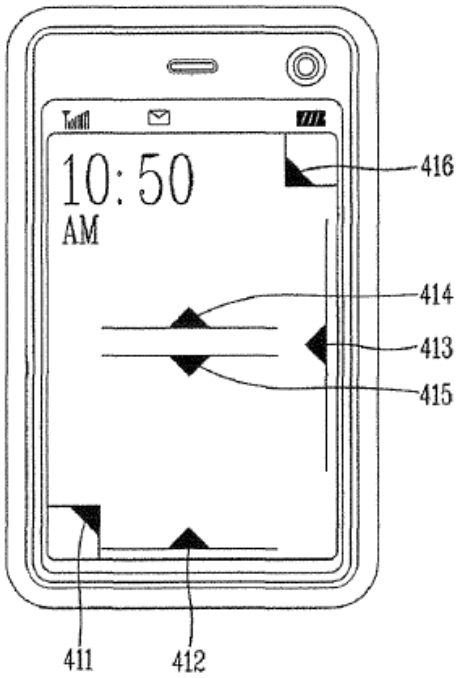
| Claim 11 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[11]** The system of claim 10, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 11 depends from claims 10, 3, and 1. Defendants incorporate all the prior art disclosures from claims 10, 3, and 1 here, which anticipate and/or render claims 10, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 10, 3, and 1 to show the additional limitations of claim 11 are anticipated and/or obvious for the same reasons set out in claims 10, 3, and 1.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>Claim 11 recites substantially the same limitations as claim 8 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 8. *See, e.g.*, *supra* claim 8.<br><br>As discussed *supra* claim 8, Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claim 8. |

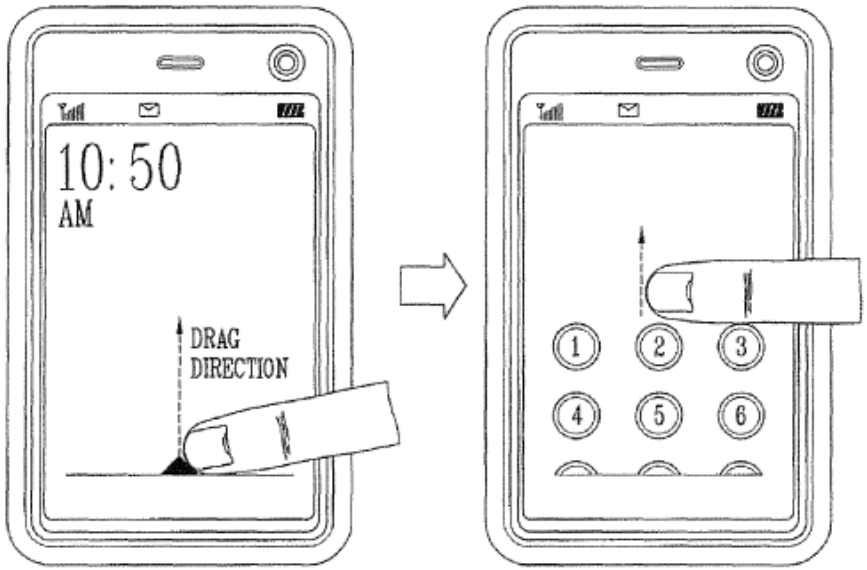
| Claim 12 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[12]** The system of claim 1, wherein upon detecting said gliding action, the system displays an interface on said touch screen. | Claim 12 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 12 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said gliding action, the system displays an interface on said touch screen."<br><br>Claim 12 recites substantially the same limitations as claims 6 and 9 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6 ad 9. *See, e.g.*, *supra* claims 6, 9.<br><br>As discussed *supra* claims 6 and 9, Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "upon detecting said gliding action, the system displays an interface on said touch screen." *See supra* claims 6, 9. |

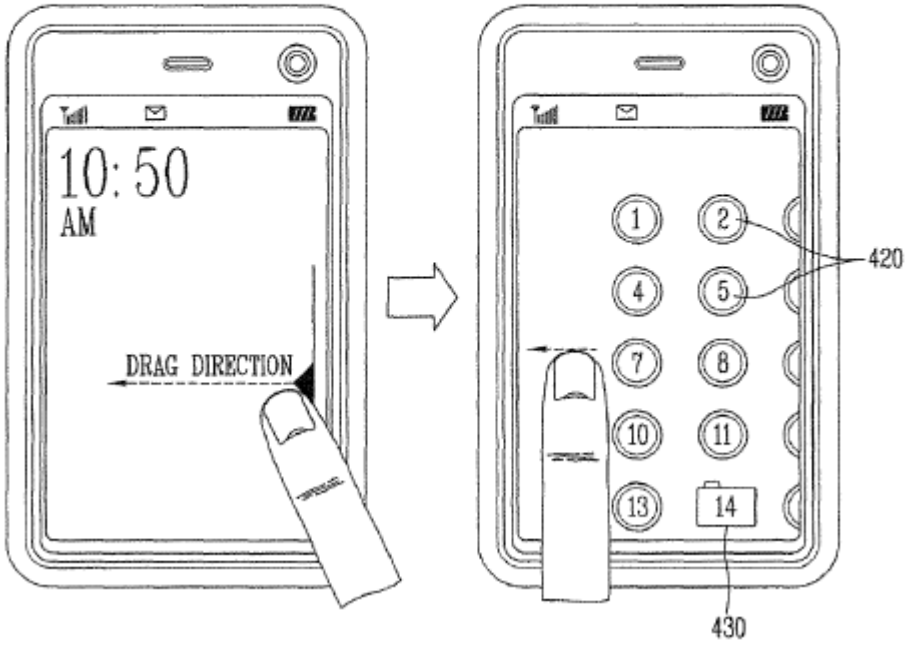
| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[13]** The system of claim 12, wherein upon detecting said gliding action, the system relates said gliding action to setting the location of said interface on said touch screen. | Claim 13 depends from claims 12 and 1. Defendants incorporate all the prior art disclosures from claims 12 and 1 here, which anticipate and/or render claims 12 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 12 and 1 to show the additional limitations of claim 13 are anticipated and/or obvious for the same reasons set out in claims 12 and 1.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said gliding |

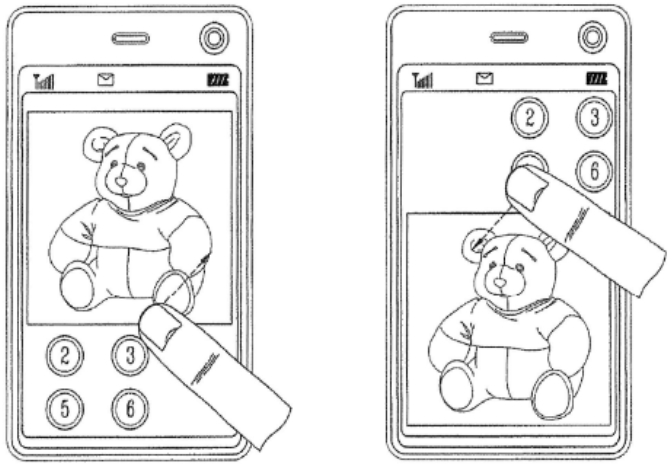
| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | action, the system relates said gliding action to setting the location of said interface on said touch screen."<br><br>For example, Jeong discloses the mobile terminal 100, upon detecting the user's gliding action on the tag 330/410, relates the gliding action to setting the location of the interface (e.g., application menu interface) on the touch screen by exposing how much of the menu is shown, as explained in claims 1, 7, and 8. *See supra* claims 1, 7, 8.<br><br>Moreover, Jeong's FIGS. 7B and 7B "shows a second example of displaying a menu screen by dragging a tag in FIG. 6B." Jeong at [0018], [0019], FIGS. 6B, 7B, 7C. The menus displayed from the two tags (bottom tag in 7B and side tag in 7C) show the same application icons, which suggests displaying the same menu from different directions.<br><br>In another example, Jeong's system changes the location of the interface corresponding to the tag from which the gliding action starts from below an executed screen image to above an executed screen image, according to the distance of the gliding action. Jeong at [0062], FIG. 9D. For example, during the user's gliding action to drag/slide open the tag menu, the location of a portion of the tag menu interface being displayed changes based on the location of the user's finger.<br><br>Exemplary citations include: |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 6A<br>  <br><br>Jeong at FIG. 6A. |

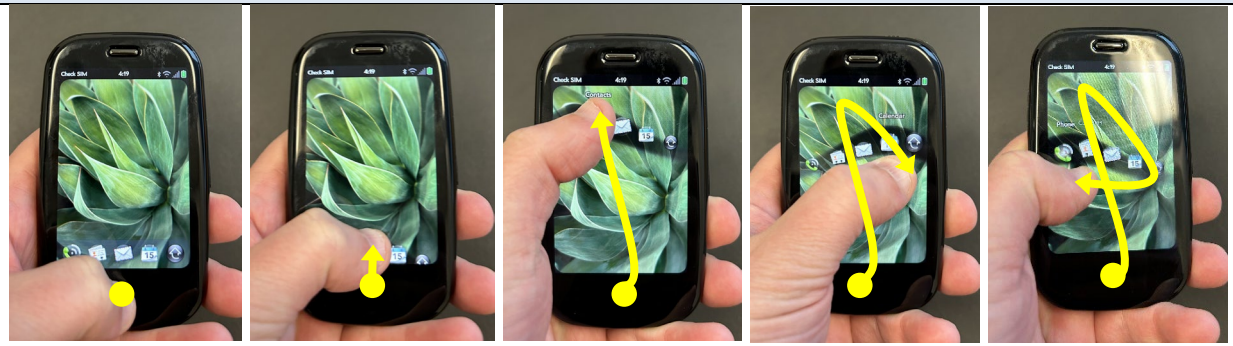
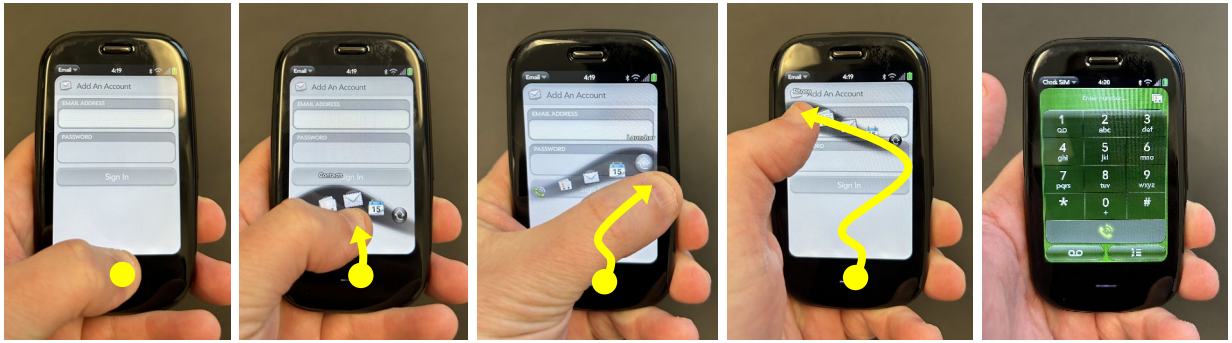
| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 6B<br>  <br><br>Jeong at FIG. 6B. |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7B<br>  <br><br>Jeong at FIG. 7B. |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7C<br>  <br><br>Jeong at FIG. 7C. |

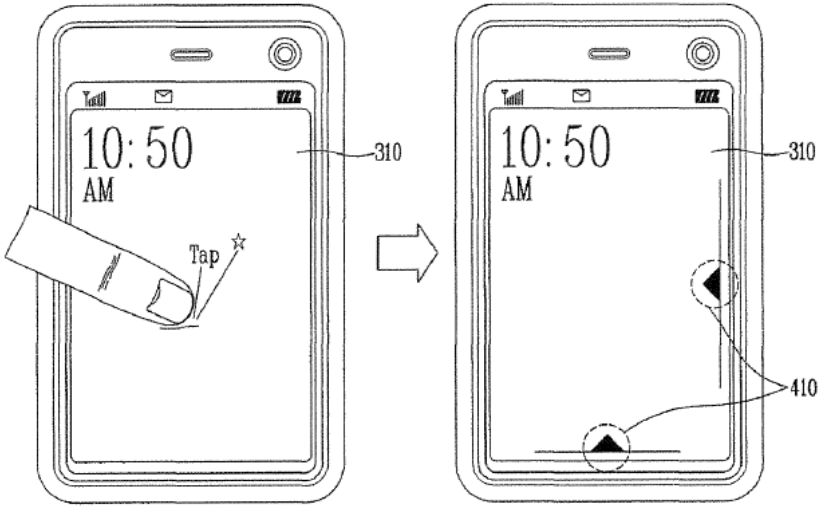
| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 9D<br>  <br><br>(a) (b)<br>Jeong at FIG. 9D.<br>"A display position of the re-sized executed screen image 510 may vary according to a direction in which the menu screen image 320 is dragged. For example, as shown in FIG. 9A, when the menu screen image 320 is dragged in a downward direction, the re-sized executed screen image 510 may be displayed at an upper portion. As shown in FIG. 9B, if the menu screen image 320 is dragged from the right side, it may be displayed at the left portion. In addition, as shown in FIG. 9C, if the menu screen image 320 is dragged from one corner portion, the executed screen image 510 may be displayed at a corner potion of its opposite side. As shown in FIG. 9D, even if the menu screen image 320 is dragged from one corner portion, the executed screen image 510 may be displayed at up/down portion (a) or left/right portion (b)." Jeong at [0062]. |

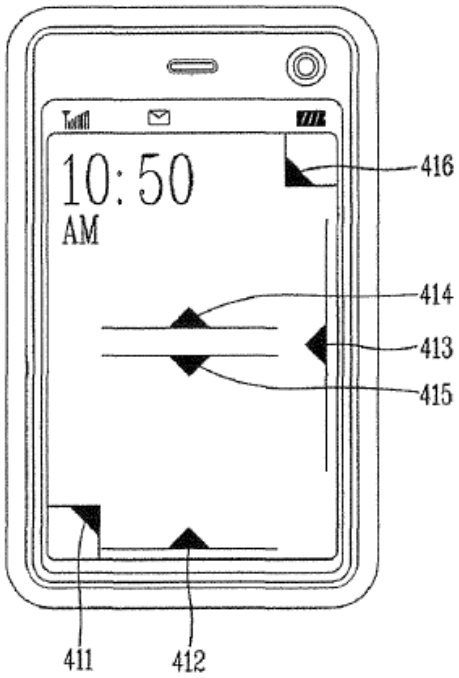
| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | To the extent Keyless argues that Jeong does not disclose or render obvious the additional limitations of claim 13, it would have been obvious in view of Jeong, POSITA's pre-existing knowledge, and/or Jeong combined with the other references charted for this patent in these invalidity contentions, including Tseng and the Palm Pre. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>Tseng teaches that, upon detecting the user's gliding action, the system relates the gliding action to setting the location of the message area interface on the touch screen by "stick[ing]" the edge of the interface to the user's finger. Tseng at [0029]. Tseng explains the message area 206/226 may remain "partially" open. Tseng at [0046]. As another example, Tseng explains that, in one embodiment, "if a user drags the bar quickly and releases it, the bar may continue moving until its momentum runs out *or* until it hits the bottom of the display," meaning that it is possible for the message area to stop before the bottom of the display is reached. Tseng at [0060]. As another example, Tseng explains that, in one embodiment, "if the user pulls the bar below a determined level on the display, the bar may automatically keep moving until it reaches the bottom of the display, or until it reaches a graphical element that it is not allowed to pass over." Tseng at [0060].<br><br>The Palm Pre teaches, as one example, that upon detecting a user's gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area and upwards towards the main application display, the system relates the gliding action to setting the location of the Quick Launch interface by moving the location of the interface with the user's gliding action on the touch screen both when the Quick Launch window is shown on the screen and when the Quick Launch interface is displayed while an application is displayed on the screen, such as shown below. |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Palm Pre.<br>  <br>Palm Pre.<br>A POSITA would have found it obvious to incorporate one or more of Tseng's and/or the Palm Pre's teaching of relating the gliding action to setting the location of the interface on the touch screen upon detecting the gliding action. A POSITA would have recognized the advantage of incorporating a quick launch bar into Jeong's system that travels with the user's gesture, as taught by the Palm Pre to make selection of the desired application from the Quick Launch interface easier because the user's touch does not need to be as precise on a static interface. A POSITA would have been motivated to include such Quick Launch from a thin window, such as a line or bar taught by Jeong, Roth, and Roth Bezel Swipe, when an application is displayed on the touch screen or an invisible window as taught by the Palm Pre, to provide the user with efficient and quick access to a |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | desired subset of applications shown in the Quick Launch interface. Indeed, Jeong already provides similar functionality, and Palm Pre's Quick Launch would have been another well-known technique for displaying menu icons for selection without modifying an already-displayed interface, such as an execution menu screen. A POSITA also would have recognized the advantages of allowing the tabs of Jeong to remain partially open at a location on the screen, as taught by Tseng, to provide the user with easier access to desired portions of the interface(s) without having to open the entire interface. A POSITA would have been motivated to provide this functionality for similar reasons discussed in claims 1, 7, and 8 above.<br><br>It was well known to a POSITA to implement interfaces, such as partially open interface locations taught by Tseng and/or the Quick Launch interface of the Palm Pre, that launch based on a gliding action from an activation area using windows that are bars in the form of a line for the activation area (e.g., tags), which merely uses conventional graphics rendering, thus representing a mere design choice as to the shape of the activation area. Relating the user's gliding action to setting the location of the interface on the touch screen was also well known, as taught by Tseng and/or the Palm Pre. Moreover, a POSITA would have been motivated to implement the Palm Pre's Quick Launch interface to provide access to the applications list when another application is open full screen.<br><br>The system relating the user's gliding action to setting the location of the interface on the touch screen upon detecting the gliding action was routine and conventional to POSITAs, as shown by Jeong, Tseng, and/or the Palm Pre. Moreover, it was successfully implemented in commercial prior art devices, such as the Palm Pre. Incorporating the partial opening to set the location of the interface and/or a Quick Launch interface represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with Jeong, represent nothing more than combining prior art elements according to known methods and techniques (rendering the interface on the screen of Jeong either partially open or as a Quick Launch interface moving with the user's glide) to yield predictable results (to open the desired interface and set its location based on partial opening and/or as a Quick Launch interface moving with the user's gliding action). |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[15]** The system of claim 1, wherein said at least one window comprises more than one window located on one or more edges of the touch screen. | Claim 15 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 15 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window comprises more than one window located on one or more edges of the touch screen."<br><br>For example, Jeong discloses that the tags 330/410 may comprise more than one tag window located on more than one edge of the touch screen, such as shown in FIGS. 6A and 6B.<br><br>Exemplary citations include: |

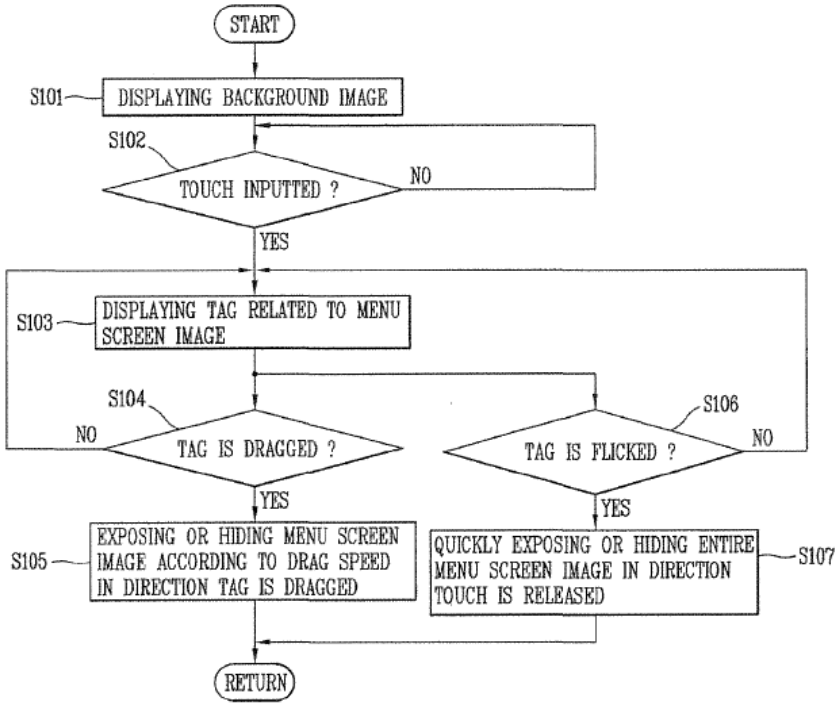
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 6A<br>  <br><br>Jeong at FIG. 6A. |

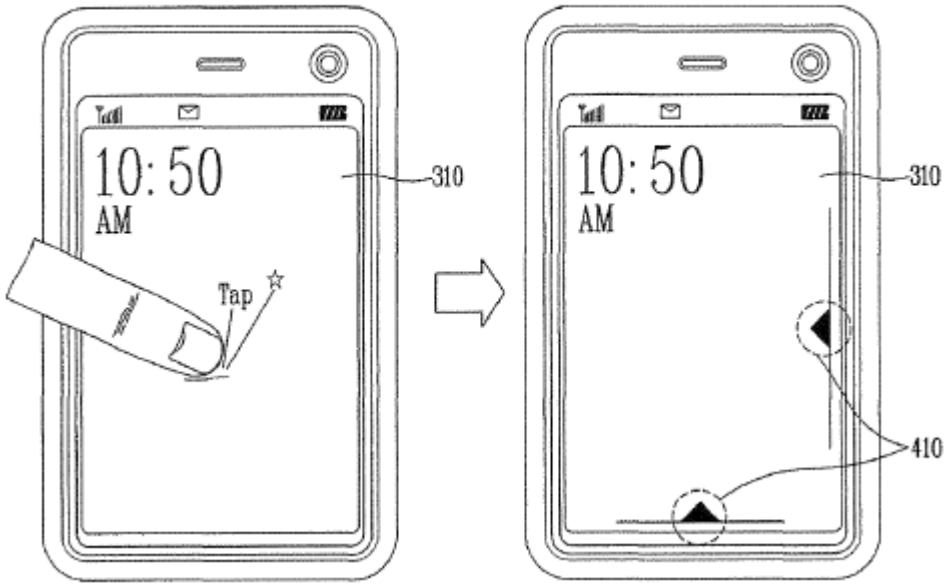
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 6B<br>  <br><br>Jeong at FIG. 6B. |

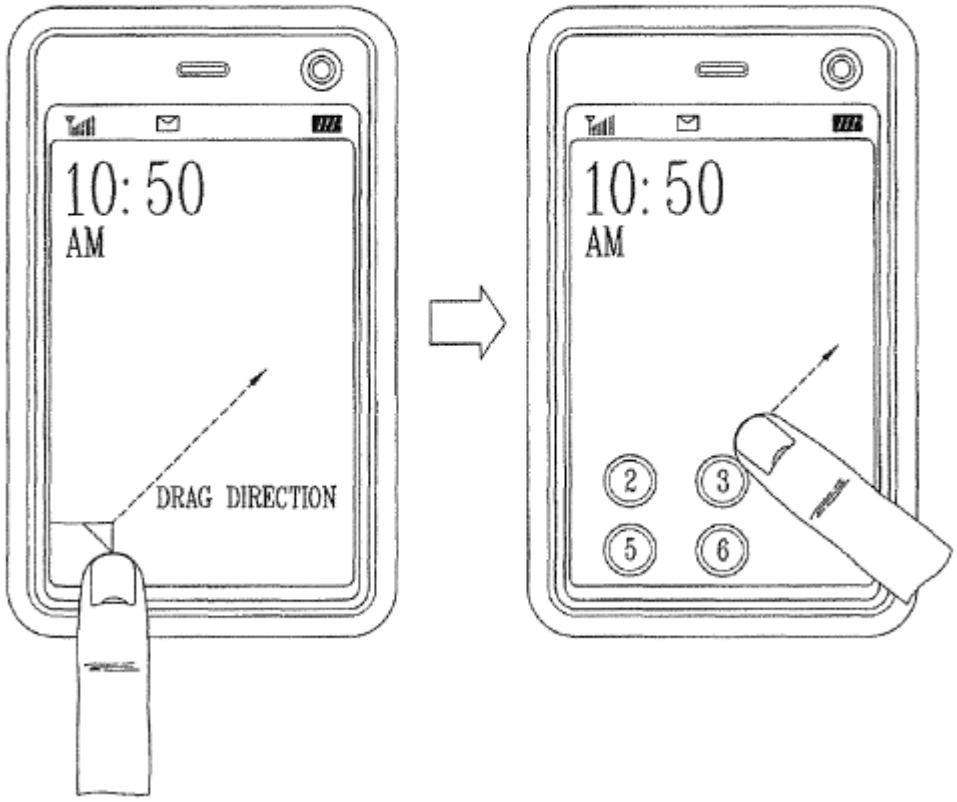
| Claim 16 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[16]** The system of claim 15, wherein said at least one window extends along a substantial portion of an edge of the touch screen. | Claim 16 depends from claims 15 and 1. Defendants incorporate all the prior art disclosures from claims 15 and 1 here, which anticipate and/or render claims 15 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 15 and 1 to show the additional limitations of claim 16 are anticipated and/or obvious for the same reasons set out in claims 15 and 1.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window extends along a substantial portion of an edge of the touch screen."<br><br>Claim 16 recites substantially the same limitations as claim 4 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 4. *See, e.g.*, *supra* claim 4.<br><br>As discussed *supra* claim 4, Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said at least one window extends along a substantial portion of an edge of the touch screen." *See supra* claim 4. |

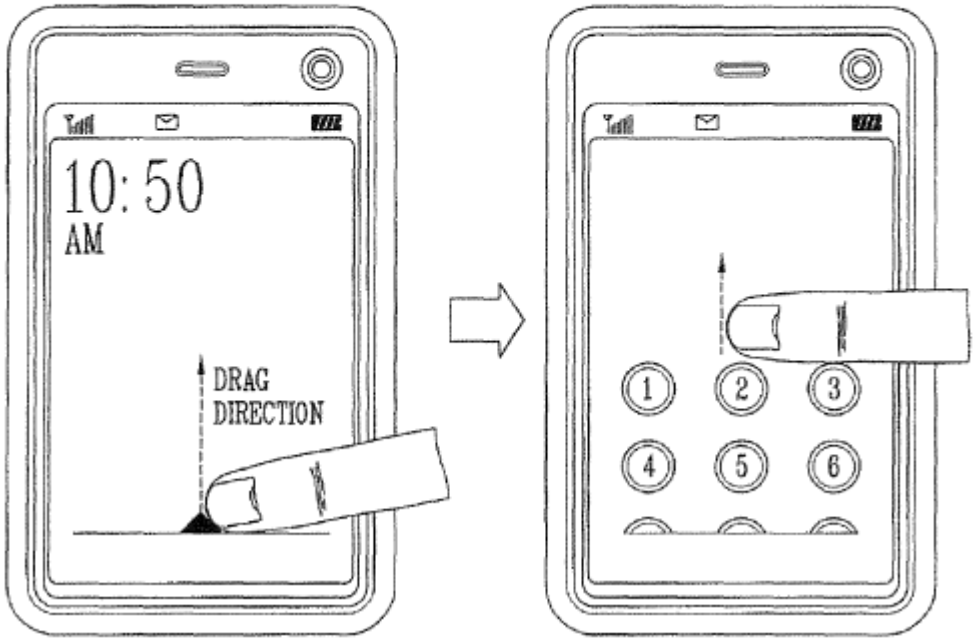
| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[17]** The system of claim 1, wherein during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen. | Claim 17 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 17 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during providing said gliding |

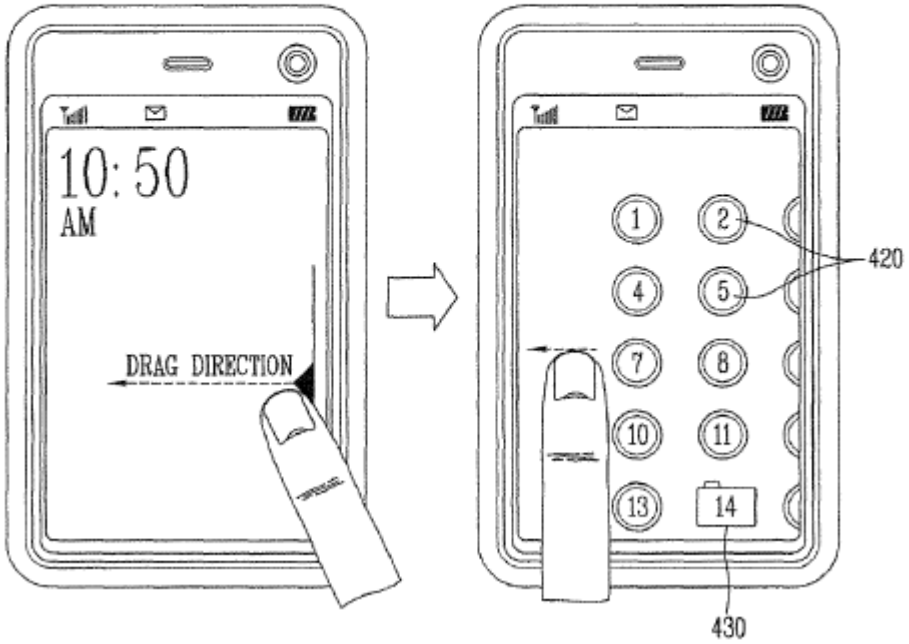
| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen."<br><br>For example, Jeong discloses that, during the gliding action, the mobile terminal 100 dynamically drags and shows the application menu interface with the user's finger, displaying an amount proportional to the distance the finger is dragged, as explained in claims 1, 6, 7, and 8. *See supra* claims 1, 6, 7, 8.<br><br>Jeong discloses "dragging a menu screen image in a tactile manner to allow the menu screen image to be exposed or hidden." Jeong at [0002]. Jeong describes "display[ing] a menu screen image related to the tag at one portion of a background screen image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance." Jeong at [0006]. As shown in example FIGS. 7B and 7C, the drag direction is from the edge of the screen towards the inside of the touch screen, first interacting with the tag window 330/410 on the touch screen. "The tag 330 may be displayed in a shape (e.g., an arrow) indicating a direction in which the menu screen image 320 is exposed or a direction in which the tag 330 can be dragged." Jeong at [0052], FIGS. 5, 7A-7C. "The menu screen image 320 may expose some of the menu items while hiding other items according to the distance along which the tag 330 is dragged." Jeong at [0054]. Jeong discloses the length of the portion of the menu screen image shown is proportional to the "drag distance," which may cause "some of the menu items [to] be displayed while others may not be displayed "according to the drag distance." Jeong at [0054]. For example, Jeong explains that "[i]f [the] tag dragging is stopped before the entire menu screen image 320 is exposed, or when the touch to the tag being dragged is released, the menu screen maintains a currently exposed state as it is." Jeong at [0059].<br><br>Exemplary citations include: |

| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 5<br>  <br><br>Jeong at FIG. 5. |

| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 6A<br>  <br><br>Jeong at FIG. 6A. |

| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7A<br>  <br><br>Jeong at FIG. 7A. |

| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7B<br>  <br><br>Jeong at FIG. 7B. |

| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7C<br>  <br><br>Jeong at FIG. 7C.<br>"A mobile terminal comprising a display module to display a tag and to display a menu screen image related to the tag at one portion of a background image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance; an input unit to detect a touch input with respect to the display module or the tag to determine the dragging |

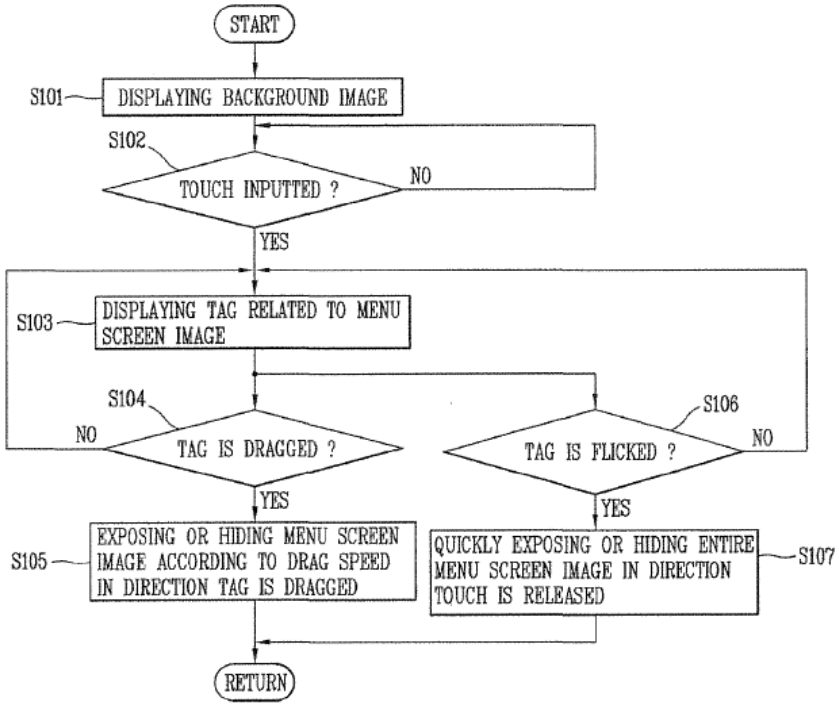
| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | direction and the dragging distance; and a controller to expose or hide the menu screen image according to the dragging direction the dragging distance of the inputted touch." Jeong at Abstract.<br><br>"The present disclosure relates to a method for dragging a menu screen image in a tactile manner to allow the menu screen image to be exposed or hidden by a background screen image, and a mobile terminal implementing the same." Jeong at [0002].<br><br>"To achieve these and other objectives and in accordance with the purpose of the present disclosure, as embodied and broadly described herein, the present disclosure provides in one aspect a mobile terminal comprising: a display module to display a tag (i.e., an interactive object) and to display a menu screen image related to the tag at one portion of a background screen image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance; an input unit to detect a touch input with respect to the display module or the tag to determine the dragging direction and the dragging distance; and a controller to expose or hide the menu screen image according to the dragging direction the dragging distance of the inputted touch." Jeong at [0006].<br><br>"To achieve these and other advantages and in accordance with the purpose of the present disclosure, as embodied and broadly described herein, the present disclosure provides in another aspect a method for displaying a menu of a mobile terminal, comprising: a means of displaying a tag and a menu screen image related to the tag at one portion of a background screen image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance; a means of detecting a touch input with respect to a display module or the tag to determine the dragging direction and the dragging distance; and a means of exposing or hiding the menu screen image according to the dragging direction and the dragging distance of the inputted touch." Jeong at [0007].<br><br>"The controller 180 typically controls the general operations of the mobile terminal 100. For example, the controller 180 performs controlling and processing associated with voice calls, data communications, video calls, and the like. In addition, the controller 180 may include a multimedia reproducing module 181 for reproducing (or playing back) multimedia data. The multimedia reproducing module 181 may be configured within the controller 180 or may be configured to be separated from the controller 180." Jeong at [0037]. |

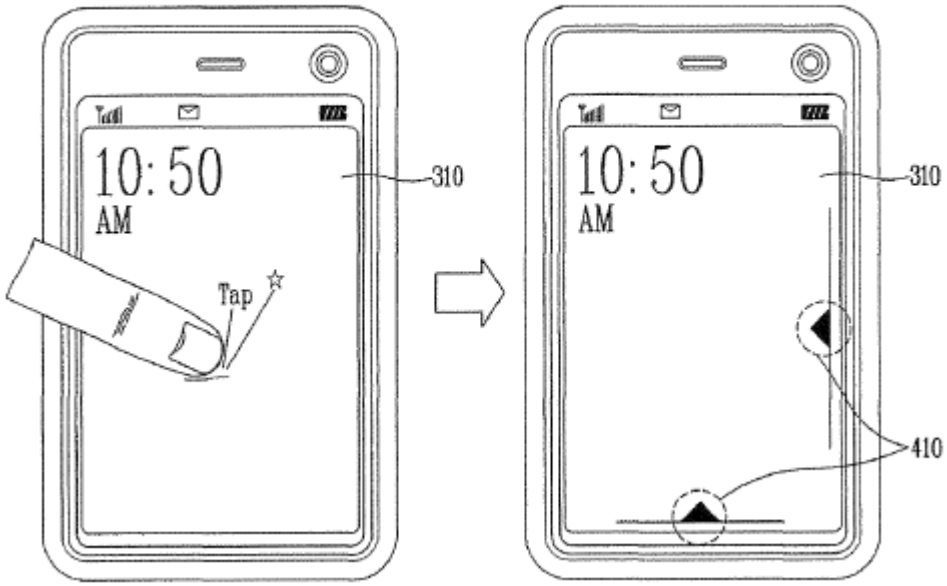
| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | "FIG. 4 shows a background screen image of the mobile terminal 100 according to one embodiment. As shown, the mobile terminal 100 may not display any menu item on a background image 310 in a standby mode or may simply display some menu items 321-323. A tag 330 related to a menu display may be displayed to allow the user to touch the tag 330 to drag it in a certain direction to expose the other remaining menu items that are usually hidden. A tag may be graphical user interface (GUI) object associated with a functional interface which allows a user to expose or hide from view other GUI objects on the mobile terminal 100's display." Jeong at [0050].<br><br>"The tag 330 may be displayed in a shape (e.g., an arrow) indicating a direction in which the menu screen image 320 is exposed or a direction in which the tag 330 can be dragged. For example, the tag 330 may have a triangular shape or an arrow shape. Accordingly, the tag 330 may be displayed by changing its direction according to whether the menu screen image 320 is exposed or hidden from view. The menu item displayed on the background screen image 310 may include an icon for executing a program. In addition, the menu item may include a 'group menu item' 430 for retrieving a menu item of a different group and displaying it on the background screen." Jeong at [0052].<br><br>"The menu screen image 320 may expose some of the menu items while hiding other items according to the distance along which the tag 330 is dragged. Namely, some of the menu items may be displayed while others may not be displayed according to the drag distance. Also, the controller 180 may determine the type of touch that was or is being performed when the user touches or releases the tag (icon) 330 based upon at least one of the number of touches, a contact time, contact speed, contact direction, contact pressure and contact surface area, or any combination thereof." Jeong at [0054].<br><br>"The menu items displayed on the menu screen image 320 may include a group menu item 430 indicating a menu item included in a different menu group, and it may be displayed to be different from the menu items 420 for executing a program. If tag dragging is stopped before the entire menu screen image 320 is exposed, or when the touch to the tag being dragged is released, the menu screen maintains a currently exposed state as it is. That is, while flicking results in exposing or hiding the entire menu screen image 320, dragging allows adjusting of the degree of exposing or hiding of the menu screen image 320 in accordance with the speed and direction of the dragging motion." Jeong at [0059]. |

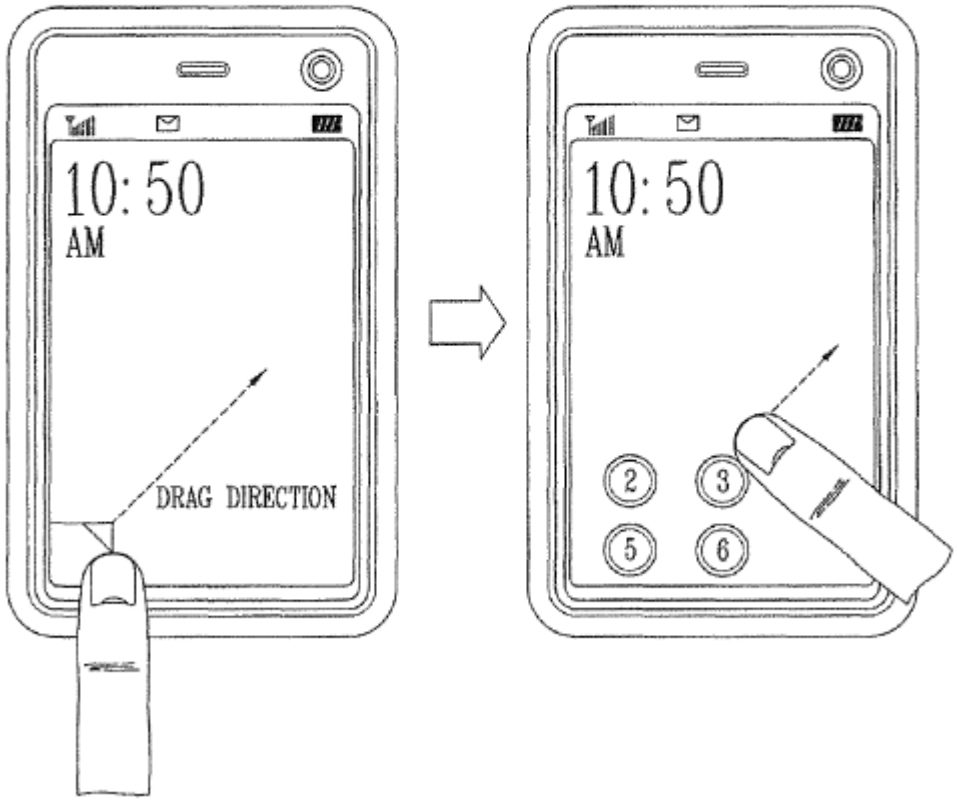
| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | "The method for displaying a menu screen image 320 when a screen image executing a particular menu is displayed on a background screen will now be described with reference to FIGS. 9A to 9E. As shown in FIG. 9A, if it is assumed that a particular menu has been already executed and the corresponding execution screen image 510 is displayed on the background screen image 310, if the region of the exposed menu screen increases, the size of the region where the executed screen image 510 is displayed would be reduced inverse-proportionally. For example, if the menu screen image 320 is dragged to appear in a state that a video reproduction image has been displayed, the region of the exposed menu screen image 320 is gradually increased while the size of region where the video reproduction image is displayed is gradually reduced." Jeong at [0061].<br><br>"Instead of adjusting the size of the executed screen image 510 according to an environment setting option, a portion of the region where the executed screen image 510 like the menu screen image 320 is displayed may be allowed to appear or be hidden as shown in FIG. 9E. Namely, as the exposure region of the menu screen image 320 increases, the exposure region of the executed screen image 510 may be reduced inverse-proportionally. Also, as the exposure region of the menu screen image 320 is reduced, the exposure region of the executed screen image 510 may be increased inverse-proportionally." Jeong at [0064]. |

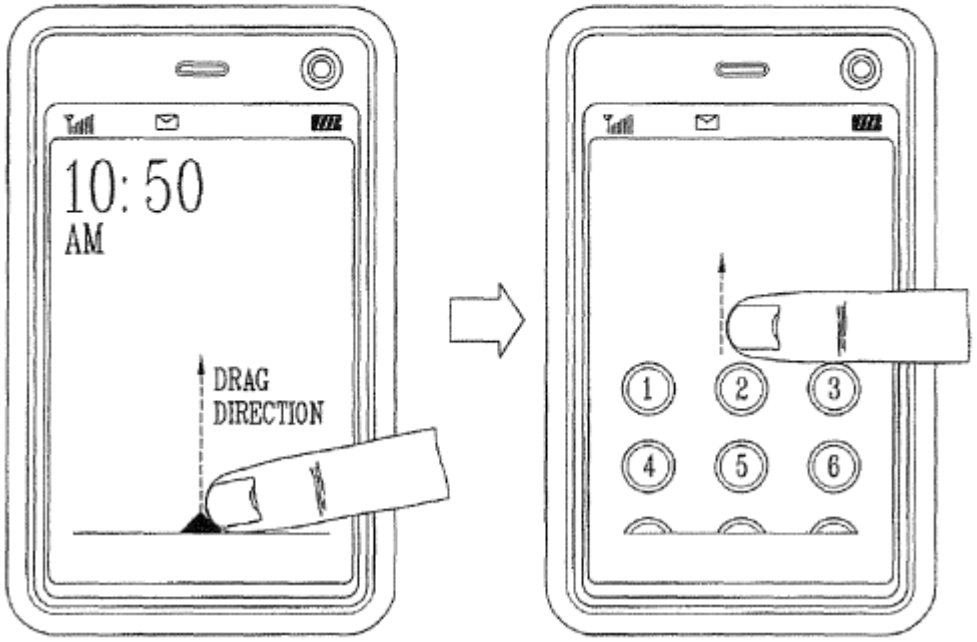
| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[18]** The system of claim 1, wherein the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface. | Claim 18 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 18 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface." |

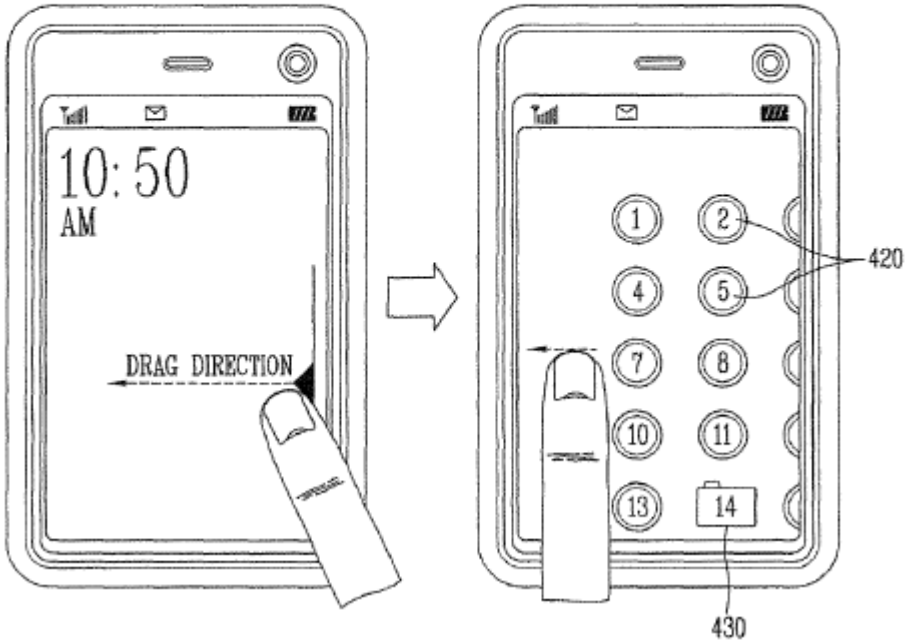
| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | For example, Jeong discloses that "tag 330 may be displayed in a shape (e.g., an arrow) indicating a direction in which the menu screen image is exposed or a direction in which the tag 330 can be dragged." Jeong at [0052]. Jeong does not limit the direction of the user's finger swipe in the direction indicated and each direction from a particular contacted tag presents the same menu interface. A POSITA would have recognized that this would have allowed the user's finger to glide in any arbitrary direction inside the screen to reveal the menu for the particular tag.<br><br>A POSITA would have recognized that, because Jeong describes a pull-open menu interface, the device would have used the Y-coordinate of the user's gliding action for vertically opening menus and the X-coordinate for horizontally opening menus to drag open the menu with the user's gliding action. Thus, the user's gliding action would be able to proceed in any direction inside the interface, but the menu displayed would show the same interface associated with the particular tag, as shown in FIGS. 5, 6A-6B, 7A-7C.<br><br>Exemplary citations include: |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 5<br>  <br><br>Jeong at FIG. 5. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 6A<br>  <br><br>Jeong at FIG. 6A. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7A<br>  <br><br>Jeong at FIG. 7A. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7B<br>  <br><br>Jeong at FIG. 7B. |

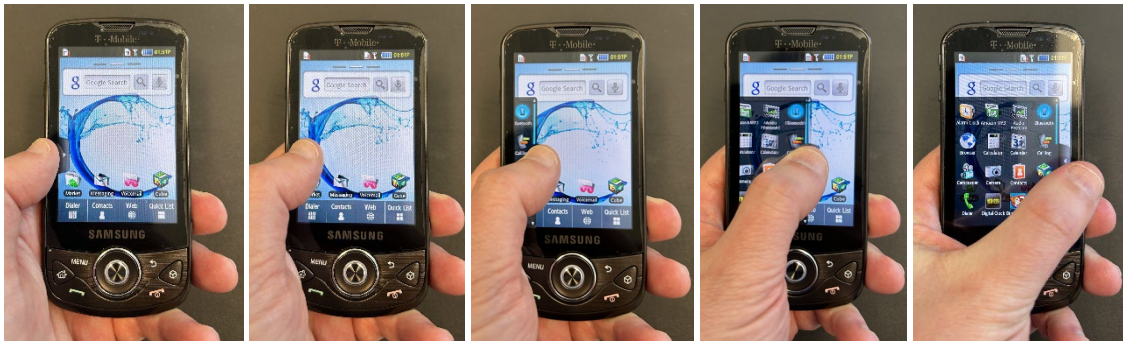
| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7C<br>  <br><br>Jeong at FIG. 7C.<br>"A mobile terminal comprising a display module to display a tag and to display a menu screen image related to the tag at one portion of a background image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance; an input unit to detect a touch input with respect to the display module or the tag to determine the dragging |

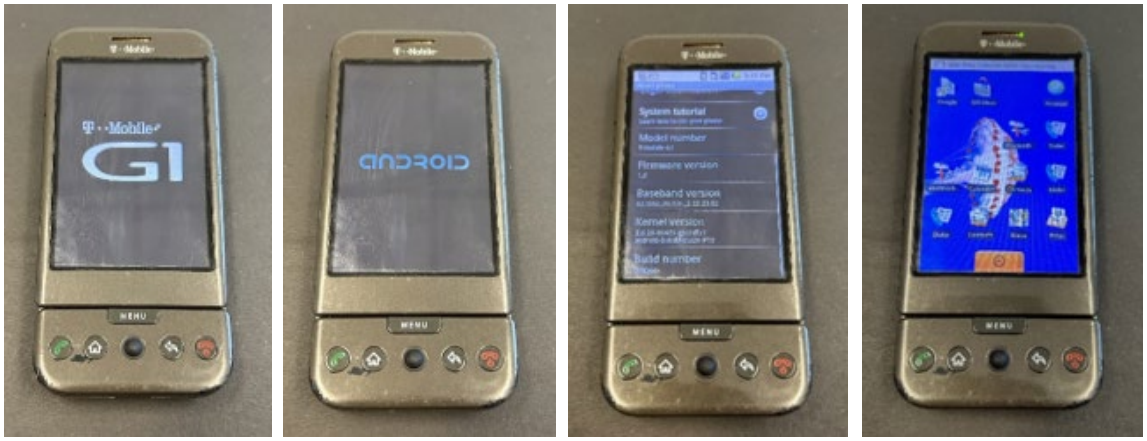
| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | direction and the dragging distance; and a controller to expose or hide the menu screen image according to the dragging direction the dragging distance of the inputted touch." Jeong at Abstract.<br><br>"The present disclosure relates to a method for dragging a menu screen image in a tactile manner to allow the menu screen image to be exposed or hidden by a background screen image, and a mobile terminal implementing the same." Jeong at [0002].<br><br>"To achieve these and other objectives and in accordance with the purpose of the present disclosure, as embodied and broadly described herein, the present disclosure provides in one aspect a mobile terminal comprising: a display module to display a tag (i.e., an interactive object) and to display a menu screen image related to the tag at one portion of a background screen image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance; an input unit to detect a touch input with respect to the display module or the tag to determine the dragging direction and the dragging distance; and a controller to expose or hide the menu screen image according to the dragging direction the dragging distance of the inputted touch." Jeong at [0006].<br><br>"To achieve these and other advantages and in accordance with the purpose of the present disclosure, as embodied and broadly described herein, the present disclosure provides in another aspect a method for displaying a menu of a mobile terminal, comprising: a means of displaying a tag and a menu screen image related to the tag at one portion of a background screen image as the tag is dragged, the menu screen image being displayed according to a dragging direction and a dragging distance; a means of detecting a touch input with respect to a display module or the tag to determine the dragging direction and the dragging distance; and a means of exposing or hiding the menu screen image according to the dragging direction and the dragging distance of the inputted touch." Jeong at [0007].<br><br>"The controller 180 typically controls the general operations of the mobile terminal 100. For example, the controller 180 performs controlling and processing associated with voice calls, data communications, video calls, and the like. In addition, the controller 180 may include a multimedia reproducing module 181 for reproducing (or playing back) multimedia data. The multimedia reproducing module 181 may be configured within the controller 180 or may be configured to be separated from the controller 180." Jeong at [0037]. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "FIG. 4 shows a background screen image of the mobile terminal 100 according to one embodiment. As shown, the mobile terminal 100 may not display any menu item on a background image 310 in a standby mode or may simply display some menu items 321-323. A tag 330 related to a menu display may be displayed to allow the user to touch the tag 330 to drag it in a certain direction to expose the other remaining menu items that are usually hidden. A tag may be graphical user interface (GUI) object associated with a functional interface which allows a user to expose or hide from view other GUI objects on the mobile terminal 100's display." Jeong at [0050].<br><br>"The tag 330 may be displayed in a shape (e.g., an arrow) indicating a direction in which the menu screen image 320 is exposed or a direction in which the tag 330 can be dragged. For example, the tag 330 may have a triangular shape or an arrow shape. Accordingly, the tag 330 may be displayed by changing its direction according to whether the menu screen image 320 is exposed or hidden from view. The menu item displayed on the background screen image 310 may include an icon for executing a program. In addition, the menu item may include a 'group menu item' 430 for retrieving a menu item of a different group and displaying it on the background screen." Jeong at [0052].<br><br>"The menu screen image 320 may expose some of the menu items while hiding other items according to the distance along which the tag 330 is dragged. Namely, some of the menu items may be displayed while others may not be displayed according to the drag distance. Also, the controller 180 may determine the type of touch that was or is being performed when the user touches or releases the tag (icon) 330 based upon at least one of the number of touches, a contact time, contact speed, contact direction, contact pressure and contact surface area, or any combination thereof." Jeong at [0054].<br><br>"The menu items displayed on the menu screen image 320 may include a group menu item 430 indicating a menu item included in a different menu group, and it may be displayed to be different from the menu items 420 for executing a program. If tag dragging is stopped before the entire menu screen image 320 is exposed, or when the touch to the tag being dragged is released, the menu screen maintains a currently exposed state as it is. That is, while flicking results in exposing or hiding the entire menu screen image 320, dragging allows adjusting of the degree of exposing or hiding of the menu screen image 320 in accordance with the speed and direction of the dragging motion." Jeong at [0059]. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | "The method for displaying a menu screen image 320 when a screen image executing a particular menu is displayed on a background screen will now be described with reference to FIGS. 9A to 9E. As shown in FIG. 9A, if it is assumed that a particular menu has been already executed and the corresponding execution screen image 510 is displayed on the background screen image 310, if the region of the exposed menu screen increases, the size of the region where the executed screen image 510 is displayed would be reduced inverse-proportionally. For example, if the menu screen image 320 is dragged to appear in a state that a video reproduction image has been displayed, the region of the exposed menu screen image 320 is gradually increased while the size of region where the video reproduction image is displayed is gradually reduced." Jeong at [0061].<br><br>"Instead of adjusting the size of the executed screen image 510 according to an environment setting option, a portion of the region where the executed screen image 510 like the menu screen image 320 is displayed may be allowed to appear or be hidden as shown in FIG. 9E. Namely, as the exposure region of the menu screen image 320 increases, the exposure region of the executed screen image 510 may be reduced inverse-proportionally. Also, as the exposure region of the menu screen image 320 is reduced, the exposure region of the executed screen image 510 may be increased inverse-proportionally." Jeong at [0064].<br><br>To the extent Keyless argues that Jeong does not disclose or render obvious claim 18, it would have been obvious in view of Jeong, POSITA's pre-existing knowledge, and/or the teachings of Jeong combined with the other references charted for this patent in these invalidity contentions, including Hisatomi, Tseng, the Samsung Behold II, the HTC G1 1.6, and the Palm Pre. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>For example, Hisatomi discloses that, when sliding open the drawer menus, "if the interior of any [menu] regions is detected, then the respective coordinate data are mapped" and when "the |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | coordinates [of the touch/slide] are continuously updated toward the center portion of the display screen of the image-displaying display 803, the display region of the drawer is slid in the indicated direction." Hisatomi at [0059]. In tracking the slide direction, for example, up-and-down sliding of menus B and C in Hisatomi's FIGS. 5-7 (like Jeong's pull-open tag menu), "X-axis information is ignored and only Y-axis information is reflected in the process." Hisatomi at [0069]. For example, the system "stands by to receive Y-coordinate information and ignores the X[-]coordinate, and … the bar display position is continuously updated in accordance with the Y-coordinate information." Hisatomi at [0065], [0069] (describing ignoring X-axis information for category-B menu). A POSITA would have recognized that, because only the Y-coordinate information is used, then then the same category-B menu is presented for this example pull-down menu, but the user's direction may be in any arbitrary direction towards the interior of the touch screen.<br><br>Tseng discloses that "a finger swipe across the face of the display, where the edge of the element showing an extended view of the messaging events 'sticks' to the user's finger as the finger moves past." Tseng at [0029], [0058], [0059], FIG. 2C. Tseng also discloses that the message area travels up and down with the user's finger, as explained above. Tseng does not limit the direction of the user's finger swipe inside the screen and each direction from the status bar present the same message area interface. A POSITA would have recognized that the edge of the message area "stick[ing]" to the user's finger would have allowed the user's finger to glide in any arbitrary direction inside the screen to reveal the message area.<br><br>The Samsung Behold II's processor relates the gliding action from the status bar window and/or the applications tab window provided in any arbitrary direction inside the touch screen to presenting the same notifications menu or applications menu interface, respectively, because the user's gliding action can proceed in any direction or path while the edge of the respective menu travels with the user's finger. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>  <br>  <br>The Samsung Behold II device. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | The HTC G1 1.6's processor relates the gliding action from the status bar window and/or the applications tab window provided in any arbitrary direction inside the touch screen to presenting the same notifications menu or applications menu interface, respectively, because the user's gliding action can proceed in any direction or path while the edge of the respective menu travels with the user's finger.<br>  <br>HTC G1 1.6 Device.<br>  <br>HTC G1 1.6 Device |

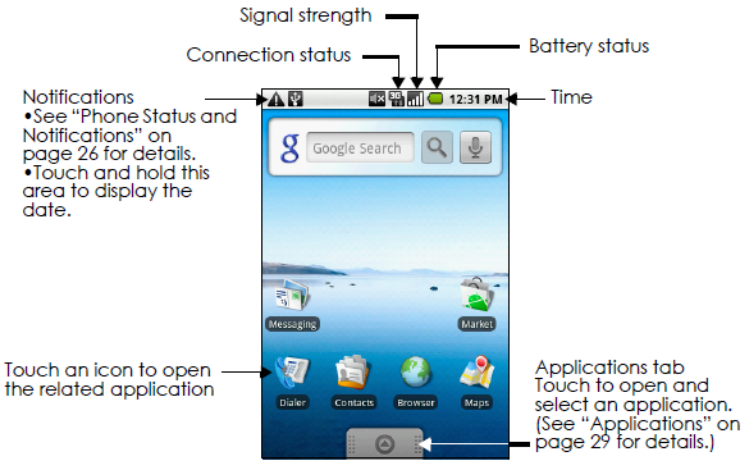
| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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HTC G1 1.6 Device.

## 1.7 Home Screen

The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.

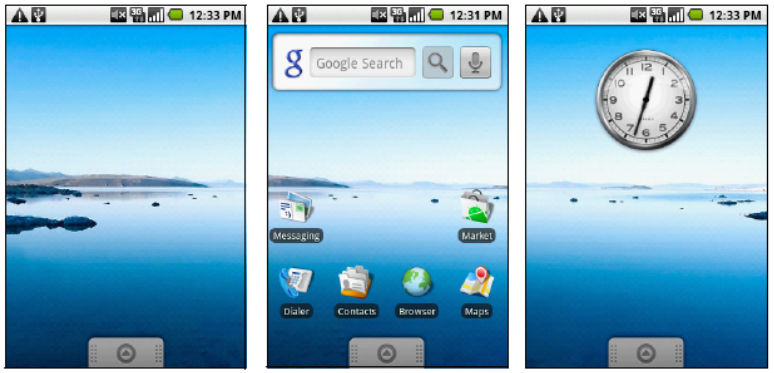



**Tip** While in any application, press **HOME** to go back to the Home screen.

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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## Extended Home screen

The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.




Extended Home screen left

Extended Home screen right

G1 User Manual 24.

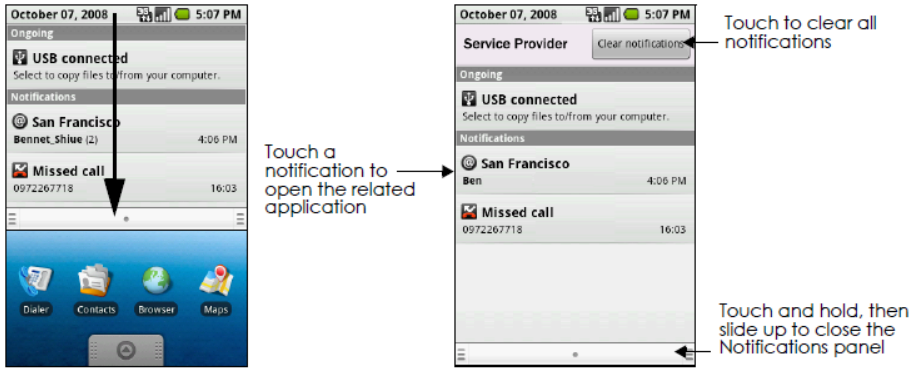
## Notifications panel

Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.

**To open the Notifications panel**

When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

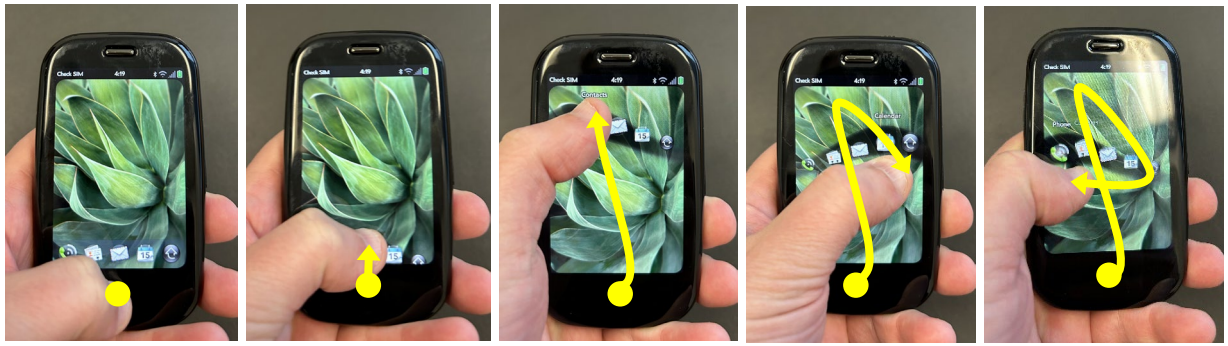
Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

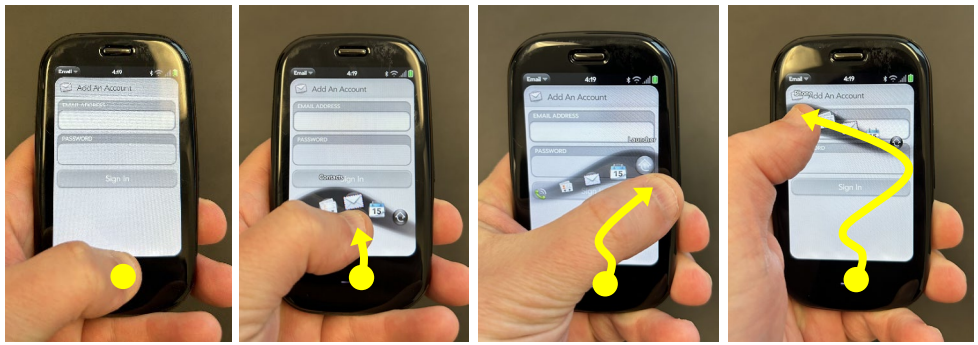
**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

**To close the Applications tab**

Touch  .

G1 User Manual 29.

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, G1 Launch Event; G1 Unveiled; Engadget Review; Google Mobile Products on Android; T-Mobile G1 Review; T-Mobile G1 Android Phone Hands-On; T-Mobile G1 Expanded Demo; T-Mobile G1 User Interface Review; T-Mobile G1 Physical Design Review; The Gadget Show, T-Mobile G1 Live Demo; T-Mobile G1 Tour; T-Mobile G1 Impressions; HTC Dream User Manual.<br><br>The Palm Pre's processor relates a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards any arbitrary direction inside the touch screen (e.g., crossing over the Quick Launch window showing five application icons and identifying the movement from off-to-on screen). The same Quick Launch menu is presented regardless of the arbitrary direction of the gliding action, as shown below.<br><br>  <br><br>Palm Pre.<br><br>The Palm Pre also teaches, as another example, that, when an application is open on the Palm Pre device (such as the mail application shown below), a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display towards any arbitrary direction inside of the touch screen to display the Quick Launch window. The gliding action causes a processor to perform the action associated with the Quick Launch window, such as moving the Quick Launch window with the user's finger in any arbitrary direction around the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | The same Quick Launch menu is presented regardless of the arbitrary direction of the gliding action, as shown below.<br>  <br>Palm Pre.<br>A POSITA would have found it obvious to incorporate the processor relating a gliding action provided towards any arbitrary direction inside the screen to present a same interface in Jeong's system, as claimed. Each of Hisatomi, Tseng, the Samsung Behold II, the HTC G1 1.6, and/or the Palm Pre, teaches the processor relating a gliding action provided towards any arbitrary direction inside the screen to present a same interface.<br>A POSITA would have been motivated to allow the user's gliding action to display the tag menu in Jeong be towards any arbitrary direction inside the screen to presenting a same interface Hisatomi, Tseng, the Samsung Behold II, the HTC G1 1.6, and/or the Palm Pre into Jeong's system to simplify the user's activation of the tag menu. For example, a POSITA would have been motivated to permit a gliding action in any arbitrary direction to open a particular tag menu associated with a particular tag because it would allow for low-precision gesture that do not require the user to stay within a particular region, as was known in the prior art. Doing so would have simplified the user's interaction because the device only needs to track the particular direction associated with the tag (e.g., X-coordinate for horizontally opening tags, Y-coordinate for vertically opening tags, or both for diagonally opening tags), which removes the user's need to focus on the exact direction of the tag because the opening is defined by the tag selected. This was a known feature to improve other devices. For example, the HTC G1 1.6, released by T-Mobile, allowed a user to drag open a status bar notifications panel and drag open an applications selection by pulling down, but does not |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | restrict the direction towards the inside of the screen. A POSITA also would have been motivated to incorporate allowing the user's gliding action to be towards any arbitrary direction inside the screen because it would provide the user more control over how far to open Jeong's tag menus. For example, if the user desires to merely "peek" at a particular menu or open only as far as the desired men icon for selection, he or she can slide their finger obliquely across the screen to provide greater control over the distance the message area is opened.<br><br>**To open the Notifications panel**<br>When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.<br>  <br><br>Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.<br><br>T-Mobile G1 User Manual at 27-29.<br><br>It was well known to a POSITA to have a processor relate a gliding action provided towards any arbitrary direction inside the screen to present a same interface. As Hisatomi explains, this can be accomplished by considering only the Y-coordinate (vertical direction in Jeong), while ignoring the X-coordinate of the gliding action. *See, e.g.*, Hisatomi at [0064], [0065], [0069], [0084], [0211], |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | [0219], FIGS. 7, 10, 12, 15, 16, 17, 21, 47. Hisatomi teaches that the same can be applied for the X-coordinate to ignore Y-coordinates for horizontally opening menus. *See, e.g.*, Hisatomi at [0063], [0083], [0096], [0210], [0217], [0236], FIGS. 11, 14, 16, 17, 21, 47. A POSITA would have recognized that having a processor relate a gliding action provided towards any arbitrary direction inside the screen to present a same interface would have "enable[d] the reliable activation of a button" because it removes user errors that could be introduced by requiring the glide to stay within a narrow direction, which could lead to user frustration. Roth Bezel Swipe at 1524.<br><br>Having a processor relate a gliding action provided towards any arbitrary direction inside the screen to present a same interface was routine and conventional to POSITAs, as shown by Hisatomi, Tseng, the Samsung Behold II, the HTC G1 1.6, and/or the Neonode N2. Moreover, it was successfully implemented in commercial prior art devices, such as the Samsung Behold II, the HTC G1 1.6 and the Palm Pre. Having a processor relate a gliding action provided towards any arbitrary direction inside the screen to present a same interface in Jeong's system, explained above, represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such operations, when combined with Jeong, represent nothing more than combining prior art elements according to known methods and techniques (allowing the user's gliding action to be in any arbitrary direction inside the touch screen, such as known in Hisatomi, Tseng, the Samsung Behold II, the HTC G1 1.6, and/or the Palm Pre) to yield predictable results (performing the function associated with the window for the gliding action). |

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[19Pre]**[5] A system for capturing an event provided from an edge of a touch screen comprising: | To the extent that the preamble is held to be limiting, Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[a] system for capturing an event provided from an edge of a touch screen."<br><br>[19Pre] recites substantially the same limitations as [1Pre] and is therefore anticipated or rendered obvious for substantially the same reasons as [1Pre]. *See, e.g.*, *supra* [1Pre].<br><br>As discussed *supra* [1Pre], Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "[a] system for capturing an event provided from an edge of a touch screen." *See supra* [1Pre]. |
| **[19A]** a device having a touch screen; | Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a device having a touch screen."<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a device having a touch screen."<br><br>[19A] recites substantially the same limitations as [1A] and is therefore anticipated or rendered obvious for substantially the same reasons as [1A]. *See, e.g.*, *supra* [1A].<br><br>As discussed *supra* [1A], Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "a device having a touch screen." *See supra* [1A]. |

[5] Claim 19 as corrected in the Certificate of Correction issued February 16, 2021.

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[19B]** a zone in form of a bar located in the touch screen on an edge of the touch screen; and | Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a zone in form of a bar located in the touch screen on an edge of the touch screen."<br><br>[19B] recites substantially the same limitations as [1B] and claim 3, except that it recites a "zone in the form of a bar" instead of a "window," and is anticipated or rendered obvious for substantially the same reasons as [1B] and claim 3. *See, e.g.*, *supra* [1B], claim 3. Each of the Jeong's status bar and/or applications tab are a "zone in the form of a bar" located on the edge of a touch screen, as explains in [1B] and claim 3.<br><br>As discussed *supra* [1B] and claim 3, Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "a zone in form of a bar located in the touch screen on an edge of the touch screen." *See supra* [1B] and claim 3. |
| **[19C]** a processor; | Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a processor."<br><br>[19C] recites substantially the same limitations as [1C] and is therefore anticipated or rendered obvious for substantially the same reasons as [1C]. *See, e.g.*, *supra* [1C].<br><br>As discussed *supra* [1C], Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "a processor." *See supra* [1C]. |
| **[19D]** wherein a gliding action provided from said | Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and |

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone, and wherein the processor executes a function related to said zone, and wherein said zone is present on said edge regardless of the interface of an application on said touch screen, and | Keyless's apparent interpretation of this limitation, discloses "wherein a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone, and wherein the processor executes a function related to said zone, and wherein said zone is present on said edge regardless of the interface of an application on said touch screen."<br><br>[19D] recites substantially the same limitations as [1B] ("said at least one window functions independently of an interface of an application in use on the touch screen"), [1D] ("a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said processor to cause an action assigned to said window"), and claim 18 ("the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface"), except that it does not recite that the gliding action to begins off screen, and is therefore anticipated or rendered obvious for substantially the same reasons as [1B], [1D], and claim 18. *See, e.g.*, *supra* [1B], [1D], and claim 18.<br><br>As discussed *supra* [1B], [1D], and claim 18, Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "wherein a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone, and wherein the processor executes a function related to said zone, and wherein said zone is present on said edge regardless of the interface of an application on said touch screen." *See supra* [1B], [1D], and claim 18. |
| **[19E]** wherein said zone is located on the touch screen before said gliding action begins. | Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said zone is located on the touch screen before said gliding action begins." |

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | [19E] recites substantially the same limitations as [1E], except that it recites "said zone" instead of "said at least one window," and is therefore anticipated or rendered obvious for substantially the same reasons as [1E] and [19B]. *See, e.g.*, *supra* [1E] and [19B].<br><br>As discussed *supra* [1E] and [19B], Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "wherein said zone is located on the touch screen before said gliding action begins." *See supra* [1E] and [19B]. |

| Claim 21 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[21]** The system of claim 19, wherein upon detecting said gliding action, the system relates said gliding action to setting the location of an interface on the touch screen. | Claim 21 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 21 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said gliding action, the system relates said gliding action to setting the location of an interface on the touch screen."<br><br>Claim 21 recites substantially the same limitations as claim 13 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 13. *See, e.g.*, *supra* claim 13.<br><br>As discussed *supra* claim 13, Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "upon |

| Claim 21 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | detecting said gliding action, the system relates said gliding action to setting the location of an interface on the touch screen." *See supra* claim 13. |

| Claim 22 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[22]** The system of claim 19, wherein said bar comprises more than one bar located on one or more edges of the touch screen. | Claim 22 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 22 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said bar comprises more than one bar located on one or more edges of the touch screen."<br><br>Claim 22 recites substantially the same limitations as claim 15 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 15. *See, e.g.*, *supra* claim 15.<br><br>As discussed *supra* claim 15, Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said bar comprises more than one bar located on one or more edges of the touch screen." *See supra* claim 15. |

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[23]** The system of claim 19, wherein said zone is in a form of a visible or invisible line. | Claim 23 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 23 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said zone is in a form of a visible or invisible line."<br><br>For example, Jeong discloses<br><br>Exemplary citations include:<br><br>Moreover, claim 23 recites substantially the same limitations as claim 5 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 5. *See, e.g.*, *supra* claim 5.<br><br>As discussed *supra* claim 5, Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said zone is in a form of a visible or invisible line." *See supra* claim 5. |

| Claim 24 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[24]** The system of claim 23, wherein said function is displaying an interface on the screen. | Claim 24 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 23 and 19 to show the additional limitations of claim 24 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and |

| Claim 24 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Keyless's apparent interpretation of this limitation, discloses that "said function is displaying an interface on the screen."<br><br>Claim 24 recites substantially the same limitations as claims 6, 9, and 12 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6, 9, and 12. *See, e.g.*, *supra* claims 6, 9, 12.<br><br>As discussed *supra* claims 6, 9, and 12, Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying an interface on the screen." *See supra* claims 6, 9, 12. |

| Claim 25 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[25]** The system of claim 23, wherein said function is displaying a portion of an interface on the screen. | Claim 25 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 23 and 19 to show the additional limitations of claim 25 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen."<br><br>Claim 25 recites substantially the same limitations as claims 7 and 10 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7 and 10. *See, e.g.*, *supra* claims 7 and 10.<br><br>As discussed *supra* claims 7 and 10, Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of |

| Claim 25 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10. |

| Claim 26 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[26]** The system of claim 23, wherein said function is displaying a portion of an interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action. | Claim 26 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 23 and 19 to show the additional limitations of claim 26 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action."<br><br>Claim 26 recites substantially the same limitations as claims 8 and 11 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8 and 11. *See, e.g.*, *supra* claims 8, 11.<br><br>As discussed *supra* claims 8 and 11, Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action." *See supra* claims 8, 11. |

| Claim 27 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[27]** The system of claim 19, wherein said bar is visible or invisible. | Claim 27 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 27 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said bar is visible or invisible."<br><br>Claim 27 recites substantially the same limitations as claim 23 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 23. *See, e.g.*, *supra* claim 23.<br><br>As discussed *supra* claim 23, Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said bar is visible or invisible." *See supra* claim 23. |

| Claim 28 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[28]** The system of claim 27, wherein said function is displaying an interface on the screen. | Claim 28 depends from claims 27 and 19. Defendants incorporate all the prior art disclosures from claims 27 and 19 here, which anticipate and/or render claims 27 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 27 and 19 to show the additional limitations of claim 28 are anticipated and/or obvious for the same reasons set out in claims 27 and 19.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying an interface on the screen." |

| | |
|---|---|
| | Claim 28 recites substantially the same limitations as claims 6, 9, 12, and 24 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6, 9, 12, and 24. *See, e.g.*, *supra* claims 6, 9, 12, 24.<br><br>As discussed *supra* claims 6, 9, 12, and 24, Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying an interface on the screen." *See supra* claims 6, 9, 12, 24. |

| **Claim 29** | **Exemplary Disclosures (Express and/or Inherent) and Citations** |
|---|---|
| **[29]** The system of claim 27, wherein said function is displaying a portion of an interface on the screen. | Claim 29 depends from claims 27 and 19. Defendants incorporate all the prior art disclosures from claims 27 and 19 here, which anticipate and/or render claims 27 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 27 and 19 to show the additional limitations of claim 29 are anticipated and/or obvious for the same reasons set out in claims 27 and 19.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen."<br><br>Claim 29 recites substantially the same limitations as claims 7, 10, and 25 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7, 10, and 25. *See, e.g.*, *supra* claims 7, 10, 25.<br><br>As discussed *supra* claims 7, 10, and 25, Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10, 25. |

| Claim 30 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[30]** The system of claim 29, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 30 depends from claims 29, 27, and 19. Defendants incorporate all the prior art disclosures from claims 29, 27, and 19 here, which anticipate and/or render claims 29, 27, and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 29, 27, and 19 to show the additional limitations of claim 30 are anticipated and/or obvious for the same reasons set out in claims 29, 27, and 19.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>Claim 30 recites substantially the same limitations as claims 8, 11, and 26 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8, 11, and 26. *See, e.g.*, *supra* claims 8, 11, 26.<br><br>As discussed *supra* claims 8, 11, and 26, Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claims 8, 11, 26. |

| Claim 31 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[31]** The system of claim 19, wherein during providing said gliding action, the system dynamically drags and shows | Claim 31 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 31 are anticipated and/or obvious for the same reasons set out in claim 19. |

| Claim 31 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| an interface or a portion of an interface on the touch screen. | Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen."<br><br>Claim 31 recites substantially the same limitations as claim 17 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 17. *See, e.g.*, *supra* claim 17.<br><br>As discussed *supra* claim 17, Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen." *See supra* claim 17. |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[32]** The system of claim 19, wherein said function is displaying a same interface for any said gliding action, said gliding action interacting with any portion of said zone. | Claim 32 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 32 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a same interface for any said gliding action, said gliding action interacting with any portion of said zone." |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Claim 32 recites substantially the same limitations as claims 18 and [19D] and is therefore anticipated or rendered obvious for substantially the same reasons as claims 18 and [19D]. *See, e.g.*, *supra* claims 18 and [19D].<br><br>As discussed *supra* claims 18 and [19D], Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a same interface for any said gliding action, said gliding action interacting with any portion of said zone." *See supra* claims 18 and [19D].<br><br>For example, Jeong discloses that "[a] tag 330 related to a menu display may be displayed to allow the user to touch the tag 330 to drag it in a certain direction to expose the other remaining menu items that are usually hidden." Jeong at [0050]. Jeong does not disclose or require touching any particular part of the tag, but rather explains that the entire "tag may be [a] graphical user interface (GUI) object associated with a functional interface which allows a user to expose or hide from view other GUI objects on the mobile terminal 100's display." Jeong at [0050]. Jeong further explains that the user "drag[s] a tag," which describes the user being able to interact with and drag any portion of the tag when performing the gliding action to expose the menu screen image. Jeong, [0051], FIGS. 7B-7C. |

| Claim 33 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[33]** The system of claim 32, wherein said gliding action is provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts | Claim 33 depends from claims 32 and 19. Defendants incorporate all the prior art disclosures from claims 32 and 19 here, which anticipate and/or render claims 32 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 32 and 19 to show the additional limitations of claim 33 are anticipated and/or obvious for the same reasons set out in claims 32 and 19.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and |

| Claim 33 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| with said zone on said touch screen. | Keyless's apparent interpretation of this limitation, discloses that "said gliding action is provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen."<br><br>As discussed *supra* [1D], Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "wherein said gliding action is provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen." *See supra* [1D]. |

| Claim 34 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[34]** The system of claim 19, wherein said function is displaying a portion of an interface on the screen. | Claim 34 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 34 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen."<br><br>Claim 34 recites substantially the same limitations as claims 7, 10, 25, and 29 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7, 10, 25, and 29. *See, e.g.*, *supra* claims 7, 10, 25, 29.<br><br>As discussed *supra* claims 7, 10, 25, and 29, Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10, 25, 29. |

| Claim 35 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[35]** The system of claim 34, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 35 depends from claims 34 and 19. Defendants incorporate all the prior art disclosures from claims 34 and 19 here, which anticipate and/or render claims 34 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 34 and 19 to show the additional limitations of claim 35 are anticipated and/or obvious for the same reasons set out in claims 34 and 19.<br><br>Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>Claim 35 recites substantially the same limitations as claims 8, 11, 26, and 30 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8, 11, 26, and 30. *See, e.g.*, *supra* claims 8, 11, 26, 30.<br><br>As discussed *supra* claims 8, 11, 26, and 30, Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claims 8, 11, 26, 30. |

| Claim 36 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[36]** The system of claim 19, wherein said zone extends along a substantial portion of said edge. | Claim 36 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 36 are anticipated and/or obvious for the same reasons set out in claim 19. |

| Claim 36 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Jeong, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said zone extends along a substantial portion of said edge."<br><br>Claim 36 recites substantially the same limitations as claims 4 and 16 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 4 and 16. *See, e.g.*, *supra* claims 4, 16.<br><br>As discussed *supra* claims 4 and 16, Jeong teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said zone extends along a substantial portion of said edge." *See supra* claims 4, 16. |

# Appendix A3

**Exhibit A3**

**Invalidity of Asserted Claims of the '602 Patent**

**in view of the HTC G1 1.6**

The HTC G1 (also known as the HTC Dream), running on Android 1.6[1] ("the HTC G1 1.6"), was publicly available, sold, offered for sale, and/or used in the United States and was thus available to and known or used by others, at least as early as September 15, 2009, and, on information and belief, as early as September 23, 2008 and not later than October 15, 2008 (running prior Android 1.0 with substantially the same functionality). The HTC G1 1.6 is described in at least the following documents and other materials cited in this chart:

- T-Mobile G1 User Manual (May 27, 2009) (Android™ mobile technology platform R1.5.0) ("G1 User Manual"), *available at* https://dn720001.ca.archive.org/0/items/central-manuals-cell-phone_t-mobile_TMob_G1.pdf/TMob_G1.pdf (SAM-KEY_00989295-SAM-KEY_00989407).
- HTC Dream User Manual ("HTC Dream User Manual") (SAM-KEY_00982845-SAM-KEY_00983058).
- "Android 1.0," *available at* https://android.fandom.com/wiki/Android_1.0 (SAM-KEY_00986518-SAM-KEY_00986522).
- "Android 1.1," *available at* https://android.fandom.com/wiki/Android_1.1 (SAM-KEY_00986523-SAM-KEY_00986526).
- "Android 1.5 Cupcake," *available at* https://android.fandom.com/wiki/Android_1.5_Cupcake (SAM-KEY_00986501-SAM-KEY_00986504).
- "Android 1.6 Donut," *available at* https://android.fandom.com/wiki/Android_1.6_Doughnut (SAM-KEY_00986505-SAM-KEY_00986508).
- "T-Mobile G1 Phone Launch Event," *available at* https://www.youtube.com/watch?v=hZgCVqs_P-w ("G1 Launch Event") (Sept. 23, 2008) (SAM-KEY_00986546).

[1] On information and belief, the predecessor versions—Android 1.0, 1.1, and 1.5—included substantially the same functionality as relied on in this chart. As such, Samsung reserves the right to rely on Android version 1.0, 1.1, and/or 1.5 and/or Android version 1.6.

- "T-Mobile Unveils the T-Mobile G1 – the First Phone Powered by Android," *available at* https://web.archive.org/web/20131016001926/http://www.t-mobile.com/company/PressReleases_Article.aspx?assetName=Prs_Prs_20080923&title=T-Mobile%20Unveils%20the%20T-Mobile%20G1%20%E2%80%93%20the%20First%20Phone%20Powered%20by%20Android ("G1 Unveiled") (Sept. 23, 2008) (SAM-KEY_00986552-SAM-KEY_00986555).
- "Announcing the Android 1.0 SDK release 1," *available at*, https://android-developers.googleblog.com/2008/09/announcing-android-10-sdk-release-1.html ("Announcing the Android 1.0 SDK") (Sept. 23, 2008) (SAM-KEY_00986495-SAM-KEY_00986497).
- "T-Mobile G1 review, part 2: software and wrap-up," *available at* https://www.engadget.com/2008-10-16-t-mobile-g1-review-part-2-software-and-wrap-up.html ("Engadget Review") (Oct. 16, 2008) (SAM-KEY_00986598-SAM-KEY_00986635).
- "First iPhone vs First Android Phone! (iOS 1.0 vs Android 1.0)," *available at* https://www.youtube.com/watch?v=0gxa2rq-kL8 ("iPhone vs. Android") (Dec. 6, 2016) (SAM-KEY_00986531).
- "Google Mobile Products on Android," *available at* https://www.youtube.com/watch?v=z7qbPa1O8Ys ("Google Mobile Products on Android") (Sept. 23, 2008) (SAM-KEY_00986533).
- "T-Mobile G1 Review," *available at* https://www.youtube.com/watch?v=0s0x6mb-RqY("T-Mobile G1 Review") (Nov. 7, 2008) (SAM-KEY_00986551).
- "T-Mobile G1 Android Phone Hands-On," *available at* https://www.youtube.com/watch?v=CO7Yxyux1_k ("T-Mobile G1 Android Phone Hands-On") (Sept. 23, 2008) (SAM-KEY_00986544).
- "T-Mobile G1 Google Android phone expanded demo," *available at* https://www.youtube.com/watch?v=mU2PwjRWUdE ("T-Mobile G1 Expanded Demo") (Sept. 24, 2008) (SAM-KEY_00986545).
- "Android 1.6 SDK is here," *available at* https://android-developers.googleblog.com/2009/09/android-16-sdk-is-here.html ("Android 1.6 SDK Release") (Sept. 15, 2009) (SAM-KEY_00986498-SAM-KEY_00986500).
- "T-Mobile G1 Review – Android User Interface," *available at* https://www.youtube.com/watch?v=2K3Lj-lbEAA ("T-Mobile G1 User Interface Review") (Oct. 15, 2008) (SAM-KEY_00986548).
- "T-Mobile G1 Review – Physical Design," *available at* https://www.youtube.com/watch?v=ISbqTLKQPXU ("T-Mobile G1 Physical Design Review") (Oct. 15, 2008) (SAM-KEY_00986550).

- "G1 Google Phone – The Gadget Show Web TV," *available at* https://www.youtube.com/watch?v=Okvj35WajAU ("The Gadget Show") (Sept. 26, 2008) (SAM-KEY_00986532).
- "T-Mobile G1 / HTC Dream Android live demo," *available at* https://www.youtube.com/watch?v=ApTyRqLoP-Y&t=335s ("T-Mobile G1 Live Demo") (Sept 23, 2008) (SAM-KEY_00986547).
- "A Tour of the New G1 Phone," *available at* https://www.youtube.com/watch?v=UOlLSUKfx3s ("T-Mobile G1 Tour") (Sept. 24, 2008) (SAM-KEY_00986494).
- "T-Mobile G1 Review: Overview and Full Impressions," *available at* https://www.youtube.com/watch?v=GMSZzseX2zA ("T-Mobile G1 Impressions") (Oct. 15, 2008) (SAM-KEY_00986549).
- Documents produced in this litigation, as cited herein.
- Physical products acquired in this litigation, including but not limited to, an HTC G1 1.6 device running on Android 1.6, which was available with Android 1.0 from September 23, 2008, including Android 1.6 from September 15, 2009, as referenced herein ("HTC G1 Device").
- Expected testimony and evidence regarding the development, design, and/or use of the HTC G1 1.6, running on Android 1.0, 1.1, 1.5, or 1.6.
- Source code for an HTC G1 1.6, running on Android 1.0, 1.1, 1.5, or 1.6, as referenced herein and/or acquired.

Citations to the above-listed references are exemplary, and Samsung reserves the right to rely on additional passages, prior art, and information regarding the operation and functionality of the HTC G1 1.6 obtained through fact, expert, and third-party discovery, which is ongoing.

The HTC G1 1.6 qualifies as prior art to U.S. Patent No. 9,304,602 ("'602 patent") at least under pre-AIA 35 U.S.C. §§ 102(a) and/or (b) and AIA 35 U.S.C. §§ 102(a)(1).[2] The HTC G1 1.6 with Android 1.6 release was publicly available, sold, offered for sale, and/or used before the priority date to which the '602 patent claims are entitled, if any.

[2] Keyless Licensing LLC (or "Keyless") alleges that the asserted claims of the '602 patent are entitled to priority as early as December 20, 2009. However, as explained in the cover pleading, the asserted claims of the '602 patent are not entitled to Keyless's claimed priority date due to inadequate written description support. Assuming the claims are not invalid under Section 112 (*see, e.g.*, cover pleading), the earliest possible priority date for the asserted '602 patent claims is 2/11/2010 or later.

The HTC G1 1.6 anticipates or, alone or with other references, renders obvious one or more of asserted claims 1-13, 15-19, and 21-36 of the '602 patent. To the extent Keyless contends the HTC G1 1.6 does not disclose one or more limitations of the claims, it would have been obvious to combine the HTC G1 1.6 with the knowledge of a person of ordinary skill in the art ("POSITA") and/or with one or more of the following references to render the claims at issue in the '602 patent invalid. The chart below illustrates how the asserted claims of the '602 patent are invalid in view of the HTC G1 1.6 and/or additional secondary references listed below, including but not limited to the prior art identified in Defendant's Invalidity Contentions.

- U.S. Patent Application Publication No. 2004/0109013 A1 to Goertz ("Goertz"), filed December 10, 2002, and published on June 10, 2004. Goertz qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b) and/or (e).
- U.S. Patent Application Publication No. 2008/0207188 A1 to Ahn et al. ("Ahn"), filed on February 14, 2008, and published on August 28, 2008. Ahn qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b) and/or (e).
- U.S. Patent Application Publication No. 2009/0094562 A1 to Jeong et al. ("Jeong"), filed on October 3, 2008, and published on April 9, 2009. Jeong qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b) and/or (e).
- U.S. Patent Application Publication No. 2009/0249247 to Tseng et al. ("Tseng"), filed on January 30, 2009, and published on October 1, 2009, claims priority to U.S. Provisional Application No. 61/024,869, filed January 30, 2008. Tseng qualifies as prior art at least under pre-AIA 35 U.S.C. §§ 102(a), (b), and/or (e) and AIA 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2).
- U.S. Patent Application Publication No. 2009/0295750 A1 to Yamazaki et al. ("Yamazaki"), filed on May 27, 2009, and published on December 3, 2009. Yamazaki qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b), and/or (e).
- U.S. Patent Application Publication No. 2010/0050076 A1 to Roth ("Roth"), filed on August 29, 2008, and published on February 25, 2010. Roth qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).
- U.S. Patent Application Publication No. 2010/0164959 A1 to Brown et al. ("Brown"), filed on December 26, 2008, and published on July 1, 2010. Brown qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).

- U.S. Patent Application Publication No. 2010/0302172 A1 to Wilairat ("Wilairat"), filed on May 27, 2009, and published on December 2, 2010. Wilairat qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).
- U.S. Patent Application Publication No. 2011/0209099 A1 to Hinckley et al. ("Hinckley"), filed on February 19, 2010, and published on August 25, 2011. Hinckley qualifies as prior art at least under 35 U.S.C. § 102(a)(2) as well as pre-AIA 35 U.S.C. §(e).
- Japanese Laid-Open Patent Application No. JP2003195998A to Hisatomi ("Hisatomi"), filed on December 26, 2001, and published on July 11, 2003. Hisatomi qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).[3]
- V. Roth & T. Turner, "Bezel Swipe: Conflict-Free Scrolling and Multiple Selection on Mobile Touch Screen Devices," CHI 2009 ~ Multimodal Mobile Interaction, pp. 1523-26 (ACM 2009) ("Roth Bezel Swipe"), published April 8, 2009. Roth Bezel Swipe qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).
- The Samsung Galaxy GT-i7500 running Android 1.5 ("Samsung Galaxy GT-i7500 1.5") was, on information and belief, publicly available in the United States on or about June 29, 2009. The Samsung Galaxy GT-i7500 1.5 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).
- The Samsung Behold II running Android and TouchWiz UI (Samsung Behold II") was, on information and belief, publicly available in the United States on or about November 18, 2009. The Samsung Behold II qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A4.
- The HTC Hero running Android 1.5 ("HTC Hero 1.5") was, on information and belief, publicly available in the United States on or about October 11, 2009. The HTC Hero 1.5 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A6.
- The HTC Hero running Android 2.1 ("HTC Hero 2.1") was, on information and belief, publicly available in the United States on or about January 2010. The HTC Hero 2.1 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a). *See also* Ex. A6.

[3] Defendants' invalidity contentions rely on the certified translation of Hisatomi.

- The HTC Magic running Android 1.6 ("HTC Magic 1.6") was, on information and belief, publicly available in the United States on or about July 8, 2009. The HTC Magic 1.6 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).
- The Motorola Droid A855 ("Motorola Droid A855") was publicly available in the United States with Android 2.0 on or about November 6, 2009, and with Android 2.2 on or about May 2010. The Motorola Droid A855 running Android 2.0, on information and belief, was substantially the same with respect to the relied-upon functionality as the Motorola Droid A855 running Android 2.2. The Motorola Droid A855 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A5.
- The Palm Pre running Palm's WebOS ("Palm Pre") was, on information and belief, publicly available in the United States on or about February 2009. Although Palm WebOS 1.4.5 was not released until on or about July 2010, the relied-upon functionality was, on information and belief, substantially the same in the February 2009 WebOS release. The Palm Pre qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A7.
- The Neonode N2 ("Neonode N2") was, on information and belief, publicly available in the United States not later than 2008. *See also* Ex. A8.

With respect to the proposed modifications to the HTC G1 1.6, such modification would have been obvious to try, an obvious combination of prior art elements according to known methods to yield predictable results, a simple substitution of one known element for another to obtain predictable results, a use of known techniques to improve a similar devices or method in the same way, an application of a known technique to a known device or method ready for improvement to yield predictable results, a variation of a known work in one field of endeavor for use in either the same field or a different one based on design incentives or other market forces with variations that are predictable to a POSITA, and/or obvious in view of teachings, suggestions, and motivations in the prior art that would have led a POSITA to modify or combine the prior art references.

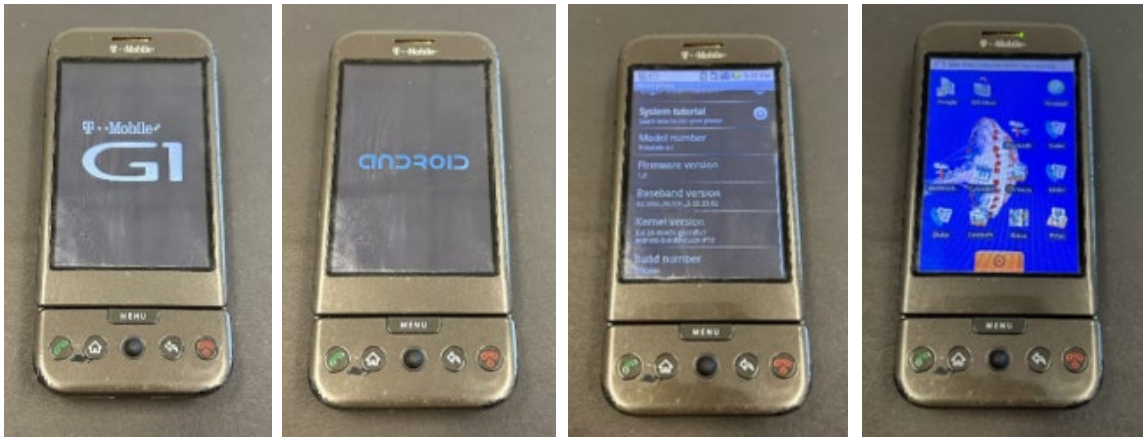
The chart below illustrates how the asserted claims of the '602 patent are anticipated by the HTC G1 1.6 and/or would have been obvious in view of by the HTC G1 1.6 and/or additional secondary references. The excerpts cited herein are exemplary. For any claim limitation, Samsung may rely on excerpts cited for any other limitation and/or additional excerpts not set forth fully herein to the extent necessary to provide further explanation for a reference's disclosure of a limitation. Where an excerpt refers to or discusses a figure or figure items, that figure and any additional descriptions of that figure should be understood to be incorporated by reference as if set forth fully herein. Samsung reserves the right to further supplement this chart.

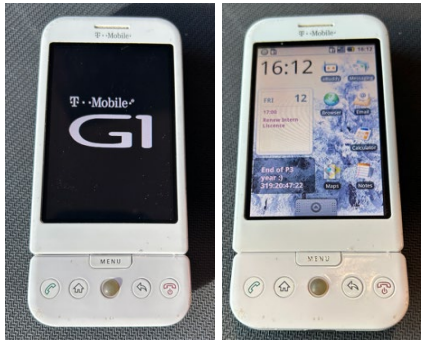
To the extent that these Invalidity Contentions rely on or otherwise embody particular interpretations of terms or phrases in the asserted claims, Samsung is not proposing any such interpretations as proper interpretations or constructions of those terms or phrases. Various positions put forth in this document are predicated on Keyless's interpretation of its claims as evidenced by its Infringement Contentions. Those positions are not intended to and do not necessarily reflect Samsung's interpretation of the true and proper scope of the asserted claims. Samsung further incorporates by reference all reservations of rights set forth in the Invalidity Contentions, as if fully set forth herein.

Defendants' arguments throughout these invalidity contentions are based on Keyless's apparent interpretation of the claims in its infringement contentions. Defendants do not agree that such interpretation is proper and reserve the right to argue that the mapped actions do not infringe any claims of the '602 patent. In the alternative, should the Court or factfinder construe and/or apply the claims in a manner consistent with Keyless's interpretations in its infringement contentions for the '602 patent, the claims are invalid for at least the reasons set forth herein.

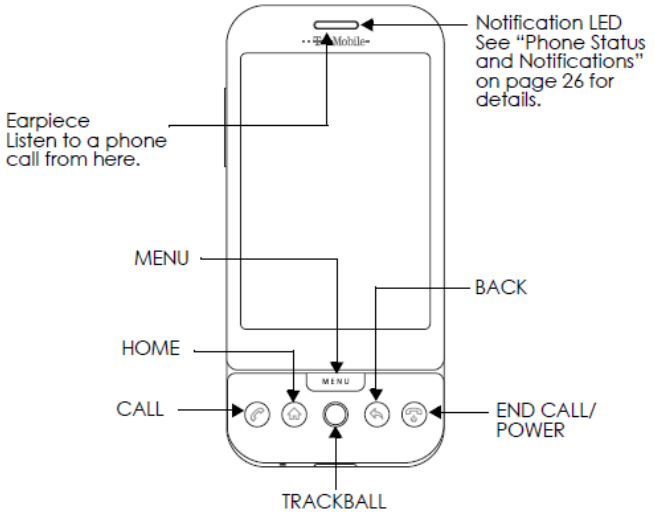
In some instances, the referenced prior art includes priority applications, including prior provisional applications, that provide adequate §112 support for the claim(s) in the referenced prior art. *See, e.g.*, Tseng at cover. In those instances, the consistent disclosures in those earlier applications, including prior provisional applications, are incorporated herein by reference. As such, those earlier disclosures apply equally in terms of their application to the elements of the asserted claims, and thus provide even earlier dates in terms of prior art, state of the art, and the knowledge base of those of ordinary skill in the art. *See Dynamic Drinkware LLC v. National Graphics Inc*., 800 F.3d 1375 (Fed. Cir. 2015).

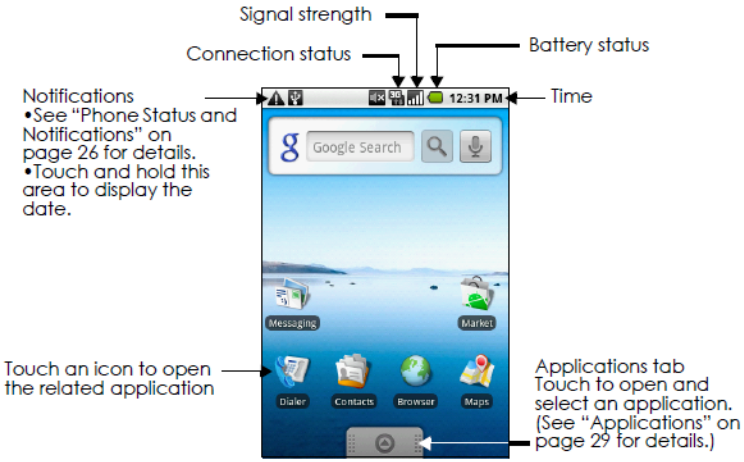
To the extent any of the art describes different embodiments of its inventions, a POSITA would have found it obvious to combine the HTC G1 1.6's teachings regarding these embodiments. A POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the embodiments, and would have a reasonable expectation of success in doing so, at least because the embodiments use known variations of existing technology to solve routine and well understood problems in predictable ways. A POSITA would have recognized that the HTC G1 1.6's embodiments describe related advancements for mobile devices, and a POSITA would have been motivated to combine elements of the embodiments to achieve the HTC G1 1.6's goals.

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[1Pre]** A system for capturing an event provided from an edge of a touch screen comprising: | To the extent that the preamble is held to be limiting, the HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[a] system for capturing an event provided from an edge of a touch screen."<br><br>For example, the HTC G1 1.6 is a system for capturing an event provided from an edge of a touch screen. For example, the HTC G1 1.6 captures a user's swipe/drag event from an upper or lower edge of the touch screen to display the notifications panel or the applications tab, respectively.<br>  <br>HTC G1 1.6 Device.<br>  |

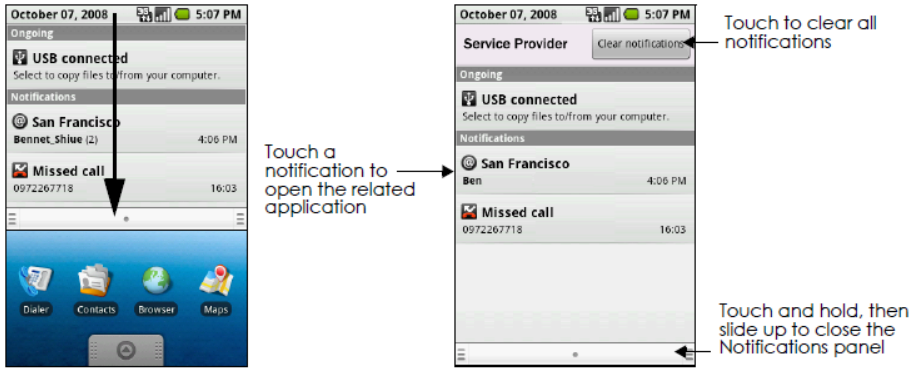
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | HTC G1 1.6 Device<br>  <br>HTC G1 1.6 Device.<br>  <br>HTC G1 1.6 Device.[4] |

[4] Samsung reserves the right to rely on any HTC G1 device, including either or both of the HTC G1 devices shown here. On information and belief, such devices function substantially the same as disclosed in this chart.

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **1.1 Getting to Know Your T-Mobile G1 and Accessories**<br>**Front panel**<br>  <br><br>G1 User Manual 14. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **1.7 Home Screen**<br><br>The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.<br><br>  <br><br><br>**Tip** While in any application, press **HOME** to go back to the Home screen.<br><br>G1 User Manual 24.<br><br>**Notifications panel**<br><br>Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.<br><br>**To open the Notifications panel**<br><br>When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|




If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

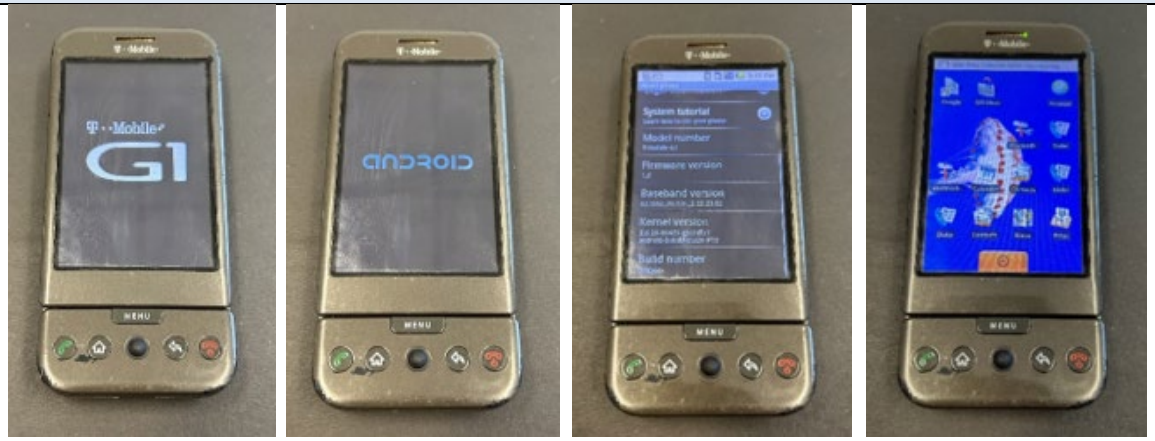
**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

**To close the Applications tab**

Touch  .

G1 User Manual 29.

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, G1 Launch Event; G1 Unveiled; Engadget Review; Google Mobile Products on Android; T-Mobile G1 Review; T-Mobile G1 Android Phone Hands-On; T-Mobile G1 Expanded Demo; T-Mobile G1 User Interface Review; T-Mobile G1 Physical Design Review; The Gadget Show, T-Mobile G1 Live Demo; T-Mobile G1 Tour; T-Mobile G1 Impressions; HTC Dream User Manual. |
| **[1A]** a device having a touch screen; | The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a device having a touch screen."<br><br>For example, the HTC G1 1.6 includes the HTC H1 1.6 device having a 3.17-inch (3.2") touch screen, such as a TFT-LCD touch-sensitive screen.<br><br>**11.1 A.1 Specifications**<br><br>**Processor** — Qualcomm® MSM7201A™ 528 MHz<br>**Platform** — Android™<br>**Memory** — ROM: 256 MB<br>RAM: 192 MB<br>**Dimensions (LxWxT)** — 11 7.7 mm x 55.7 mm x 17.1 mm (4.60 in x 2.16 in x 0.62 in)<br>**Weight** — 158 g (5.60 ounces) with battery<br>**Display** — 3.17-inch TFT-LCD flat touch-sensitive screen with 320 x 480 HVGA resolution<br><br>G1 User Manual 106. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC G1 1.6 Device.<br>  <br>HTC G1 1.6 Device |

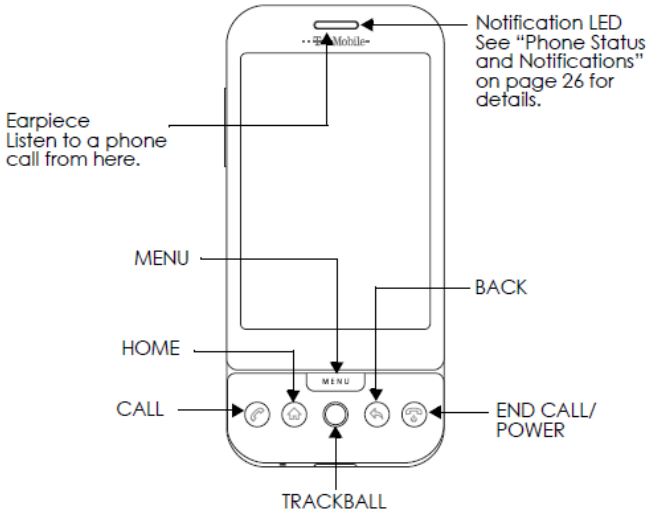
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|



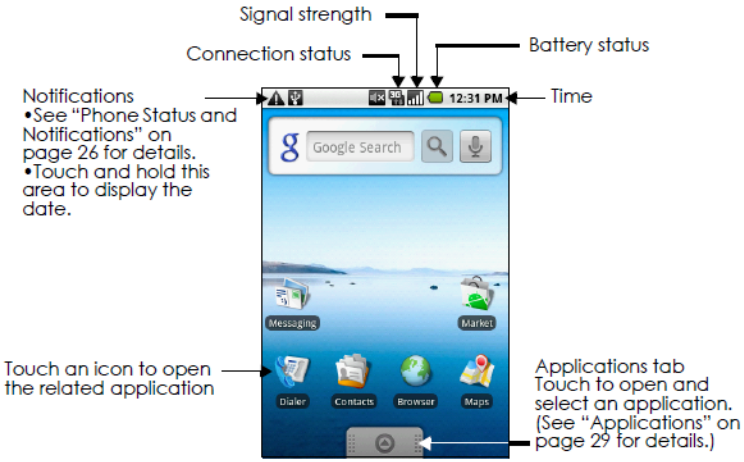
HTC G1 1.6 Device.

## 1.1 Getting to Know Your T-Mobile G1 and Accessories

### Front panel



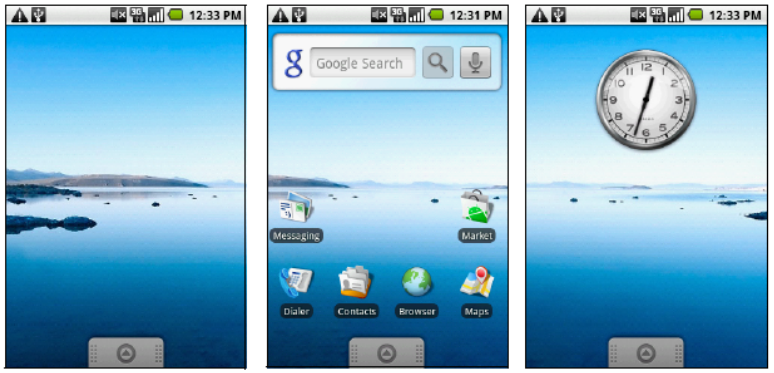

G1 User Manual 14.

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **1.7 Home Screen**<br><br>The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.<br><br>  <br><br><br>**Tip** While in any application, press **HOME** to go back to the Home screen. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

## Extended Home screen

The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.




Extended Home screen left

Extended Home screen right

G1 User Manual 24.

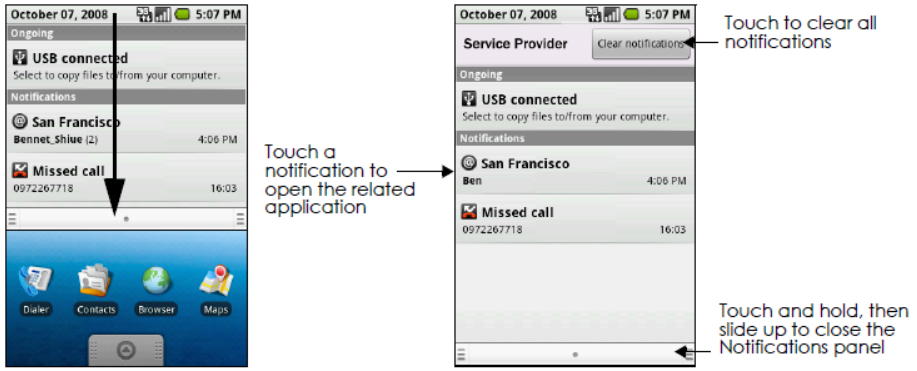
## Notifications panel

Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.

**To open the Notifications panel**

When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|




If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

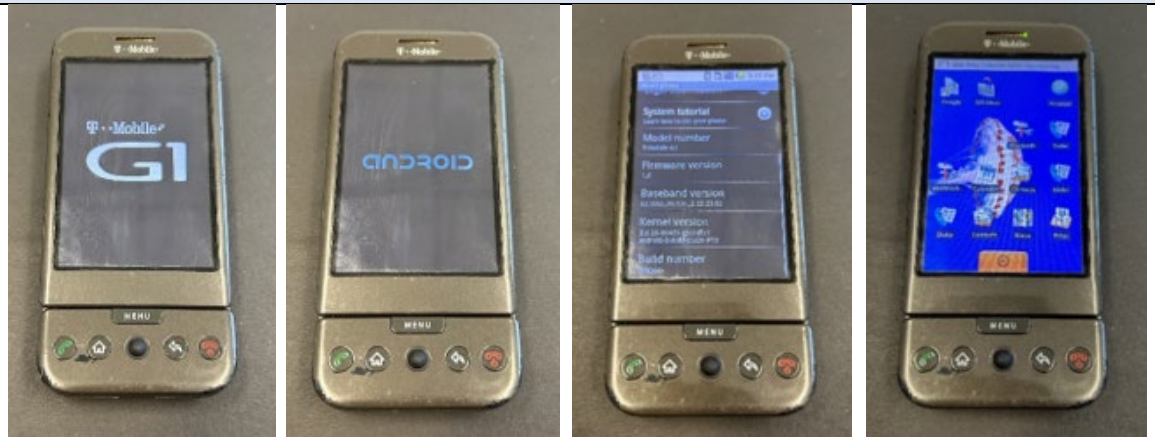
**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

**To close the Applications tab**

Touch  .

G1 User Manual 29.

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, G1 Launch Event; G1 Unveiled; Engadget Review; Google Mobile Products on Android; T-Mobile G1 Review; T-Mobile G1 Android Phone Hands-On; T-Mobile G1 Expanded Demo; T-Mobile G1 User Interface Review; T-Mobile G1 Physical Design Review; The Gadget Show, T-Mobile G1 Live Demo; T-Mobile G1 Tour; T-Mobile G1 Impressions; HTC Dream User Manual. |
| **[1B]** at least one window located in the touch screen on an edge of the touch screen, wherein said at least one window functions independently of an interface of an application in use on the touch screen; and | The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "at least one window located in the touch screen on an edge of the touch screen, wherein said at least one window functions independently of an interface of an application in use on the touch screen."<br><br>For example, the HTC G1 1.6 includes at least one window, such as the status bar window and applications tab window located in the touch screen on the top and bottom edges of the touch screen, respectively. Each of the status bar window and the applications tab window functions independently of an interface of an application in use on the touch screen. For example, the status bar window is always present at the top edge regardless of the application shown on the main portion of the display and can be pulled down to view the notifications panel. The applications tab window is displayed at the bottom edge of the home screen independently of any widget applications shown on the home screen. For example, both the status bar window and the applications tab window are displayed on an edge of the touch screen and function independently of an interface of the Google search application or the clock application in use on the touch screen. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC G1 1.6 Device.<br>  <br>HTC G1 1.6 Device |

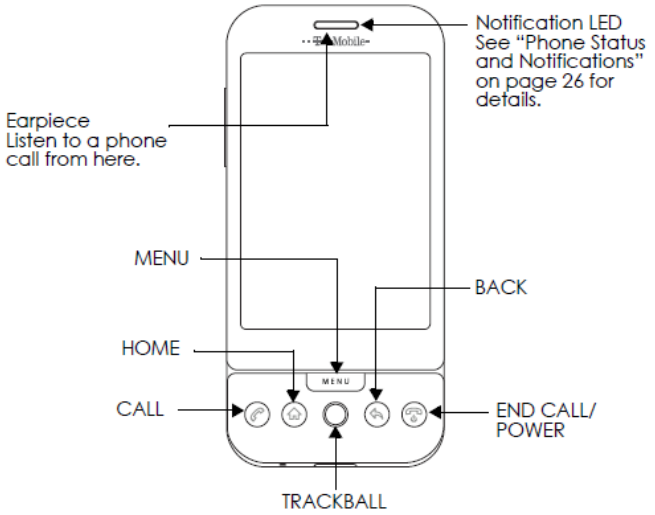
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|



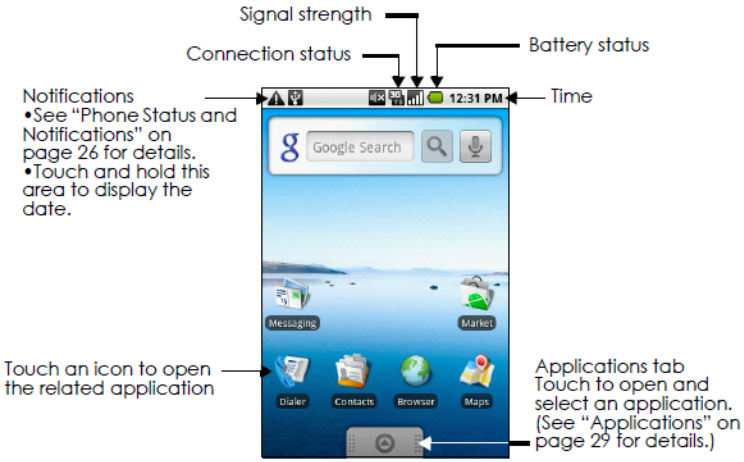
HTC G1 1.6 Device.

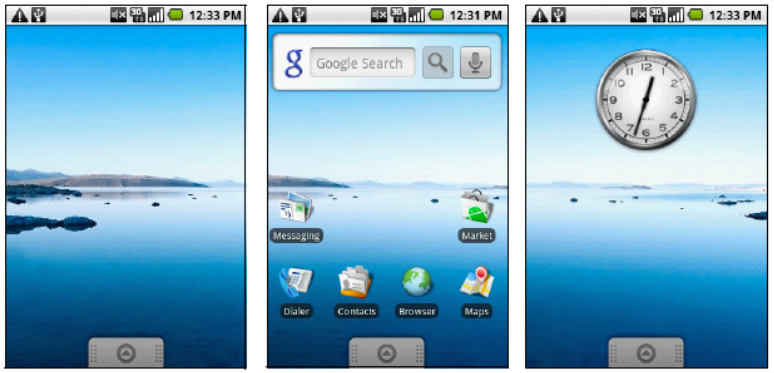
## 1.1 Getting to Know Your T-Mobile G1 and Accessories

### Front panel

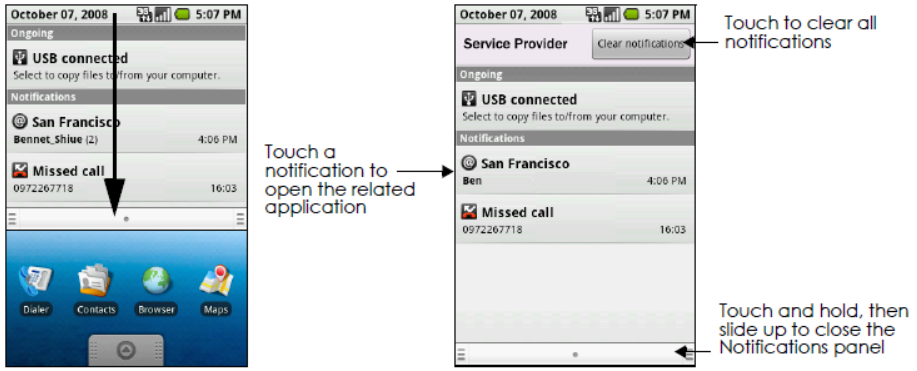



G1 User Manual 14.

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **1.7 Home Screen**<br><br>The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.<br><br>  <br><br><br>**Tip** While in any application, press **HOME** to go back to the Home screen. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | **Extended Home screen**<br>The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.<br>  <br><br>Extended Home screen left<br>Extended Home screen right<br>G1 User Manual 24.<br>**Notifications panel**<br>Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.<br>**To open the Notifications panel**<br>When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

**To close the Applications tab**

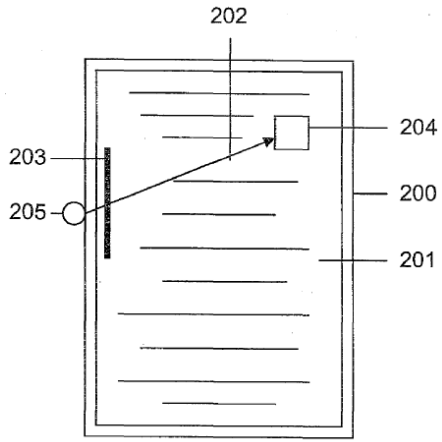
Touch  .

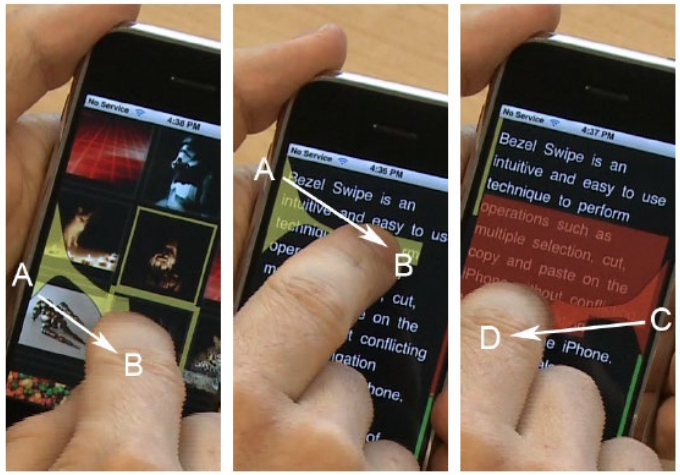
G1 User Manual 29.

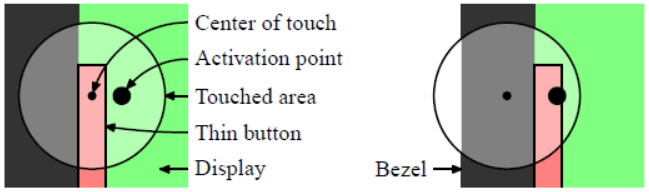
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | *See, e.g.*, G1 Launch Event; G1 Unveiled; Engadget Review; Google Mobile Products on Android; T-Mobile G1 Review; T-Mobile G1 Android Phone Hands-On; T-Mobile G1 Expanded Demo; T-Mobile G1 User Interface Review; T-Mobile G1 Physical Design Review; The Gadget Show, T-Mobile G1 Live Demo; T-Mobile G1 Tour; T-Mobile G1 Impressions; HTC Dream User Manual.<br><br>To the extent Keyless argues that the HTC G1 1.6 does not disclose or render obvious this limitation, for example, that the applications tab window may not function independently of an interface of an application in use on the touch screen, it would have been obvious in view of the HTC G1 1.6, POSITA's pre-existing knowledge, and/or the teachings of the HTC G1 1.6 combined with the other references charted for this patent in these invalidity contentions, including Tseng, Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, and the Neonode N2. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways. |

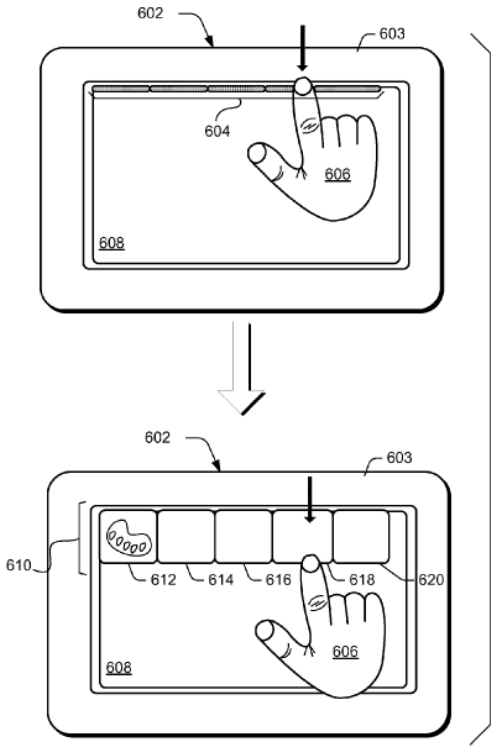
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | For example, Tseng discloses at least one window, such as a "status bar" or "status area," located on the top edge of the touch screen that functions independently of an interface of an application in use on the touch screen. Tseng at Abstract, FIGS. 1, 2A-2C, 3, 4A-4B, 5, [0005], [0014], [0031]. Tseng explains that the status bar is capable of displaying notifications at the edge of the touch screen display. For example, "the notifications may occur by having a notification message … be displayed in a peripheral area at the edge of a display, such as a status area, or status bar, for the mobile device." Tseng at [0028], FIGS. 1, 2A-2C, 3, 4A-4B, 5. Tseng's "status bar" or "status area" is a window that functions independently of an interface of an application, such as the interface of the "active programs" or "active applications" being displayed in the touch screen display area independent of an application interface in the main display of the touch screen. Tseng at [0005], [0014], [0028], [0032], [0040], FIGS. 1, 2A-2C, 3, 4A-4B, 5. The status bar is shown regardless of the application being displayed in the main display. "A status bar area is the typically-static area on a device that displays information such as bars for wireless signal strength, a remaining battery life indicator, an icon that shows the network over which wireless communication is occurring, and the like. The main area or zone of the display is generally the central, largest area of a display where active programs are displayed, while supplemental elements are typically displayed around the periphery of the main area …." Tseng at [0005]. As one example, "one or more applications may be shown in the main zone [of the touch screen]. Such as an application tracking an ongoing telephone call," which is independent of the status bar that is shown regardless of the application in the main display. Tseng at [0040].<br><br>Moreover, each of Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, and the Neonode N2 teaches a gliding action from off screen to on screen to activate a function assigned to the window that functions independently of an interface of an application in use on the touch screen.<br><br>Roth teaches using a swiping (e.g., gliding) action from outside a screen through a window in the form of a line at the edge of the screen on the screen towards the inside of the touch screen to activate a function associated with the window. For example, Roth describes "[a] crossing-based interface along the bounds of the display is a viable solution. Users can invoke actions with swiping gestures across a section of the display side from the outside to the inside." Roth at [0009]. Roth teaches advantages of such outside-to-inside gliding activations, for example, that "they can be |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to the distance vector between the line and the cursor," and "that a well positioned line requires significantly less display space than a button for similar performance characteristics." Roth at [0010]. "One example of such a gesture is a continuous swiping motion from the activation point representing a desired action or even from the bezel of the device, through the activation point and to the target on the display." Roth at [0015]. Roth explains that such outside-to-inside gliding actions "allow[] the active area of an activation point to be much smaller on a display due to the utilization of a greater average weight throughout a touch sensitive display, which creates a higher probability of activating on a narrow activation point or operating on a small target," "save[s] valuable display space on the screen, since the activation point can be made smaller on the display as a result," and may "begin from outside the display for ease of use." Roth at [0015]. As Roth explains, a "bar" may "represent[] the desired action." Roth at [0017]. "[A]n activation point 203 (represented as a bar in this example) displayed on the edge of the screen which represents the desired action of selecting. The bar is made small so as to not take up valuable space on the display. The user can then select the target 204 through the use of a gesture 202, such as swiping, pinching, tapping or other gestures …." Roth at [0036]. As shown in FIG. 2B, "[t]he user can begin his gesture from either on the bar itself or from outside the display 205 and continue the gesture through the bar and to target as if the user were bringing the action to the target. An example of such a gesture is if the user utilized a continuous swiping motion with his finger from the bar representing a desired action to the target on the display." Roth at [0039]. |

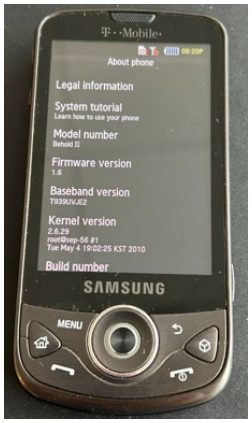
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Roth at FIG. 2B.<br><br>Roth Bezel Swipe teaches activation gestures related to mobile devices having touch screens. A bezel swipe gesture is an outside-to-inside swiping (e.g., gliding) gesture across a window in the form of a line or bar, in which "[t]he user starts a Bezel Swipe gesture on the bezel, which is the physical touch insensitive frame that surrounds the display. The finger is then swiped through a part of the display edge into the display, which enters selection mode. Next, the user moves the finger onto an object or display position and selects it by lifting the finger off the display, which ends selection mode. Different edge portions represent different actions and are distinctively marked." Roth Bezel Swipe at 1524. "Swipes are recognized by detecting touches inside a thin rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524. As such, "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display. Figure 2 illustrates this. A touch sensitive display translates the contact area of the finger with the display into an activation point." Roth Bezel Swipe at 1524. "The Bezel Swipe gesture … starts on the bezel and moves into the display. Therefore the contact area is gradually increased until it exceeds the contact threshold of the display. … Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. This outside-to-inside crossing gesture has advantages, for example, "the crossing of the touch-insensitive bezel in conjunction with the |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | properties of touch sensitive displays enables the reliable activation of a button that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524.<br>  <br>**Figure 1. The Bezel Swipe prototype in action. Left panel: A swipe from A to B selects an image. Middle panel: A swipe from A to B marks the beginning of a text selection. Right panel: A swipe from C to D marks the end of the text selection.**<br>Roth Bezel Swipe at Figure 1. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>**Figure 2. Touching narrow targets close to the bezel: a touch (large circle) centered on the target (left) may not activate it whereas a touch significantly overlapping the bezel (right) does.**<br><br>Roth Bezel Swipe at Figure 2.<br><br>Hinckley teaches a visual affordance window indicating a pull-down bezel menu is shown at the edge of a mobile device using a gliding action from outside of the touch screen towards the inside of the touch screen. Hinckley at FIGS. 5, 6. For example, in FIG. 5, "[s]tep 500 displays a visual affordance on a display device associated with a computing device" and is shown at as a window or bar 604 being a five-part line in FIG. 6. Hinckley at [0068], [0072], FIGS. 5, 6. Then, "[s]tep 502 receives a bezel gesture input relative to the visual affordance," such as from off-screen to on-screen over the visual affordance. Hinckley at [0068], [0072], FIGS. 5, 6. After the off-screen to on-screen gesture, "[s]tep 504 accesses functionality associated with the received bezel gesture input." Hinckley at [0068], [0072], FIGS. 5, 6. Hinckley explains that "off-screen to on-screen motion (or vice versa) can be utilized as a mechanism to expose a menu or to access some other type of functionality." Hinckley at [0071]. As shown in FIG. 6, "device 602 includes a bezel 603 and a visual affordance 604 that is rendered on display device 608." Hinckley at [0072], FIG. 6. The "visual affordance 604" may appear as "in the form of a semi-transparent strip" and "can be utilized to provide a hint or indication of accessible functionality, in this case a bezel menu, associated with the bezel." Hinckley at [0072], FIG. 6. "[T]he bezel menu can be accessed through a bezel gesture in which a finger of user's hand 606 touches the bezel and then moves across the bezel and onto the display device 608 in the direction of the illustrated arrow." Hinckley at [0073], FIG. 6. After this off-screen to on-screen gesture, the "bezel menu 610 to be dropped down at which time it can become fully opaque." Hinckley at [0073], FIG. 6. Hinckley further explains that "bezel menu 610 includes multiple selectable icons or slots 612, 614, 616, 618, and 620. Each of the icons or slots is associated with a different functionality such as, for example, paint |

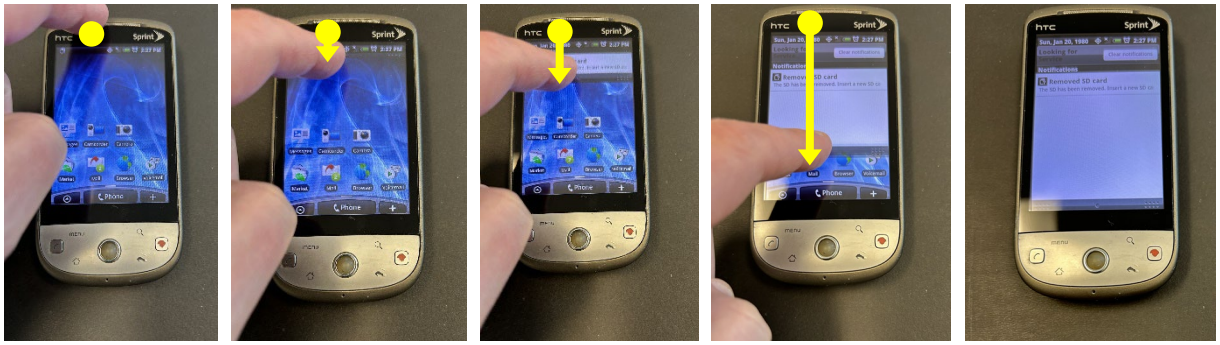
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | functionality, pen functionality, note functionality, object creation, object editing, and the like." Hinckley at [0074], FIG. 6. Hickley teaches, however, that "any type of functionality can be associated with the icons or slots." Hinckley at [0074], FIG. 6. The "bezel menu 610 can enable a user to access and activate commands, tools, and objects." Hinckley at [0075], FIG. 6.   Fig. 6 |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | Hinckley at FIG. 6.<br><br>On information and belief, the Samsung Galaxy GT-i7500 1.5 operates substantially the same with respect to the pull-down notifications interface as the HTC G1 1.6 and the HTC Magic 1.6. *See, e.g.*, https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface as the same, showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."); https://www.youtube.com/watch?v=rhBgLQSxfjE at 1:20-1:34 (describing as running Android 1.5 and similar to HTC G1 device, showing opening notification menu from status bar contact at 1:32). On information and belief, a user may perform a gliding action from the plastic housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar); https://www.youtube.com/watch?v=wVF8dLkgW7c at 0:40-0:56 (showing swipe down over status bar to open notifications interface); https://www.youtube.com/watch?v=4Pv04Tw6wvQ at 3:30-3:35 (showing gliding gesture on status bar to show notification interface for Android 1.5 operating system). The user's touch first interacts with the status bar window on the touch screen because the bezel does not contain touch-sensitive elements. The gliding action over the status bar window causes a processor to perform the action of displaying the notifications window independent of an interface of an application in use on the touch screen. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar).<br><br>The Samsung Behold II operates substantially the same with respect to the pull-down notifications interface across the status bar window as the HTC G1 1.6 and the HTC Magic 1.6. *See, e.g.*, https://www.cnet.com/tech/mobile/hands-on-samsung-behold-ii-plus-release-details/ (explaining that the Samsung Behold II runs on Android 1.5); https://www.t-mobile.com/news/press/t-mobile-usa-launches-the-samsung-behold-ii-on-november-18. For the Samsung Behold II, a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application |

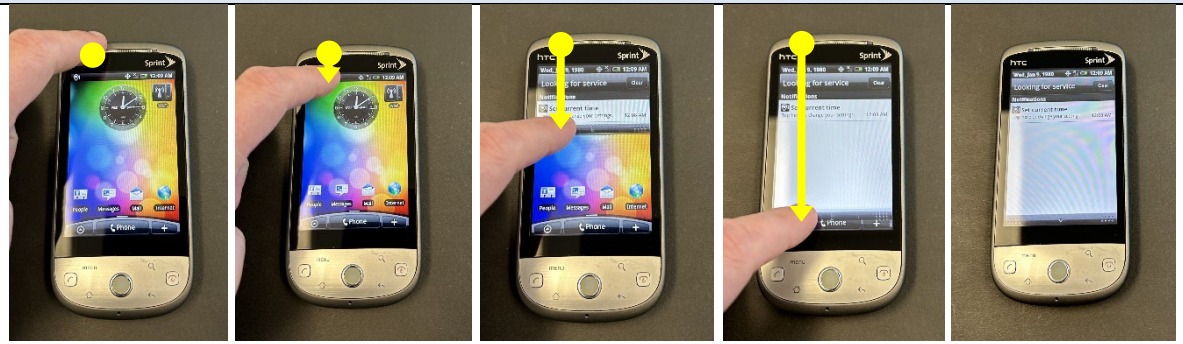
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | display the inside of the touch screen (e.g., crossing over the status/notification bar window). The status bar window functions independently of an interface of an application in use on the touch screen (for example, a widget application on a home screen or an application, such as mail or messaging, open on the touch screen).<br>  <br>The Samsung Behold II device.<br>  <br>The Samsung Behold II device.[5] |

[5] Samsung reserves the right to rely on any Behold II device, including either or both of the Behold II devices shown here. On information and belief, such devices function substantially the same as disclosed in this chart.

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | On information and belief, the HTC Magic 1.5 operates substantially the same with respect to the pull-down notifications interface as the HTC G1 1.6 and the Samsung Galaxy GT-i7500. *See, e.g.*, https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface as the same, showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."). On information and belief, a user may perform a gliding action from the plastic housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. The status bar window functions independently of an interface of an application in use on the touch screen. The user's touch first interacts with the status bar window on the touch screen because the bezel does not contain touch-sensitive elements. The gliding action over the status bar window causes a processor to perform the action of displaying the notifications window. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 (In addition to being able to drag (or double tap if your fingers are a little tired) the menu bar up from the bottom of the screen, you can also drag from the top and find your notifications all grouped nicely together."); https://ianrenton.com/blog/review-htc-magic/ ("Dragging the top drawer (where app notifications, incoming messages etc. sit) is a lot more intuitive on an actual device than on the emulator, and the kinetic scrolling - you can 'throw' menus - feels just right."); https://www.youtube.com/watch?v=LghBOTZ-HuE at 5:08-5:20 (describing "drag-down notification drawer"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:35-8:55 (describing notification menu as "a drawer" that you "pull down" allowing you to "click" notifications to open the corresponding application).<br><br>Furthermore, on information and belief, a user may perform a gliding action from the plastic housing bezel below the touch screen (i.e., from outside of the screen) over the tab window shown at the bottom of the screen towards the main application display inside of the touch screen (e.g., over the tab window) to display an applications selection interface and functions independently of an application shown on the touch screen. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 ("you can simply drag up the menu from the bottom and access all your recently downloaded applications and |

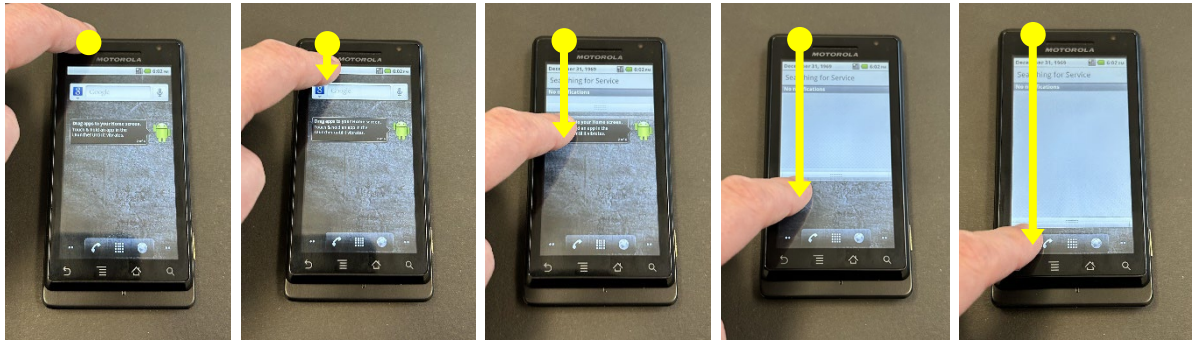
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | menu functions, sorted alphabetically"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:15-7:35, 8:17-8:55 (showing swipe-up action to open application selection interface).<br><br>The HTC Hero 1.5 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar window (from outside of the screen) over the status bar window towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The status bar window functions independently of an interface of an application in use on the touch screen (for example, a widget application on a home screen or an application, such as mail or messaging, open on the touch screen).<br><br>  <br><br>HTC Hero 1.5.<br><br>The HTC Hero 2.1 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar window (from outside of the screen) over the status bar window towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The status bar window functions independently of an interface of an application in use on the touch screen (for example, a widget application on a home screen or an application, such as mail or messaging, open on the touch screen). |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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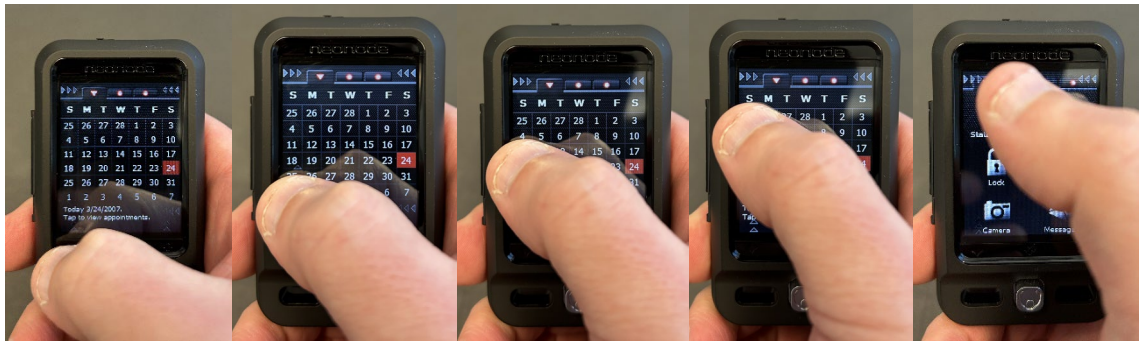
HTC Hero 2.1.

The Motorola Droid A855 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar window (from outside of the screen) over the status bar window towards to the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The status bar window functions independently of an interface of an application in use on the touch screen (for example, a widget application on a home screen or an application, such as mail or messaging, open on the touch screen).



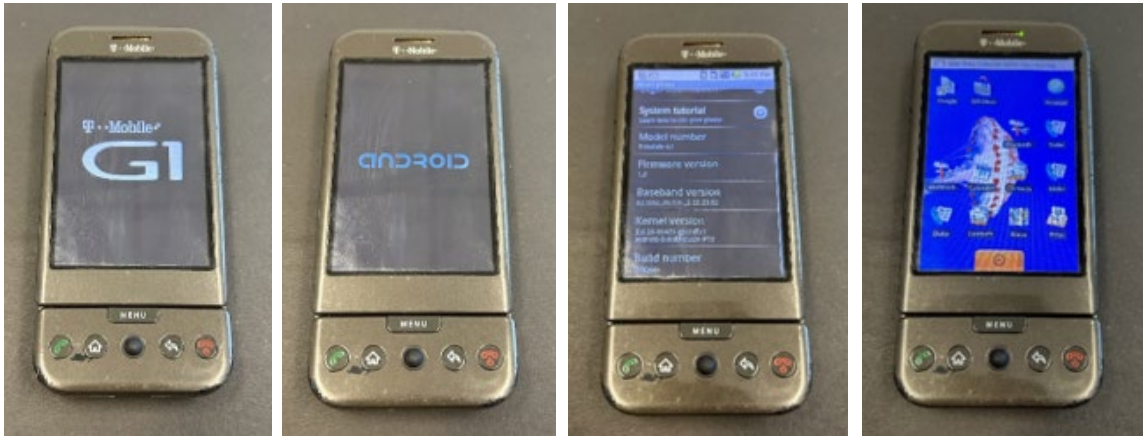
Droid A855.

The Neonode N2 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen over the indicated icons or from the sides of

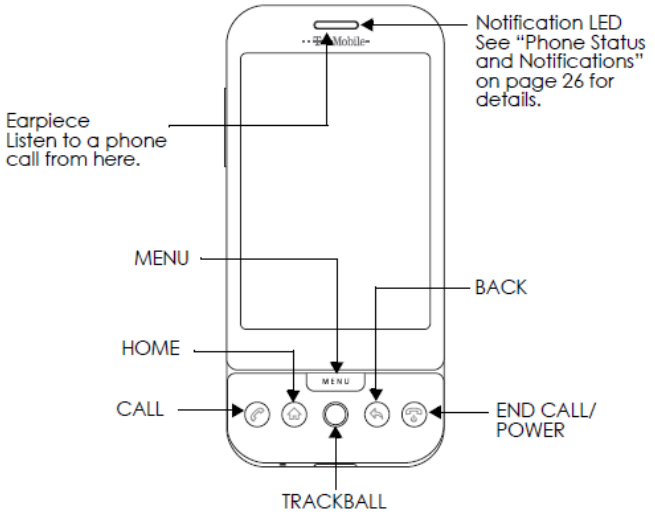
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | the screen as indicated by the various arrows in a window (from outside of the screen), over the arrows towards the main application display toward the inside of the touch screen (e.g., crossing over the window identifying the movement from off-to-on screen). The arrow window functions independently of an interface of an application in use on the touch screen (for example, an application, such as mail or messaging, open on the touch screen).<br>  <br><br>Neonode N2.<br>  <br>Neonode N2.<br>A POSITA would have found it obvious to incorporate the functionality of permitting said at least one window at an edge of the touch screen that functions independently of an interface of an application in use on the touch screen, as claimed. Each of the HTC G1 1.6, Roth, Roth Bezel Swipe, Hinckley, Tseng, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC Hero |

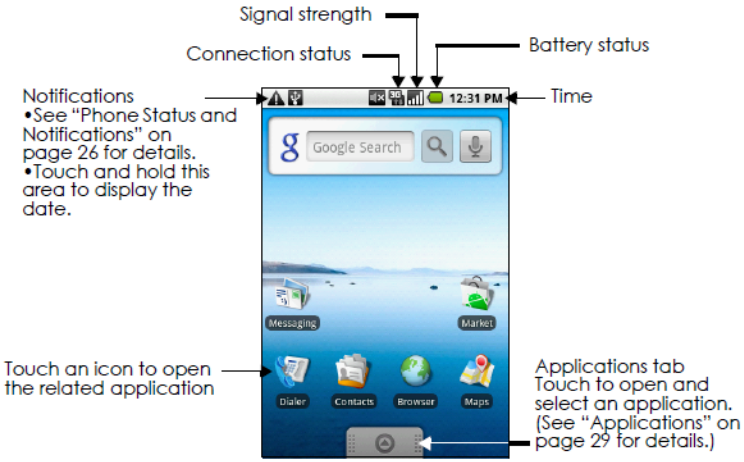
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, and/or the Neonode N2, teaches using a gliding action over a window, where the window is independent of an application shown on the touch screen. A POSITA would have been motivated to provide for the window of the HTC G1 1.6, such as the applications tab window, to function independently of an interface of an application in use on the touch screen, such as a thin line or bar at the edge of the screen, as known for the HTC G1 1.6's status bar and in the prior art. For example, a POSITA would have been motivated to provide the applications tab as a thin bar on an edge of the touch screen, such as the size of the applications tab for the Samsung Behold II or as a thin line as taught by Roth and/or Roth Bezel Swipe, or a narrow window as taught by the Neonode N2. A POSITA would have been motivated to provide this functionality because it allows for the same operation as the HTC G1 1.6, but would have improved the user's experience by allowing the user to take the action, such as opening the applications menu, when another application is shown full screen as known in the prior art, such as the Neonode N2. Indeed, the HTC G1 1.6 already discloses the ability to drag open the notifications menu interface from the status bar that functions independently of an interface of an application shown full screen, for example, by gliding down from the top edge of the touch screen. Moreover, a POSITA would have recognized that providing a narrower or smaller window for the applications tab region would have the benefit of indicating to the user that the applications menu is available to open while avoiding obscuring an application interface shown on the touch screen display (such as taught by various devices known in the art, such as the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC G1 1.6, and/or the Neonode N2). This improves the user's experience because the user can still activate the function associated with the window, such as the HTC G1's applications menu, but does not reduce the size of the displayed application in a meaningful way because the window may be "a narrow target (the red bar) positioned flush against the display edge." Roth Bezel Swipe at 1524. In other words, "[s]wipes" from outside-to-inside the touch screen "are recognized by detecting touches inside a thin rectangular area [window] positioned flush against the display screen." Roth Bezel Swipe at 1524. This "enables the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524. |

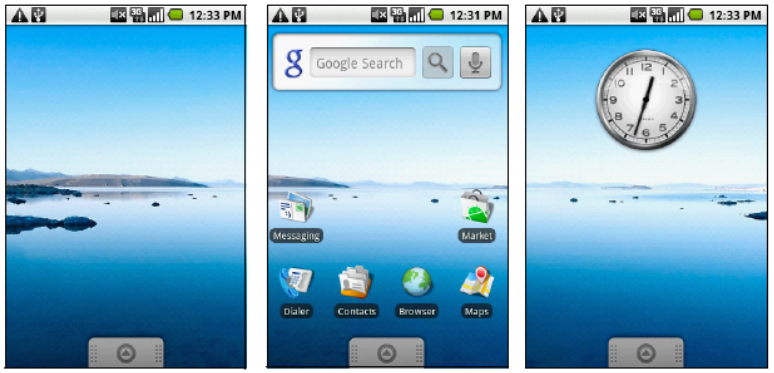
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | It was well known to a POSITA that activating a function of at least one window at an edge of the touch screen that functions independently of an interface of an application in use on the touch screen continues to "enable[] the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524. Activating functions where "[u]sers can invoke actions with swiping features across a section of the display [touch screen] side from the outside to the inside" also "requires minimal display real estate," whereby being beneficial to mobile devices that have small screens and does not obscure the active applications. Roth, [0009], [0036].<br><br>Activating a function using at least one window that functions independently of an interface of an application in use on the touch screen, was routine and conventional to POSITAs, as shown by the HTC G1 1.6, Roth, Roth Bezel Swipe, Hinckley, Tseng, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, and/or the Neonode N2. Moreover, it was successfully implemented in commercial prior art devices, such as the HTC G1 1.6, Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, and/or the Neonode N2. Incorporating an operation at least one window located at an edge of the touch screen that functions independently of an interface of an application in use on the touch screen into the HTC G1 1.6, such as the applications tab window, represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with the HTC G1 1.6, represent nothing more than combining prior art elements according to known methods and techniques (rendering a window, such as an applications tab, at the edge of the HTC G1 1.6's touch screen, for example, as a thin tab, bar, or line, which is independent of an application in use on the touch screen) to yield predictable results (to open the HTC G1 1.6's menu, such as by sliding open the applications menu, as disclosed by the HTC G1 1.6). |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[1C]** a processor; | The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a processor."<br><br>For example, the HTC G1 1.6 includes a processor, such as a Qualcomm MSM7201A™ 528 MHz processor, to process instructions related to user inputs on the touch screen, display applications, and handle notification alerts.<br><br>**11.1 A.1 Specifications**<br><br>**Processor** Qualcomm® MSM7201A™ 528 MHz<br><br>G1 User Manual 106.<br><br>  <br><br><br>HTC G1 1.6 Device. |

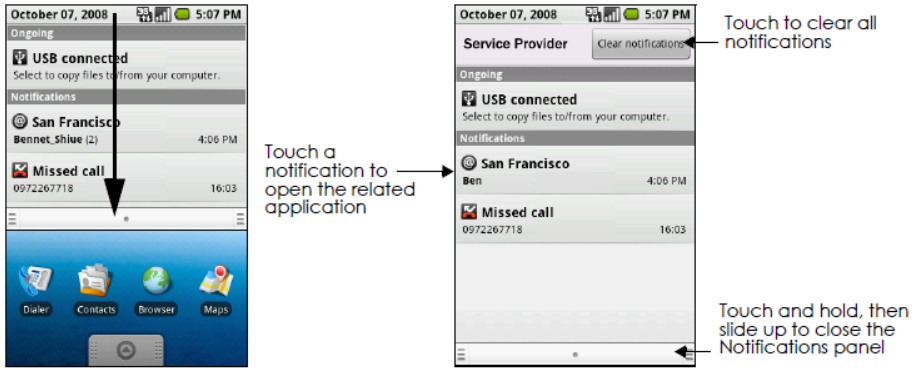
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC G1 1.6 Device<br>  <br>HTC G1 1.6 Device. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **1.1 Getting to Know Your T-Mobile G1 and Accessories**<br>**Front panel**<br>  <br><br>G1 User Manual 14. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **1.7 Home Screen**<br><br>The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.<br><br>  <br><br><br>**Tip** While in any application, press **HOME** to go back to the Home screen. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **Extended Home screen**<br>The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.<br>  <br><br>Extended Home screen left<br>Extended Home screen right<br>G1 User Manual 24.<br>**Notifications panel**<br>Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.<br>**To open the Notifications panel**<br>When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|




If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

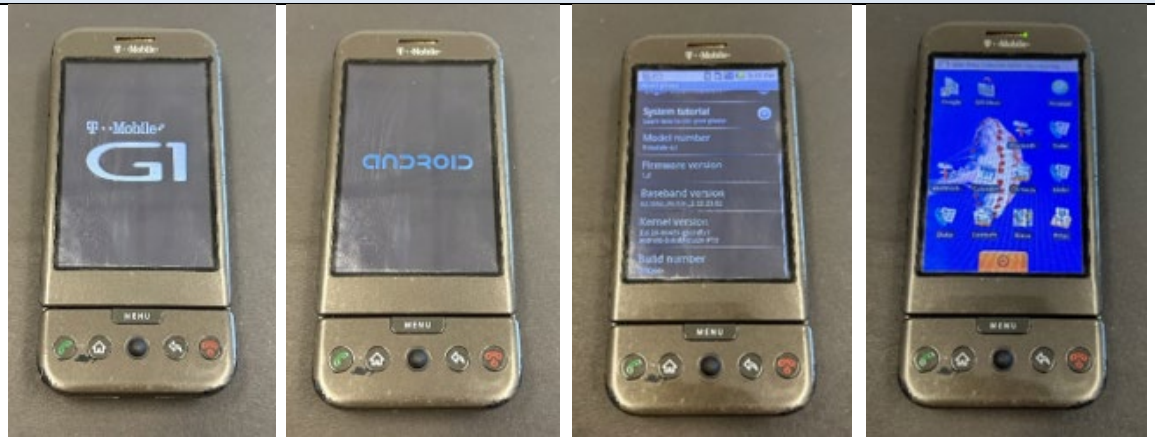
**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

**To close the Applications tab**

Touch  .

G1 User Manual 29.

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, G1 Launch Event; G1 Unveiled; Engadget Review; Google Mobile Products on Android; T-Mobile G1 Review; T-Mobile G1 Android Phone Hands-On; T-Mobile G1 Expanded Demo; T-Mobile G1 User Interface Review; T-Mobile G1 Physical Design Review; The Gadget Show, T-Mobile G1 Live Demo; T-Mobile G1 Tour; T-Mobile G1 Impressions; HTC Dream User Manual. |
| **[1D]** wherein a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said processor to cause an action assigned to said window, and | The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said processor to cause an action assigned to said window."<br><br>For example, the HTC G1 1.6 includes a gliding action provided from outside of the touch screen, such as above the status bar or below the applications tab, towards inside of the touch screen. The gliding action first interacts with said at least one window on the touch screen and is processed by said processor to cause an action assigned to said window, such as opening the notifications panel or opening the applications window. For the HTC G1 1.6, a swipe or slide is a type of drag action. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC G1 1.6 Device.<br>  <br>HTC G1 1.6 Device |

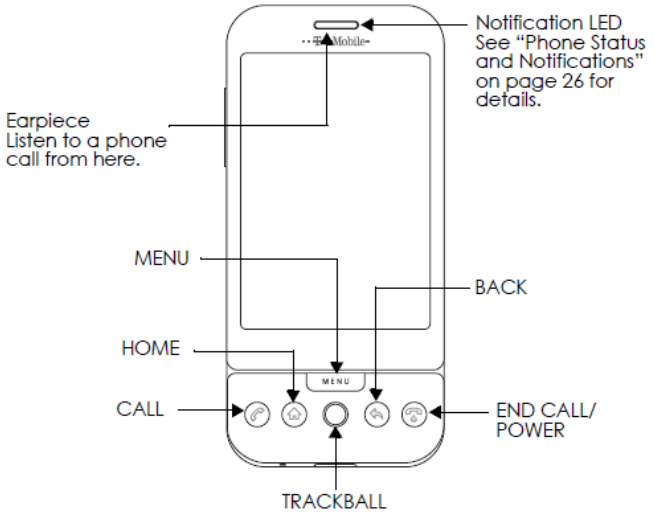
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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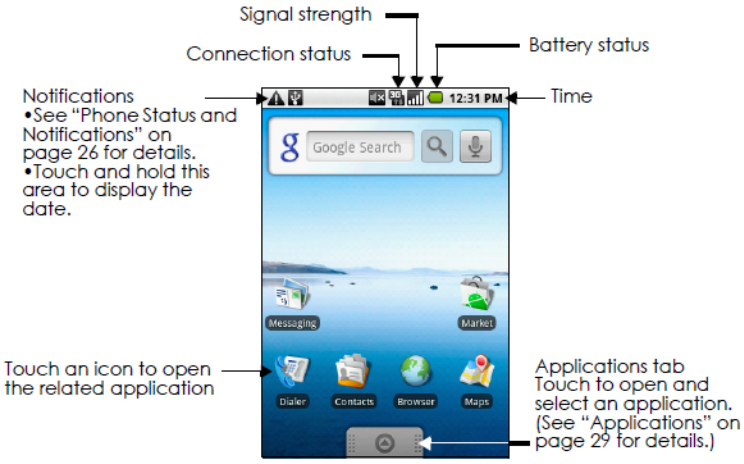
HTC G1 1.6 Device.

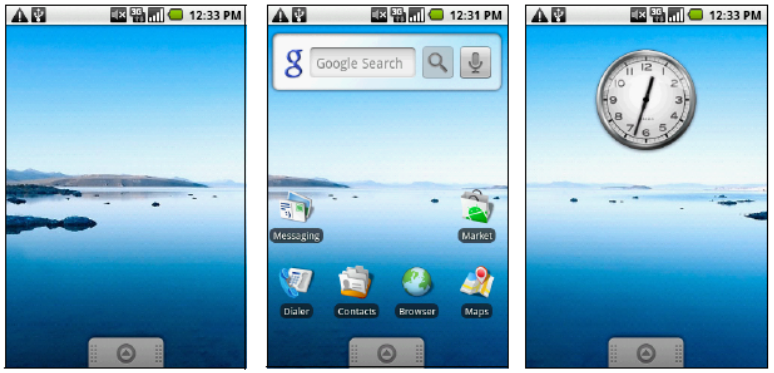
## 1.1 Getting to Know Your T-Mobile G1 and Accessories

### Front panel

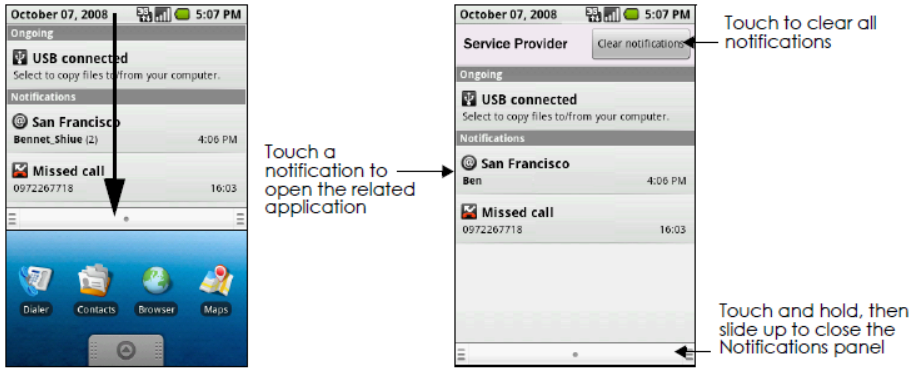



G1 User Manual 14.

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **Swipe or slide**<br>To swipe or slide means to quickly drag your finger vertically or horizontally across the screen.<br>**Drag**<br>Touch and hold your finger with some pressure before you start to drag. While dragging, do not release your finger until you have reached the target position.<br>G1 User Manual 22.<br>**1.7 Home Screen**<br>The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.<br>  <br>**Tip** While in any application, press **HOME** to go back to the Home screen. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **Extended Home screen**<br>The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.<br>  <br><br>Extended Home screen left<br>Extended Home screen right<br>G1 User Manual 24.<br>**Notifications panel**<br>Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.<br>**To open the Notifications panel**<br>When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|




If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

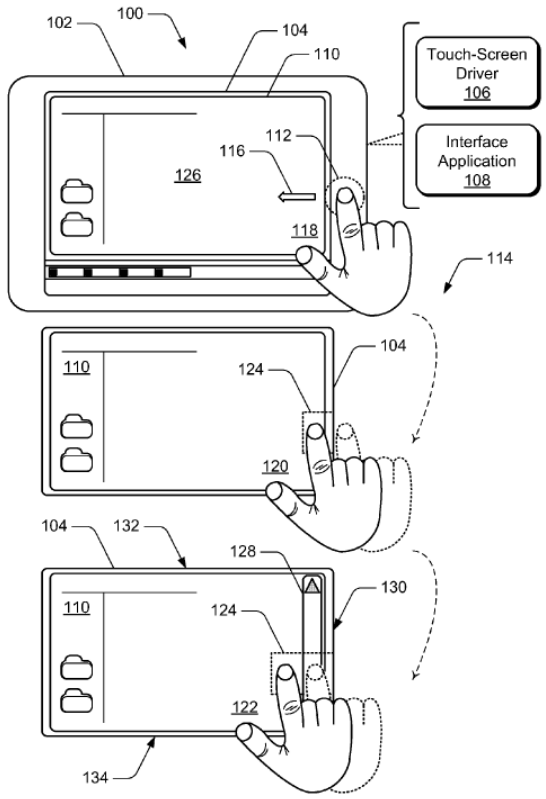
**To close the Applications tab**

Touch  .

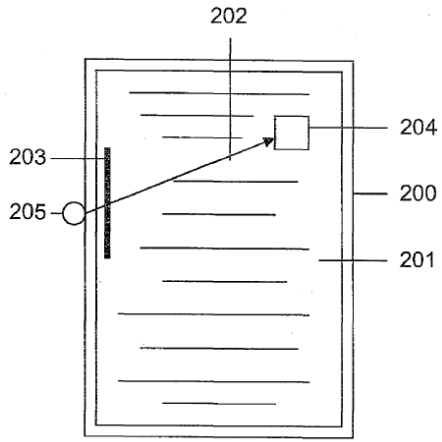
G1 User Manual 29.

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, G1 Launch Event; G1 Unveiled; Engadget Review; Google Mobile Products on Android; T-Mobile G1 Review; T-Mobile G1 Android Phone Hands-On; T-Mobile G1 Expanded Demo; T-Mobile G1 User Interface Review; T-Mobile G1 Physical Design Review; The Gadget Show, T-Mobile G1 Live Demo; T-Mobile G1 Tour; T-Mobile G1 Impressions; HTC Dream User Manual.<br><br>To the extent Keyless argues that the HTC G1 1.6 does not disclose or render obvious this limitation, it would have been obvious in view of the HTC G1 1.6, POSITA's pre-existing knowledge, and/or the HTC G1 1.6 combined with the other references charted for this patent in these invalidity contentions, including Wilairat, Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, Motorola Droid A855, the Palm Pre, and the Neonode N2. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>For example, Wilairat further teaches an off-to-on-screen gliding action, referred to as a "pull-in gesture." Wilairat teaches that, although the gliding motion begins off of the touch screen, it first interacts with the touch screen as the finger enters the touch screen. Wilairat teaches that "a user can initiate a touch input with a finger just off an edge of the touch-screen and then motion a pull-in gesture across the touch-screen. When the motion of the touch pull-in gesture is initiated by the user, a progression of the motion as the touch input remains in contact with the touch-screen creates a contact region on the touch-screen that progressively expands and is detected. The progressive expansion of the contact region on the touch-screen is then determined or recognized as the touch pull-in gesture that initiates a display of a user interface component proximate a location of the touch pull-in gesture on the touch-screen. A user interface component can include any type of |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | hidden menu, slide menu, drop-down menu, Scrollbar, and/or any other type of user interface displayable element." Wilairat at [0009].<br><br>Wilairat further teaches that "a user of portable device 102 can initiate a touch input 112 with a finger just off an edge of the touch-screen 104 and then motion a pull-in gesture 114 in a direction 116 across the touch-screen. The motion of the touch pull-in gesture 114 is illustrated in the direction 116 as the hand moves from position 118, to position 120, and to position 122 (shown successively in the three views). When the motion of the touch pull-in gesture 114 is initiated by the user, a contact region 124 progressively expands. Such as illustrated when the hand moves from the edge of the touch-screen at position 118 to position 120, and then from position 120 to position 122. The progressive expansion of the contact region 124 is then determined or recognized as the touch pull-in gesture 114." Wilairat at [0012].<br><br>An exemplary pull-in gesture from off-screen to on-screen is shown in Wilairat FIG. 1. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Fig. 1<br>Wilairat at FIG. 1.<br>Moreover, each of Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, the Palm Pre, and the Neonode N2 teaches a gliding action from off screen to on screen to activate a function assigned to the window when the gliding action is detected.<br>Roth teaches using a swiping (e.g., gliding) action from outside a screen through a window in the form of a line at the edge of the screen on the screen towards the inside of the touch screen to |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | activate a function associated with the window. For example, Roth describes "[a] crossing-based interface along the bounds of the display is a viable solution. Users can invoke actions with swiping gestures across a section of the display side from the outside to the inside." Roth at [0009]. Roth teaches advantages of such outside-to-inside gliding activations, for example, that "they can be more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to the distance vector between the line and the cursor," and "that a well positioned line requires significantly less display space than a button for similar performance characteristics." Roth at [0010]. "One example of such a gesture is a continuous swiping motion from the activation point representing a desired action or even from the bezel of the device, through the activation point and to the target on the display." Roth at [0015]. Roth explains that such outside-to-inside gliding actions "allow[] the active area of an activation point to be much smaller on a display due to the utilization of a greater average weight throughout a touch sensitive display, which creates a higher probability of activating on a narrow activation point or operating on a small target," "save[s] valuable display space on the screen, since the activation point can be made smaller on the display as a result," and may "begin from outside the display for ease of use." Roth at [0015]. As Roth explains, a "bar" may "represent[] the desired action." Roth at [0017]. "[A]n activation point 203 (represented as a bar in this example) displayed on the edge of the screen which represents the desired action of selecting. The bar is made small so as to not take up valuable space on the display. The user can then select the target 204 through the use of a gesture 202, such as swiping, pinching, tapping or other gestures …." Roth at [0036]. As shown in FIG. 2B, "[t]he user can begin his gesture from either on the bar itself or from outside the display 205 and continue the gesture through the bar and to target as if the user were bringing the action to the target. An example of such a gesture is if the user utilized a continuous swiping motion with his finger from the bar representing a desired action to the target on the display." Roth at [0039]. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Roth at FIG. 2B.<br><br>Roth Bezel Swipe teaches activation gestures related to mobile devices having touch screens. A bezel swipe gestures is an outside-to-inside swiping (e.g., gliding) gesture, in which "[t]he user starts a Bezel Swipe gesture on the bezel, which is the physical touch insensitive frame that surrounds the display. The finger is then swiped through a part of the display edge into the display, which enters selection mode. Next, the user moves the finger onto an object or display position and selects it by lifting the finger off the display, which ends selection mode. Different edge portions represent different actions and are distinctively marked." Roth Bezel Swipe at 1524. "Swipes are recognized by detecting touches inside a thin rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524. As such, "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display. Figure 2 illustrates this. A touch sensitive display translates the contact area of the finger with the display into an activation point." Roth Bezel Swipe at 1524. "The Bezel Swipe gesture … starts on the bezel and moves into the display. Therefore the contact area is gradually increased until it exceeds the contact threshold of the display. … Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. This outside-to-inside crossing gesture has advantages, for example, "the crossing of the touch-insensitive bezel in conjunction with the properties of touch sensitive displays enables the reliable |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | activation of a button that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. |

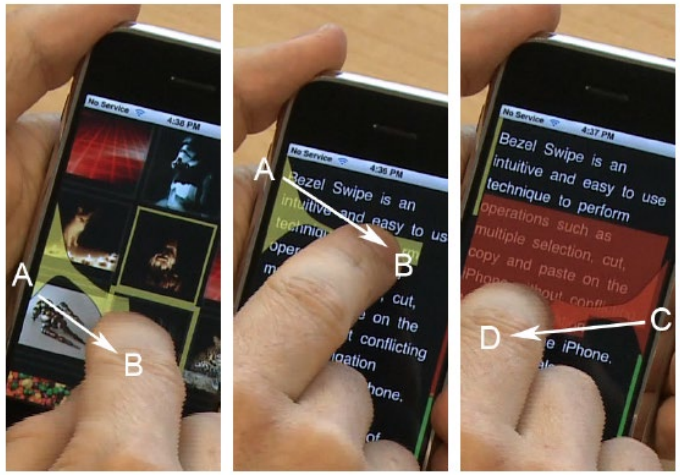



**Figure 1. The Bezel Swipe prototype in action. Left panel: A swipe from A to B selects an image. Middle panel: A swipe from A to B marks the beginning of a text selection. Right panel: A swipe from C to D marks the end of the text selection.**

Roth Bezel Swipe at Figure 1.

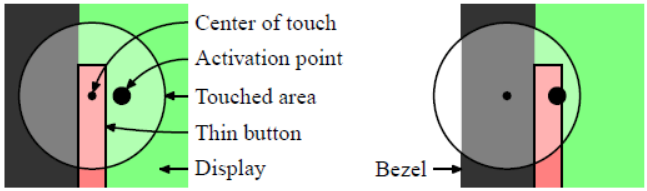
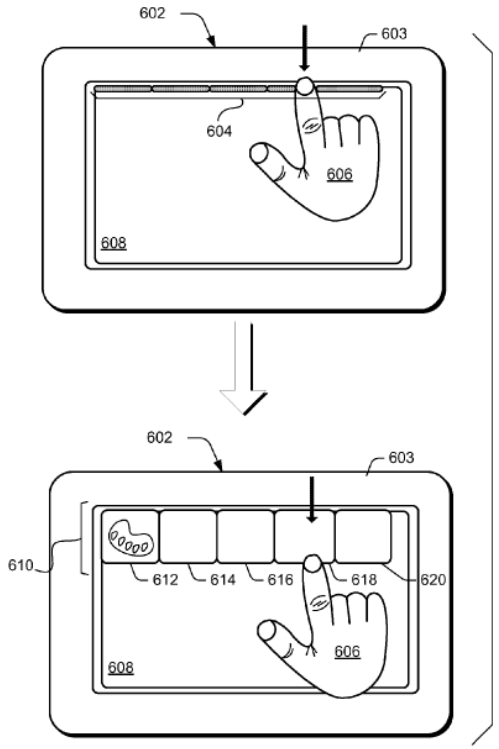


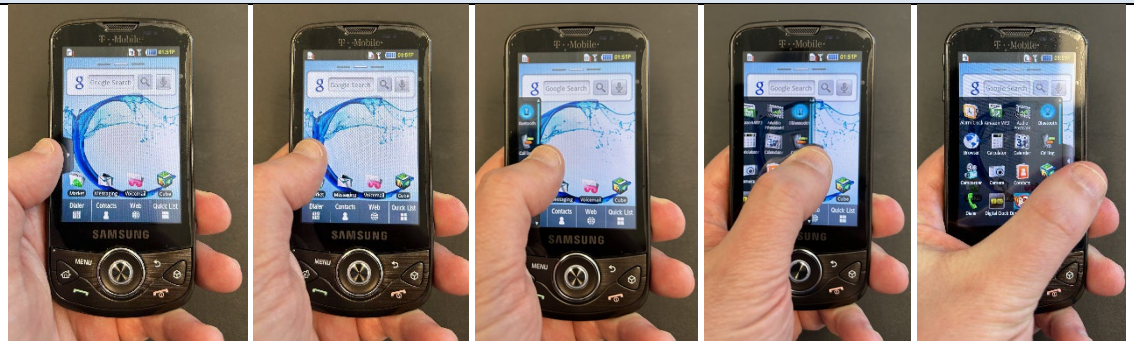

**Figure 2. Touching narrow targets close to the bezel: a touch (large circle) centered on the target (left) may not activate it whereas a touch significantly overlapping the bezel (right) does.**

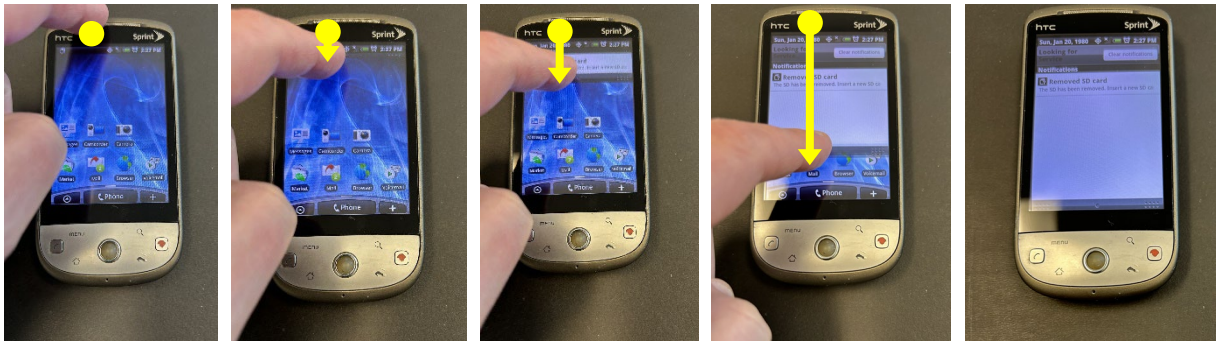
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Roth Bezel Swipe at Figure 2.<br><br>Hinckley teaches a visual affordance window indicating a pull-down bezel menu is shown at the edge of a mobile device using a gliding action from outside of the touch screen towards the inside of the touch screen. Hinckley at FIGS. 5, 6. For example, in FIG. 5, "[s]tep 500 displays a visual affordance on a display device associated with a computing device" and is shown at as a window or bar 604 being a five-part line in FIG. 6. Hinckley at [0068], [0072], FIGS. 5, 6. Then, "[s]tep 502 receives a bezel gesture input relative to the visual affordance," such as from off-screen to on-screen over the visual affordance. Hinckley at [0068], [0072], FIGS. 5, 6. After the off-screen to on-screen gesture, "[s]tep 504 accesses functionality associated with the received bezel gesture input." Hinckley at [0068], [0072], FIGS. 5, 6. Hinckley explains that "off-screen to on-screen motion (or vice versa) can be utilized as a mechanism to expose a menu or to access some other type of functionality." Hinckley at [0071]. As shown in FIG. 6, "device 602 includes a bezel 603 and a visual affordance 604 that is rendered on display device 608." Hinckley at [0072], FIG. 6. The "visual affordance 604" may appear as "in the form of a semi-transparent strip" and "can be utilized to provide a hint or indication of accessible functionality, in this case a bezel menu, associated with the bezel." Hinckley at [0072], FIG. 6. "[T]he bezel menu can be accessed through a bezel gesture in which a finger of user's hand 606 touches the bezel and then moves across the bezel and onto the display device 608 in the direction of the illustrated arrow." Hinckley at [0073], FIG. 6. After this off-screen to on-screen gesture, the "bezel menu 610 to be dropped down at which time it can become fully opaque." Hinckley at [0073], FIG. 6. Hinckley further explains that "bezel menu 610 includes multiple selectable icons or slots 612, 614, 616, 618, and 620. Each of the icons or slots is associated with a different functionality such as, for example, paint functionality, pen functionality, note functionality, object creation, object editing, and the like." Hinckley at [0074], FIG. 6. Hickley teaches, however, that "any type of functionality can be associated with the icons or slots." Hinckley at [0074], FIG. 6. The "bezel menu 610 can enable a user to access and activate commands, tools, and objects." Hinckley at [0075], FIG. 6. |

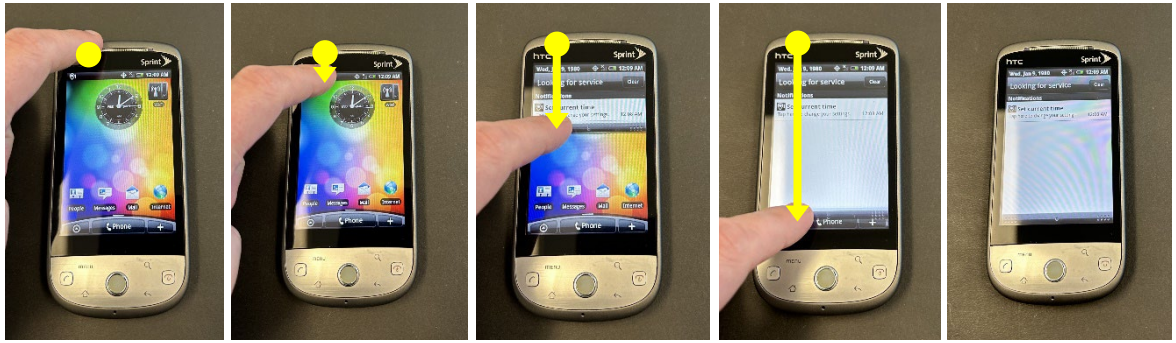
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Fig. 6<br>Hinckley at FIG. 6.<br>On information and belief, the Samsung Galaxy GT-i7500 1.5 operates substantially the same with respect to the pull-down notifications interface as the HTC G1 1.6 and the HTC Magic 1.6. *See, e.g.*, https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface as the |

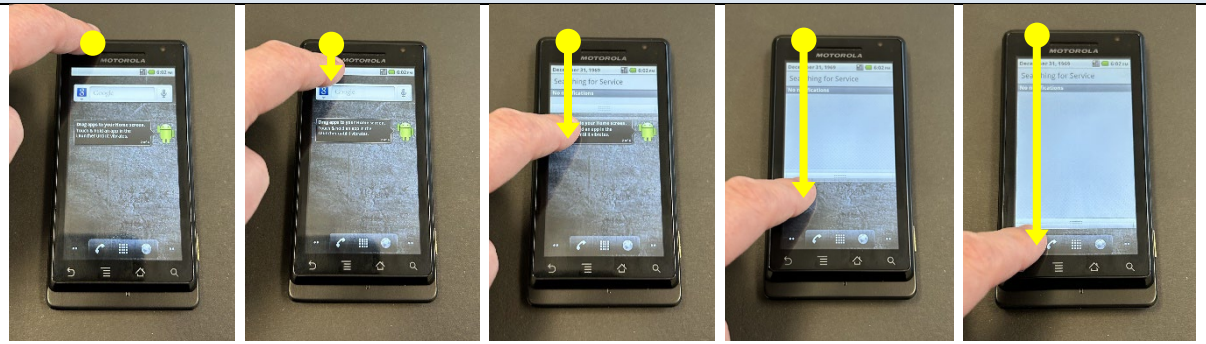
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | same, showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."); https://www.youtube.com/watch?v=rhBgLQSxfjE at 1:20-1:34 (describing as running Android 1.5 and similar to HTC G1 device, showing opening notification menu from status bar contact at 1:32). On information and belief, a user may perform a gliding action from the plastic housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display toward the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar); https://www.youtube.com/watch?v=wVF8dLkgW7c at 0:40-0:56 (showing swipe down over status bar to open notifications interface); https://www.youtube.com/watch?v=4Pv04Tw6wvQ at 3:30-3:35 (showing gliding gesture on status bar to show notification interface for Android 1.5 operating system). The user's touch first interacts with the status bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status bar window causes a processor to perform the action of displaying the notifications window. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar). Furthermore, on information and belief, a user may perform a gliding action from the plastic housing bezel below the touch screen (from outside of the screen) over the tab shown at the bottom of the screen towards the main application display inside of the touch screen (e.g., over the tab window) to display an applications selection interface. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having the application selection interface tab); https://www.youtube.com/watch?v=wVF8dLkgW7c at 0:54-1:14 (showing swipe up over application selection tab at bottom of screen to open application selection interface); https://www.youtube.com/watch?v=4Pv04Tw6wvQ at 1:36-2:30 (showing gliding gesture on tab to show application selection interface for Android 1.5 operating system).<br><br>The Samsung Behold II operates substantially the same with respect to the pull-down notifications interface as the HTC G1 1.6 and the HTC Magic 1.6. *See, e.g.*, |

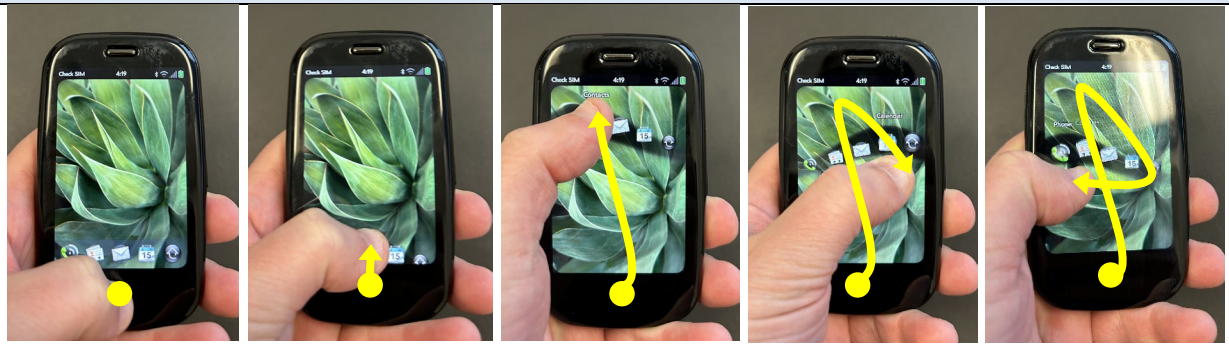
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | https://www.cnet.com/tech/mobile/hands-on-samsung-behold-ii-plus-release-details/ (explaining that the Samsung Behold II runs on Android 1.5); https://www.t-mobile.com/news/press/t-mobile-usa-launches-the-samsung-behold-ii-on-november-18. For the Samsung Behold II, a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar.<br>  <br>The Samsung Behold II device.<br>Moreover, in the Samsung Behold II, a user may also perform a gliding action from the plastic housing surrounding the touch screen to the left of the applications drawer tab (from outside of the screen) over the applications tab towards the main application display the inside of the touch screen (e.g., crossing over the applications tab window). The user's touch first interacts with the applications tab window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the applications tab causes a processor to perform the action of displaying the applications drawer menu from the side of the screen. |

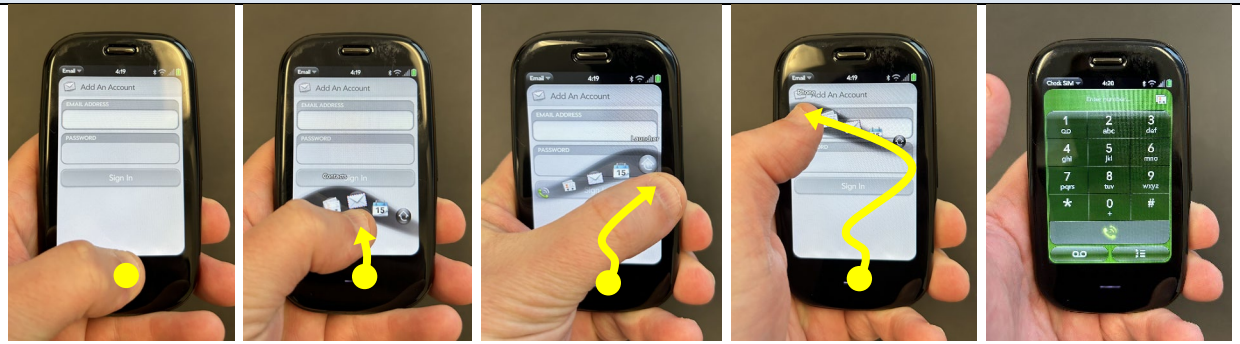
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>The Samsung Behold II device.<br><br>On information and belief, the HTC Magic 1.5 operates substantially the same with respect to the pull-down notifications interface as the HTC G1 1.6 and the Samsung Galaxy GT-i7500. *See, e.g.*, https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface as the same, showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."). On information and belief, a user may perform a gliding action from the plastic housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display toward the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. The user's touch first interacts with the status bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status bar window causes a processor to perform the action of displaying the notifications window. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 (In addition to being able to drag (or double tap if your fingers are a little tired) the menu bar up from the bottom of the screen, you can also drag from the top and find your notifications all grouped nicely together."); https://ianrenton.com/blog/review-htc-magic/ ("Dragging the top drawer (where app notifications, incoming messages etc. sit) is a lot more intuitive on an actual device than on the emulator, and the kinetic scrolling - you can 'throw' menus |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | - feels just right."); https://www.youtube.com/watch?v=LghBOTZ-HuE at 5:08-5:20 (describing "drag-down notification drawer"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:35-8:55 (describing notification menu as "a drawer" that you "pull down" allowing you to "click" notifications to open the corresponding application).<br><br>Furthermore, on information and belief, a user may perform a gliding action from the plastic housing bezel below the touch screen (from outside of the screen) over the tab shown at the bottom of the screen towards the main application display inside of the touch screen (e.g., over the tab window) to display an applications selection interface. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 ("you can simply drag up the menu from the bottom and access all your recently downloaded applications and menu functions, sorted alphabetically"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:15-7:35, 8:17-8:55 (showing swipe-up action to open application selection interface).<br><br>The HTC Hero 1.5 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display toward the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar.<br><br>  <br>HTC Hero 1.5. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | The HTC Hero 2.1 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display toward the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar.<br>  <br>HTC Hero 2.1.<br>The Motorola Droid A855 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status towards to the main application display toward the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar. |

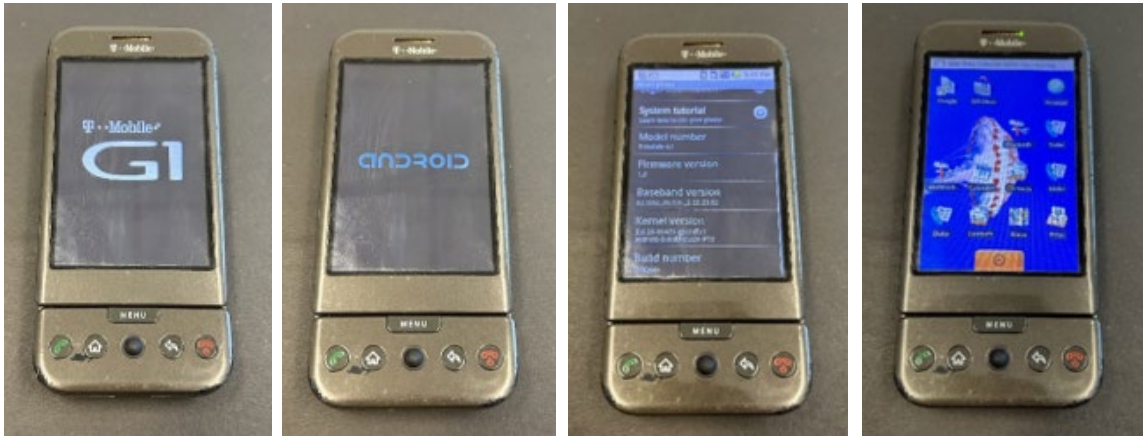
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Droid A855.<br>The Palm Pre teaches, as one example, that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen (e.g., crossing over the Quick Launch window showing five application icons and identifying the movement from off-to-on screen). The user's touch first interacts with the Quick Launch window on the touch screen because the Quick Launch window is not displayed in the gesture area. The gliding action over the Quick Launch window from off-to-on screen causes a processor to perform the action associated with the window, such as moving the Quick Launch window with the user's finger in any arbitrary direction around the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. For example, lifting on the "Phone" icon opens the Phone application. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Palm Pre.<br>The Palm Pre also teaches, as another example, that, when an application is open on the Palm Pre device (such as the mail application shown below), a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen to display the Quick Launch window (e.g., crossing from off-to-on screen to display the Quick Launch window). The user's touch first interacts with the Quick Launch window on the touch screen because the Quick Launch window is not displayed in the gesture area, but as shown below, appears with the user's off-to-on screen gesture as the finger moves onto the screen. The gliding action causes a processor to perform the action associated with the Quick Launch window, such as moving the Quick Launch window with the user's finger in any arbitrary direction around the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. As shown below, lifting on the "Phone" icon opens the Phone application. |

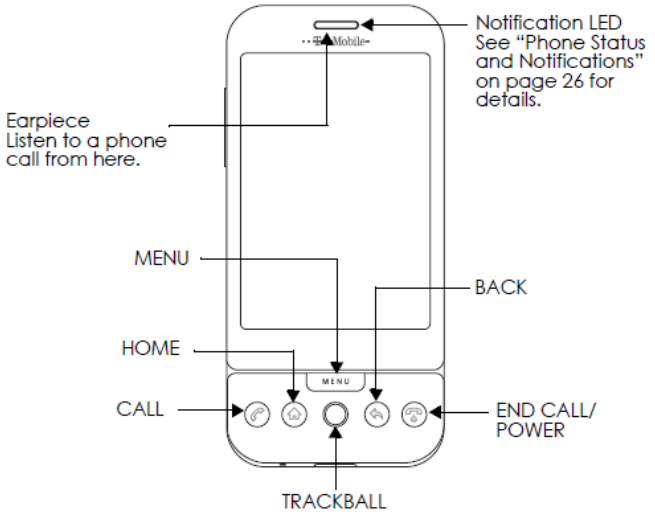
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Palm Pre.<br>The Neonode N2 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen over the indicated icons or from the sides of the screen as indicated by the various arrows (from outside of the screen), over the arrows towards the main application display toward the inside of the touch screen (e.g., crossing over the window identifying the movement from off-to-on screen). The user's touch first interacts with the window showing the arrows on the touch screen because the outer housing does not contain touch-sensitive elements. The gliding action over the arrows from off-to-on screen causes a processor to perform the action associated with one of the three icons printed below the touch screen or from the side of the touch screen.<br>  <br>Neonode N2. |

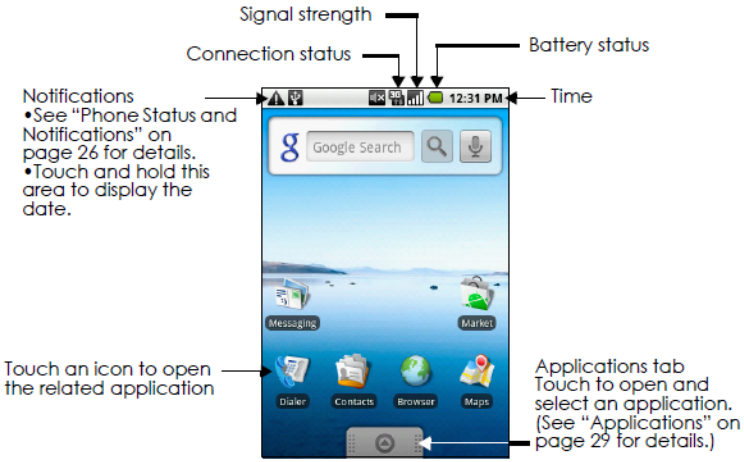
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | A POSITA would have found it obvious to incorporate the functionality of permitting an off-to-on-screen gliding action, where the gliding action first interacts with the touch screen of the HTC G1 1.6's status bar window or the application tab window, to cause the notifications menu or applications menu to be displayed as described in the HTC G1 1.6, as claimed. Each of the HTC G1 1.6, Wilairat, Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, the Palm Pre, and/or the Neonode N2, teaches causing an action associated with a gliding gesture that may be an off-to-on-screen gesture, such as causing the HTC G1 1.6's notification menu or applications menu to be slid open using a gesture that starts off screen and glides towards the main display area. A POSITA would have been motivated to provide for opening (e.g., sliding open, as used in the HTC G1 1.6) the HTC G1 1.6's notification menu or applications menu using a gesture that starts off screen and glides towards the main display area because it allows for the same operation as the HTC G1 1.6 uses, but simplifies the user's experience of opening the notifications menu. For example, by registering the touch as the user's finger slides onto the screen (e.g., either as a regular touch on the status bar or applications tab, as known in the HTC G1 1.6, or as a pull-in gesture, such as taught by Wilairat, Roth, or Roth Bezel Swipe) results in effectively increasing the size of the status bar and application tab. This simplifies the user's experience because the user does not have to try to specifically touch the narrow status bar or application tab and may instead start the gliding gesture off-screen to cross over the status bar to pull it either the notifications menu or applications menu open. As explained by Roth Bezel Swipe, "screens of mobile devices are necessarily small," which leads to the development of "smaller widgets" that "are harder to hit." Roth Bezel Swipe at 1523. But out-to-in swiping gestures that "start on the bezel and move[] into the display" allow for contacting "a narrow target (the red bar) positioned flush against the display edge." Roth Bezel Swipe at 1524. In other words, "[s]wipes" from outside-to-inside the touch screen "are recognized by detecting touches inside a thin rectangular area [window] positioned flush against the display screen." Roth Bezel Swipe at 1524. This "enables the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524. |

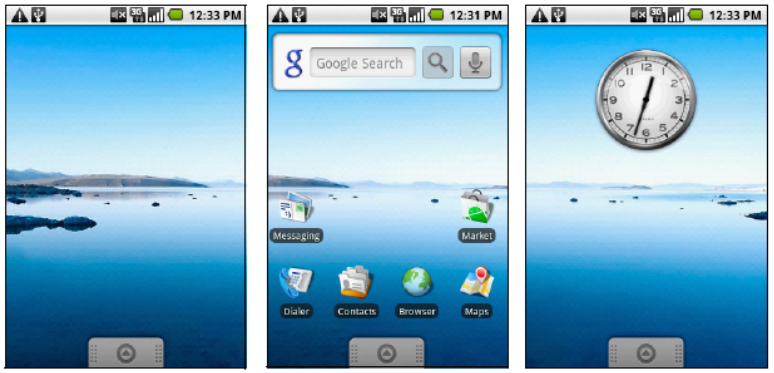
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | It was well known to a POSITA that activating a function when a user performs an out-to-in gliding gesture, such as over the HTC G1 1.6's status bar or applications tab, "enables the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524. Activating functions where "[u]sers can invoke actions with swiping features across a section of the display [touch screen] side from the outside to the inside" also "requires minimal display real estate," whereby being beneficial to mobile devices that have small screens. Roth, [0009]. A POSITA would have known that such activation operations, like crossing activations, "can be more efficient than pointing tasks," especially on small-screen devices, such as mobile phones. Roth, [0009]. When outside-to-inside gliding activations are used, a POSITA would have known that the activation bar or window can be "made small so as to not take up valuable space on the display." Roth, [0036].<br><br>Activating a function when a user performs an out-to-in gliding gesture over a window on a touch screen, such as over the HTC G1 1.6's status bar or applications tab, was routine and conventional to POSITAs, as shown by the HTC G1 1.6, Wilairat, Roth, and/or Roth Bezel Swipe. Moreover, it was successfully implemented in commercial prior art devices, such as the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, the Palm Pre, and the Neonode N2. Incorporating a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, being processed by the processor to cause an action assigned to said window into the HTC G1 1.6, shown above, represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with the HTC G1 1.6, represent nothing more than combining prior art elements according to known methods and techniques (registering a user's gliding action when it first crosses into the status bar or applications tab of the HTC G1 1.6 and then moves towards the inside of the touch screen) to yield predictable results (to open the HTC G1 1.6's notification menu or application menu, such as by sliding it open, as used in the HTC G1 1.6). |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | |
| **[1E]** wherein said at least one window is located on the touch screen before said gliding action begins. | The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said at least one window is located on the touch screen before said gliding action begins."<br><br>For example, the HTC G1 1.6 includes that said at least one window, such as the status bar window or applications tab window, is located on the touch screen before said gliding action begins.<br><br>  <br>HTC G1 1.6 Device. |

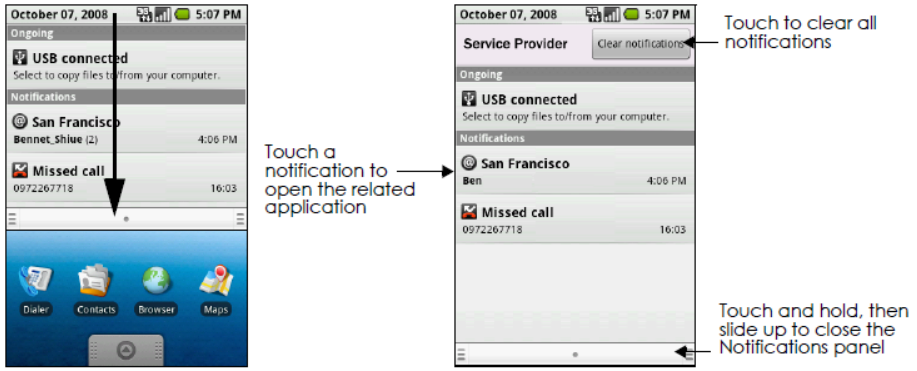
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC G1 1.6 Device<br>  <br>HTC G1 1.6 Device. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **1.1 Getting to Know Your T-Mobile G1 and Accessories**<br>**Front panel**<br>  <br><br>G1 User Manual 14. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **1.7 Home Screen**<br><br>The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.<br><br>  <br><br><br>**Tip** While in any application, press **HOME** to go back to the Home screen. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **Extended Home screen**<br>The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.<br>  <br><br>Extended Home screen left<br>Extended Home screen right<br>G1 User Manual 24.<br>**Notifications panel**<br>Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.<br>**To open the Notifications panel**<br>When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|




If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

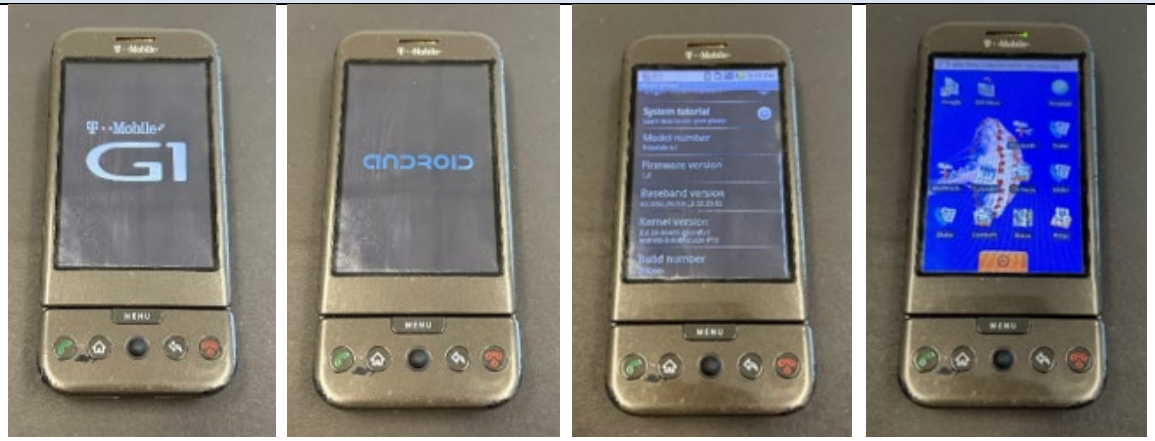
**To close the Applications tab**

Touch  .

G1 User Manual 29.

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, G1 Launch Event; G1 Unveiled; Engadget Review; Google Mobile Products on Android; T-Mobile G1 Review; T-Mobile G1 Android Phone Hands-On; T-Mobile G1 Expanded Demo; T-Mobile G1 User Interface Review; T-Mobile G1 Physical Design Review; The Gadget Show, T-Mobile G1 Live Demo; T-Mobile G1 Tour; T-Mobile G1 Impressions; HTC Dream User Manual. |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[2]** The system of claim 1, wherein the system relates said gliding action to a function which is not related to a mouse function. | Claim 2 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 2 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "the system relates said gliding action to a function which is not related to a mouse function."<br><br>For example, the HTC G1 1.6 relates the gliding action over the status bar or applications tab to a function (e.g., opening a menu interface) that is not related to a mouse function. |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC G1 1.6 Device.<br>  <br>HTC G1 1.6 Device |

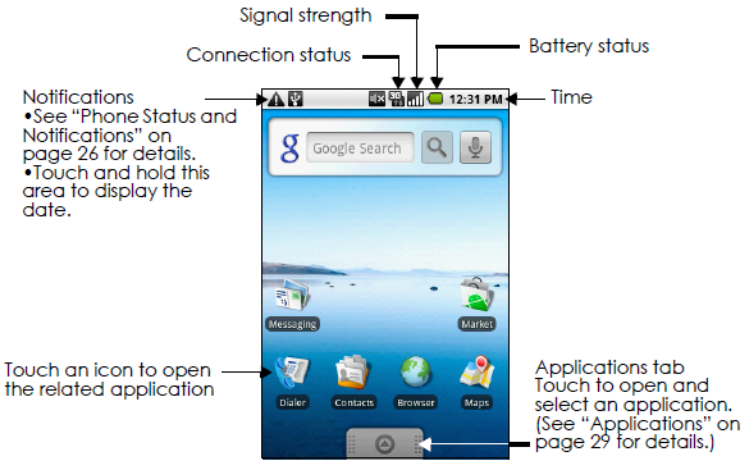
| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|



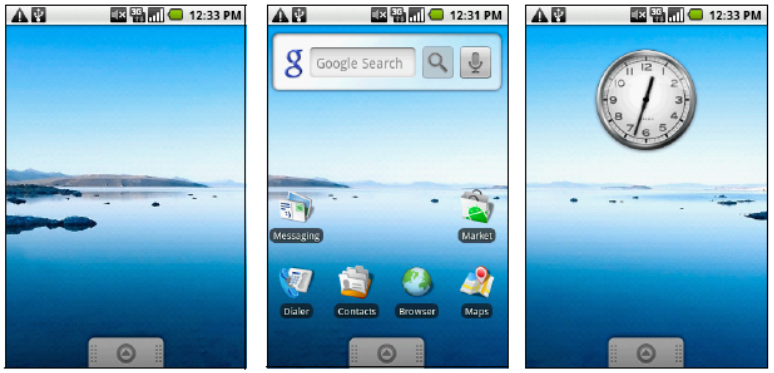
HTC G1 1.6 Device.

## 1.7 Home Screen

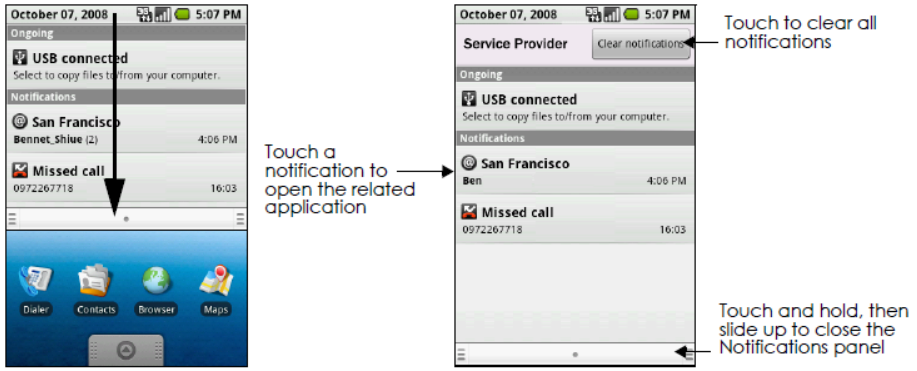
The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.




**Tip** While in any application, press **HOME** to go back to the Home screen.

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **Extended Home screen**<br>The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.<br>  <br><br>Extended Home screen left<br>Extended Home screen right<br>G1 User Manual 24.<br>**Notifications panel**<br>Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.<br>**To open the Notifications panel**<br>When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel. |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|




If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

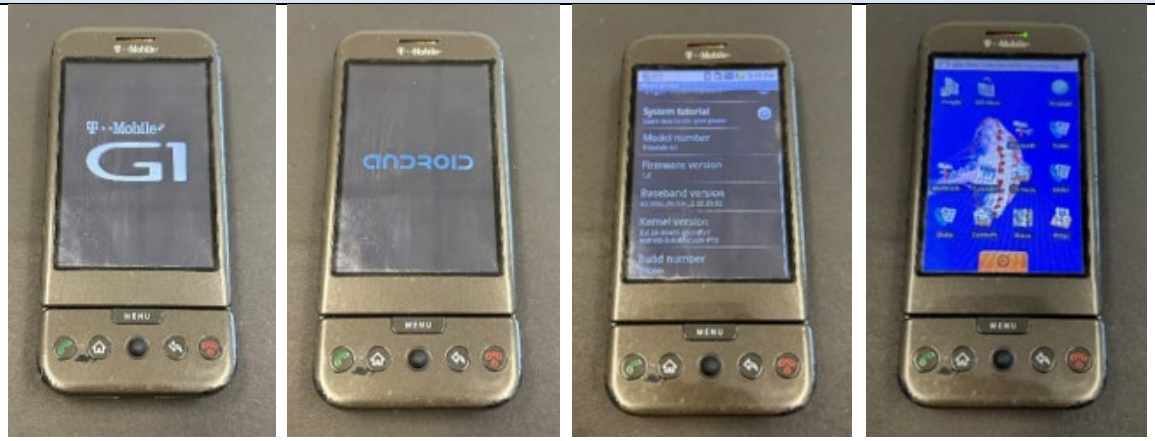
**To close the Applications tab**

Touch  .

G1 User Manual 29.

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, G1 Launch Event; G1 Unveiled; Engadget Review; Google Mobile Products on Android; T-Mobile G1 Review; T-Mobile G1 Android Phone Hands-On; T-Mobile G1 Expanded Demo; T-Mobile G1 User Interface Review; T-Mobile G1 Physical Design Review; The Gadget Show, T-Mobile G1 Live Demo; T-Mobile G1 Tour; T-Mobile G1 Impressions; HTC Dream User Manual. |

| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[3]** The system of claim 1, wherein said at least one window comprises at least one bar located on said edge of the screen. | Claim 3 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 3 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window comprises at least one bar located on said edge of the screen."<br><br>For example, the HTC G1 1.6 includes the status bar and/or applications tab windows as bars located on the top and bottom edges of the touch screen, respectively. |

| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC G1 1.6 Device.<br>  <br>HTC G1 1.6 Device |

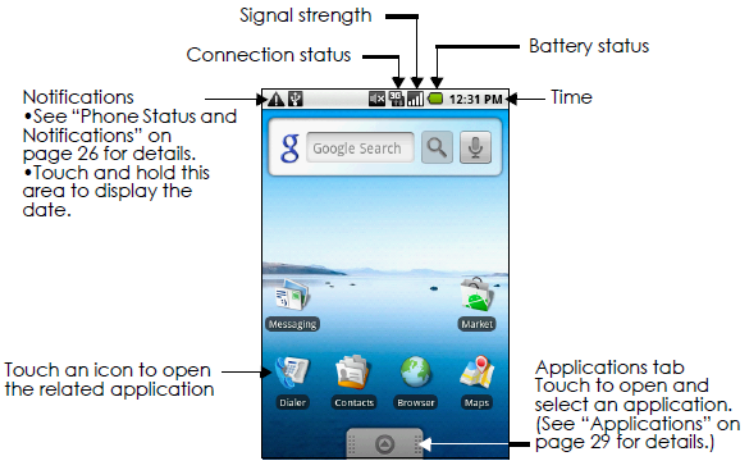
| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|



HTC G1 1.6 Device.

## 1.7 Home Screen

The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.

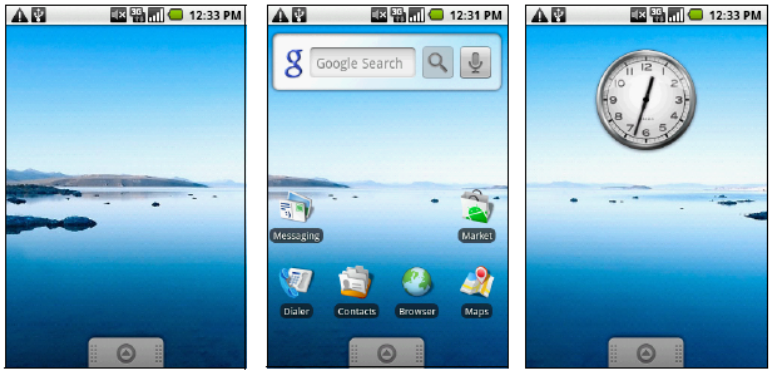



**Tip** While in any application, press **HOME** to go back to the Home screen.

| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

## Extended Home screen

The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.




Extended Home screen left

Extended Home screen right

G1 User Manual 24.

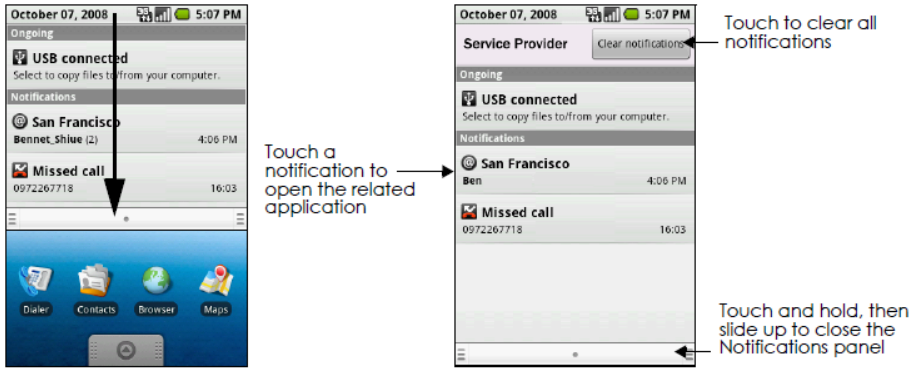
## Notifications panel

Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.

**To open the Notifications panel**

When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.

| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|




If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

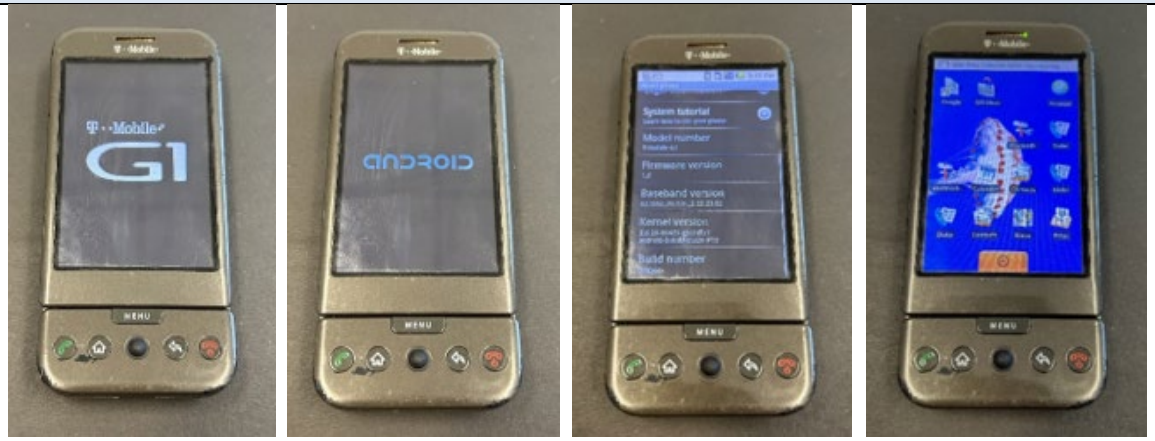
**To close the Applications tab**

Touch  .

G1 User Manual 29.

| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, G1 Launch Event; G1 Unveiled; Engadget Review; Google Mobile Products on Android; T-Mobile G1 Review; T-Mobile G1 Android Phone Hands-On; T-Mobile G1 Expanded Demo; T-Mobile G1 User Interface Review; T-Mobile G1 Physical Design Review; The Gadget Show, T-Mobile G1 Live Demo; T-Mobile G1 Tour; T-Mobile G1 Impressions; HTC Dream User Manual. |

| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[4]** The system of claim 3, wherein said at least one bar extends along a substantial portion of an edge of the touch screen. | Claim 4 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 4 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one bar extends along a substantial portion of an edge of the touch screen."<br><br>For example, the HTC G1 1.6 has the status bar extending along the length of the top edge of the touch screen. The HTC G1 1.6 also has an applications tab extending along a substantial portion of the bottom edge of the touch screen. |

| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC G1 1.6 Device.<br>  <br>HTC G1 1.6 Device |

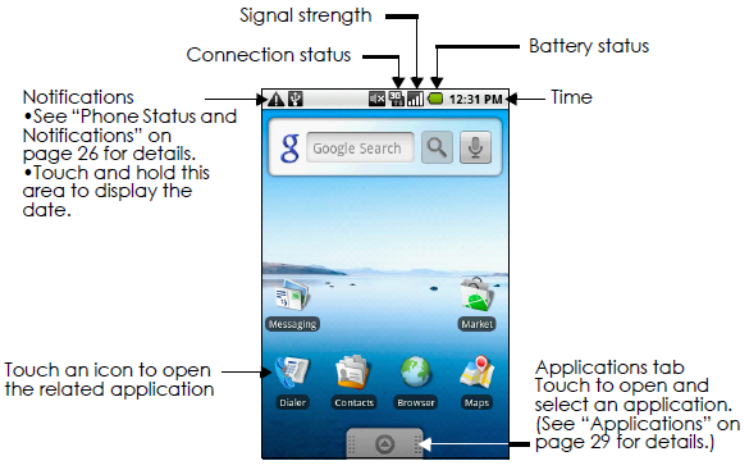
| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|



HTC G1 1.6 Device.

## 1.7 Home Screen

The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.

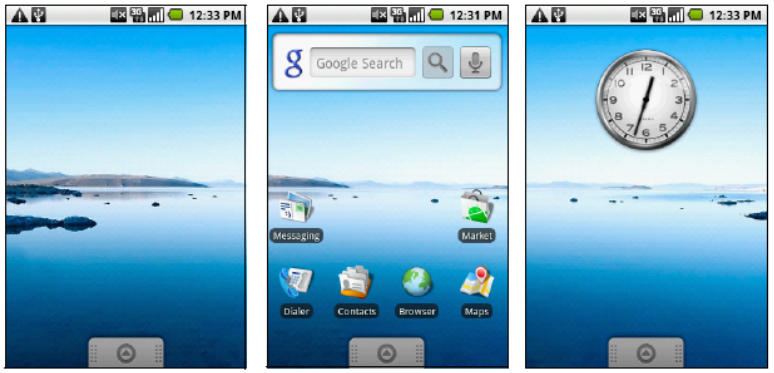



**Tip** While in any application, press **HOME** to go back to the Home screen.

| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

## Extended Home screen

The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.




Extended Home screen left

Extended Home screen right

G1 User Manual 24.

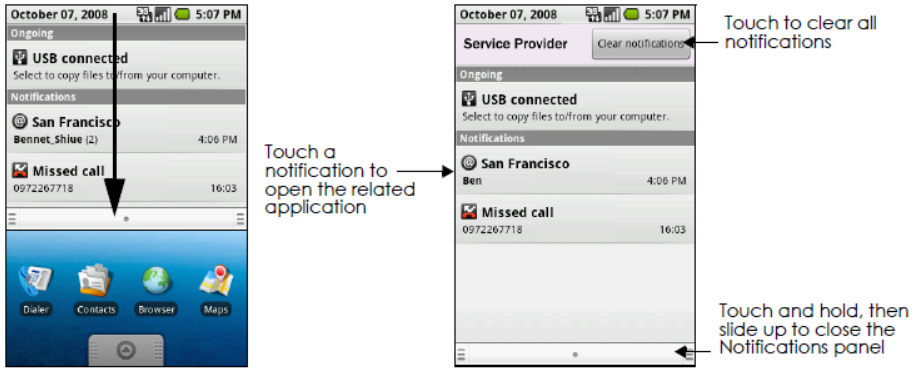
## Notifications panel

Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.

**To open the Notifications panel**

When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.

| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|




If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

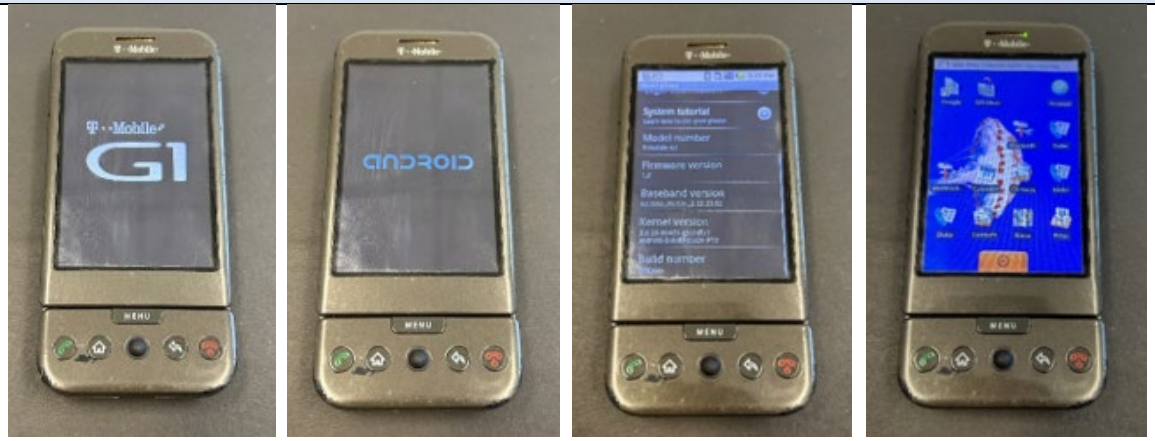
**To close the Applications tab**

Touch  .

G1 User Manual 29.

| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, G1 Launch Event; G1 Unveiled; Engadget Review; Google Mobile Products on Android; T-Mobile G1 Review; T-Mobile G1 Android Phone Hands-On; T-Mobile G1 Expanded Demo; T-Mobile G1 User Interface Review; T-Mobile G1 Physical Design Review; The Gadget Show, T-Mobile G1 Live Demo; T-Mobile G1 Tour; T-Mobile G1 Impressions; HTC Dream User Manual. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[5]** The system of claim 3, wherein said bar is in a form of a line. | Claim 5 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 an 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 5 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said bar is in a form of a line."<br><br>For example, the HTC G1 1.6 has the status bar in the form of a line. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC G1 1.6 Device.<br>  <br>HTC G1 1.6 Device |

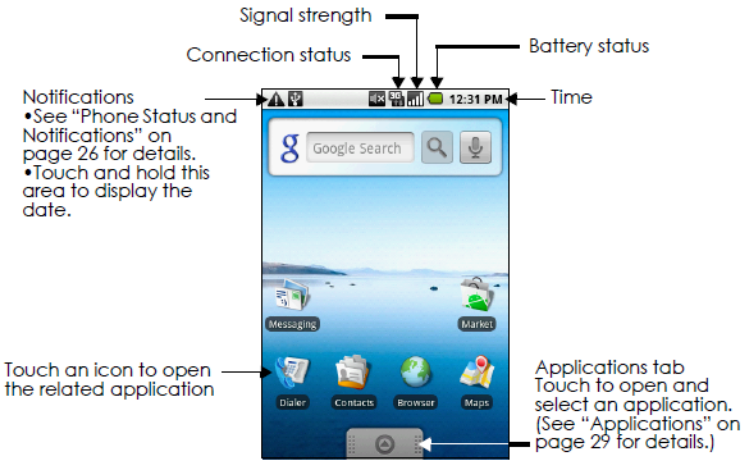
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|



HTC G1 1.6 Device.

## 1.7 Home Screen

The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.

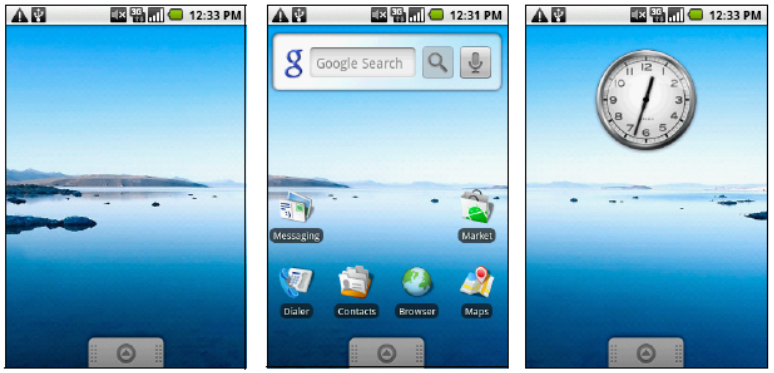



**Tip** While in any application, press **HOME** to go back to the Home screen.

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

## Extended Home screen

The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.




Extended Home screen left

Extended Home screen right

G1 User Manual 24.

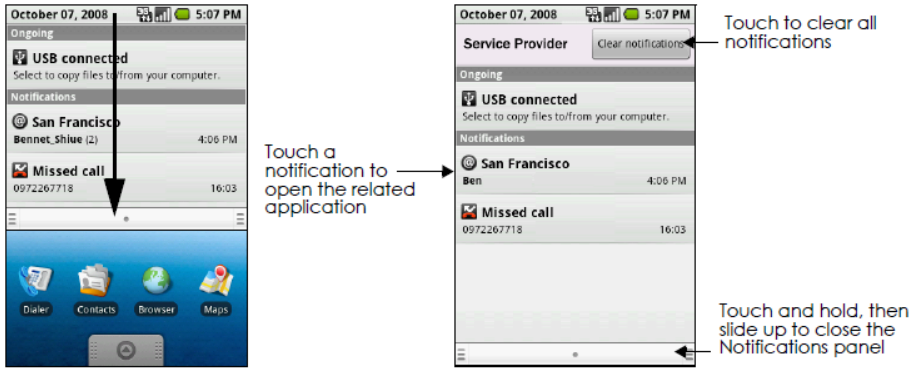
## Notifications panel

Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.

**To open the Notifications panel**

When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|




If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

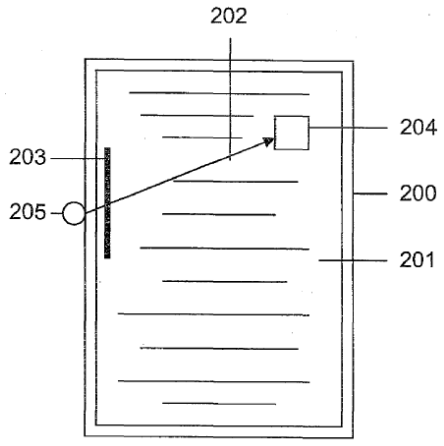
**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

**To close the Applications tab**

Touch  .

G1 User Manual 29.

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, G1 Launch Event; G1 Unveiled; Engadget Review; Google Mobile Products on Android; T-Mobile G1 Review; T-Mobile G1 Android Phone Hands-On; T-Mobile G1 Expanded Demo; T-Mobile G1 User Interface Review; T-Mobile G1 Physical Design Review; The Gadget Show, T-Mobile G1 Live Demo; T-Mobile G1 Tour; T-Mobile G1 Impressions; HTC Dream User Manual.<br><br>To the extent Keyless argues that the HTC G1 1.6 does not disclose or render obvious the additional limitations of claim 5, it would have been obvious in view of the HTC G1 1.6, POSITA's pre-existing knowledge, and/or the HTC G1 1.6 combined with the other references charted for this patent in these invalidity contentions, including Roth, Roth Bezel Swipe, Hinckley, the Samsung Behold II, the Palm Pre, and the Neonode N2. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>For example, Roth teaches using a swiping (e.g., gliding) action from outside a screen through a window in the form of a line at the edge of the screen on the screen towards the inside of the touch screen to activate a function associated with the window. For example, Roth describes "[a] crossing-based interface along the bounds of the display is a viable solution. Users can invoke actions with swiping gestures across a section of the display side from the outside to the inside." Roth at [0009]. Roth teaches advantages of such outside-to-inside gliding activations, for example, that "they can be more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to the distance vector between the line and the cursor," and "that a well positioned line requires significantly less display space than a button for similar performance characteristics." Roth at [0010]. "One example of such a gesture is a continuous swiping motion from the activation point representing a desired action or even from the bezel of the device, through the activation point and to the target on the display." Roth at [0015]. Roth explains that such outside-to-inside gliding |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | actions "allow[] the active area of an activation point to be much smaller on a display, such as the lines shown in Roth's figures, "due to the utilization of a greater average weight throughout a touch sensitive display, which creates a higher probability of activating on a narrow activation point or operating on a small target," "save[s] valuable display space on the screen, since the activation point can be made smaller on the display as a result," and may "begin from outside the display for ease of use." Roth at [0015]. As Roth explains, a "bar," which Roth shows as a line on the touch screen, may "represent[] the desired action." Roth at [0017]. "[A]n activation point 203 (represented as a bar in this example) displayed on the edge of the screen which represents the desired action of selecting. The bar is made small [e.g., a line] so as to not take up valuable space on the display. The user can then select the target 204 through the use of a gesture 202, such as swiping, pinching, tapping or other gestures …." Roth at [0036]. As shown in FIG. 2B, "[t]he user can begin his gesture from either on the bar [line 203] itself or from outside the display 205 and continue the gesture through the bar and to target as if the user were bringing the action to the target. An example of such a gesture is if the user utilized a continuous swiping motion with his finger from the bar representing a desired action to the target on the display." Roth at [0039].<br>  <br><br>Roth at FIG. 2B. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Moreover, each of Roth Bezel Swipe, Hinckley, the Samsung Behold II, the Palm Pre, and the Neonode N2 teaches a gliding action from off screen to on screen to activate a function assigned to the window, where the window is a bar in a form of a line.<br><br>Roth Bezel Swipe teaches activation gestures related to mobile devices having touch screens. A bezel swipe gestures is an outside-to-inside swiping (e.g., gliding) gesture across a line shown on the edge of the display screen, in which "[t]he user starts a Bezel Swipe gesture on the bezel, which is the physical touch insensitive frame that surrounds the display. The finger is then swiped through a part of the display edge into the display, which enters selection mode. Next, the user moves the finger onto an object or display position and selects it by lifting the finger off the display, which ends selection mode. Different edge portions represent different actions and are distinctively marked." Roth Bezel Swipe at 1524. "Swipes are recognized by detecting touches inside a thin rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524. As such, "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display. Figure 2 illustrates this. A touch sensitive display translates the contact area of the finger with the display into an activation point." Roth Bezel Swipe at 1524. "The Bezel Swipe gesture … starts on the bezel and moves into the display. Therefore the contact area is gradually increased until it exceeds the contact threshold of the display. … Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. Roth Bezel Swipe "use[s] a thin colored bar," shown as a line, to indicate where Bezel Swipe actions may be performed. Roth Bezel Swipe, 1524, Figures 1, 2 (showing and describing a "red bar" in the form of a line). As one example, Roth Bezel Swipe describes "a green 8 x 160 pixels bar [line] centered vertically against the left display edge, with an active area that was 12 pixels wide." Roth Bezel Swipe, 1525, Figure 1. This outside-to-inside crossing gesture has advantages, for example, "the crossing of the touch-insensitive bezel in conjunction with the properties of touch sensitive displays enables the reliable activation of a button that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

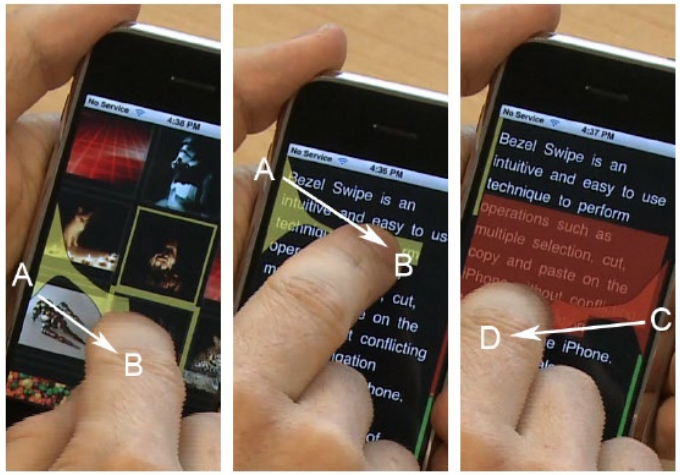



**Figure 1. The Bezel Swipe prototype in action. Left panel: A swipe from A to B selects an image. Middle panel: A swipe from A to B marks the beginning of a text selection. Right panel: A swipe from C to D marks the end of the text selection.**

Roth Bezel Swipe at Figure 1.

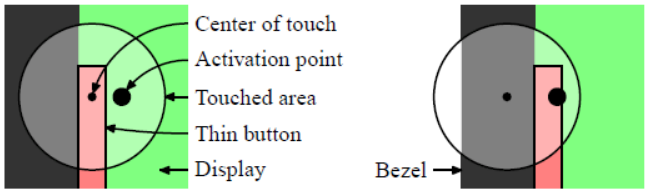
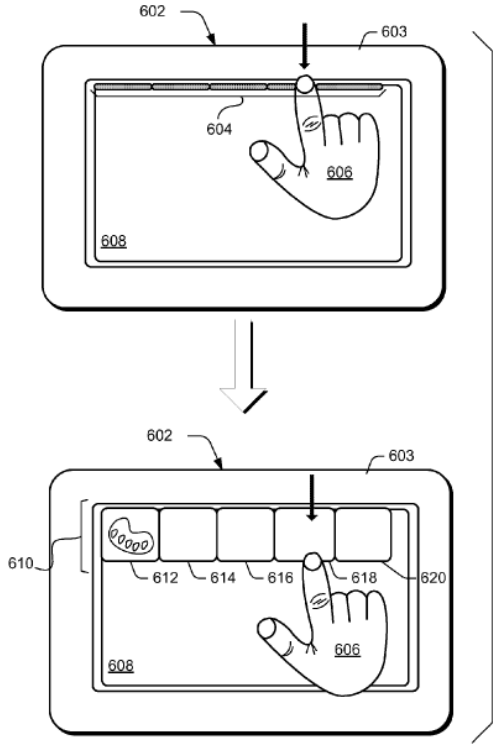


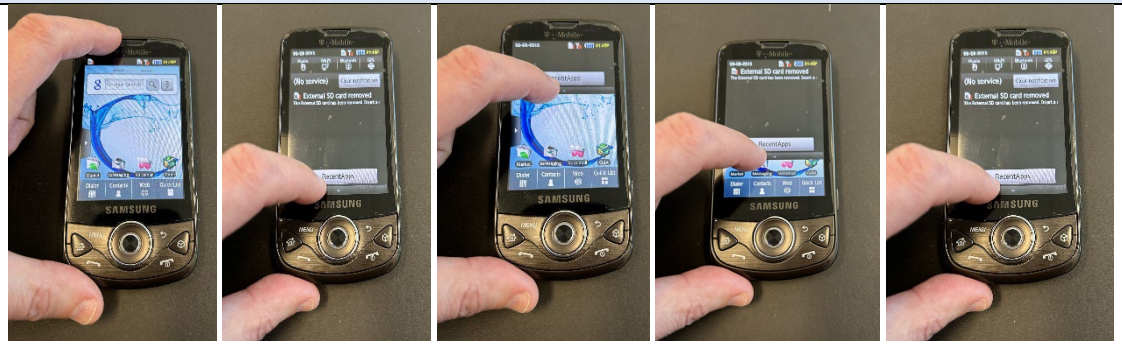
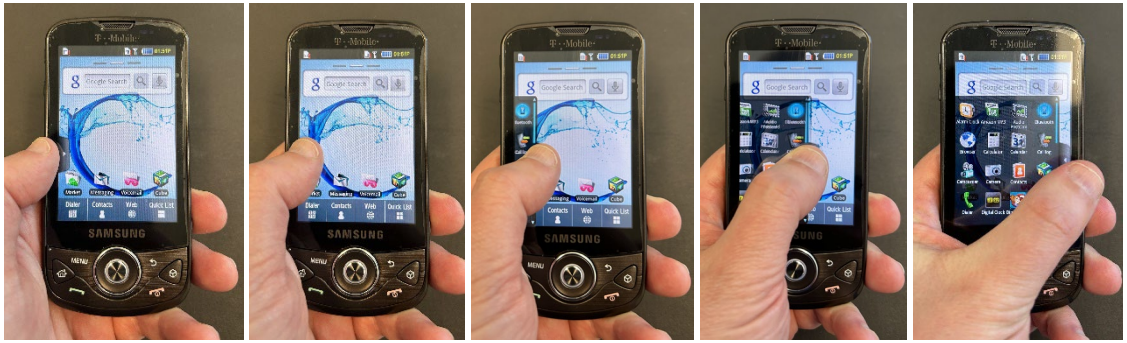

**Figure 2. Touching narrow targets close to the bezel: a touch (large circle) centered on the target (left) may not activate it whereas a touch significantly overlapping the bezel (right) does.**

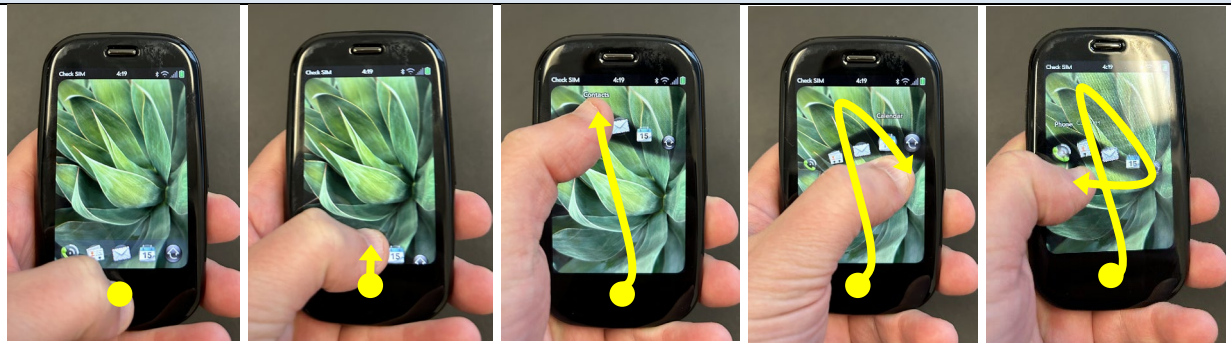
Roth Bezel Swipe at Figure 2.

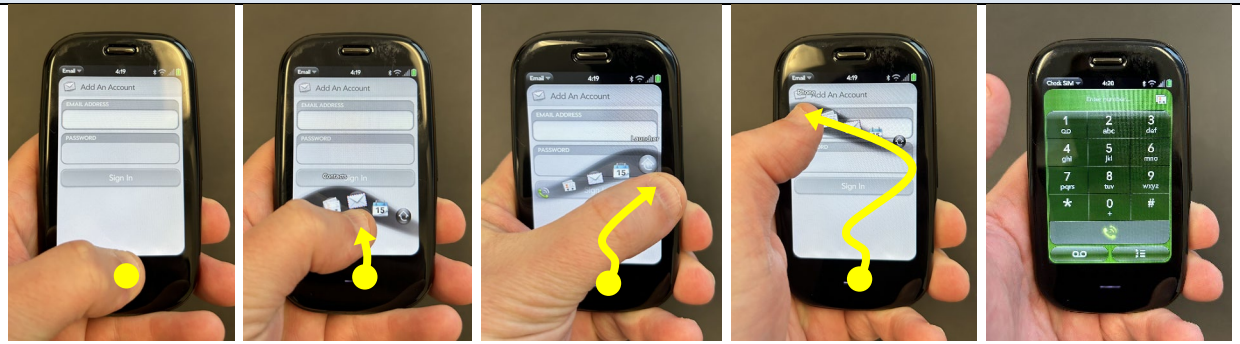
Hinckley teaches a visual affordance window, shown as a line across the top of the touch screen, indicating a pull-down bezel menu is shown at the edge of a mobile device using a gliding action

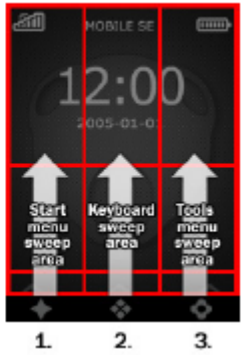
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | from outside of the touch screen towards the inside of the touch screen. Hinckley at FIGS. 5, 6. For example, in FIG. 5, "[s]tep 500 displays a visual affordance on a display device associated with a computing device" and is shown at as a window or bar 604 being a five-part line in FIG. 6. Hinckley at [0068], [0072], FIGS. 5, 6. Then, "[s]tep 502 receives a bezel gesture input relative to the visual affordance," such as from off-screen to on-screen over the visual affordance. Hinckley at [0068], [0072], FIGS. 5, 6. After the off-screen to on-screen gesture, "[s]tep 504 accesses functionality associated with the received bezel gesture input." Hinckley at [0068], [0072], FIGS. 5, 6. Hinckley explains that "off-screen to on-screen motion (or vice versa) can be utilized as a mechanism to expose a menu or to access some other type of functionality." Hinckley at [0071]. As shown in FIG. 6, "device 602 includes a bezel 603 and a visual affordance 604 that is rendered on display device 608." Hinckley at [0072], FIG. 6. The "visual affordance 604" may appear as "in the form of a semi-transparent strip" (e.g., line) and "can be utilized to provide a hint or indication of accessible functionality, in this case a bezel menu, associated with the bezel." Hinckley at [0072], FIG. 6; *see also* [0062], [0063], [0092] (describing visual affordance as "semi-transparent strip"). "[T]he bezel menu can be accessed through a bezel gesture in which a finger of user's hand 606 touches the bezel and then moves across the bezel and onto the display device 608 in the direction of the illustrated arrow." Hinckley at [0073], FIG. 6. After this off-screen to on-screen gesture across the line of the semi-transparent visual affordance, the "bezel menu 610 to be dropped down at which time it can become fully opaque." Hinckley at [0073], FIG. 6. Hinckley further explains that "bezel menu 610 includes multiple selectable icons or slots 612, 614, 616, 618, and 620. Each of the icons or slots is associated with a different functionality such as, for example, paint functionality, pen functionality, note functionality, object creation, object editing, and the like." Hinckley at [0074], FIG. 6. Hickley teaches, however, that "any type of functionality can be associated with the icons or slots." Hinckley at [0074], FIG. 6. The "bezel menu 610 can enable a user to access and activate commands, tools, and objects." Hinckley at [0075], FIG. 6. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Fig. 6<br>Hinckley at FIG. 6.<br>The Samsung Behold II teaches, as one example, that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status bar, which is a bar in the form of a line. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>The Samsung Behold II device.<br>The Samsung Behold II also teaches that the user may perform a gliding action from the plastic housing surrounding the touch screen to the left of the applications tab window, which is a bar in the form of a line.<br>  <br>The Samsung Behold II device.<br>The Palm Pre teaches, as one example, that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen (e.g., crossing over the line of the Quick Launch window that is in the form of a line and shows five application icons and identifying the movement from off-to-on screen). |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Palm Pre.<br>The Palm Pre also teaches, as another example, that, when an application is open on the Palm Pre device (such as the mail application shown below), a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen to display the Quick Launch window (e.g., crossing from off-to-on screen to display the Quick Launch window). On information and belief, the demarcation between the Palm Pre's gesture area and the touch screen area forms a line. The user's touch first interacts with the Quick Launch window on the touch screen by crossing the line between the gesture area and the display area, because the Quick Launch window is not displayed in the gesture area, but as shown below, appears with the user's off-to-on screen gesture as the finger moves onto the screen. The gliding action causes a processor to perform the action associated with the Quick Launch window, such as moving the Quick Launch window with the user's finger in any arbitrary direction around the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. As shown below, lifting on the "Phone" icon opens the Phone application. |

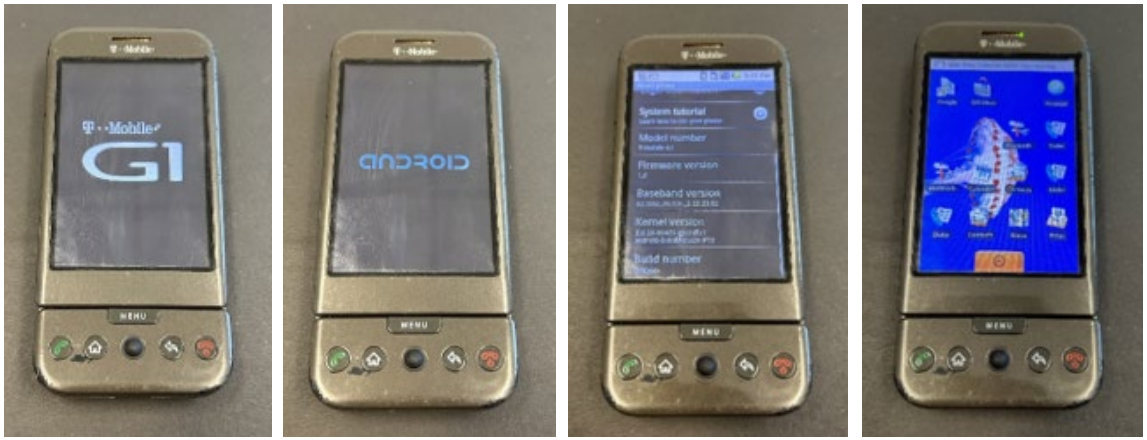
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Palm Pre.<br>The Neonode N2 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen over the indicated icons or from the sides of the screen as indicated by the various arrows (from outside of the screen), over the arrows towards the main application display toward the inside of the touch screen (e.g., crossing over the window identifying the movement from off-to-on screen). The user's touch first interacts with the window showing the arrows on the touch screen because the outer housing does not contain touch-sensitive elements. The gliding action over the arrows from off-to-on screen causes a processor to perform the action associated with one of the three icons printed below the touch screen or from the side of the touch screen. As shown in the N2's User Manual, such gestures cross over a thin line at the bottom of the touch screen between the printed marking and the middle of the display.<br>  |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Neonode N2.<br><br>**1.13 Vertical areas:**<br><br>**1. The left part of the screen is called the Start menu sweep area.**<br>**2. The middle part of the screen is called the Keyboard sweep area.**<br>**3. The right part of the screen is called the Tools menu sweep area.**<br><br>In the vertical areas you start the sweep at the very bottom of the screen. Sweep upwards. The sweep should be about half the height of the screen.<br><br>A sweep in the left part of the screen opens the start menu. A sweep in the middle opens the keyboard and a sweep in the right part of the screen opens the tools menu.<br><br>  <br><br><br>Neonode N2 User Manual 7.<br><br>A POSITA would have found it obvious to incorporate the HTC G1 1.6's status bar window or the application tab window in the form of a line, as claimed, to reduce the amount of space used to display the status bar and/or applications tab, thereby permitting more space for the main screen content to be shown. Each of the HTC G1 1.6, Roth, Roth Bezel Swipe, Hinckley, the Samsung Behold II, the Palm Pre, and/or the Neonode N2, teaches the window or area for implementing the gliding gesture may be in a form of a line. Roth and Roth Bezel Swipe teach the advantages of using a line, as opposed to a tab when implementing such dragging/crossing interfaces, which would have motivated a POSITA to modify the HTC G1 1.6's applications tab to reduce its size on the screen, thereby providing more space for the main display. Roth explains that using lines or thin bars "is a viable solution" for the types of off-to-on screen gliding gestures used to open the notifications menu and/or applications menu in the HTC G1 1.6. Roth at [0009]. Roth also teaches that, even though the bars may be thin (which Roth shows as a line), "they can be more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to the distance vector between the line and the cursor," and "that a well positioned line requires significantly less display space than a button for similar performance characteristics." Roth at [0010], FIG. 2B. Roth further explains that using a thin "bar," which Roth shows as thin lines, "save[s] valuable display space on the screen, since the activation point can be made smaller on the display as a result," and may "begin from outside the display for ease of use." Roth at [0015], [0017], FIG. 2B. A POSITA |

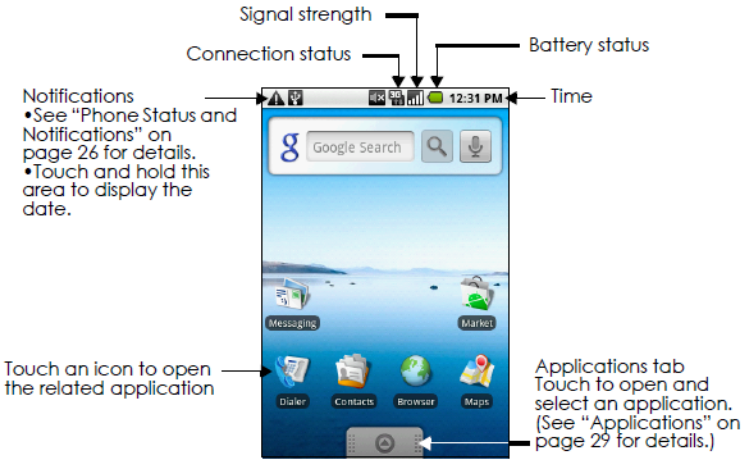
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | would have been further motivated because, the "bar [line] is made small [e.g., a line] so as to not take up valuable space on the display" so the user can activate it using, for example, an off-to-on screen swiping gesture Roth at [0036], FIG. 2B.<br><br>Roth Bezel Swipe provides further motivations to a POSITA to make the window a bar in a form of a line, such as for the application tab of the HTC G1 1.6. For example, "[s]wipes are recognized by detecting touches inside a thin rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524, Figures 1, 2. This has the advantage that "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display," and therefore "leverages display pixels that are not typically touched during regular interactions" because they use the thin line on the edge of the screen. Roth Bezel Swipe at 1524, Figure 2. Roth Bezel Swipe provides an example of "a thin colored bar," shown as a line, to indicate where Bezel Swipe actions may be performed. Roth Bezel Swipe, 1524, Figures 1, 2 (showing and describing a "red bar" in the form of a line). As one example, Roth Bezel Swipe describes "a green 8 x 160 pixels bar [line] centered vertically against the left display edge, with an active area that was 12 pixels wide." Roth Bezel Swipe, 1525, Figure 1. One advantage of using the thin line is that "the crossing of the touch-insensitive bezel in conjunction with the properties of touch sensitive displays enables the reliable activation of a button that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524-25, Figures 1, 2. Indeed, the HTC G1 1.6's status bar is already in the form of a line, and a POSITA would have been motivated to carry that through to minimize the amount of display required for, for example, the applications tab at the bottom of the screen. Such combination would also allow for the application bar to be always accessible, thereby making it easier for the user to switch applications or navigate between applications because, as Roth Bezel Swipe teaches, the thin line and crossing-gliding gesture "enables the reliable activation of a button that is so narrow that it would be difficult to activate by a direct touch" and thus would not be accidentally activated by a user (both because of the difficulty or direct tapping and also the off-to-on screen gliding activation gesture). Roth Bezel Swipe at 1524-25, Figures 1, 2.<br><br>It was well known to a POSITA that the status bar and/or applications tab in the HTC G1 1.6's interface could be implemented as windows that are bars in the form of a line merely requires drawing the window for the activation area (e.g., status bar or application tab) as a line, which |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | merely uses conventional graphics rendering, thus representing a mere design choice as to the shape of the activation area. The off-to-on screen activation is similarly well known and conventional operations to determine the user's gliding action across the activation area, such as used in the HTC G1 1.6, Roth, Roth Bezel Swipe, Hinckley, the Samsung Behold II, the Palm Pre, and/or the Neonode N2.<br><br>The use of a bar in the form of a line for the HTC G1 1.6's status bar and/or applications tab for the user to perform an out-to-in gliding gesture to activate the respective menu function was routine and conventional to POSITAs, as shown by the HTC G1 1.6, Tseng, Roth, and/or Roth Bezel Swipe. Moreover, it was successfully implemented in commercial prior art devices, such as the Samsung Behold II, the Palm Pre, and the Neonode N2. Incorporating the shape of the activation area, such as the status bar or applications tab to be a bar in the form of a line represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with the HTC G1 1.6, represent nothing more than combining prior art elements according to known methods and techniques (rendering the status bar or applications tab windows of the HTC G1 1.6 as a bar in the form of a line, then activating the menu as already known in the HTC G1 1.6 as the user's gliding action moves from offscreen towards the inside of the touch screen) to yield predictable results (to open the HTC G1 1.6's notification menu or application menu, such as by sliding it open, as used in the HTC G1 1.6). |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[6]** The system of claim 5, wherein said action is | Claim 6 depends from claims 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 5, 3, and 1 here, which anticipate and/or render claims 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| displaying an interface on the screen. | and evidence set out for claims 5, 3, and 1 to show the additional limitations of claim 6 are anticipated and/or obvious for the same reasons set out in claims 5, 3, and 1.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying an interface on the screen."<br><br>For example, the HTC G1 1.6's gliding action at the status bar initiates an action of displaying the notifications panel interface on the touch screen. The HTC G1 1.6's gliding action at the applications tab initiates an action of displaying the applications menu on the touch screen.<br><br>  <br><br>HTC G1 1.6 Device. |

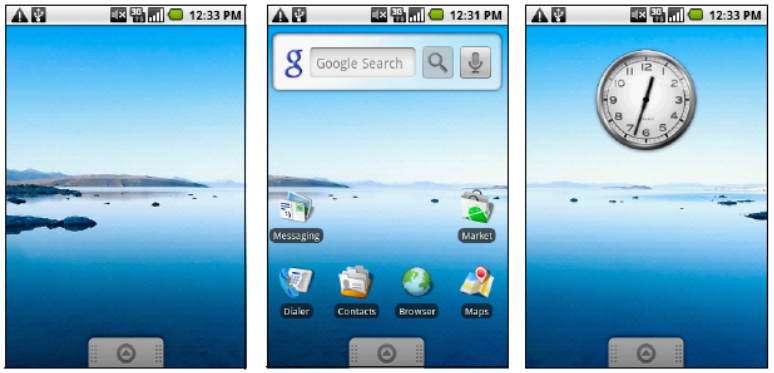
| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC G1 1.6 Device<br>  <br>HTC G1 1.6 Device. |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **1.7 Home Screen**<br><br>The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.<br><br>  <br><br><br>**Tip** While in any application, press **HOME** to go back to the Home screen. |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

## Extended Home screen

The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.




Extended Home screen left

Extended Home screen right

G1 User Manual 24.

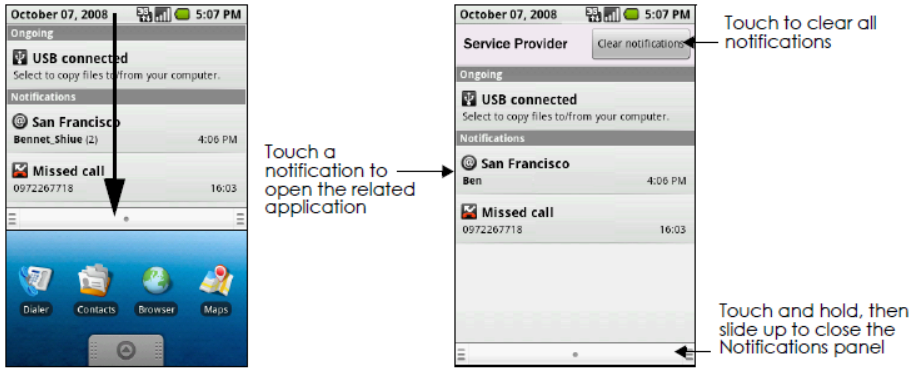
## Notifications panel

Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.

**To open the Notifications panel**

When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|




If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

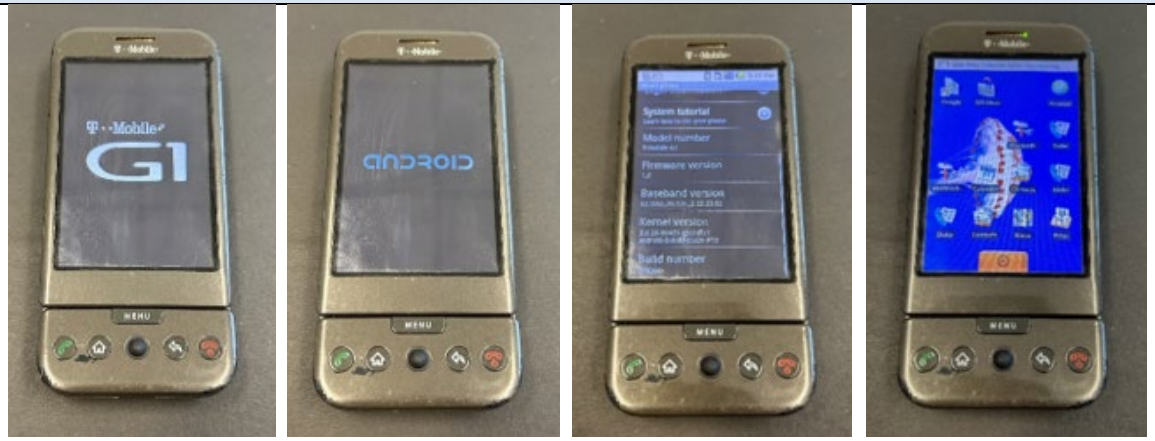
**To close the Applications tab**

Touch  .

G1 User Manual 29.

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, G1 Launch Event; G1 Unveiled; Engadget Review; Google Mobile Products on Android; T-Mobile G1 Review; T-Mobile G1 Android Phone Hands-On; T-Mobile G1 Expanded Demo; T-Mobile G1 User Interface Review; T-Mobile G1 Physical Design Review; The Gadget Show, T-Mobile G1 Live Demo; T-Mobile G1 Tour; T-Mobile G1 Impressions; HTC Dream User Manual.<br><br>A POSITA would have found it obvious that the HTC G1 1.6's applications tab is a line, as explained in claim 5. *Supra* claim 5. |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[7]** The system of claim 5, wherein said action is displaying a portion of an interface on the screen. | Claim 7 depends from claims 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 5, 3, and 1 here, which anticipate and/or render claims 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 5, 3, and 1 to show the additional limitations of claim 7 are anticipated and/or obvious for the same reasons set out in claims 5, 3, and 1.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying a portion of an interface on the screen."<br><br>For example, the HTC G1 1.6 includes the actions to open the notifications menu and/or the applications menu displaying a portion of the notifications menu and/or applications menu on the touch screen. For example, when there are more notifications or applications than can be shown, the user may scroll through the remainder of the interface to see the additional notifications and/or applications. Moreover, the portion of the notifications menu and/or application menu may be displayed during the user's gliding action, as explained below in claim 8. *Infra* claim 8. |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC G1 1.6 Device.<br>  <br>HTC G1 1.6 Device |

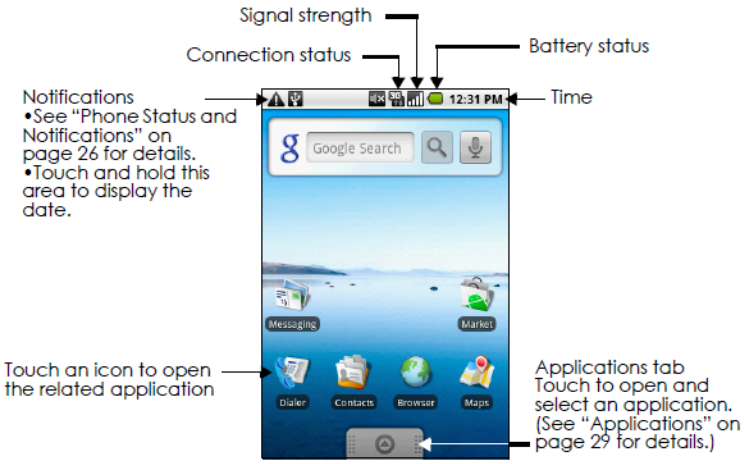
| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|



HTC G1 1.6 Device.

## 1.7 Home Screen

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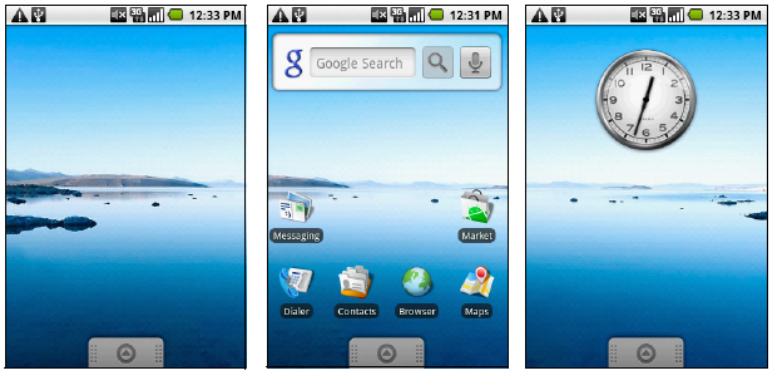



**Tip** While in any application, press **HOME** to go back to the Home screen.

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

## Extended Home screen

The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.




Extended Home screen left

Extended Home screen right

G1 User Manual 24.

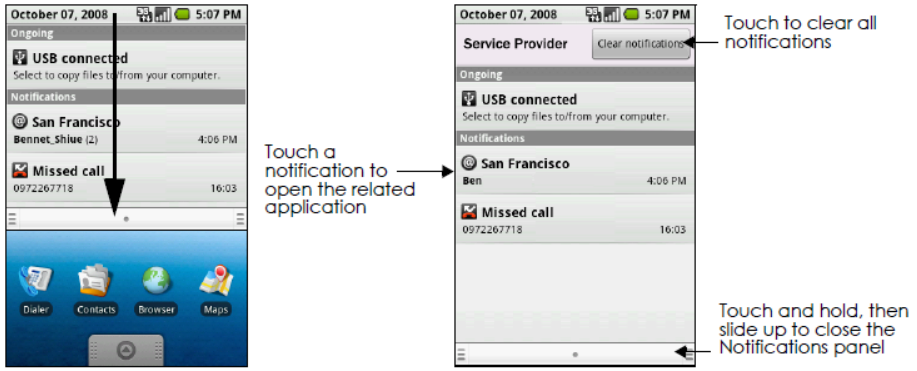
## Notifications panel

Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.

**To open the Notifications panel**

When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|




If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

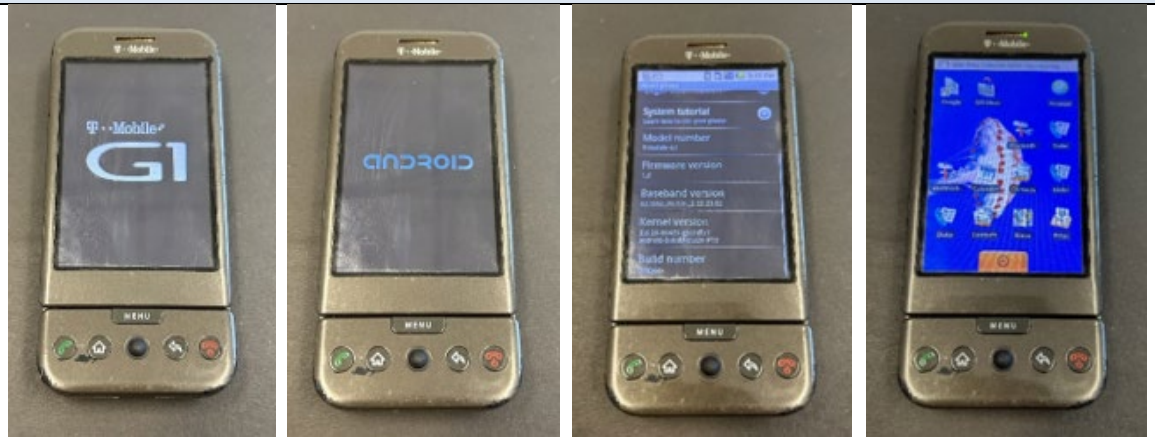
**To close the Applications tab**

Touch  .

G1 User Manual 29.

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, G1 Launch Event; G1 Unveiled; Engadget Review; Google Mobile Products on Android; T-Mobile G1 Review; T-Mobile G1 Android Phone Hands-On; T-Mobile G1 Expanded Demo; T-Mobile G1 User Interface Review; T-Mobile G1 Physical Design Review; The Gadget Show, T-Mobile G1 Live Demo; T-Mobile G1 Tour; T-Mobile G1 Impressions; HTC Dream User Manual.<br><br>A POSITA would have found it obvious that the HTC G1 1.6's applications tab is a line, as explained in claim 5. *Supra* claim 5. |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[8]** The system of claim 7, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 8 depends from claims 7, 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 7, 5, 3, and 1 here, which anticipate and/or render claims 7, 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 7, 5, 3, and 1 to show the additional limitations of claim 8 are anticipated and/or obvious for the same reasons set out in claims 7, 5, 3, and 1.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>For example, the HTC G1 1.6 includes that, during the user's gliding action to drag/slide open the notifications menu and/or the applications menu, a length of the portion of the interface being displayed is substantially equal to the length of the user's gliding action from the status bar and/or applications tab. |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC G1 1.6 Device.<br>  <br>HTC G1 1.6 Device |

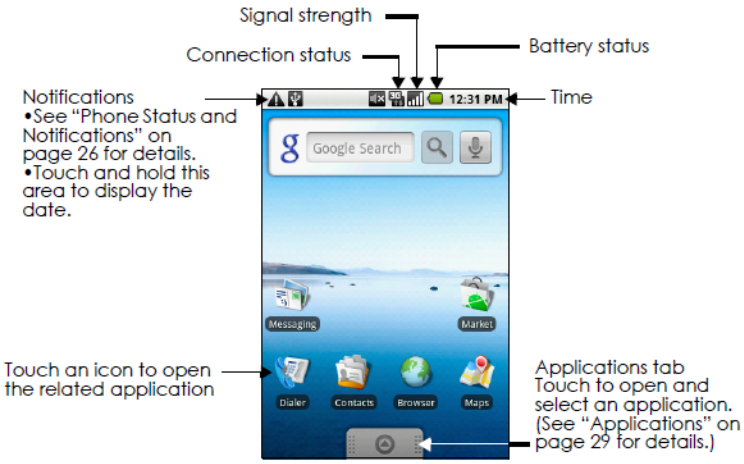
| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|



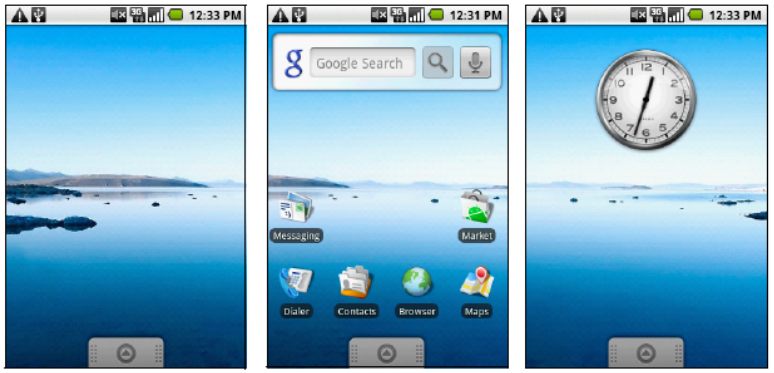
HTC G1 1.6 Device.

## 1.7 Home Screen

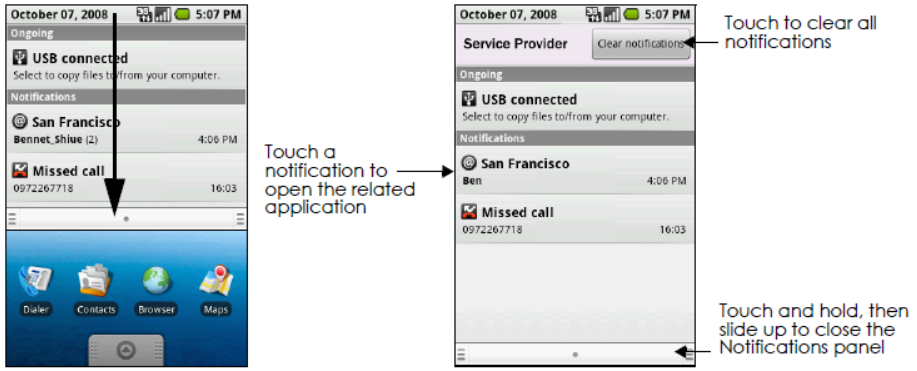
The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.




**Tip** While in any application, press **HOME** to go back to the Home screen.

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **Extended Home screen**<br>The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.<br>  <br><br>Extended Home screen left<br>Extended Home screen right<br>G1 User Manual 24.<br>**Notifications panel**<br>Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.<br>**To open the Notifications panel**<br>When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel. |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|




If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

**To close the Applications tab**

Touch  .

G1 User Manual 29.

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, G1 Launch Event; G1 Unveiled; Engadget Review; Google Mobile Products on Android; T-Mobile G1 Review; T-Mobile G1 Android Phone Hands-On; T-Mobile G1 Expanded Demo; T-Mobile G1 User Interface Review; T-Mobile G1 Physical Design Review; The Gadget Show, T-Mobile G1 Live Demo; T-Mobile G1 Tour; T-Mobile G1 Impressions; HTC Dream User Manual.<br><br>A POSITA would have found it obvious that the HTC G1 1.6's applications tab is a line, as explained in claim 5. *Supra* claim 5. |

| Claim 9 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[9]** The system of claim 3, wherein said action is displaying an interface on the screen. | Claim 9 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 9 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying an interface on the screen."<br><br>Claim 9 recites substantially the same limitations as claim 6 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 6. *See, e.g.*, *supra* claim 6.<br><br>As discussed *supra* claim 6, the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said action is displaying an interface on the screen." *See supra* claim 6. |

| Claim 10 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[10]** The system of claim 3, wherein said action is displaying a portion of an interface on the screen. | Claim 10 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 10 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying a portion of an interface on the screen."<br><br>Claim 10 recites substantially the same limitations as claim 7 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 7. *See, e.g.*, *supra* claim 7.<br><br>As discussed *supra* claim 7, the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said action is displaying a portion of an interface on the screen." *See supra* claim 7. |

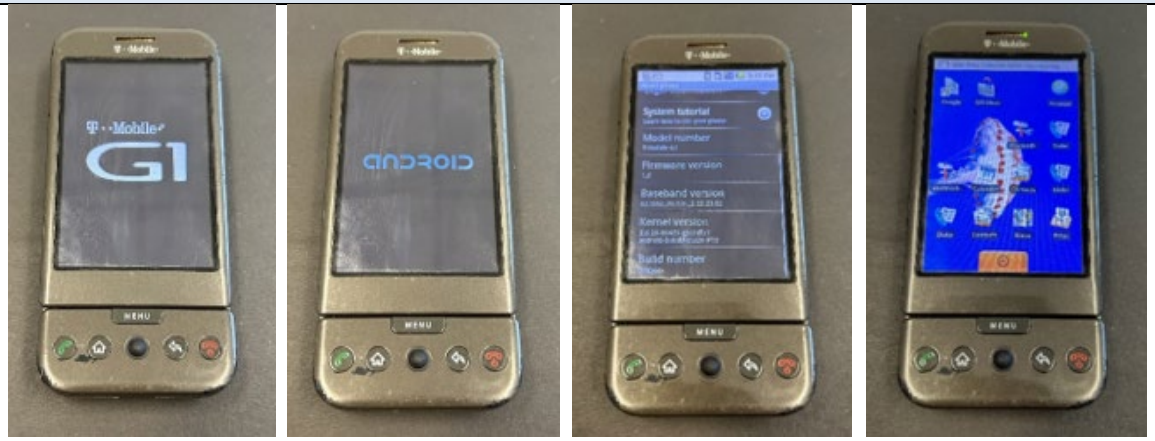
| Claim 11 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[11]** The system of claim 10, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 11 depends from claims 10, 3, and 1. Defendants incorporate all the prior art disclosures from claims 10, 3, and 1 here, which anticipate and/or render claims 10, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 10, 3, and 1 to show the additional limitations of claim 11 are anticipated and/or obvious for the same reasons set out in claims 10, 3, and 1.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a |

| Claim 11 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>Claim 11 recites substantially the same limitations as claim 8 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 8. *See, e.g.*, *supra* claim 8.<br><br>As discussed *supra* claim 8, the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claim 8. |

| Claim 12 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[12]** The system of claim 1, wherein upon detecting said gliding action, the system displays an interface on said touch screen. | Claim 12 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 12 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said gliding action, the system displays an interface on said touch screen."<br><br>Claim 12 recites substantially the same limitations as claims 6 and 9 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6 ad 9. *See, e.g.*, *supra* claims 6, 9.<br><br>As discussed *supra* claims 6 and 9, the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that |

| Claim 12 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | "upon detecting said gliding action, the system displays an interface on said touch screen." *See supra* claims 6, 9. |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[13]** The system of claim 12, wherein upon detecting said gliding action, the system relates said gliding action to setting the location of said interface on said touch screen. | Claim 13 depends from claims 12 and 1. Defendants incorporate all the prior art disclosures from claims 12 and 1 here, which anticipate and/or render claims 12 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 12 and 1 to show the additional limitations of claim 13 are anticipated and/or obvious for the same reasons set out in claims 12 and 1.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said gliding action, the system relates said gliding action to setting the location of said interface on said touch screen."<br><br>For example, the HTC G1 1.6 includes, upon detecting the gliding action at the status bar and/or applications tab, the HTC G1 1.6 relates the respective gliding action to setting the location of the notifications menu interface and/or applications menu interface, as explained for claim 8. *Supra* claim 8. For example, during the user's gliding action to drag/slide open the notifications menu and/or applications menu, the location of a portion of the notifications menu interface and/or applications menu interface being displayed changes based on the location of the user's finger. |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC G1 1.6 Device.<br>  <br>HTC G1 1.6 Device |

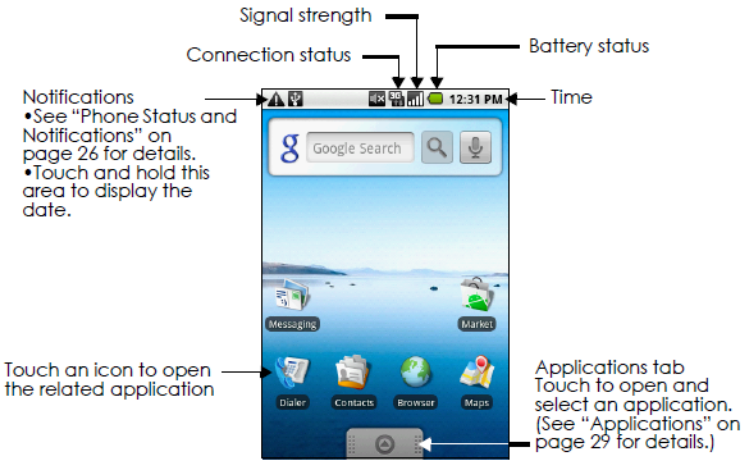
| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|



HTC G1 1.6 Device.

## 1.7 Home Screen

The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.

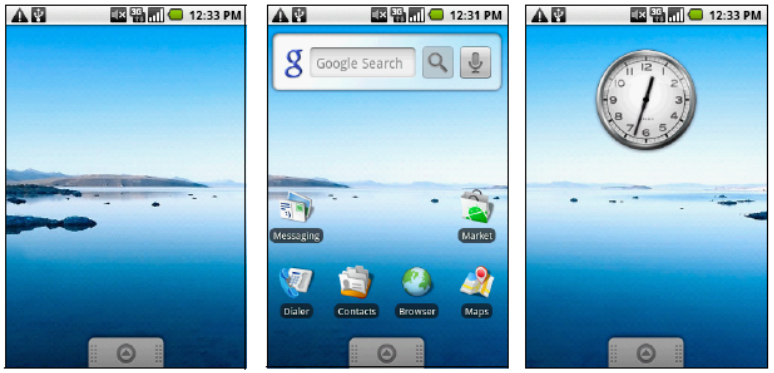



**Tip** While in any application, press **HOME** to go back to the Home screen.

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

## Extended Home screen

The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.




Extended Home screen left

Extended Home screen right

G1 User Manual 24.

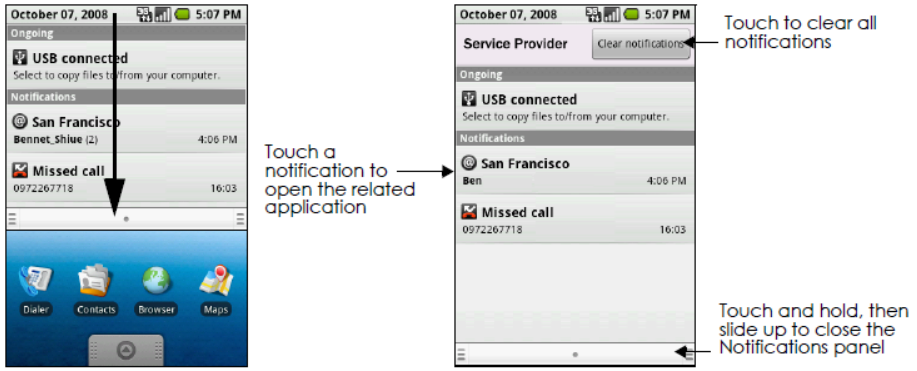
## Notifications panel

Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.

**To open the Notifications panel**

When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|




If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

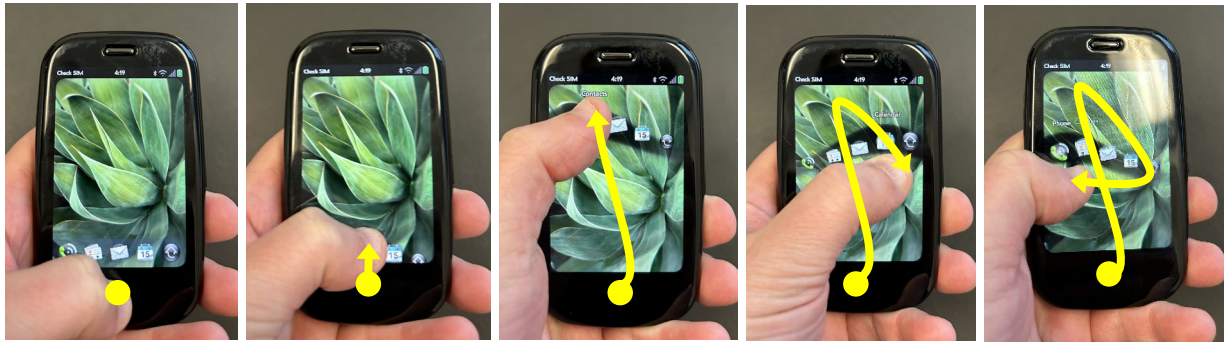
**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

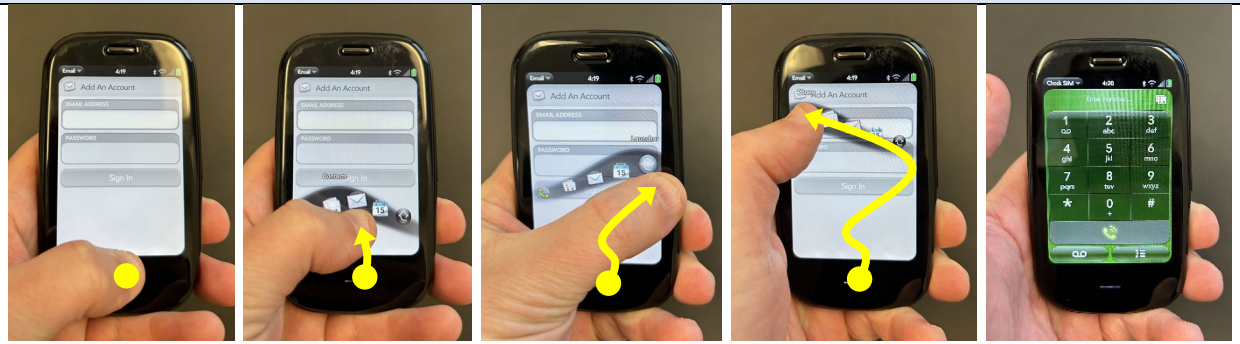
**To close the Applications tab**

Touch  .

G1 User Manual 29.

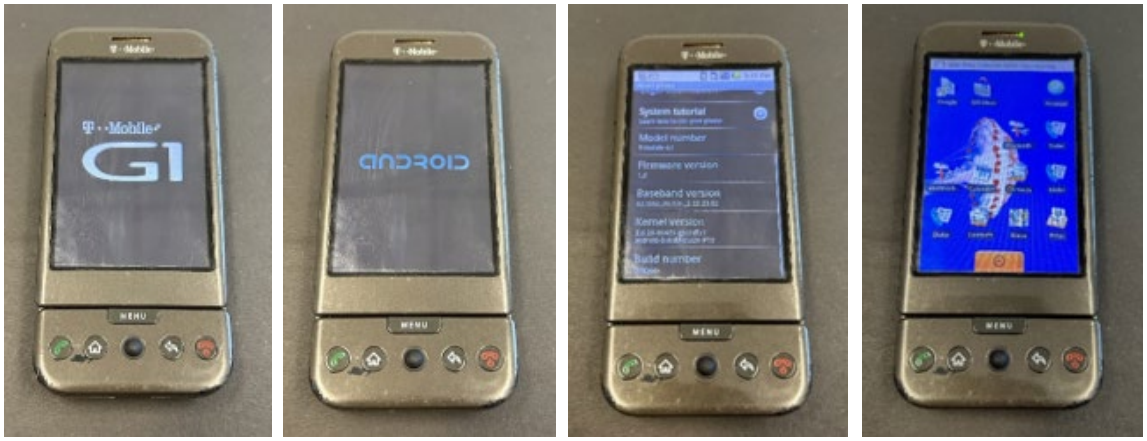
| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, G1 Launch Event; G1 Unveiled; Engadget Review; Google Mobile Products on Android; T-Mobile G1 Review; T-Mobile G1 Android Phone Hands-On; T-Mobile G1 Expanded Demo; T-Mobile G1 User Interface Review; T-Mobile G1 Physical Design Review; The Gadget Show, T-Mobile G1 Live Demo; T-Mobile G1 Tour; T-Mobile G1 Impressions; HTC Dream User Manual.<br><br>To the extent Keyless argues that the HTC G1 1.6 does not disclose or render obvious the additional limitations of claim 13, it would have been obvious in view of the HTC G1 1.6, POSITA's pre-existing knowledge, and/or the HTC G1 1.6 combined with the other references charted for this patent in these invalidity contentions, including Tseng, Jeong, and the Palm Pre. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>Tseng teaches that, upon detecting the user's gliding action, the system relates the gliding action to setting the location of the message area interface on the touch screen by "stick[ing]" the edge of the interface to the user's finger. Tseng at [0029]. Tseng explains the message area 206/226 may remain "partially" open. Tseng at [0046]. As another example, Tseng explains that, in one embodiment, "if a user drags the bar quickly and releases it, the bar may continue moving until its momentum runs out *or* until it hits the bottom of the display," meaning that it is possible for the message area to stop before the bottom of the display is reached. Tseng at [0060]. As another example, Tseng explains that, in one embodiment, "if the user pulls the bar below a determined level on the display, the bar may automatically keep moving until it reaches the bottom of the display, or until it reaches a graphical element that it is not allowed to pass over." Tseng at [0060].<br><br>Jeong teaches the mobile terminal 100, upon detecting the user's gliding action on the tag 330/410, relates the gliding action to setting the location of the interface (e.g., application menu interface) on the touch screen by exposing how much of the menu is shown. Jeong's FIGS. 7B and 7B "shows a |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | second example of displaying a menu screen by dragging a tag in FIG. 6B." Jeong at [0018], [0019], FIGS. 6B, 7B, 7C. Jeong explains that, "[i]f [the] tag dragging is stopped before the entire menu screen image 320 is exposed, or when the touch to the tag being dragged is released, the menu screen maintains a currently exposed state as it is" to relate the gliding action to set the location of the interface by exposing or hiding a portion of the menu both during the dragging action and when the user ceases the dragging action. Jeong at [0059], FIGS. 7A-7C. The menus displayed from the two tags (bottom tag in 7B and side tag in 7C) show the same application icons, which suggests displaying the same menu from different directions. Jeong's system also changes the location of the interface corresponding to the tag from which the gliding action starts from below an executed screen image to above an executed screen image, according to the distance of the gliding action. Jeong at [0062], FIG. 9D.<br><br>The Palm Pre teaches, as one example, that upon detecting a user's gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area and upwards towards the main application display, the system relates the gliding action to setting the location of the Quick Launch interface by moving the location of the interface with the user's gliding action on the touch screen both when the Quick Launch window is shown on the screen and when the Quick Launch interface is displayed while an application is displayed on the screen, such as shown below.<br><br>  <br><br>Palm Pre. |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Palm Pre.<br>A POSITA would have found it obvious to incorporate one or more of Tseng's, Jeong's, and/or the Palm Pre's teaching of relating the gliding action to setting the location of the interface on the touch screen upon detecting the gliding action. A POSITA would have recognized the advantage of incorporating a quick launch bar into the HTC G1 1.6's system that travels with the user's gesture, as taught by the Palm Pre to make selection of the desired application from the Quick Launch interface easier because the user's touch does not need to be as precise on a static interface. A POSITA would have been motivated to include such Quick Launch from a thin window, such as a line or bar taught by Roth and Roth Bezel Swipe, when an application is displayed on the touch screen or an invisible window as taught by the Palm Pre, to provide the user with efficient and quick access to a desired subset of applications shown in the Quick Launch interface. A POSITA also would have recognized the advantages of allowing the status bar and/or applications menu of the HTC G1 1.6 to remain partially open at a location on the screen, as taught by Tseng and Jeong, to provide the user with easier access to desired portions of the interface(s) without having to open the entire interface. A POSITA would have been motivated to provide this functionality for similar reasons discussed in claims 1, 7, and 8 above.<br>It was well known to a POSITA to implement interfaces, such as partially open interface locations taught by Tseng and Jeong and/or the Quick Launch interface of the Palm Pre, that launch based on a gliding action from an activation area using windows that are bars in the form of a line for the activation area (e.g., status bar or application tab), which merely uses conventional graphics rendering, thus representing a mere design choice as to the shape of the activation area. Relating the |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | user's gliding action to setting the location of the interface on the touch screen was also well known, as taught by Tseng, Jeong, and/or the Palm Pre. Moreover, a POSITA would have been motivated to implement the Palm Pre's Quick Launch interface to provide access to the applications list when another application is open full screen.<br><br>The system relating the user's gliding action to setting the location of the interface on the touch screen upon detecting the gliding action was routine and conventional to POSITAs, as shown by the HTC G1 1.6, Tseng, Jeong, and/or the Palm Pre. Moreover, it was successfully implemented in commercial prior art devices, such as the Palm Pre. Incorporating the partial opening to set the location of the interface and/or a Quick Launch interface represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with the HTC G1 1.6, represent nothing more than combining prior art elements according to known methods and techniques (rendering the interface on the screen of the HTC G1 1.6 either partially open or as a Quick Launch interface moving with the user's glide) to yield predictable results (to open the desired interface and set its location based on partial opening and/or as a Quick Launch interface moving with the user's gliding action). |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[15]** The system of claim 1, wherein said at least one window comprises more than one window located on one or more edges of the touch screen. | Claim 15 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 15 are anticipated and/or obvious for the same reasons set out in claim 1. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window comprises more than one window located on one or more edges of the touch screen."<br><br>For example, the HTC G1 1.6 includes the status bar window and the applications tab window located on the top and bottom (e.g., one or more) edges of the touch screen.<br>  <br>HTC G1 1.6 Device.<br>  <br>HTC G1 1.6 Device |

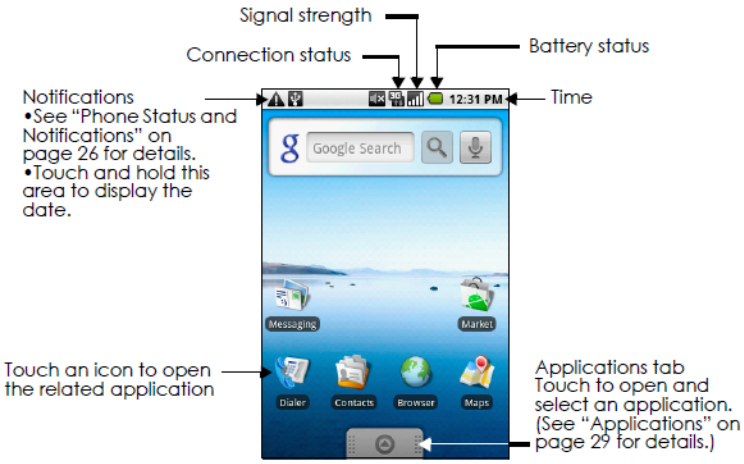
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|



HTC G1 1.6 Device.

## 1.7 Home Screen

The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.

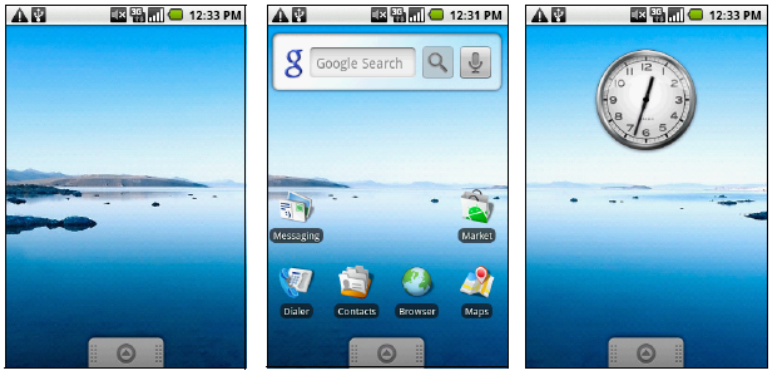



**Tip** While in any application, press **HOME** to go back to the Home screen.

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

## Extended Home screen

The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.




Extended Home screen left

Extended Home screen right

G1 User Manual 24.

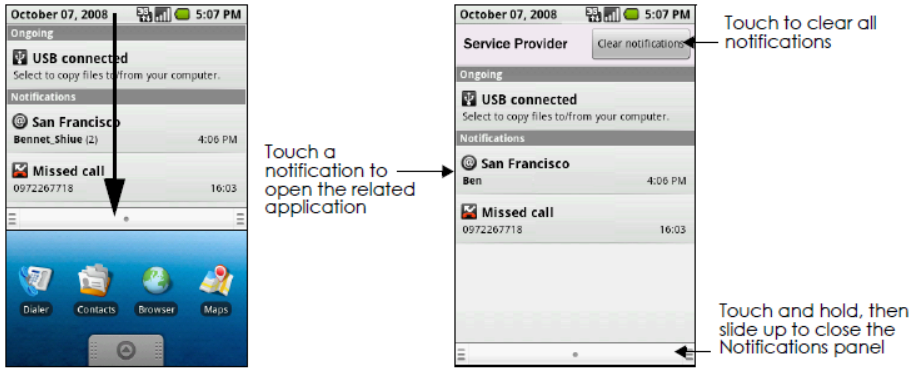
## Notifications panel

Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.

**To open the Notifications panel**

When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|




If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

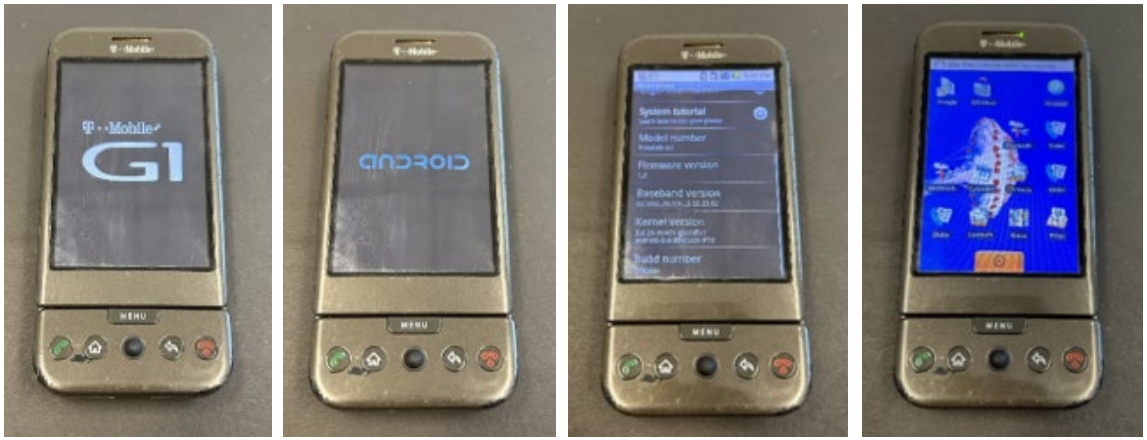
**To close the Applications tab**

Touch  .

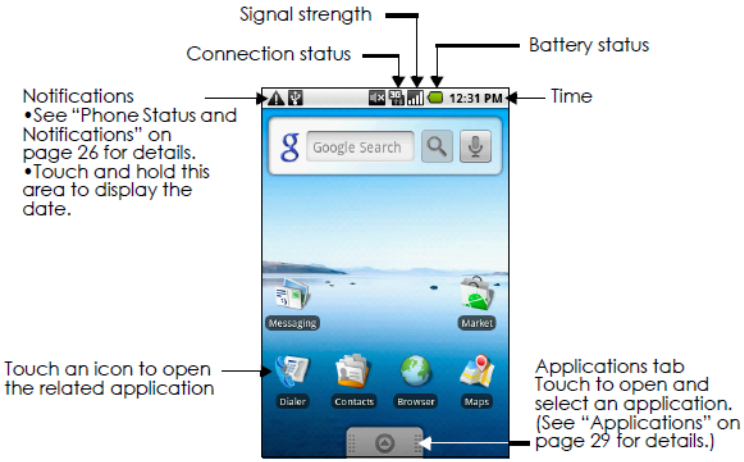
G1 User Manual 29.

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, G1 Launch Event; G1 Unveiled; Engadget Review; Google Mobile Products on Android; T-Mobile G1 Review; T-Mobile G1 Android Phone Hands-On; T-Mobile G1 Expanded Demo; T-Mobile G1 User Interface Review; T-Mobile G1 Physical Design Review; The Gadget Show, T-Mobile G1 Live Demo; T-Mobile G1 Tour; T-Mobile G1 Impressions; HTC Dream User Manual. |

| Claim 16 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[16]** The system of claim 15, wherein said at least one window extends along a substantial portion of an edge of the touch screen. | Claim 16 depends from claims 15 and 1. Defendants incorporate all the prior art disclosures from claims 15 and 1 here, which anticipate and/or render claims 15 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 15 and 1 to show the additional limitations of claim 16 are anticipated and/or obvious for the same reasons set out in claims 15 and 1.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window extends along a substantial portion of an edge of the touch screen."<br><br>Claim 16 recites substantially the same limitations as claim 4 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 4. *See, e.g.*, *supra* claim 4.<br><br>As discussed *supra* claim 4, the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said at least one window extends along a substantial portion of an edge of the touch screen." *See supra* claim 4. |

| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[17]** The system of claim 1, wherein during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen. | Claim 17 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 17 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen."<br><br>For example, the HTC G1 1.6 includes, during providing the gliding action from the status bar window and/or the applications tab window, the HTC G1 dynamically drags and shows the notifications menu interface and/or the applications menu interface, or a portion of those interfaces, on the touch screen, such as explained in claims 1, 7, and 8. *Supra* claims 1, 7, 8.<br><br>  <br><br>HTC G1 1.6 Device. |

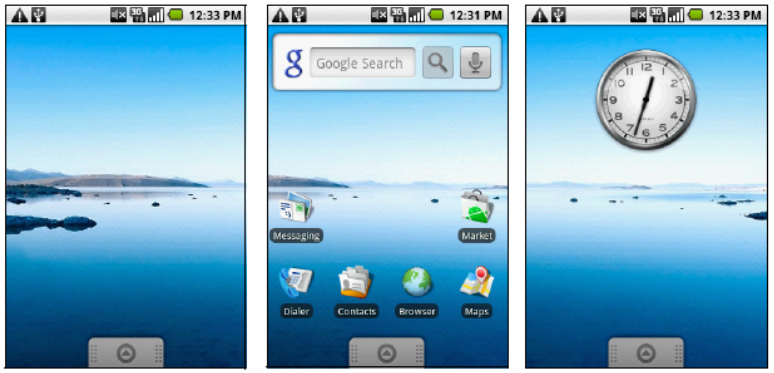
| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC G1 1.6 Device<br>  <br>HTC G1 1.6 Device. |

| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **1.7 Home Screen**<br><br>The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.<br><br>  <br><br><br>**Tip** While in any application, press **HOME** to go back to the Home screen. |

| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

## Extended Home screen

The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.




Extended Home screen left

Extended Home screen right

G1 User Manual 24.

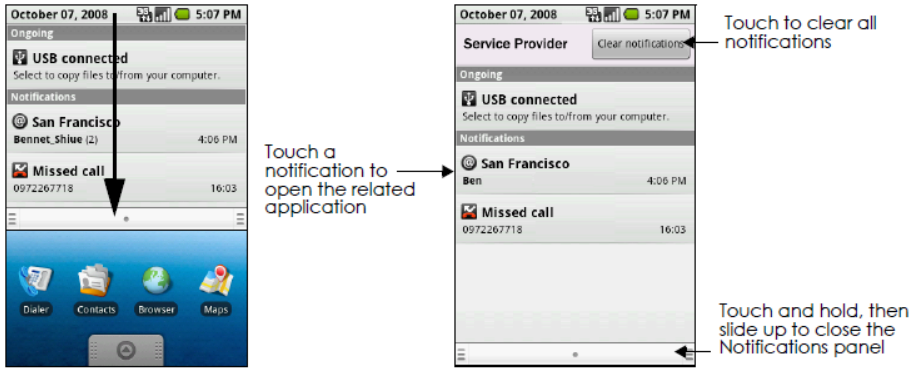
## Notifications panel

Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.

**To open the Notifications panel**

When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.

| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|




If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

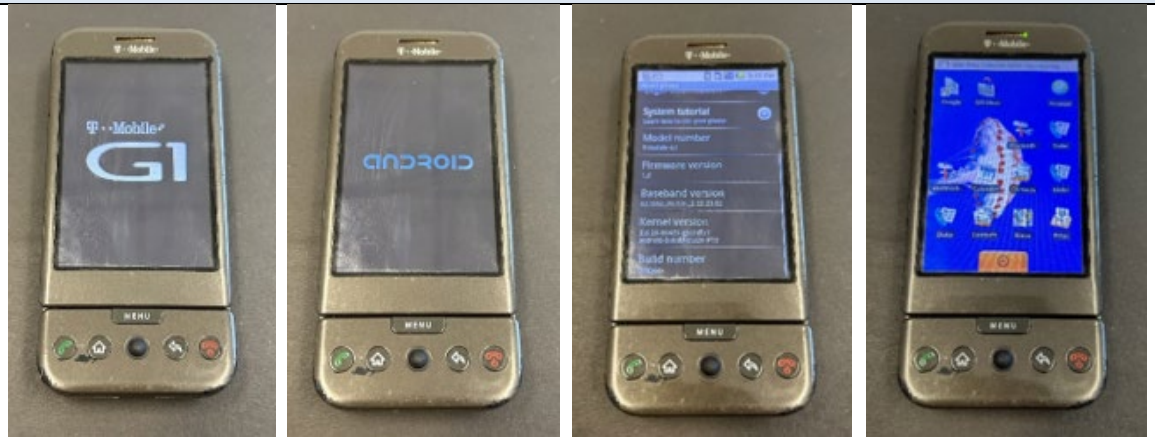
**To close the Applications tab**

Touch  .

G1 User Manual 29.

| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, G1 Launch Event; G1 Unveiled; Engadget Review; Google Mobile Products on Android; T-Mobile G1 Review; T-Mobile G1 Android Phone Hands-On; T-Mobile G1 Expanded Demo; T-Mobile G1 User Interface Review; T-Mobile G1 Physical Design Review; The Gadget Show, T-Mobile G1 Live Demo; T-Mobile G1 Tour; T-Mobile G1 Impressions; HTC Dream User Manual. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[18]** The system of claim 1, wherein the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface. | Claim 18 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 18 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface."<br><br>For example, the HTC G1 1.6's processor relates the gliding action from the status bar window and/or the applications tab window provided in any arbitrary direction inside the touch screen to presenting the same notifications menu or applications menu interface, respectively, because the user's gliding action can proceed in any direction or path while the edge of the respective menu travels with the user's finger. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC G1 1.6 Device.<br>  <br>HTC G1 1.6 Device |

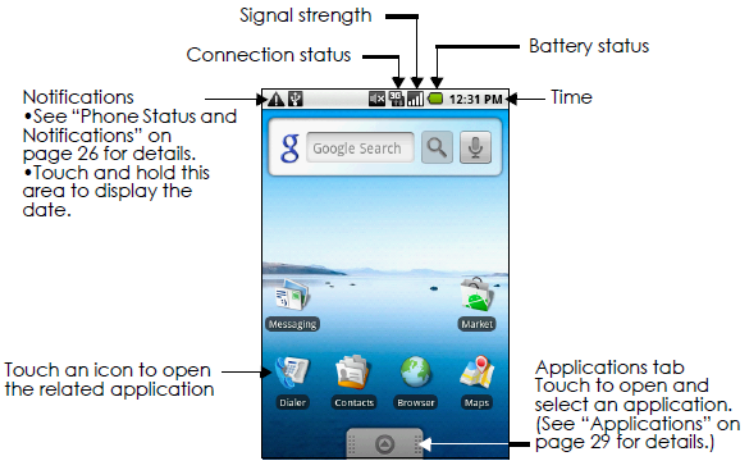
| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|



HTC G1 1.6 Device.

## 1.7 Home Screen

The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.

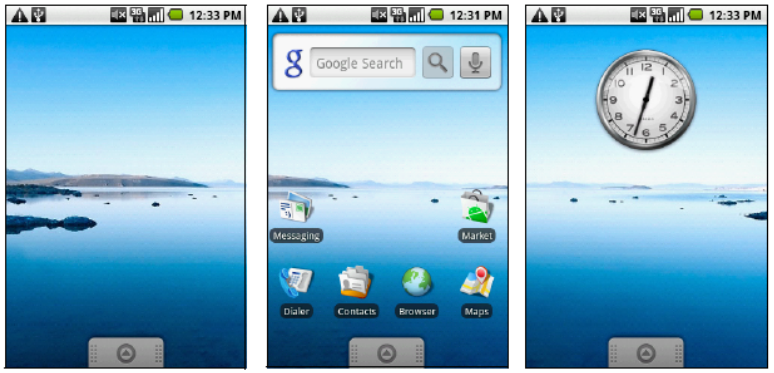



**Tip** While in any application, press **HOME** to go back to the Home screen.

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

## Extended Home screen

The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.




Extended Home screen left

Extended Home screen right

G1 User Manual 24.

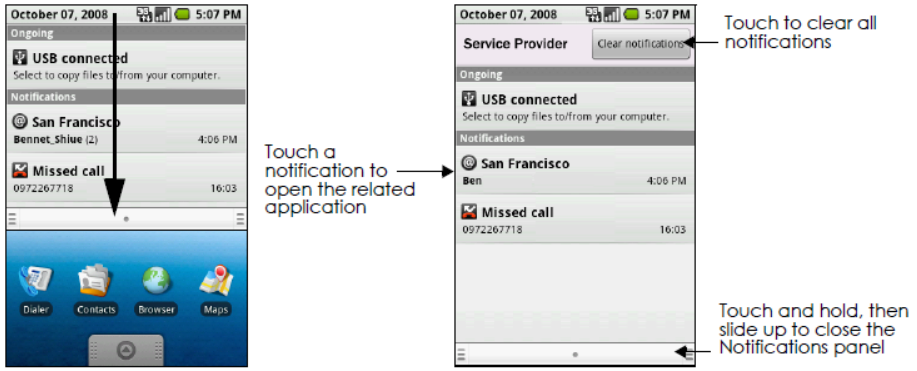
## Notifications panel

Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.

**To open the Notifications panel**

When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|




If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

**To close the Applications tab**

Touch  .

G1 User Manual 29.

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, G1 Launch Event; G1 Unveiled; Engadget Review; Google Mobile Products on Android; T-Mobile G1 Review; T-Mobile G1 Android Phone Hands-On; T-Mobile G1 Expanded Demo; T-Mobile G1 User Interface Review; T-Mobile G1 Physical Design Review; The Gadget Show, T-Mobile G1 Live Demo; T-Mobile G1 Tour; T-Mobile G1 Impressions; HTC Dream User Manual. |

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[19Pre]**[6] A system for capturing an event provided from an edge of a touch screen comprising: | To the extent that the preamble is held to be limiting, the HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[a] system for capturing an event provided from an edge of a touch screen."<br><br>[19Pre] recites substantially the same limitations as [1Pre] and is therefore anticipated or rendered obvious for substantially the same reasons as [1Pre]. *See, e.g.*, *supra* [1Pre].<br><br>As discussed *supra* [1Pre], the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "[a] system for capturing an event provided from an edge of a touch screen." *See supra* [1Pre]. |
| **[19A]** a device having a touch screen; | The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a device having a touch screen."<br><br>[19A] recites substantially the same limitations as [1A] and is therefore anticipated or rendered obvious for substantially the same reasons as [1A]. *See, e.g.*, *supra* [1A]. |

[6] Claim 19 as corrected in the Certificate of Correction issued February 16, 2021.

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | As discussed *supra* [1A], the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "a device having a touch screen." *See supra* [1A]. |
| **[19B]** a zone in form of a bar located in the touch screen on an edge of the touch screen; and | The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a zone in form of a bar located in the touch screen on an edge of the touch screen; and a processor."<br><br>[19B] recites substantially the same limitations as [1B] and claim 3, except that it recites a "zone in the form of a bar" instead of a "window," and is anticipated or rendered obvious for substantially the same reasons as [1B] and claim 3. *See, e.g.*, *supra* [1B], claim 3. Each of the HTC G1 1.6's status bar and/or applications tab are a "zone in the form of a bar" located on the edge of a touch screen, as explains in [1B] and claim 3.<br><br>As discussed *supra* [1B] and claim 3, the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "a zone in form of a bar located in the touch screen on an edge of the touch screen." *See supra* [1B] and claim 3. |
| **[19C]** a processor; | The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a processor."<br><br>[19C] recites substantially the same limitations as [1C] and is therefore anticipated or rendered obvious for substantially the same reasons as [1C]. *See, e.g.*, *supra* [1C].<br><br>As discussed *supra* [1C], the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of |

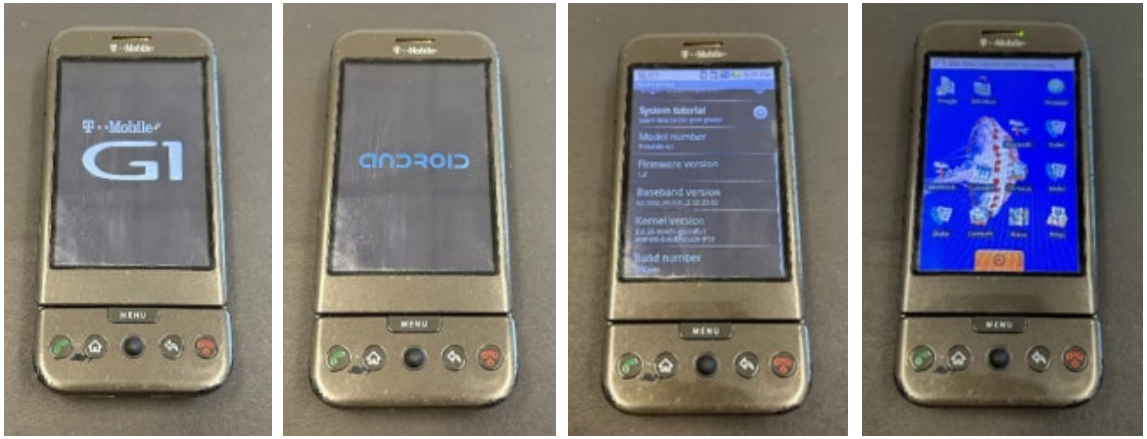
| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "a processor." *See supra* [1C]. |
| **[19D]** wherein a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone, and wherein the processor executes a function related to said zone, and wherein said zone is present on said edge regardless of the interface of an application on said touch screen, and | The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone, and wherein the processor executes a function related to said zone, and wherein said zone is present on said edge regardless of the interface of an application on said touch screen."<br><br>[19D] recites substantially the same limitations as [1B] ("said at least one window functions independently of an interface of an application in use on the touch screen"), [1D] ("a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said processor to cause an action assigned to said window"), and claim 18 ("the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface"), except that it does not recite that the gliding action begins off screen, and is therefore anticipated or rendered obvious for substantially the same reasons as [1B], [1D], and claim 18. *See, e.g.*, *supra* [1B], [1D], and claim 18.<br><br>As discussed *supra* [1B], [1D], and claim 18, the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone, and wherein the processor executes a function related to said zone, and wherein said zone is present on said edge regardless of the interface of an application on said touch screen." *See supra* [1B], [1D], and claim 18. |

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[19E]** wherein said zone is located on the touch screen before said gliding action begins. | The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said zone is located on the touch screen before said gliding action begins."<br><br>[19E] recites substantially the same limitations as [1E], except that it recites "said zone" instead of "said at least one window," and is therefore anticipated or rendered obvious for substantially the same reasons as [1E] and [19B]. *See, e.g.*, *supra* [1E] and [19B].<br><br>As discussed *supra* [1E] and [19B], the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said zone is located on the touch screen before said gliding action begins." *See supra* [1E] and [19B]. |

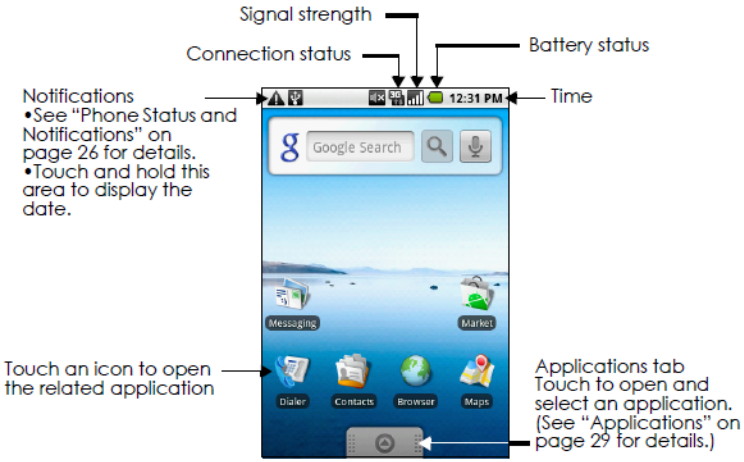
| Claim 21 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[21]** The system of claim 19, wherein upon detecting said gliding action, the system relates said gliding action to setting the location of an interface on the touch screen. | Claim 21 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 21 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said gliding action, the system relates said gliding action to setting the location of an interface on the touch screen."<br><br>Claim 21 recites substantially the same limitations as claim 13 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 13. *See, e.g.*, *supra* claim 13. As |

| Claim 21 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | discussed *supra* claim 13, the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "upon detecting said gliding action, the system relates said gliding action to setting the location of an interface on the touch screen." *See supra* claim 13. |

| Claim 22 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[22]** The system of claim 19, wherein said bar comprises more than one bar located on one or more edges of the touch screen. | Claim 22 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 22 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said bar comprises more than one bar located on one or more edges of the touch screen."<br><br>Claim 22 recites substantially the same limitations as claim 15 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 15. *See, e.g.*, *supra* claim 15.<br><br>As discussed *supra* claim 15, the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said bar comprises more than one bar located on one or more edges of the touch screen." *See supra* claim 15. |

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[23]** The system of claim 19, wherein said zone is in a form of a visible or invisible line. | Claim 23 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 23 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said zone is in a form of a visible or invisible line."<br><br>For example, the HTC G1 1.6 includes the status bar and/or applications tab being in the form of a visible line.<br><br>  <br><br>HTC G1 1.6 Device. |

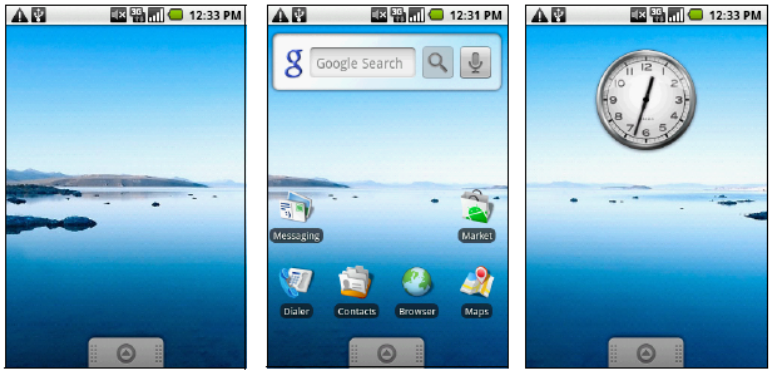
| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC G1 1.6 Device<br>  <br>HTC G1 1.6 Device. |

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **1.7 Home Screen**<br><br>The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.<br><br>  <br><br><br>**Tip** While in any application, press **HOME** to go back to the Home screen. |

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

## Extended Home screen

The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.




Extended Home screen left

Extended Home screen right

G1 User Manual 24.

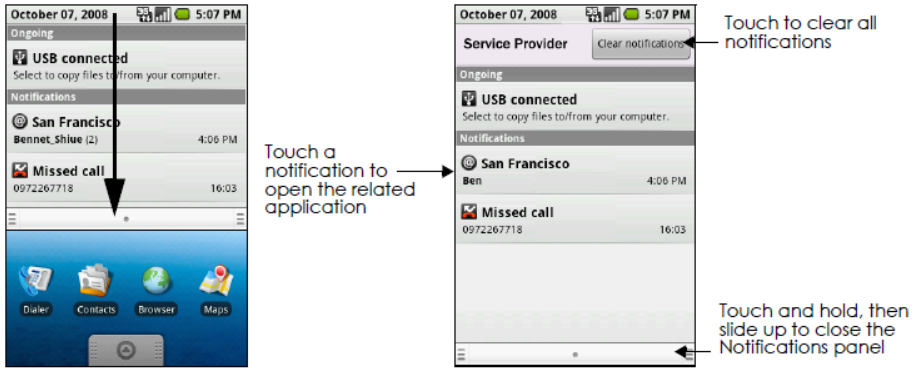
## Notifications panel

Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.

**To open the Notifications panel**

When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|




If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

**To close the Applications tab**

Touch  .

G1 User Manual 29.

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, G1 Launch Event; G1 Unveiled; Engadget Review; Google Mobile Products on Android; T-Mobile G1 Review; T-Mobile G1 Android Phone Hands-On; T-Mobile G1 Expanded Demo; T-Mobile G1 User Interface Review; T-Mobile G1 Physical Design Review; The Gadget Show, T-Mobile G1 Live Demo; T-Mobile G1 Tour; T-Mobile G1 Impressions; HTC Dream User Manual.<br><br>Moreover, claim 23 recites substantially the same limitations as claim 5 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 5. *See, e.g.*, *supra* claim 5. As discussed *supra* claim 5, the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said zone is in a form of a visible or invisible line." *See supra* claim 5. |

| Claim 24 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[24]** The system of claim 23, wherein said function is displaying an interface on the screen. | Claim 24 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 23 and 19 to show the additional limitations of claim 24 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying an interface on the screen."<br><br>Claim 24 recites substantially the same limitations as claims 6, 9, and 12 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6, 9, and 12. *See, e.g.*, *supra* claims 6, 9, 12.<br><br>As discussed *supra* claims 6, 9, and 12, the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further |

| Claim 24 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying an interface on the screen." *See supra* claims 6, 9, 12. |

| Claim 25 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[25]** The system of claim 23, wherein said function is displaying a portion of an interface on the screen. | Claim 25 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 23 and 19 to show the additional limitations of claim 25 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen."<br><br>Claim 25 recites substantially the same limitations as claims 7 and 10 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7 and 10. *See, e.g.*, *supra* claims 7 and 10.<br><br>As discussed *supra* claims 7 and 10, the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10. |

| Claim 26 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[26]** The system of claim 23, wherein said function is displaying a portion of an | Claim 26 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale |

| Claim 26 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action. | and evidence set out for claims 23 and 19 to show the additional limitations of claim 26 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action."<br><br>Claim 26 recites substantially the same limitations as claims 8 and 11 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8 and 11. *See, e.g.*, *supra* claims 8, 11.<br><br>As discussed *supra* claims 8 and 11, the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action." *See supra* claims 8, 11. |

| Claim 27 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[27]** The system of claim 19, wherein said bar is visible or invisible. | Claim 27 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 27 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said bar is visible or invisible." |

| Claim 27 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Claim 27 recites substantially the same limitations as claim 23 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 23. *See, e.g.*, *supra* claim 23. As discussed *supra* claim 23, the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said bar is visible or invisible." *See supra* claim 23. |

| Claim 28 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[28]** The system of claim 27, wherein said function is displaying an interface on the screen. | Claim 28 depends from claims 27 and 19. Defendants incorporate all the prior art disclosures from claims 27 and 19 here, which anticipate and/or render claims 27 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 27 and 19 to show the additional limitations of claim 28 are anticipated and/or obvious for the same reasons set out in claims 27 and 19.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying an interface on the screen."<br><br>Claim 28 recites substantially the same limitations as claims 6, 9, 12, and 24 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6, 9, 12, and 24. *See, e.g.*, *supra* claims 6, 9, 12, 24. As discussed *supra* claims 6, 9, 12, and 24, the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying an interface on the screen." *See supra* claims 6, 9, 12, 24. |

| Claim 29 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[29]** The system of claim 27, wherein said function is displaying a portion of an interface on the screen. | Claim 29 depends from claims 27 and 19. Defendants incorporate all the prior art disclosures from claims 27 and 19 here, which anticipate and/or render claims 27 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 27 and 19 to show the additional limitations of claim 29 are anticipated and/or obvious for the same reasons set out in claims 27 and 19.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen."<br><br>Claim 29 recites substantially the same limitations as claims 7, 10, and 25 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7, 10, and 25. *See, e.g.*, *supra* claims 7, 10, 25.<br><br>As discussed *supra* claims 7, 10, and 25, the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10, 25. |

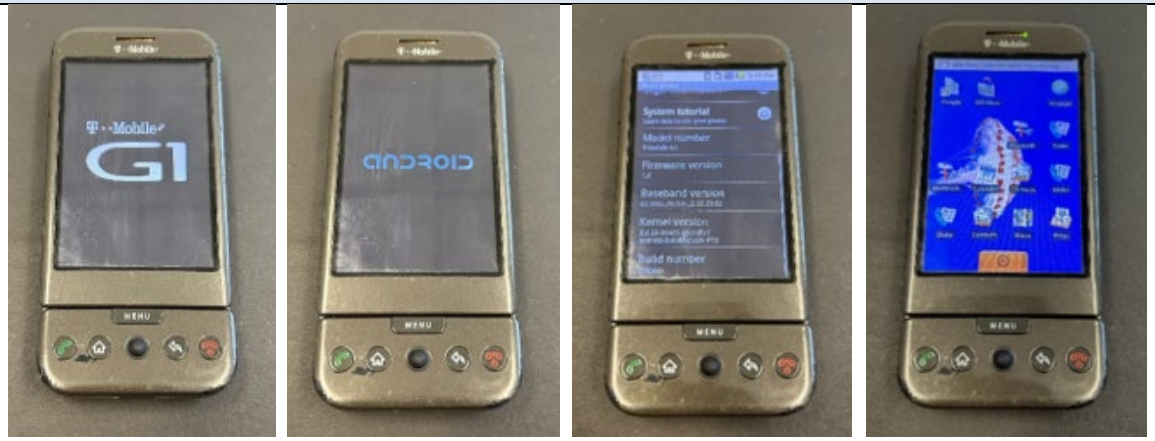
| Claim 30 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[30]** The system of claim 29, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 30 depends from claims 29, 27, and 19. Defendants incorporate all the prior art disclosures from claims 29, 27, and 19 here, which anticipate and/or render claims 29, 27, and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 29, 27, and 19 to show the additional limitations of claim 30 are anticipated and/or obvious for the same reasons set out in claims 29, 27, and 19. |

| Claim 30 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>Claim 30 recites substantially the same limitations as claims 8, 11, and 26 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8, 11, and 26. *See, e.g.*, *supra* claims 8, 11, 26.<br><br>As discussed *supra* claims 8, 11, and 26, the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claims 8, 11, 26. |

| Claim 31 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[31]** The system of claim 19, wherein during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen. | Claim 31 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 31 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen." |

| Claim 31 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Claim 31 recites substantially the same limitations as claim 17 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 17. *See, e.g.*, *supra* claim 17.<br><br>As discussed *supra* claim 17, the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen." *See supra* claim 17. |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[32]** The system of claim 19, wherein said function is displaying a same interface for any said gliding action, said gliding action interacting with any portion of said zone. | Claim 32 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 32 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a same interface for any said gliding action, said gliding action interacting with any portion of said zone."<br><br>For example, the HTC G1 1.6 includes that the functions of displaying the notifications menu and/or applications menu display the same notifications menu interface and/or applications menu interface for any gliding action from the status bar and/or applications tab, respectively, where said gliding actions interact with any portion of the status bar and/or applications tab, respectively. |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC G1 1.6 Device.<br>  <br>HTC G1 1.6 Device |

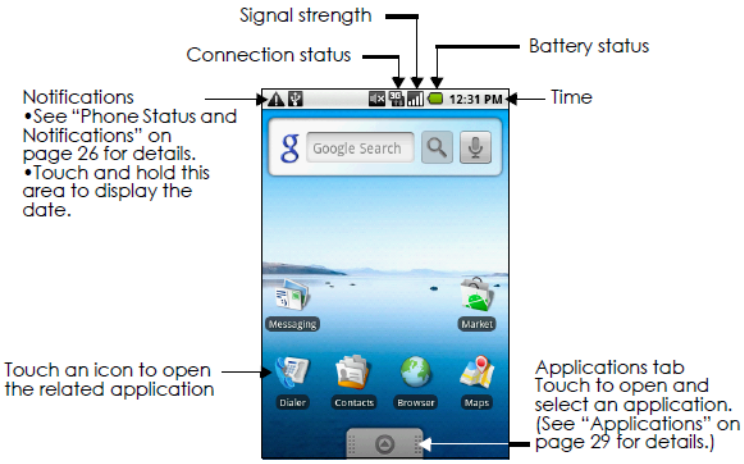
| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|



HTC G1 1.6 Device.

## 1.7 Home Screen

The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.

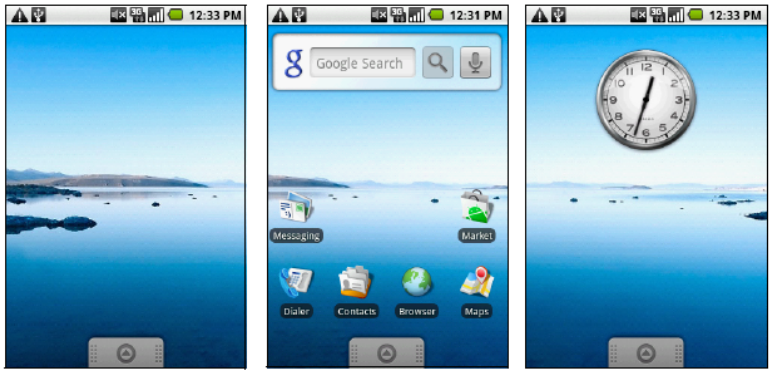



**Tip** While in any application, press **HOME** to go back to the Home screen.

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

## Extended Home screen

The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.




Extended Home screen left

Extended Home screen right

G1 User Manual 24.

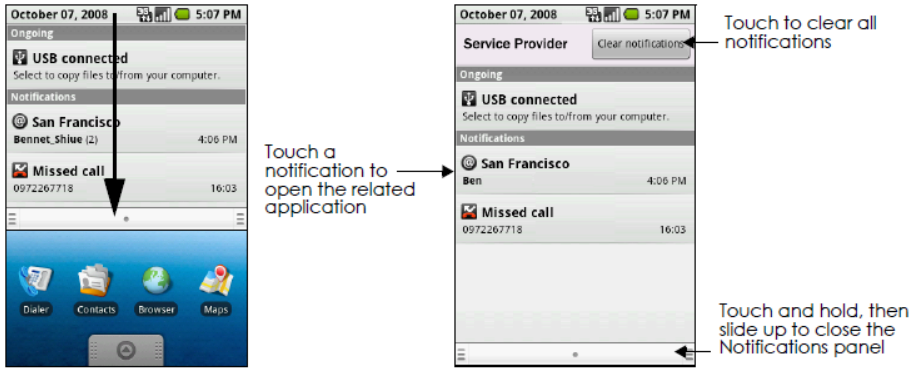
## Notifications panel

Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.

**To open the Notifications panel**

When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|




If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

**To close the Applications tab**

Touch  .

G1 User Manual 29.

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, G1 Launch Event; G1 Unveiled; Engadget Review; Google Mobile Products on Android; T-Mobile G1 Review; T-Mobile G1 Android Phone Hands-On; T-Mobile G1 Expanded Demo; T-Mobile G1 User Interface Review; T-Mobile G1 Physical Design Review; The Gadget Show, T-Mobile G1 Live Demo; T-Mobile G1 Tour; T-Mobile G1 Impressions; HTC Dream User Manual. |

| Claim 33 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[33]** The system of claim 32, wherein said gliding action is provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen. | Claim 33 depends from claims 32 and 19. Defendants incorporate all the prior art disclosures from claims 32 and 19 here, which anticipate and/or render claims 32 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 32 and 19 to show the additional limitations of claim 33 are anticipated and/or obvious for the same reasons set out in claims 32 and 19.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said gliding action is provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen."<br><br>Claim 33 recites substantially the same limitations as [1D] ("wherein a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen") and is therefore anticipated or rendered obvious for substantially the same reasons as [1D]. *See, e.g.*, *supra* [1D].<br><br>As discussed *supra* [1D], the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "wherein said |

| Claim 33 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | gliding action is provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen." *See supra* [1D]. |

| Claim 34 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[34]** The system of claim 19, wherein said function is displaying a portion of an interface on the screen. | Claim 34 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 34 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen."<br><br>Claim 34 recites substantially the same limitations as claims 7, 10, 25, and 29 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7, 10, 25, and 29. *See, e.g.*, *supra* claims 7, 10, 25, 29.<br><br>As discussed *supra* claims 7, 10, 25, and 29, the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10, 25, 29. |

| Claim 35 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[35]** The system of claim 34, wherein during said gliding | Claim 35 depends from claims 34 and 19. Defendants incorporate all the prior art disclosures from claims 34 and 19 here, which anticipate and/or render claims 34 and 19 obvious as set out above. |

| Claim 35 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 34 and 19 to show the additional limitations of claim 35 are anticipated and/or obvious for the same reasons set out in claims 34 and 19.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>Claim 35 recites substantially the same limitations as claims 8, 11, 26, and 30 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8, 11, 26, and 30. *See, e.g.*, *supra* claims 8, 11, 26, 30.<br><br>As discussed *supra* claims 8, 11, 26, and 30, the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claims 8, 11, 26, 30. |

| Claim 36 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[36]** The system of claim 19, wherein said zone extends along a substantial portion of said edge. | Claim 36 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 36 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The HTC G1 1.6, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and |

| Claim 36 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Keyless's apparent interpretation of this limitation, discloses that "said zone extends along a substantial portion of said edge."<br><br>Claim 36 recites substantially the same limitations as claims 4 and 16 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 4 and 16. *See, e.g.*, *supra* claims 4, 16.<br><br>As discussed *supra* claims 4 and 16, the HTC G1 1.6 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said zone extends along a substantial portion of said edge." *See supra* claims 4, 16. |

# Appendix A4

**Exhibit A4**

**Invalidity of Asserted Claims of the '602 Patent**

**in view of the Samsung Behold II**

The Samsung Behold II, running on Android and TouchWiz UI ("the Samsung Behold II"), was publicly available, sold, offered for sale, and/or used in the United States and was thus available to and known or used by others, at least as early as November 18, 2009, and, on information and belief, as early as November 4, 2009. The Samsung Behold II is described in at least the following documents and other materials cited in this chart:

- "Samsung Behold II (2) Unboxing & Hands-on," Wirefly, *available at* https://www.youtube.com/watch?v=0nGJuhHKXnw ("Wirefly") (Nov. 17, 2009) (SAM-KEY_00986489).
- "Samsung Behold II Review," PhoneArena, *available at* https://www.youtube.com/watch?v=q62m2D9FwZ8 ("PhoneArena") (Nov. 23, 2009) (SAM-KEY_00986490).
- "Samsung Behold II – unboxing and first look," mobileburn, *available at* https://www.youtube.com/watch?v=fIH18adfV4c ("mobileburn") (Nov. 13, 2009) (SAM-KEY_00986491).
- "Hands-on: Samsung Behold II, plus release details," CNET, *available at* https://www.cnet.com/tech/mobile/hands-on-samsung-behold-ii-plus-release-details/ ("Samsung Behold II Release Details") (SAM-KEY_00986566-SAM-KEY_00986574).
- Bonnie Cha, "Samsung Behold II (T-Mobile) review," CNET, *available at* https://www.cnet.com/reviews/samsung-behold-ii-t-mobile-review/ (Nov. 13, 2009) ("Cha") (SAM-KEY_00986575-SAM-KEY_00986587).
- "T-Mobile USA Launches the Samsung Behold II on November 18," T-Mobile, *available at* https://www.t-mobile.com/news/press/t-mobile-usa-launches-the-samsung-behold-ii-on-november-18 (Nov. 22, 2009) ("T-Mobile") (SAM-KEY_00986665-SAM-KEY_00986669).
- Documents produced in this litigation, as cited herein.
- Physical products acquired in this litigation, including but not limited to, a Samsung Behold II device running on Android and TouchWiz UI, as referenced herein ("Samsung Behold II Device").
- Expected testimony and evidence regarding the development, design, and/or use of the Samsung Behold II, running on Android and TouchWiz UI.

- Source code for a Samsung Behold II, running on Android and TouchWiz UI, as referenced herein and/or acquired.

Citations to the above-listed references are exemplary, and Samsung reserves the right to rely on additional passages, prior art, and information regarding the operation and functionality of the Samsung Behold II obtained through fact, expert, and third-party discovery, which is ongoing.

The Samsung Behold II qualifies as prior art to U.S. Patent No. 9,304,602 ("'602 patent") at least under pre-AIA 35 U.S.C. §§ 102(a) and/or (b) and AIA 35 U.S.C. §§ 102(a)(1).[1] The Samsung Behold II with Android and TouchWiz UI release was publicly available, sold, offered for sale, and/or used before the priority date to which the '602 patent claims are entitled, if any.

The Samsung Behold II anticipates or, alone or with other references, renders obvious one or more of asserted claims 1-13, 15-19, and 21-36 of the '602 patent. To the extent Keyless contends the Samsung Behold II does not disclose one or more limitations of the claims, it would have been obvious to combine the Samsung Behold II with the knowledge of a person of ordinary skill in the art ("POSITA") and/or with one or more of the following references to render the claims at issue in the '602 patent invalid. The chart below illustrates how the asserted claims of the '602 patent are invalid in view of the Samsung Behold II and/or additional secondary references listed below, including but not limited to the prior art identified in Defendant's Invalidity Contentions.

- U.S. Patent Application Publication No. 2004/0109013 A1 to Goertz ("Goertz"), filed December 10, 2002, and published on June 10, 2004. Goertz qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b) and/or (e).
- U.S. Patent Application Publication No. 2008/0207188 A1 to Ahn et al. ("Ahn"), filed on February 14, 2008, and published on August 28, 2008. Ahn qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b) and/or (e).
- U.S. Patent Application Publication No. 2009/0094562 A1 to Jeong et al. ("Jeong"), filed on October 3, 2008, and published on April 9, 2009. Jeong qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b) and/or (e).

[1] Keyless Licensing LLC (or "Keyless") alleges that the asserted claims of the '602 patent are entitled to priority as early as December 20, 2009. However, as explained in the cover pleading, the asserted claims of the '602 patent are not entitled to Keyless's claimed priority date due to inadequate written description support. Assuming the claims are not invalid under Section 112 (*see, e.g.*, cover pleading), the earliest possible priority date for the asserted '602 patent claims is 2/11/2010 or later.

- U.S. Patent Application Publication No. 2009/0249247 to Tseng et al. ("Tseng"), filed on January 30, 2009, and published on October 1, 2009, claims priority to U.S. Provisional Application No. 61/024,869, filed January 30, 2008. Tseng qualifies as prior art at least under pre-AIA 35 U.S.C. §§ 102(a), (b), and/or (e) and AIA 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2).
- U.S. Patent Application Publication No. 2009/0295750 A1 to Yamazaki et al. ("Yamazaki"), filed on May 27, 2009, and published on December 3, 2009. Yamazaki qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b), and/or (e).
- U.S. Patent Application Publication No. 2010/0050076 A1 to Roth ("Roth"), filed on August 29, 2008, and published on February 25, 2010. Roth qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).
- U.S. Patent Application Publication No. 2010/0164959 A1 to Brown et al. ("Brown"), filed on December 26, 2008, and published on July 1, 2010. Brown qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).
- U.S. Patent Application Publication No. 2010/0302172 A1 to Wilairat ("Wilairat"), filed on May 27, 2009, and published on December 2, 2010. Wilairat qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).
- U.S. Patent Application Publication No. 2011/0209099 A1 to Hinckley et al. ("Hinckley"), filed on February 19, 2010, and published on August 25, 2011. Hinckley qualifies as prior art at least under 35 U.S.C. § 102(a)(2) as well as pre-AIA 35 U.S.C. §(e).
- Japanese Laid-Open Patent Application No. JP2003195998A to Hisatomi ("Hisatomi"), filed on December 26, 2001, and published on July 11, 2003. Hisatomi qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).[2]
- V. Roth & T. Turner, "Bezel Swipe: Conflict-Free Scrolling and Multiple Selection on Mobile Touch Screen Devices," CHI 2009 ~ Multimodal Mobile Interaction, pp. 1523-26 (ACM 2009) ("Roth Bezel Swipe"), published April 8, 2009. Roth Bezel Swipe qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).

[2] Defendants' invalidity contentions rely on the certified translation of Hisatomi.

- The Samsung Galaxy GT-i7500 running Android 1.5 ("Samsung Galaxy GT-i7500 1.5") was, on information and belief, publicly available in the United States on or about June 29, 2009. The Samsung Galaxy GT-i7500 1.5 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).
- The HTC Hero running Android 1.5 ("HTC Hero 1.5") was, on information and belief, publicly available in the United States on or about October 11, 2009. The HTC Hero 1.5 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A6.
- The HTC Hero running Android 2.1 ("HTC Hero 2.1") was, on information and belief, publicly available in the United States on or about January 2010. The HTC Hero 2.1 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a). *See also* Ex. A6.
- The HTC Magic running Android 1.6 ("HTC Magic 1.6") was, on information and belief, publicly available in the United States on or about July 8, 2009. The HTC Magic 1.6 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).
- The Motorola Droid A855 ("Motorola Droid A855") was publicly available in the United States with Android 2.0 on or about November 6, 2009, and with Android 2.2 on or about May 2010. The Motorola Droid A855 running Android 2.0, on information and belief, was substantially the same with respect to the relied-upon functionality as the Motorola Droid A855 running Android 2.2. The Motorola Droid A855 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A5.
- The Palm Pre running Palm's WebOS ("Palm Pre") was, on information and belief, publicly available in the United States on or about February 2009. Although Palm WebOS 1.4.5 was not released until on or about July 2010, the relied-upon functionality was, on information and belief, substantially the same in the February 2009 WebOS release. The Palm Pre qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A7.
- The Neonode N2 ("Neonode N2") was, on information and belief, publicly available in the United States not later than 2008. *See also* Ex. A8.

With respect to the proposed modifications to the Samsung Behold II, such modification would have been obvious to try, an obvious combination of prior art elements according to known methods to yield predictable results, a simple substitution of one known element for another to obtain predictable results, a use of known techniques to improve a similar devices or method in the same way, an application of a known technique to a known device or method ready for improvement to yield predictable results, a variation of a known work in one field of endeavor for use in either the same field or a different one based on design incentives or other market

forces with variations that are predictable to a POSITA, and/or obvious in view of teachings, suggestions, and motivations in the prior art that would have led a POSITA to modify or combine the prior art references.

The chart below illustrates how the asserted claims of the ’602 patent are anticipated by the Samsung Behold II and/or would have been obvious in view of by the Samsung Behold II and/or additional secondary references. The excerpts cited herein are exemplary. For any claim limitation, Samsung may rely on excerpts cited for any other limitation and/or additional excerpts not set forth fully herein to the extent necessary to provide further explanation for a reference’s disclosure of a limitation. Where an excerpt refers to or discusses a figure or figure items, that figure and any additional descriptions of that figure should be understood to be incorporated by reference as if set forth fully herein. Samsung reserves the right to further supplement this chart.

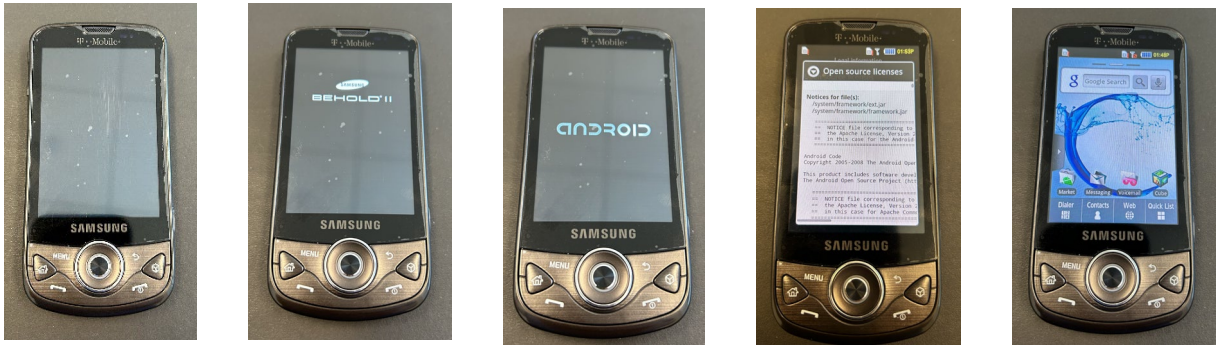
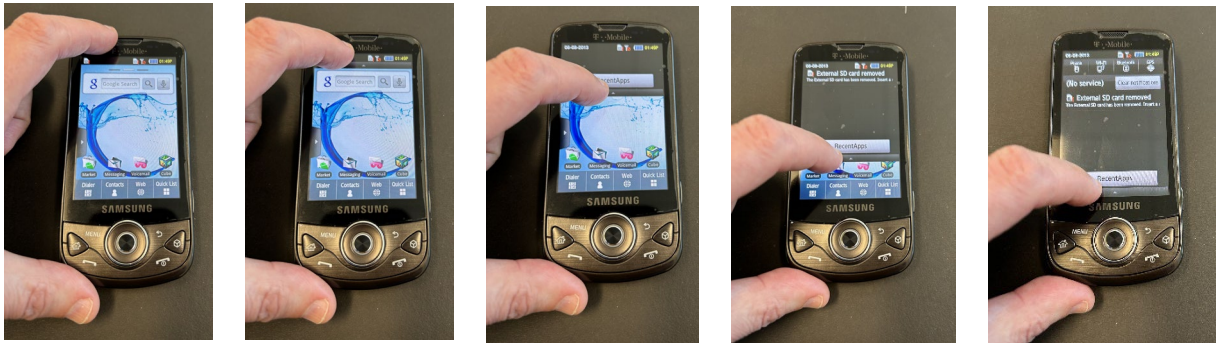
To the extent that these Invalidity Contentions rely on or otherwise embody particular interpretations of terms or phrases in the asserted claims, Samsung is not proposing any such interpretations as proper interpretations or constructions of those terms or phrases. Various positions put forth in this document are predicated on Keyless’s interpretation of its claims as evidenced by its Infringement Contentions. Those positions are not intended to and do not necessarily reflect Samsung’s interpretation of the true and proper scope of the asserted claims. Samsung further incorporates by reference all reservations of rights set forth in the Invalidity Contentions, as if fully set forth herein.

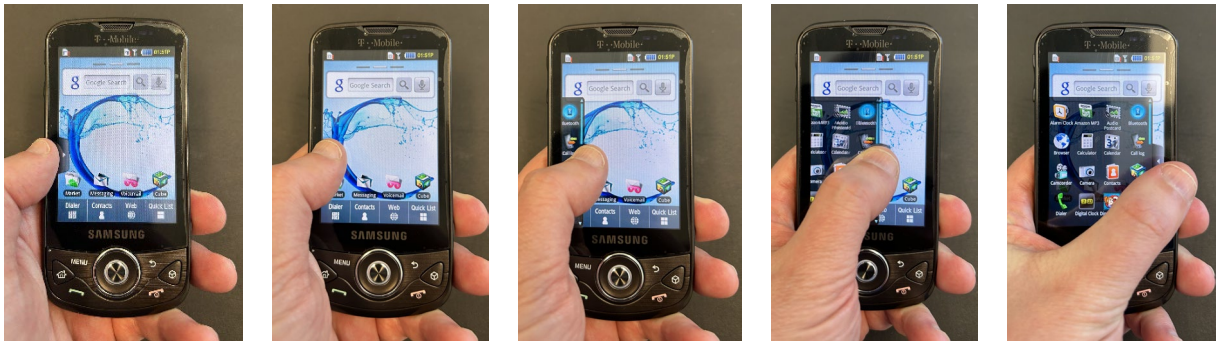
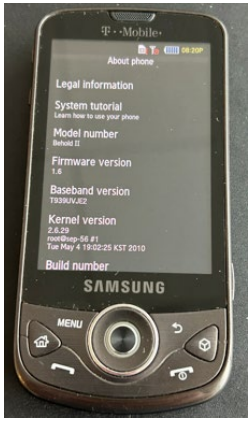
Defendants’ arguments throughout these invalidity contentions are based on Keyless’s apparent interpretation of the claims in its infringement contentions. Defendants do not agree that such interpretation is proper and reserve the right to argue that the mapped actions do not infringe any claims of the ’602 patent. In the alternative, should the Court or factfinder construe and/or apply the claims in a manner consistent with Keyless’s interpretations in its infringement contentions for the ’602 patent, the claims are invalid for at least the reasons set forth herein.

In some instances, the referenced prior art includes priority applications, including prior provisional applications, that provide adequate §112 support for the claim(s) in the referenced prior art. *See, e.g.*, Tseng at cover. In those instances, the consistent disclosures in those earlier applications, including prior provisional applications, are incorporated herein by reference. As such, those earlier disclosures apply equally in terms of their application to the elements of the asserted claims, and thus provide even earlier dates in terms of prior art, state of the art, and the knowledge base of those of ordinary skill in the art. *See Dynamic Drinkware LLC v. National Graphics Inc*., 800 F.3d 1375 (Fed. Cir. 2015).

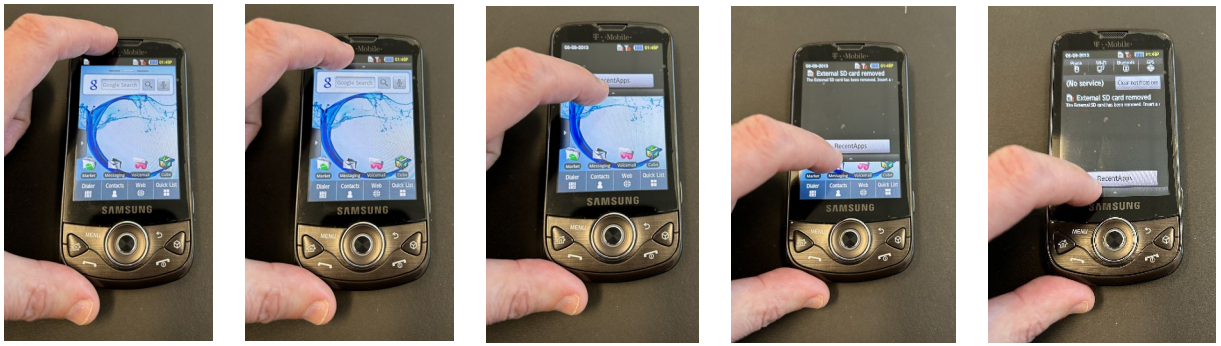
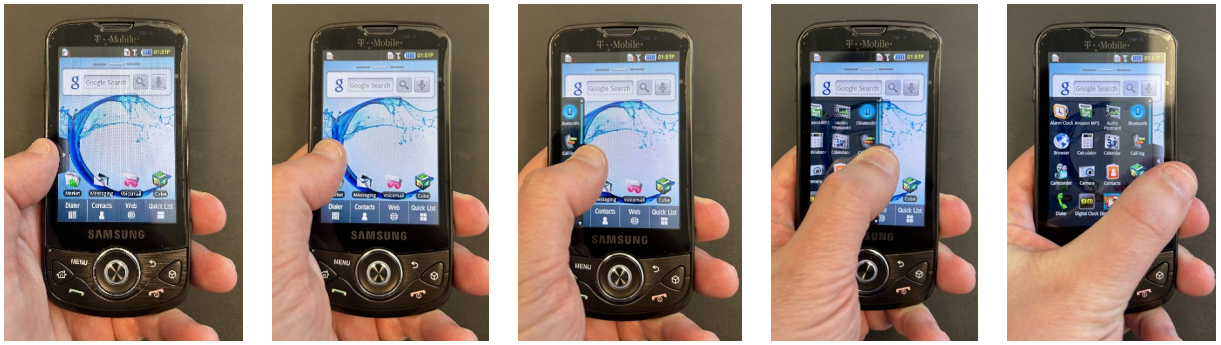
To the extent any of the art describes different embodiments of its inventions, a POSITA would have found it obvious to combine the Samsung Behold II’s teachings regarding these embodiments. A POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the embodiments, and would have a reasonable expectation of success in doing so, at least because the embodiments use known variations of existing

technology to solve routine and well understood problems in predictable ways. A POSITA would have recognized that the Samsung Behold II's embodiments describe related advancements for mobile devices, and a POSITA would have been motivated to combine elements of the embodiments to achieve the Samsung Behold II's goals.

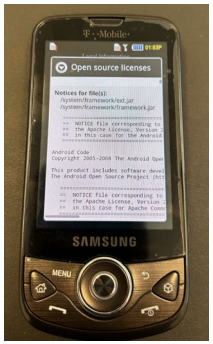
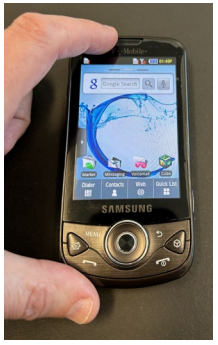
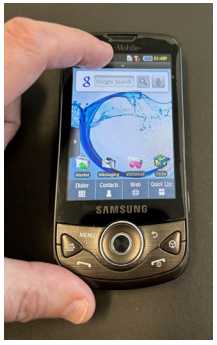
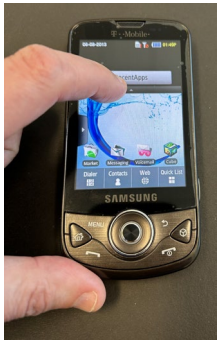
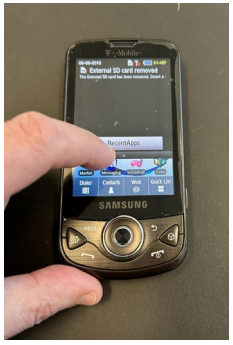
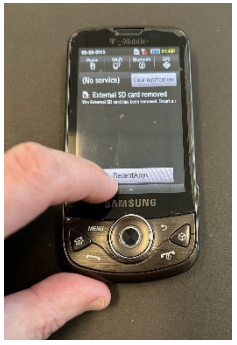
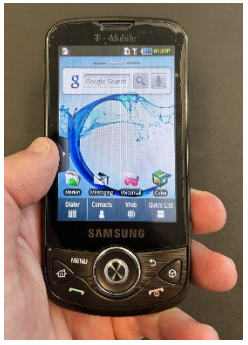
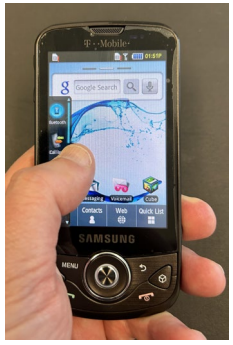
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[1Pre]** A system for capturing an event provided from an edge of a touch screen comprising: | To the extent that the preamble is held to be limiting, the Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[a] system for capturing an event provided from an edge of a touch screen."<br><br>For example, the Samsung Behold II is a system for capturing an event provided from an edge of a touch screen. For example, the Samsung Behold II captures a user's swipe/drag event from an upper or side edge of the touch screen to display the notifications panel or the widget bar, respectively.<br><br>  <br>Samsung Behold II Device.<br><br>  |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Samsung Behold II Device.<br>  <br>Samsung Behold II Device.<br>  <br>The Samsung Behold II device.[3]<br>*See, e.g.*, Wirefly, PhoneArena, mobileburn, Samsung Behold II Release Details, Cha, T-Mobile. |

[3] Samsung reserves the right to rely on any Behold II device, including either or both of the Behold II devices shown here. On information and belief, such devices function substantially the same as disclosed in this chart.

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[1A]** a device having a touch screen; | The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a device having a touch screen."<br><br>For example, the Samsung Behold II includes the Samsung Behold II device having a touch screen, such as a 3.2-inch AMOLED capacitive touch screen.<br><br>  <br><br>Samsung Behold II Device.<br><br>  <br><br>Samsung Behold II Device. |

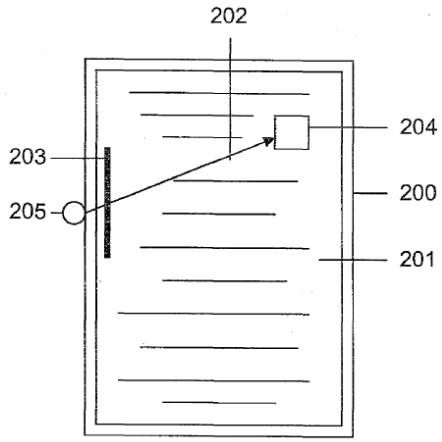
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | The smartphone also has a 3.2-inch AMOLED capacitive touch screen and a 5-megapixel camera. While we're all<br><br>Samsung Behold II Release Details 1.<br><br>THE GOOD<br><br>The Samsung Behold II boasts a vibrant AMOLED capacitive touch screen. The smartphone includes<br><br>Cha 2.<br><br>*See, e.g.*, Wirefly, PhoneArena, mobileburn, Samsung Behold II Release Details, Cha, T-Mobile. |
| **[1B]** at least one window located in the touch screen on an edge of the touch screen, wherein said at least one window functions independently of an interface of an application in use on the touch screen; and | The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "at least one window located in the touch screen on an edge of the touch screen, wherein said at least one window functions independently of an interface of an application in use on the touch screen."<br><br>For example, the Samsung Behold II includes at least one window, such as the status bar window and widget bar tab window located in the touch screen on the top and side edges of the touch screen, respectively. Each of the status bar window and the widget bar tab window functions independently of an interface of an application in use on the touch screen. For example, the status bar window is always present at the top edge regardless of the application shown on the main portion of the display and can be pulled down to view the notifications panel. The widget bar tab window is displayed at the side edge of the home screen independently of any widget applications shown on the home screen. For example, both the status bar window and the widget bar tab window are displayed on an edge of the touch screen and function independently of an interface of the Google search application in use on the touch screen. |

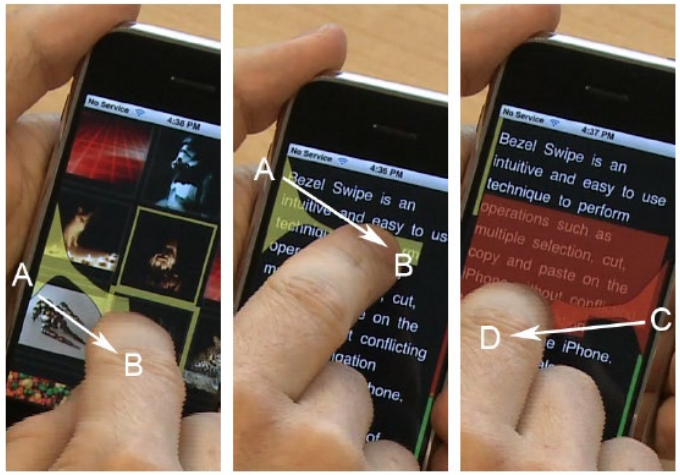
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |      Samsung Behold II Device.      Samsung Behold II Device.      |

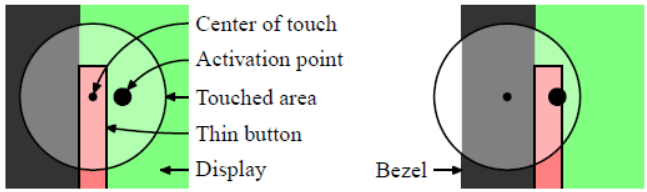
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Samsung Behold II Device.<br><br>*See, e.g.*, Wirefly, PhoneArena, mobileburn, Samsung Behold II Release Details, Cha, T-Mobile.<br><br>To the extent Keyless argues that the Samsung Behold II does not disclose or render obvious this limitation, for example, that the widget bar tab window may not function independently of an interface of an application in use on the touch screen, it would have been obvious in view of the Samsung Behold II, POSITA's pre-existing knowledge, and/or the teachings of the Samsung Behold II combined with the other references charted for this patent in these invalidity contentions, including Tseng, Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, and the Neonode N2. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways. |

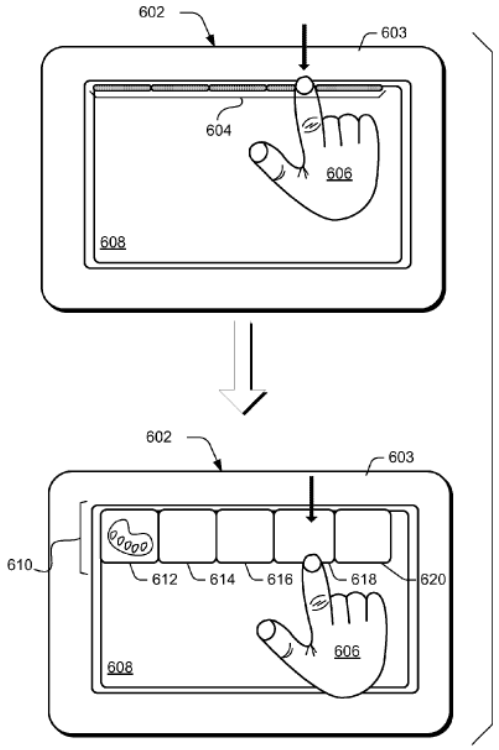
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | For example, Tseng discloses at least one window, such as a "status bar" or "status area," located on the top edge of the touch screen that functions independently of an interface of an application in use on the touch screen. Tseng at Abstract, FIGS. 1, 2A-2C, 3, 4A-4B, 5, [0005], [0014], [0031]. Tseng explains that the status bar is capable of displaying notifications at the edge of the touch screen display. For example, "the notifications may occur by having a notification message … be displayed in a peripheral area at the edge of a display, such as a status area, or status bar, for the mobile device." Tseng at [0028], FIGS. 1, 2A-2C, 3, 4A-4B, 5. Tseng's "status bar" or "status area" is a window that functions independently of an interface of an application, such as the interface of the "active programs" or "active applications" being displayed in the touch screen display area independent of an application interface in the main display of the touch screen. Tseng at [0005], [0014], [0028], [0032], [0040], FIGS. 1, 2A-2C, 3, 4A-4B, 5. The status bar is shown regardless of the application being displayed in the main display. "A status bar area is the typically-static area on a device that displays information such as bars for wireless signal strength, a remaining battery life indicator, an icon that shows the network over which wireless communication is occurring, and the like. The main area or zone of the display is generally the central, largest area of a display where active programs are displayed, while supplemental elements are typically displayed around the periphery of the main area …." Tseng at [0005]. As one example, "one or more applications may be shown in the main zone [of the touch screen]. Such as an application tracking an ongoing telephone call," which is independent of the status bar that is shown regardless of the application in the main display. Tseng at [0040].<br><br>Moreover, each of Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, and the Neonode N2 teaches a gliding action from off screen to on screen to activate a function assigned to the window that functions independently of an interface of an application in use on the touch screen.<br><br>Roth teaches using a swiping (e.g., gliding) action from outside a screen through a window in the form of a line at the edge of the screen on the screen towards the inside of the touch screen to activate a function associated with the window. For example, Roth describes "[a] crossing-based interface along the bounds of the display is a viable solution. Users can invoke actions with swiping gestures across a section of the display side from the outside to the inside." Roth at [0009]. Roth teaches advantages of such outside-to-inside gliding activations, for example, that "they can be more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | the distance vector between the line and the cursor," and "that a well positioned line requires significantly less display space than a button for similar performance characteristics." Roth at [0010]. "One example of such a gesture is a continuous swiping motion from the activation point representing a desired action or even from the bezel of the device, through the activation point and to the target on the display." Roth at [0015]. Roth explains that such outside-to-inside gliding actions "allow[] the active area of an activation point to be much smaller on a display due to the utilization of a greater average weight throughout a touch sensitive display, which creates a higher probability of activating on a narrow activation point or operating on a small target," "save[s] valuable display space on the screen, since the activation point can be made smaller on the display as a result," and may "begin from outside the display for ease of use." Roth at [0015]. As Roth explains, a "bar" may "represent[] the desired action." Roth at [0017]. "[A]n activation point 203 (represented as a bar in this example) displayed on the edge of the screen which represents the desired action of selecting. The bar is made small so as to not take up valuable space on the display. The user can then select the target 204 through the use of a gesture 202, such as swiping, pinching, tapping or other gestures …." Roth at [0036]. As shown in FIG. 2B, "[t]he user can begin his gesture from either on the bar itself or from outside the display 205 and continue the gesture through the bar and to target as if the user were bringing the action to the target. An example of such a gesture is if the user utilized a continuous swiping motion with his finger from the bar representing a desired action to the target on the display." Roth at [0039]. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Roth at FIG. 2B.<br><br>Roth Bezel Swipe teaches activation gestures related to mobile devices having touch screens. A bezel swipe gesture is an outside-to-inside swiping (e.g., gliding) gesture across a window in the form of a line or bar, in which "[t]he user starts a Bezel Swipe gesture on the bezel, which is the physical touch insensitive frame that surrounds the display. The finger is then swiped through a part of the display edge into the display, which enters selection mode. Next, the user moves the finger onto an object or display position and selects it by lifting the finger off the display, which ends selection mode. Different edge portions represent different actions and are distinctively marked." Roth Bezel Swipe at 1524. "Swipes are recognized by detecting touches inside a thin rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524. As such, "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display. Figure 2 illustrates this. A touch sensitive display translates the contact area of the finger with the display into an activation point." Roth Bezel Swipe at 1524. "The Bezel Swipe gesture … starts on the bezel and moves into the display. Therefore the contact area is gradually increased until it exceeds the contact threshold of the display. … Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. This outside-to-inside crossing gesture has advantages, for example, "the crossing of the touch-insensitive bezel in conjunction with the |

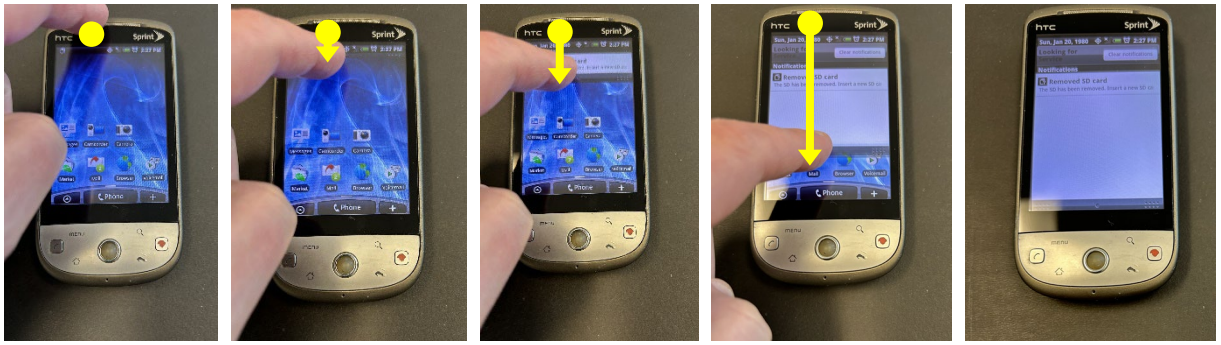
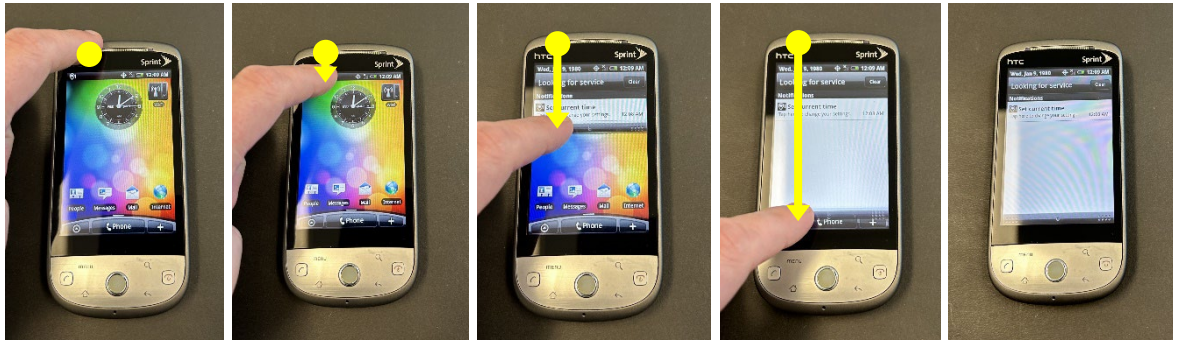
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | properties of touch sensitive displays enables the reliable activation of a button that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524.<br>  <br>**Figure 1. The Bezel Swipe prototype in action. Left panel: A swipe from A to B selects an image. Middle panel: A swipe from A to B marks the beginning of a text selection. Right panel: A swipe from C to D marks the end of the text selection.**<br>Roth Bezel Swipe at Figure 1. |

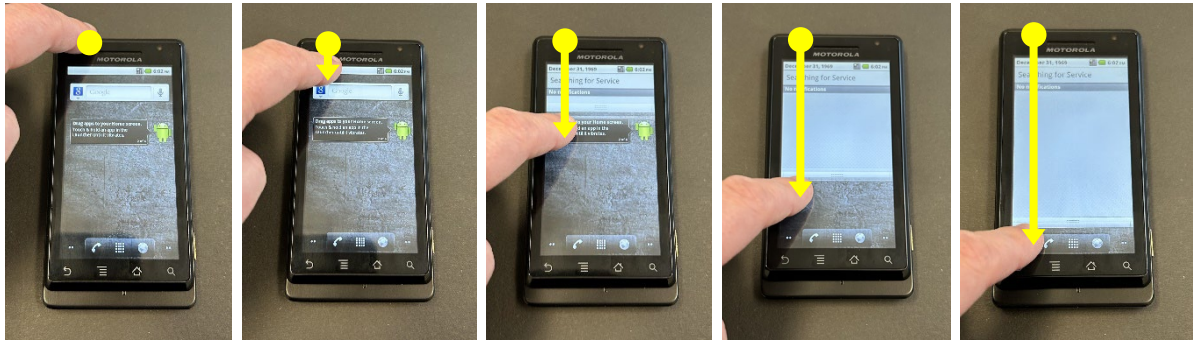
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| |  <br>**Figure 2. Touching narrow targets close to the bezel: a touch (large circle) centered on the target (left) may not activate it whereas a touch significantly overlapping the bezel (right) does.**<br><br>Roth Bezel Swipe at Figure 2.<br><br>Hinckley teaches a visual affordance window indicating a pull-down bezel menu is shown at the edge of a mobile device using a gliding action from outside of the touch screen towards the inside of the touch screen. Hinckley at FIGS. 5, 6. For example, in FIG. 5, "[s]tep 500 displays a visual affordance on a display device associated with a computing device" and is shown at as a window or bar 604 being a five-part line in FIG. 6. Hinckley at [0068], [0072], FIGS. 5, 6. Then, "[s]tep 502 receives a bezel gesture input relative to the visual affordance," such as from off-screen to on-screen over the visual affordance. Hinckley at [0068], [0072], FIGS. 5, 6. After the off-screen to on-screen gesture, "[s]tep 504 accesses functionality associated with the received bezel gesture input." Hinckley at [0068], [0072], FIGS. 5, 6. Hinckley explains that "off-screen to on-screen motion (or vice versa) can be utilized as a mechanism to expose a menu or to access some other type of functionality." Hinckley at [0071]. As shown in FIG. 6, "device 602 includes a bezel 603 and a visual affordance 604 that is rendered on display device 608." Hinckley at [0072], FIG. 6. The "visual affordance 604" may appear as "in the form of a semi-transparent strip" and "can be utilized to provide a hint or indication of accessible functionality, in this case a bezel menu, associated with the bezel." Hinckley at [0072], FIG. 6. "[T]he bezel menu can be accessed through a bezel gesture in which a finger of user's hand 606 touches the bezel and then moves across the bezel and onto the display device 608 in the direction of the illustrated arrow." Hinckley at [0073], FIG. 6. After this off-screen to on-screen gesture, the "bezel menu 610 to be dropped down at which time it can become fully opaque." Hinckley at [0073], FIG. 6. Hinckley further explains that "bezel menu 610 includes multiple selectable icons or slots 612, 614, 616, 618, and 620. Each of |

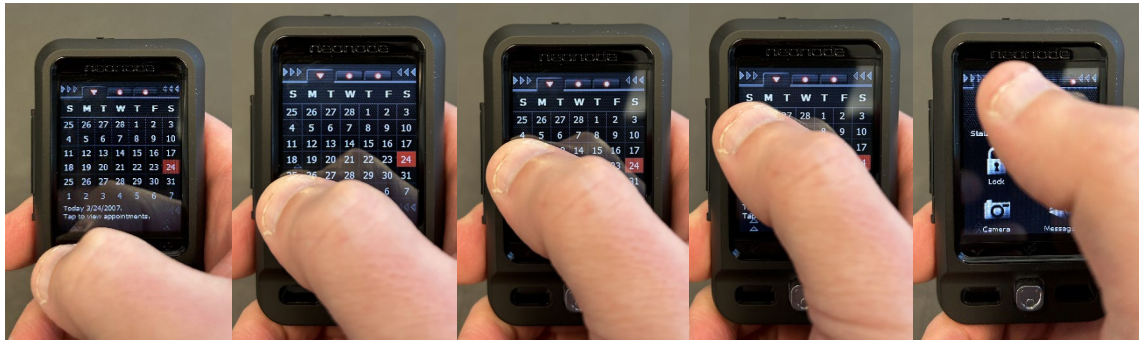
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | the icons or slots is associated with a different functionality such as, for example, paint functionality, pen functionality, note functionality, object creation, object editing, and the like." Hinckley at [0074], FIG. 6. Hickley teaches, however, that "any type of functionality can be associated with the icons or slots." Hinckley at [0074], FIG. 6. The "bezel menu 610 can enable a user to access and activate commands, tools, and objects." Hinckley at [0075], FIG. 6.   Fig. 6 |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | Hinckley at FIG. 6.<br><br>On information and belief, the Samsung Galaxy GT-i7500 1.5 operates substantially the same with respect to the pull-down notifications interface as the Samsung Behold II and the HTC Magic 1.6. *See, e.g.*, https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface as the same, showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."); https://www.youtube.com/watch?v=rhBgLQSxfjE at 1:20-1:34 (describing as running Android 1.5 and similar to HTC G1 device, showing opening notification menu from status bar contact at 1:32). On information and belief, a user may perform a gliding action from the plastic housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar); https://www.youtube.com/watch?v=wVF8dLkgW7c at 0:40-0:56 (showing swipe down over status bar to open notifications interface); https://www.youtube.com/watch?v=4Pv04Tw6wvQ at 3:30-3:35 (showing gliding gesture on status bar to show notification interface for Android 1.5 operating system). The user's touch first interacts with the status bar window on the touch screen because the bezel does not contain touch-sensitive elements. The gliding action over the status bar window causes a processor to perform the action of displaying the notifications window independent of an interface of an application in use on the touch screen. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar).<br><br>On information and belief, the HTC Magic 1.5 operates substantially the same with respect to the pull-down notifications interface as the Samsung Behold II and the Samsung Galaxy GT-i7500. *See, e.g.*, https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface as the same, showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."). On information and belief, a user may perform a gliding action from the plastic housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. The status bar window functions independently of an interface of an application in use on the touch screen. The user's touch first interacts with the status bar window on the touch screen because the bezel does not contain touch-sensitive elements. The gliding action over the status bar window causes a processor to perform the action of displaying the notifications window. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 (In addition to being able to drag (or double tap if your fingers are a little tired) the menu bar up from the bottom of the screen, you can also drag from the top and find your notifications all grouped nicely together."); https://ianrenton.com/blog/review-htc-magic/ ("Dragging the top drawer (where app notifications, incoming messages etc. sit) is a lot more intuitive on an actual device than on the emulator, and the kinetic scrolling - you can 'throw' menus - feels just right."); https://www.youtube.com/watch?v=LghBOTZ-HuE at 5:08-5:20 (describing "drag-down notification drawer"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:35-8:55 (describing notification menu as "a drawer" that you "pull down" allowing you to "click" notifications to open the corresponding application).<br><br>Furthermore, on information and belief, a user may perform a gliding action from the plastic housing bezel below the touch screen (i.e., from outside of the screen) over the tab window shown at the bottom of the screen towards the main application display inside of the touch screen (e.g., over the tab window) to display an applications selection interface and functions independently of an application shown on the touch screen. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 ("you can simply drag up the menu from the bottom and access all your recently downloaded applications and menu functions, sorted alphabetically"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:15-7:35, 8:17-8:55 (showing swipe-up action to open application selection interface).<br><br>The HTC Hero 1.5 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar window (from outside of the screen) over the status bar window towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The status bar window functions independently |

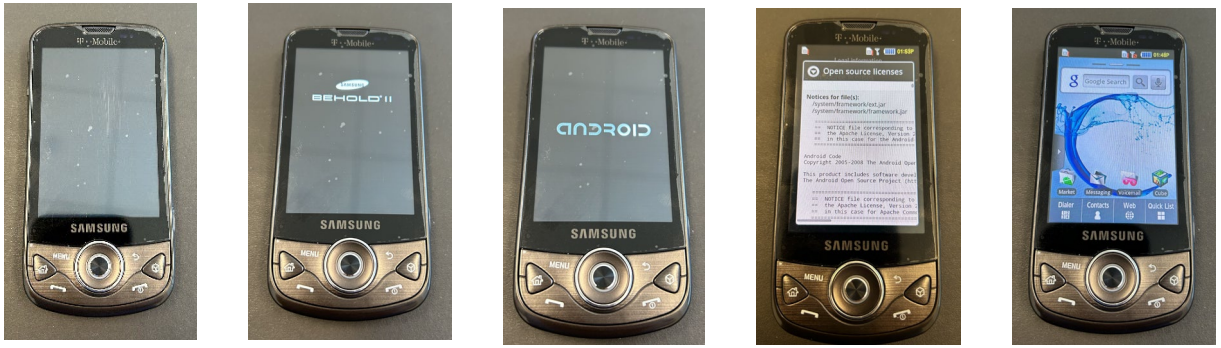
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | of an interface of an application in use on the touch screen (for example, a widget application on a home screen or an application, such as mail or messaging, open on the touch screen).<br>  <br>HTC Hero 1.5.<br>The HTC Hero 2.1 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar window (from outside of the screen) over the status bar window towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The status bar window functions independently of an interface of an application in use on the touch screen (for example, a widget application on a home screen or an application, such as mail or messaging, open on the touch screen).<br>  <br>HTC Hero 2.1. |

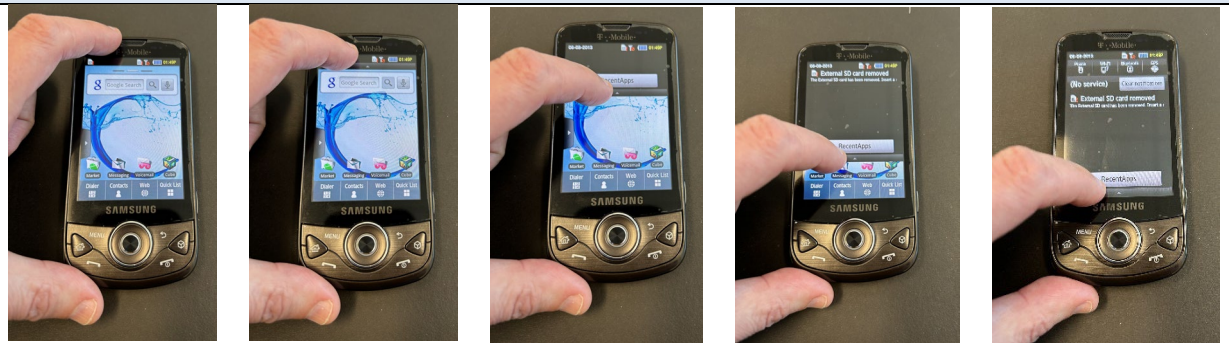
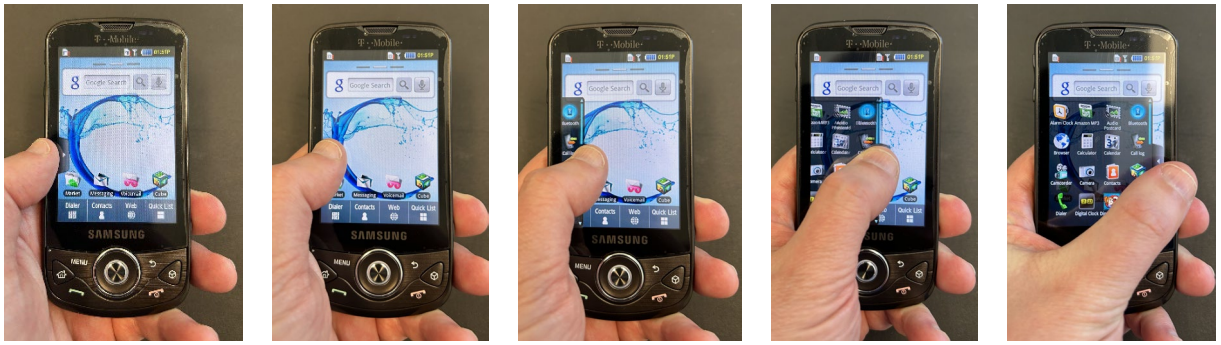
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | The Motorola Droid A855 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar window (from outside of the screen) over the status bar window towards to the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The status bar window functions independently of an interface of an application in use on the touch screen (for example, a widget application on a home screen or an application, such as mail or messaging, open on the touch screen).<br>  <br>Droid A855.<br>The Neonode N2 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen over the indicated icons or from the sides of the screen as indicated by the various arrows in a window (from outside of the screen), over the arrows towards the main application display toward the inside of the touch screen (e.g., crossing over the window identifying the movement from off-to-on screen). The arrow window functions independently of an interface of an application in use on the touch screen (for example, an application, such as mail or messaging, open on the touch screen). |

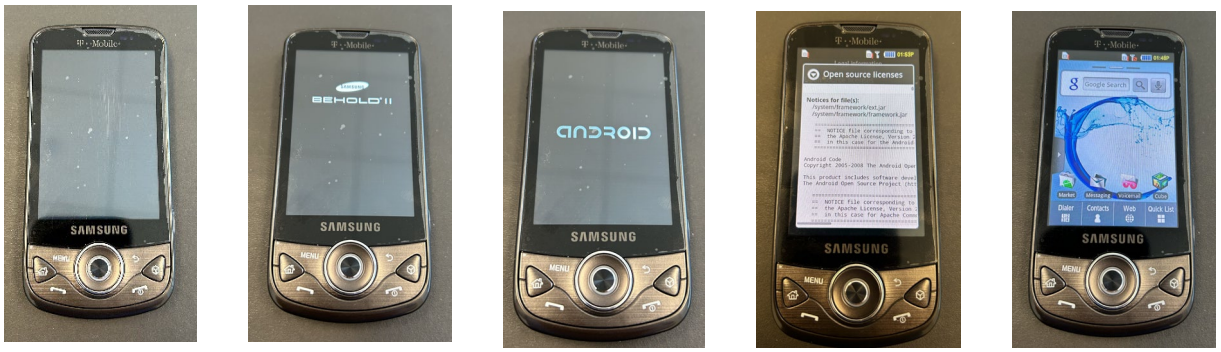
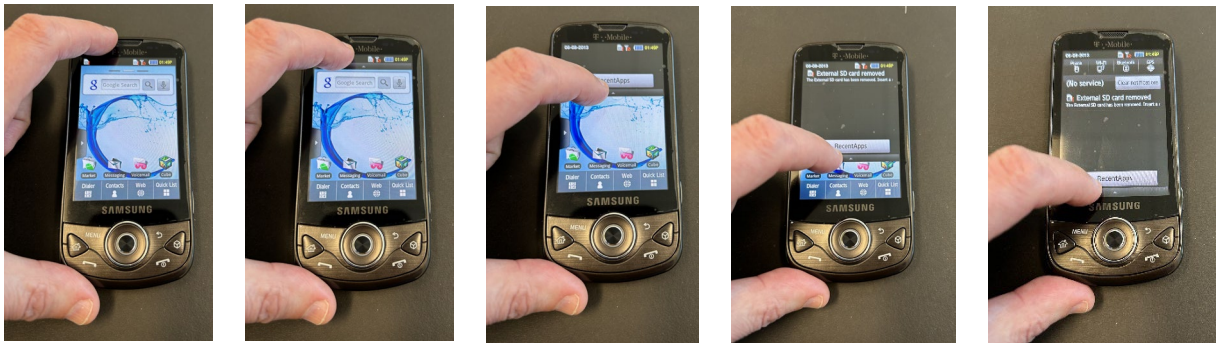
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| |  <br><br>Neonode N2.<br>  <br>Neonode N2.<br>A POSITA would have found it obvious to incorporate the functionality of permitting said at least one window at an edge of the touch screen that functions independently of an interface of an application in use on the touch screen, as claimed. Each of the Samsung Behold II, Roth, Roth Bezel Swipe, Hinckley, Tseng, the Samsung Galaxy GT-i7500 1.5, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, and/or the Neonode N2, teaches using a gliding action over a window, where the window is independent of an application shown on the touch screen. A POSITA would have been motivated to provide for the window of the Samsung Behold II, such as the widget bar tab window, to function independently of an interface of an application in use on the touch screen, such as a thin line or bar at the edge of the screen, as known |

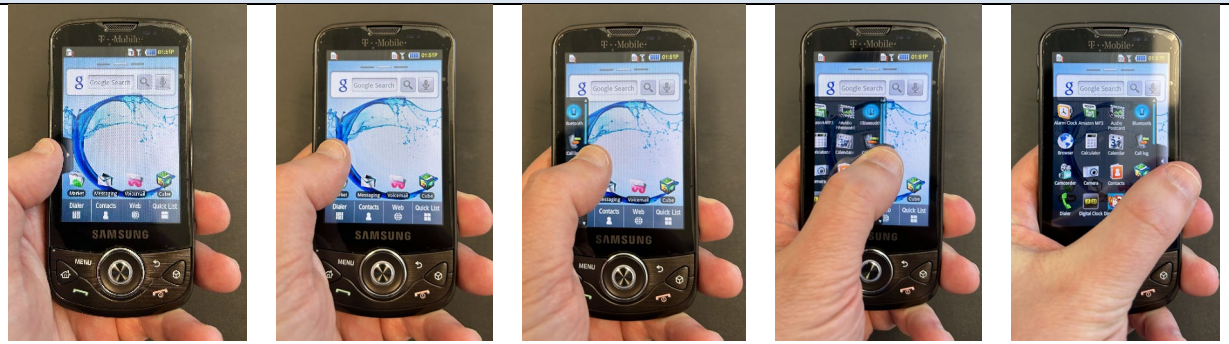
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | for the Samsung Behold II's status bar and in the prior art. For example, a POSITA would have been motivated to provide the widget bar tab as a thin bar on an edge of the touch screen, such as the size of the applications tab for the Samsung Behold II as discussed above or as a thin line as taught by Roth and/or Roth Bezel Swipe, or a narrow window as taught by the Neonode N2. A POSITA would have been motivated to provide this functionality because it allows for the same operation as the Samsung Behold II, but would have improved the user's experience by allowing the user to take the action, such as opening the widget bar, when another application is shown full screen as known in the prior art, such as the Neonode N2. Indeed, the Samsung Behold II already discloses the ability to drag open the notifications menu interface from the status bar that functions independently of an interface of an application shown full screen, for example, by gliding down from the top edge of the touch screen. Moreover, a POSITA would have recognized that providing a narrower or smaller window for the widget bar tab region would have the benefit of indicating to the user that the widget bar is available to open while avoiding obscuring an application interface shown on the touch screen display (such as taught by various devices known in the art, such as the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, and/or the Neonode N2). This improves the user's experience because the user can still activate the function associated with the window, such as the Samsung Behold II's widget bar, but does not reduce the size of the displayed application in a meaningful way because the window may be "a narrow target (the red bar) positioned flush against the display edge." Roth Bezel Swipe at 1524. In other words, "[s]wipes" from outside-to-inside the touch screen "are recognized by detecting touches inside a thin rectangular area [window] positioned flush against the display screen." Roth Bezel Swipe at 1524. This "enables the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524.<br><br>It was well known to a POSITA that activating a function of at least one window at an edge of the touch screen that functions independently of an interface of an application in use on the touch screen continues to "enable[] the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524. Activating functions where "[u]sers |

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| | can invoke actions with swiping features across a section of the display [touch screen] side from the outside to the inside" also "requires minimal display real estate," whereby being beneficial to mobile devices that have small screens and does not obscure the active applications. Roth, [0009], [0036].<br><br>Activating a function using at least one window that functions independently of an interface of an application in use on the touch screen, was routine and conventional to POSITAs, as shown by the Samsung Behold II, Roth, Roth Bezel Swipe, Hinckley, Tseng, the Samsung Galaxy GT-i7500 1.5, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, and/or the Neonode N2. Moreover, it was successfully implemented in commercial prior art devices, such as the Samsung Behold II, Samsung Galaxy GT-i7500 1.5, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, and/or the Neonode N2. Incorporating an operation at least one window located at an edge of the touch screen that functions independently of an interface of an application in use on the touch screen into the Samsung Behold II, such as the widget bar tab window, represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with the Samsung Behold II, represent nothing more than combining prior art elements according to known methods and techniques (rendering a window, such as a widget bar tab, at the edge of the Samsung Behold II's touch screen, for example, as a thin tab, bar, or line, which is independent of an application in use on the touch screen) to yield predictable results (to open the Samsung Behold II's menu, such as by sliding open the widget bar, as disclosed by the Samsung Behold II). |
| **[1C]** a processor; | The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a processor." |

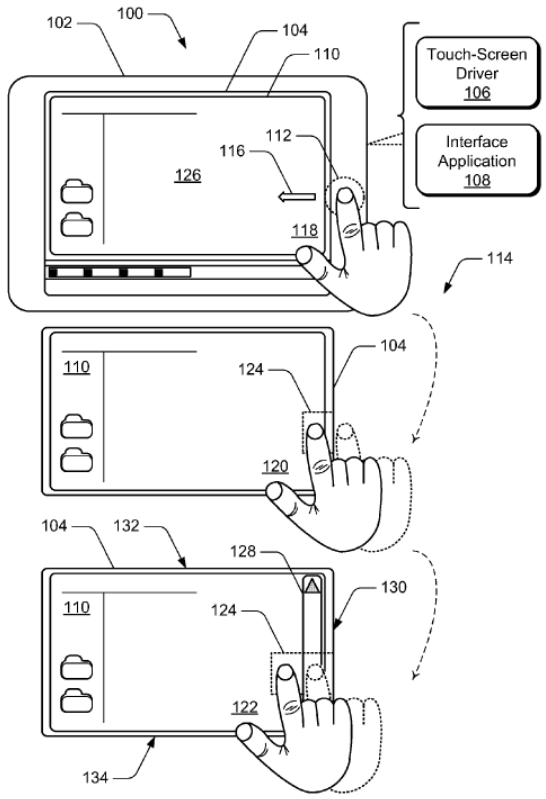
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| | For example, the Samsung Behold II includes a processor, such as a Qualcomm ARM 11 528 MHz processor, to process instructions related to user inputs on the touch screen, display applications, and handle notification alerts.<br><br>The Behold II is equipped with a 528MHz Qualcomm ARM 11 processor, and despite the addition of the TouchWiz software, it didn't have too much of an effect on general performance.<br><br>Cha 11.<br><br>  <br><br>Samsung Behold II Device. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Samsung Behold II Device.<br>  <br>Samsung Behold II Device.<br>*See, e.g.*, Wirefly, PhoneArena, mobileburn, Samsung Behold II Release Details, Cha, T-Mobile. |
| **[1D]** wherein a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least | The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said processor to cause an action assigned to said window." |

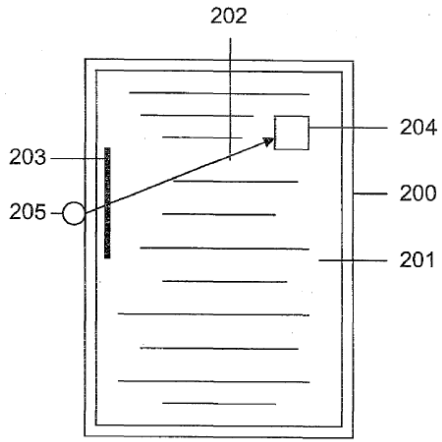
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| one window on the touch screen, is processed by said processor to cause an action assigned to said window, and | For example, the Samsung Behold II includes a gliding action provided from outside of the touch screen, such as above the status bar or to the left of the widget bar tab, towards inside of the touch screen. The gliding action first interacts with said at least one window on the touch screen and is processed by said processor to cause an action assigned to said window, such as opening the notifications panel or opening the widget bar window. For the Samsung Behold II, a swipe or slide is a type of drag action.<br><br>  <br>Samsung Behold II Device.<br><br>  <br>Samsung Behold II Device. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Samsung Behold II Device.<br>*See, e.g.*, Wirefly, PhoneArena, mobileburn, Samsung Behold II Release Details, Cha, T-Mobile.<br><br>To the extent Keyless argues that the Samsung Behold II does not disclose or render obvious this limitation, it would have been obvious in view of the Samsung Behold II, POSITA's pre-existing knowledge, and/or the Samsung Behold II combined with the other references charted for this patent in these invalidity contentions, including Wilairat, Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Palm Pre, and the Neonode N2. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>For example, Wilairat further teaches an off-to-on-screen gliding action, referred to as a "pull-in gesture." Wilairat teaches that, although the gliding motion begins off of the touch screen, it first interacts with the touch screen as the finger enters the touch screen. Wilairat teaches that "a user can initiate a touch input with a finger just off an edge of the touch-screen and then motion a pull-in |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | gesture across the touch-screen. When the motion of the touch pull-in gesture is initiated by the user, a progression of the motion as the touch input remains in contact with the touch-screen creates a contact region on the touch-screen that progressively expands and is detected. The progressive expansion of the contact region on the touch-screen is then determined or recognized as the touch pull-in gesture that initiates a display of a user interface component proximate a location of the touch pull-in gesture on the touch-screen. A user interface component can include any type of hidden menu, slide menu, drop-down menu, Scrollbar, and/or any other type of user interface displayable element." Wilairat at [0009].<br><br>Wilairat further teaches that "a user of portable device 102 can initiate a touch input 112 with a finger just off an edge of the touch-screen 104 and then motion a pull-in gesture 114 in a direction 116 across the touch-screen. The motion of the touch pull-in gesture 114 is illustrated in the direction 116 as the hand moves from position 118, to position 120, and to position 122 (shown successively in the three views). When the motion of the touch pull-in gesture 114 is initiated by the user, a contact region 124 progressively expands. Such as illustrated when the hand moves from the edge of the touch-screen at position 118 to position 120, and then from position 120 to position 122. The progressive expansion of the contact region 124 is then determined or recognized as the touch pull-in gesture 114." Wilairat at [0012].<br><br>An exemplary pull-in gesture from off-screen to on-screen is shown in Wilairat FIG. 1. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Fig. 1<br>Wilairat at FIG. 1.<br>Moreover, each of Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, the Palm Pre, and the Neonode N2 teaches a gliding action from off screen to on screen to activate a function assigned to the window when the gliding action is detected.<br>Roth teaches using a swiping (e.g., gliding) action from outside a screen through a window in the form of a line at the edge of the screen on the screen towards the inside of the touch screen to |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | activate a function associated with the window. For example, Roth describes "[a] crossing-based interface along the bounds of the display is a viable solution. Users can invoke actions with swiping gestures across a section of the display side from the outside to the inside." Roth at [0009]. Roth teaches advantages of such outside-to-inside gliding activations, for example, that "they can be more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to the distance vector between the line and the cursor," and "that a well positioned line requires significantly less display space than a button for similar performance characteristics." Roth at [0010]. "One example of such a gesture is a continuous swiping motion from the activation point representing a desired action or even from the bezel of the device, through the activation point and to the target on the display." Roth at [0015]. Roth explains that such outside-to-inside gliding actions "allow[] the active area of an activation point to be much smaller on a display due to the utilization of a greater average weight throughout a touch sensitive display, which creates a higher probability of activating on a narrow activation point or operating on a small target," "save[s] valuable display space on the screen, since the activation point can be made smaller on the display as a result," and may "begin from outside the display for ease of use." Roth at [0015]. As Roth explains, a "bar" may "represent[] the desired action." Roth at [0017]. "[A]n activation point 203 (represented as a bar in this example) displayed on the edge of the screen which represents the desired action of selecting. The bar is made small so as to not take up valuable space on the display. The user can then select the target 204 through the use of a gesture 202, such as swiping, pinching, tapping or other gestures …." Roth at [0036]. As shown in FIG. 2B, "[t]he user can begin his gesture from either on the bar itself or from outside the display 205 and continue the gesture through the bar and to target as if the user were bringing the action to the target. An example of such a gesture is if the user utilized a continuous swiping motion with his finger from the bar representing a desired action to the target on the display." Roth at [0039]. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Roth at FIG. 2B.<br><br>Roth Bezel Swipe teaches activation gestures related to mobile devices having touch screens. A bezel swipe gestures is an outside-to-inside swiping (e.g., gliding) gesture, in which "[t]he user starts a Bezel Swipe gesture on the bezel, which is the physical touch insensitive frame that surrounds the display. The finger is then swiped through a part of the display edge into the display, which enters selection mode. Next, the user moves the finger onto an object or display position and selects it by lifting the finger off the display, which ends selection mode. Different edge portions represent different actions and are distinctively marked." Roth Bezel Swipe at 1524. "Swipes are recognized by detecting touches inside a thin rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524. As such, "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display. Figure 2 illustrates this. A touch sensitive display translates the contact area of the finger with the display into an activation point." Roth Bezel Swipe at 1524. "The Bezel Swipe gesture … starts on the bezel and moves into the display. Therefore the contact area is gradually increased until it exceeds the contact threshold of the display. … Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. This outside-to-inside crossing gesture has advantages, for example, "the crossing of the touch-insensitive bezel in conjunction with the properties of touch sensitive displays enables the reliable |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | activation of a button that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. |

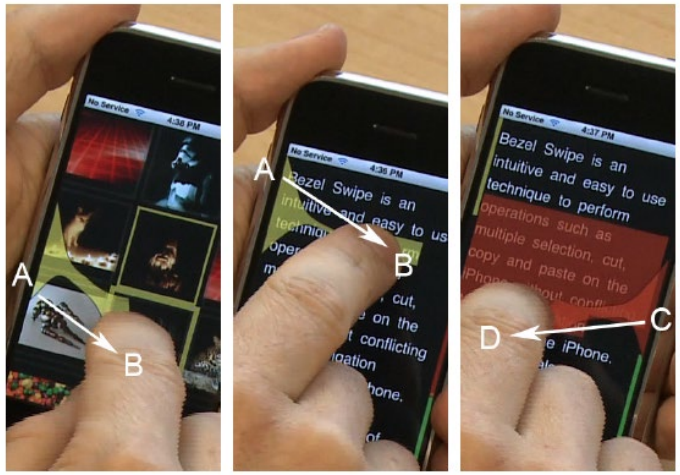



**Figure 1. The Bezel Swipe prototype in action. Left panel: A swipe from A to B selects an image. Middle panel: A swipe from A to B marks the beginning of a text selection. Right panel: A swipe from C to D marks the end of the text selection.**

Roth Bezel Swipe at Figure 1.

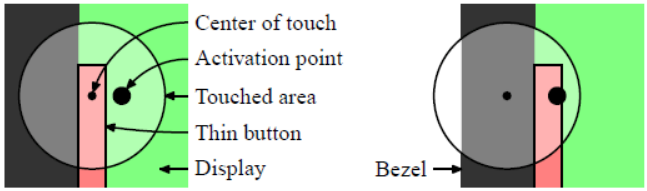
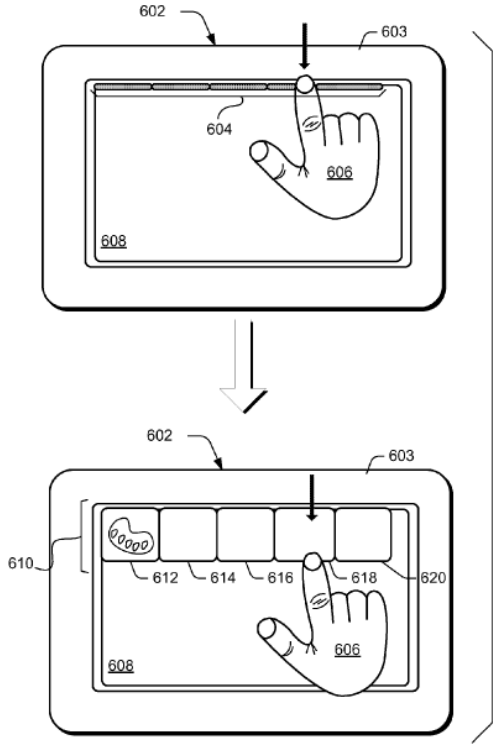


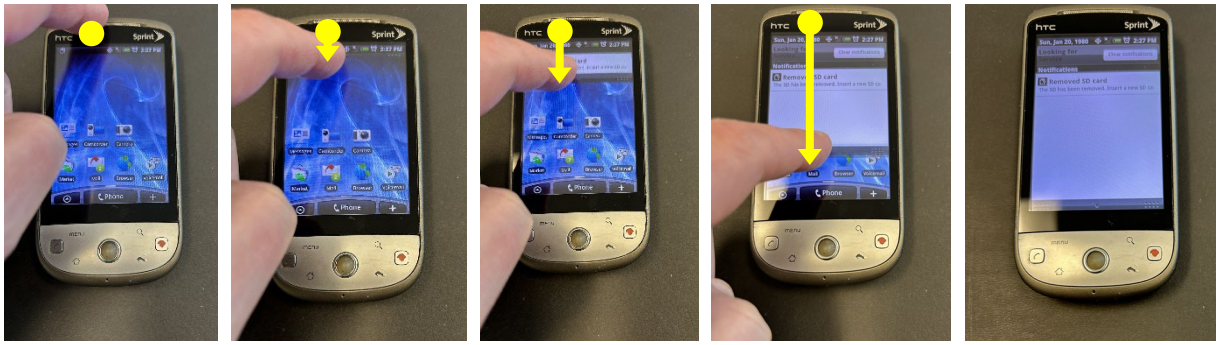

**Figure 2. Touching narrow targets close to the bezel: a touch (large circle) centered on the target (left) may not activate it whereas a touch significantly overlapping the bezel (right) does.**

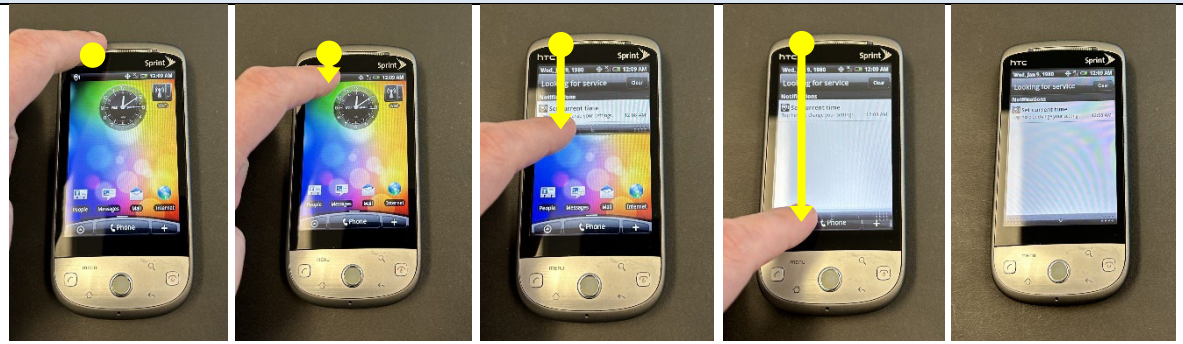
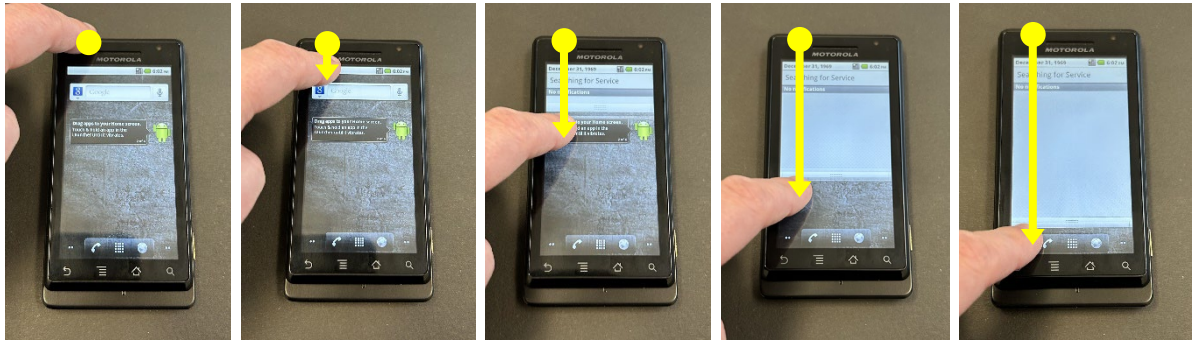
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | Roth Bezel Swipe at Figure 2.<br><br>Hinckley teaches a visual affordance window indicating a pull-down bezel menu is shown at the edge of a mobile device using a gliding action from outside of the touch screen towards the inside of the touch screen. Hinckley at FIGS. 5, 6. For example, in FIG. 5, "[s]tep 500 displays a visual affordance on a display device associated with a computing device" and is shown at as a window or bar 604 being a five-part line in FIG. 6. Hinckley at [0068], [0072], FIGS. 5, 6. Then, "[s]tep 502 receives a bezel gesture input relative to the visual affordance," such as from off-screen to on-screen over the visual affordance. Hinckley at [0068], [0072], FIGS. 5, 6. After the off-screen to on-screen gesture, "[s]tep 504 accesses functionality associated with the received bezel gesture input." Hinckley at [0068], [0072], FIGS. 5, 6. Hinckley explains that "off-screen to on-screen motion (or vice versa) can be utilized as a mechanism to expose a menu or to access some other type of functionality." Hinckley at [0071]. As shown in FIG. 6, "device 602 includes a bezel 603 and a visual affordance 604 that is rendered on display device 608." Hinckley at [0072], FIG. 6. The "visual affordance 604" may appear as "in the form of a semi-transparent strip" and "can be utilized to provide a hint or indication of accessible functionality, in this case a bezel menu, associated with the bezel." Hinckley at [0072], FIG. 6. "[T]he bezel menu can be accessed through a bezel gesture in which a finger of user's hand 606 touches the bezel and then moves across the bezel and onto the display device 608 in the direction of the illustrated arrow." Hinckley at [0073], FIG. 6. After this off-screen to on-screen gesture, the "bezel menu 610 to be dropped down at which time it can become fully opaque." Hinckley at [0073], FIG. 6. Hinckley further explains that "bezel menu 610 includes multiple selectable icons or slots 612, 614, 616, 618, and 620. Each of the icons or slots is associated with a different functionality such as, for example, paint functionality, pen functionality, note functionality, object creation, object editing, and the like." Hinckley at [0074], FIG. 6. Hickley teaches, however, that "any type of functionality can be associated with the icons or slots." Hinckley at [0074], FIG. 6. The "bezel menu 610 can enable a user to access and activate commands, tools, and objects." Hinckley at [0075], FIG. 6. |

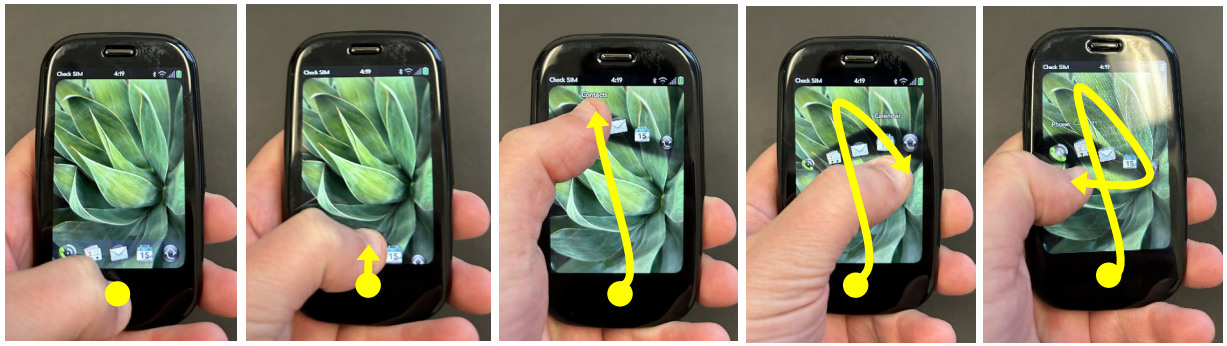
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Fig. 6<br>Hinckley at FIG. 6.<br>On information and belief, the Samsung Galaxy GT-i7500 1.5 operates substantially the same with respect to the pull-down notifications interface as the Samsung Behold II and the HTC Magic 1.6. *See, e.g.*, https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface as |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | the same, showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."); https://www.youtube.com/watch?v=rhBgLQSxfjE at 1:20-1:34 (describing as running Android 1.5 and similar to Samsung Behold II device, showing opening notification menu from status bar contact at 1:32). On information and belief, a user may perform a gliding action from the plastic housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display toward the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar); https://www.youtube.com/watch?v=wVF8dLkgW7c at 0:40-0:56 (showing swipe down over status bar to open notifications interface); https://www.youtube.com/watch?v=4Pv04Tw6wvQ at 3:30-3:35 (showing gliding gesture on status bar to show notification interface for Android 1.5 operating system). The user's touch first interacts with the status bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status bar window causes a processor to perform the action of displaying the notifications window. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar). Furthermore, on information and belief, a user may perform a gliding action from the plastic housing bezel below the touch screen (from outside of the screen) over the tab shown at the bottom of the screen towards the main application display inside of the touch screen (e.g., over the tab window) to display an applications selection interface. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having the application selection interface tab); https://www.youtube.com/watch?v=wVF8dLkgW7c at 0:54-1:14 (showing swipe up over application selection tab at bottom of screen to open application selection interface); https://www.youtube.com/watch?v=4Pv04Tw6wvQ at 1:36-2:30 (showing gliding gesture on tab to show application selection interface for Android 1.5 operating system).<br><br>On information and belief, the HTC Magic 1.5 operates substantially the same with respect to the pull-down notifications interface as the Samsung Behold II and the Samsung Galaxy GT-i7500. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | *See, e.g.*, https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface as the same, showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."). On information and belief, a user may perform a gliding action from the plastic housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display toward the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. The user's touch first interacts with the status bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status bar window causes a processor to perform the action of displaying the notifications window. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 (In addition to being able to drag (or double tap if your fingers are a little tired) the menu bar up from the bottom of the screen, you can also drag from the top and find your notifications all grouped nicely together."); https://ianrenton.com/blog/review-htc-magic/ ("Dragging the top drawer (where app notifications, incoming messages etc. sit) is a lot more intuitive on an actual device than on the emulator, and the kinetic scrolling - you can 'throw' menus - feels just right."); https://www.youtube.com/watch?v=LghBOTZ-HuE at 5:08-5:20 (describing "drag-down notification drawer"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:35-8:55 (describing notification menu as "a drawer" that you "pull down" allowing you to "click" notifications to open the corresponding application).<br><br>Furthermore, on information and belief, a user may perform a gliding action from the plastic housing bezel below the touch screen (from outside of the screen) over the tab shown at the bottom of the screen towards the main application display inside of the touch screen (e.g., over the tab window) to display an applications selection interface. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 ("you can simply drag up the menu from the bottom and access all your recently downloaded applications and menu functions, sorted alphabetically"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:15-7:35, 8:17-8:55 (showing swipe-up action to open application selection interface).<br><br>The HTC Hero 1.5 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | status bar towards the main application display toward the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar.<br>  <br>HTC Hero 1.5.<br>The HTC Hero 2.1 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display toward the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar. |

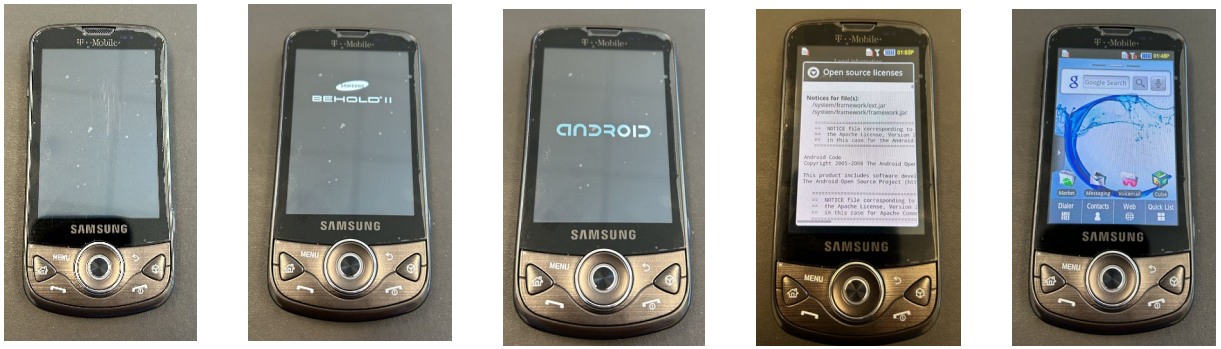
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>HTC Hero 2.1.<br>The Motorola Droid A855 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status towards to the main application display toward the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar.<br>  <br>Droid A855.<br>The Palm Pre teaches, as one example, that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of |

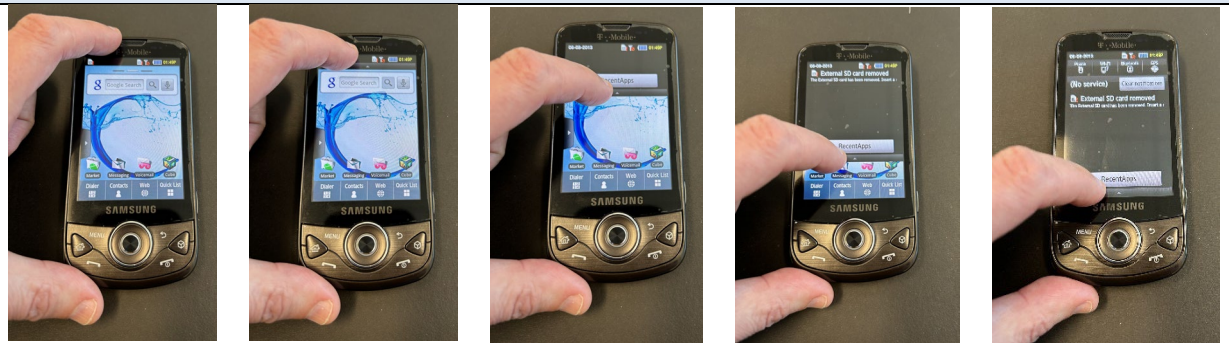
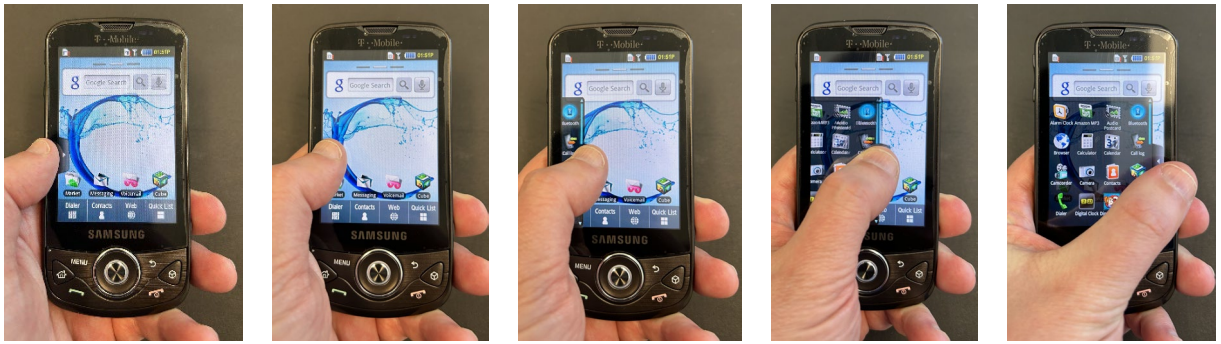
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | the screen) and upwards towards the main application display toward the inside of the touch screen (e.g., crossing over the Quick Launch window showing five application icons and identifying the movement from off-to-on screen). The user's touch first interacts with the Quick Launch window on the touch screen because the Quick Launch window is not displayed in the gesture area. The gliding action over the Quick Launch window from off-to-on screen causes a processor to perform the action associated with the window, such as moving the Quick Launch window with the user's finger in any arbitrary direction around the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. For example, lifting on the "Phone" icon opens the Phone application.<br>  <br>Palm Pre.<br>The Palm Pre also teaches, as another example, that, when an application is open on the Palm Pre device (such as the mail application shown below), a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen to display the Quick Launch window (e.g., crossing from off-to-on screen to display the Quick Launch window). The user's touch first interacts with the Quick Launch window on the touch screen because the Quick Launch window is not displayed in the gesture area, but as shown below, appears with the user's off-to-on screen gesture as the finger moves onto the screen. The gliding action causes a processor to perform the action associated with the Quick Launch window, such as moving the Quick Launch window with the user's finger in any arbitrary direction around |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. As shown below, lifting on the "Phone" icon opens the Phone application.<br>  <br>Palm Pre.<br>The Neonode N2 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen over the indicated icons or from the sides of the screen as indicated by the various arrows (from outside of the screen), over the arrows towards the main application display toward the inside of the touch screen (e.g., crossing over the window identifying the movement from off-to-on screen). The user's touch first interacts with the window showing the arrows on the touch screen because the outer housing does not contain touch-sensitive elements. The gliding action over the arrows from off-to-on screen causes a processor to perform the action associated with one of the three icons printed below the touch screen or from the side of the touch screen. |

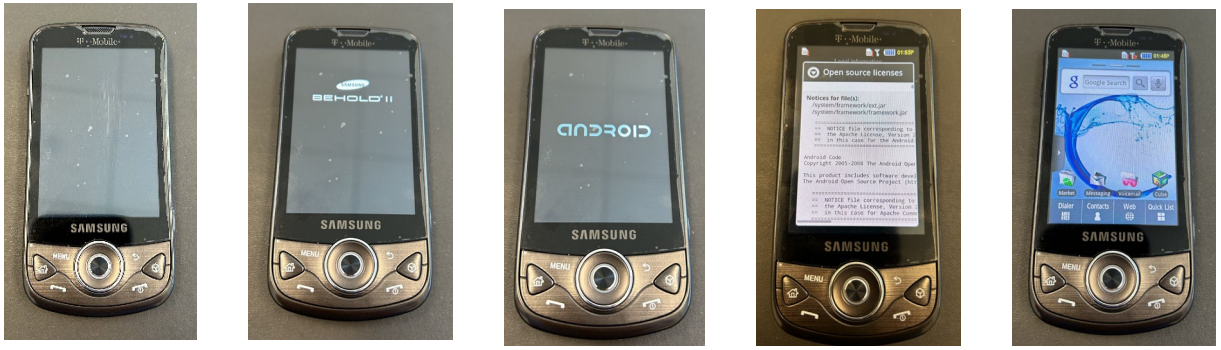
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Neonode N2.<br>A POSITA would have found it obvious to incorporate the functionality of permitting an off-to-on-screen gliding action, where the gliding action first interacts with the touch screen of the Samsung Behold II's status bar window or the widget bar tab window, to cause the notifications menu or widget bar to be displayed as described in the Samsung Behold II, as claimed. Each of the Samsung Behold II, Wilairat, Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, the Palm Pre, and/or the Neonode N2, teaches causing an action associated with a gliding gesture that may be an off-to-on-screen gesture, such as causing the Samsung Behold II's notification menu or widget bar to be slid open using a gesture that starts off screen and glides towards the main display area. A POSITA would have been motivated to provide for opening (e.g., sliding open, as used in the Samsung Behold II) the Samsung Behold II's notification menu or widget bar using a gesture that starts off screen and glides towards the main display area because it allows for the same operation as the Samsung Behold II uses, but simplifies the user's experience of opening the notifications menu. For example, by registering the touch as the user's finger slides onto the screen (e.g., either as a regular touch on the status bar or widget bar tab, as known in the Samsung Behold II, or as a pull-in gesture, such as taught by Wilairat, Roth, or Roth Bezel Swipe) results in effectively increasing the size of the status bar and widget bar tab. This simplifies the user's experience because the user does not have to try to specifically touch the narrow status bar or widget bar tab and may instead start the gliding gesture off-screen to cross over the status bar to pull it either the notifications menu or widget bar open. As explained by Roth Bezel Swipe, "screens of mobile |

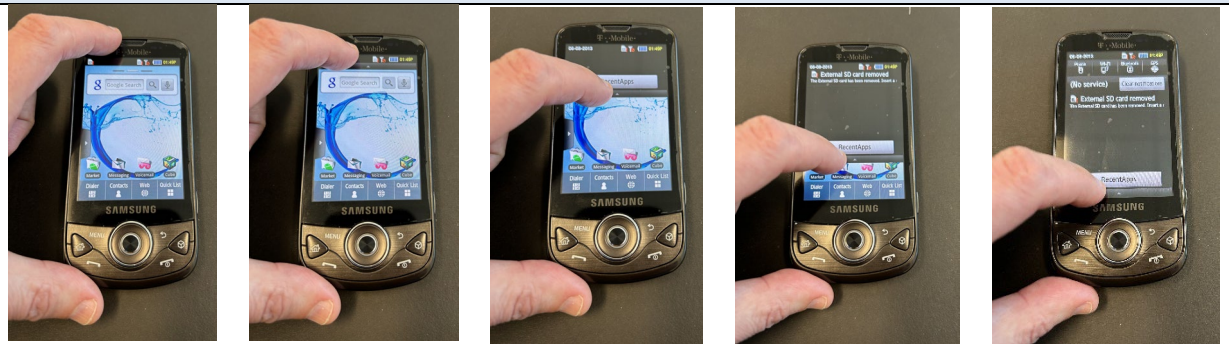
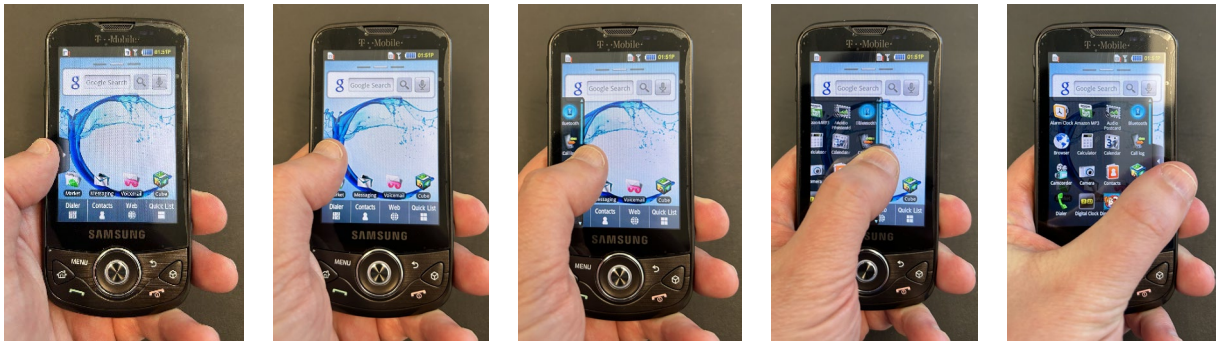
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | devices are necessarily small," which leads to the development of "smaller widgets" that "are harder to hit." Roth Bezel Swipe at 1523. But out-to-in swiping gestures that "start on the bezel and move[] into the display" allow for contacting "a narrow target (the red bar) positioned flush against the display edge." Roth Bezel Swipe at 1524. In other words, "[s]wipes" from outside-to-inside the touch screen "are recognized by detecting touches inside a thin rectangular area [window] positioned flush against the display screen." Roth Bezel Swipe at 1524. This "enables the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524.<br><br>It was well known to a POSITA that activating a function when a user performs an out-to-in gliding gesture, such as over the Samsung Behold II's status bar or widget bar tab, "enables the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524. Activating functions where "[u]sers can invoke actions with swiping features across a section of the display [touch screen] side from the outside to the inside" also "requires minimal display real estate," whereby being beneficial to mobile devices that have small screens. Roth, [0009]. A POSITA would have known that such activation operations, like crossing activations, "can be more efficient than pointing tasks," especially on small-screen devices, such as mobile phones. Roth, [0009]. When outside-to-inside gliding activations are used, a POSITA would have known that the activation bar or window can be "made small so as to not take up valuable space on the display." Roth, [0036].<br><br>Activating a function when a user performs an out-to-in gliding gesture over a window on a touch screen, such as over the Samsung Behold II's status bar or widget bar tab, was routine and conventional to POSITAs, as shown by the Samsung Behold II, Wilairat, Roth, and/or Roth Bezel Swipe. Moreover, it was successfully implemented in commercial prior art devices, such as the Samsung Galaxy GT-i7500 1.5, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, the Palm Pre, and the Neonode N2. Incorporating a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, being processed by the processor to |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | cause an action assigned to said window into the Samsung Behold II, shown above, represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with the Samsung Behold II, represent nothing more than combining prior art elements according to known methods and techniques (registering a user's gliding action when it first crosses into the status bar or widget bar tab of the Samsung Behold II and then moves towards the inside of the touch screen) to yield predictable results (to open the Samsung Behold II's notification menu or application menu, such as by sliding it open, as used in the Samsung Behold II). |
| **[1E]** wherein said at least one window is located on the touch screen before said gliding action begins. | The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said at least one window is located on the touch screen before said gliding action begins."<br><br>For example, the Samsung Behold II includes that said at least one window, such as the status bar window or widget bar tab window, is located on the touch screen before said gliding action begins.<br><br>  <br><br>Samsung Behold II Device. |

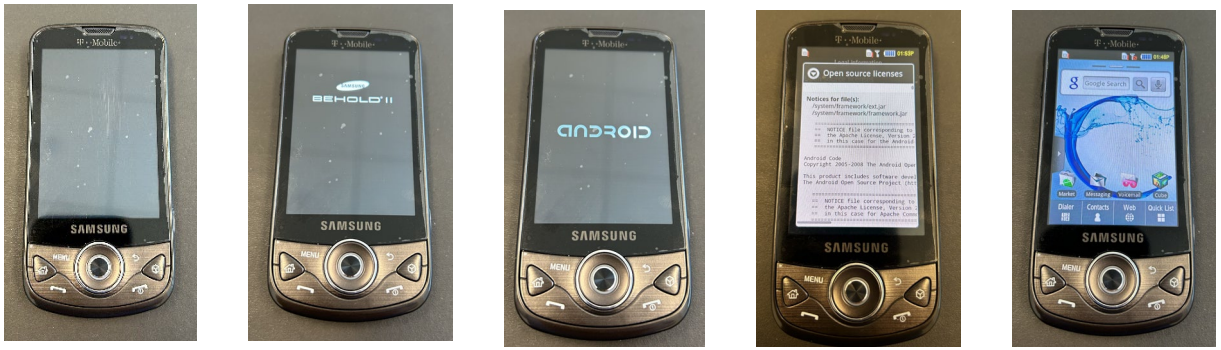
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Samsung Behold II Device.<br>  <br>Samsung Behold II Device.<br>*See, e.g.*, Wirefly, PhoneArena, mobileburn, Samsung Behold II Release Details, Cha, T-Mobile. |

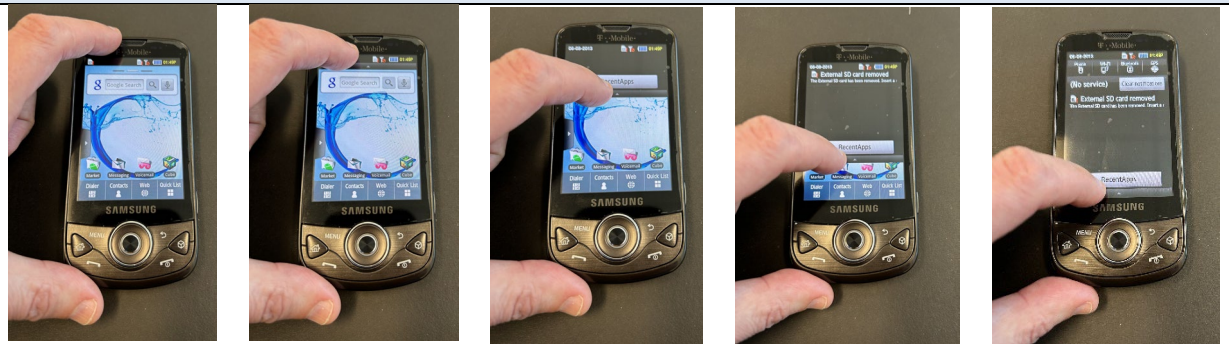
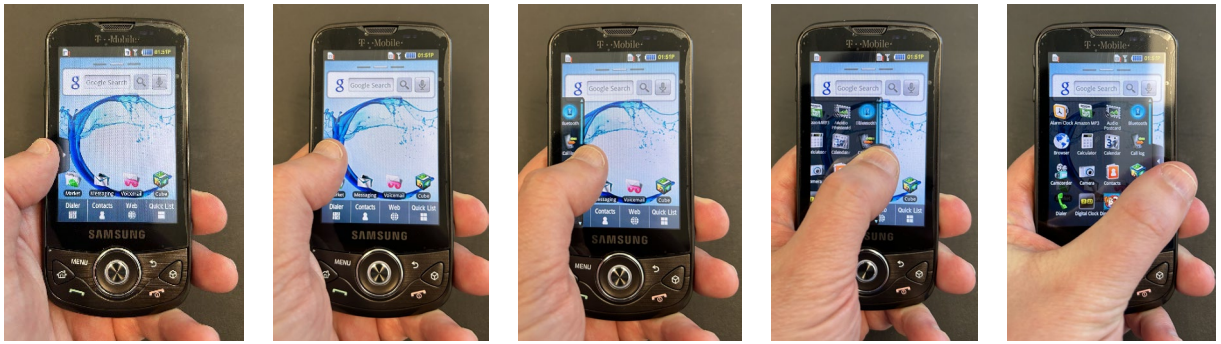
| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[2]** The system of claim 1, wherein the system relates | Claim 2 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| said gliding action to a function which is not related to a mouse function. | to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 2 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "the system relates said gliding action to a function which is not related to a mouse function."<br><br>For example, the Samsung Behold II relates the gliding action over the status bar or widget bar tab to a function (e.g., opening a menu interface) that is not related to a mouse function.<br><br>  <br><br>Samsung Behold II Device. |

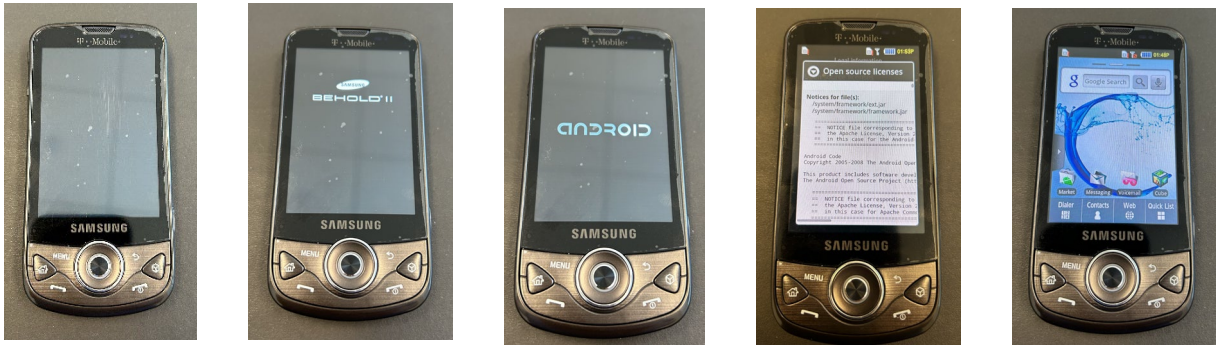
| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Samsung Behold II Device.<br>  <br>Samsung Behold II Device.<br>*See, e.g.*, Wirefly, PhoneArena, mobileburn, Samsung Behold II Release Details, Cha, T-Mobile. |

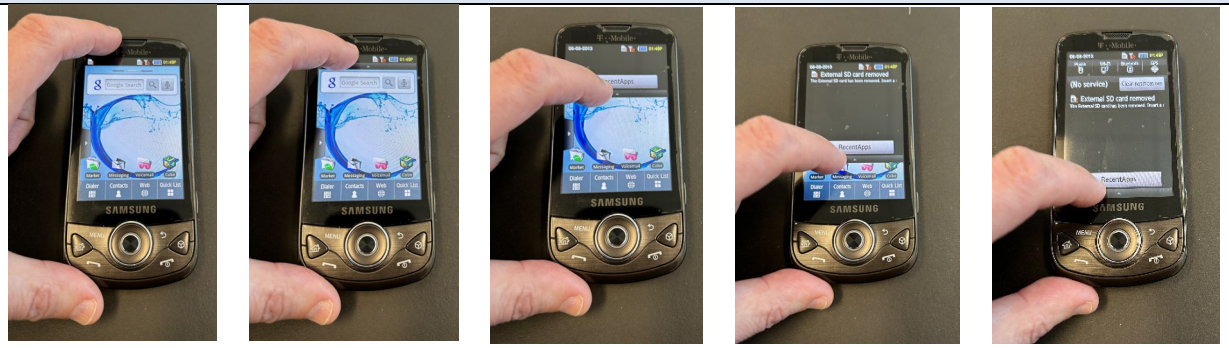
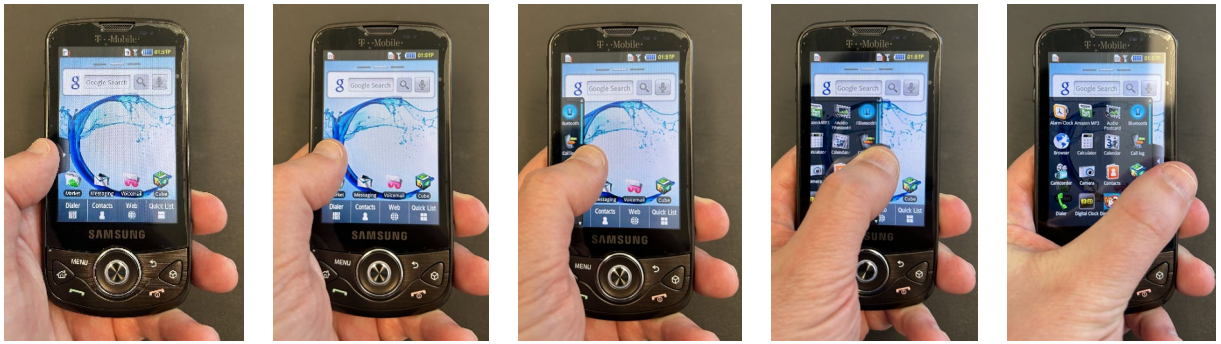
| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[3]** The system of claim 1, wherein said at least one | Claim 3 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right |

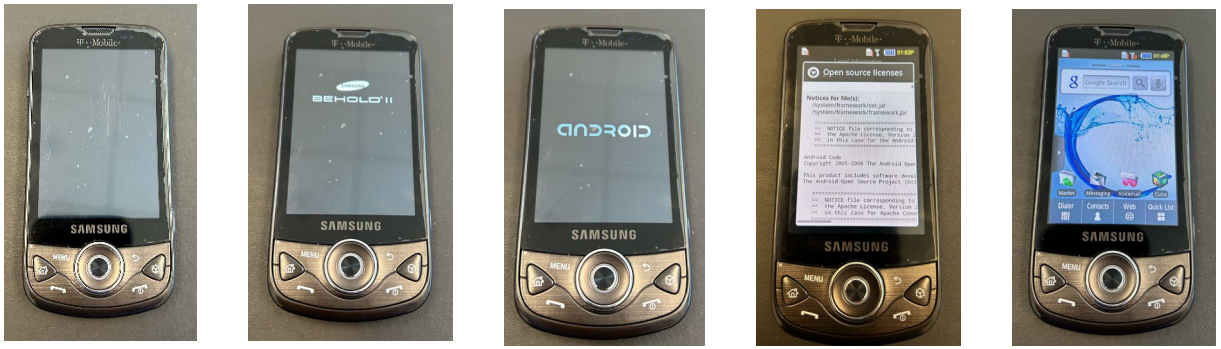
| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| window comprises at least one bar located on said edge of the screen. | to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 3 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window comprises at least one bar located on said edge of the screen."<br><br>For example, the Samsung Behold II includes the status bar and/or widget bar tab windows as bars located on the top and side edges of the touch screen, respectively.<br><br>  <br>Samsung Behold II Device. |

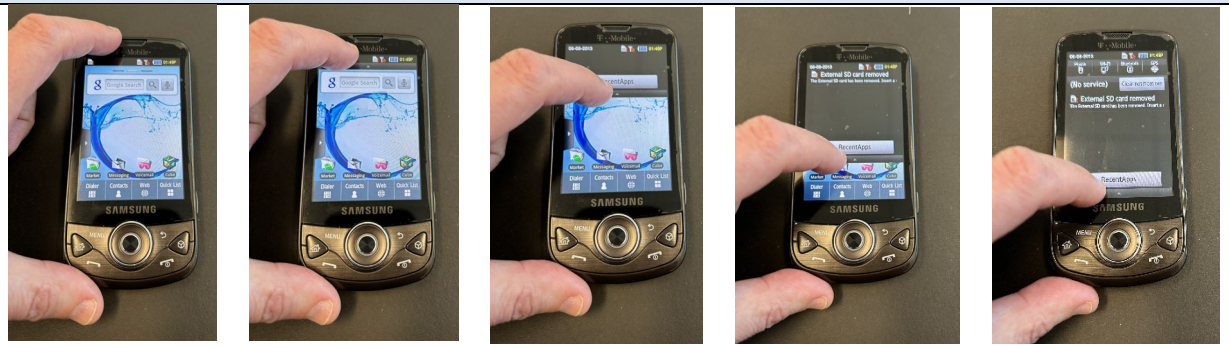
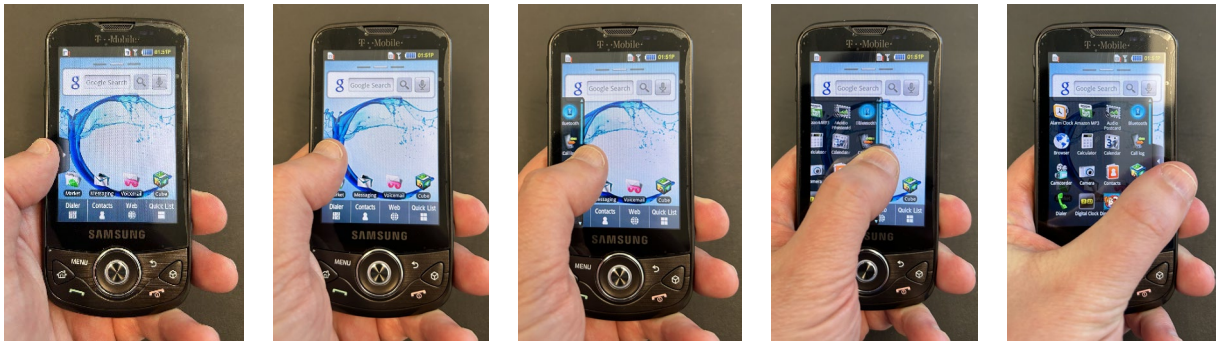
| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Samsung Behold II Device.<br>  <br>Samsung Behold II Device.<br>*See, e.g.*, Wirefly, PhoneArena, mobileburn, Samsung Behold II Release Details, Cha, T-Mobile. |

| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[4]** The system of claim 3, wherein said at least one bar | Claim 4 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. |

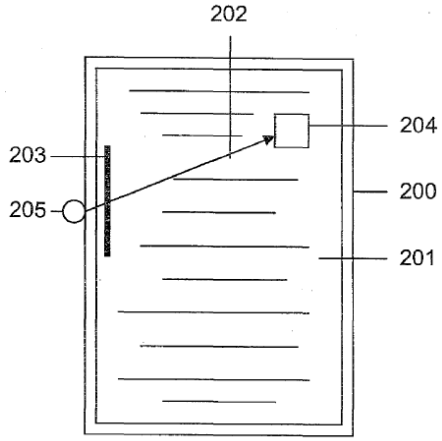
| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| extends along a substantial portion of an edge of the touch screen. | Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 4 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one bar extends along a substantial portion of an edge of the touch screen."<br><br>For example, the Samsung Behold II has the status bar extending along the length of the top edge of the touch screen. The Samsung Behold II also has a widget bar tab extending along a substantial portion of the side edge of the touch screen.<br><br>  <br>Samsung Behold II Device. |

| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Samsung Behold II Device.<br>  <br>Samsung Behold II Device.<br>*See, e.g.*, Wirefly, PhoneArena, mobileburn, Samsung Behold II Release Details, Cha, T-Mobile. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[5]** The system of claim 3, wherein said bar is in a form of a line. | Claim 5 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 an 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 5 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said bar is in a form of a line."<br><br>For example, the Samsung Behold II has the status bar and/or widget bar tab bar in the form of a line.<br><br>  <br><br>Samsung Behold II Device. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Samsung Behold II Device.<br>  <br>Samsung Behold II Device.<br>*See, e.g.*, Wirefly, PhoneArena, mobileburn, Samsung Behold II Release Details, Cha, T-Mobile.<br><br>To the extent Keyless argues that the Samsung Behold II does not disclose or render obvious the additional limitations of claim 5, it would have been obvious in view of the Samsung Behold II, POSITA's pre-existing knowledge, and/or the Samsung Behold II combined with the other references charted for this patent in these invalidity contentions, including Roth, Roth Bezel Swipe, Hinckley, the Palm Pre, and the Neonode N2. For example, a POSITA would have found the |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>For example, Roth teaches using a swiping (e.g., gliding) action from outside a screen through a window in the form of a line at the edge of the screen on the screen towards the inside of the touch screen to activate a function associated with the window. For example, Roth describes "[a] crossing-based interface along the bounds of the display is a viable solution. Users can invoke actions with swiping gestures across a section of the display side from the outside to the inside." Roth at [0009]. Roth teaches advantages of such outside-to-inside gliding activations, for example, that "they can be more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to the distance vector between the line and the cursor," and "that a well positioned line requires significantly less display space than a button for similar performance characteristics." Roth at [0010]. "One example of such a gesture is a continuous swiping motion from the activation point representing a desired action or even from the bezel of the device, through the activation point and to the target on the display." Roth at [0015]. Roth explains that such outside-to-inside gliding actions "allow[] the active area of an activation point to be much smaller on a display, such as the lines shown in Roth's figures, "due to the utilization of a greater average weight throughout a touch sensitive display, which creates a higher probability of activating on a narrow activation point or operating on a small target," "save[s] valuable display space on the screen, since the activation point can be made smaller on the display as a result," and may "begin from outside the display for ease of use." Roth at [0015]. As Roth explains, a "bar," which Roth shows as a line on the touch screen, may "represent[] the desired action." Roth at [0017]. "[A]n activation point 203 (represented as a bar in this example) displayed on the edge of the screen which represents the desired action of selecting. The bar is made small [e.g., a line] so as to not take up valuable space on the display. The user can then select the target 204 through the use of a gesture 202, such as swiping, pinching, tapping or other gestures …." Roth at [0036]. As shown in FIG. 2B, "[t]he user can begin his gesture from either on the bar [line 203] itself or from outside |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | the display 205 and continue the gesture through the bar and to target as if the user were bringing the action to the target. An example of such a gesture is if the user utilized a continuous swiping motion with his finger from the bar representing a desired action to the target on the display." Roth at [0039].<br>  <br><br>Roth at FIG. 2B.<br><br>Moreover, each of Roth Bezel Swipe, Hinckley, the Palm Pre, and the Neonode N2 teaches a gliding action from off screen to on screen to activate a function assigned to the window, where the window is a bar in a form of a line.<br><br>Roth Bezel Swipe teaches activation gestures related to mobile devices having touch screens. A bezel swipe gestures is an outside-to-inside swiping (e.g., gliding) gesture across a line shown on the edge of the display screen, in which "[t]he user starts a Bezel Swipe gesture on the bezel, which is the physical touch insensitive frame that surrounds the display. The finger is then swiped through a part of the display edge into the display, which enters selection mode. Next, the user moves the finger onto an object or display position and selects it by lifting the finger off the display, which ends selection mode. Different edge portions represent different actions and are distinctively marked." Roth Bezel Swipe at 1524. "Swipes are recognized by detecting touches inside a thin |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524. As such, "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display. Figure 2 illustrates this. A touch sensitive display translates the contact area of the finger with the display into an activation point." Roth Bezel Swipe at 1524. "The Bezel Swipe gesture … starts on the bezel and moves into the display. Therefore the contact area is gradually increased until it exceeds the contact threshold of the display. … Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. Roth Bezel Swipe "use[s] a thin colored bar," shown as a line, to indicate where Bezel Swipe actions may be performed. Roth Bezel Swipe, 1524, Figures 1, 2 (showing and describing a "red bar" in the form of a line). As one example, Roth Bezel Swipe describes "a green 8 x 160 pixels bar [line] centered vertically against the left display edge, with an active area that was 12 pixels wide." Roth Bezel Swipe, 1525, Figure 1. This outside-to-inside crossing gesture has advantages, for example, "the crossing of the touch-insensitive bezel in conjunction with the properties of touch sensitive displays enables the reliable activation of a button that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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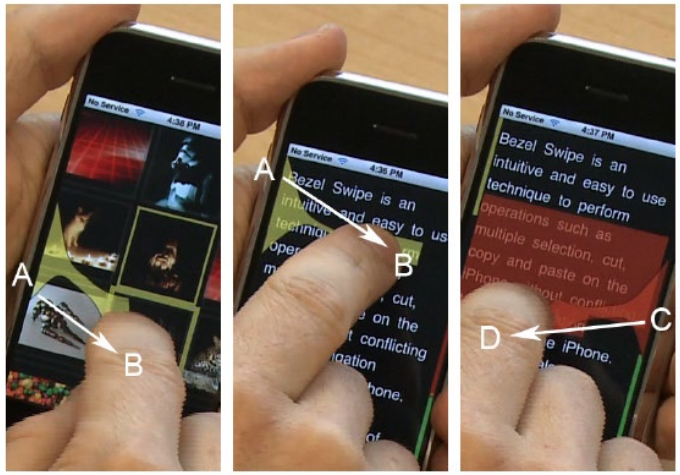



**Figure 1. The Bezel Swipe prototype in action. Left panel: A swipe from A to B selects an image. Middle panel: A swipe from A to B marks the beginning of a text selection. Right panel: A swipe from C to D marks the end of the text selection.**

Roth Bezel Swipe at Figure 1.

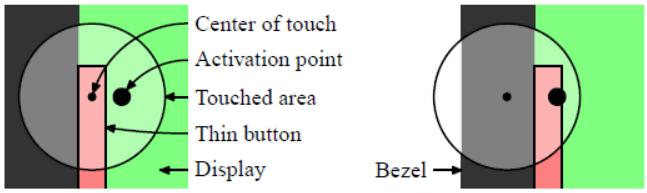
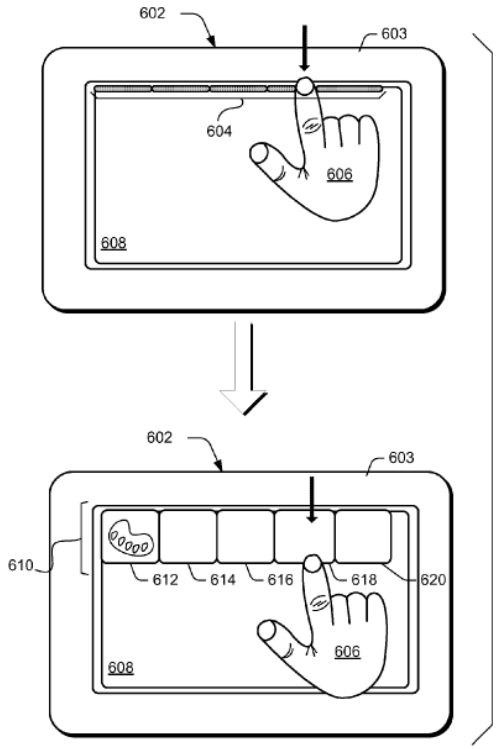


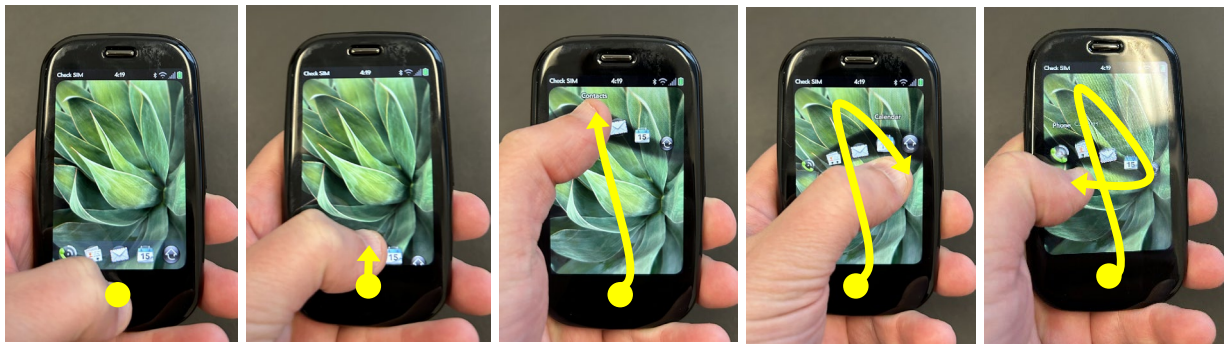

**Figure 2. Touching narrow targets close to the bezel: a touch (large circle) centered on the target (left) may not activate it whereas a touch significantly overlapping the bezel (right) does.**

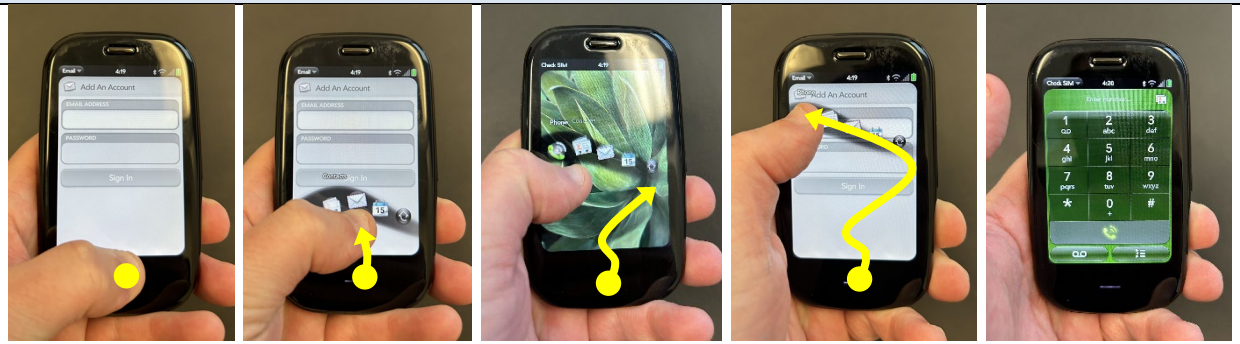
Roth Bezel Swipe at Figure 2.

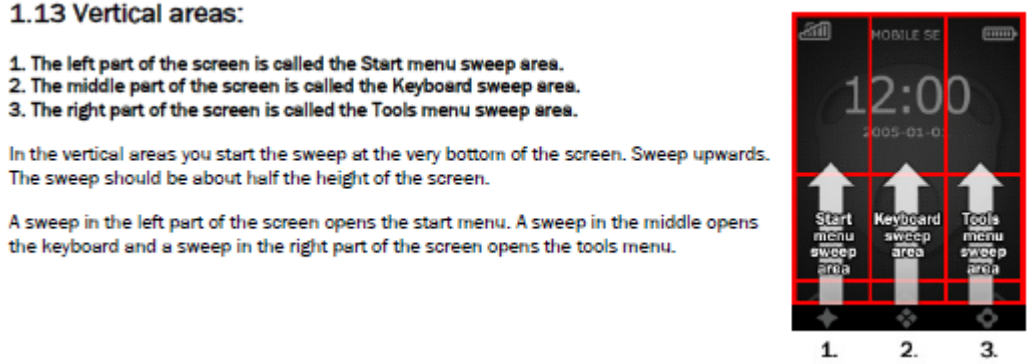
Hinckley teaches a visual affordance window, shown as a line across the top of the touch screen, indicating a pull-down bezel menu is shown at the edge of a mobile device using a gliding action

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | from outside of the touch screen towards the inside of the touch screen. Hinckley at FIGS. 5, 6. For example, in FIG. 5, "[s]tep 500 displays a visual affordance on a display device associated with a computing device" and is shown at as a window or bar 604 being a five-part line in FIG. 6. Hinckley at [0068], [0072], FIGS. 5, 6. Then, "[s]tep 502 receives a bezel gesture input relative to the visual affordance," such as from off-screen to on-screen over the visual affordance. Hinckley at [0068], [0072], FIGS. 5, 6. After the off-screen to on-screen gesture, "[s]tep 504 accesses functionality associated with the received bezel gesture input." Hinckley at [0068], [0072], FIGS. 5, 6. Hinckley explains that "off-screen to on-screen motion (or vice versa) can be utilized as a mechanism to expose a menu or to access some other type of functionality." Hinckley at [0071]. As shown in FIG. 6, "device 602 includes a bezel 603 and a visual affordance 604 that is rendered on display device 608." Hinckley at [0072], FIG. 6. The "visual affordance 604" may appear as "in the form of a semi-transparent strip" (e.g., line) and "can be utilized to provide a hint or indication of accessible functionality, in this case a bezel menu, associated with the bezel." Hinckley at [0072], FIG. 6; *see also* [0062], [0063], [0092] (describing visual affordance as "semi-transparent strip"). "[T]he bezel menu can be accessed through a bezel gesture in which a finger of user's hand 606 touches the bezel and then moves across the bezel and onto the display device 608 in the direction of the illustrated arrow." Hinckley at [0073], FIG. 6. After this off-screen to on-screen gesture across the line of the semi-transparent visual affordance, the "bezel menu 610 to be dropped down at which time it can become fully opaque." Hinckley at [0073], FIG. 6. Hinckley further explains that "bezel menu 610 includes multiple selectable icons or slots 612, 614, 616, 618, and 620. Each of the icons or slots is associated with a different functionality such as, for example, paint functionality, pen functionality, note functionality, object creation, object editing, and the like." Hinckley at [0074], FIG. 6. Hickley teaches, however, that "any type of functionality can be associated with the icons or slots." Hinckley at [0074], FIG. 6. The "bezel menu 610 can enable a user to access and activate commands, tools, and objects." Hinckley at [0075], FIG. 6. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Fig. 6<br>Hinckley at FIG. 6.<br>The Palm Pre teaches, as one example, that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | (e.g., crossing over the line of the Quick Launch window that is in the form of a line and shows five application icons and identifying the movement from off-to-on screen).<br>  <br>Palm Pre.<br>The Palm Pre also teaches, as another example, that, when an application is open on the Palm Pre device (such as the mail application shown below), a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen to display the Quick Launch window (e.g., crossing from off-to-on screen to display the Quick Launch window). On information and belief, the demarcation between the Palm Pre's gesture area and the touch screen area forms a line. The user's touch first interacts with the Quick Launch window on the touch screen by crossing the line between the gesture area and the display area, because the Quick Launch window is not displayed in the gesture area, but as shown below, appears with the user's off-to-on screen gesture as the finger moves onto the screen. The gliding action causes a processor to perform the action associated with the Quick Launch window, such as moving the Quick Launch window with the user's finger in any arbitrary direction around the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. As shown below, lifting on the "Phone" icon opens the Phone application. |

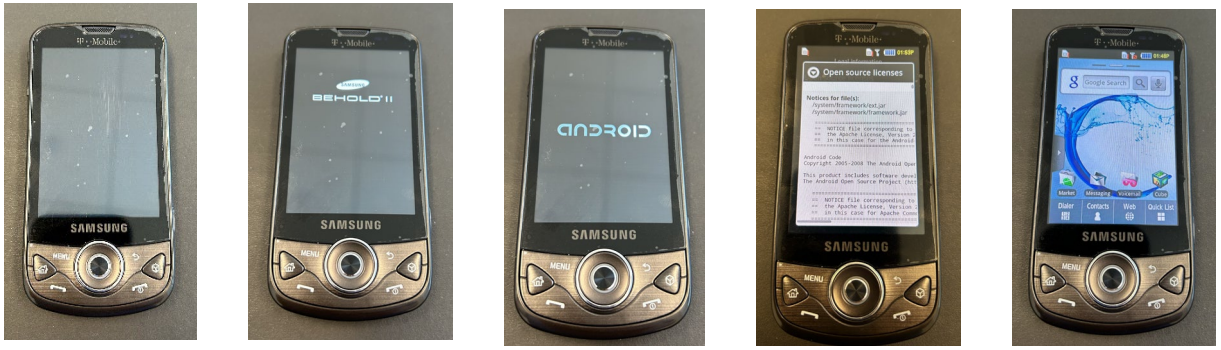
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Palm Pre.<br>The Neonode N2 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen over the indicated icons or from the sides of the screen as indicated by the various arrows (from outside of the screen), over the arrows towards the main application display toward the inside of the touch screen (e.g., crossing over the window identifying the movement from off-to-on screen). The user's touch first interacts with the window showing the arrows on the touch screen because the outer housing does not contain touch-sensitive elements. The gliding action over the arrows from off-to-on screen causes a processor to perform the action associated with one of the three icons printed below the touch screen or from the side of the touch screen. As shown in the N2's User Manual, such gestures cross over a thin line at the bottom of the touch screen between the printed marking and the middle of the display.<br>  |

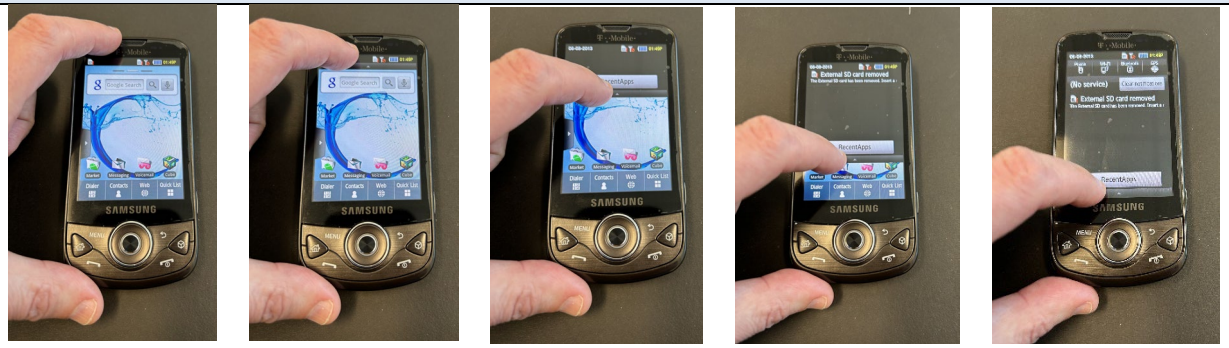
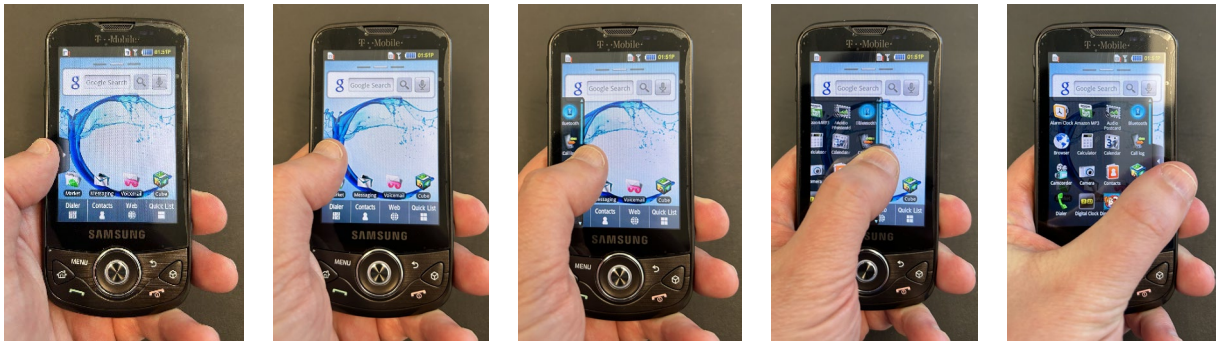
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Neonode N2.<br>  <br>1.13 Vertical areas:<br>1. The left part of the screen is called the Start menu sweep area.<br>2. The middle part of the screen is called the Keyboard sweep area.<br>3. The right part of the screen is called the Tools menu sweep area.<br>In the vertical areas you start the sweep at the very bottom of the screen. Sweep upwards. The sweep should be about half the height of the screen.<br>A sweep in the left part of the screen opens the start menu. A sweep in the middle opens the keyboard and a sweep in the right part of the screen opens the tools menu.<br><br>Neonode N2 User Manual 7.<br>A POSITA would have found it obvious to incorporate the Samsung Behold II's status bar window or the widget bar tab window in the form of a line, as claimed, to reduce the amount of space used to display the status bar and/or widget bar tab, thereby permitting more space for the main screen content to be shown. Each of the Samsung Behold II, Roth, Roth Bezel Swipe, Hinckley, the Palm Pre, and/or the Neonode N2, teaches the window or area for implementing the gliding gesture may be in a form of a line. Roth and Roth Bezel Swipe teach the advantages of using a line, as opposed to a tab when implementing such dragging/crossing interfaces, which would have motivated a POSITA to modify the Samsung Behold II's widget bar tab to reduce its size on the screen, thereby providing more space for the main display. Roth explains that using lines or thin bars "is a viable solution" for the types of off-to-on screen gliding gestures used to open the notifications menu and/or widget bar in the Samsung Behold II. Roth at [0009]. Roth also teaches that, even though the bars may be thin (which Roth shows as a line), "they can be more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to the distance vector between the line and the cursor," and "that a well positioned line requires significantly less display space than a button for similar performance characteristics." Roth at [0010], FIG. 2B. Roth further explains that using a thin "bar," which Roth shows as thin lines, "save[s] valuable display space on the screen, since the activation point can be made smaller on the display as a result," and may "begin from outside the display for ease of use." Roth at [0015], [0017], FIG. 2B. A POSITA would have been |

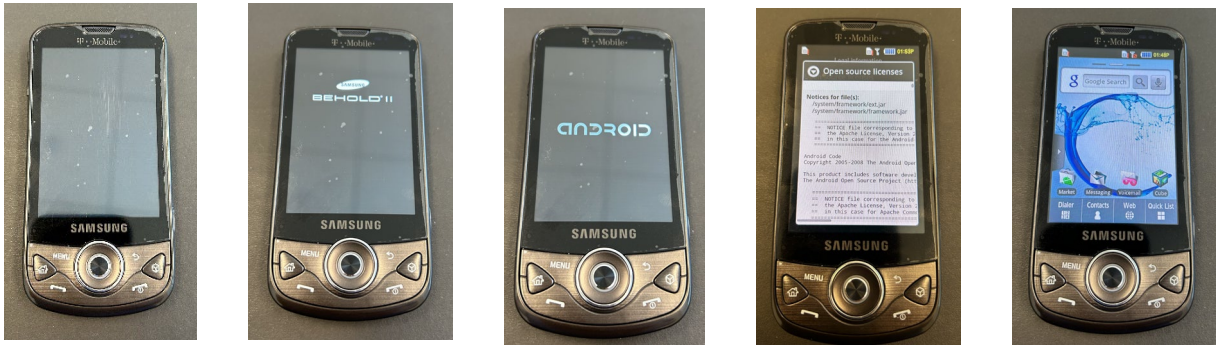
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | further motivated because, the "bar [line] is made small [e.g., a line] so as to not take up valuable space on the display" so the user can activate it using, for example, an off-to-on screen swiping gesture Roth at [0036], FIG. 2B.<br><br>Roth Bezel Swipe provides further motivations to a POSITA to make the window a bar in a form of a line, such as for the widget bar tab of the Samsung Behold II. For example, "[s]wipes are recognized by detecting touches inside a thin rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524, Figures 1, 2. This has the advantage that "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display," and therefore "leverages display pixels that are not typically touched during regular interactions" because they use the thin line on the edge of the screen. Roth Bezel Swipe at 1524, Figure 2. Roth Bezel Swipe provides an example of "a thin colored bar," shown as a line, to indicate where Bezel Swipe actions may be performed. Roth Bezel Swipe, 1524, Figures 1, 2 (showing and describing a "red bar" in the form of a line). As one example, Roth Bezel Swipe describes "a green 8 x 160 pixels bar [line] centered vertically against the left display edge, with an active area that was 12 pixels wide." Roth Bezel Swipe, 1525, Figure 1. One advantage of using the thin line is that "the crossing of the touch-insensitive bezel in conjunction with the properties of touch sensitive displays enables the reliable activation of a button that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524-25, Figures 1, 2. Indeed, the Samsung Behold II's status bar is already in the form of a line, and a POSITA would have been motivated to carry that through to minimize the amount of display required for, for example, the widget bar tab at the side of the screen. Such combination would also allow for the widget bar to be always accessible, thereby making it easier for the user to switch applications or navigate between applications because, as Roth Bezel Swipe teaches, the thin line and crossing-gliding gesture "enables the reliable activation of a button that is so narrow that it would be difficult to activate by a direct touch" and thus would not be accidentally activated by a user (both because of the difficulty or direct tapping and also the off-to-on screen gliding activation gesture). Roth Bezel Swipe at 1524-25, Figures 1, 2.<br><br>It was well known to a POSITA that the status bar and/or widget bar tab in the Samsung Behold II's interface could be implemented as windows that are bars in the form of a line merely requires |

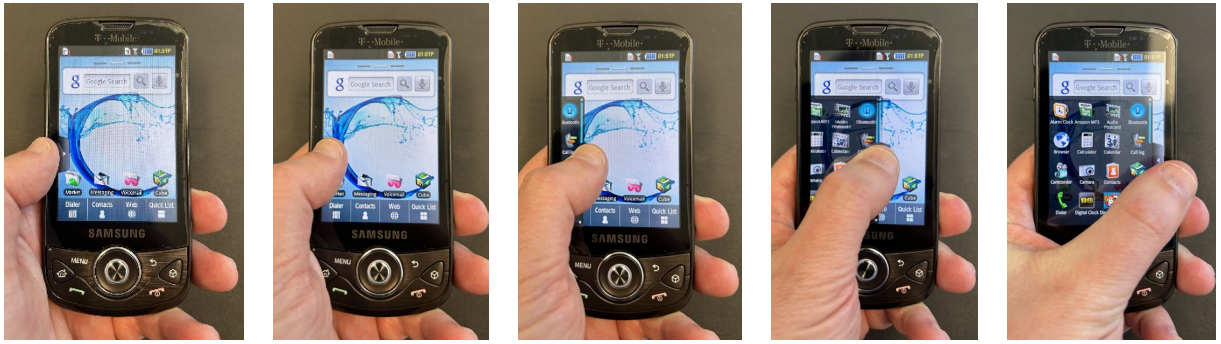
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | drawing the window for the activation area (e.g., status bar or widget bar tab) as a line, which merely uses conventional graphics rendering, thus representing a mere design choice as to the shape of the activation area. The off-to-on screen activation is similarly well known and conventional operations to determine the user's gliding action across the activation area, such as used in the Samsung Behold II, Roth, Roth Bezel Swipe, Hinckley, the Samsung Behold II, the Palm Pre, and/or the Neonode N2.<br><br>The use of a bar in the form of a line for the Samsung Behold II's status bar and/or widget bar tab for the user to perform an out-to-in gliding gesture to activate the respective menu function was routine and conventional to POSITAs, as shown by the Samsung Behold II, Tseng, Roth, and/or Roth Bezel Swipe. Moreover, it was successfully implemented in commercial prior art devices, such as the Palm Pre, and the Neonode N2. Incorporating the shape of the activation area, such as the status bar or widget bar tab to be a bar in the form of a line represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with the Samsung Behold II, represent nothing more than combining prior art elements according to known methods and techniques (rendering the status bar or widget bar tab windows of the Samsung Behold II as a bar in the form of a line, then activating the menu as already known in the Samsung Behold II as the user's gliding action moves from offscreen towards the inside of the touch screen) to yield predictable results (to open the Samsung Behold II's notification menu or widget bar, such as by sliding it open, as used in the Samsung Behold II). |

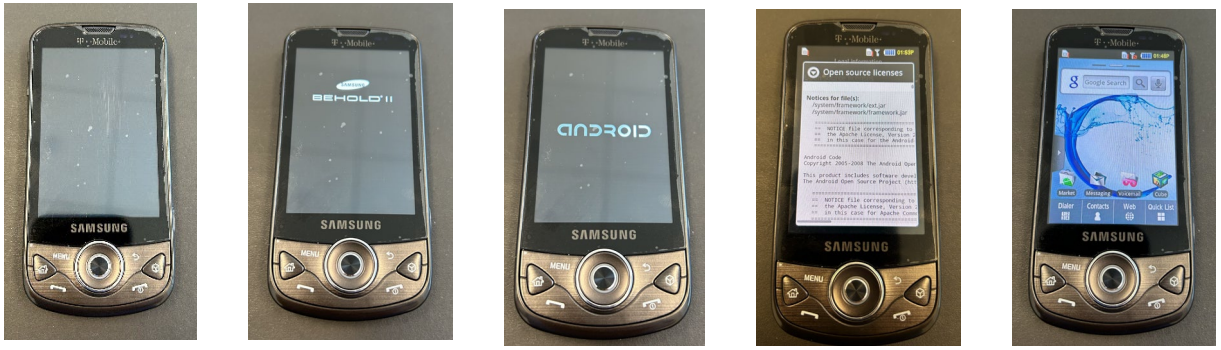
| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[6]** The system of claim 5, wherein said action is | Claim 6 depends from claims 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 5, 3, and 1 here, which anticipate and/or render claims 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale |

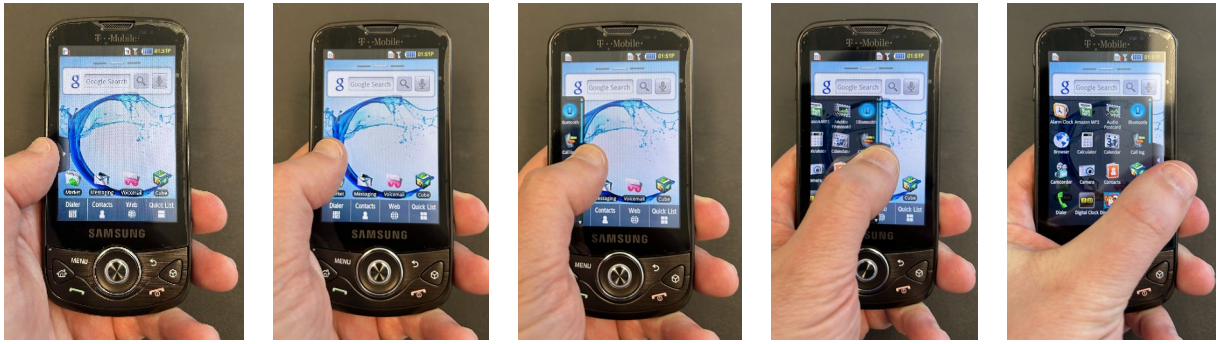
| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| displaying an interface on the screen. | and evidence set out for claims 5, 3, and 1 to show the additional limitations of claim 6 are anticipated and/or obvious for the same reasons set out in claims 5, 3, and 1.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying an interface on the screen."<br><br>For example, the Samsung Behold II's gliding action at the status bar initiates an action of displaying the notifications panel interface on the touch screen. The Samsung Behold II's gliding action at the widget bar tab initiates an action of displaying the widget bar on the touch screen.<br><br>  <br><br>Samsung Behold II Device. |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Samsung Behold II Device.<br>  <br>Samsung Behold II Device.<br>*See, e.g.*, Wirefly, PhoneArena, mobileburn, Samsung Behold II Release Details, Cha, T-Mobile.<br>A POSITA would have found it obvious that the Samsung Behold II's widget bar tab is a line, as explained in claim 5. *Supra* claim 5. |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[7]** The system of claim 5, wherein said action is displaying a portion of an interface on the screen. | Claim 7 depends from claims 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 5, 3, and 1 here, which anticipate and/or render claims 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 5, 3, and 1 to show the additional limitations of claim 7 are anticipated and/or obvious for the same reasons set out in claims 5, 3, and 1.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying a portion of an interface on the screen."<br><br>For example, the Samsung Behold II includes the actions to open the notifications menu and/or the widget bar displaying a portion of the notifications menu and/or widget bar on the touch screen. For example, when there are more notifications or applications than can be shown, the user may scroll through the remainder of the interface to see the additional notifications and/or applications. Moreover, the portion of the notifications menu and/or widget bar may be displayed during the user's gliding action, as explained below in claim 8. *Infra* claim 8.<br><br>  <br><br>Samsung Behold II Device. |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Samsung Behold II Device.<br>  <br>Samsung Behold II Device.<br>*See, e.g.*, Wirefly, PhoneArena, mobileburn, Samsung Behold II Release Details, Cha, T-Mobile.<br>A POSITA would have found it obvious that the Samsung Behold II's widget bar tab is a line, as explained in claim 5. *Supra* claim 5. |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[8]** The system of claim 7, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 8 depends from claims 7, 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 7, 5, 3, and 1 here, which anticipate and/or render claims 7, 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 7, 5, 3, and 1 to show the additional limitations of claim 8 are anticipated and/or obvious for the same reasons set out in claims 7, 5, 3, and 1.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>For example, the Samsung Behold II includes that, during the user's gliding action to drag/slide open the notifications menu and/or the widget bar, a length of the portion of the interface being displayed is substantially equal to the length of the user's gliding action from the status bar and/or widget bar tab.<br><br>  <br><br>Samsung Behold II Device. |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Samsung Behold II Device.<br>  <br>Samsung Behold II Device.<br>*See, e.g.*, Wirefly, PhoneArena, mobileburn, Samsung Behold II Release Details, Cha, T-Mobile.<br>A POSITA would have found it obvious that the Samsung Behold II's widget bar tab is a line, as explained in claim 5. *Supra* claim 5. |

| Claim 9 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[9]** The system of claim 3, wherein said action is displaying an interface on the screen. | Claim 9 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 9 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying an interface on the screen."<br><br>Claim 9 recites substantially the same limitations as claim 6 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 6. *See, e.g.*, *supra* claim 6.<br><br>As discussed *supra* claim 6, the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said action is displaying an interface on the screen." *See supra* claim 6. |

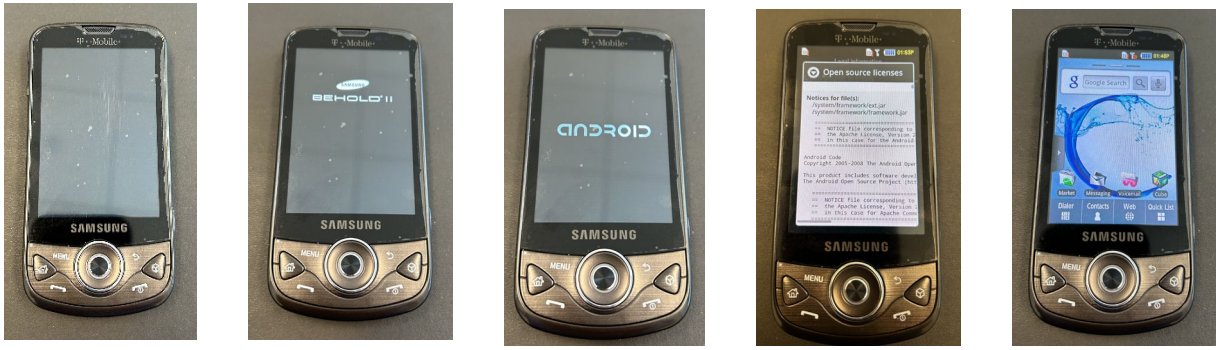
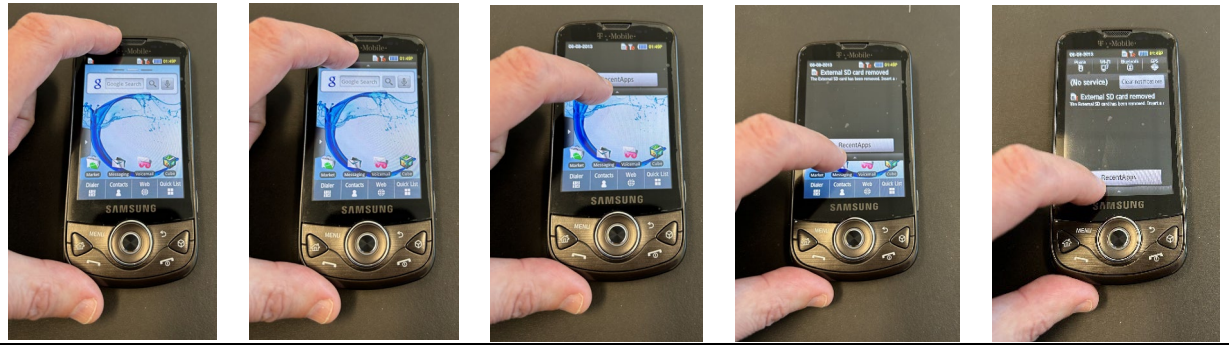
| Claim 10 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[10]** The system of claim 3, wherein said action is displaying a portion of an interface on the screen. | Claim 10 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 10 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying a portion of an interface on the screen." |

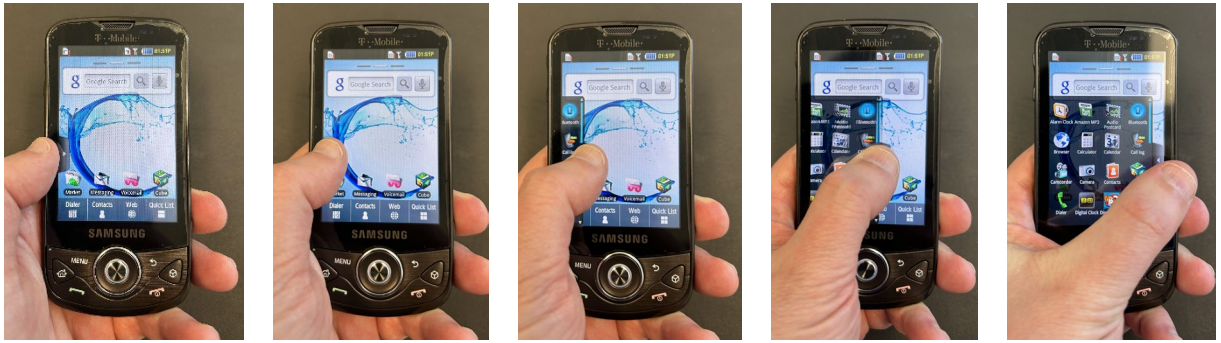
| Claim 10 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Claim 10 recites substantially the same limitations as claim 7 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 7. *See, e.g.*, *supra* claim 7.<br><br>As discussed *supra* claim 7, the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said action is displaying a portion of an interface on the screen." *See supra* claim 7. |

| Claim 11 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[11]** The system of claim 10, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 11 depends from claims 10, 3, and 1. Defendants incorporate all the prior art disclosures from claims 10, 3, and 1 here, which anticipate and/or render claims 10, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 10, 3, and 1 to show the additional limitations of claim 11 are anticipated and/or obvious for the same reasons set out in claims 10, 3, and 1.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>Claim 11 recites substantially the same limitations as claim 8 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 8. *See, e.g.*, *supra* claim 8.<br><br>As discussed *supra* claim 8, the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claim 8. |

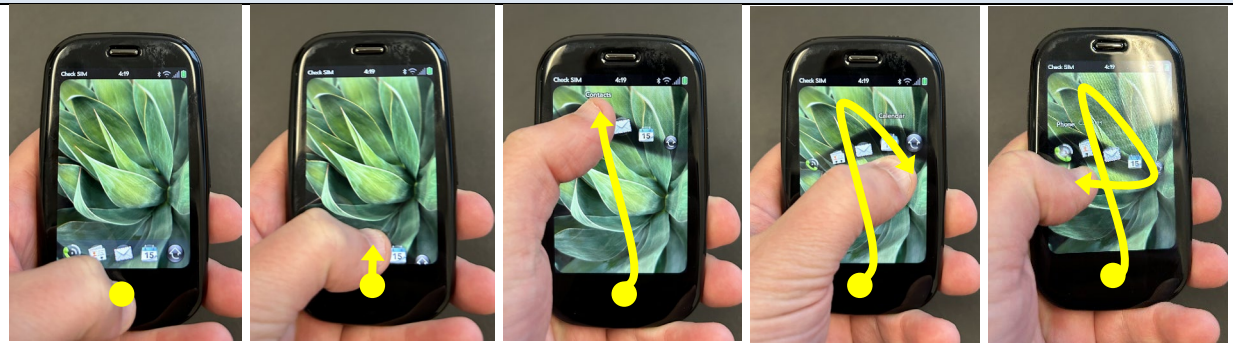
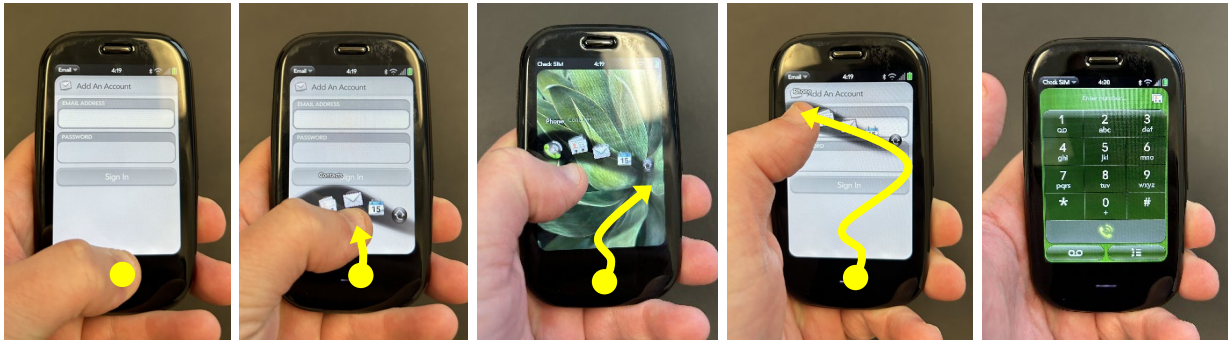
| Claim 12 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[12]** The system of claim 1, wherein upon detecting said gliding action, the system displays an interface on said touch screen. | Claim 12 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 12 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said gliding action, the system displays an interface on said touch screen."<br><br>Claim 12 recites substantially the same limitations as claims 6 and 9 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6 ad 9. *See, e.g.*, *supra* claims 6, 9.<br><br>As discussed *supra* claims 6 and 9, the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "upon detecting said gliding action, the system displays an interface on said touch screen." *See supra* claims 6, 9. |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[13]** The system of claim 12, wherein upon detecting said gliding action, the system relates said gliding action to setting the location of said interface on said touch screen. | Claim 13 depends from claims 12 and 1. Defendants incorporate all the prior art disclosures from claims 12 and 1 here, which anticipate and/or render claims 12 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 12 and 1 to show the additional limitations of claim 13 are anticipated and/or obvious for the same reasons set out in claims 12 and 1.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said |

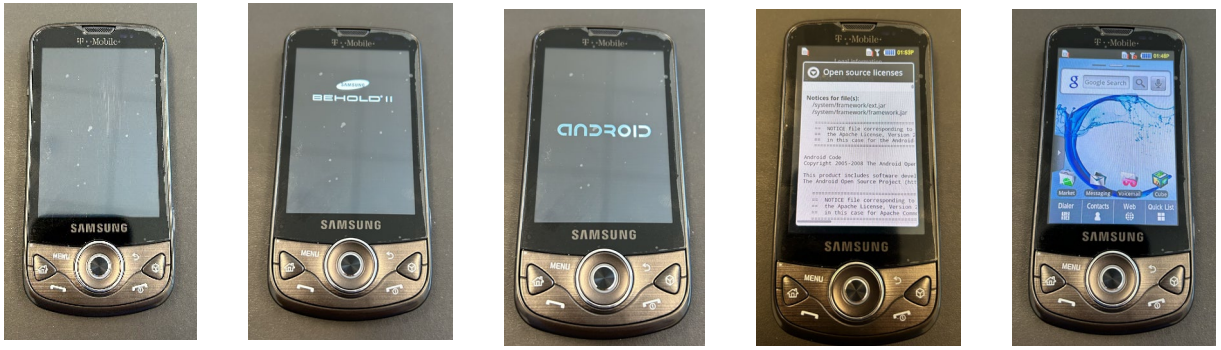
| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | gliding action, the system relates said gliding action to setting the location of said interface on said touch screen."<br><br>For example, the Samsung Behold II includes, upon detecting the gliding action at the status bar and/or widget bar tab, the Samsung Behold II relates the respective gliding action to setting the location of the notifications menu interface and/or widget bar interface, as explained for claim 8. *Supra* claim 8. For example, during the user's gliding action to drag/slide open the notifications menu and/or applications menu, the location of a portion of the notifications menu interface and/or applications menu interface being displayed changes based on the location of the user's finger.<br><br>  <br>Samsung Behold II Device.<br>  |

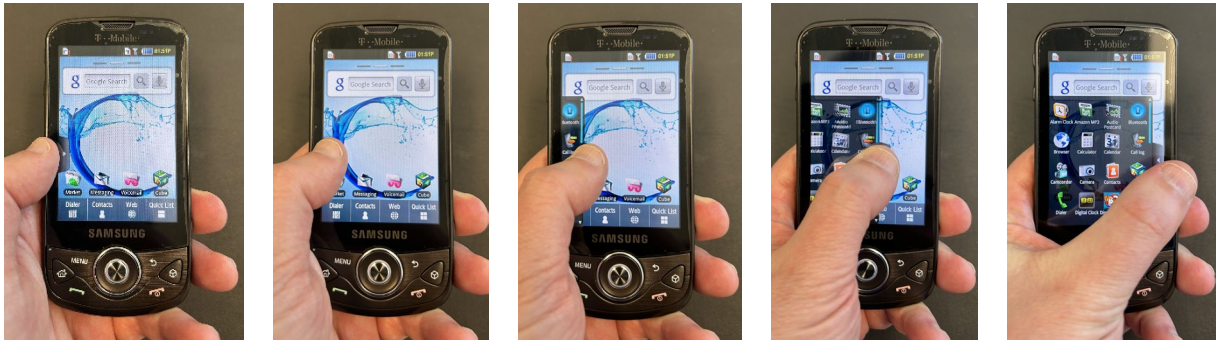
| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Samsung Behold II Device.<br>  <br>Samsung Behold II Device.<br>*See, e.g.*, Wirefly, PhoneArena, mobileburn, Samsung Behold II Release Details, Cha, T-Mobile.<br><br>To the extent Keyless argues that the Samsung Behold II does not disclose or render obvious the additional limitations of claim 13, it would have been obvious in view of the Samsung Behold II, POSITA's pre-existing knowledge, and/or the Samsung Behold II combined with the other references charted for this patent in these invalidity contentions, including Tseng, Jeong, and the Palm Pre. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>Tseng teaches that, upon detecting the user's gliding action, the system relates the gliding action to setting the location of the message area interface on the touch screen by "stick[ing]" the edge of the interface to the user's finger. Tseng at [0029]. Tseng explains the message area 206/226 may |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | remain "partially" open. Tseng at [0046]. As another example, Tseng explains that, in one embodiment, "if a user drags the bar quickly and releases it, the bar may continue moving until its momentum runs out *or* until it hits the bottom of the display," meaning that it is possible for the message area to stop before the bottom of the display is reached. Tseng at [0060]. As another example, Tseng explains that, in one embodiment, "if the user pulls the bar below a determined level on the display, the bar may automatically keep moving until it reaches the bottom of the display, or until it reaches a graphical element that it is not allowed to pass over." Tseng at [0060].<br><br>Jeong teaches the mobile terminal 100, upon detecting the user's gliding action on the tag 330/410, relates the gliding action to setting the location of the interface (e.g., application menu interface) on the touch screen by exposing how much of the menu is shown. Jeong's FIGS. 7B and 7B "shows a second example of displaying a menu screen by dragging a tag in FIG. 6B." Jeong at [0018], [0019], FIGS. 6B, 7B, 7C. Jeong explains that, "[i]f [the] tag dragging is stopped before the entire menu screen image 320 is exposed, or when the touch to the tag being dragged is released, the menu screen maintains a currently exposed state as it is" to relate the gliding action to set the location of the interface by exposing or hiding a portion of the menu both during the dragging action and when the user ceases the dragging action. Jeong at [0059], FIGS. 7A-7C. The menus displayed from the two tags (bottom tag in 7B and side tag in 7C) show the same application icons, which suggests displaying the same menu from different directions. Jeong's system also changes the location of the interface corresponding to the tag from which the gliding action starts from below an executed screen image to above an executed screen image, according to the distance of the gliding action. Jeong at [0062], FIG. 9D.<br><br>The Palm Pre teaches, as one example, that upon detecting a user's gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area and upwards towards the main application display, the system relates the gliding action to setting the location of the Quick Launch interface by moving the location of the interface with the user's gliding action on the touch screen both when the Quick Launch window is shown on the screen and when the Quick Launch interface is displayed while an application is displayed on the screen, such as shown below. |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Palm Pre.<br>  <br>Palm Pre.<br>A POSITA would have found it obvious to incorporate one or more of Tseng's, Jeong's, and/or the Palm Pre's teaching of relating the gliding action to setting the location of the interface on the touch screen upon detecting the gliding action. A POSITA would have recognized the advantage of incorporating a quick launch bar into the Samsung Behold II's system that travels with the user's gesture, as taught by the Palm Pre to make selection of the desired application from the Quick Launch interface easier because the user's touch does not need to be as precise on a static interface. A POSITA would have been motivated to include such Quick Launch from a thin window, such as a line or bar taught by Roth and Roth Bezel Swipe, when an application is displayed on the touch screen or an invisible window as taught by the Palm Pre, to provide the user with efficient and |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | quick access to a desired subset of applications shown in the Quick Launch interface. A POSITA also would have recognized the advantages of allowing the status bar and/or widget bar of the Samsung Behold II to remain partially open at a location on the screen, as taught by Tseng and Jeong, to provide the user with easier access to desired portions of the interface(s) without having to open the entire interface. A POSITA would have been motivated to provide this functionality for similar reasons discussed in claims 1, 7, and 8 above.<br><br>It was well known to a POSITA to implement interfaces, such as partially open interface locations taught by Tseng and Jeong and/or the Quick Launch interface of the Palm Pre, that launch based on a gliding action from an activation area using windows that are bars in the form of a line for the activation area (e.g., status bar or widget bar tab), which merely uses conventional graphics rendering, thus representing a mere design choice as to the shape of the activation area. Relating the user's gliding action to setting the location of the interface on the touch screen was also well known, as taught by Tseng, Jeong, and/or the Palm Pre. Moreover, a POSITA would have been motivated to implement the Palm Pre's Quick Launch interface to provide access to the applications list when another application is open full screen.<br><br>The system relating the user's gliding action to setting the location of the interface on the touch screen upon detecting the gliding action was routine and conventional to POSITAs, as shown by the Samsung Behold II, Tseng, Jeong, and/or the Palm Pre. Moreover, it was successfully implemented in commercial prior art devices, such as the Palm Pre. Incorporating the partial opening to set the location of the interface and/or a Quick Launch interface represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with the Samsung Behold II, represent nothing more than combining prior art elements according to known methods and techniques (rendering the interface on the screen of the Samsung Behold II either partially open or as a Quick Launch interface moving with the user's glide) to yield predictable results (to open the desired interface and set its location based on partial opening and/or as a Quick Launch interface moving with the user's gliding action). |

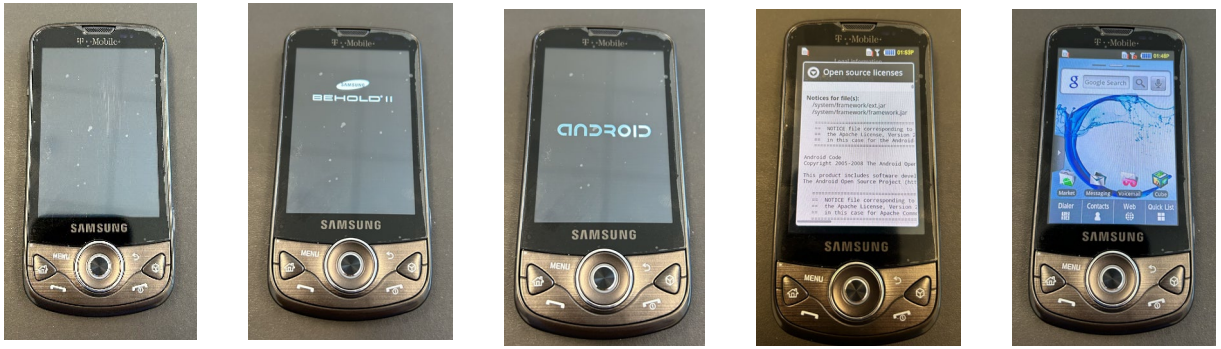
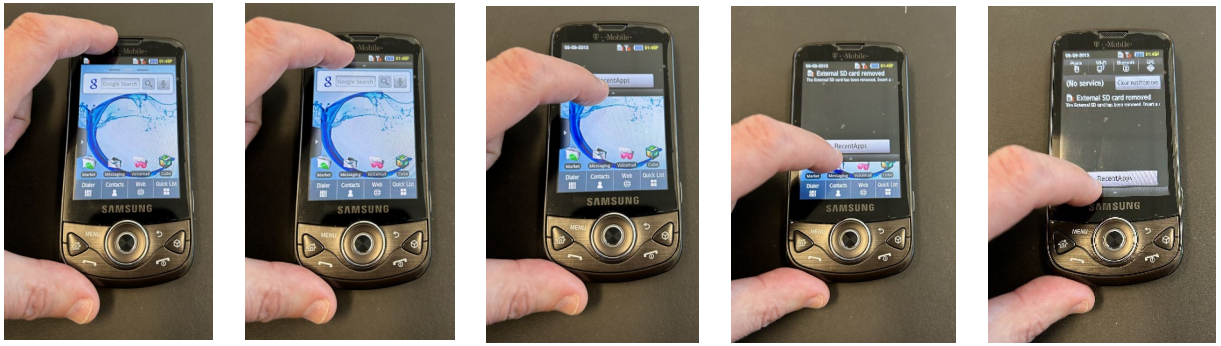
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[15]** The system of claim 1, wherein said at least one window comprises more than one window located on one or more edges of the touch screen. | Claim 15 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 15 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window comprises more than one window located on one or more edges of the touch screen."<br><br>For example, the Samsung Behold II includes the status bar window and the widget bar tab window located on the top and side (e.g., one or more) edges of the touch screen.<br><br>  <br><br>Samsung Behold II Device. |

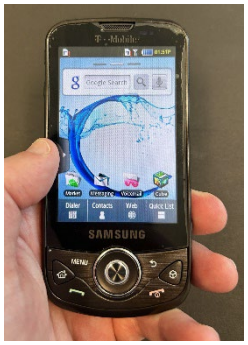
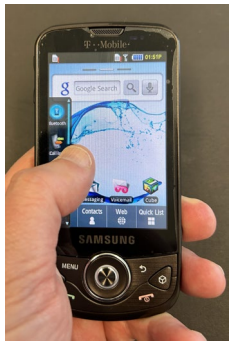
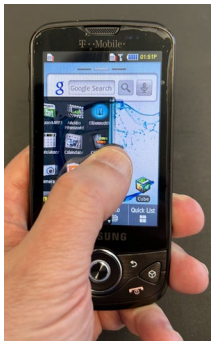
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Samsung Behold II Device.<br>  <br>Samsung Behold II Device.<br>*See, e.g.*, Wirefly, PhoneArena, mobileburn, Samsung Behold II Release Details, Cha, T-Mobile. |

| Claim 16 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[16]** The system of claim 15, wherein said at least one | Claim 16 depends from claims 15 and 1. Defendants incorporate all the prior art disclosures from claims 15 and 1 here, which anticipate and/or render claims 15 and 1 obvious as set out above. |

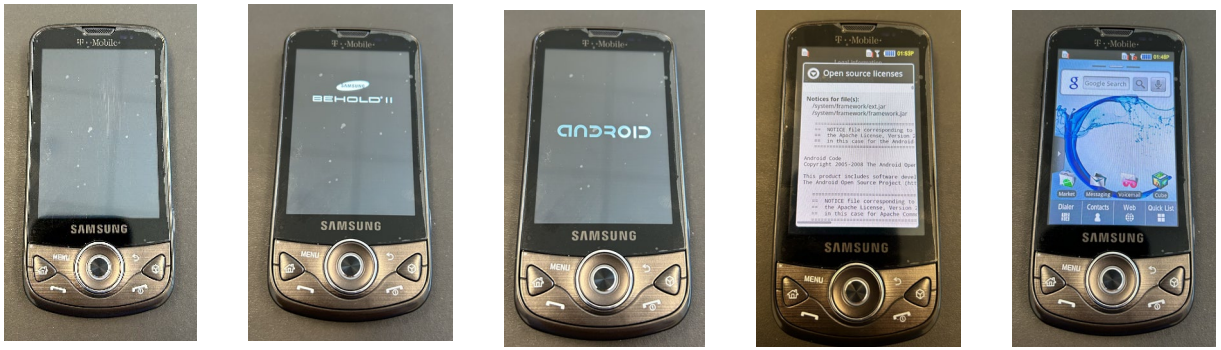
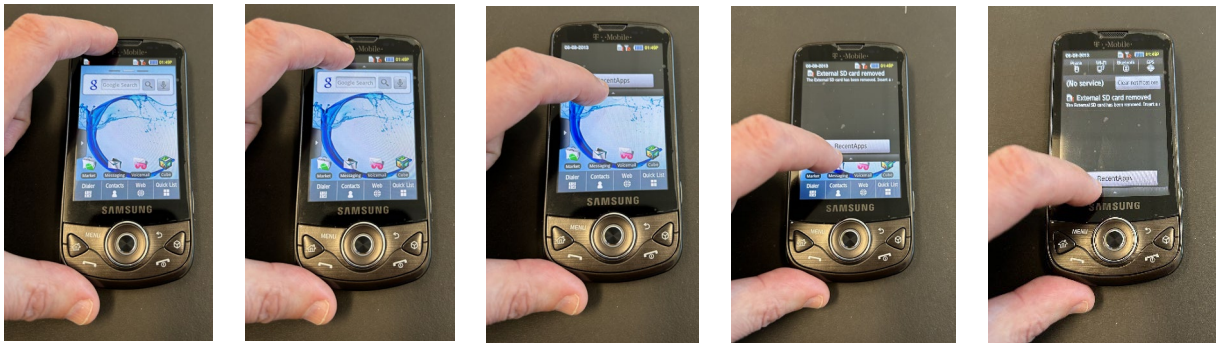
| Claim 16 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| window extends along a substantial portion of an edge of the touch screen. | Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 15 and 1 to show the additional limitations of claim 16 are anticipated and/or obvious for the same reasons set out in claims 15 and 1.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window extends along a substantial portion of an edge of the touch screen."<br><br>Claim 16 recites substantially the same limitations as claim 4 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 4. *See, e.g.*, *supra* claim 4.<br><br>As discussed *supra* claim 4, the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said at least one window extends along a substantial portion of an edge of the touch screen." *See supra* claim 4. |

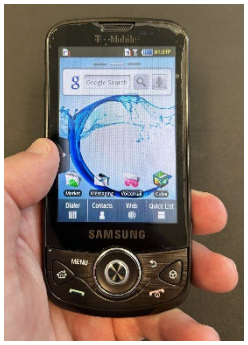
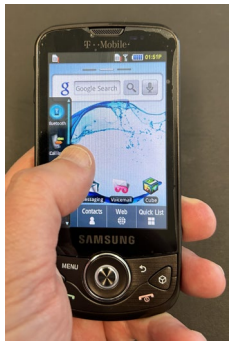
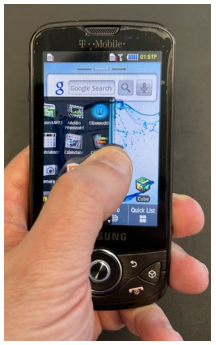
| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[17]** The system of claim 1, wherein during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen. | Claim 17 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 17 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen." |

| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | For example, the Samsung Behold II includes, during providing the gliding action from the status bar window and/or the widget bar tab window, the Samsung Behold II dynamically drags and shows the notifications menu interface and/or the widget bar interface, or a portion of those interfaces, on the touch screen, such as explained in claims 1, 7, and 8. *Supra* claims 1, 7, 8.<br><br>  <br><br>Samsung Behold II Device.<br><br>  <br><br>Samsung Behold II Device. |

| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |      <br>Samsung Behold II Device.<br>*See, e.g.*, Wirefly, PhoneArena, mobileburn, Samsung Behold II Release Details, Cha, T-Mobile. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[18]** The system of claim 1, wherein the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface. | Claim 18 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 18 are anticipated and/or obvious for the same reasons set out in claim 1.<br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface."<br>For example, the Samsung Behold II's processor relates the gliding action from the status bar window and/or the widget bar tab window provided in any arbitrary direction inside the touch |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | screen to presenting the same notifications menu or widget bar interface, respectively, because the user's gliding action can proceed in any direction or path while the edge of the respective menu travels with the user's finger.<br><br>  <br>Samsung Behold II Device.<br><br>  <br>Samsung Behold II Device. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |      Samsung Behold II Device. *See, e.g.*, Wirefly, PhoneArena, mobileburn, Samsung Behold II Release Details, Cha, T-Mobile. |

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[19Pre]**[4] A system for capturing an event provided from an edge of a touch screen comprising: | To the extent that the preamble is held to be limiting, the Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[a] system for capturing an event provided from an edge of a touch screen."<br>[19Pre] recites substantially the same limitations as [1Pre] and is therefore anticipated or rendered obvious for substantially the same reasons as [1Pre]. *See, e.g.*, *supra* [1Pre].<br>As discussed *supra* [1Pre], the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further |

[4] Claim 19 as corrected in the Certificate of Correction issued February 16, 2021.

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "[a] system for capturing an event provided from an edge of a touch screen." *See supra* [1Pre]. |
| **[19A]** a device having a touch screen; | The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a device having a touch screen."<br><br>[19A] recites substantially the same limitations as [1A] and is therefore anticipated or rendered obvious for substantially the same reasons as [1A]. *See, e.g.*, *supra* [1A].<br><br>As discussed *supra* [1A], the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "a device having a touch screen." *See supra* [1A]. |
| **[19B]** a zone in form of a bar located in the touch screen on an edge of the touch screen; and | The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a zone in form of a bar located in the touch screen on an edge of the touch screen; and a processor."<br><br>[19B] recites substantially the same limitations as [1B] and claim 3, except that it recites a "zone in the form of a bar" instead of a "window," and is anticipated or rendered obvious for substantially the same reasons as [1B] and claim 3. *See, e.g.*, *supra* [1B], claim 3. Each of the Samsung Behold II's status bar and/or widget bar tab are a "zone in the form of a bar" located on the edge of a touch screen, as explains in [1B] and claim 3.<br><br>As discussed *supra* [1B] and claim 3, the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "a zone in form of a bar located in the touch screen on an edge of the touch screen." *See supra* [1B] and claim 3. |

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | |
| **[19C]** a processor; | The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a processor."<br><br>[19C] recites substantially the same limitations as [1C] and is therefore anticipated or rendered obvious for substantially the same reasons as [1C]. *See, e.g.*, *supra* [1C].<br><br>As discussed *supra* [1C], the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "a processor." *See supra* [1C]. |
| **[19D]** wherein a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone, and wherein the processor executes a function related to said zone, and wherein said zone is present on said edge regardless of the interface of an application on said touch screen, and | The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone, and wherein the processor executes a function related to said zone, and wherein said zone is present on said edge regardless of the interface of an application on said touch screen."<br><br>[19D] recites substantially the same limitations as [1B] ("said at least one window functions independently of an interface of an application in use on the touch screen"), [1D] ("a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said processor to cause an action assigned to said window"), and claim 18 ("the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface"), except that it does not recite that the gliding action begins off screen, and is therefore anticipated or rendered obvious for substantially the same reasons as [1B], [1D], and claim 18. *See, e.g.*, *supra* [1B], [1D], and claim 18. |

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | As discussed *supra* [1B], [1D], and claim 18, the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone, and wherein the processor executes a function related to said zone, and wherein said zone is present on said edge regardless of the interface of an application on said touch screen." *See supra* [1B], [1D], and claim 18. |
| **[19E]** wherein said zone is located on the touch screen before said gliding action begins. | The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said zone is located on the touch screen before said gliding action begins."<br><br>[19E] recites substantially the same limitations as [1E], except that it recites "said zone" instead of "said at least one window," and is therefore anticipated or rendered obvious for substantially the same reasons as [1E] and [19B]. *See, e.g.*, *supra* [1E] and [19B].<br><br>As discussed *supra* [1E] and [19B], the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said zone is located on the touch screen before said gliding action begins." *See supra* [1E] and [19B]. |

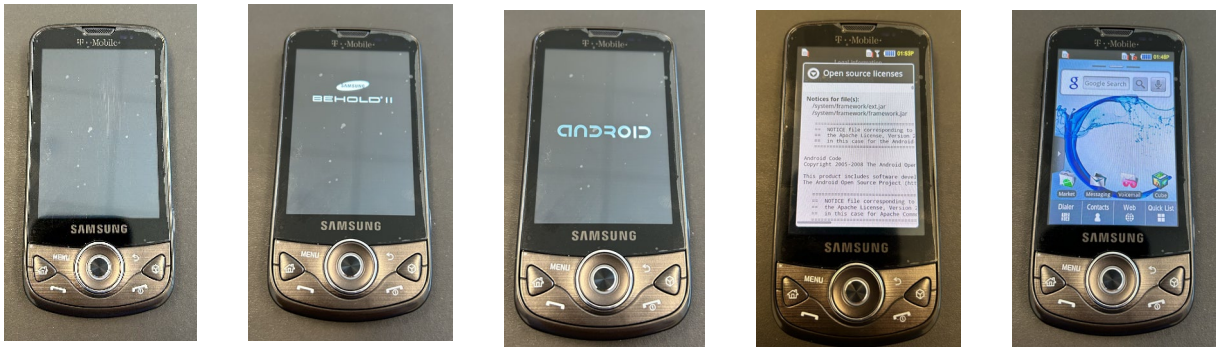
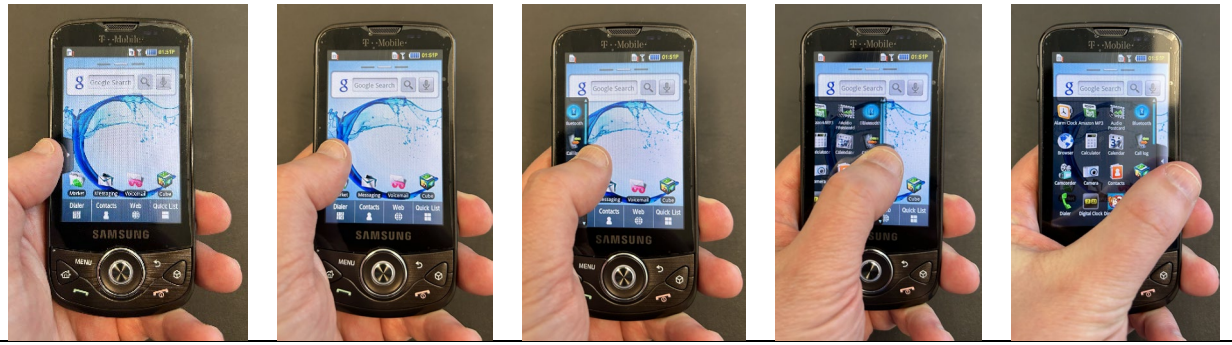
| Claim 21 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[21]** The system of claim 19, wherein upon detecting said gliding action, the system | Claim 21 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim |

| Claim 21 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| relates said gliding action to setting the location of an interface on the touch screen. | 19 to show the additional limitations of claim 21 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said gliding action, the system relates said gliding action to setting the location of an interface on the touch screen."<br><br>Claim 21 recites substantially the same limitations as claim 13 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 13. *See, e.g.*, *supra* claim 13.<br><br>As discussed *supra* claim 13, the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "upon detecting said gliding action, the system relates said gliding action to setting the location of an interface on the touch screen." *See supra* claim 13. |

| Claim 22 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[22]** The system of claim 19, wherein said bar comprises more than one bar located on one or more edges of the touch screen. | Claim 22 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 22 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said bar comprises more than one bar located on one or more edges of the touch screen." |

| Claim 22 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Claim 22 recites substantially the same limitations as claim 15 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 15. *See, e.g.*, *supra* claim 15.<br><br>As discussed *supra* claim 15, the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said bar comprises more than one bar located on one or more edges of the touch screen." *See supra* claim 15. |

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[23]** The system of claim 19, wherein said zone is in a form of a visible or invisible line. | Claim 23 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 23 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said zone is in a form of a visible or invisible line."<br><br>For example, the Samsung Behold II includes the status bar and/or widget bar tab being in the form of a visible line. |

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Samsung Behold II Device.<br>  <br>Samsung Behold II Device.<br>  |

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Samsung Behold II Device.<br><br>*See, e.g.*, Wirefly, PhoneArena, mobileburn, Samsung Behold II Release Details, Cha, T-Mobile.<br><br>Moreover, claim 23 recites substantially the same limitations as claim 5 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 5. *See, e.g.*, *supra* claim 5.<br><br>As discussed *supra* claim 5, the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said zone is in a form of a visible or invisible line." *See supra* claim 5. |

| Claim 24 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[24]** The system of claim 23, wherein said function is displaying an interface on the screen. | Claim 24 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 23 and 19 to show the additional limitations of claim 24 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying an interface on the screen."<br><br>Claim 24 recites substantially the same limitations as claims 6, 9, and 12 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6, 9, and 12. *See, e.g.*, *supra* claims 6, 9, 12.<br><br>As discussed *supra* claims 6, 9, and 12, the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, |

| Claim 24 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying an interface on the screen." *See supra* claims 6, 9, 12. |

| Claim 25 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[25]** The system of claim 23, wherein said function is displaying a portion of an interface on the screen. | Claim 25 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 23 and 19 to show the additional limitations of claim 25 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen."<br><br>Claim 25 recites substantially the same limitations as claims 7 and 10 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7 and 10. *See, e.g.*, *supra* claims 7 and 10.<br><br>As discussed *supra* claims 7 and 10, the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10. |

| Claim 26 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[26]** The system of claim 23, wherein said function is | Claim 26 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. |

| Claim 26 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| displaying a portion of an interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action. | Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 23 and 19 to show the additional limitations of claim 26 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action."<br><br>Claim 26 recites substantially the same limitations as claims 8 and 11 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8 and 11. *See, e.g.*, *supra* claims 8, 11.<br><br>As discussed *supra* claims 8 and 11, the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action." *See supra* claims 8, 11. |

| Claim 27 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[27]** The system of claim 19, wherein said bar is visible or invisible. | Claim 27 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 27 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a |

| Claim 27 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | POSITA and Keyless's apparent interpretation of this limitation, discloses that "said bar is visible or invisible."<br><br>Claim 27 recites substantially the same limitations as claim 23 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 23. *See, e.g.*, *supra* claim 23.<br><br>As discussed *supra* claim 23, the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said bar is visible or invisible." *See supra* claim 23. |

| Claim 28 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[28]** The system of claim 27, wherein said function is displaying an interface on the screen. | Claim 28 depends from claims 27 and 19. Defendants incorporate all the prior art disclosures from claims 27 and 19 here, which anticipate and/or render claims 27 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 27 and 19 to show the additional limitations of claim 28 are anticipated and/or obvious for the same reasons set out in claims 27 and 19.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying an interface on the screen."<br><br>Claim 28 recites substantially the same limitations as claims 6, 9, 12, and 24 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6, 9, 12, and 24. *See, e.g.*, *supra* claims 6, 9, 12, 24.<br><br>As discussed *supra* claims 6, 9, 12, and 24, the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this |

| | |
|---|---|
| | limitation, that "said function is displaying an interface on the screen." *See supra* claims 6, 9, 12, 24. |

| Claim 29 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[29]** The system of claim 27, wherein said function is displaying a portion of an interface on the screen. | Claim 29 depends from claims 27 and 19. Defendants incorporate all the prior art disclosures from claims 27 and 19 here, which anticipate and/or render claims 27 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 27 and 19 to show the additional limitations of claim 29 are anticipated and/or obvious for the same reasons set out in claims 27 and 19.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen."<br><br>Claim 29 recites substantially the same limitations as claims 7, 10, and 25 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7, 10, and 25. *See, e.g.*, *supra* claims 7, 10, 25.<br><br>As discussed *supra* claims 7, 10, and 25, the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10, 25. |

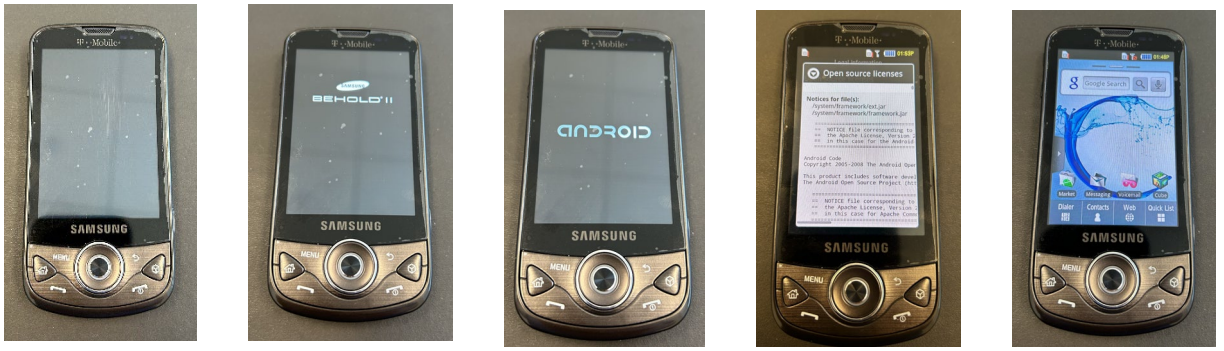
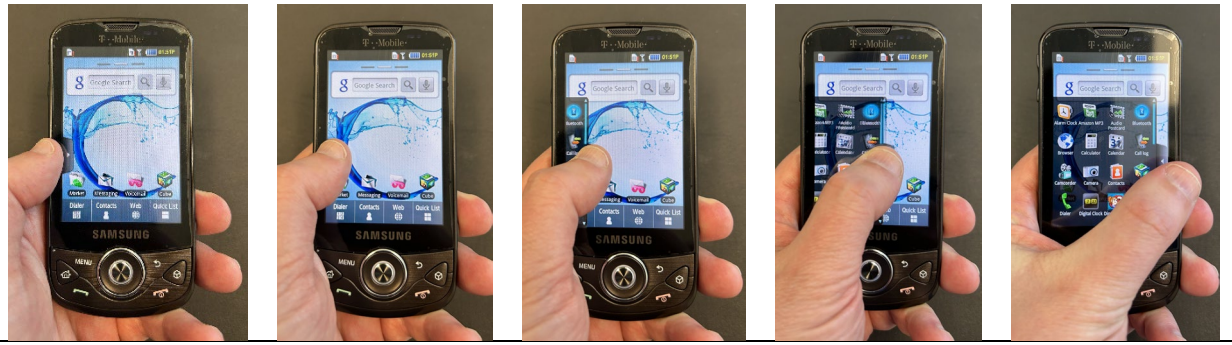
| Claim 30 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[30]** The system of claim 29, wherein during said gliding action, a length of the portion | Claim 30 depends from claims 29, 27, and 19. Defendants incorporate all the prior art disclosures from claims 29, 27, and 19 here, which anticipate and/or render claims 29, 27, and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and |

| Claim 30 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| of the interface being displayed is substantially equal to a length of the gliding action. | obviousness rationale and evidence set out for claims 29, 27, and 19 to show the additional limitations of claim 30 are anticipated and/or obvious for the same reasons set out in claims 29, 27, and 19.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>Claim 30 recites substantially the same limitations as claims 8, 11, and 26 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8, 11, and 26. *See, e.g.*, *supra* claims 8, 11, 26.<br><br>As discussed *supra* claims 8, 11, and 26, the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claims 8, 11, 26. |

| Claim 31 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[31]** The system of claim 19, wherein during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen. | Claim 31 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 31 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during providing |

| Claim 31 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen."<br><br>Claim 31 recites substantially the same limitations as claim 17 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 17. *See, e.g.*, *supra* claim 17.<br><br>As discussed *supra* claim 17, the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen." *See supra* claim 17. |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[32]** The system of claim 19, wherein said function is displaying a same interface for any said gliding action, said gliding action interacting with any portion of said zone. | Claim 32 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 32 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a same interface for any said gliding action, said gliding action interacting with any portion of said zone."<br><br>For example, the Samsung Behold II includes that the functions of displaying the notifications menu and/or widget bar display the same notifications menu interface and/or widget bar interface for any gliding action from the status bar and/or widget bar tab, respectively, where said gliding actions interact with any portion of the status bar and/or widget bar tab, respectively. |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Samsung Behold II Device.<br>  <br>Samsung Behold II Device.<br>  |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Samsung Behold II Device.<br>*See, e.g.*, Wirefly, PhoneArena, mobileburn, Samsung Behold II Release Details, Cha, T-Mobile. |

| Claim 33 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[33]** The system of claim 32, wherein said gliding action is provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen. | Claim 33 depends from claims 32 and 19. Defendants incorporate all the prior art disclosures from claims 32 and 19 here, which anticipate and/or render claims 32 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 32 and 19 to show the additional limitations of claim 33 are anticipated and/or obvious for the same reasons set out in claims 32 and 19.<br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said gliding action is provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen."<br>Claim 33 recites substantially the same limitations as [1D] ("wherein a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen") and is therefore anticipated or rendered obvious for substantially the same reasons as [1D]. *See, e.g.*, *supra* [1D].<br>As discussed *supra* [1D], the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "wherein said gliding action is provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen." *See supra* [1D]. |

| Claim 34 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[34]** The system of claim 19, wherein said function is displaying a portion of an interface on the screen. | Claim 34 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 34 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen."<br><br>Claim 34 recites substantially the same limitations as claims 7, 10, 25, and 29 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7, 10, 25, and 29. *See, e.g.*, *supra* claims 7, 10, 25, 29.<br><br>As discussed *supra* claims 7, 10, 25, and 29, the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10, 25, 29. |

| Claim 35 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[35]** The system of claim 34, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 35 depends from claims 34 and 19. Defendants incorporate all the prior art disclosures from claims 34 and 19 here, which anticipate and/or render claims 34 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 34 and 19 to show the additional limitations of claim 35 are anticipated and/or obvious for the same reasons set out in claims 34 and 19.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a |

| Claim 35 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>Claim 35 recites substantially the same limitations as claims 8, 11, 26, and 30 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8, 11, 26, and 30. *See, e.g.*, *supra* claims 8, 11, 26, 30.<br><br>As discussed *supra* claims 8, 11, 26, and 30, the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claims 8, 11, 26, 30. |

| Claim 36 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[36]** The system of claim 19, wherein said zone extends along a substantial portion of said edge. | Claim 36 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 36 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Samsung Behold II, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said zone extends along a substantial portion of said edge."<br><br>Claim 36 recites substantially the same limitations as claims 4 and 16 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 4 and 16. *See, e.g.*, *supra* claims 4, 16. |

| Claim 36 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | As discussed *supra* claims 4 and 16, the Samsung Behold II teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said zone extends along a substantial portion of said edge." *See supra* claims 4, 16. |

# Appendix A5

**Exhibit A5**

**Invalidity of Asserted Claims of the '602 Patent**

**in view of the Motorola Droid A855**

The Motorola Droid A855 ("Motorola Droid A855") was publicly available, sold, offered for sale, and/or used in the United States and was thus available to and known or used by others, at least as early as November 6, 2009. The Motorola Droid A855 running on Android 2.0 was publicly released on or about November 6, 2009, and the Motorola Droid A855 running on Android 2.2 was publicly released on or about May 2010. On information and belief, the relied-upon functionality from the Motorola Droid A855 running on Android 2.2 was also included in the Motorola Droid A855 running on Android 2.0. The Motorola Droid A855 is described in at least the following documents and other materials cited in this chart:

- "Motorola DROID: Android 2.0 Overview," Brandon Butch, *available at* https://www.youtube.com/watch?v=0oGO4w9pF9E ("Motorola Droid A855 2.0") (Nov. 6, 2009) (SAM-KEY_00992951).
- Kent German, Bonnie Cha, "Motorola Droid (Verizon Wireless) review: Motorola Droid (Verizon Wireless)," CNET, *available at* https://www.cnet.com/reviews/motorola-droid-verizon-wireless-review/ (Oct. 28, 2009) (SAM-KEY_00993482-SAM-KEY_00993502).
- Wayne Lau, "About a DROID: a review of Motorola's newest smartphone," Ars Technica, *available at* https://arstechnica.com/gadgets/2009/12/review-of-the-motorola-droid/ (Dec. 2, 2009) (SAM-KEY_00993222-SAM-KEY_00993238).
- Documents produced in this litigation, as cited herein.
- Physical products acquired in this litigation, including but not limited to, a Motorola Droid A855 device running on Android 2.2 ("Motorola Droid A855 2.2 Device"), which was available with Android 2.0 on or about November 6, 2009, as referenced herein.[1]

[1] Samsung reserves the right to rely on any Motorola Droid A855 device, including the Motorola Droid A855 2.2 Device and a Motorola Droid A855 running on Android 2.0. On information and belief, such devices function substantially the same as disclosed in this chart.

- Expected testimony and evidence regarding the development, design, and/or use of the Motorola Droid A855, running on Android 2.2 or 2.0.
- Source code for a Motorola Droid A855, running on Android 2.0 or 2.2, as referenced herein and/or acquired.

Citations to the above-listed references are exemplary, and Samsung reserves the right to rely on additional passages, prior art, and information regarding the operation and functionality of the Motorola Droid A855 obtained through fact, expert, and third-party discovery, which is ongoing.

The Motorola Droid A855 qualifies as prior art to U.S. Patent No. 9,304,602 ("'602 patent") at least under pre-AIA 35 U.S.C. §§ 102(a) and/or (b) and AIA 35 U.S.C. §§ 102(a)(1).[2] The Motorola Droid A855 with Android 2.0 or 2.2 release was publicly available, sold, offered for sale, and/or used before the priority date to which the '602 patent claims are entitled, if any.

The Motorola Droid A855 anticipates or, alone or with other references, renders obvious one or more of asserted claims 1-13, 15-19, and 21-36 of the '602 patent. To the extent Keyless contends the Motorola Droid A855 does not disclose one or more limitations of the claims, it would have been obvious to combine the Motorola Droid A855 with the knowledge of a person of ordinary skill in the art ("POSITA") and/or with one or more of the following references to render the claims at issue in the '602 patent invalid. The chart below illustrates how the asserted claims of the '602 patent are invalid in view of the Motorola Droid A855 and/or additional secondary references listed below, including but not limited to the prior art identified in Defendant's Invalidity Contentions.

- U.S. Patent Application Publication No. 2004/0109013 A1 to Goertz ("Goertz"), filed December 10, 2002, and published on June 10, 2004. Goertz qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b) and/or (e).
- U.S. Patent Application Publication No. 2008/0207188 A1 to Ahn et al. ("Ahn"), filed on February 14, 2008, and published on August 28, 2008. Ahn qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b) and/or (e).

[2] Keyless Licensing LLC (or "Keyless") alleges that the asserted claims of the '602 patent are entitled to priority as early as December 20, 2009. However, as explained in the cover pleading, the asserted claims of the '602 patent are not entitled to Keyless's claimed priority date due to inadequate written description support. Assuming the claims are not invalid under Section 112 (*see, e.g.*, cover pleading), the earliest possible priority date for the asserted '602 patent claims is 2/11/2010 or later.

- U.S. Patent Application Publication No. 2009/0094562 A1 to Jeong et al. ("Jeong"), filed on October 3, 2008, and published on April 9, 2009. Jeong qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b) and/or (e).
- U.S. Patent Application Publication No. 2009/0249247 to Tseng et al. ("Tseng"), filed on January 30, 2009, and published on October 1, 2009, claims priority to U.S. Provisional Application No. 61/024,869, filed January 30, 2008. Tseng qualifies as prior art at least under pre-AIA 35 U.S.C. §§ 102(a), (b), and/or (e) and AIA 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2).
- U.S. Patent Application Publication No. 2009/0295750 A1 to Yamazaki et al. ("Yamazaki"), filed on May 27, 2009, and published on December 3, 2009. Yamazaki qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b), and/or (e).
- U.S. Patent Application Publication No. 2010/0050076 A1 to Roth ("Roth"), filed on August 29, 2008, and published on February 25, 2010. Roth qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).
- U.S. Patent Application Publication No. 2010/0164959 A1 to Brown et al. ("Brown"), filed on December 26, 2008, and published on July 1, 2010. Brown qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).
- U.S. Patent Application Publication No. 2010/0302172 A1 to Wilairat ("Wilairat"), filed on May 27, 2009, and published on December 2, 2010. Wilairat qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).
- U.S. Patent Application Publication No. 2011/0209099 A1 to Hinckley et al. ("Hinckley"), filed on February 19, 2010, and published on August 25, 2011. Hinckley qualifies as prior art at least under 35 U.S.C. § 102(a)(2) as well as pre-AIA 35 U.S.C. §(e).
- Japanese Laid-Open Patent Application No. JP2003195998A to Hisatomi ("Hisatomi"), filed on December 26, 2001, and published on July 11, 2003. Hisatomi qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).[3]
- V. Roth & T. Turner, "Bezel Swipe: Conflict-Free Scrolling and Multiple Selection on Mobile Touch Screen Devices," CHI 2009 ~ Multimodal Mobile Interaction, pp. 1523-26 (ACM 2009) ("Roth Bezel Swipe"), published April 8, 2009.

[3] Defendants' invalidity contentions rely on the certified translation of Hisatomi.

Roth Bezel Swipe qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).

- The Samsung Galaxy GT-i7500 running Android 1.5 ("Samsung Galaxy GT-i7500 1.5") was, on information and belief, publicly available in the United States on or about June 29, 2009. The Samsung Galaxy GT-i7500 1.5 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).
- The Samsung Behold II running Android and TouchWiz UI (Samsung Behold II") was, on information and belief, publicly available in the United States on or about November 18, 2009. The Samsung Behold II qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A4.
- The HTC G1 (also known as the HTC Dream) running Android 1.6 ("HTC G1 1.6") was, on information and belief, publicly available in the United States on or about September 15, 2009. The HTC G1 1.6 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A3.
- The HTC Hero running Android 1.5 ("HTC Hero 1.5") was, on information and belief, publicly available in the United States on or about October 11, 2009. The HTC Hero 1.5 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A6.
- The HTC Hero running Android 2.1 ("HTC Hero 2.1") was, on information and belief, publicly available in the United States on or about January 2010. The HTC Hero 2.1 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a). *See also* Ex. A6.
- The HTC Magic running Android 1.6 ("HTC Magic 1.6") was, on information and belief, publicly available in the United States on or about July 8, 2009. The HTC Magic 1.6 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).
- The Palm Pre running Palm's WebOS ("Palm Pre") was, on information and belief, publicly available in the United States on or about February 2009. Although Palm WebOS 1.4.5 was not released until on or about July 2010, the relied-upon functionality was, on information and belief, substantially the same in the February 2009 WebOS release. The Palm Pre qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A7.
- The Neonode N2 ("Neonode N2") was, on information and belief, publicly available in the United States not later than 2008. *See also* Ex. A8.

With respect to the proposed modifications to the Motorola Droid A855, such modification would have been obvious to try, an obvious combination of prior art elements according to known methods to yield predictable results, a simple substitution of one known element for another to obtain predictable results, a use of known techniques to improve a similar devices or method in the same way, an application of a known technique to a known device or method ready for improvement to yield predictable results, a variation of a known work in one field of endeavor for use in either the same field or a different one based on design incentives or other market forces with variations that are predictable to a POSITA, and/or obvious in view of teachings, suggestions, and motivations in the prior art that would have led a POSITA to modify or combine the prior art references.

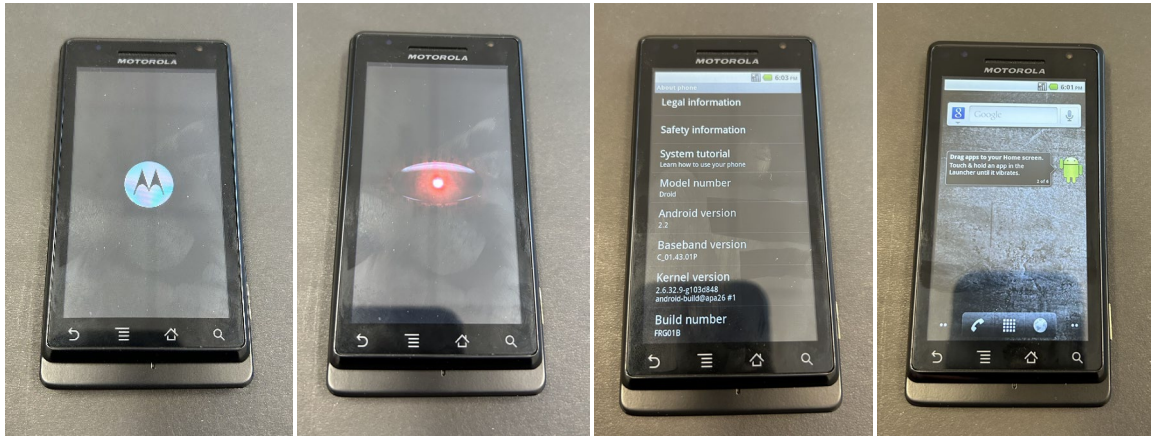
The chart below illustrates how the asserted claims of the '602 patent are anticipated by the Motorola Droid A855 and/or would have been obvious in view of by the Motorola Droid A855 and/or additional secondary references. The excerpts cited herein are exemplary. For any claim limitation, Samsung may rely on excerpts cited for any other limitation and/or additional excerpts not set forth fully herein to the extent necessary to provide further explanation for a reference's disclosure of a limitation. Where an excerpt refers to or discusses a figure or figure items, that figure and any additional descriptions of that figure should be understood to be incorporated by reference as if set forth fully herein. Samsung reserves the right to further supplement this chart.

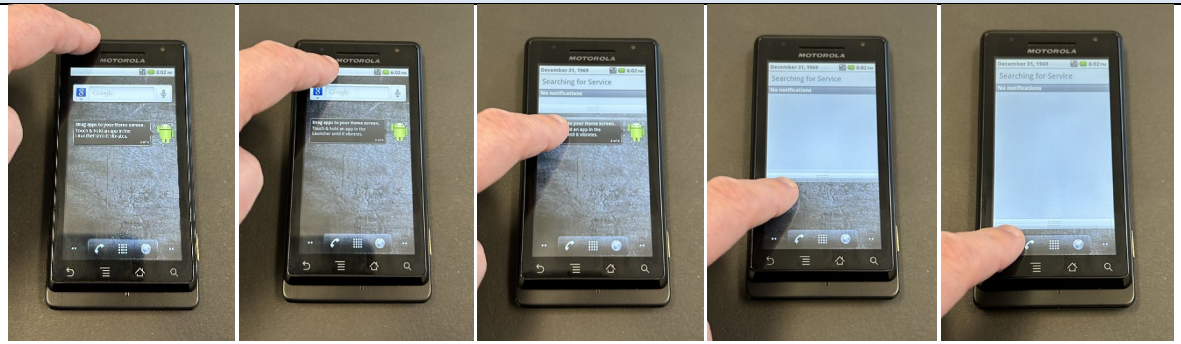
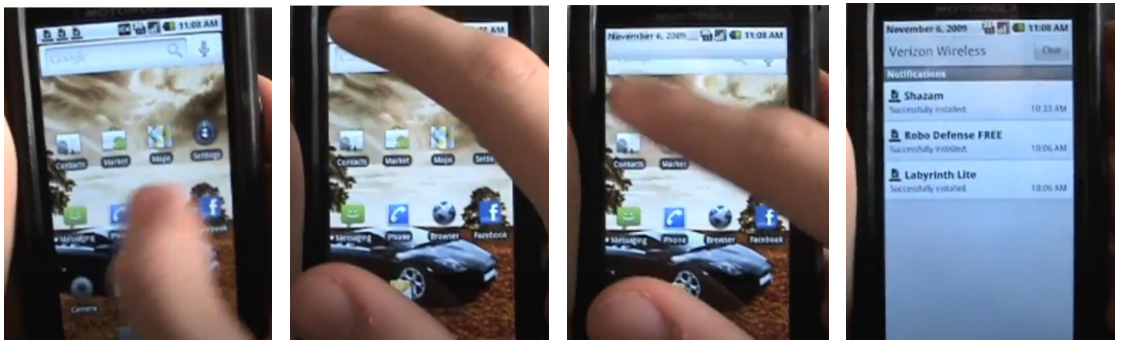
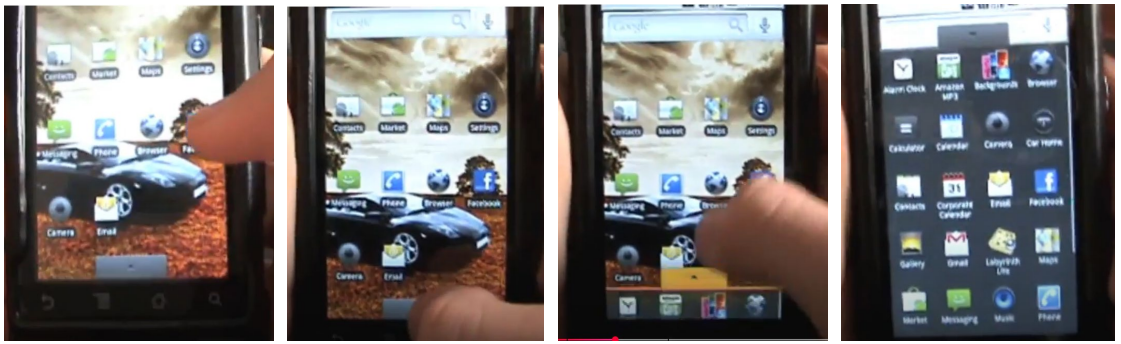
To the extent that these Invalidity Contentions rely on or otherwise embody particular interpretations of terms or phrases in the asserted claims, Samsung is not proposing any such interpretations as proper interpretations or constructions of those terms or phrases. Various positions put forth in this document are predicated on Keyless's interpretation of its claims as evidenced by its Infringement Contentions. Those positions are not intended to and do not necessarily reflect Samsung's interpretation of the true and proper scope of the asserted claims. Samsung further incorporates by reference all reservations of rights set forth in the Invalidity Contentions, as if fully set forth herein.

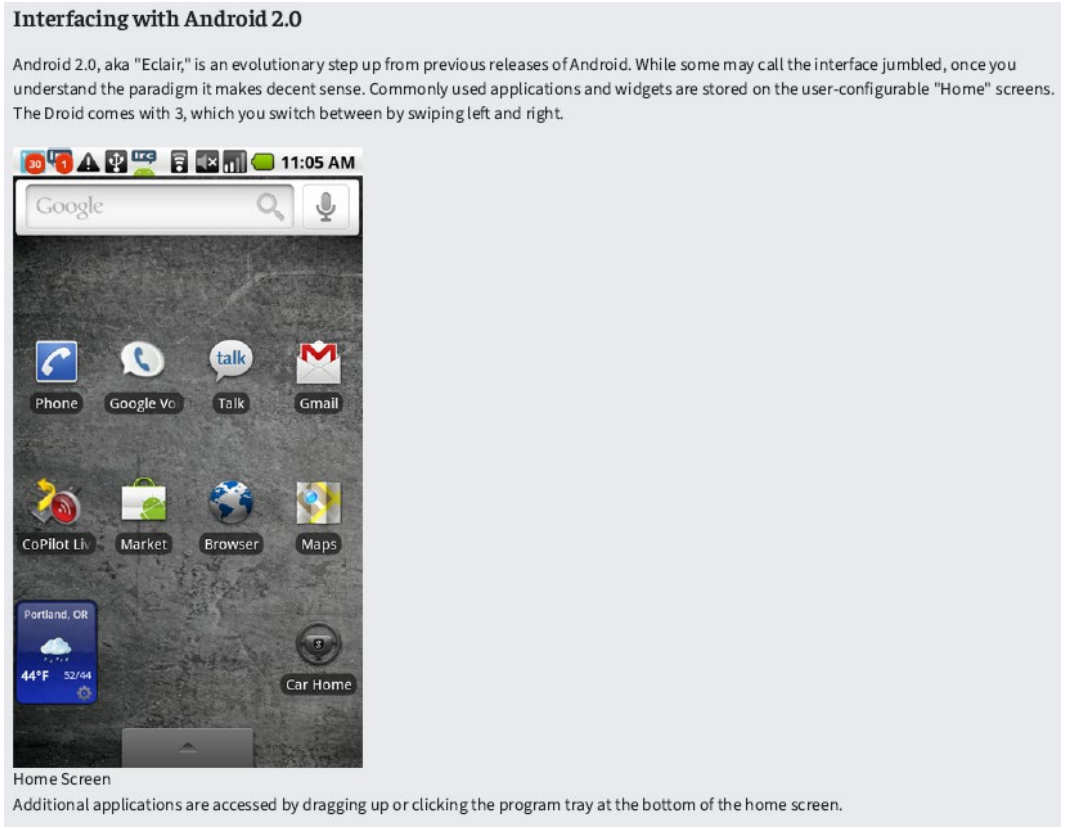
Defendants' arguments throughout these invalidity contentions are based on Keyless's apparent interpretation of the claims in its infringement contentions. Defendants do not agree that such interpretation is proper and reserve the right to argue that the mapped actions do not infringe any claims of the '602 patent. In the alternative, should the Court or factfinder construe and/or apply the claims in a manner consistent with Keyless's interpretations in its infringement contentions for the '602 patent, the claims are invalid for at least the reasons set forth herein.

In some instances, the referenced prior art includes priority applications, including prior provisional applications, that provide adequate §112 support for the claim(s) in the referenced prior art. *See, e.g.*, Tseng at cover. In those instances, the consistent disclosures in those earlier applications, including prior provisional applications, are incorporated herein by reference. As such, those earlier disclosures apply equally in terms of their application to the elements of the asserted claims, and thus provide even earlier dates in terms of prior art, state of the art, and the knowledge base of those of ordinary skill in the art. *See Dynamic Drinkware LLC v. National Graphics Inc.*, 800 F.3d 1375 (Fed. Cir. 2015).

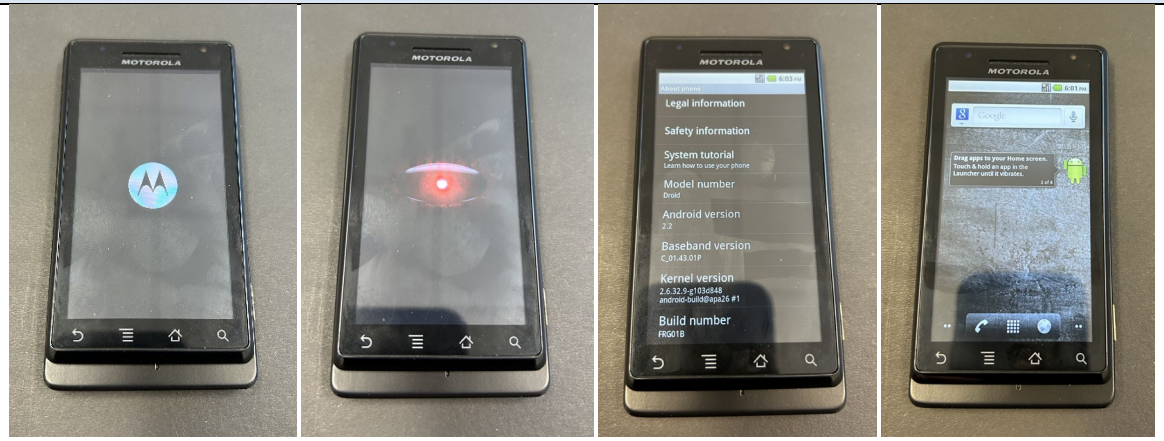
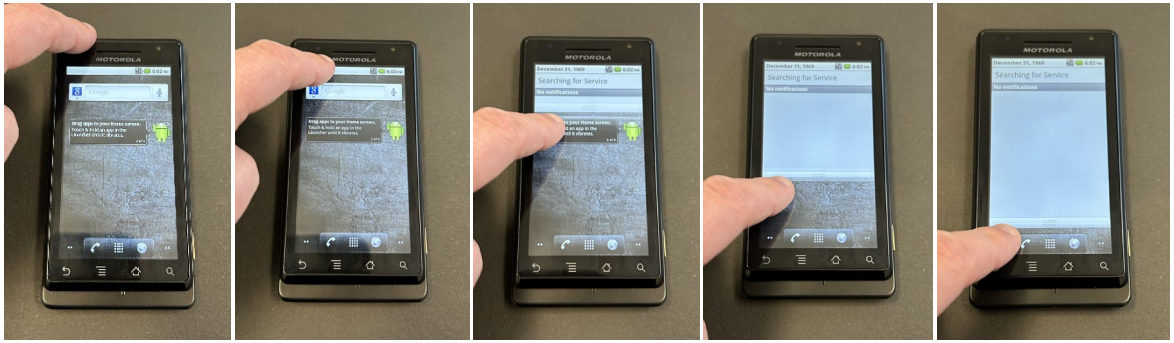
To the extent any of the art describes different embodiments of its inventions, a POSITA would have found it obvious to combine the Motorola Droid A855's teachings regarding these embodiments. A POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the embodiments, and would have a reasonable expectation of success in doing so, at least because the embodiments use known variations of existing technology to solve routine and well understood problems in predictable ways. A POSITA would have recognized that the Motorola Droid A855's embodiments describe related advancements for mobile devices, and a POSITA would have been motivated to combine elements of the embodiments to achieve the Motorola Droid A855's goals.

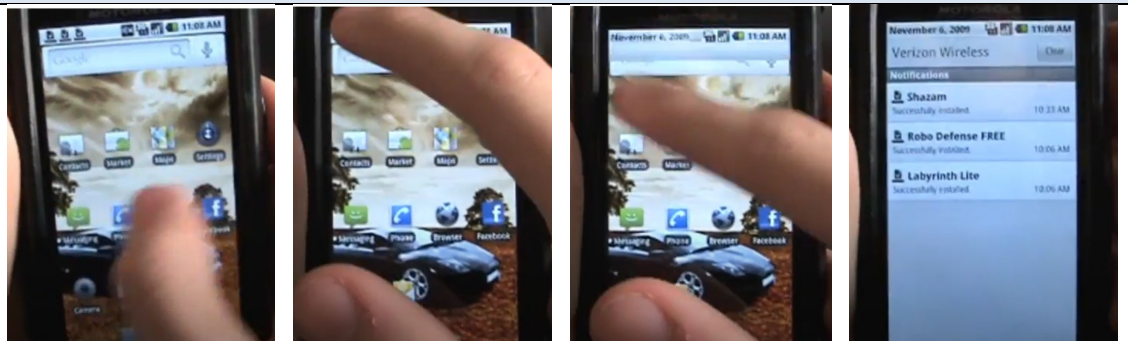
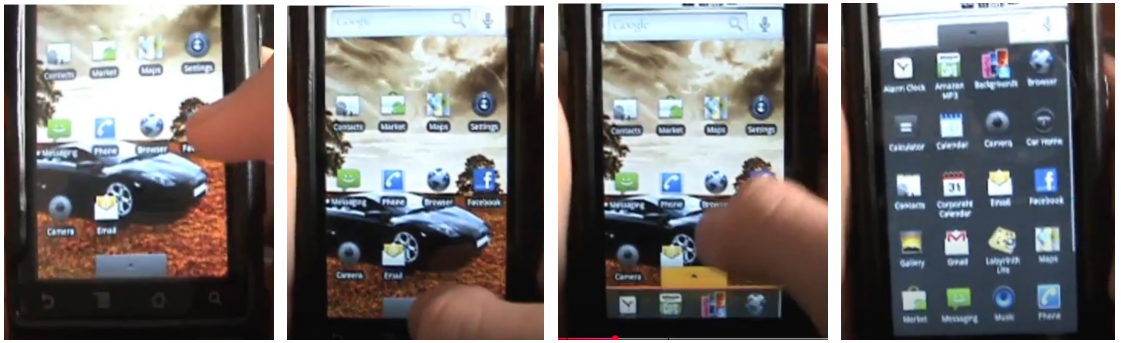
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[1Pre]** A system for capturing an event provided from an edge of a touch screen comprising: | To the extent that the preamble is held to be limiting, the Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[a] system for capturing an event provided from an edge of a touch screen."<br><br>For example, the Motorola Droid A855 is a system for capturing an event provided from an edge of a touch screen. For example, the Motorola Droid A855 captures a user's swipe/drag event from an upper or lower edge of the touch screen to display the notifications panel or the applications tab, respectively.<br><br>  <br><br>Motorola Droid A855 2.2 Device. |

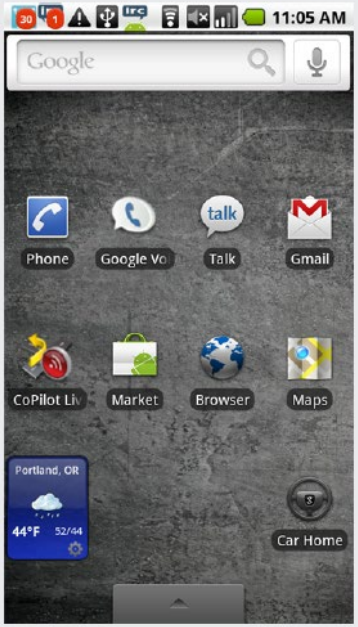
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola Droid A855 2.2 Device.<br>  <br>Motorola DROID: Android 2.0 Overview.<br>  |

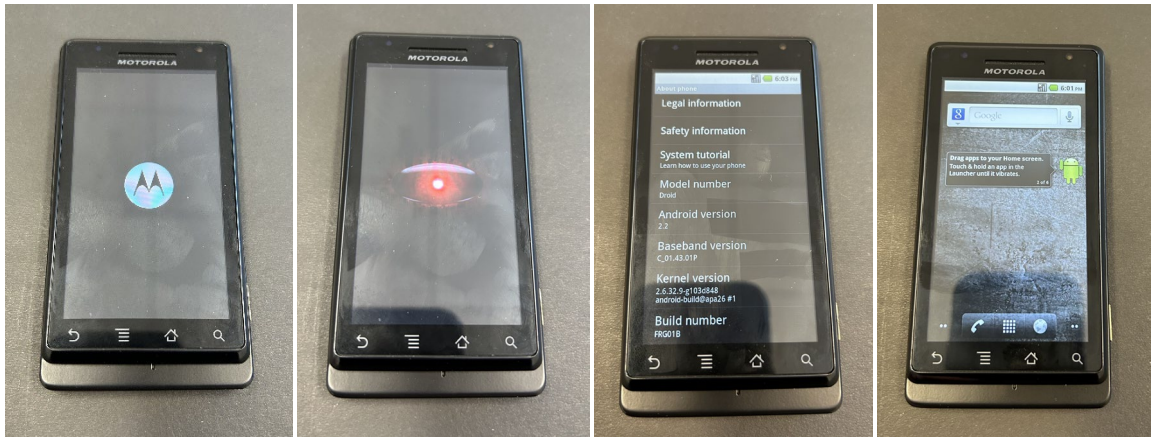
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Motorola DROID: Android 2.0 Overview.<br>  <br><br>About a DROID: a review of Motorola's newest smartphone.<br>*See, e.g.*, Motorola DROID: Android 2.0 Overview; Motorola Droid (Verizon Wireless) review: Motorola Droid (Verizon Wireless); About a DROID: a review of Motorola's newest smartphone. |

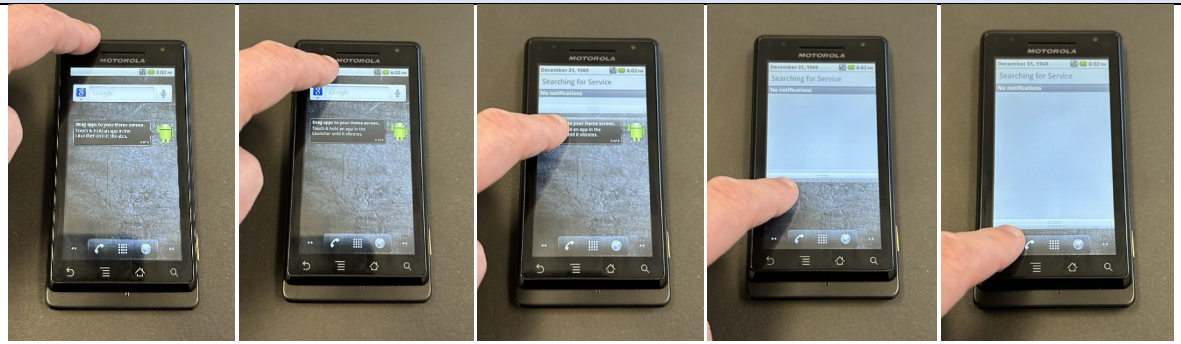
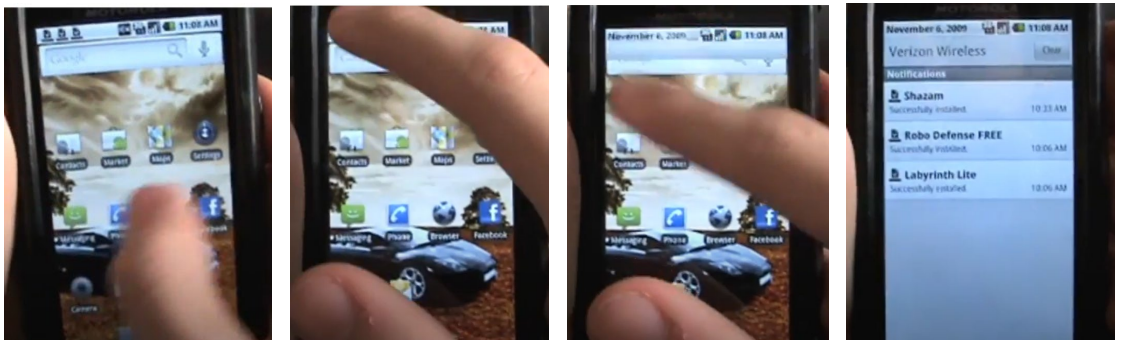
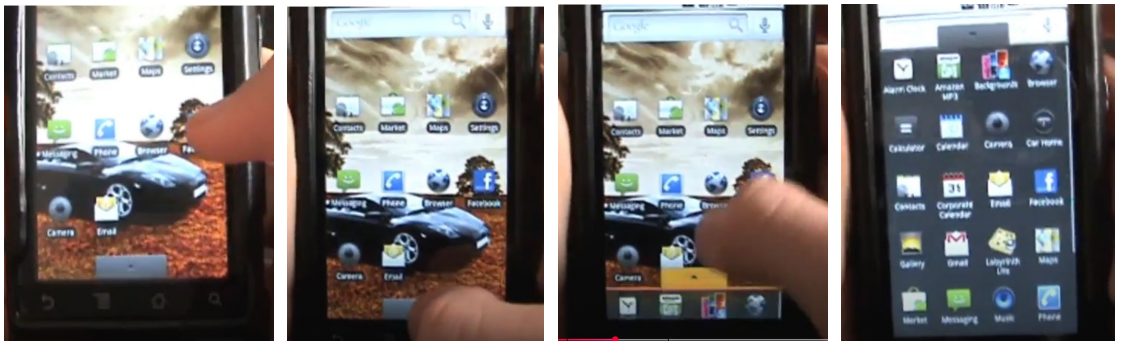
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[1A]** a device having a touch screen; | The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a device having a touch screen."<br><br>For example, the Motorola Droid A855 includes the Motorola Droid A855 device having a 3.7-inch WVGA touch-screen display.<br><br>**Design and display**<br>**At first glance, you might not think the Motorola Droid's design amounts to much. Its build is rather dull and the sharp angles result in a boxy look. But this is a smartphone with a lot of surprises, the biggest being the positively gorgeous WVGA display. At 3.7 inches, it surpasses even the iPhone and is firmly in the bounds of what we consider to be an acceptable size for a touch-screen display. Color support is generous (16 million hues) and the resolution (440×854 pixels) is some of the richest we've seen. We aren't kidding when we say that this display is bright and brilliant with vibrant colors and sharp graphics. It also lends itself well to the welcome Android 2.0 interface updates (more on that later).**<br><br>Motorola Droid (Verizon Wireless) review: Motorola Droid (Verizon Wireless).<br><br>With the release of the Motorola Droid, Verizon Wireless takes a shot directly at the iPhone. Featuring an eye-catching 3.7" WVGA screen, the same speedy ARM Cortex A8-based processor that powers the Pre and the iPhone 3GS, and a modern smartphone OS, the Droid is definitely a phone to be reckoned with. But is all this enough to make this phone your daily companion?<br><br>About a DROID: a review of Motorola's newest smartphone. |

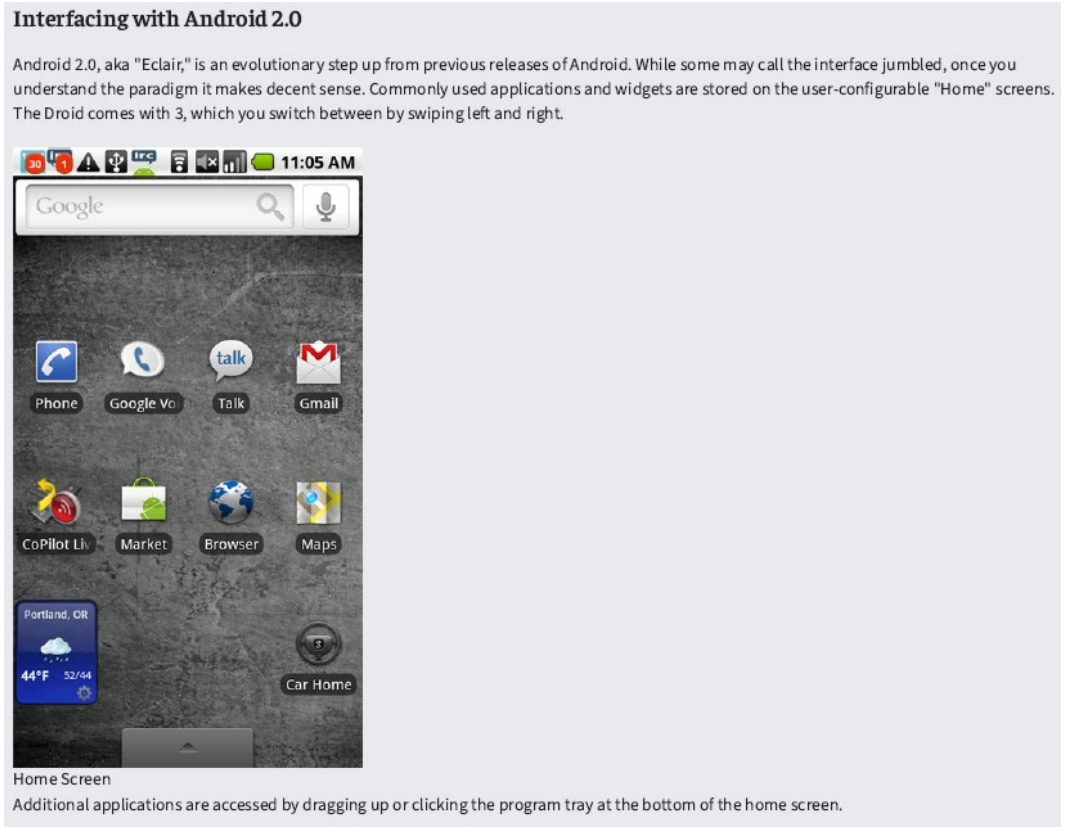
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola Droid A855 2.2 Device.<br>  <br>Motorola Droid A855 2.2 Device. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola DROID: Android 2.0 Overview.<br>  <br>Motorola DROID: Android 2.0 Overview. |

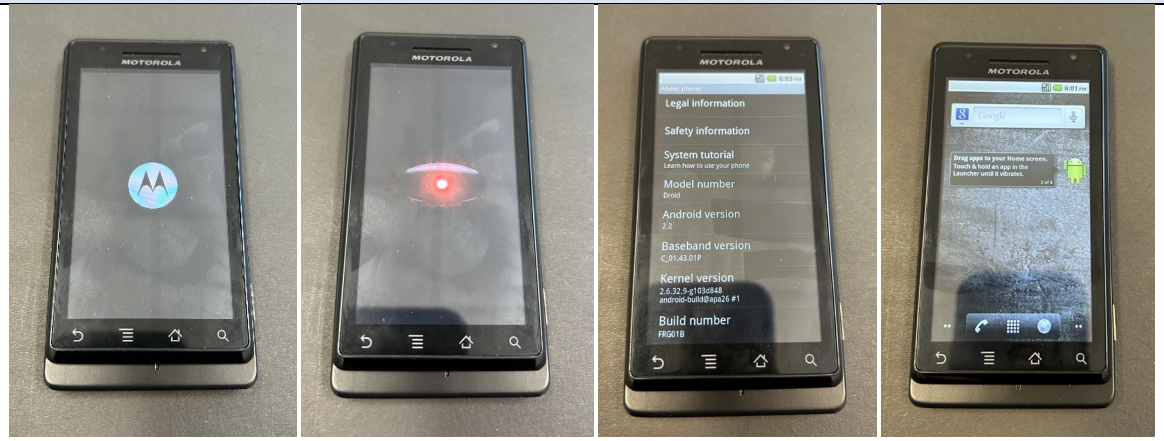
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **Interfacing with Android 2.0**<br>Android 2.0, aka "Eclair," is an evolutionary step up from previous releases of Android. While some may call the interface jumbled, once you understand the paradigm it makes decent sense. Commonly used applications and widgets are stored on the user-configurable "Home" screens. The Droid comes with 3, which you switch between by swiping left and right.<br>  <br><br>Home Screen<br>Additional applications are accessed by dragging up or clicking the program tray at the bottom of the home screen.<br><br>About a DROID: a review of Motorola's newest smartphone.<br><br>*See, e.g.*, Motorola DROID: Android 2.0 Overview; Motorola Droid (Verizon Wireless) review: Motorola Droid (Verizon Wireless); About a DROID: a review of Motorola's newest smartphone. |
| **[1B]** at least one window located in the touch screen on an edge of the touch screen, | The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "at least one window |

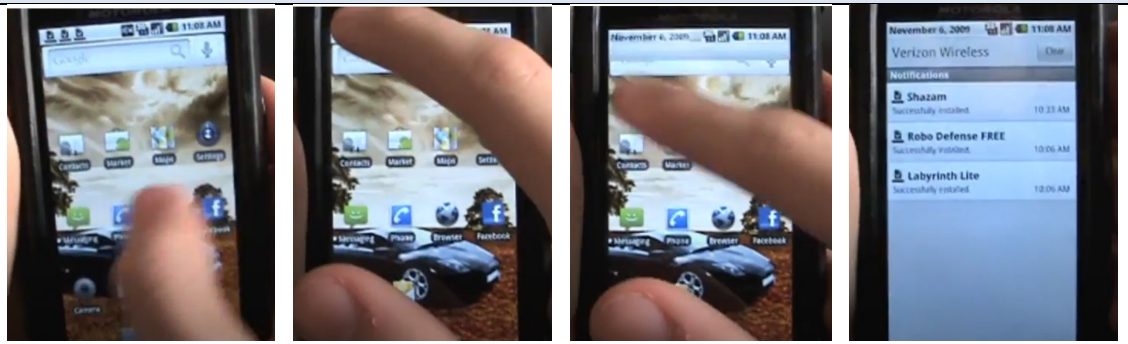
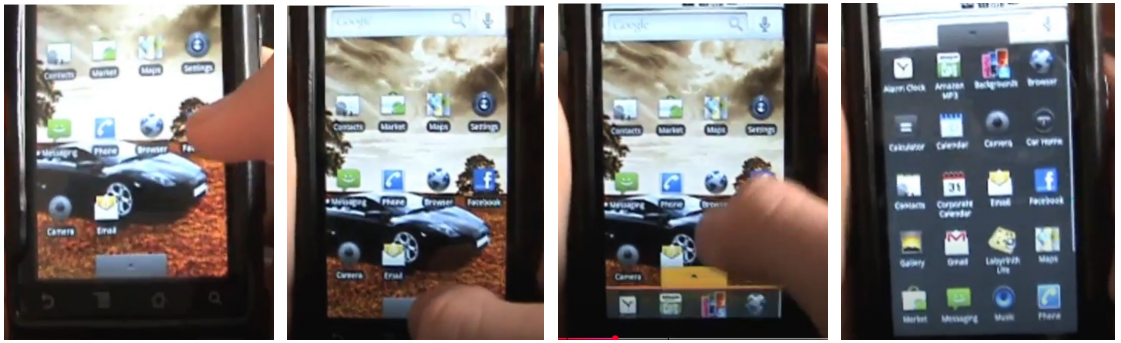
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| wherein said at least one window functions independently of an interface of an application in use on the touch screen; and | located in the touch screen on an edge of the touch screen, wherein said at least one window functions independently of an interface of an application in use on the touch screen."<br><br>For example, the Motorola Droid A855 includes at least one window, such as the status bar window and applications tab window located in the touch screen on the top and bottom edges of the touch screen, respectively. Each of the status bar window and the applications tab window functions independently of an interface of an application in use on the touch screen. For example, the status bar window is always present at the top edge regardless of the application shown on the main portion of the display and can be pulled down to view the notifications panel. The applications tab window is displayed at the bottom edge of the home screen independently of any widget applications shown on the home screen. For example, both the status bar window and the applications tab window are displayed on an edge of the touch screen and function independently of an interface of the Google search application in use on the touch screen.<br><br>  <br><br>Motorola Droid A855 2.2 Device. |

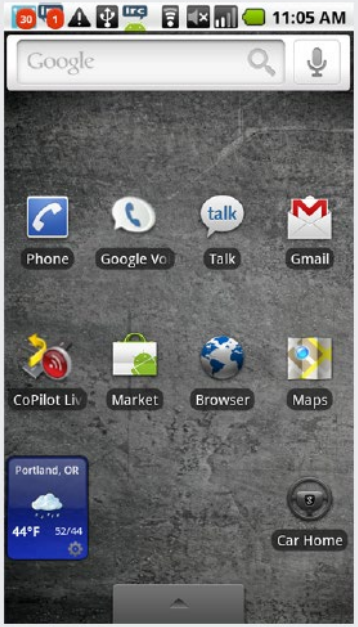
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola Droid A855 2.2 Device.<br>  <br>Motorola DROID: Android 2.0 Overview.<br>  |

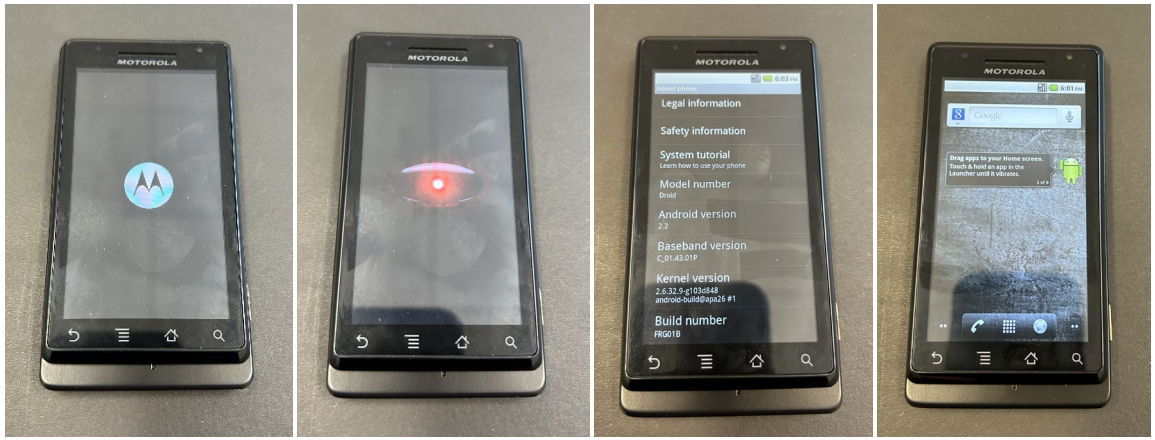
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Motorola DROID: Android 2.0 Overview.<br>  <br><br>About a DROID: a review of Motorola's newest smartphone.<br>*See, e.g.*, Motorola DROID: Android 2.0 Overview; Motorola Droid (Verizon Wireless) review: Motorola Droid (Verizon Wireless); About a DROID: a review of Motorola's newest smartphone. |

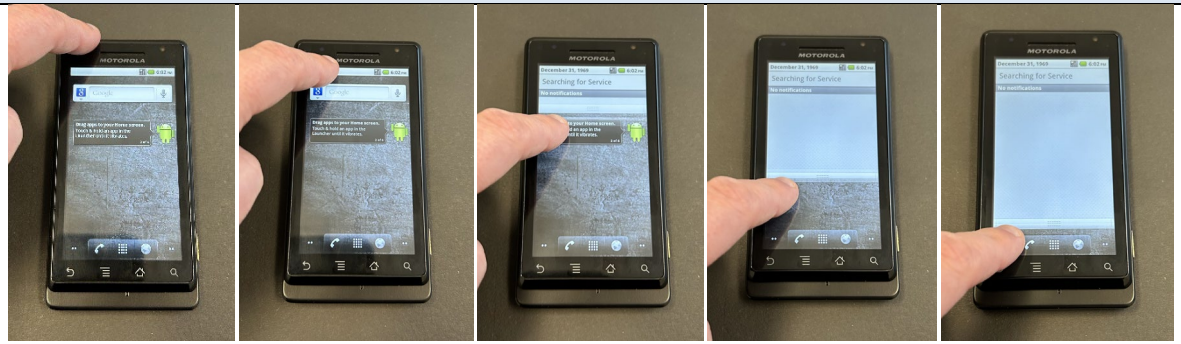
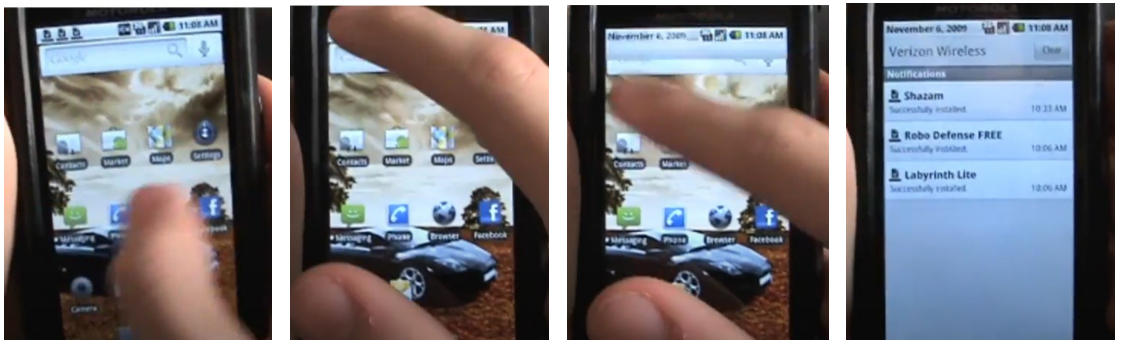
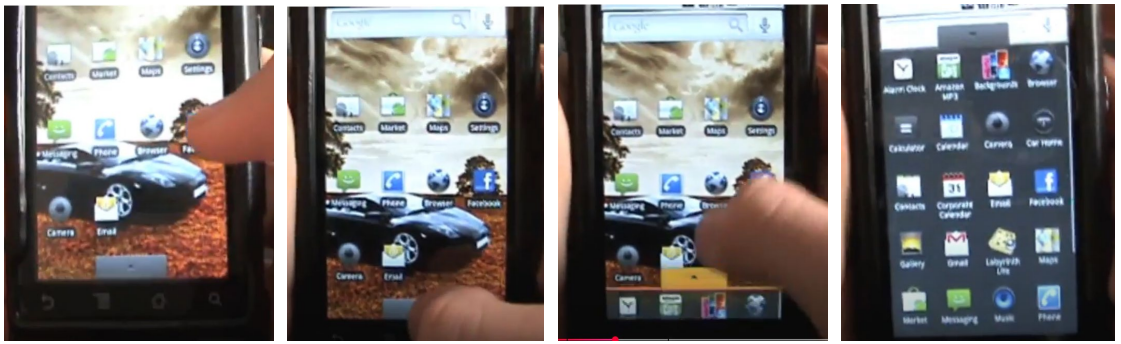
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[1C]** a processor; | The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a processor."<br><br>For example, the Motorola Droid A855 includes a processor, such as an ARM Cortex A8 processor, to process instructions related to user inputs on the touch screen, display applications, and handle notification alerts.<br><br>With the release of the Motorola Droid, Verizon Wireless takes a shot directly at the iPhone. Featuring an eye-catching 3.7" WVGA screen, the same speedy ARM Cortex A8-based processor that powers the Pre and the iPhone 3GS, and a modern smartphone OS, the Droid is definitely a phone to be reckoned with. But is all this enough to make this phone your daily companion?<br><br>About a DROID: a review of Motorola's newest smartphone.<br><br>Most importantly, though, the browser feels faster. With a cortex A8 processor and support for Verizon's EV-DO Rev. A network, CNET's full site loaded in 14 seconds while CNN's and ESPN's mobile sites came up in 8 seconds and 5 seconds, respectively. For comparison, we checked out the same sites on the Samsung Moment for Sprint and the Moment's browser results were 40 seconds, 9 seconds, and 8 seconds in the order listed above.<br><br>Motorola Droid (Verizon Wireless) review: Motorola Droid (Verizon Wireless). |

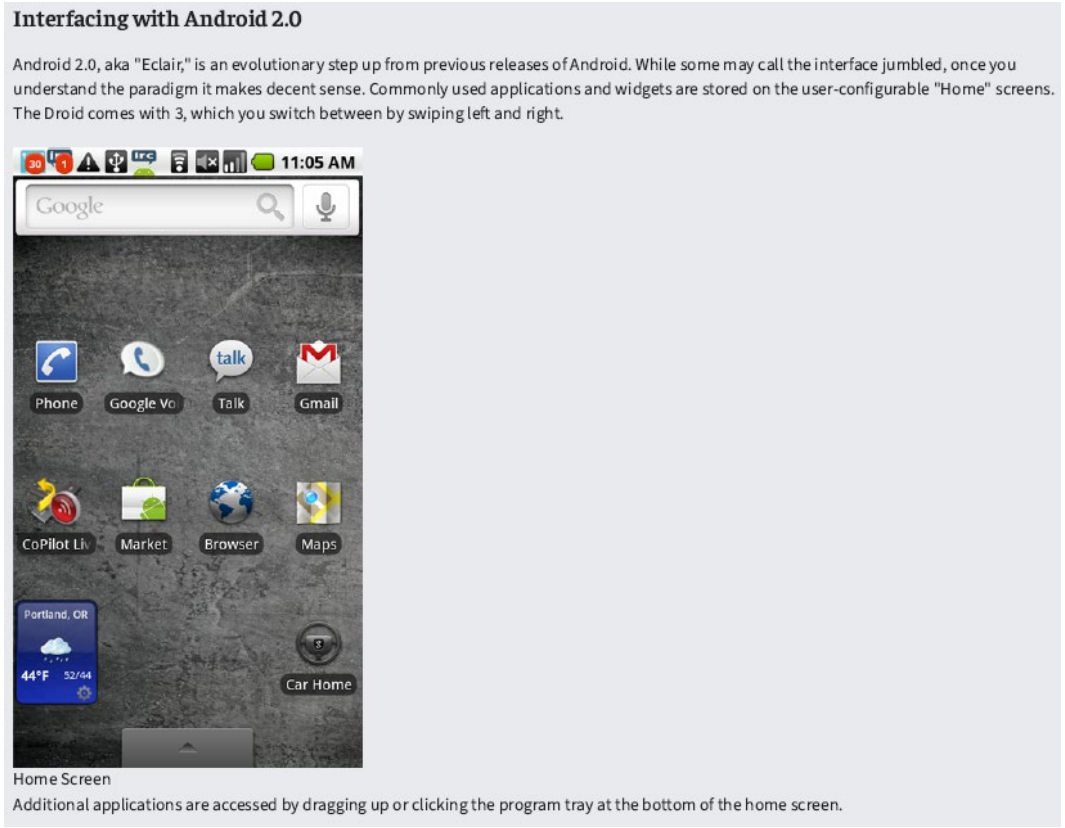
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola Droid A855 2.2 Device.<br>  <br>Motorola Droid A855 2.2 Device. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola DROID: Android 2.0 Overview.<br>  <br>Motorola DROID: Android 2.0 Overview. |

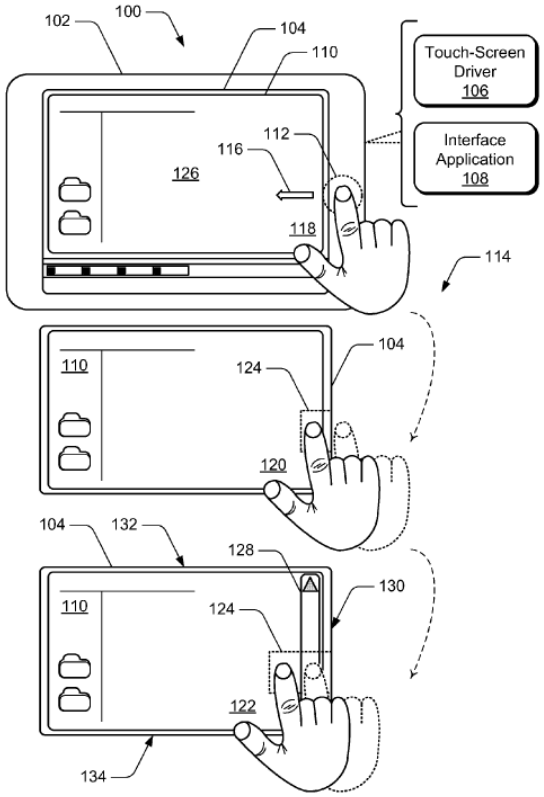
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **Interfacing with Android 2.0**<br>Android 2.0, aka "Eclair," is an evolutionary step up from previous releases of Android. While some may call the interface jumbled, once you understand the paradigm it makes decent sense. Commonly used applications and widgets are stored on the user-configurable "Home" screens. The Droid comes with 3, which you switch between by swiping left and right.<br>  <br><br>Home Screen<br>Additional applications are accessed by dragging up or clicking the program tray at the bottom of the home screen.<br><br>About a DROID: a review of Motorola's newest smartphone.<br><br>*See, e.g.*, Motorola DROID: Android 2.0 Overview; Motorola Droid (Verizon Wireless) review: Motorola Droid (Verizon Wireless); About a DROID: a review of Motorola's newest smartphone. |
| **[1D]** wherein a gliding action provided from outside of the touch screen towards inside | The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein a gliding |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said processor to cause an action assigned to said window, and | action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said processor to cause an action assigned to said window."<br><br>For example, the Motorola Droid A855 includes a gliding action provided from outside of the touch screen, such as above the status bar or below the applications tab, towards inside of the touch screen. The gliding action first interacts with said at least one window on the touch screen and is processed by said processor to cause an action assigned to said window, such as opening the notifications panel or opening the applications window. For the Motorola Droid A855, a swipe or slide is a type of drag action.<br><br>  <br>Motorola Droid A855 2.2 Device. |

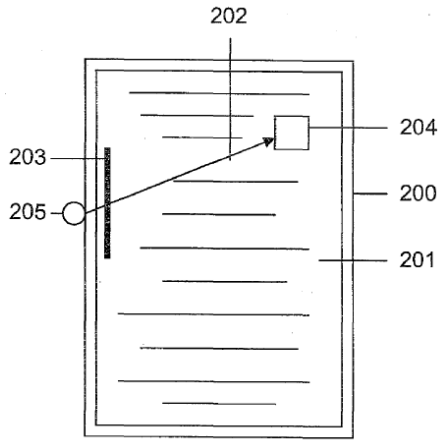
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola Droid A855 2.2 Device.<br>  <br>Motorola DROID: Android 2.0 Overview.<br>  |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Motorola DROID: Android 2.0 Overview.<br>  <br><br>About a DROID: a review of Motorola's newest smartphone.<br>*See, e.g.*, Motorola DROID: Android 2.0 Overview; Motorola Droid (Verizon Wireless) review: Motorola Droid (Verizon Wireless); About a DROID: a review of Motorola's newest smartphone.<br><br>To the extent Keyless argues that the Motorola Droid A855 does not disclose or render obvious this limitation, it would have been obvious in view of the Motorola Droid A855, POSITA's pre-existing |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | knowledge, and/or the Motorola Droid A855 combined with the other references charted for this patent in these invalidity contentions, including Wilairat, Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Palm Pre, and the Neonode N2. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>For example, Wilairat further teaches an off-to-on-screen gliding action, referred to as a "pull-in gesture." Wilairat teaches that, although the gliding motion begins off of the touch screen, it first interacts with the touch screen as the finger enters the touch screen. Wilairat teaches that "a user can initiate a touch input with a finger just off an edge of the touch-screen and then motion a pull-in gesture across the touch-screen. When the motion of the touch pull-in gesture is initiated by the user, a progression of the motion as the touch input remains in contact with the touch-screen creates a contact region on the touch-screen that progressively expands and is detected. The progressive expansion of the contact region on the touch-screen is then determined or recognized as the touch pull-in gesture that initiates a display of a user interface component proximate a location of the touch pull-in gesture on the touch-screen. A user interface component can include any type of hidden menu, slide menu, drop-down menu, Scrollbar, and/or any other type of user interface displayable element." Wilairat at [0009].<br><br>Wilairat further teaches that "a user of portable device 102 can initiate a touch input 112 with a finger just off an edge of the touch-screen 104 and then motion a pull-in gesture 114 in a direction 116 across the touch-screen. The motion of the touch pull-in gesture 114 is illustrated in the direction 116 as the hand moves from position 118, to position 120, and to position 122 (shown successively in the three views). When the motion of the touch pull-in gesture 114 is initiated by the user, a contact region 124 progressively expands. Such as illustrated when the hand moves from the edge of the touch-screen at position 118 to position 120, and then from position 120 to position |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | 122. The progressive expansion of the contact region 124 is then determined or recognized as the touch pull-in gesture 114." Wilairat at [0012].<br><br>An exemplary pull-in gesture from off-screen to on-screen is shown in Wilairat FIG. 1.<br><br>  <br><br>Fig. 1<br><br>Wilairat at FIG. 1.<br><br>Moreover, each of Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Palm Pre, and the Neonode N2 teaches a |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | gliding action from off screen to on screen to activate a function assigned to the window when the gliding action is detected.<br><br>Roth teaches using a swiping (e.g., gliding) action from outside a screen through a window in the form of a line at the edge of the screen on the screen towards the inside of the touch screen to activate a function associated with the window. For example, Roth describes "[a] crossing-based interface along the bounds of the display is a viable solution. Users can invoke actions with swiping gestures across a section of the display side from the outside to the inside." Roth at [0009]. Roth teaches advantages of such outside-to-inside gliding activations, for example, that "they can be more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to the distance vector between the line and the cursor," and "that a well positioned line requires significantly less display space than a button for similar performance characteristics." Roth at [0010]. "One example of such a gesture is a continuous swiping motion from the activation point representing a desired action or even from the bezel of the device, through the activation point and to the target on the display." Roth at [0015]. Roth explains that such outside-to-inside gliding actions "allow[] the active area of an activation point to be much smaller on a display due to the utilization of a greater average weight throughout a touch sensitive display, which creates a higher probability of activating on a narrow activation point or operating on a small target," "save[s] valuable display space on the screen, since the activation point can be made smaller on the display as a result," and may "begin from outside the display for ease of use." Roth at [0015]. As Roth explains, a "bar" may "represent[] the desired action." Roth at [0017]. "[A]n activation point 203 (represented as a bar in this example) displayed on the edge of the screen which represents the desired action of selecting. The bar is made small so as to not take up valuable space on the display. The user can then select the target 204 through the use of a gesture 202, such as swiping, pinching, tapping or other gestures …." Roth at [0036]. As shown in FIG. 2B, "[t]he user can begin his gesture from either on the bar itself or from outside the display 205 and continue the gesture through the bar and to target as if the user were bringing the action to the target. An example of such a gesture is if the user utilized a continuous swiping motion with his finger from the bar representing a desired action to the target on the display." Roth at [0039]. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Roth at FIG. 2B.<br><br>Roth Bezel Swipe teaches activation gestures related to mobile devices having touch screens. A bezel swipe gestures is an outside-to-inside swiping (e.g., gliding) gesture, in which "[t]he user starts a Bezel Swipe gesture on the bezel, which is the physical touch insensitive frame that surrounds the display. The finger is then swiped through a part of the display edge into the display, which enters selection mode. Next, the user moves the finger onto an object or display position and selects it by lifting the finger off the display, which ends selection mode. Different edge portions represent different actions and are distinctively marked." Roth Bezel Swipe at 1524. "Swipes are recognized by detecting touches inside a thin rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524. As such, "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display. Figure 2 illustrates this. A touch sensitive display translates the contact area of the finger with the display into an activation point." Roth Bezel Swipe at 1524. "The Bezel Swipe gesture … starts on the bezel and moves into the display. Therefore the contact area is gradually increased until it exceeds the contact threshold of the display. … Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. This outside-to-inside crossing gesture has advantages, for example, "the crossing of the touch-insensitive bezel in conjunction with the properties of touch sensitive displays enables the reliable |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | activation of a button that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. |

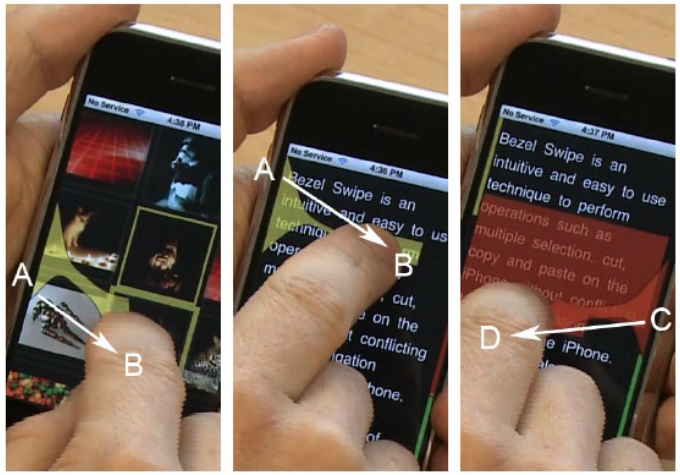



**Figure 1. The Bezel Swipe prototype in action. Left panel: A swipe from A to B selects an image. Middle panel: A swipe from A to B marks the beginning of a text selection. Right panel: A swipe from C to D marks the end of the text selection.**

Roth Bezel Swipe at Figure 1.

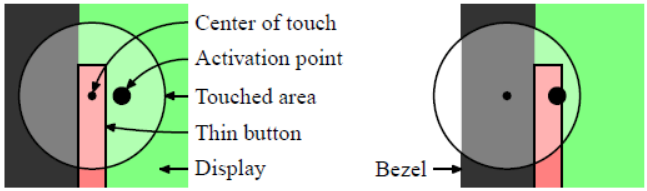
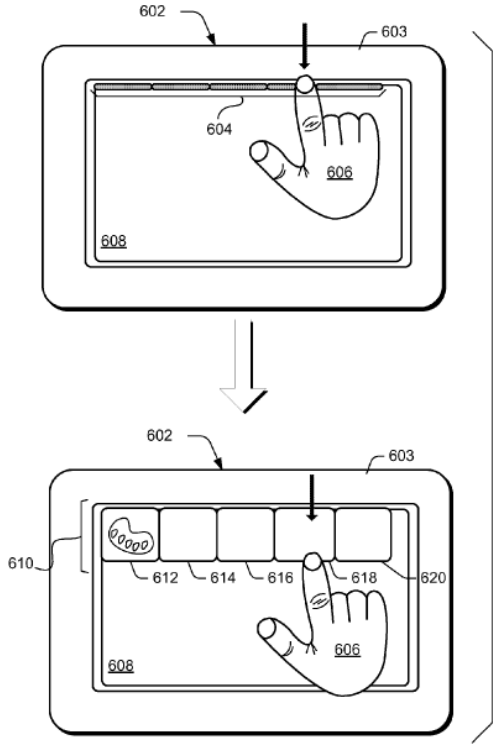


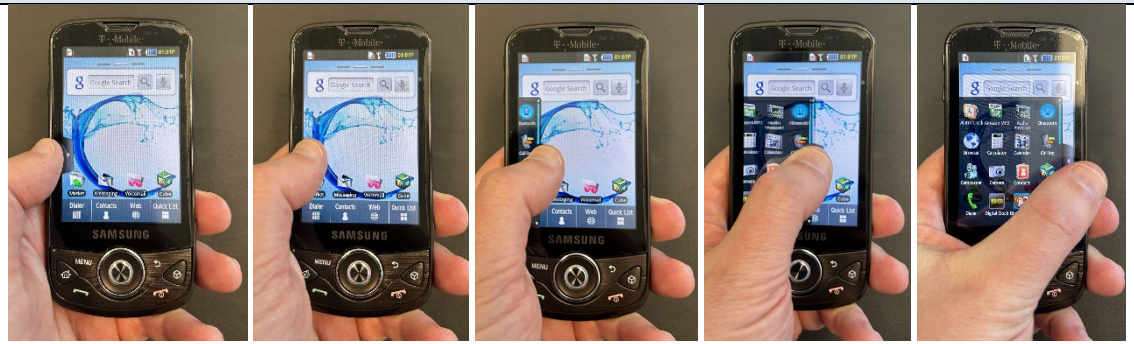
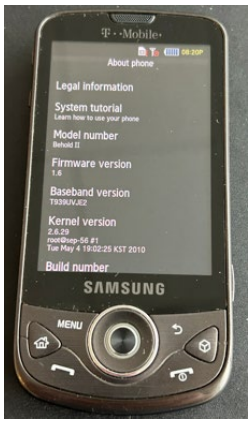

**Figure 2. Touching narrow targets close to the bezel: a touch (large circle) centered on the target (left) may not activate it whereas a touch significantly overlapping the bezel (right) does.**

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | Roth Bezel Swipe at Figure 2.<br><br>Hinckley teaches a visual affordance window indicating a pull-down bezel menu is shown at the edge of a mobile device using a gliding action from outside of the touch screen towards the inside of the touch screen. Hinckley at FIGS. 5, 6. For example, in FIG. 5, "[s]tep 500 displays a visual affordance on a display device associated with a computing device" and is shown at as a window or bar 604 being a five-part line in FIG. 6. Hinckley at [0068], [0072], FIGS. 5, 6. Then, "[s]tep 502 receives a bezel gesture input relative to the visual affordance," such as from off-screen to on-screen over the visual affordance. Hinckley at [0068], [0072], FIGS. 5, 6. After the off-screen to on-screen gesture, "[s]tep 504 accesses functionality associated with the received bezel gesture input." Hinckley at [0068], [0072], FIGS. 5, 6. Hinckley explains that "off-screen to on-screen motion (or vice versa) can be utilized as a mechanism to expose a menu or to access some other type of functionality." Hinckley at [0071]. As shown in FIG. 6, "device 602 includes a bezel 603 and a visual affordance 604 that is rendered on display device 608." Hinckley at [0072], FIG. 6. The "visual affordance 604" may appear as "in the form of a semi-transparent strip" and "can be utilized to provide a hint or indication of accessible functionality, in this case a bezel menu, associated with the bezel." Hinckley at [0072], FIG. 6. "[T]he bezel menu can be accessed through a bezel gesture in which a finger of user's hand 606 touches the bezel and then moves across the bezel and onto the display device 608 in the direction of the illustrated arrow." Hinckley at [0073], FIG. 6. After this off-screen to on-screen gesture, the "bezel menu 610 to be dropped down at which time it can become fully opaque." Hinckley at [0073], FIG. 6. Hinckley further explains that "bezel menu 610 includes multiple selectable icons or slots 612, 614, 616, 618, and 620. Each of the icons or slots is associated with a different functionality such as, for example, paint functionality, pen functionality, note functionality, object creation, object editing, and the like." Hinckley at [0074], FIG. 6. Hickley teaches, however, that "any type of functionality can be associated with the icons or slots." Hinckley at [0074], FIG. 6. The "bezel menu 610 can enable a user to access and activate commands, tools, and objects." Hinckley at [0075], FIG. 6. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Fig. 6<br>Hinckley at FIG. 6.<br>On information and belief, the Samsung Galaxy GT-i7500 1.5 operates substantially the same with respect to the pull-down notifications interface as the Motorola Droid A855 and the HTC Magic 1.6. *See, e.g.*, https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface |

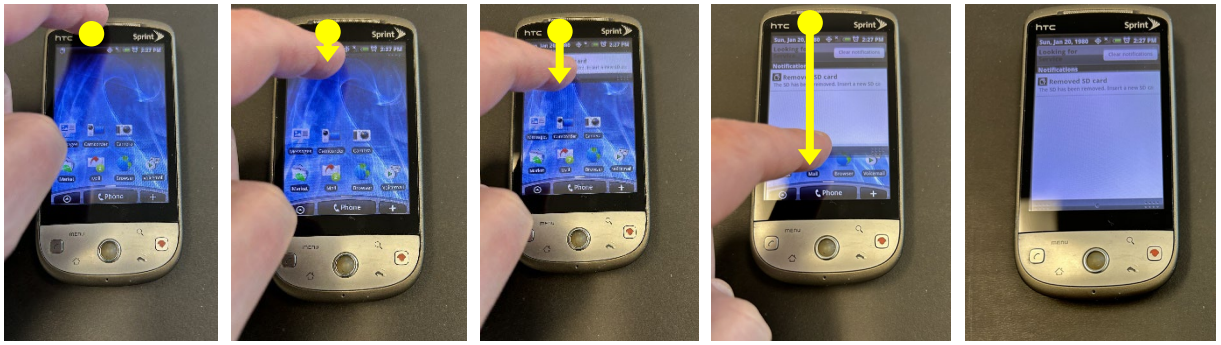
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | as the same, showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."); https://www.youtube.com/watch?v=rhBgLQSxfjE at 1:20-1:34 (describing as running Android 1.5 and similar to Motorola Droid A855 device, showing opening notification menu from status bar contact at 1:32). On information and belief, a user may perform a gliding action from the plastic housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display toward the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar); https://www.youtube.com/watch?v=wVF8dLkgW7c at 0:40-0:56 (showing swipe down over status bar to open notifications interface); https://www.youtube.com/watch?v=4Pv04Tw6wvQ at 3:30-3:35 (showing gliding gesture on status bar to show notification interface for Android 1.5 operating system). The user's touch first interacts with the status bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status bar window causes a processor to perform the action of displaying the notifications window. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar). Furthermore, on information and belief, a user may perform a gliding action from the plastic housing bezel below the touch screen (from outside of the screen) over the tab shown at the bottom of the screen towards the main application display inside of the touch screen (e.g., over the tab window) to display an applications selection interface. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having the application selection interface tab); https://www.youtube.com/watch?v=wVF8dLkgW7c at 0:54-1:14 (showing swipe up over application selection tab at bottom of screen to open application selection interface); https://www.youtube.com/watch?v=4Pv04Tw6wvQ at 1:36-2:30 (showing gliding gesture on tab to show application selection interface for Android 1.5 operating system).<br><br>The Samsung Behold II operates substantially the same with respect to the pull-down notifications interface as the Motorola Droid A855 and the HTC Magic 1.6. *See, e.g.*, |

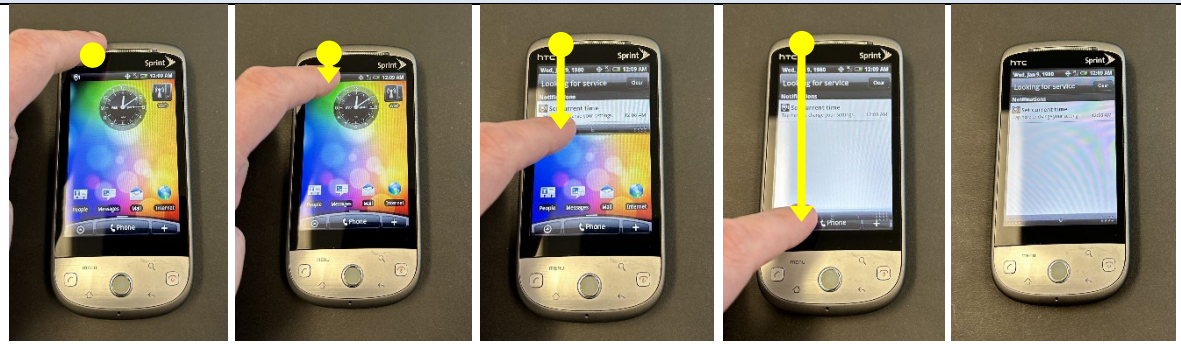
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | https://www.cnet.com/tech/mobile/hands-on-samsung-behold-ii-plus-release-details/ (explaining that the Samsung Behold II runs on Android 1.5); https://www.t-mobile.com/news/press/t-mobile-usa-launches-the-samsung-behold-ii-on-november-18. For the Samsung Behold II, a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar.<br>  <br>Moreover, in the Samsung Behold II, a user may also perform a gliding action from the plastic housing surrounding the touch screen to the left of the applications drawer tab (from outside of the screen) over the applications tab towards the main application display the inside of the touch screen (e.g., crossing over the applications tab window). The user's touch first interacts with the applications tab window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the applications tab causes a processor to perform the action of displaying the applications drawer menu from the side of the screen. |

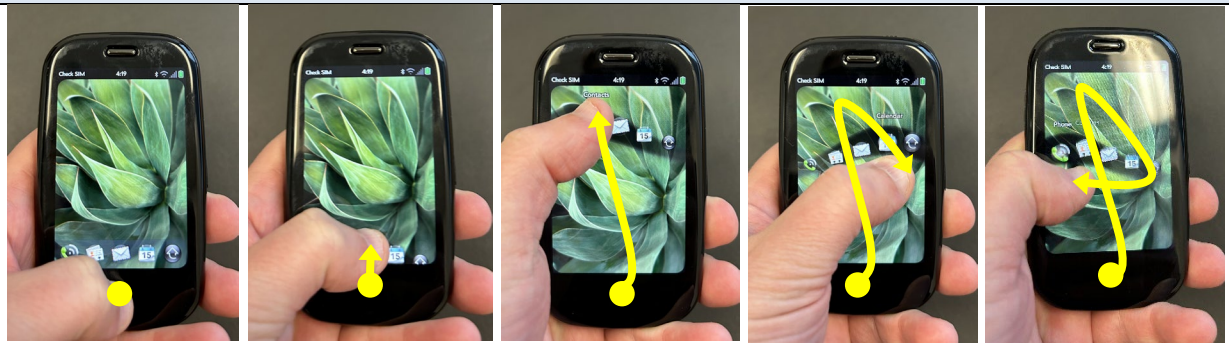
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>The Samsung Behold II device.<br>  <br>The Samsung Behold II device.[4]<br><br>On information and belief, the HTC Magic 1.5 operates substantially the same with respect to the pull-down notifications interface as the Motorola Droid A855 and the Samsung Galaxy GT-i7500. *See, e.g.*, https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface as |

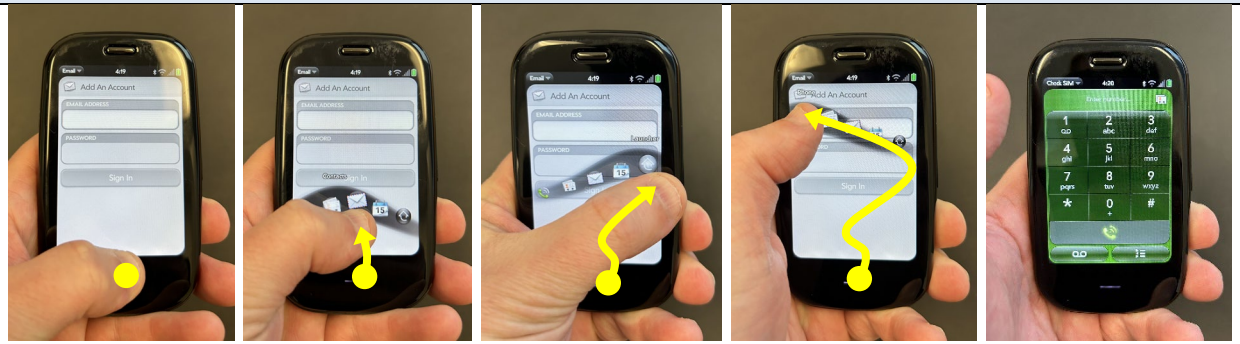
[4] Samsung reserves the right to rely on any Behold II device, including either or both of the Behold II devices shown here. On information and belief, such devices function substantially the same as disclosed in this chart.

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | the same, showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."). On information and belief, a user may perform a gliding action from the plastic housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display toward the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. The user's touch first interacts with the status bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status bar window causes a processor to perform the action of displaying the notifications window. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 (In addition to being able to drag (or double tap if your fingers are a little tired) the menu bar up from the bottom of the screen, you can also drag from the top and find your notifications all grouped nicely together."); https://ianrenton.com/blog/review-htc-magic/ ("Dragging the top drawer (where app notifications, incoming messages etc. sit) is a lot more intuitive on an actual device than on the emulator, and the kinetic scrolling - you can 'throw' menus - feels just right."); https://www.youtube.com/watch?v=LghBOTZ-HuE at 5:08-5:20 (describing "drag-down notification drawer"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:35-8:55 (describing notification menu as "a drawer" that you "pull down" allowing you to "click" notifications to open the corresponding application).<br><br>Furthermore, on information and belief, a user may perform a gliding action from the plastic housing bezel below the touch screen (from outside of the screen) over the tab shown at the bottom of the screen towards the main application display inside of the touch screen (e.g., over the tab window) to display an applications selection interface. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 ("you can simply drag up the menu from the bottom and access all your recently downloaded applications and menu functions, sorted alphabetically"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:15-7:35, 8:17-8:55 (showing swipe-up action to open application selection interface).<br><br>The HTC Hero 1.5 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display toward the inside of the touch screen (e.g., crossing |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar.<br>  <br>HTC Hero 1.5.<br>The HTC Hero 2.1 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display toward the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar. |

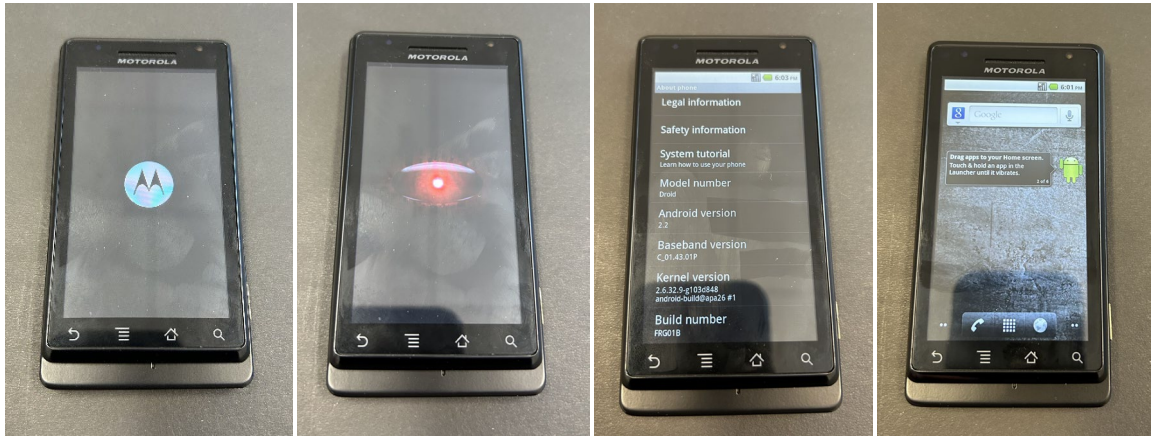
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC Hero 2.1.<br>The Palm Pre teaches, as one example, that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen (e.g., crossing over the Quick Launch window showing five application icons and identifying the movement from off-to-on screen). The user's touch first interacts with the Quick Launch window on the touch screen because the Quick Launch window is not displayed in the gesture area. The gliding action over the Quick Launch window from off-to-on screen causes a processor to perform the action associated with the window, such as moving the Quick Launch window with the user's finger in any arbitrary direction around the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. For example, lifting on the "Phone" icon opens the Phone application. |

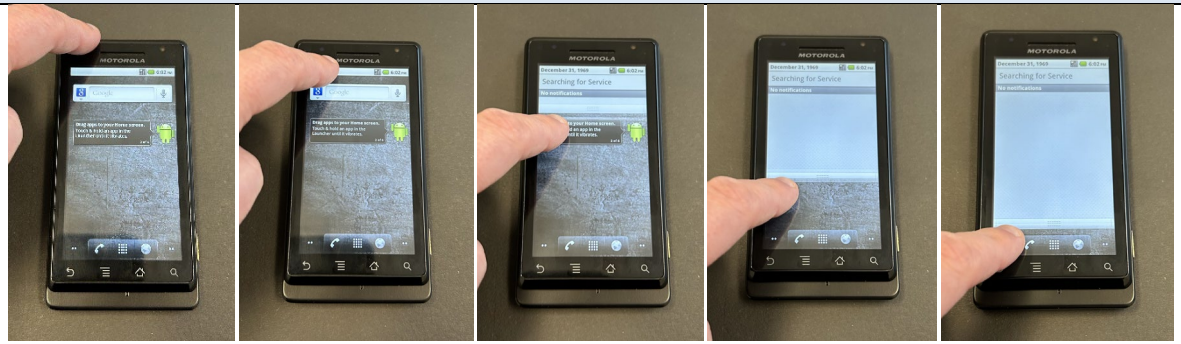
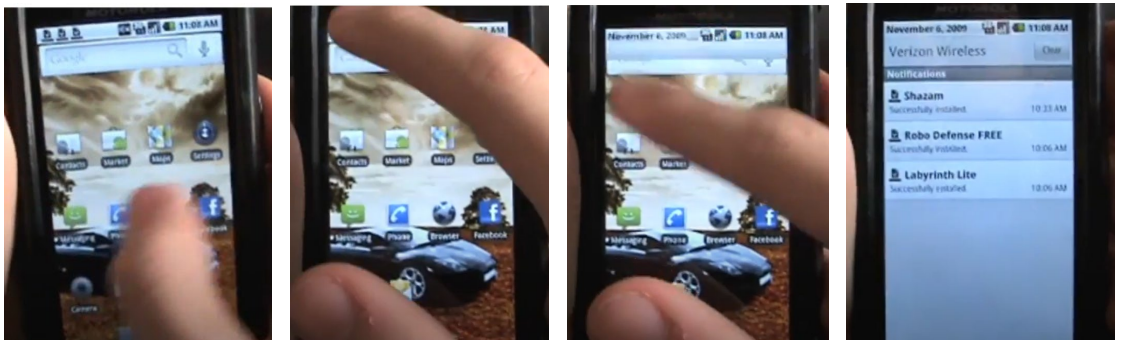
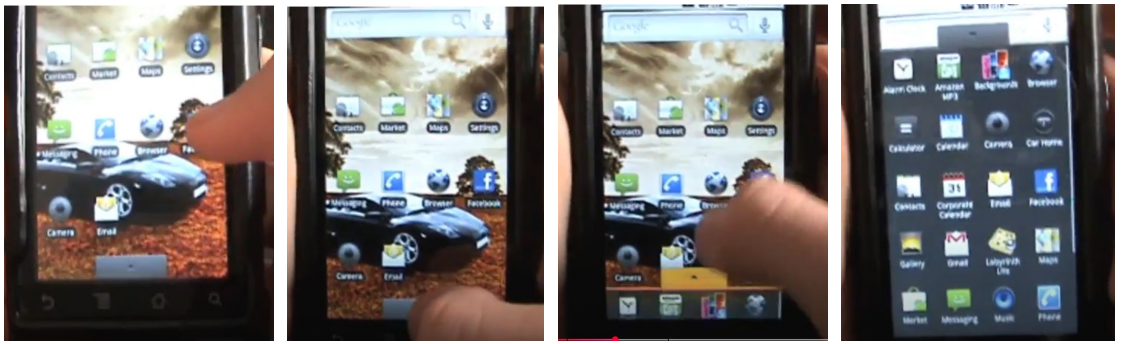
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Palm Pre.<br>The Palm Pre also teaches, as another example, that, when an application is open on the Palm Pre device (such as the mail application shown below), a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen to display the Quick Launch window (e.g., crossing from off-to-on screen to display the Quick Launch window). The user's touch first interacts with the Quick Launch window on the touch screen because the Quick Launch window is not displayed in the gesture area, but as shown below, appears with the user's off-to-on screen gesture as the finger moves onto the screen. The gliding action causes a processor to perform the action associated with the Quick Launch window, such as moving the Quick Launch window with the user's finger in any arbitrary direction around the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. As shown below, lifting on the "Phone" icon opens the Phone application. |

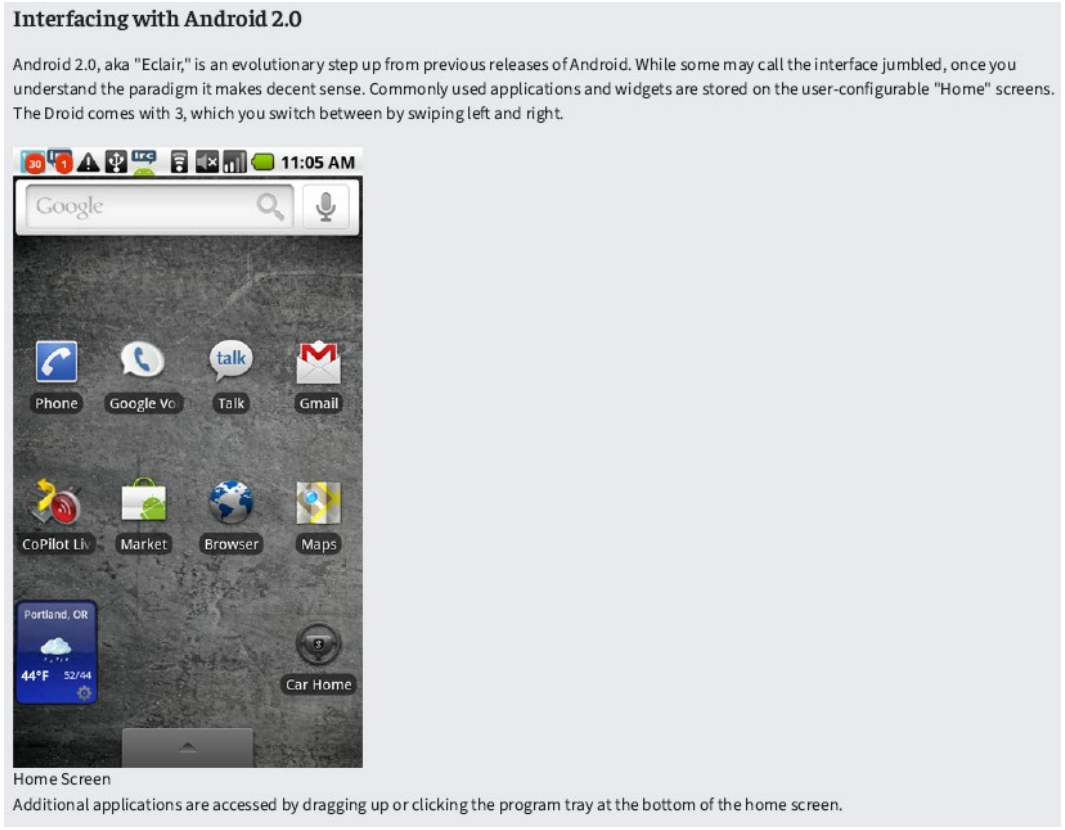
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Palm Pre.<br>The Neonode N2 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen over the indicated icons or from the sides of the screen as indicated by the various arrows (from outside of the screen), over the arrows towards the main application display toward the inside of the touch screen (e.g., crossing over the window identifying the movement from off-to-on screen). The user's touch first interacts with the window showing the arrows on the touch screen because the outer housing does not contain touch-sensitive elements. The gliding action over the arrows from off-to-on screen causes a processor to perform the action associated with one of the three icons printed below the touch screen or from the side of the touch screen.<br>  <br>Neonode N2. |

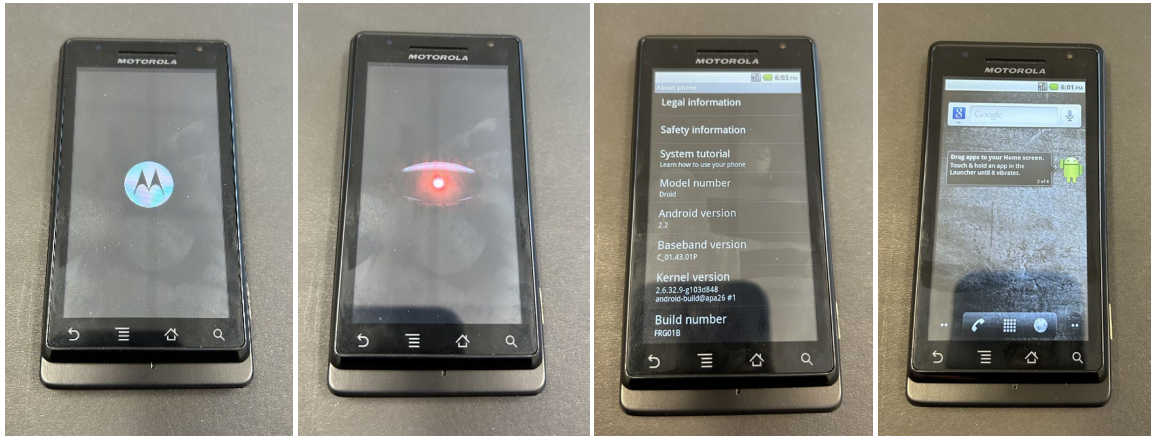
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | A POSITA would have found it obvious to incorporate the functionality of permitting an off-to-on-screen gliding action, where the gliding action first interacts with the touch screen of the Motorola Droid A855's status bar window or the application tab window, to cause the notifications menu or applications menu to be displayed as described in the Motorola Droid A855, as claimed. Additionally, to the extent any versions of the Motorola Droid A855 that followed the Motorola Droid A855 running Android 2.0 lacked an application tab window, a POSITA would have found it obvious in such devices to incorporate such functionality and permit an off-to-on-screen gliding action. Each of the Motorola Droid A855, Wilairat, Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Palm Pre, and/or the Neonode N2, teaches causing an action associated with a gliding gesture that may be an off-to-on-screen gesture, such as causing the Motorola Droid A855's notification menu or applications menu to be slid open using a gesture that starts off screen and glides towards the main display area. A POSITA would have been motivated to provide for opening (e.g., sliding open, as used in the Motorola Droid A855) the Motorola Droid A855's notification menu or applications menu using a gesture that starts off screen and glides towards the main display area because it allows for the same operation as the Motorola Droid A855 uses, but simplifies the user's experience of opening the notifications menu. For example, by registering the touch as the user's finger slides onto the screen (e.g., either as a regular touch on the status bar or applications tab, as known in the Motorola Droid A855, or as a pull-in gesture, such as taught by Wilairat, Roth, or Roth Bezel Swipe) results in effectively increasing the size of the status bar and application tab. This simplifies the user's experience because the user does not have to try to specifically touch the narrow status bar or application tab and may instead start the gliding gesture off-screen to cross over the status bar to pull it either the notifications menu or applications menu open. As explained by Roth Bezel Swipe, "screens of mobile devices are necessarily small," which leads to the development of "smaller widgets" that "are harder to hit." Roth Bezel Swipe at 1523. But out-to-in swiping gestures that "start on the bezel and move[] into the display" allow for contacting "a narrow target (the red bar) positioned flush against the display edge." Roth Bezel Swipe at 1524. In other words, "[s]wipes" from outside-to-inside the touch screen "are recognized by detecting touches inside a thin rectangular area [window] positioned flush against the display screen." Roth Bezel Swipe at 1524. This "enables the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" |

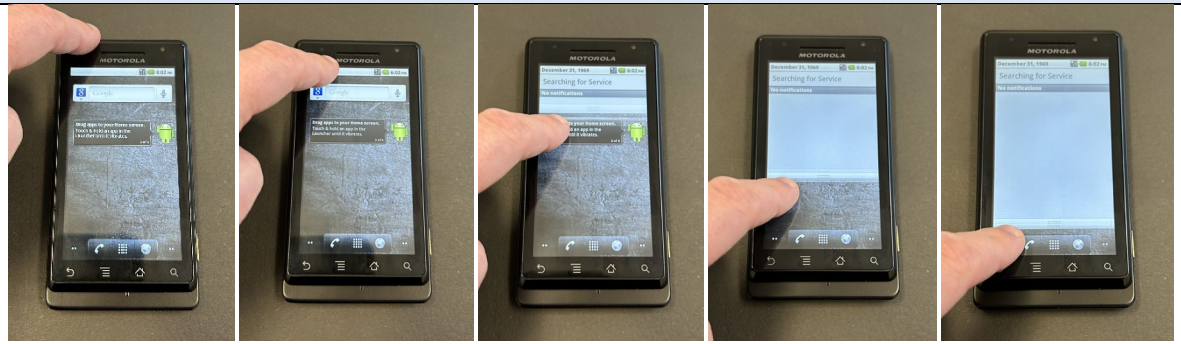
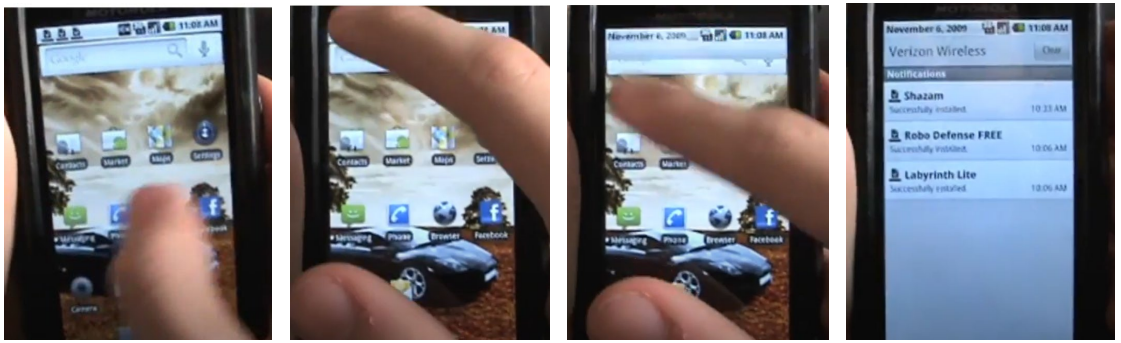
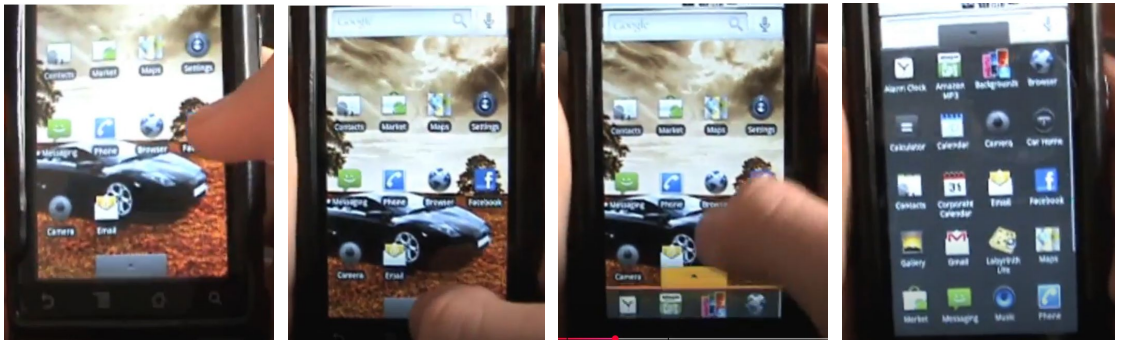
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524.<br><br>It was well known to a POSITA that activating a function when a user performs an out-to-in gliding gesture, such as over the status bar or applications tab, "enables the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524. Activating functions where "[u]sers can invoke actions with swiping features across a section of the display [touch screen] side from the outside to the inside" also "requires minimal display real estate," whereby being beneficial to mobile devices that have small screens. Roth, [0009]. A POSITA would have known that such activation operations, like crossing activations, "can be more efficient than pointing tasks," especially on small-screen devices, such as mobile phones. Roth, [0009]. When outside-to-inside gliding activations are used, a POSITA would have known that the activation bar or window can be "made small so as to not take up valuable space on the display." Roth, [0036].<br><br>Activating a function when a user performs an out-to-in gliding gesture over a window on a touch screen, such as over the status bar or applications tab, was routine and conventional to POSITAs, as shown by the Motorola Droid A855, Wilairat, Roth, and/or Roth Bezel Swipe. Moreover, it was successfully implemented in commercial prior art devices, such as the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Palm Pre, and the Neonode N2. Incorporating a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, being processed by the processor to cause an action assigned to said window into the Motorola Droid A855, shown above, represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with the Motorola Droid A855, represent nothing more than combining prior art elements according to known methods and techniques (registering a user's gliding action when it first crosses into the status bar or applications tab of the Motorola Droid A855 and then moves towards the inside of the touch screen) to yield predictable |

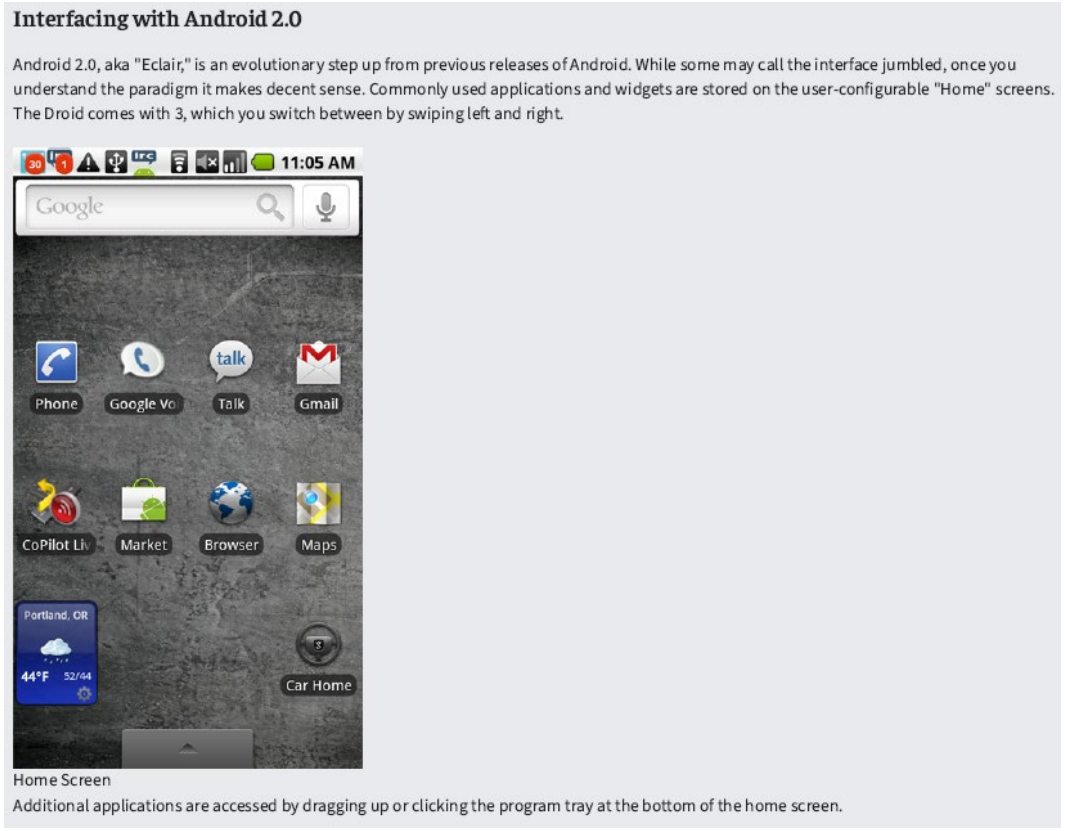
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | results (to open the Motorola Droid A855's notification menu or application menu, such as by sliding it open, as used in the Motorola Droid A855). |
| **[1E]** wherein said at least one window is located on the touch screen before said gliding action begins. | The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said at least one window is located on the touch screen before said gliding action begins."<br><br>For example, the Motorola Droid A855 includes that said at least one window, such as the status bar window or applications tab window, is located on the touch screen before said gliding action begins.<br><br>  <br><br>Motorola Droid A855 2.2 Device. |

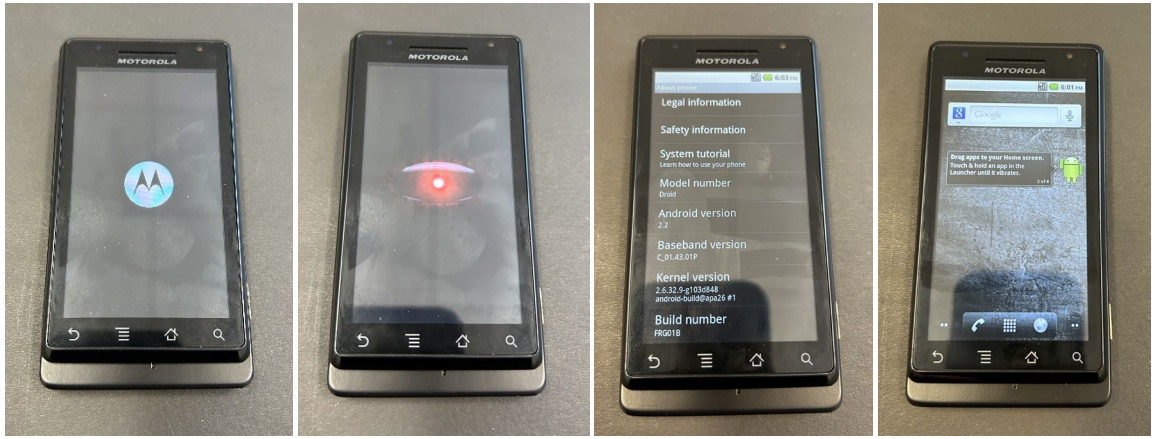
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola Droid A855 2.2 Device.<br>  <br>Motorola DROID: Android 2.0 Overview.<br>  |

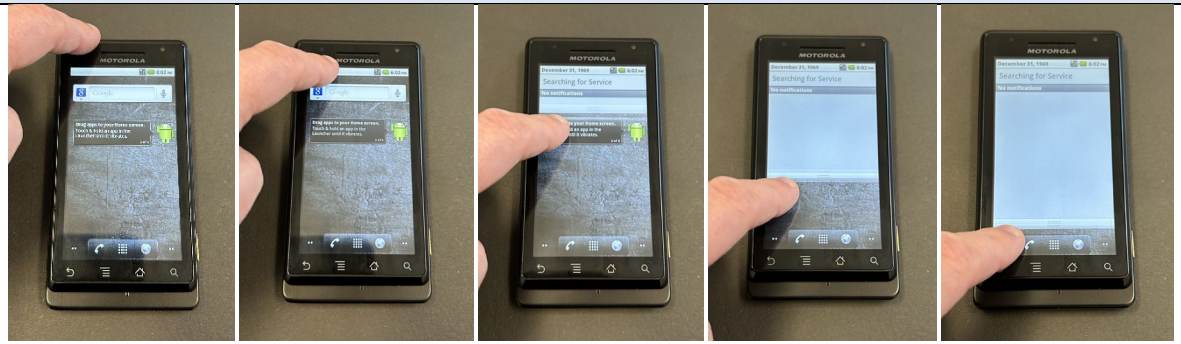
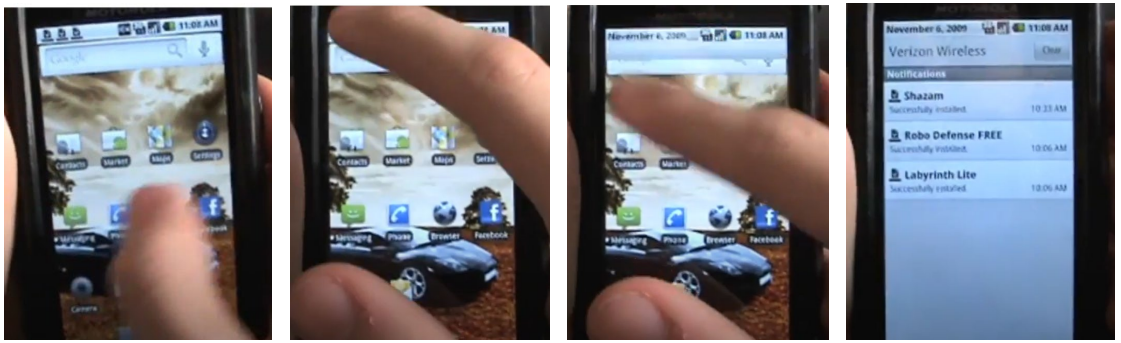
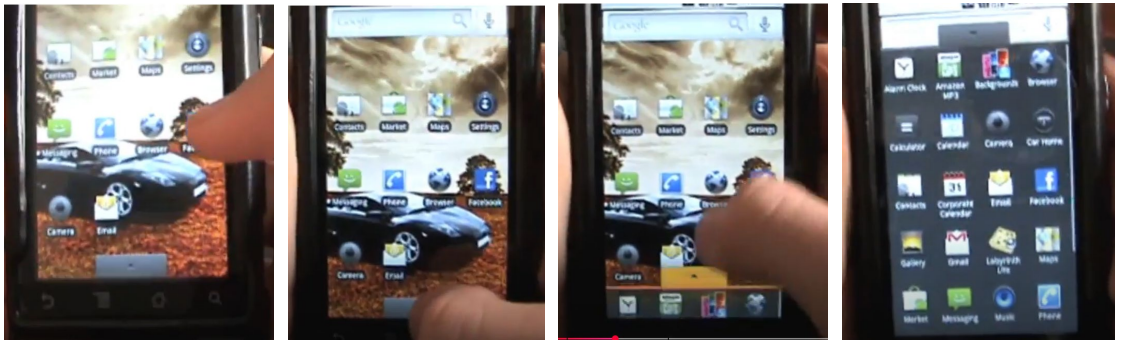
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Motorola DROID: Android 2.0 Overview.<br>  <br><br>About a DROID: a review of Motorola's newest smartphone.<br>*See, e.g.*, Motorola DROID: Android 2.0 Overview; Motorola Droid (Verizon Wireless) review: Motorola Droid (Verizon Wireless); About a DROID: a review of Motorola's newest smartphone. |

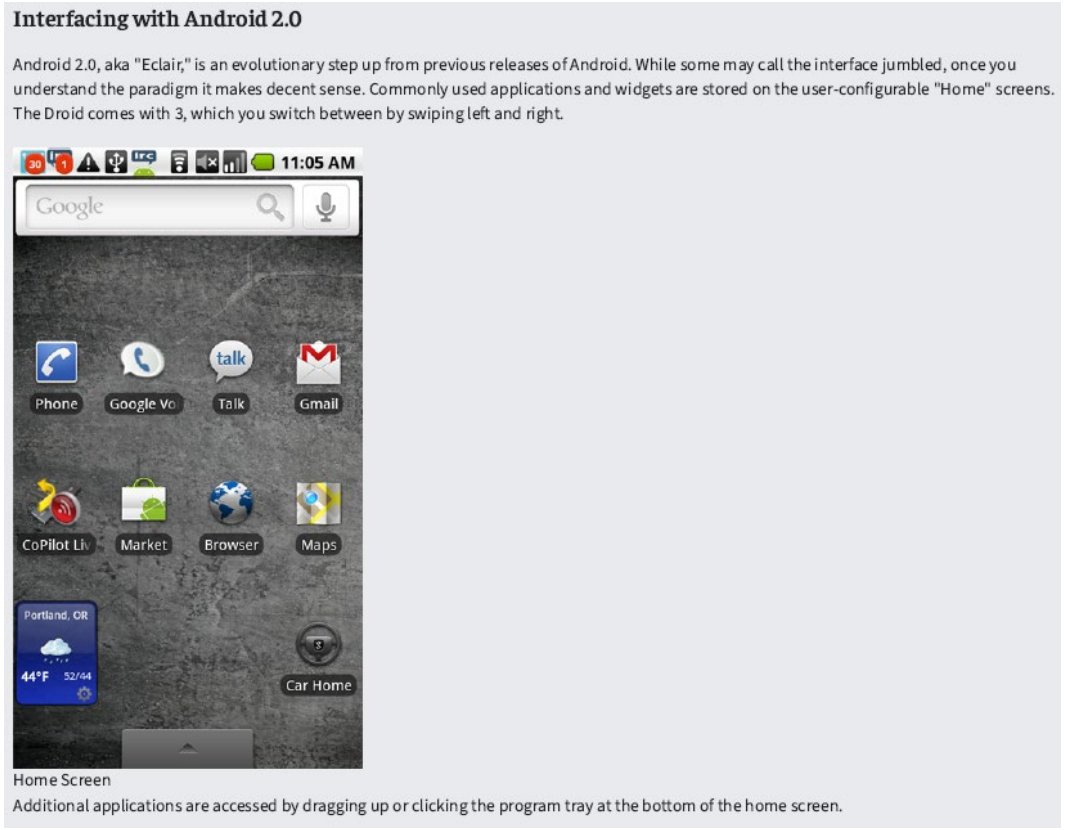
| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[2]** The system of claim 1, wherein the system relates said gliding action to a function which is not related to a mouse function. | Claim 2 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 2 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "the system relates said gliding action to a function which is not related to a mouse function."<br><br>For example, the Motorola Droid A855 relates the gliding action over the status bar or applications tab to a function (e.g., opening a menu interface) that is not related to a mouse function.<br><br>  <br><br>Motorola Droid A855 2.2 Device. |

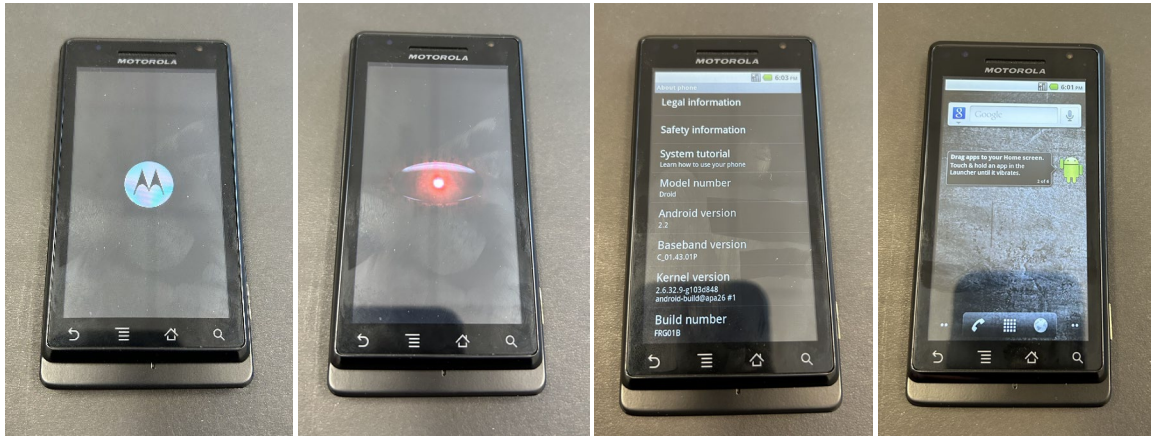
| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola Droid A855 2.2 Device.<br>  <br>Motorola DROID: Android 2.0 Overview.<br>  |

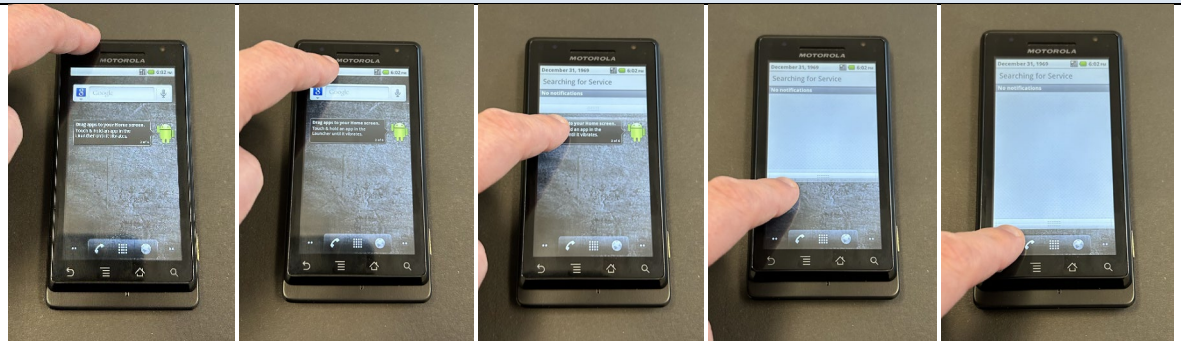
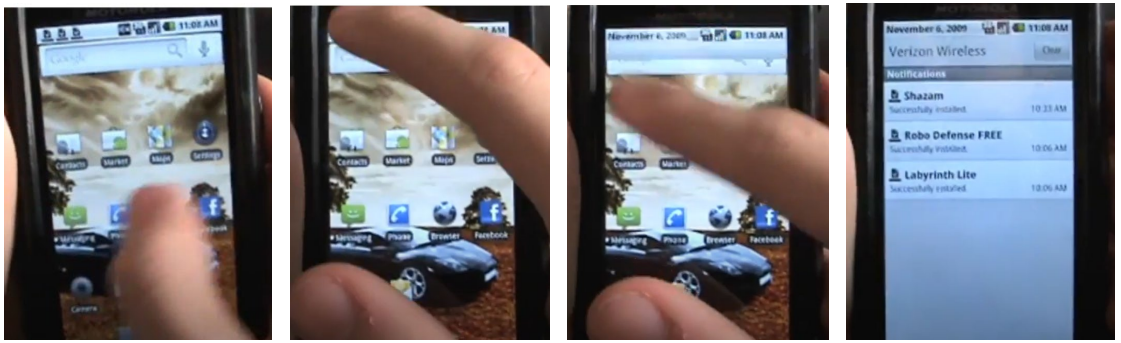
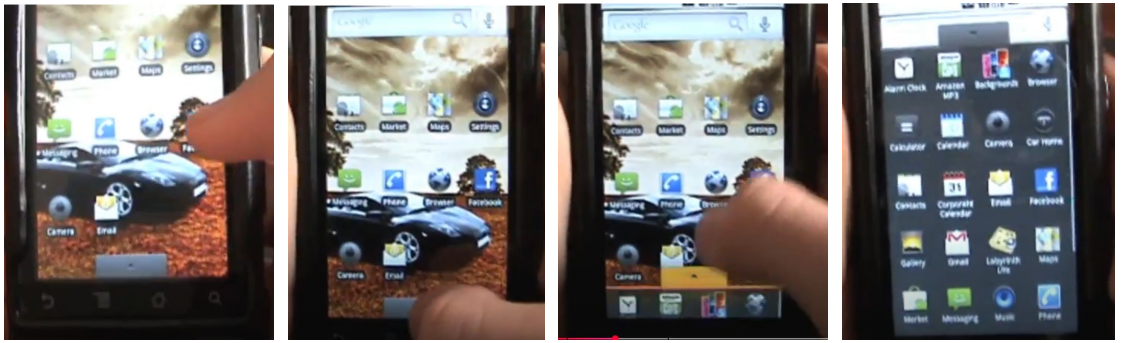
| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Motorola DROID: Android 2.0 Overview.<br>  <br><br>About a DROID: a review of Motorola's newest smartphone.<br>*See, e.g.*, Motorola DROID: Android 2.0 Overview; Motorola Droid (Verizon Wireless) review: Motorola Droid (Verizon Wireless); About a DROID: a review of Motorola's newest smartphone. |

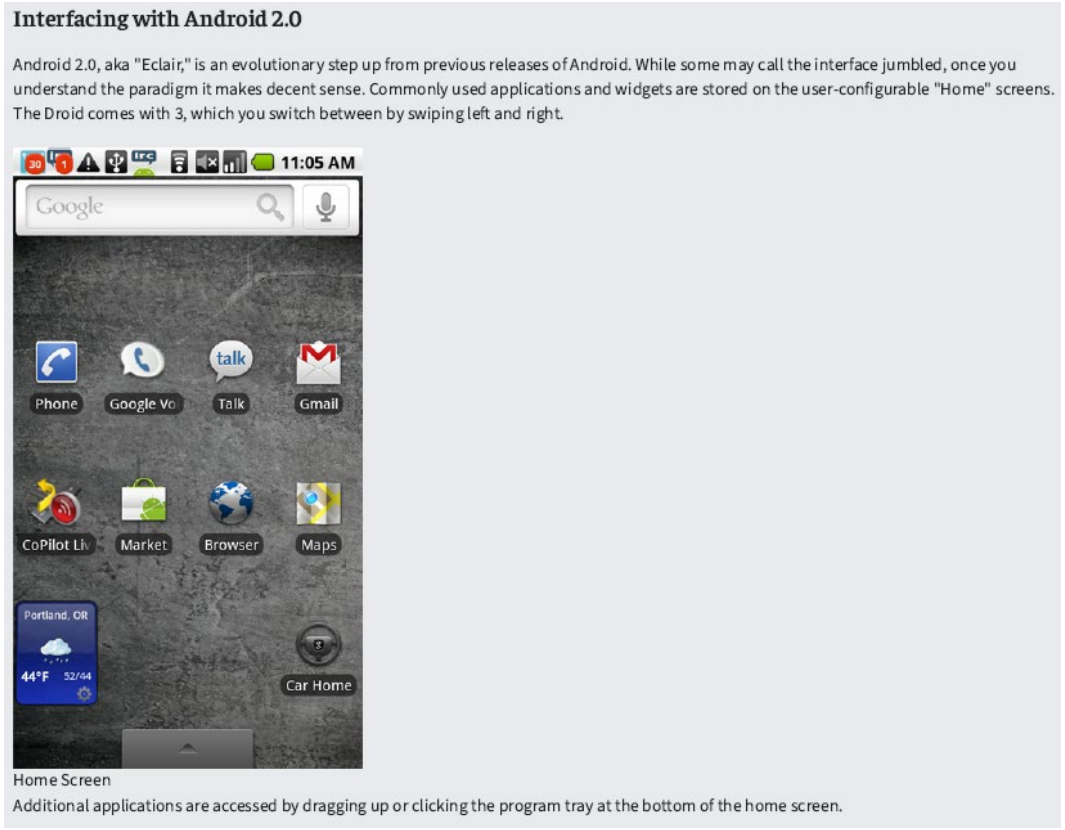
| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[3]** The system of claim 1, wherein said at least one window comprises at least one bar located on said edge of the screen. | Claim 3 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 3 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window comprises at least one bar located on said edge of the screen."<br><br>For example, the Motorola Droid A855 includes the status bar and/or applications tab windows as bars located on the top and bottom edges of the touch screen, respectively.<br><br>  <br>Motorola Droid A855 2.2 Device. |

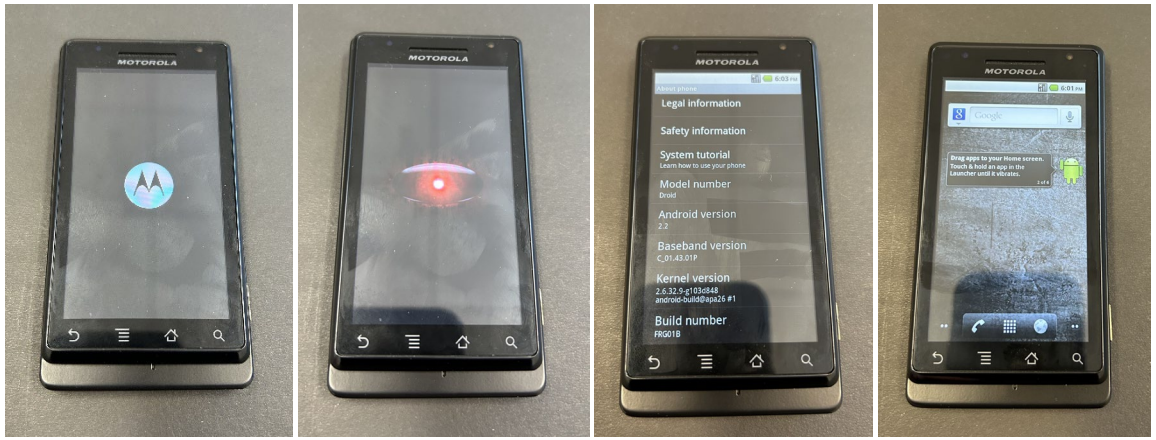
| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola Droid A855 2.2 Device.<br>  <br>Motorola DROID: Android 2.0 Overview.<br>  |

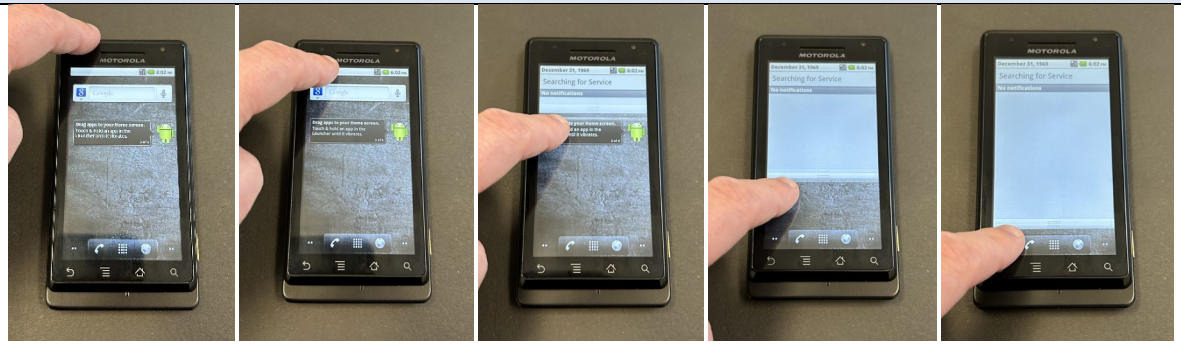
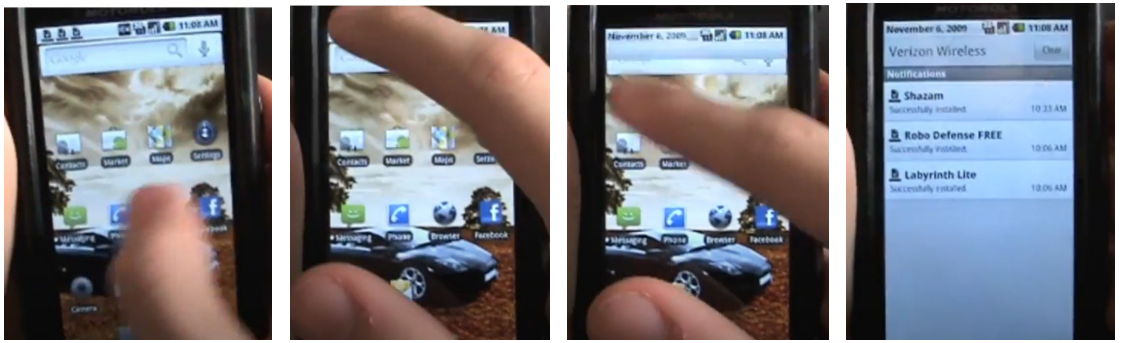
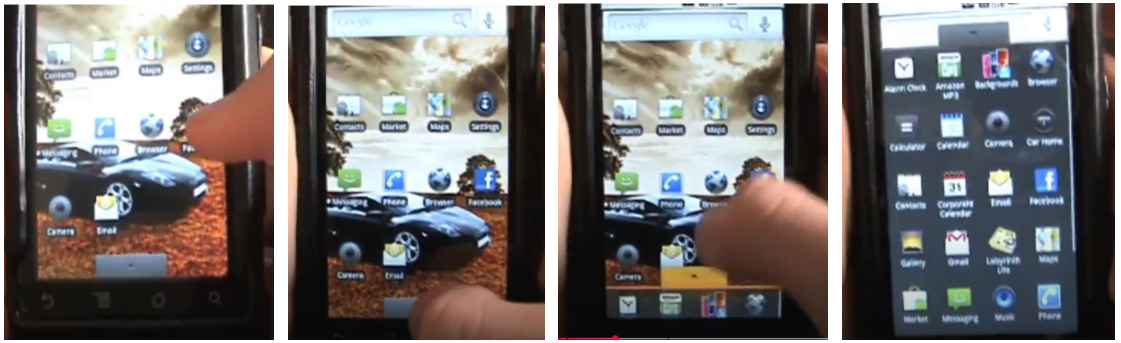
| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Motorola DROID: Android 2.0 Overview.<br>  <br><br>About a DROID: a review of Motorola's newest smartphone.<br>*See, e.g.*, Motorola DROID: Android 2.0 Overview; Motorola Droid (Verizon Wireless) review: Motorola Droid (Verizon Wireless); About a DROID: a review of Motorola's newest smartphone. |

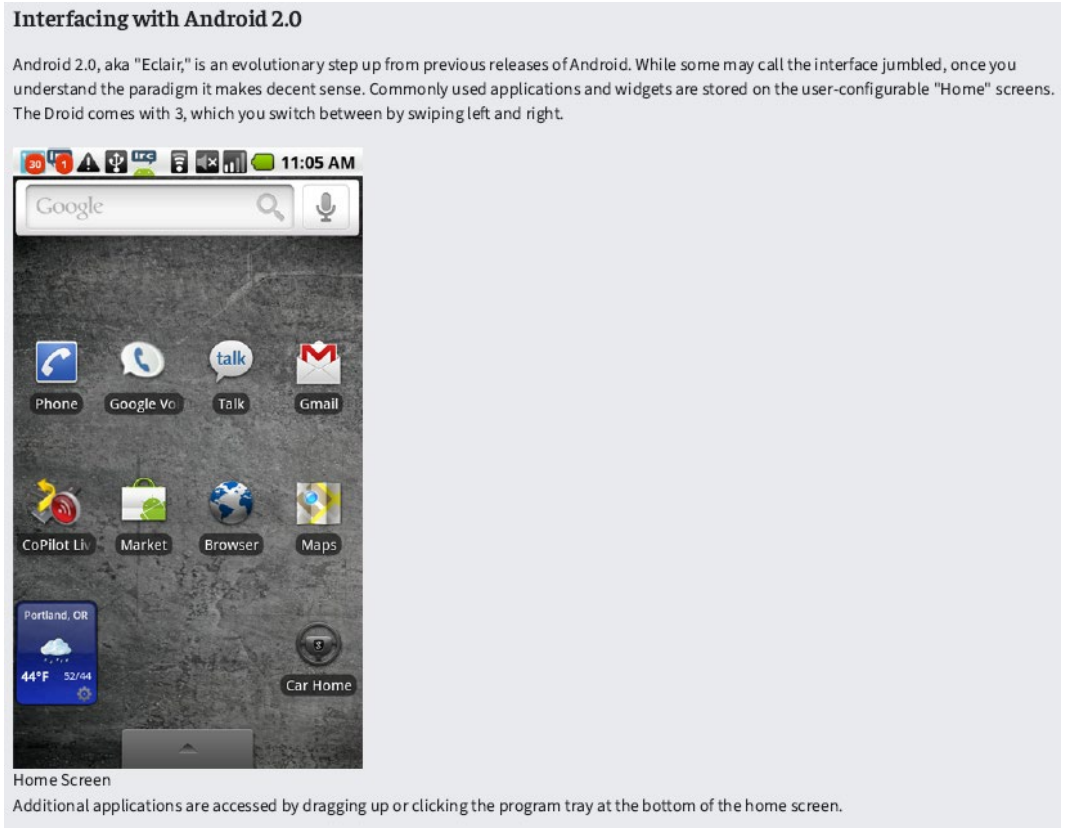
| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[4]** The system of claim 3, wherein said at least one bar extends along a substantial portion of an edge of the touch screen. | Claim 4 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 4 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one bar extends along a substantial portion of an edge of the touch screen."<br><br>For example, the Motorola Droid A855 has the status bar extending along the length of the top edge of the touch screen. The Motorola Droid A855 also has an applications tab extending along a substantial portion of the bottom edge of the touch screen.<br><br>  <br><br>Motorola Droid A855 2.2 Device. |

| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola Droid A855 2.2 Device.<br>  <br>Motorola DROID: Android 2.0 Overview.<br>  |

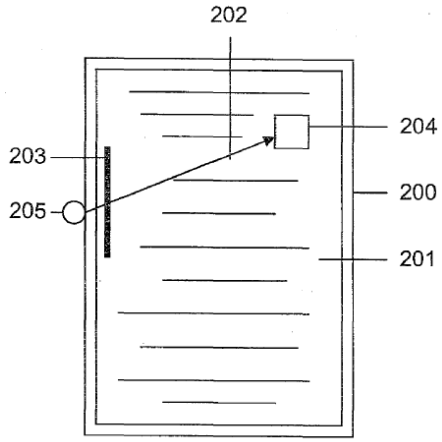
| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Motorola DROID: Android 2.0 Overview.<br>  <br><br>About a DROID: a review of Motorola's newest smartphone.<br>*See, e.g.*, Motorola DROID: Android 2.0 Overview; Motorola Droid (Verizon Wireless) review: Motorola Droid (Verizon Wireless); About a DROID: a review of Motorola's newest smartphone. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[5]** The system of claim 3, wherein said bar is in a form of a line. | Claim 5 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 an 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 5 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said bar is in a form of a line."<br><br>For example, the Motorola Droid A855 has the status bar in the form of a line.<br><br>  <br>Motorola Droid A855 2.2 Device. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola Droid A855 2.2 Device.<br>  <br>Motorola DROID: Android 2.0 Overview.<br>  |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Motorola DROID: Android 2.0 Overview.<br>  <br><br>About a DROID: a review of Motorola's newest smartphone.<br>*See, e.g.*, Motorola DROID: Android 2.0 Overview; Motorola Droid (Verizon Wireless) review: Motorola Droid (Verizon Wireless); About a DROID: a review of Motorola's newest smartphone.<br><br>To the extent Keyless argues that the Motorola Droid A855 does not disclose or render obvious the additional limitations of claim 5, it would have been obvious in view of the Motorola Droid A855, |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | POSITA's pre-existing knowledge, and/or Motorola Droid A855 combined with the other references charted for this patent in these invalidity contentions, including Roth, Roth Bezel Swipe, Hinckley, the Samsung Behold II, the Palm Pre, and the Neonode N2. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>For example, Roth teaches using a swiping (e.g., gliding) action from outside a screen through a window in the form of a line at the edge of the screen on the screen towards the inside of the touch screen to activate a function associated with the window. For example, Roth describes "[a] crossing-based interface along the bounds of the display is a viable solution. Users can invoke actions with swiping gestures across a section of the display side from the outside to the inside." Roth at [0009]. Roth teaches advantages of such outside-to-inside gliding activations, for example, that "they can be more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to the distance vector between the line and the cursor," and "that a well positioned line requires significantly less display space than a button for similar performance characteristics." Roth at [0010]. "One example of such a gesture is a continuous swiping motion from the activation point representing a desired action or even from the bezel of the device, through the activation point and to the target on the display." Roth at [0015]. Roth explains that such outside-to-inside gliding actions "allow[] the active area of an activation point to be much smaller on a display, such as the lines shown in Roth's figures, "due to the utilization of a greater average weight throughout a touch sensitive display, which creates a higher probability of activating on a narrow activation point or operating on a small target," "save[s] valuable display space on the screen, since the activation point can be made smaller on the display as a result," and may "begin from outside the display for ease of use." Roth at [0015]. As Roth explains, a "bar," which Roth shows as a line on the touch screen, may "represent[] the desired action." Roth at [0017]. "[A]n activation point 203 (represented as a bar in this example) displayed on the edge of the screen which represents the desired action of selecting. The bar is made small [e.g., a line] so as to not take up |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | valuable space on the display. The user can then select the target 204 through the use of a gesture 202, such as swiping, pinching, tapping or other gestures ….” Roth at [0036]. As shown in FIG. 2B, “[t]he user can begin his gesture from either on the bar [line 203] itself or from outside the display 205 and continue the gesture through the bar and to target as if the user were bringing the action to the target. An example of such a gesture is if the user utilized a continuous swiping motion with his finger from the bar representing a desired action to the target on the display.” Roth at [0039].<br>  <br><br>Roth at FIG. 2B.<br><br>Moreover, each of Roth Bezel Swipe, Hinckley, the Samsung Behold II, the Palm Pre, and the Neonode N2 teaches a gliding action from off screen to on screen to activate a function assigned to the window, where the window is a bar in a form of a line.<br><br>Roth Bezel Swipe teaches activation gestures related to mobile devices having touch screens. A bezel swipe gestures is an outside-to-inside swiping (e.g., gliding) gesture across a line shown on the edge of the display screen, in which “[t]he user starts a Bezel Swipe gesture on the bezel, which is the physical touch insensitive frame that surrounds the display. The finger is then swiped through a part of the display edge into the display, which enters selection mode. Next, the user moves the |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | finger onto an object or display position and selects it by lifting the finger off the display, which ends selection mode. Different edge portions represent different actions and are distinctively marked." Roth Bezel Swipe at 1524. "Swipes are recognized by detecting touches inside a thin rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524. As such, "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display. Figure 2 illustrates this. A touch sensitive display translates the contact area of the finger with the display into an activation point." Roth Bezel Swipe at 1524. "The Bezel Swipe gesture … starts on the bezel and moves into the display. Therefore the contact area is gradually increased until it exceeds the contact threshold of the display. … Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. Roth Bezel Swipe "use[s] a thin colored bar," shown as a line, to indicate where Bezel Swipe actions may be performed. Roth Bezel Swipe, 1524, Figures 1, 2 (showing and describing a "red bar" in the form of a line). As one example, Roth Bezel Swipe describes "a green 8 x 160 pixels bar [line] centered vertically against the left display edge, with an active area that was 12 pixels wide." Roth Bezel Swipe, 1525, Figure 1. This outside-to-inside crossing gesture has advantages, for example, "the crossing of the touch-insensitive bezel in conjunction with the properties of touch sensitive displays enables the reliable activation of a button that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

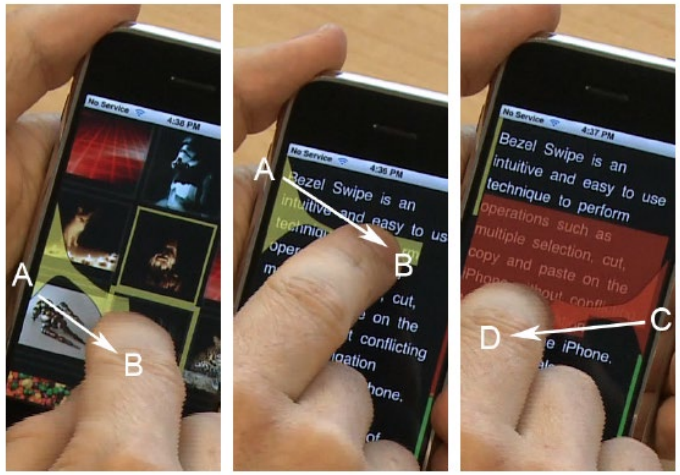



**Figure 1. The Bezel Swipe prototype in action. Left panel: A swipe from A to B selects an image. Middle panel: A swipe from A to B marks the beginning of a text selection. Right panel: A swipe from C to D marks the end of the text selection.**

Roth Bezel Swipe at Figure 1.

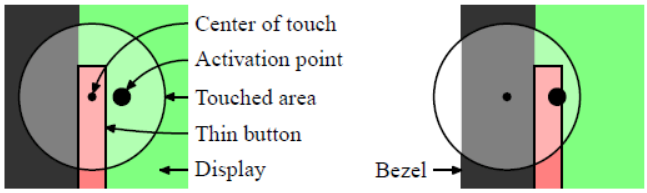
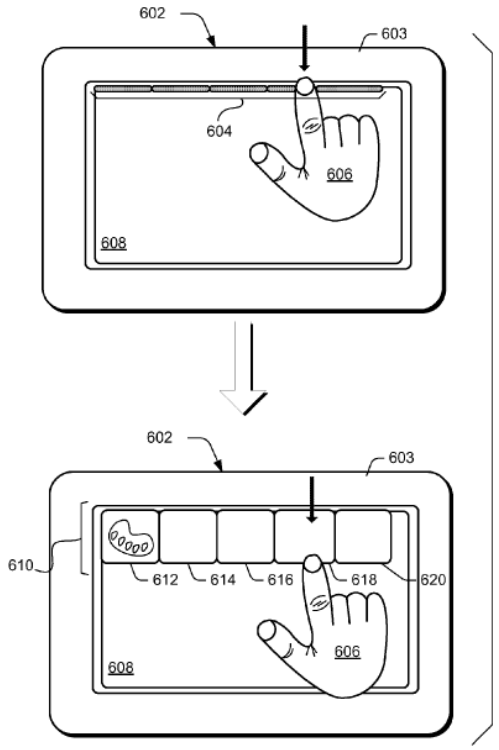


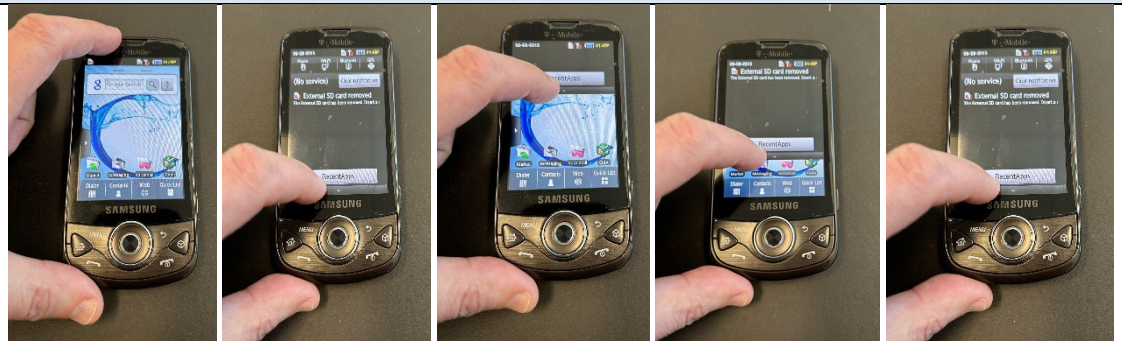
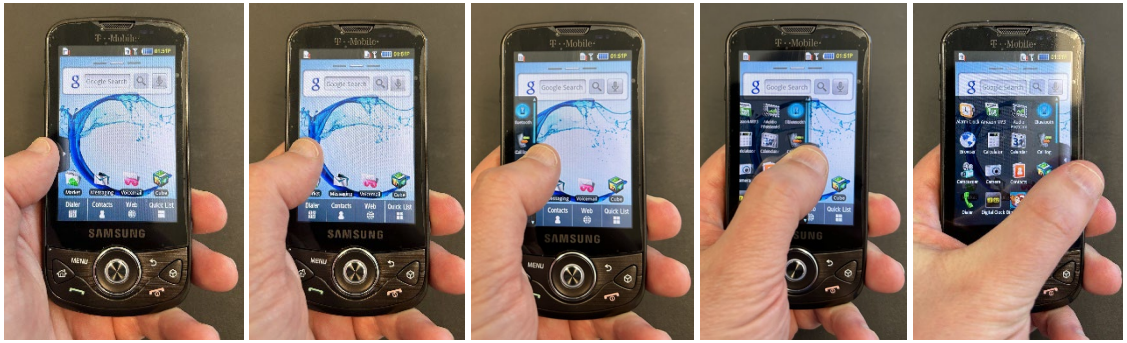

**Figure 2. Touching narrow targets close to the bezel: a touch (large circle) centered on the target (left) may not activate it whereas a touch significantly overlapping the bezel (right) does.**

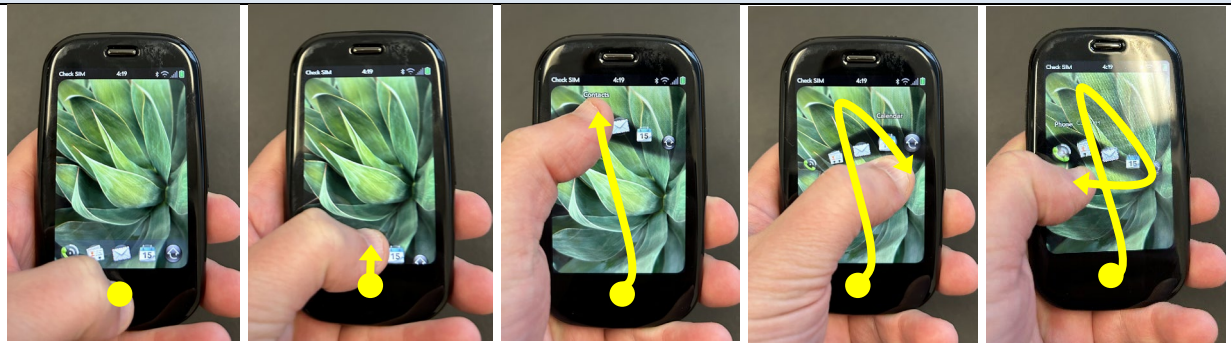
Roth Bezel Swipe at Figure 2.

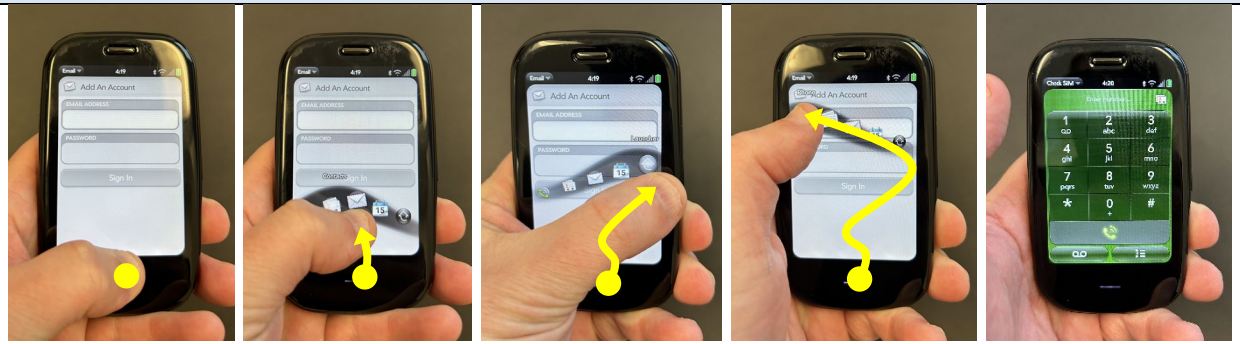
Hinckley teaches a visual affordance window, shown as a line across the top of the touch screen, indicating a pull-down bezel menu is shown at the edge of a mobile device using a gliding action

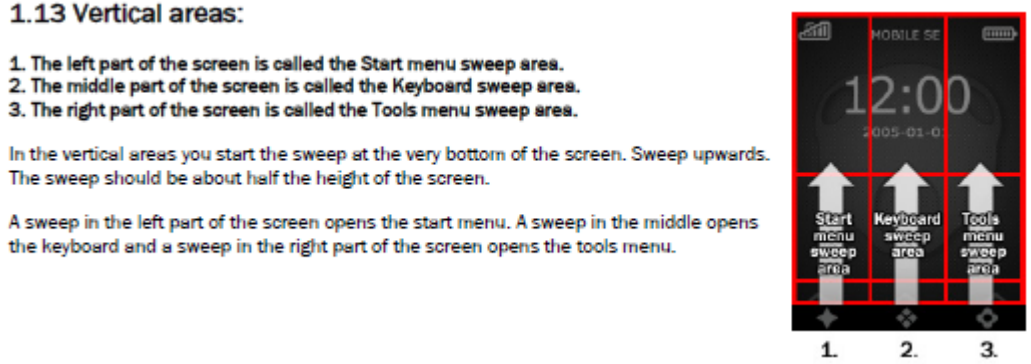
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | from outside of the touch screen towards the inside of the touch screen. Hinckley at FIGS. 5, 6. For example, in FIG. 5, "[s]tep 500 displays a visual affordance on a display device associated with a computing device" and is shown at as a window or bar 604 being a five-part line in FIG. 6. Hinckley at [0068], [0072], FIGS. 5, 6. Then, "[s]tep 502 receives a bezel gesture input relative to the visual affordance," such as from off-screen to on-screen over the visual affordance. Hinckley at [0068], [0072], FIGS. 5, 6. After the off-screen to on-screen gesture, "[s]tep 504 accesses functionality associated with the received bezel gesture input." Hinckley at [0068], [0072], FIGS. 5, 6. Hinckley explains that "off-screen to on-screen motion (or vice versa) can be utilized as a mechanism to expose a menu or to access some other type of functionality." Hinckley at [0071]. As shown in FIG. 6, "device 602 includes a bezel 603 and a visual affordance 604 that is rendered on display device 608." Hinckley at [0072], FIG. 6. The "visual affordance 604" may appear as "in the form of a semi-transparent strip" (e.g., line) and "can be utilized to provide a hint or indication of accessible functionality, in this case a bezel menu, associated with the bezel." Hinckley at [0072], FIG. 6; *see also* [0062], [0063], [0092] (describing visual affordance as "semi-transparent strip"). "[T]he bezel menu can be accessed through a bezel gesture in which a finger of user's hand 606 touches the bezel and then moves across the bezel and onto the display device 608 in the direction of the illustrated arrow." Hinckley at [0073], FIG. 6. After this off-screen to on-screen gesture across the line of the semi-transparent visual affordance, the "bezel menu 610 to be dropped down at which time it can become fully opaque." Hinckley at [0073], FIG. 6. Hinckley further explains that "bezel menu 610 includes multiple selectable icons or slots 612, 614, 616, 618, and 620. Each of the icons or slots is associated with a different functionality such as, for example, paint functionality, pen functionality, note functionality, object creation, object editing, and the like." Hinckley at [0074], FIG. 6. Hickley teaches, however, that "any type of functionality can be associated with the icons or slots." Hinckley at [0074], FIG. 6. The "bezel menu 610 can enable a user to access and activate commands, tools, and objects." Hinckley at [0075], FIG. 6. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Fig. 6<br>Hinckley at FIG. 6.<br>The Samsung Behold II teaches, as one example, that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status bar, which is a bar in the form of a line. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>The Samsung Behold II device.<br>The Samsung Behold II also teaches that the user may perform a gliding action from the plastic housing surrounding the touch screen to the left of the applications tab window, which is a bar in the form of a line.<br>  <br>The Samsung Behold II device.<br>The Palm Pre teaches, as one example, that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen (e.g., crossing over the line of the Quick Launch window that is in the form of a line and shows five application icons and identifying the movement from off-to-on screen). |

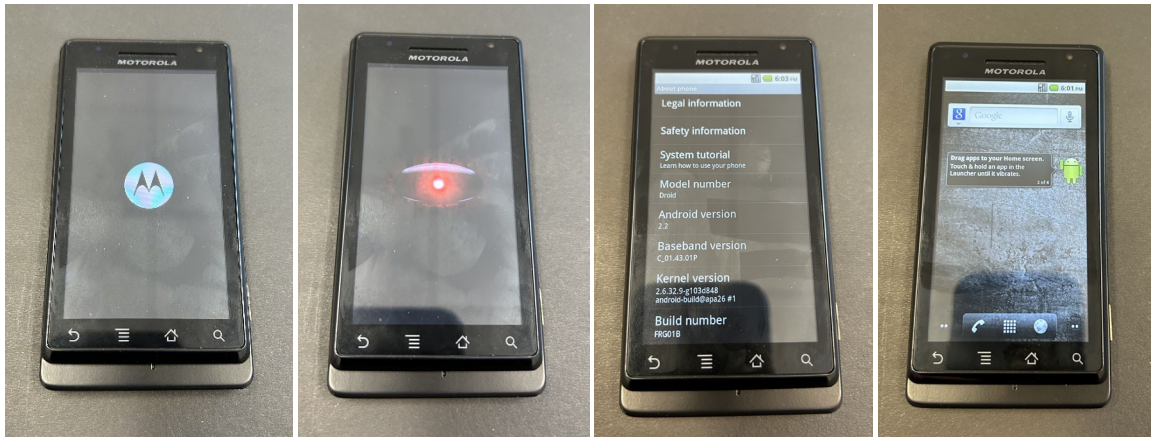
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Palm Pre.<br>The Palm Pre also teaches, as another example, that, when an application is open on the Palm Pre device (such as the mail application shown below), a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen to display the Quick Launch window (e.g., crossing from off-to-on screen to display the Quick Launch window). On information and belief, the demarcation between the Palm Pre's gesture area and the touch screen area forms a line. The user's touch first interacts with the Quick Launch window on the touch screen by crossing the line between the gesture area and the display area, because the Quick Launch window is not displayed in the gesture area, but as shown below, appears with the user's off-to-on screen gesture as the finger moves onto the screen. The gliding action causes a processor to perform the action associated with the Quick Launch window, such as moving the Quick Launch window with the user's finger in any arbitrary direction around the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. As shown below, lifting on the "Phone" icon opens the Phone application. |

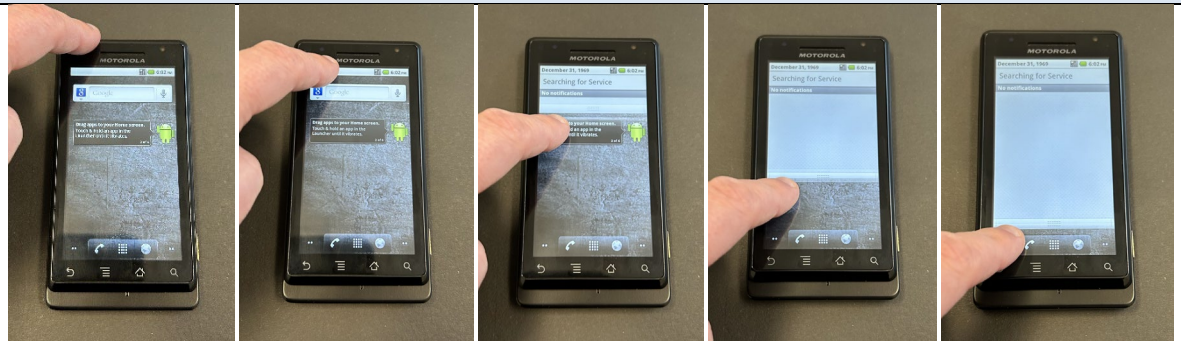
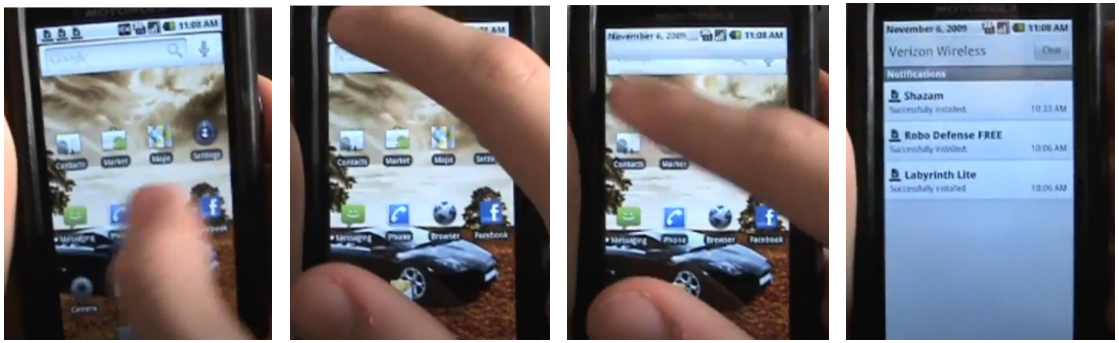
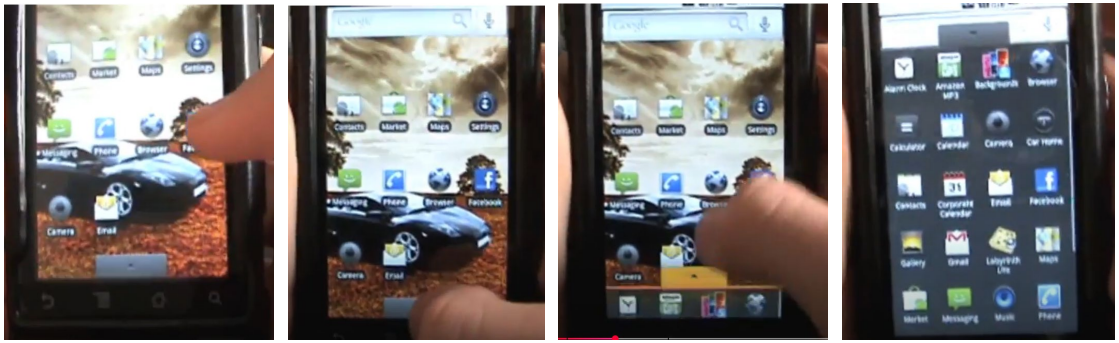
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Palm Pre.<br>The Neonode N2 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen over the indicated icons or from the sides of the screen as indicated by the various arrows (from outside of the screen), over the arrows towards the main application display toward the inside of the touch screen (e.g., crossing over the window identifying the movement from off-to-on screen). The user's touch first interacts with the window showing the arrows on the touch screen because the outer housing does not contain touch-sensitive elements. The gliding action over the arrows from off-to-on screen causes a processor to perform the action associated with one of the three icons printed below the touch screen or from the side of the touch screen. As shown below and in the N2's User Manual, such gestures cross over a thin line at the bottom of the touch screen between the printed marking and the middle of the display.<br>  |

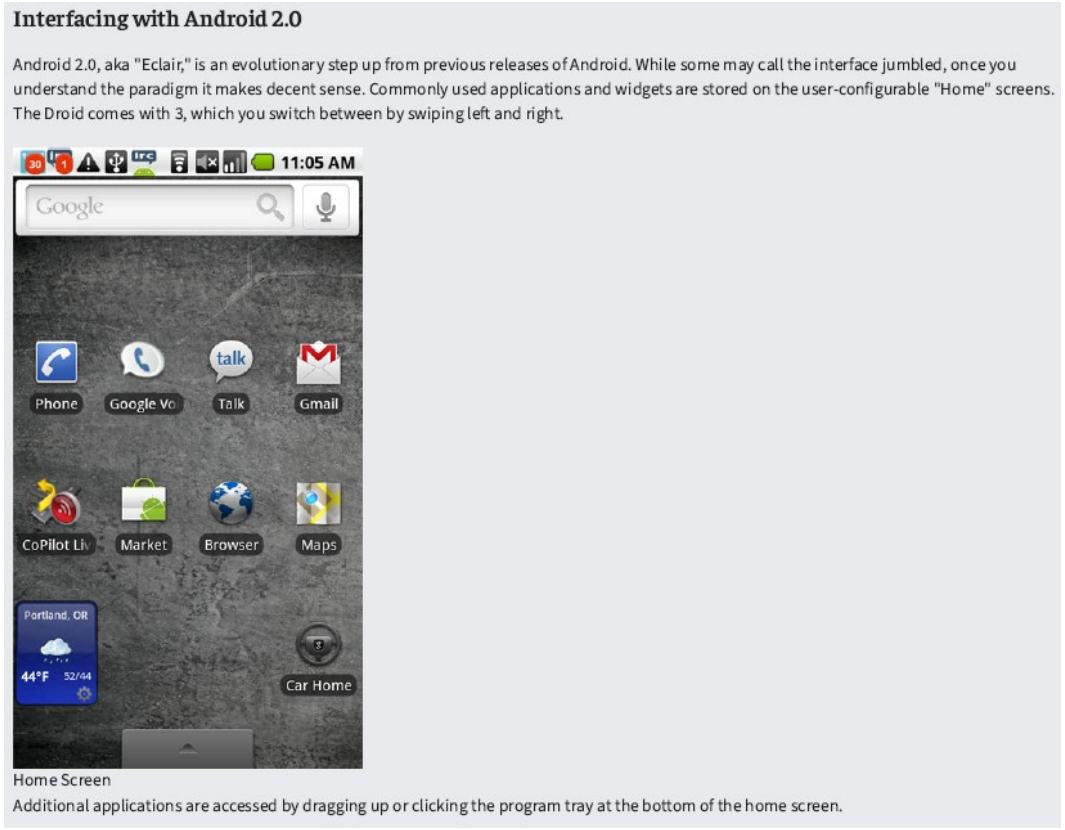
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Neonode N2.<br>  <br>1.13 Vertical areas:<br>1. The left part of the screen is called the Start menu sweep area.<br>2. The middle part of the screen is called the Keyboard sweep area.<br>3. The right part of the screen is called the Tools menu sweep area.<br>In the vertical areas you start the sweep at the very bottom of the screen. Sweep upwards. The sweep should be about half the height of the screen.<br>A sweep in the left part of the screen opens the start menu. A sweep in the middle opens the keyboard and a sweep in the right part of the screen opens the tools menu.<br><br>Neonode N2 User Manual 7.<br>A POSITA would have found it obvious to incorporate the Motorola Droid A855's status bar window or the application tab window in the form of a line, as claimed, to reduce the amount of space used to display the status bar and/or applications tab, thereby permitting more space for the main screen content to be shown. Each of the Motorola Droid A855, Roth, Roth Bezel Swipe, Hinckley, the Samsung Behold II, the Palm Pre, and/or the Neonode N2, teaches the window or area for implementing the gliding gesture may be in a form of a line. Roth and Roth Bezel Swipe teach the advantages of using a line, as opposed to a tab when implementing such dragging/crossing interfaces, which would have motivated a POSITA to modify the Motorola Droid A855's applications tab to reduce its size on the screen, thereby providing more space for the main display. Roth explains that using lines or thin bars "is a viable solution" for the types of off-to-on screen gliding gestures used to open the notifications menu and/or applications menu in the Motorola Droid A855. Roth at [0009]. Roth also teaches that, even though the bars may be thin (which Roth shows as a line), "they can be more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to the distance vector between the line and the cursor," and "that a well positioned line requires significantly less display space than a button for similar performance characteristics." Roth at [0010], FIG. 2B. Roth further explains that using a thin "bar," which Roth shows as thin lines, "save[s] valuable display space on the screen, since the activation point can be made smaller on the display as a result," and may "begin from outside the display for |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | ease of use." Roth at [0015], [0017], FIG. 2B. A POSITA would have been further motivated because, the "bar [line] is made small [e.g., a line] so as to not take up valuable space on the display" so the user can activate it using, for example, an off-to-on screen swiping gesture Roth at [0036], FIG. 2B.<br><br>Roth Bezel Swipe provides further motivations to a POSITA to make the window a bar in a form of a line, such as for the application tab of the Motorola Droid A855. For example, "[s]wipes are recognized by detecting touches inside a thin rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524, Figures 1, 2. This has the advantage that "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display," and therefore "leverages display pixels that are not typically touched during regular interactions" because they use the thin line on the edge of the screen. Roth Bezel Swipe at 1524, Figure 2. Roth Bezel Swipe provides an example of "a thin colored bar," shown as a line, to indicate where Bezel Swipe actions may be performed. Roth Bezel Swipe, 1524, Figures 1, 2 (showing and describing a "red bar" in the form of a line). As one example, Roth Bezel Swipe describes "a green 8 x 160 pixels bar [line] centered vertically against the left display edge, with an active area that was 12 pixels wide." Roth Bezel Swipe, 1525, Figure 1. One advantage of using the thin line is that "the crossing of the touch-insensitive bezel in conjunction with the properties of touch sensitive displays enables the reliable activation of a button that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524-25, Figures 1, 2. Indeed, the Motorola Droid A855's status bar is already in the form of a line, and a POSITA would have been motivated to carry that through to minimize the amount of display required for, for example, the applications tab at the bottom of the screen. Such combination would also allow for the application bar to be always accessible, thereby making it easier for the user to switch applications or navigate between applications because, as Roth Bezel Swipe teaches, the thin line and crossing-gliding gesture "enables the reliable activation of a button that is so narrow that it would be difficult to activate by a direct touch" and thus would not be accidentally activated by a user (both because of the difficulty or direct tapping and also the off-to-on screen gliding activation gesture). Roth Bezel Swipe at 1524-25, Figures 1, 2. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | It was well known to a POSITA that implementing the status bar and/or applications tab in the Motorola Droid A855's interface as windows that are bars in the form of a line merely requires drawing the window for the activation area (e.g., status bar or application tab) as a line, which merely uses conventional graphics rendering, thus representing a mere design choice as to the shape of the activation area. The off-to-on screen activation is similarly well known and conventional operations to determine the user's gliding action across the activation area, such as used in the Motorola Droid A855, Roth, Roth Bezel Swipe, Hinckley, the Samsung Behold II, the Palm Pre, and/or the Neonode N2.<br><br>The use of a bar in the form of a line for the Motorola Droid A855's status bar and/or applications tab for the user to perform an out-to-in gliding gesture to activate the respective menu function was routine and conventional to POSITAs, as shown by the Motorola Droid A855, Tseng, Roth, and/or Roth Bezel Swipe. Moreover, it was successfully implemented in commercial prior art devices, such as the Samsung Behold II, the Palm Pre, and the Neonode N2. Incorporating the shape of the activation area, such as the status bar or applications tab to be a bar in the form of a line represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with the Motorola Droid A855, represent nothing more than combining prior art elements according to known methods and techniques (rendering the status bar or applications tab windows of the Motorola Droid A855 as a bar in the form of a line, then activating the menu as already known in the Motorola Droid A855 as the user's gliding action moves from offscreen towards the inside of the touch screen) to yield predictable results (to open the Motorola Droid A855's notification menu or application menu, such as by sliding it open, as used in the Motorola Droid A855). |

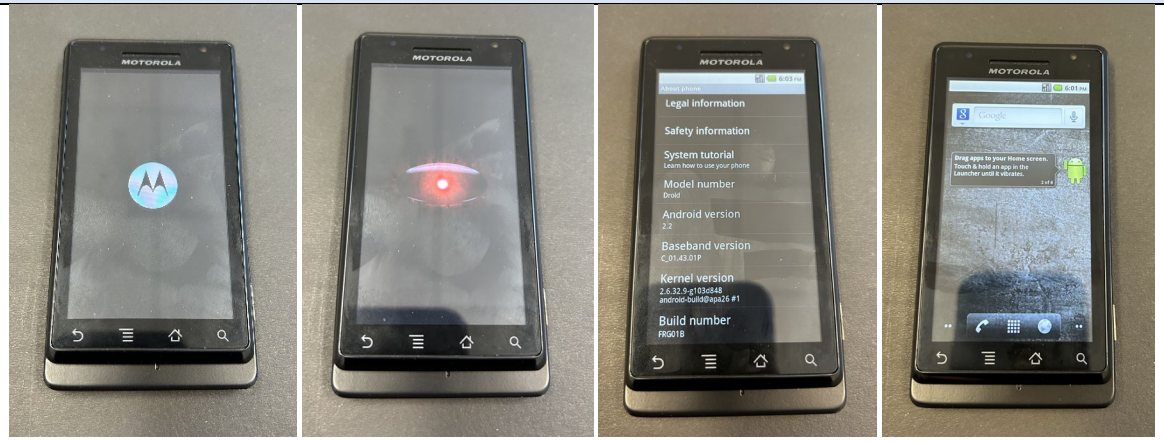
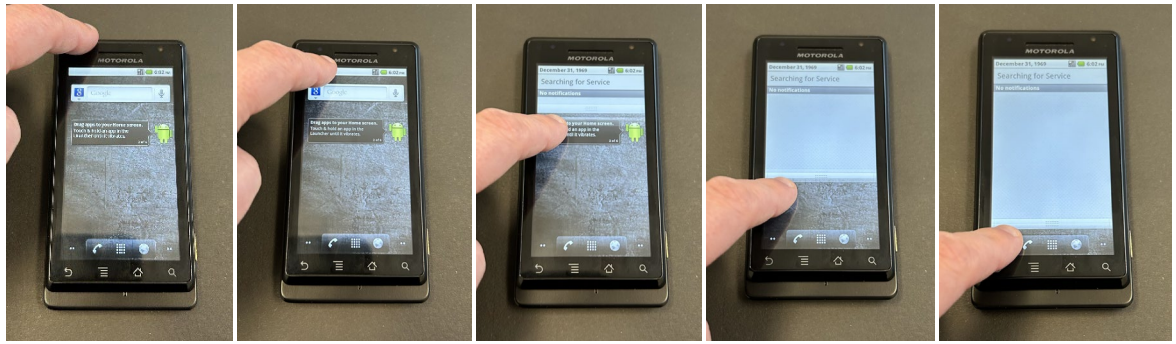
| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[6]** The system of claim 5, wherein said action is displaying an interface on the screen. | Claim 6 depends from claims 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 5, 3, and 1 here, which anticipate and/or render claims 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 5, 3, and 1 to show the additional limitations of claim 6 are anticipated and/or obvious for the same reasons set out in claims 5, 3, and 1.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying an interface on the screen."<br><br>For example, the Motorola Droid A855's gliding action at the status bar initiates an action of displaying the notifications panel interface on the touch screen. The Motorola Droid A855's gliding action at the applications tab initiates an action of displaying the applications menu on the touch screen.<br><br>  <br>Motorola Droid A855 2.2 Device. |

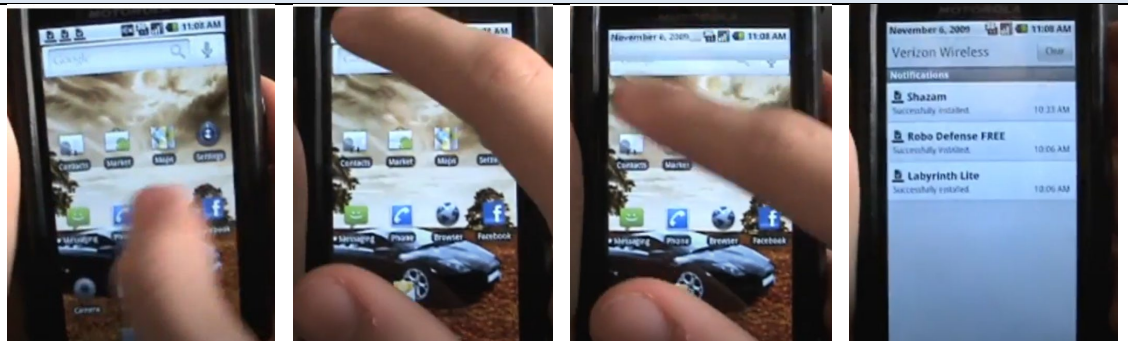
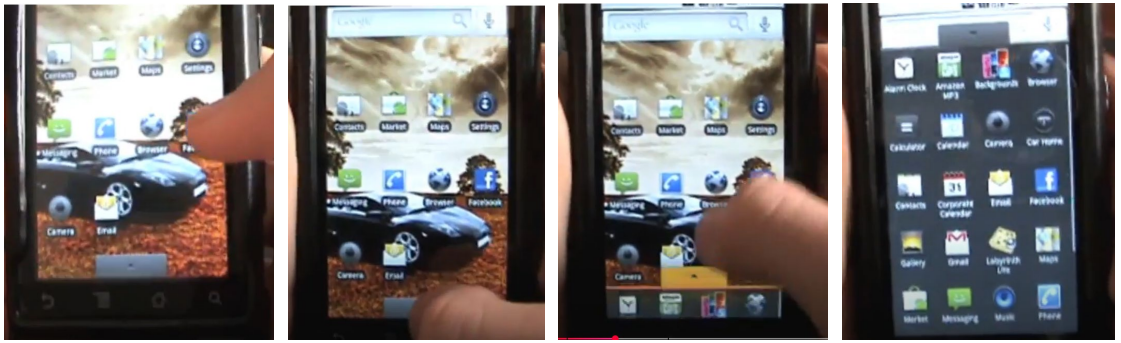
| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola Droid A855 2.2 Device.<br>  <br>Motorola DROID: Android 2.0 Overview.<br>  |

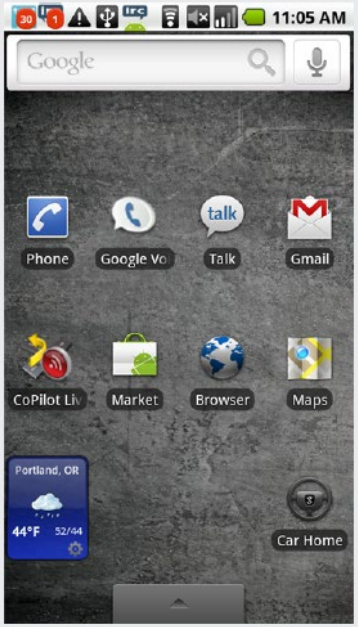
| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Motorola DROID: Android 2.0 Overview.<br>  <br><br>About a DROID: a review of Motorola's newest smartphone.<br>*See, e.g.*, Motorola DROID: Android 2.0 Overview; Motorola Droid (Verizon Wireless) review: Motorola Droid (Verizon Wireless); About a DROID: a review of Motorola's newest smartphone. |

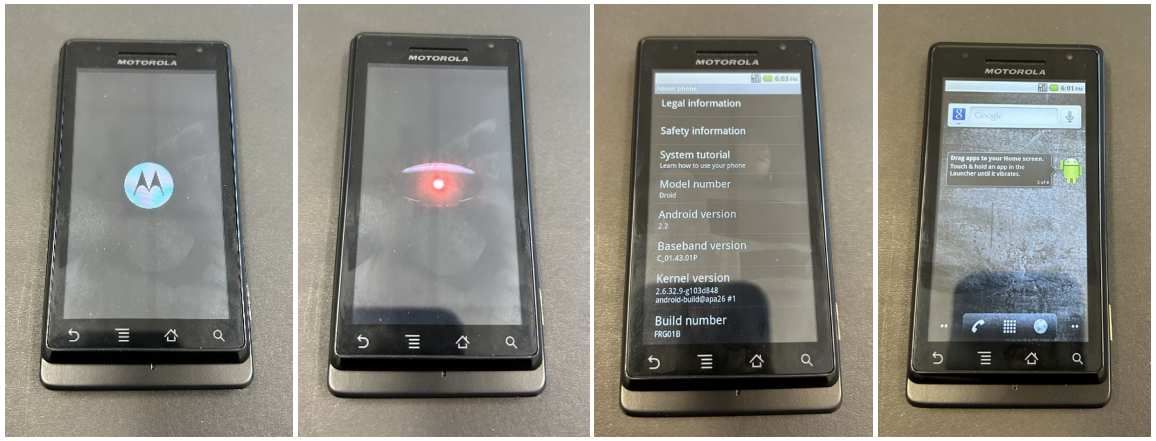
| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | A POSITA would have found it obvious that the Motorola Droid A855's applications tab is a line, as explained in claim 5. *Supra* claim 5. |

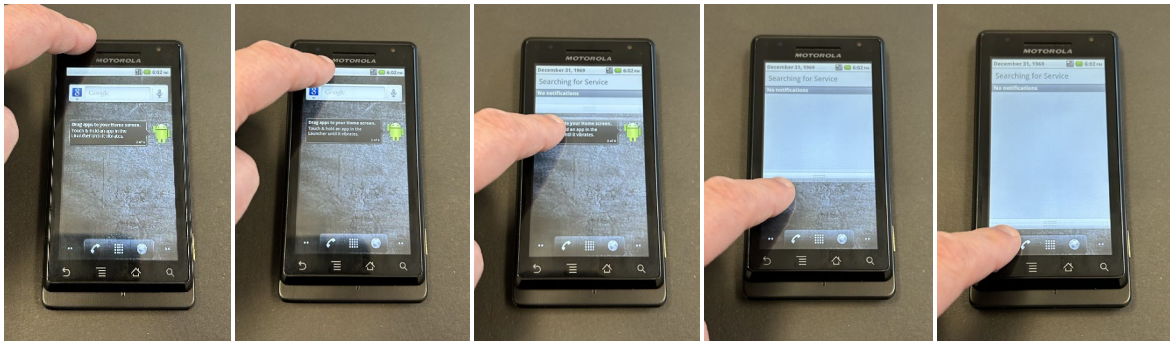
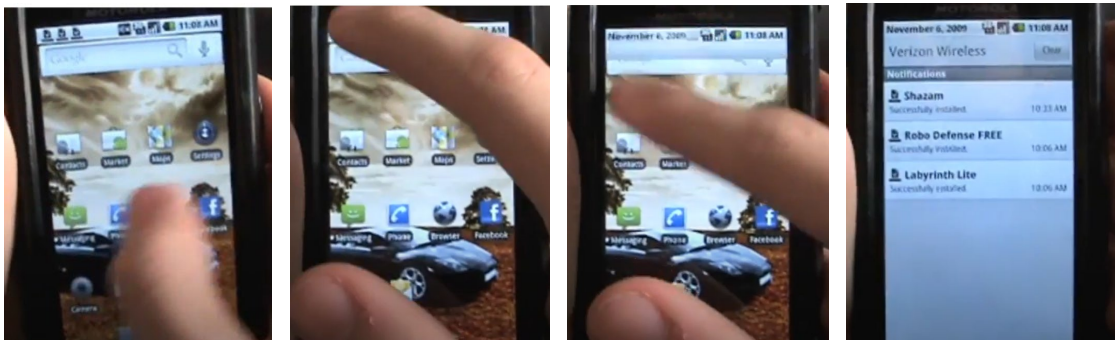
| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[7]** The system of claim 5, wherein said action is displaying a portion of an interface on the screen. | Claim 7 depends from claims 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 5, 3, and 1 here, which anticipate and/or render claims 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 5, 3, and 1 to show the additional limitations of claim 7 are anticipated and/or obvious for the same reasons set out in claims 5, 3, and 1.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying a portion of an interface on the screen."<br><br>For example, the Motorola Droid A855 includes the actions to open the notifications menu and/or the applications menu displaying a portion of the notifications menu and/or applications menu on the touch screen. For example, when there are more notifications or applications than can be shown, the user may scroll through the remainder of the interface to see the additional notifications and/or applications. Moreover, the portion of the notifications menu and/or application menu may be displayed during the user's gliding action, as explained below in claim 8. *Infra* claim 8. |

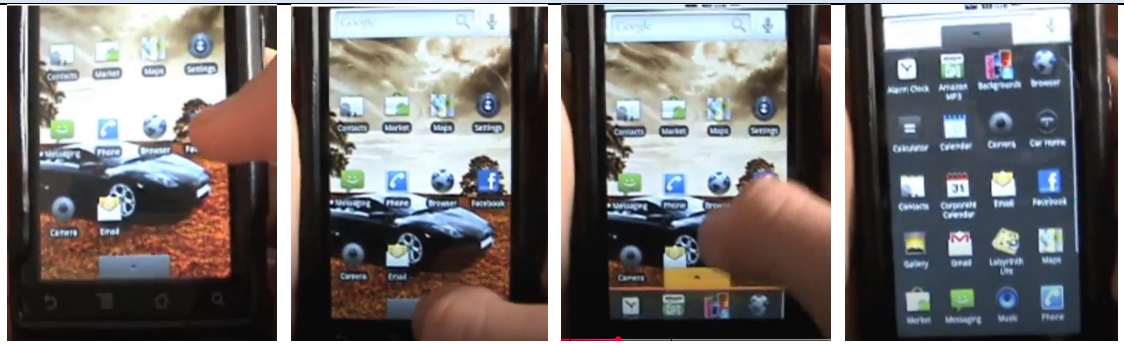
| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola Droid A855 2.2 Device.<br>  <br>Motorola Droid A855 2.2 Device. |

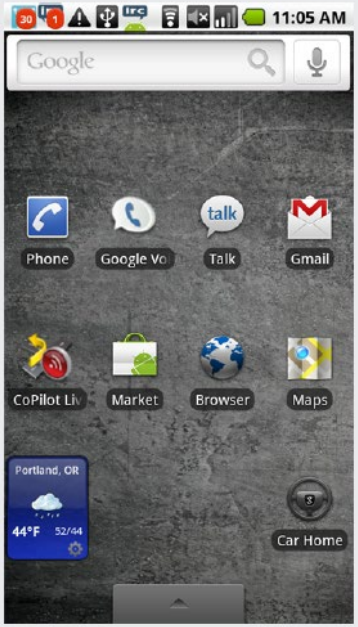
| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola DROID: Android 2.0 Overview.<br>  <br>Motorola DROID: Android 2.0 Overview. |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **Interfacing with Android 2.0**<br>Android 2.0, aka "Eclair," is an evolutionary step up from previous releases of Android. While some may call the interface jumbled, once you understand the paradigm it makes decent sense. Commonly used applications and widgets are stored on the user-configurable "Home" screens. The Droid comes with 3, which you switch between by swiping left and right.<br>  <br><br>Home Screen<br>Additional applications are accessed by dragging up or clicking the program tray at the bottom of the home screen.<br><br>About a DROID: a review of Motorola's newest smartphone.<br><br>*See, e.g.*, Motorola DROID: Android 2.0 Overview; Motorola Droid (Verizon Wireless) review: Motorola Droid (Verizon Wireless); About a DROID: a review of Motorola's newest smartphone.<br><br>A POSITA would have found it obvious that the Motorola Droid A855's applications tab is a line, as explained in claim 5. *Supra* claim 5. |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[8]** The system of claim 7, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 8 depends from claims 7, 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 7, 5, 3, and 1 here, which anticipate and/or render claims 7, 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 7, 5, 3, and 1 to show the additional limitations of claim 8 are anticipated and/or obvious for the same reasons set out in claims 7, 5, 3, and 1.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>For example, the Motorola Droid A855 includes that, during the user's gliding action to drag/slide open the notifications menu and/or the applications menu, a length of the portion of the interface being displayed is substantially equal to the length of the user's gliding action from the status bar and/or applications tab.<br><br>  |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Motorola Droid A855 2.2 Device.<br>  <br>Motorola Droid A855 2.2 Device.<br>  <br>Motorola DROID: Android 2.0 Overview. |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola DROID: Android 2.0 Overview. |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **Interfacing with Android 2.0**<br>Android 2.0, aka "Eclair," is an evolutionary step up from previous releases of Android. While some may call the interface jumbled, once you understand the paradigm it makes decent sense. Commonly used applications and widgets are stored on the user-configurable "Home" screens. The Droid comes with 3, which you switch between by swiping left and right.<br>  <br><br>Home Screen<br>Additional applications are accessed by dragging up or clicking the program tray at the bottom of the home screen.<br><br>About a DROID: a review of Motorola's newest smartphone.<br><br>*See, e.g.*, Motorola DROID: Android 2.0 Overview; Motorola Droid (Verizon Wireless) review: Motorola Droid (Verizon Wireless); About a DROID: a review of Motorola's newest smartphone.<br><br>A POSITA would have found it obvious that the Motorola Droid A855's applications tab is a line, as explained in claim 5. *Supra* claim 5. |

| Claim 9 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[9]** The system of claim 3, wherein said action is displaying an interface on the screen. | Claim 9 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 9 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying an interface on the screen."<br><br>Claim 9 recites substantially the same limitations as claim 6 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 6. *See, e.g.*, *supra* claim 6.<br><br>As discussed *supra* claim 6, the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said action is displaying an interface on the screen." *See supra* claim 6. |

| Claim 10 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[10]** The system of claim 3, wherein said action is displaying a portion of an interface on the screen. | Claim 10 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 10 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a |

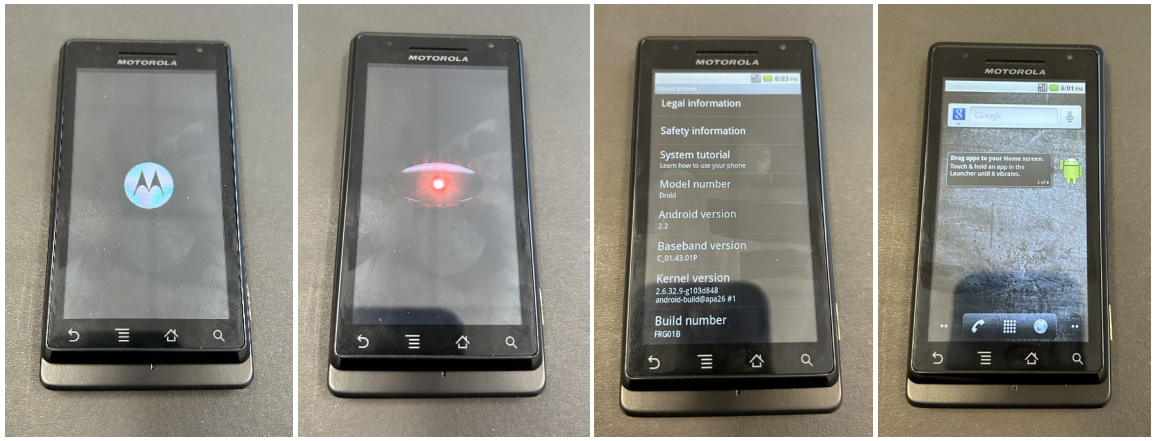
| Claim 10 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying a portion of an interface on the screen."<br><br>Claim 10 recites substantially the same limitations as claim 7 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 7. *See, e.g.*, *supra* claim 7.<br><br>As discussed *supra* claim 7, the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said action is displaying a portion of an interface on the screen." *See supra* claim 7. |

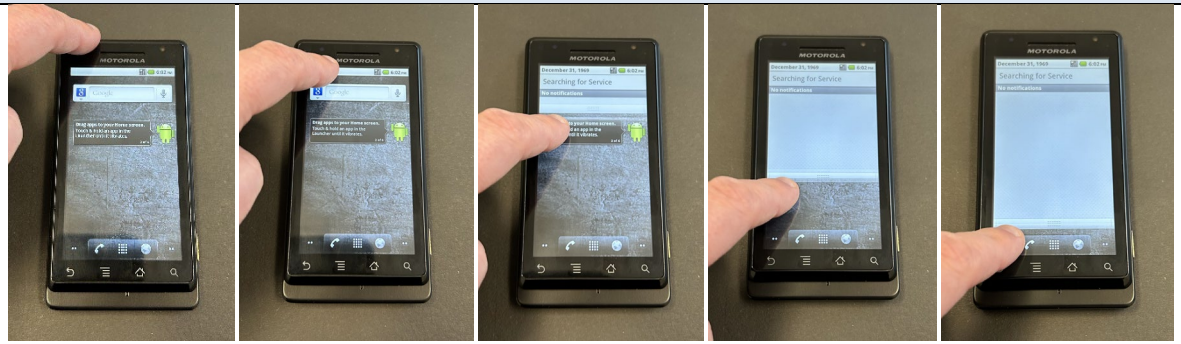
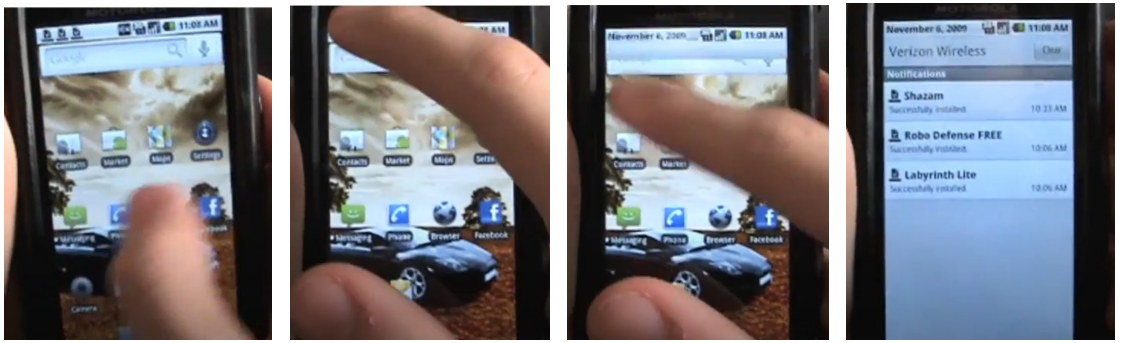
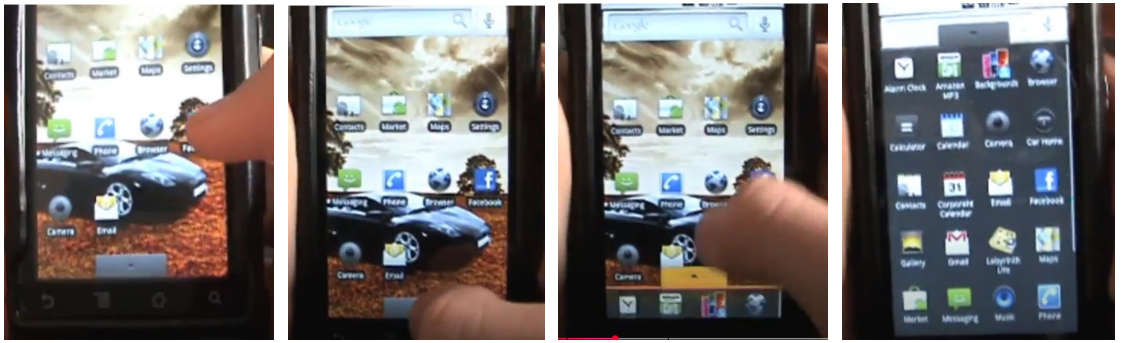
| Claim 11 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[11]** The system of claim 10, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 11 depends from claims 10, 3, and 1. Defendants incorporate all the prior art disclosures from claims 10, 3, and 1 here, which anticipate and/or render claims 10, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 10, 3, and 1 to show the additional limitations of claim 11 are anticipated and/or obvious for the same reasons set out in claims 10, 3, and 1.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>Claim 11 recites substantially the same limitations as claim 8 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 8. *See, e.g.*, *supra* claim 8.<br><br>As discussed *supra* claim 8, the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that |

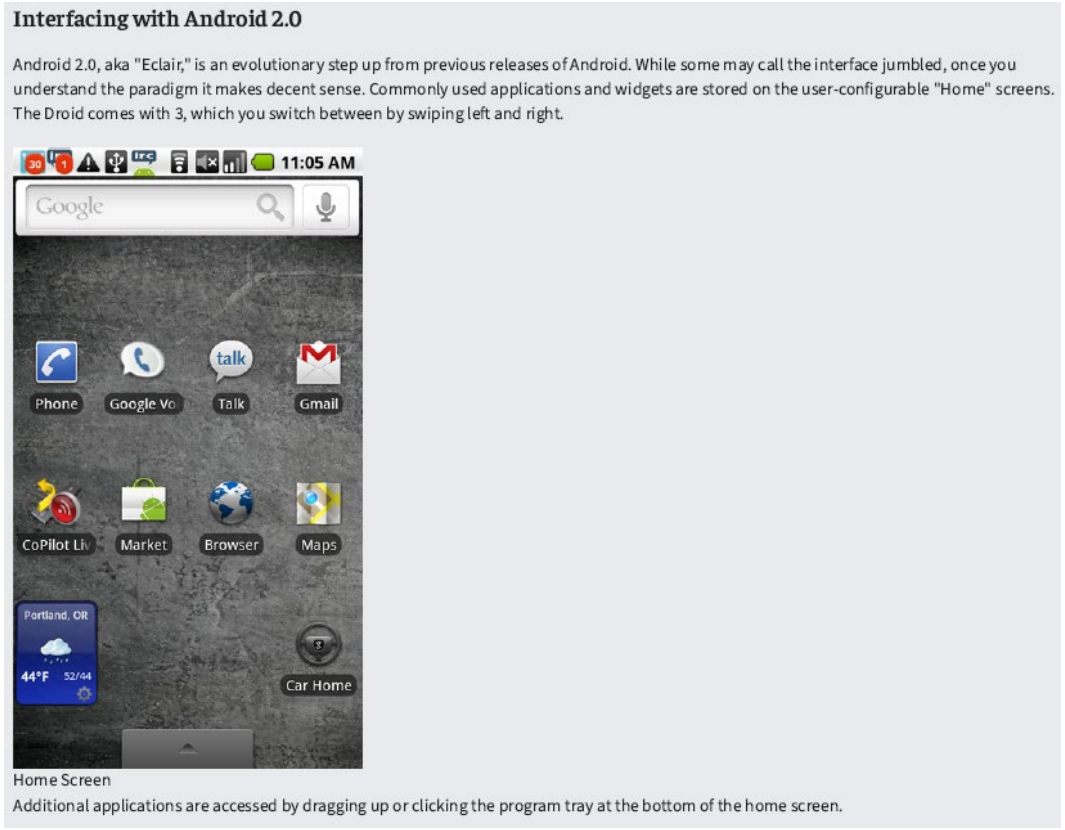
| Claim 11 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claim 8. |

| Claim 12 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[12]** The system of claim 1, wherein upon detecting said gliding action, the system displays an interface on said touch screen. | Claim 12 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 12 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said gliding action, the system displays an interface on said touch screen."<br><br>Claim 12 recites substantially the same limitations as claims 6 and 9 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6 ad 9. *See, e.g.*, *supra* claims 6, 9.<br><br>As discussed *supra* claims 6 and 9, the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "upon detecting said gliding action, the system displays an interface on said touch screen." *See supra* claims 6, 9. |

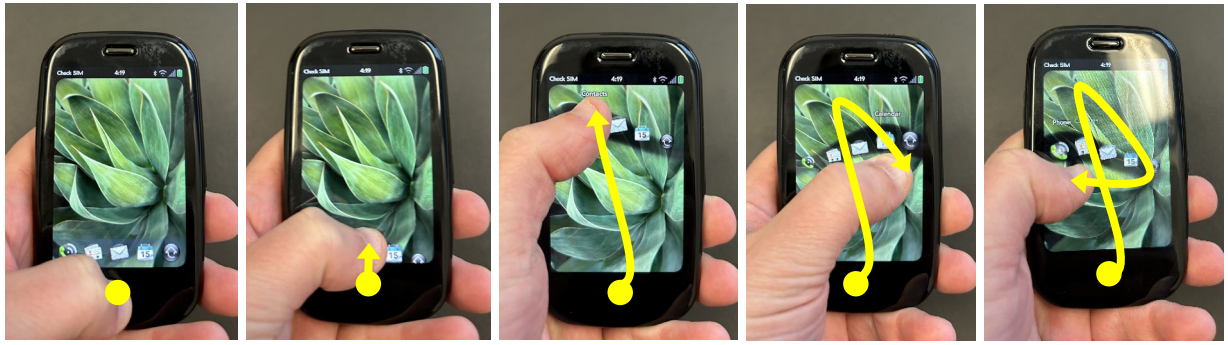
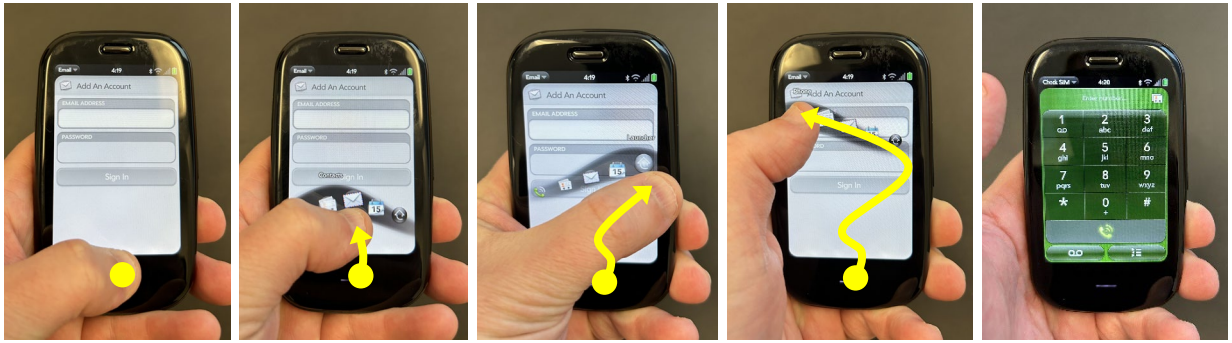
| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[13]** The system of claim 12, wherein upon detecting said gliding action, the system | Claim 13 depends from claims 12 and 1. Defendants incorporate all the prior art disclosures from claims 12 and 1 here, which anticipate and/or render claims 12 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| relates said gliding action to setting the location of said interface on said touch screen. | and evidence set out for claims 12 and 1 to show the additional limitations of claim 13 are anticipated and/or obvious for the same reasons set out in claims 12 and 1.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said gliding action, the system relates said gliding action to setting the location of said interface on said touch screen."<br><br>For example, the Motorola Droid A855 includes, upon detecting the gliding action at the status bar and/or applications tab, the Motorola Droid A855 relates the respective gliding action to setting the location of the notifications menu interface and/or applications menu interface, as explained for claim 8. *Supra* claim 8. For example, during the user's gliding action to drag/slide open the notifications menu, the location of a portion of the notifications menu interface being displayed changes based on the location of the user's finger.<br><br>  <br>Motorola Droid A855 2.2 Device. |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola Droid A855 2.2 Device.<br>  <br>Motorola DROID: Android 2.0 Overview.<br>  |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Motorola DROID: Android 2.0 Overview.<br>  <br><br>About a DROID: a review of Motorola's newest smartphone.<br>*See, e.g.*, Motorola DROID: Android 2.0 Overview; Motorola Droid (Verizon Wireless) review: Motorola Droid (Verizon Wireless); About a DROID: a review of Motorola's newest smartphone.<br>To the extent Keyless argues that the Motorola Droid A855 does not disclose or render obvious the additional limitations of claim 13, it would have been obvious in view of the Motorola Droid A855, POSITA's pre-existing knowledge, and/or the Motorola Droid A855 combined with the other |

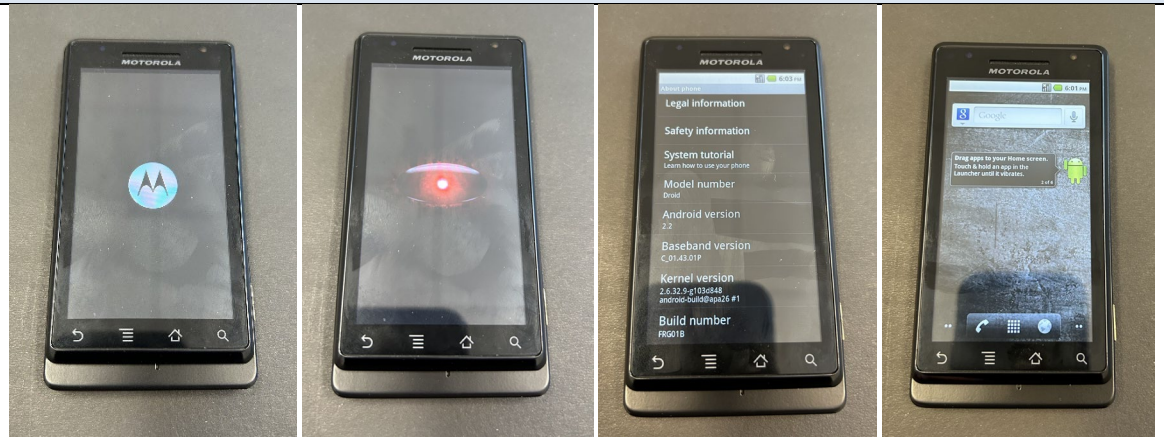
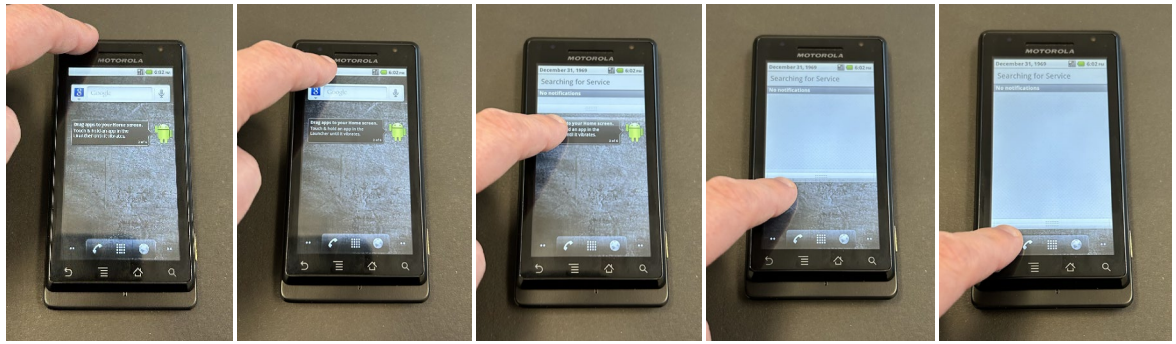
| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | references charted for this patent in these invalidity contentions, including Tseng, Jeong, and the Palm Pre. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>Tseng teaches that, upon detecting the user's gliding action, the system relates the gliding action to setting the location of the message area interface on the touch screen by "stick[ing]" the edge of the interface to the user's finger. Tseng at [0029]. Tseng explains the message area 206/226 may remain "partially" open. Tseng at [0046]. As another example, Tseng explains that, in one embodiment, "if a user drags the bar quickly and releases it, the bar may continue moving until its momentum runs out *or* until it hits the bottom of the display," meaning that it is possible for the message area to stop before the bottom of the display is reached. Tseng at [0060]. As another example, Tseng explains that, in one embodiment, "if the user pulls the bar below a determined level on the display, the bar may automatically keep moving until it reaches the bottom of the display, or until it reaches a graphical element that it is not allowed to pass over." Tseng at [0060].<br><br>Jeong teaches the mobile terminal 100, upon detecting the user's gliding action on the tag 330/410, relates the gliding action to setting the location of the interface (e.g., application menu interface) on the touch screen by exposing how much of the menu is shown. Jeong's FIGS. 7B and 7B "shows a second example of displaying a menu screen by dragging a tag in FIG. 6B." Jeong at [0018], [0019], FIGS. 6B, 7B, 7C. Jeong explains that, "[i]f [the] tag dragging is stopped before the entire menu screen image 320 is exposed, or when the touch to the tag being dragged is released, the menu screen maintains a currently exposed state as it is" to relate the gliding action to set the location of the interface by exposing or hiding a portion of the menu both during the dragging action and when the user ceases the dragging action. Jeong at [0059], FIGS. 7A-7C. The menus displayed from the two tags (bottom tag in 7B and side tag in 7C) show the same application icons, which suggests displaying the same menu from different directions. Jeong's system also changes the location of the interface corresponding to the tag from which the gliding action starts from |

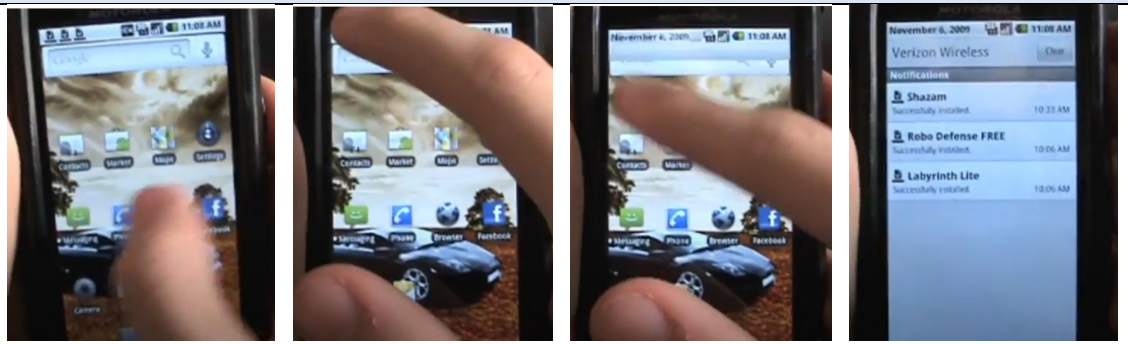
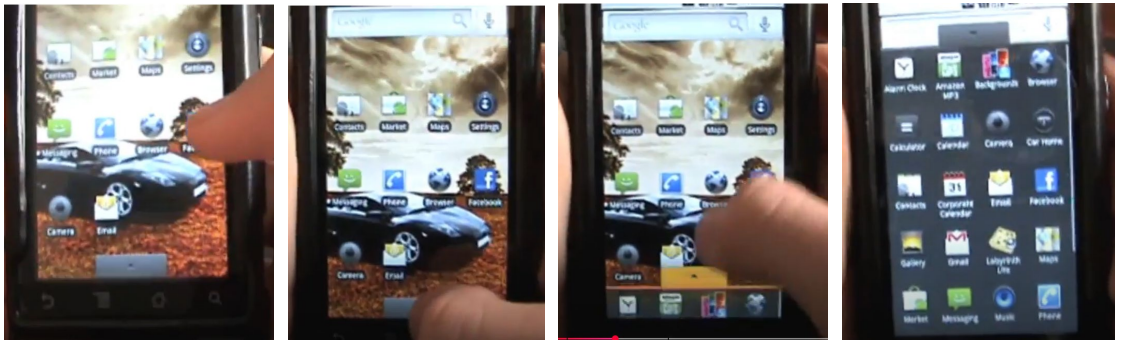
| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | below an executed screen image to above an executed screen image, according to the distance of the gliding action. Jeong at [0062], FIG. 9D.<br><br>The Palm Pre teaches, as one example, that upon detecting a user's gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area and upwards towards the main application display, the system relates the gliding action to setting the location of the Quick Launch interface by moving the location of the interface with the user's gliding action on the touch screen both when the Quick Launch window is shown on the screen and when the Quick Launch interface is displayed while an application is displayed on the screen, such as shown below.<br><br>  <br>Palm Pre.<br><br>  <br>Palm Pre. |

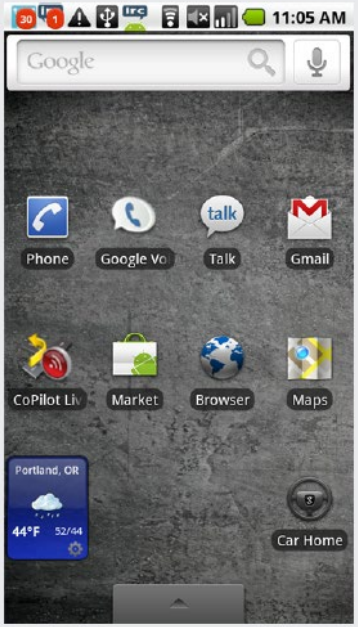
| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | A POSITA would have found it obvious to incorporate one or more of Tseng's, Jeong's, and/or the Palm Pre's teaching of relating the gliding action to setting the location of the interface on the touch screen upon detecting the gliding action. A POSITA would have recognized the advantage of incorporating a quick launch bar into the Motorola Droid A855's system that travels with the user's gesture, as taught by the Palm Pre to make selection of the desired application from the Quick Launch interface easier because the user's touch does not need to be as precise on a static interface. A POSITA would have been motivated to include such Quick Launch from a thin window, such as a line or bar taught by Roth and Roth Bezel Swipe, when an application is displayed on the touch screen or an invisible window as taught by the Palm Pre, to provide the user with efficient and quick access to a desired subset of applications shown in the Quick Launch interface. A POSITA also would have recognized the advantages of allowing the status bar and/or applications menu of the Motorola Droid A855 to remain partially open at a location on the screen, as taught by Tseng and Jeong, to provide the user with easier access to desired portions of the interface(s) without having to open the entire interface. A POSITA would have been motivated to provide this functionality for similar reasons discussed in claims 1, 7, and 8 above.<br><br>It was well known to a POSITA to implement interfaces, such as partially open interface locations taught by Tseng and Jeong and/or the Quick Launch interface of the Palm Pre, that launch based on a gliding action from an activation area using windows that are bars in the form of a line for the activation area (e.g., status bar or application tab), which merely uses conventional graphics rendering, thus representing a mere design choice as to the shape of the activation area. Relating the user's gliding action to setting the location of the interface on the touch screen was also well known, as taught by Tseng, Jeong, and/or the Palm Pre. Moreover, a POSITA would have been motivated to implement the Palm Pre's Quick Launch interface to provide access to the applications list when another application is open full screen.<br><br>The system relating the user's gliding action to setting the location of the interface on the touch screen upon detecting the gliding action was routine and conventional to POSITAs, as shown by Tseng, Jeong, and/or the Palm Pre. Moreover, it was successfully implemented in commercial prior art devices, such as the Palm Pre. Incorporating the partial opening to set the location of the interface and/or a Quick Launch interface represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with the Motorola Droid A855, represent nothing more than combining prior art elements according to known methods and techniques (rendering the interface on the screen of the Motorola Droid A855 either partially open or as a Quick Launch interface moving with the user's glide) to yield predictable results (to open the desired interface and set its location based on partial opening and/or as a Quick Launch interface moving with the user's gliding action). |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[15]** The system of claim 1, wherein said at least one window comprises more than one window located on one or more edges of the touch screen. | Claim 15 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 15 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window comprises more than one window located on one or more edges of the touch screen."<br><br>For example, the Motorola Droid A855 includes the status bar window and the applications tab window located on the top and bottom (e.g., one or more) edges of the touch screen. |

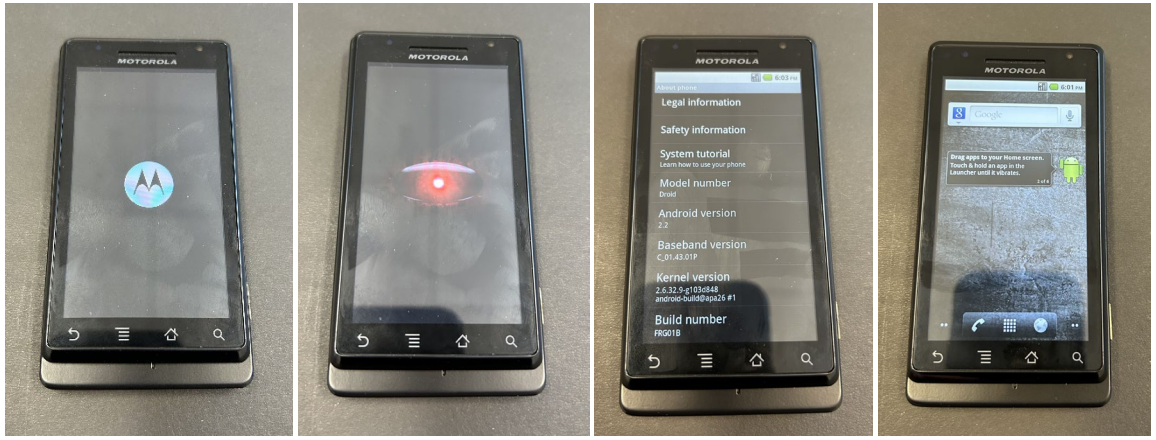
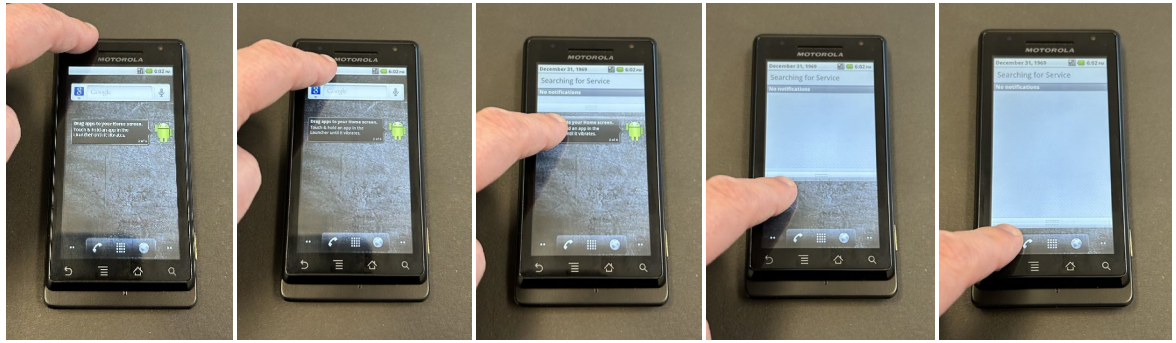
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola Droid A855 2.2 Device.<br>  <br>Motorola Droid A855 2.2 Device. |

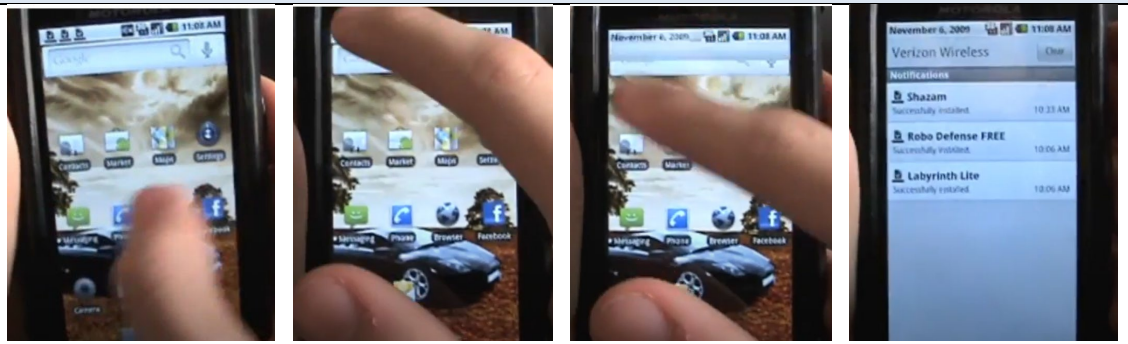
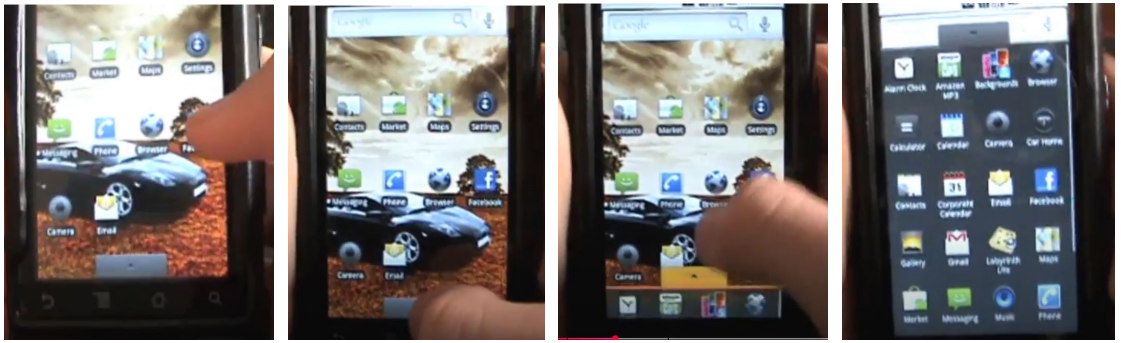
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola DROID: Android 2.0 Overview.<br>  <br>Motorola DROID: Android 2.0 Overview. |

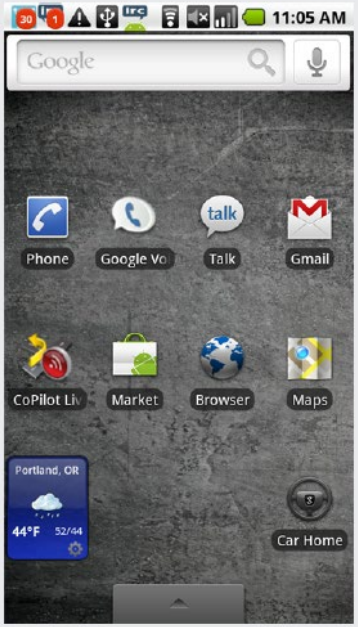
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **Interfacing with Android 2.0**<br>Android 2.0, aka "Eclair," is an evolutionary step up from previous releases of Android. While some may call the interface jumbled, once you understand the paradigm it makes decent sense. Commonly used applications and widgets are stored on the user-configurable "Home" screens. The Droid comes with 3, which you switch between by swiping left and right.<br>  <br><br>Home Screen<br>Additional applications are accessed by dragging up or clicking the program tray at the bottom of the home screen.<br><br>About a DROID: a review of Motorola's newest smartphone.<br><br>*See, e.g.*, Motorola DROID: Android 2.0 Overview; Motorola Droid (Verizon Wireless) review: Motorola Droid (Verizon Wireless); About a DROID: a review of Motorola's newest smartphone. |

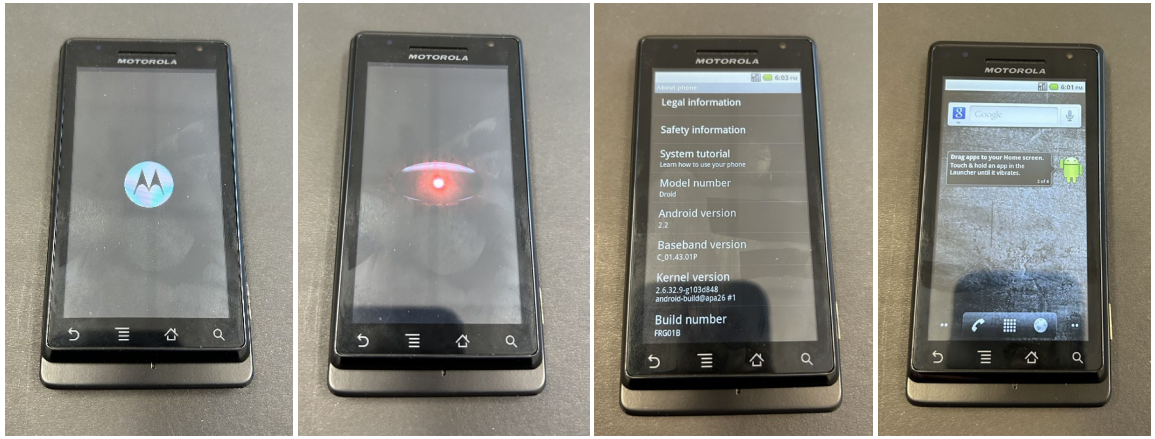
| Claim 16 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[16]** The system of claim 15, wherein said at least one window extends along a substantial portion of an edge of the touch screen. | Claim 16 depends from claims 15 and 1. Defendants incorporate all the prior art disclosures from claims 15 and 1 here, which anticipate and/or render claims 15 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 15 and 1 to show the additional limitations of claim 16 are anticipated and/or obvious for the same reasons set out in claims 15 and 1.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window extends along a substantial portion of an edge of the touch screen."<br><br>Claim 16 recites substantially the same limitations as claim 4 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 4. *See, e.g.*, *supra* claim 4.<br><br>As discussed *supra* claim 4, the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said at least one window extends along a substantial portion of an edge of the touch screen." *See supra* claim 4. |

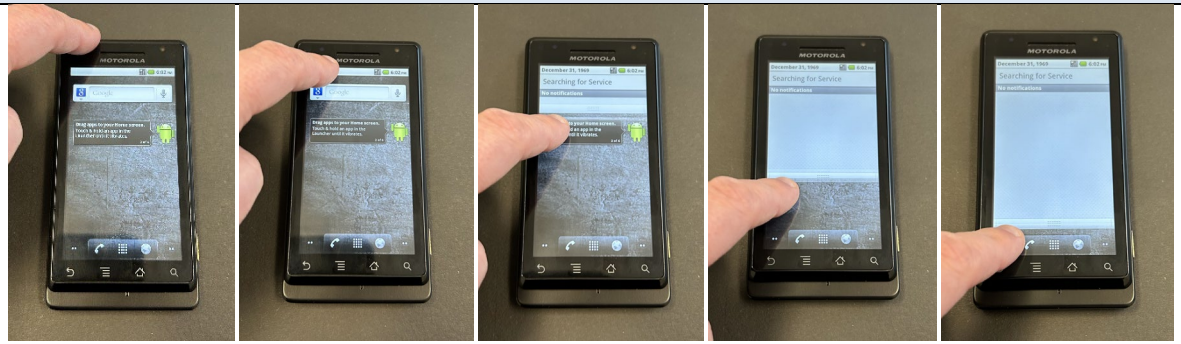
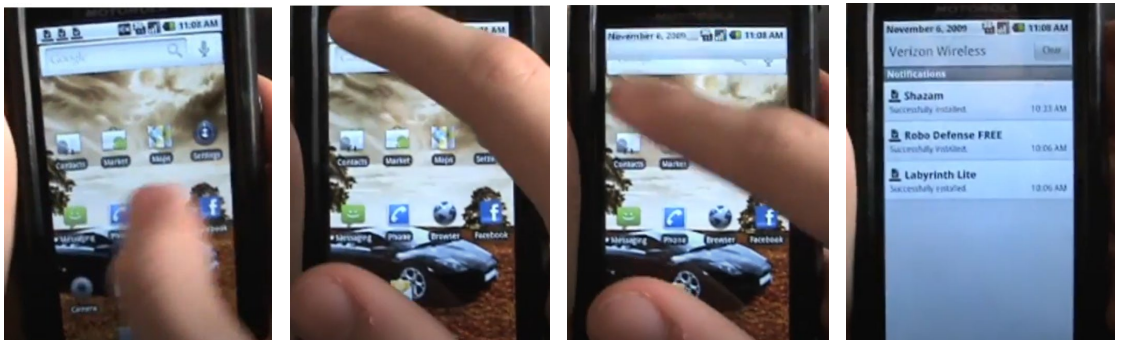
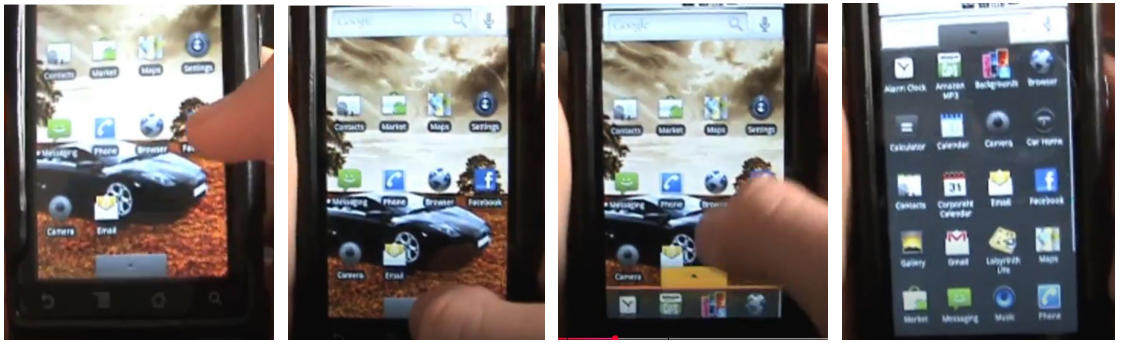
| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[17]** The system of claim 1, wherein during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen. | Claim 17 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 17 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during providing |

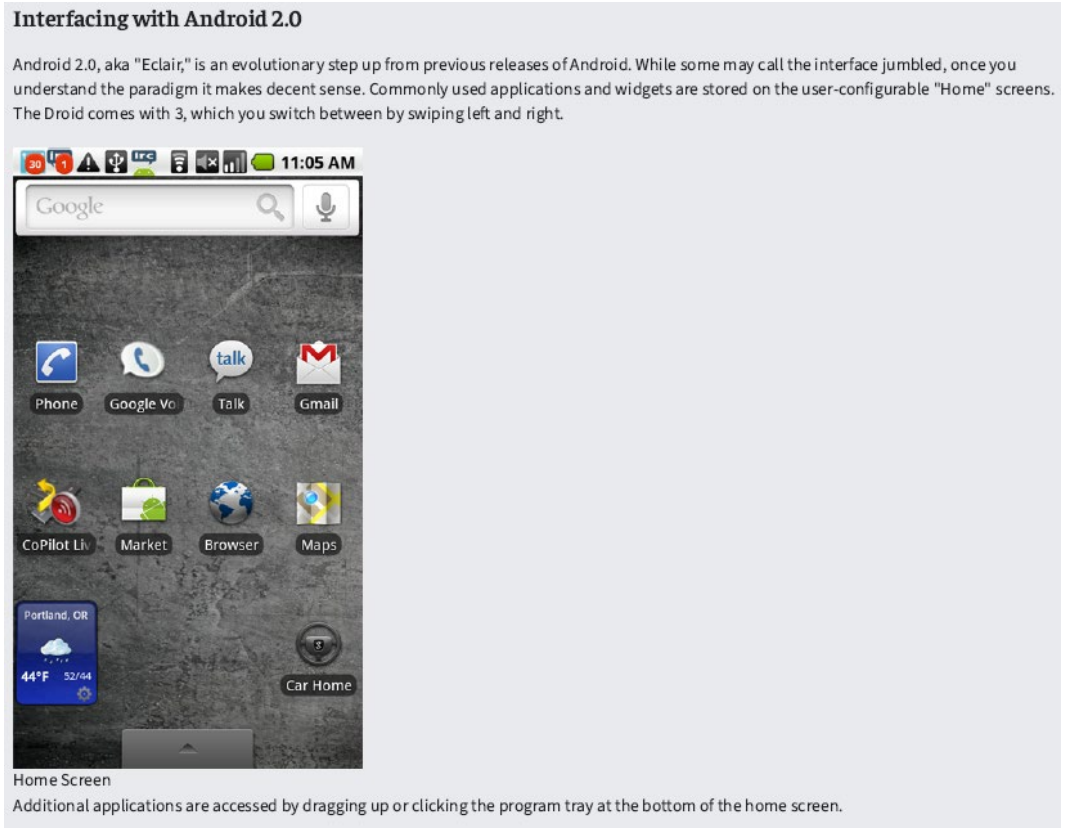
| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen."<br><br>For example, the Motorola Droid A855 includes, during providing the gliding action from the status bar window and/or the applications tab window, the Motorola Droid A855 dynamically drags and shows the notifications menu interface and/or the applications menu interface, or a portion of those interfaces, on the touch screen, such as explained in claims 1, 7, and 8. *Supra* claims 1, 7, 8.<br><br>  <br><br>Motorola Droid A855 2.2 Device.<br><br>  <br><br>Motorola Droid A855 2.2 Device. |

| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola DROID: Android 2.0 Overview.<br>  <br>Motorola DROID: Android 2.0 Overview. |

| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **Interfacing with Android 2.0**<br>Android 2.0, aka "Eclair," is an evolutionary step up from previous releases of Android. While some may call the interface jumbled, once you understand the paradigm it makes decent sense. Commonly used applications and widgets are stored on the user-configurable "Home" screens. The Droid comes with 3, which you switch between by swiping left and right.<br>  <br><br>Home Screen<br>Additional applications are accessed by dragging up or clicking the program tray at the bottom of the home screen.<br><br>About a DROID: a review of Motorola's newest smartphone.<br><br>*See, e.g.*, Motorola DROID: Android 2.0 Overview; Motorola Droid (Verizon Wireless) review: Motorola Droid (Verizon Wireless); About a DROID: a review of Motorola's newest smartphone. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[18]** The system of claim 1, wherein the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface. | Claim 18 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 18 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface."<br><br>For example, the Motorola Droid A855's processor relates the gliding action from the status bar window and/or the applications tab window provided in any arbitrary direction inside the touch screen to presenting the same notifications menu or applications menu interface, respectively, because the user's gliding action can proceed in any direction or path while the edge of the respective menu travels with the user's finger.<br><br>  <br>Motorola Droid A855 2.2 Device. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola Droid A855 2.2 Device.<br>  <br>Motorola DROID: Android 2.0 Overview.<br>  |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Motorola DROID: Android 2.0 Overview.<br>  <br><br>About a DROID: a review of Motorola's newest smartphone.<br>*See, e.g.*, Motorola DROID: Android 2.0 Overview; Motorola Droid (Verizon Wireless) review: Motorola Droid (Verizon Wireless); About a DROID: a review of Motorola's newest smartphone. |

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[19Pre]**[5] A system for capturing an event provided from an edge of a touch screen comprising: | To the extent that the preamble is held to be limiting, the Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[a] system for capturing an event provided from an edge of a touch screen."<br><br>[19Pre] recites substantially the same limitations as [1Pre] and is therefore anticipated or rendered obvious for substantially the same reasons as [1Pre]. *See, e.g.*, *supra* [1Pre].<br><br>As discussed *supra* [1Pre], the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "[a] system for capturing an event provided from an edge of a touch screen." *See supra* [1Pre]. |
| **[19A]** a device having a touch screen; | The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a device having a touch screen."<br><br>[19A] recites substantially the same limitations as [1A] and is therefore anticipated or rendered obvious for substantially the same reasons as [1A]. *See, e.g.*, *supra* [1A].<br><br>As discussed *supra* [1A], the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "a device having a touch screen." *See supra* [1A]. |
| **[19B]** a zone in form of a bar located in the touch screen on | The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a |

[5] Claim 19 as corrected in the Certificate of Correction issued February 16, 2021.

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| an edge of the touch screen; and | POSITA and Keyless's apparent interpretation of this limitation, discloses "a zone in form of a bar located in the touch screen on an edge of the touch screen; and a processor."<br><br>[19B] recites substantially the same limitations as [1B] and claim 3, except that it recites a "zone in the form of a bar" instead of a "window," and is anticipated or rendered obvious for substantially the same reasons as [1B] and claim 3. *See, e.g.*, *supra* [1B], claim 3. Each of the Motorola Droid A855's status bar and/or applications tab are a "zone in the form of a bar" located on the edge of a touch screen, as explains in [1B] and claim 3.<br><br>As discussed *supra* [1B] and claim 3, the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "a zone in form of a bar located in the touch screen on an edge of the touch screen." *See supra* [1B] and claim 3. |
| **[19C]** a processor; | The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a processor."<br><br>[19C] recites substantially the same limitations as [1C] and is therefore anticipated or rendered obvious for substantially the same reasons as [1C]. *See, e.g.*, *supra* [1C].<br><br>As discussed *supra* [1C], the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "a processor." *See supra* [1C]. |
| **[19D]** wherein a gliding action provided from said zone of the touch screen towards any arbitrary | The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch |

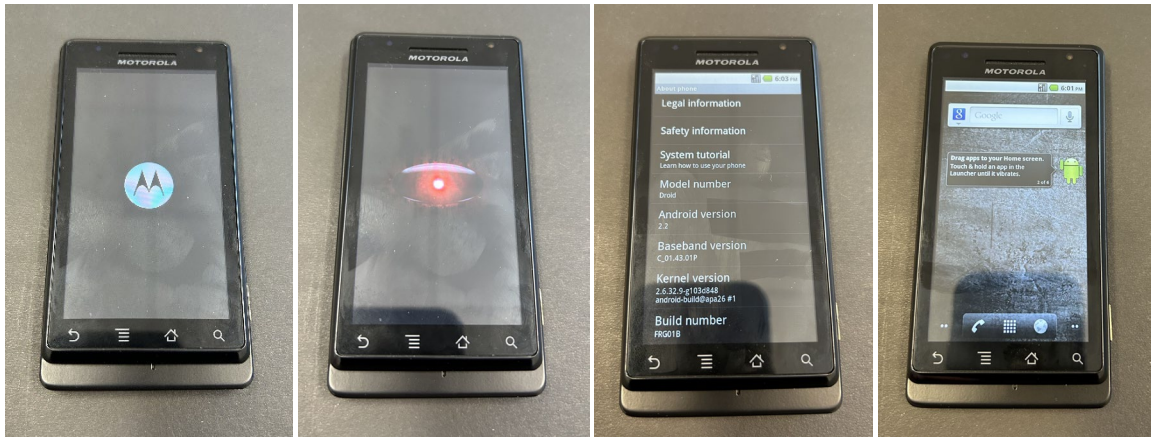
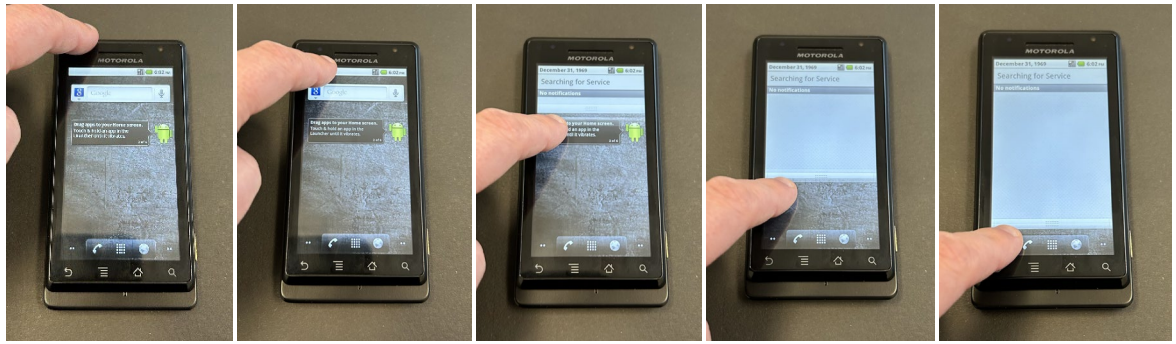
| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| direction inside the touch screen at first interacts with said zone, and wherein the processor executes a function related to said zone, and wherein said zone is present on said edge regardless of the interface of an application on said touch screen, and | screen at first interacts with said zone, and wherein the processor executes a function related to said zone, and wherein said zone is present on said edge regardless of the interface of an application on said touch screen."<br><br>[19D] recites substantially the same limitations as [1B] ("said at least one window functions independently of an interface of an application in use on the touch screen"), [1D] ("a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said processor to cause an action assigned to said window"), and claim 18 ("the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface"), except that it does not recite that the gliding action begins off screen, and is therefore anticipated or rendered obvious for substantially the same reasons as [1B], [1D], and claim 18. *See, e.g.*, *supra* [1B], [1D], and claim 18.<br><br>As discussed *supra* [1B], [1D], and claim 18, the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone, and wherein the processor executes a function related to said zone, and wherein said zone is present on said edge regardless of the interface of an application on said touch screen." *See supra* [1B], [1D], and claim 18. |
| **[19E]** wherein said zone is located on the touch screen before said gliding action begins. | The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said zone is located on the touch screen before said gliding action begins."<br><br>[19E] recites substantially the same limitations as [1E], except that it recites "said zone" instead of "said at least one window," and is therefore anticipated or rendered obvious for substantially the same reasons as [1E] and [19B]. *See, e.g.*, *supra* [1E] and [19B]. |

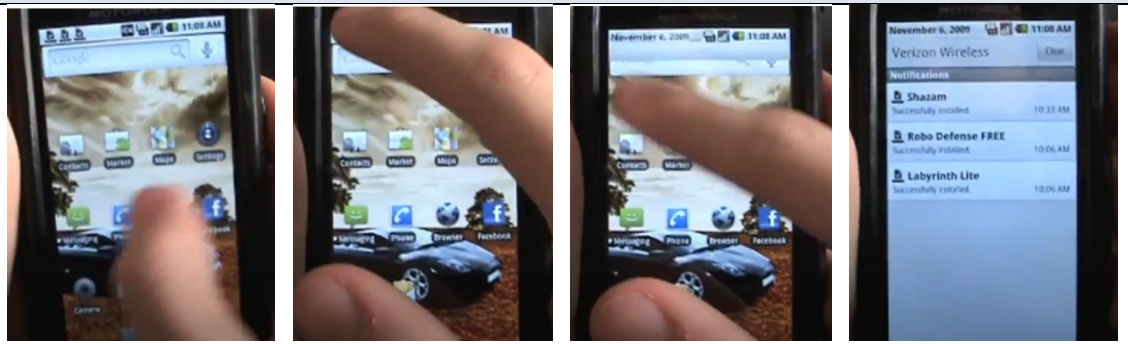
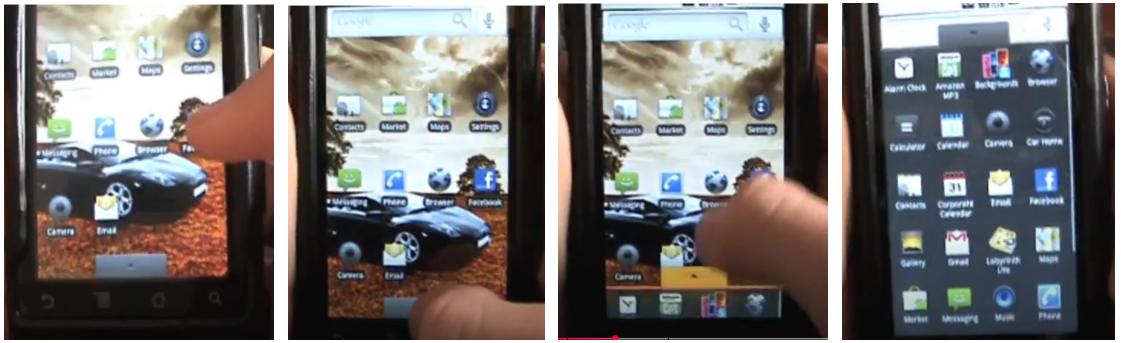
| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | As discussed *supra* [1E] and [19B], the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said zone is located on the touch screen before said gliding action begins." *See supra* [1E] and [19B]. |

| Claim 21 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[21]** The system of claim 19, wherein upon detecting said gliding action, the system relates said gliding action to setting the location of an interface on the touch screen. | Claim 21 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 21 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said gliding action, the system relates said gliding action to setting the location of an interface on the touch screen."<br><br>Claim 21 recites substantially the same limitations as claim 13 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 13. *See, e.g.*, *supra* claim 13. As discussed *supra* claim 13, the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "upon detecting said gliding action, the system relates said gliding action to setting the location of an interface on the touch screen." *See supra* claim 13. |

| Claim 22 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[22]** The system of claim 19, wherein said bar comprises more than one bar located on one or more edges of the touch screen. | Claim 22 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 22 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said bar comprises more than one bar located on one or more edges of the touch screen."<br><br>Claim 22 recites substantially the same limitations as claim 15 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 15. *See, e.g.*, *supra* claim 15.<br><br>As discussed *supra* claim 15, the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said bar comprises more than one bar located on one or more edges of the touch screen." *See supra* claim 15. |

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[23]** The system of claim 19, wherein said zone is in a form of a visible or invisible line. | Claim 23 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 23 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a |

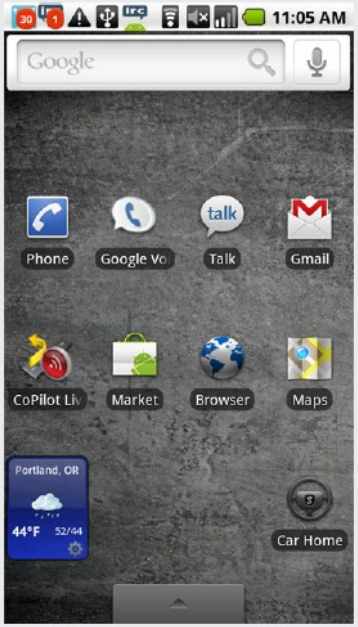
| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | POSITA and Keyless's apparent interpretation of this limitation, discloses that "said zone is in a form of a visible or invisible line."<br><br>For example, the Motorola Droid A855 includes the status bar and/or applications tab being in the form of a visible line.<br><br>  <br><br>Motorola Droid A855 2.2 Device.<br><br>  <br>Motorola Droid A855 2.2 Device. |

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola DROID: Android 2.0 Overview.<br>  <br>Motorola DROID: Android 2.0 Overview. |

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

**Interfacing with Android 2.0**

Android 2.0, aka "Eclair," is an evolutionary step up from previous releases of Android. While some may call the interface jumbled, once you understand the paradigm it makes decent sense. Commonly used applications and widgets are stored on the user-configurable "Home" screens. The Droid comes with 3, which you switch between by swiping left and right.




Home Screen

Additional applications are accessed by dragging up or clicking the program tray at the bottom of the home screen.

About a DROID: a review of Motorola's newest smartphone.

*See, e.g.*, Motorola DROID: Android 2.0 Overview; Motorola Droid (Verizon Wireless) review: Motorola Droid (Verizon Wireless); About a DROID: a review of Motorola's newest smartphone.

Moreover, claim 23 recites substantially the same limitations as claim 5 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 5. *See, e.g.*, *supra* claim 5. As discussed *supra* claim 5, the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said zone is in a form of a visible or invisible line." *See supra* claim 5. |

| Claim 24 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[24]** The system of claim 23, wherein said function is displaying an interface on the screen. | Claim 24 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 23 and 19 to show the additional limitations of claim 24 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying an interface on the screen."<br><br>Claim 24 recites substantially the same limitations as claims 6, 9, and 12 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6, 9, and 12. *See, e.g.*, *supra* claims 6, 9, 12.<br><br>As discussed *supra* claims 6, 9, and 12, the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying an interface on the screen." *See supra* claims 6, 9, 12. |

| Claim 25 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[25]** The system of claim 23, wherein said function is | Claim 25 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale |

| Claim 25 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| displaying a portion of an interface on the screen. | and evidence set out for claims 23 and 19 to show the additional limitations of claim 25 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen."<br><br>Claim 25 recites substantially the same limitations as claims 7 and 10 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7 and 10. *See, e.g.*, *supra* claims 7 and 10.<br><br>As discussed *supra* claims 7 and 10, the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10. |

| Claim 26 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[26]** The system of claim 23, wherein said function is displaying a portion of an interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action. | Claim 26 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 23 and 19 to show the additional limitations of claim 26 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action." |

| Claim 26 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Claim 26 recites substantially the same limitations as claims 8 and 11 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8 and 11. *See, e.g.*, *supra* claims 8, 11.<br><br>As discussed *supra* claims 8 and 11, the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action." *See supra* claims 8, 11. |

| Claim 27 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[27]** The system of claim 19, wherein said bar is visible or invisible. | Claim 27 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 27 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said bar is visible or invisible."<br><br>Claim 27 recites substantially the same limitations as claim 23 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 23. *See, e.g.*, *supra* claim 23. As discussed *supra* claim 23, the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said bar is visible or invisible." *See supra* claim 23. |

| Claim 28 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[28]** The system of claim 27, wherein said function is displaying an interface on the screen. | Claim 28 depends from claims 27 and 19. Defendants incorporate all the prior art disclosures from claims 27 and 19 here, which anticipate and/or render claims 27 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 27 and 19 to show the additional limitations of claim 28 are anticipated and/or obvious for the same reasons set out in claims 27 and 19.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying an interface on the screen."<br><br>Claim 28 recites substantially the same limitations as claims 6, 9, 12, and 24 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6, 9, 12, and 24. *See, e.g.*, *supra* claims 6, 9, 12, 24. As discussed *supra* claims 6, 9, 12, and 24, the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying an interface on the screen." *See supra* claims 6, 9, 12, 24. |

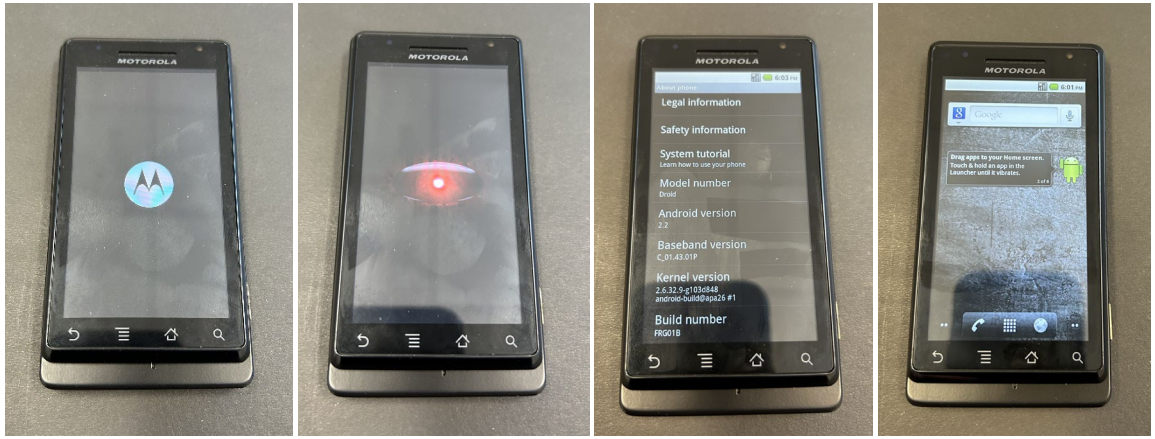
| Claim 29 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[29]** The system of claim 27, wherein said function is displaying a portion of an interface on the screen. | Claim 29 depends from claims 27 and 19. Defendants incorporate all the prior art disclosures from claims 27 and 19 here, which anticipate and/or render claims 27 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 27 and 19 to show the additional limitations of claim 29 are anticipated and/or obvious for the same reasons set out in claims 27 and 19.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a |

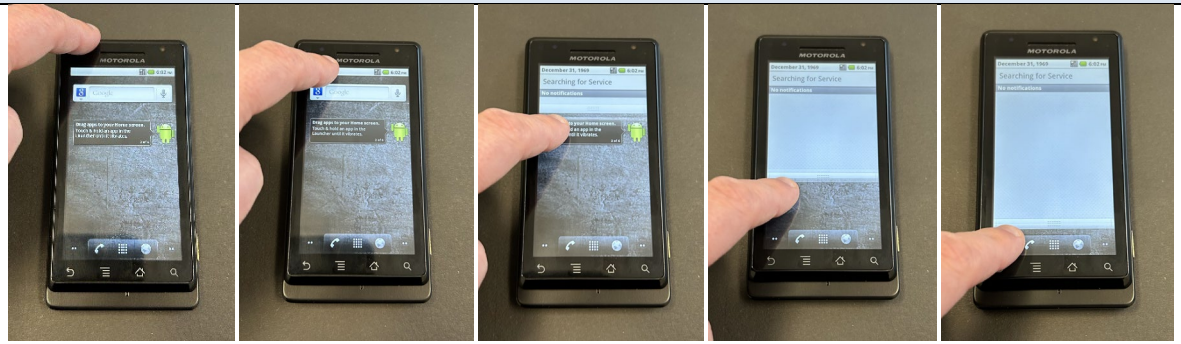
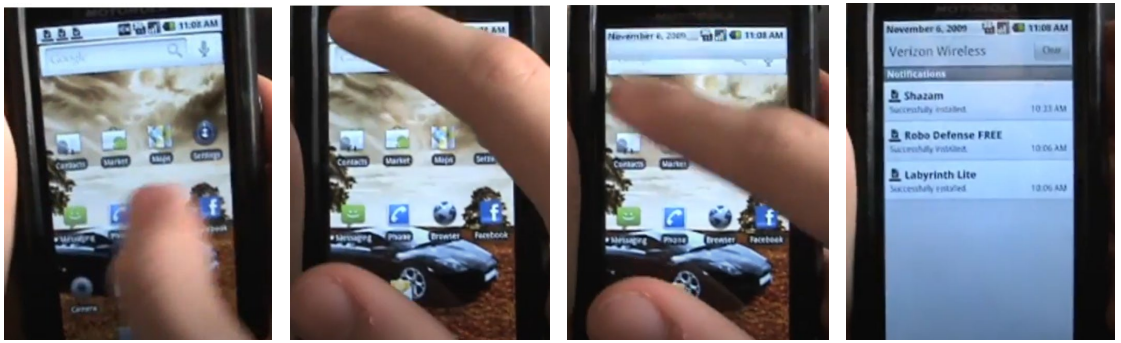
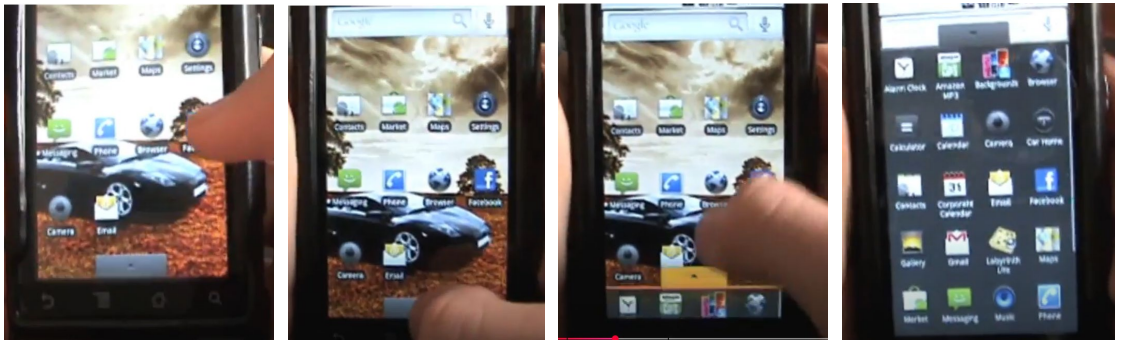
| Claim 29 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen."<br><br>Claim 29 recites substantially the same limitations as claims 7, 10, and 25 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7, 10, and 25. *See, e.g.*, *supra* claims 7, 10, 25.<br><br>As discussed *supra* claims 7, 10, and 25, the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10, 25. |

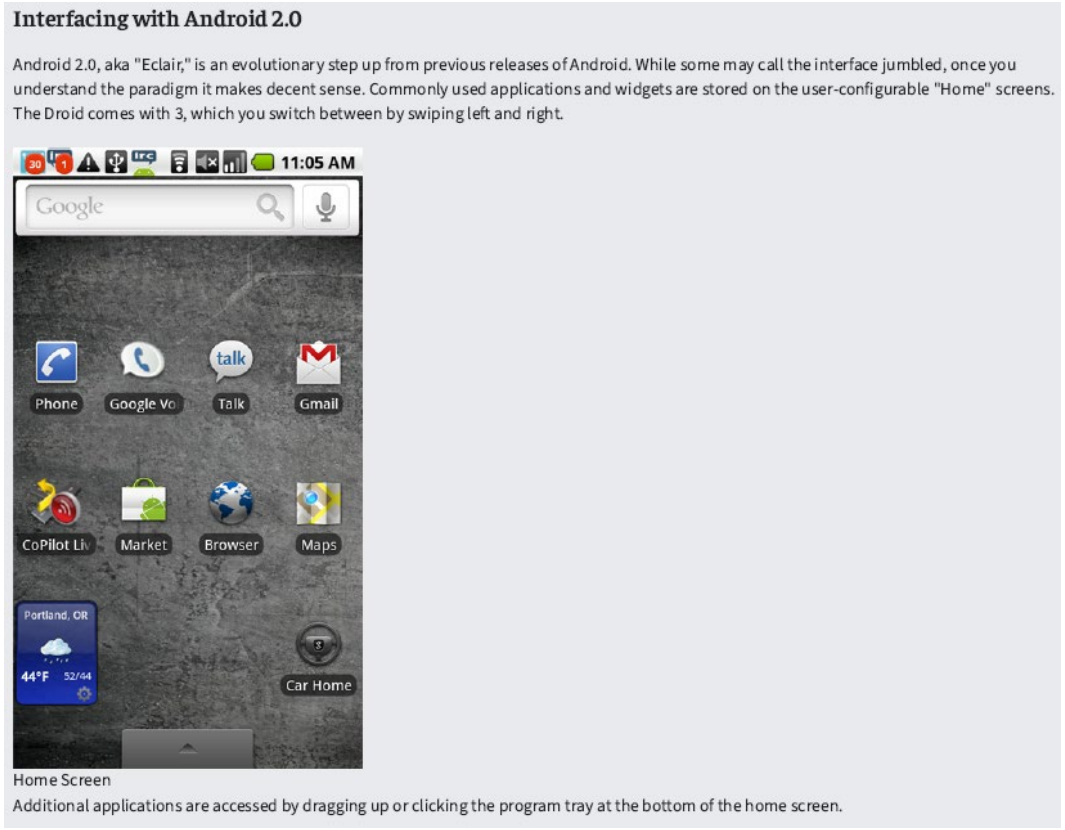
| Claim 30 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[30]** The system of claim 29, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 30 depends from claims 29, 27, and 19. Defendants incorporate all the prior art disclosures from claims 29, 27, and 19 here, which anticipate and/or render claims 29, 27, and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 29, 27, and 19 to show the additional limitations of claim 30 are anticipated and/or obvious for the same reasons set out in claims 29, 27, and 19.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>Claim 30 recites substantially the same limitations as claims 8, 11, and 26 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8, 11, and 26. *See, e.g.*, *supra* claims 8, 11, 26. |

| Claim 30 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | As discussed *supra* claims 8, 11, and 26, the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claims 8, 11, 26. |

| Claim 31 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[31]** The system of claim 19, wherein during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen. | Claim 31 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 31 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen."<br><br>Claim 31 recites substantially the same limitations as claim 17 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 17. *See, e.g.*, *supra* claim 17.<br><br>As discussed *supra* claim 17, the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen." *See supra* claim 17. |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[32]** The system of claim 19, wherein said function is displaying a same interface for any said gliding action, said gliding action interacting with any portion of said zone. | Claim 32 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 32 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a same interface for any said gliding action, said gliding action interacting with any portion of said zone."<br><br>For example, the Motorola Droid A855 includes that the functions of displaying the notifications menu and/or applications menu display the same notifications menu interface and/or applications menu interface for any gliding action from the status bar and/or applications tab, respectively, where said gliding actions interact with any portion of the status bar and/or applications tab, respectively.<br><br>  <br>Motorola Droid A855 2.2 Device. |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola Droid A855 2.2 Device.<br>  <br>Motorola DROID: Android 2.0 Overview.<br>  |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Motorola DROID: Android 2.0 Overview.<br>  <br><br>About a DROID: a review of Motorola's newest smartphone.<br>*See, e.g.*, Motorola DROID: Android 2.0 Overview; Motorola Droid (Verizon Wireless) review: Motorola Droid (Verizon Wireless); About a DROID: a review of Motorola's newest smartphone. |

| Claim 33 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[33]** The system of claim 32, wherein said gliding action is provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen. | Claim 33 depends from claims 32 and 19. Defendants incorporate all the prior art disclosures from claims 32 and 19 here, which anticipate and/or render claims 32 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 32 and 19 to show the additional limitations of claim 33 are anticipated and/or obvious for the same reasons set out in claims 32 and 19.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said gliding action is provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen."<br><br>Claim 33 recites substantially the same limitations as [1D] ("wherein a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen") and is therefore anticipated or rendered obvious for substantially the same reasons as [1D]. *See, e.g.*, *supra* [1D].<br><br>As discussed *supra* [1D], the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "wherein said gliding action is provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen." *See supra* [1D]. |

| Claim 34 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[34]** The system of claim 19, wherein said function is displaying a portion of an interface on the screen. | Claim 34 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim |

| Claim 34 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | 19 to show the additional limitations of claim 34 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen."<br><br>Claim 34 recites substantially the same limitations as claims 7, 10, 25, and 29 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7, 10, 25, and 29. *See, e.g.*, *supra* claims 7, 10, 25, 29.<br><br>As discussed *supra* claims 7, 10, 25, and 29, the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10, 25, 29. |

| Claim 35 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[35]** The system of claim 34, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 35 depends from claims 34 and 19. Defendants incorporate all the prior art disclosures from claims 34 and 19 here, which anticipate and/or render claims 34 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 34 and 19 to show the additional limitations of claim 35 are anticipated and/or obvious for the same reasons set out in claims 34 and 19.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." |

| Claim 35 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Claim 35 recites substantially the same limitations as claims 8, 11, 26, and 30 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8, 11, 26, and 30. *See, e.g.*, *supra* claims 8, 11, 26, 30.<br><br>As discussed *supra* claims 8, 11, 26, and 30, the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claims 8, 11, 26, 30. |

| Claim 36 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[36]** The system of claim 19, wherein said zone extends along a substantial portion of said edge. | Claim 36 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 36 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Motorola Droid A855, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said zone extends along a substantial portion of said edge."<br><br>Claim 36 recites substantially the same limitations as claims 4 and 16 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 4 and 16. *See, e.g.*, *supra* claims 4, 16.<br><br>As discussed *supra* claims 4 and 16, the Motorola Droid A855 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, |

| Claim 36 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said zone extends along a substantial portion of said edge." *See supra* claims 4, 16. |

# Appendix A6

**Exhibit A6**

**Invalidity of Asserted Claims of the '602 Patent**

**in view of the HTC Hero**

The HTC Hero, running on Android 1.5 or 2.1 ("the HTC Hero"), was publicly available, sold, offered for sale, and/or used in the United States and was thus available to and known or used by others, at least as early as October 11, 2009. The HTC Hero running on Android 1.5 was publicly released on or about October 11, 2009, and the HTC Hero running on Android 2.1 was publicly released on or about January 2010. On information and belief, the relied-upon functionality from the HTC Hero running on Android 2.1 was also included in the HTC Hero running on Android 1.5. The HTC Hero is described in at least the following documents and other materials cited in this chart:

- Bonnie Cha, "HTC Hero (Sprint) review: HTC Hero (Sprint)," CNET, *available at* https://www.cnet.com/reviews/htc-hero-sprint-review/ (Sept. 16, 2009) (SAM-KEY_00993304-SAM-KEY_00993322).
- Joshua Topolsky, "HTC Hero review," engadget, *available at* https://www.engadget.com/2009-07-23-htc-hero-review.html (July 23, 2009) (SAM-KEY_00993323-SAM-KEY_00993336).
- Lisa Gade, "HTC Hero (Sprint)," MobileTechReview, *available at* https://www.mobiletechreview.com/phones/HTC-Hero.htm (Sept. 17, 2009) (SAM-KEY_00993653-SAM-KEY_00993658).
- John Biggs, "Review: HTC Hero from Sprint," TechCrunch, *available at* https://techcrunch.com/2009/09/17/review-htc-hero-from-sprint/ (Sept. 17, 2009) (SAM-KEY_00993519-SAM-KEY_00993528).
- Documents produced in this litigation, as cited herein.
- Physical products acquired in this litigation, including but not limited to, an HTC Hero device running on Android 1.5 ("HTC Hero 1.5 Device") and an HTC Hero device running on Android 2.1 ("HTC Hero 2.1 Device").[1]
- Expected testimony and evidence regarding the development, design, and/or use of the HTC Hero, running on Android 1.5 or 2.1.
- Source code for an HTC Hero, running on Android 1.5 or 2.1, as referenced herein and/or acquired.

[1] Samsung reserves the right to rely on any HTC Hero device, including the HTC Hero 1.5 Device and a HTC Hero 2.1 Device. On information and belief, such devices function substantially the same as disclosed in this chart.

Citations to the above-listed references are exemplary, and Samsung reserves the right to rely on additional passages, prior art, and information regarding the operation and functionality of the HTC Hero obtained through fact, expert, and third-party discovery, which is ongoing.

The HTC Hero qualifies as prior art to U.S. Patent No. 9,304,602 ("'602 patent") at least under pre-AIA 35 U.S.C. §§ 102(a) and/or (b) and AIA 35 U.S.C. §§ 102(a)(1).[2] The HTC Hero with Android 1.5 and/or 2.1 releases were publicly available, sold, offered for sale, and/or used before the priority date to which the '602 patent claims are entitled, if any.

The HTC Hero anticipates or, alone or with other references, renders obvious one or more of asserted claims 1-13, 15-19, and 21-36 of the '602 patent. To the extent Keyless contends the HTC Hero does not disclose one or more limitations of the claims, it would have been obvious to combine the HTC Hero with the knowledge of a person of ordinary skill in the art ("POSITA") and/or with one or more of the following references to render the claims at issue in the '602 patent invalid. The chart below illustrates how the asserted claims of the '602 patent are invalid in view of the HTC Hero and/or additional secondary references listed below, including but not limited to the prior art identified in Defendant's Invalidity Contentions.

- U.S. Patent Application Publication No. 2004/0109013 A1 to Goertz ("Goertz"), filed December 10, 2002, and published on June 10, 2004. Goertz qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b) and/or (e).
- U.S. Patent Application Publication No. 2008/0207188 A1 to Ahn et al. ("Ahn"), filed on February 14, 2008, and published on August 28, 2008. Ahn qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b) and/or (e).
- U.S. Patent Application Publication No. 2009/0094562 A1 to Jeong et al. ("Jeong"), filed on October 3, 2008, and published on April 9, 2009. Jeong qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b) and/or (e).
- U.S. Patent Application Publication No. 2009/0249247 to Tseng et al. ("Tseng"), filed on January 30, 2009, and published on October 1, 2009, claims priority to U.S. Provisional Application No. 61/024,869, filed January 30, 2008. Tseng qualifies as prior art at least under pre-AIA 35 U.S.C. §§ 102(a), (b), and/or (e) and AIA 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2).

[2] Keyless Licensing LLC (or "Keyless") alleges that the asserted claims of the '602 patent are entitled to priority as early as December 20, 2009. However, as explained in the cover pleading, the asserted claims of the '602 patent are not entitled to Keyless's claimed priority date due to inadequate written description support. Assuming the claims are not invalid under Section 112 (*see, e.g.*, cover pleading), the earliest possible priority date for the asserted '602 patent claims is 2/11/2010 or later.

- U.S. Patent Application Publication No. 2009/0295750 A1 to Yamazaki et al. ("Yamazaki"), filed on May 27, 2009, and published on December 3, 2009. Yamazaki qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b), and/or (e).
- U.S. Patent Application Publication No. 2010/0050076 A1 to Roth ("Roth"), filed on August 29, 2008, and published on February 25, 2010. Roth qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).
- U.S. Patent Application Publication No. 2010/0164959 A1 to Brown et al. ("Brown"), filed on December 26, 2008, and published on July 1, 2010. Brown qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).
- U.S. Patent Application Publication No. 2010/0302172 A1 to Wilairat ("Wilairat"), filed on May 27, 2009, and published on December 2, 2010. Wilairat qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).
- U.S. Patent Application Publication No. 2011/0209099 A1 to Hinckley et al. ("Hinckley"), filed on February 19, 2010, and published on August 25, 2011. Hinckley qualifies as prior art at least under 35 U.S.C. § 102(a)(2) as well as pre-AIA 35 U.S.C. §(e).
- Japanese Laid-Open Patent Application No. JP2003195998A to Hisatomi ("Hisatomi"), filed on December 26, 2001, and published on July 11, 2003. Hisatomi qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).[3]
- V. Roth & T. Turner, "Bezel Swipe: Conflict-Free Scrolling and Multiple Selection on Mobile Touch Screen Devices," CHI 2009 ~ Multimodal Mobile Interaction, pp. 1523-26 (ACM 2009) ("Roth Bezel Swipe"), published April 8, 2009. Roth Bezel Swipe qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).
- The Samsung Galaxy GT-i7500 running Android 1.5 ("Samsung Galaxy GT-i7500 1.5") was, on information and belief, publicly available in the United States on or about June 29, 2009. The Samsung Galaxy GT-i7500 1.5 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).

[3] Defendants' invalidity contentions rely on the certified translation of Hisatomi.

- The Samsung Behold II running Android and TouchWiz UI (Samsung Behold II") was, on information and belief, publicly available in the United States on or about November 18, 2009. The Samsung Behold II qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A4.
- The HTC G1 (also known as the HTC Dream) running Android 1.6 ("HTC G1 1.6") was, on information and belief, publicly available in the United States on or about September 15, 2009. The HTC G1 1.6 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A3.
- The HTC G1 (also known as the HTC Dream) running Android 1.6 ("HTC G1 1.6") was, on information and belief, publicly available in the United States on or about September 15, 2009. The HTC G1 1.6 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A3.
- The HTC Magic running Android 1.6 ("HTC Magic 1.6") was, on information and belief, publicly available in the United States on or about July 8, 2009. The HTC Magic 1.6 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).
- The Motorola Droid A855 ("Motorola Droid A855") was publicly available in the United States with Android 2.0 on or about November 6, 2009, and with Android 2.2 on or about May 2010. The Motorola Droid A855 running Android 2.0, on information and belief, was substantially the same with respect to the relied-upon functionality as the Motorola Droid A855 running Android 2.2. The Motorola Droid A855 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A5.
- The Palm Pre running Palm's WebOS ("Palm Pre") was, on information and belief, publicly available in the United States on or about February 2009. Although Palm WebOS 1.4.5 was not released until on or about July 2010, the relied-upon functionality was, on information and belief, substantially the same in the February 2009 WebOS release. The Palm Pre qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A7.
- The Neonode N2 ("Neonode N2") was, on information and belief, publicly available in the United States not later than 2008. *See also* Ex. A8.

With respect to the proposed modifications to the HTC Hero, such modification would have been obvious to try, an obvious combination of prior art elements according to known methods to yield predictable results, a simple substitution of one known element for another to obtain predictable results, a use of known techniques to improve a similar devices or method in the same way, an application of a known technique to a known device or method ready for improvement to yield predictable results, a variation of a known work in one field of endeavor for use in either the same field or a different one based on design incentives or other market

forces with variations that are predictable to a POSITA, and/or obvious in view of teachings, suggestions, and motivations in the prior art that would have led a POSITA to modify or combine the prior art references.

The chart below illustrates how the asserted claims of the ’602 patent are anticipated by the HTC Hero and/or would have been obvious in view of by the HTC Hero and/or additional secondary references. The excerpts cited herein are exemplary. For any claim limitation, Samsung may rely on excerpts cited for any other limitation and/or additional excerpts not set forth fully herein to the extent necessary to provide further explanation for a reference’s disclosure of a limitation. Where an excerpt refers to or discusses a figure or figure items, that figure and any additional descriptions of that figure should be understood to be incorporated by reference as if set forth fully herein. Samsung reserves the right to further supplement this chart.

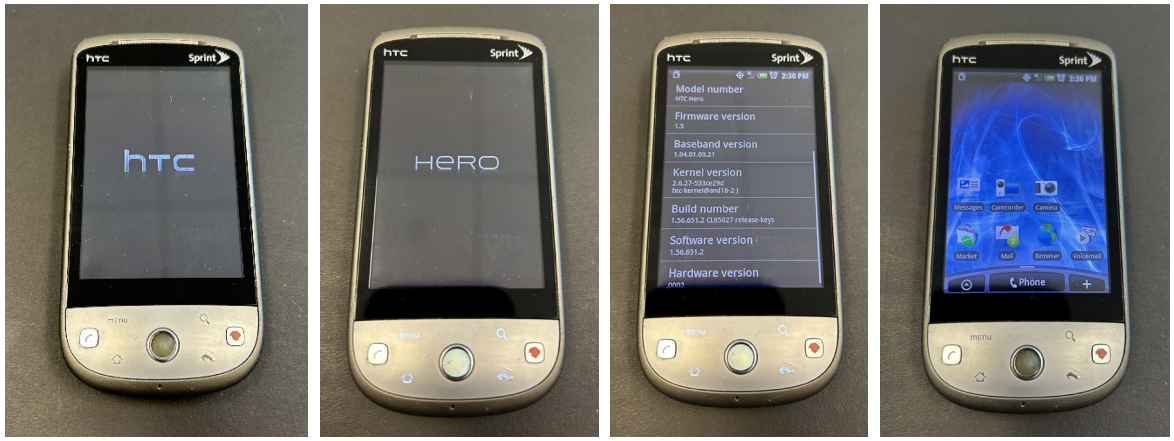
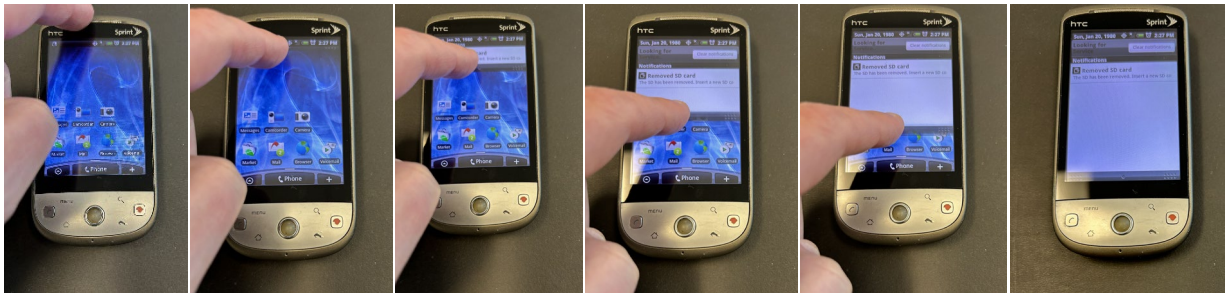
To the extent that these Invalidity Contentions rely on or otherwise embody particular interpretations of terms or phrases in the asserted claims, Samsung is not proposing any such interpretations as proper interpretations or constructions of those terms or phrases. Various positions put forth in this document are predicated on Keyless’s interpretation of its claims as evidenced by its Infringement Contentions. Those positions are not intended to and do not necessarily reflect Samsung’s interpretation of the true and proper scope of the asserted claims. Samsung further incorporates by reference all reservations of rights set forth in the Invalidity Contentions, as if fully set forth herein.

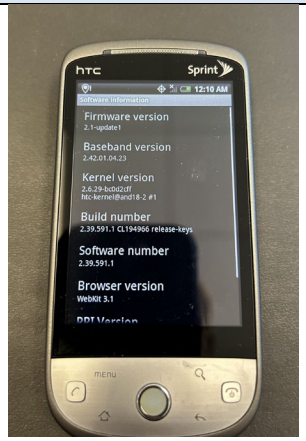
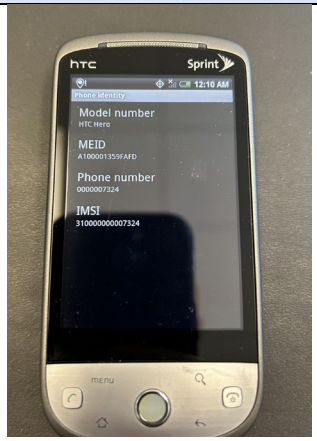
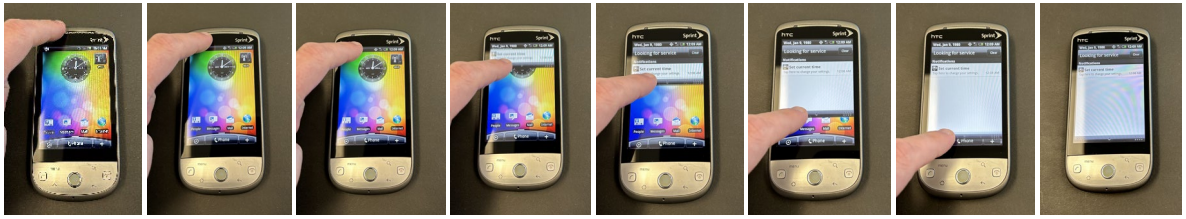
Defendants’ arguments throughout these invalidity contentions are based on Keyless’s apparent interpretation of the claims in its infringement contentions. Defendants do not agree that such interpretation is proper and reserve the right to argue that the mapped actions do not infringe any claims of the ’602 patent. In the alternative, should the Court or factfinder construe and/or apply the claims in a manner consistent with Keyless’s interpretations in its infringement contentions for the ’602 patent, the claims are invalid for at least the reasons set forth herein.

In some instances, the referenced prior art includes priority applications, including prior provisional applications, that provide adequate §112 support for the claim(s) in the referenced prior art. *See, e.g.*, Tseng at cover. In those instances, the consistent disclosures in those earlier applications, including prior provisional applications, are incorporated herein by reference. As such, those earlier disclosures apply equally in terms of their application to the elements of the asserted claims, and thus provide even earlier dates in terms of prior art, state of the art, and the knowledge base of those of ordinary skill in the art. *See Dynamic Drinkware LLC v. National Graphics Inc*., 800 F.3d 1375 (Fed. Cir. 2015).

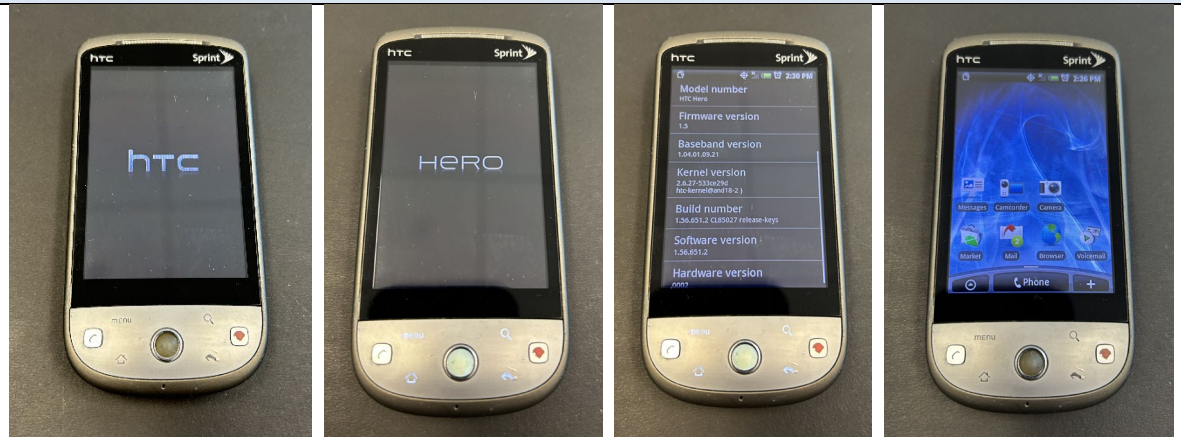
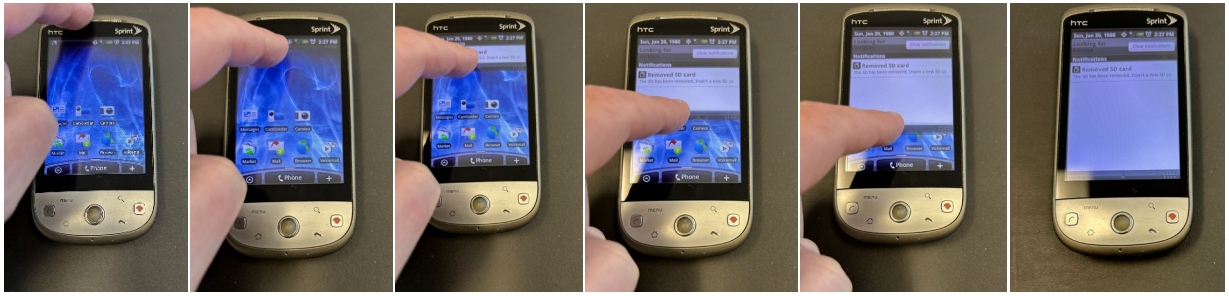
To the extent any of the art describes different embodiments of its inventions, a POSITA would have found it obvious to combine the HTC Hero’s teachings regarding these embodiments. A POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the embodiments, and would have a reasonable expectation of success in doing so, at least because the embodiments use known variations of existing

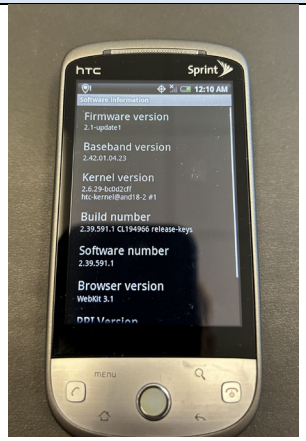
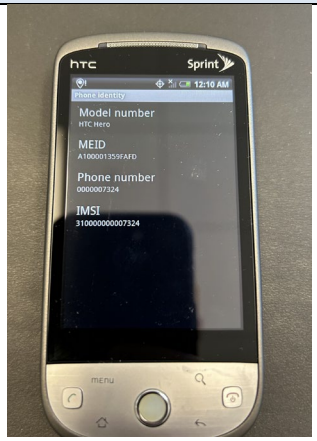
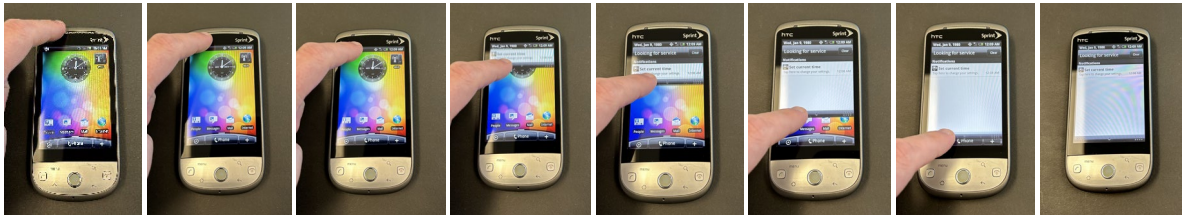
technology to solve routine and well understood problems in predictable ways. A POSITA would have recognized that the HTC Hero's embodiments describe related advancements for mobile devices, and a POSITA would have been motivated to combine elements of the embodiments to achieve the HTC Hero's goals.

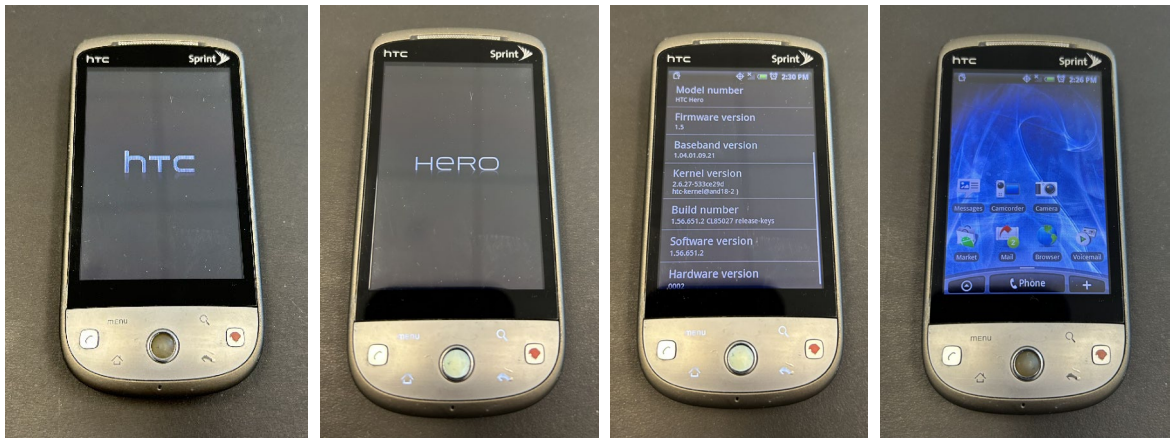
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[1Pre]** A system for capturing an event provided from an edge of a touch screen comprising: | To the extent that the preamble is held to be limiting, the HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[a] system for capturing an event provided from an edge of a touch screen."<br><br>For example, the HTC Hero is a system for capturing an event provided from an edge of a touch screen. For example, the HTC Hero captures a user's swipe/drag event from an upper edge of the touch screen to display the notifications panel.<br><br>  <br><br>HTC Hero 1.5 Device.<br><br>  <br>HTC Hero 1.5 Device. |

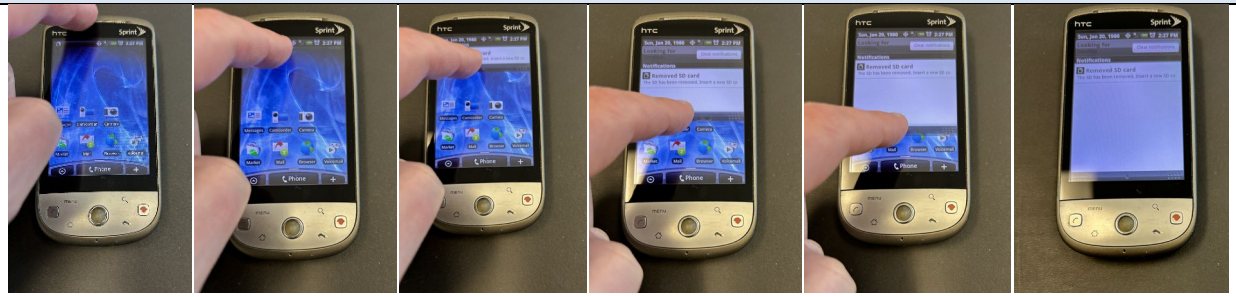
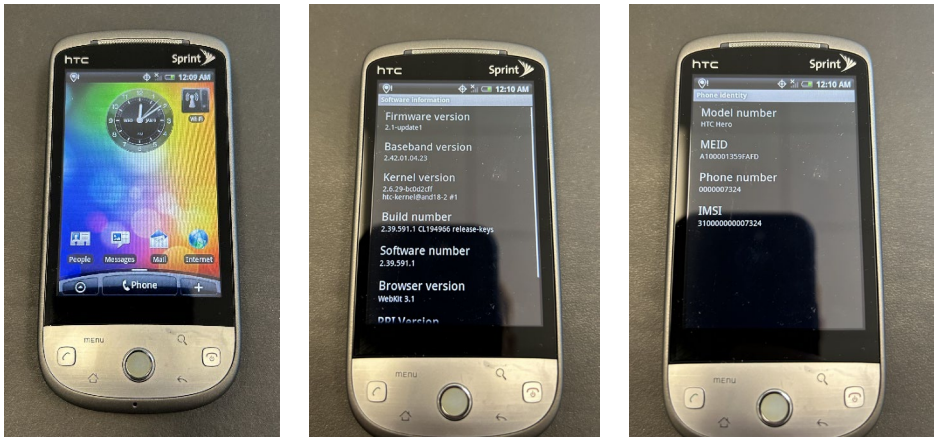
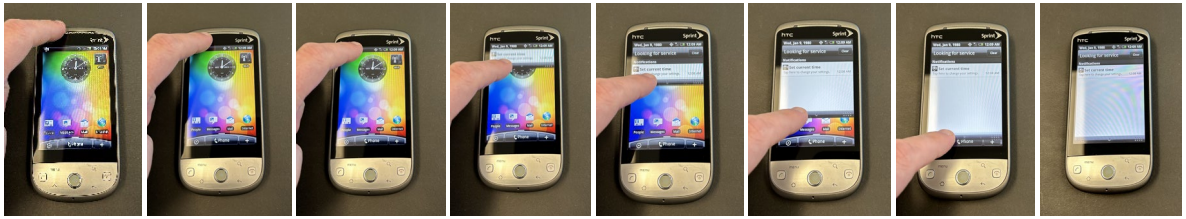
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |    HTC Hero 2.1 Device.  HTC Hero 2.1 Device. *See, e.g.*, HTC Hero (Sprint) review: HTC Hero (Sprint); HTC Hero review; HTC Hero (Sprint); Review: HTC Hero from Sprint. |
| **[1A]** a device having a touch screen; | The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a device having a touch screen."<br>For example, the HTC Hero includes the HTC Hero device having a 3.2-inch capacitive touch screen. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **Touch screen**<br>Speaking of the display, the HTC Hero features a 3.2-inch, 480×320 capacitive touch screen, which isn't any different than the others and still shows images and text beautifully. A built-in light sensor automatically adjusts the display's brightness so you can read the display no matter what environment you're in, but like many others, the screen tends to wash out in bright sunlight.<br>HTC Hero (Sprint) review: HTC Hero (Sprint).<br>far this fall. The HTC Hero features a 3.2" capacitive multi-touch display, Android OS 1.5 (Cupcake) with HTC Sense software, a 5 megapixel camera, WiFi, Bluetooth, 3.5mm stereo headset jack and a microSD card slot (2 gig card included). It has EVDO Rev. A (Sprint's version<br>HTC Hero (Sprint). |

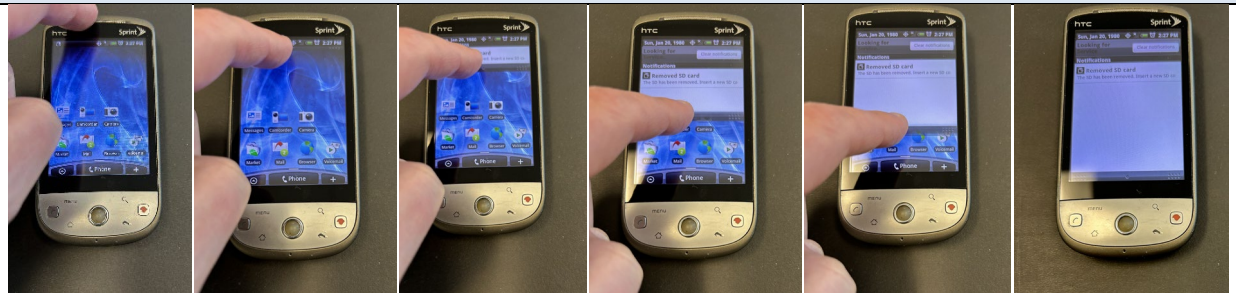
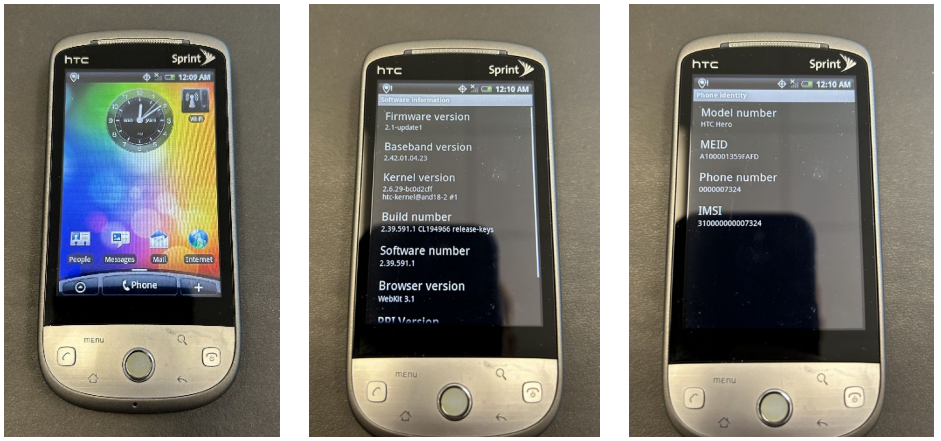
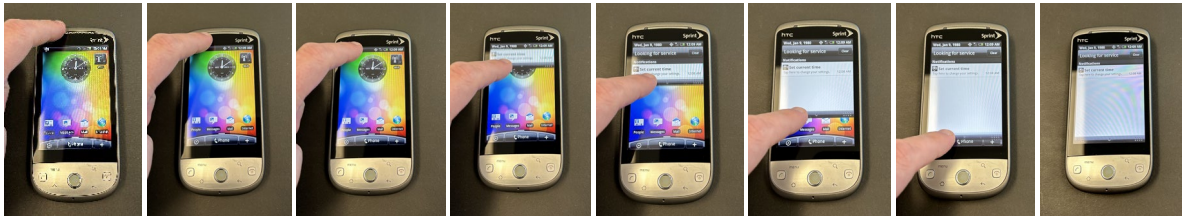
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>HTC Hero 1.5 Device.<br>  <br>HTC Hero 1.5 Device. |

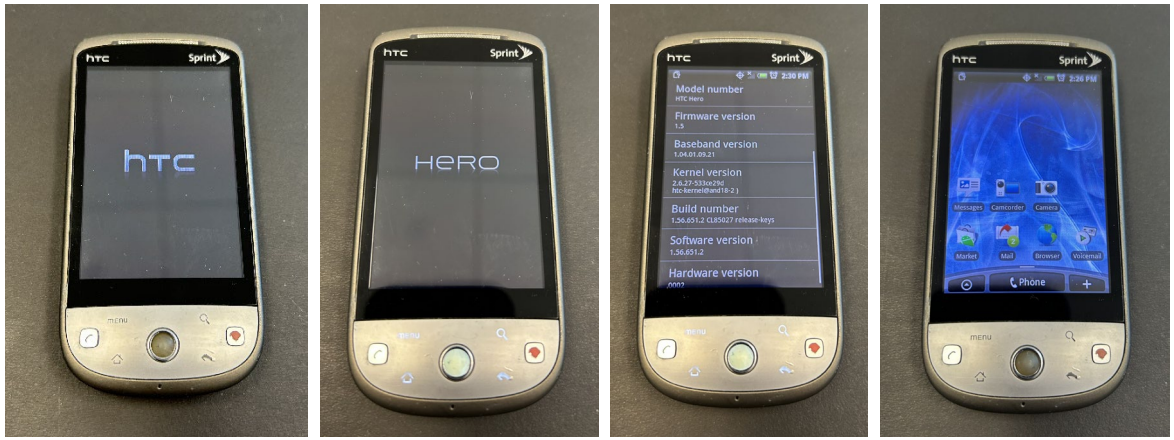
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |     <br>HTC Hero 2.1 Device.<br>  <br>HTC Hero 2.1 Device.<br><br>*See, e.g.*, HTC Hero (Sprint) review: HTC Hero (Sprint); HTC Hero review; HTC Hero (Sprint); Review: HTC Hero from Sprint. |
| **[1B]** at least one window located in the touch screen on an edge of the touch screen, wherein said at least one | The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "at least one window located in the |

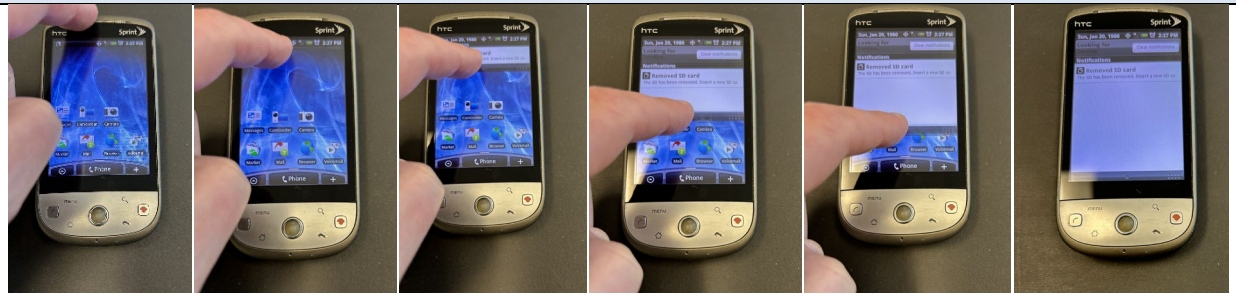
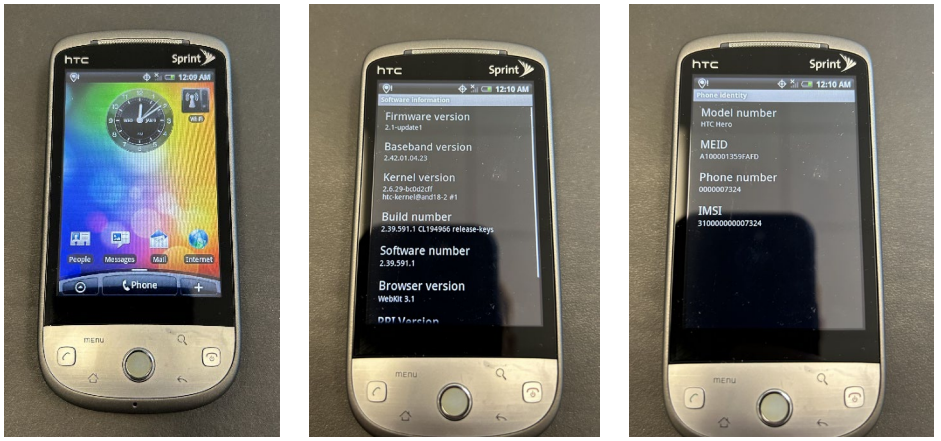
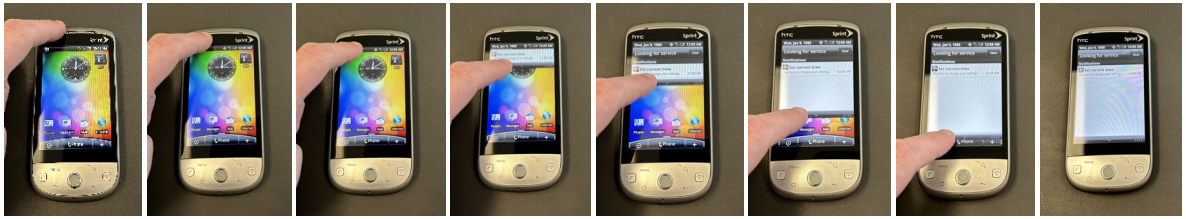
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| window functions independently of an interface of an application in use on the touch screen; and | touch screen on an edge of the touch screen, wherein said at least one window functions independently of an interface of an application in use on the touch screen."<br><br>For example, the HTC Hero includes at least one window, such as the status bar window located in the touch screen on the top edge of the touch screen. The status bar window functions independently of an interface of an application in use on the touch screen. For example, the status bar window is always present at the top edge regardless of the application shown on the main portion of the display and can be pulled down to view the notifications panel. For example, the status bar window is displayed on an edge of the touch screen and functions independently of an interface of the Google search application, the clock application, the phone application, or other applications in use on the touch screen.<br><br>  <br>HTC Hero 1.5 Device. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>HTC Hero 1.5 Device.<br>  <br>HTC Hero 2.1 Device.<br>  <br>HTC Hero 2.1 Device. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | *See, e.g.*, HTC Hero (Sprint) review: HTC Hero (Sprint); HTC Hero review; HTC Hero (Sprint); Review: HTC Hero from Sprint. |
| **[1C]** a processor; | The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a processor."<br><br>For example, the HTC Hero includes a processor, such as a Qualcomm MSM7600 528 MHz processor, to process instructions related to user inputs on the touch screen, display applications, and handle notification alerts.<br><br>The HTC Hero features a 528MHz Qualcomm MSM7600 processor, so you're not getting any power boosts over the T-Mobile G1 or the T-Mobile MyTouch 3G.<br><br>HTC Hero (Sprint) review: HTC Hero (Sprint).<br><br>  <br><br>HTC Hero 1.5 Device. |

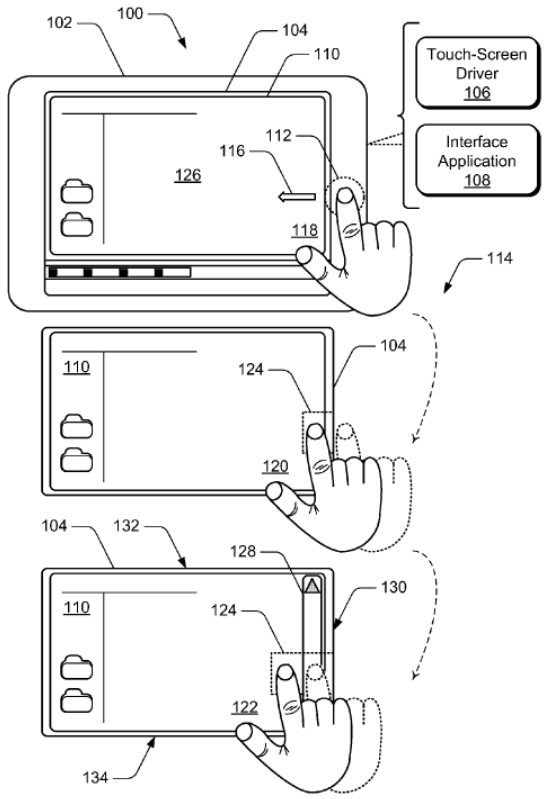
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC Hero 1.5 Device.<br>  <br>HTC Hero 2.1 Device.<br>  <br>HTC Hero 2.1 Device. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | *See, e.g.*, HTC Hero (Sprint) review: HTC Hero (Sprint); HTC Hero review; HTC Hero (Sprint); Review: HTC Hero from Sprint. |
| **[1D]** wherein a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said processor to cause an action assigned to said window, and | The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said processor to cause an action assigned to said window."<br><br>For example, the HTC Hero includes a gliding action provided from outside of the touch screen, such as above the status bar, towards inside of the touch screen. The gliding action first interacts with said at least one window on the touch screen and is processed by said processor to cause an action assigned to said window, such as opening the notifications panel. For the HTC Hero, a swipe or slide is a type of drag action.<br><br>  <br><br>HTC Hero 1.5 Device. |

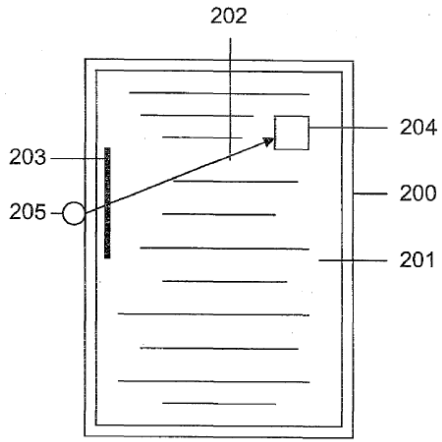
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC Hero 1.5 Device.<br>  <br>HTC Hero 2.1 Device.<br>  <br>HTC Hero 2.1 Device. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | *See, e.g.*, HTC Hero (Sprint) review: HTC Hero (Sprint); HTC Hero review; HTC Hero (Sprint); Review: HTC Hero from Sprint.<br><br>To the extent Keyless argues that the HTC Hero does not disclose or render obvious this limitation, it would have been obvious in view of the HTC Hero, POSITA's pre-existing knowledge, and/or the HTC Hero combined with the other references charted for this patent in these invalidity contentions, including Wilairat, Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC Magic 1.5, Motorola Droid A855, the Palm Pre, and the Neonode N2. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>For example, Wilairat further teaches an off-to-on-screen gliding action, referred to as a "pull-in gesture." Wilairat teaches that, although the gliding motion begins off of the touch screen, it first interacts with the touch screen as the finger enters the touch screen. Wilairat teaches that "a user can initiate a touch input with a finger just off an edge of the touch-screen and then motion a pull-in gesture across the touch-screen. When the motion of the touch pull-in gesture is initiated by the user, a progression of the motion as the touch input remains in contact with the touch-screen creates a contact region on the touch-screen that progressively expands and is detected. The progressive expansion of the contact region on the touch-screen is then determined or recognized as the touch pull-in gesture that initiates a display of a user interface component proximate a location of the touch pull-in gesture on the touch-screen. A user interface component can include any type of hidden menu, slide menu, drop-down menu, Scrollbar, and/or any other type of user interface displayable element." Wilairat at [0009].<br><br>Wilairat further teaches that "a user of portable device 102 can initiate a touch input 112 with a finger just off an edge of the touch-screen 104 and then motion a pull-in gesture 114 in a direction |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | 116 across the touch-screen. The motion of the touch pull-in gesture 114 is illustrated in the direction 116 as the hand moves from position 118, to position 120, and to position 122 (shown successively in the three views). When the motion of the touch pull-in gesture 114 is initiated by the user, a contact region 124 progressively expands. Such as illustrated when the hand moves from the edge of the touch-screen at position 118 to position 120, and then from position 120 to position 122. The progressive expansion of the contact region 124 is then determined or recognized as the touch pull-in gesture 114." Wilairat at [0012].<br><br>An exemplary pull-in gesture from off-screen to on-screen is shown in Wilairat FIG. 1. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Fig. 1<br>Wilairat at FIG. 1.<br>Moreover, each of Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the HTC Magic 1.5, the Motorola Droid A855, the Palm Pre, and the Neonode N2 teaches a gliding action from off screen to on screen to activate a function assigned to the window when the gliding action is detected.<br>Roth teaches using a swiping (e.g., gliding) action from outside a screen through a window in the form of a line at the edge of the screen on the screen towards the inside of the touch screen to |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | activate a function associated with the window. For example, Roth describes "[a] crossing-based interface along the bounds of the display is a viable solution. Users can invoke actions with swiping gestures across a section of the display side from the outside to the inside." Roth at [0009]. Roth teaches advantages of such outside-to-inside gliding activations, for example, that "they can be more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to the distance vector between the line and the cursor," and "that a well positioned line requires significantly less display space than a button for similar performance characteristics." Roth at [0010]. "One example of such a gesture is a continuous swiping motion from the activation point representing a desired action or even from the bezel of the device, through the activation point and to the target on the display." Roth at [0015]. Roth explains that such outside-to-inside gliding actions "allow[] the active area of an activation point to be much smaller on a display due to the utilization of a greater average weight throughout a touch sensitive display, which creates a higher probability of activating on a narrow activation point or operating on a small target," "save[s] valuable display space on the screen, since the activation point can be made smaller on the display as a result," and may "begin from outside the display for ease of use." Roth at [0015]. As Roth explains, a "bar" may "represent[] the desired action." Roth at [0017]. "[A]n activation point 203 (represented as a bar in this example) displayed on the edge of the screen which represents the desired action of selecting. The bar is made small so as to not take up valuable space on the display. The user can then select the target 204 through the use of a gesture 202, such as swiping, pinching, tapping or other gestures …." Roth at [0036]. As shown in FIG. 2B, "[t]he user can begin his gesture from either on the bar itself or from outside the display 205 and continue the gesture through the bar and to target as if the user were bringing the action to the target. An example of such a gesture is if the user utilized a continuous swiping motion with his finger from the bar representing a desired action to the target on the display." Roth at [0039]. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Roth at FIG. 2B.<br><br>Roth Bezel Swipe teaches activation gestures related to mobile devices having touch screens. A bezel swipe gestures is an outside-to-inside swiping (e.g., gliding) gesture, in which "[t]he user starts a Bezel Swipe gesture on the bezel, which is the physical touch insensitive frame that surrounds the display. The finger is then swiped through a part of the display edge into the display, which enters selection mode. Next, the user moves the finger onto an object or display position and selects it by lifting the finger off the display, which ends selection mode. Different edge portions represent different actions and are distinctively marked." Roth Bezel Swipe at 1524. "Swipes are recognized by detecting touches inside a thin rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524. As such, "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display. Figure 2 illustrates this. A touch sensitive display translates the contact area of the finger with the display into an activation point." Roth Bezel Swipe at 1524. "The Bezel Swipe gesture … starts on the bezel and moves into the display. Therefore the contact area is gradually increased until it exceeds the contact threshold of the display. … Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. This outside-to-inside crossing gesture has advantages, for example, "the crossing of the touch-insensitive bezel in conjunction with the properties of touch sensitive displays enables the reliable |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | activation of a button that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. |

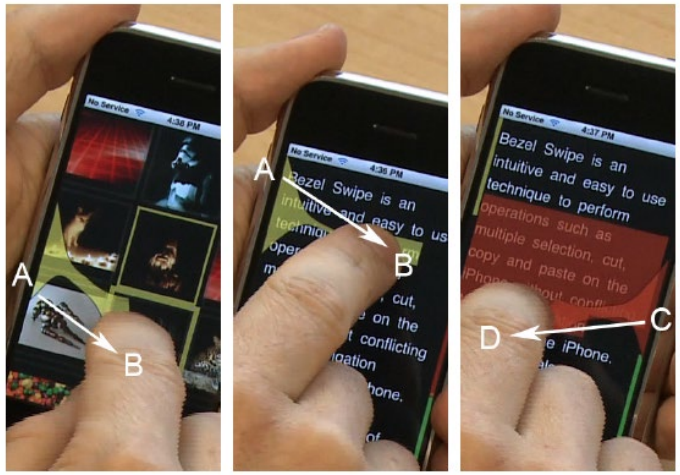



**Figure 1. The Bezel Swipe prototype in action. Left panel: A swipe from A to B selects an image. Middle panel: A swipe from A to B marks the beginning of a text selection. Right panel: A swipe from C to D marks the end of the text selection.**

Roth Bezel Swipe at Figure 1.

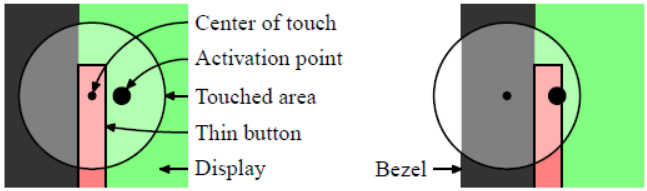
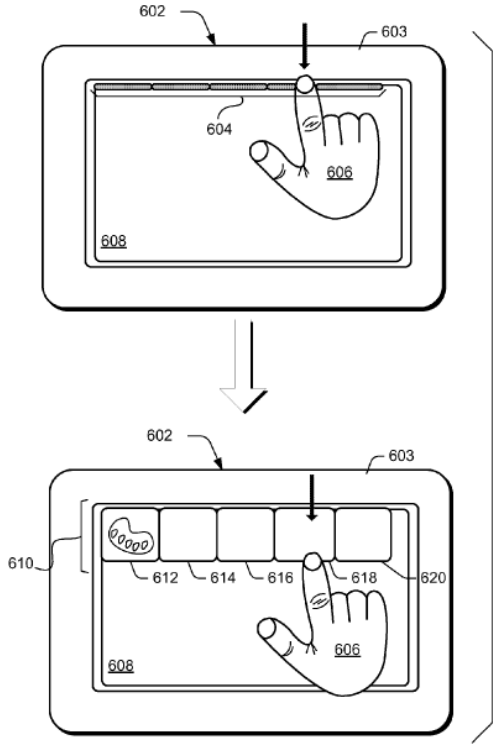


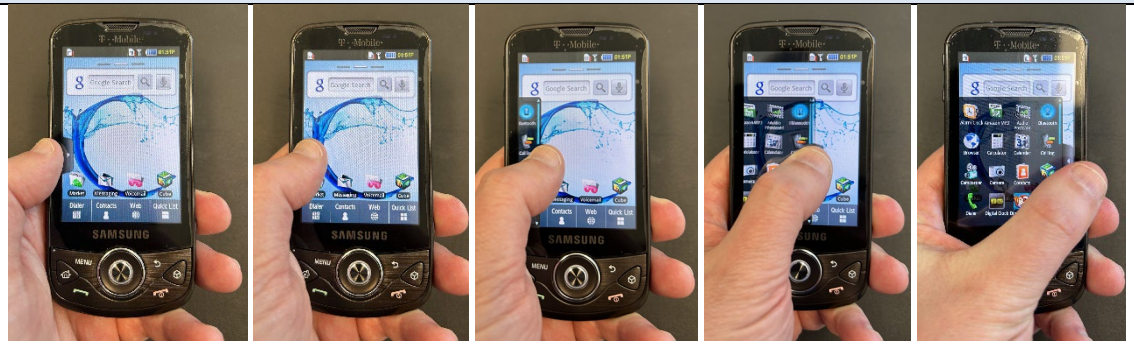

**Figure 2. Touching narrow targets close to the bezel: a touch (large circle) centered on the target (left) may not activate it whereas a touch significantly overlapping the bezel (right) does.**

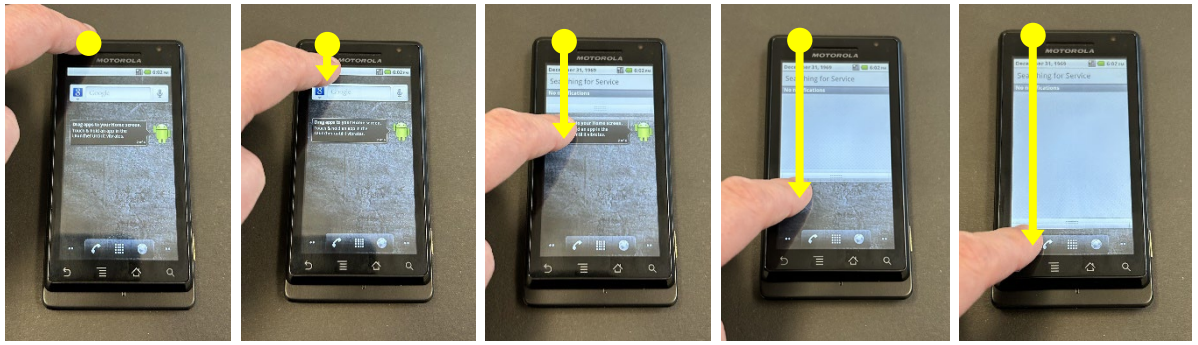
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | Roth Bezel Swipe at Figure 2.<br><br>Hinckley teaches a visual affordance window indicating a pull-down bezel menu is shown at the edge of a mobile device using a gliding action from outside of the touch screen towards the inside of the touch screen. Hinckley at FIGS. 5, 6. For example, in FIG. 5, "[s]tep 500 displays a visual affordance on a display device associated with a computing device" and is shown at as a window or bar 604 being a five-part line in FIG. 6. Hinckley at [0068], [0072], FIGS. 5, 6. Then, "[s]tep 502 receives a bezel gesture input relative to the visual affordance," such as from off-screen to on-screen over the visual affordance. Hinckley at [0068], [0072], FIGS. 5, 6. After the off-screen to on-screen gesture, "[s]tep 504 accesses functionality associated with the received bezel gesture input." Hinckley at [0068], [0072], FIGS. 5, 6. Hinckley explains that "off-screen to on-screen motion (or vice versa) can be utilized as a mechanism to expose a menu or to access some other type of functionality." Hinckley at [0071]. As shown in FIG. 6, "device 602 includes a bezel 603 and a visual affordance 604 that is rendered on display device 608." Hinckley at [0072], FIG. 6. The "visual affordance 604" may appear as "in the form of a semi-transparent strip" and "can be utilized to provide a hint or indication of accessible functionality, in this case a bezel menu, associated with the bezel." Hinckley at [0072], FIG. 6. "[T]he bezel menu can be accessed through a bezel gesture in which a finger of user's hand 606 touches the bezel and then moves across the bezel and onto the display device 608 in the direction of the illustrated arrow." Hinckley at [0073], FIG. 6. After this off-screen to on-screen gesture, the "bezel menu 610 to be dropped down at which time it can become fully opaque." Hinckley at [0073], FIG. 6. Hinckley further explains that "bezel menu 610 includes multiple selectable icons or slots 612, 614, 616, 618, and 620. Each of the icons or slots is associated with a different functionality such as, for example, paint functionality, pen functionality, note functionality, object creation, object editing, and the like." Hinckley at [0074], FIG. 6. Hickley teaches, however, that "any type of functionality can be associated with the icons or slots." Hinckley at [0074], FIG. 6. The "bezel menu 610 can enable a user to access and activate commands, tools, and objects." Hinckley at [0075], FIG. 6. |

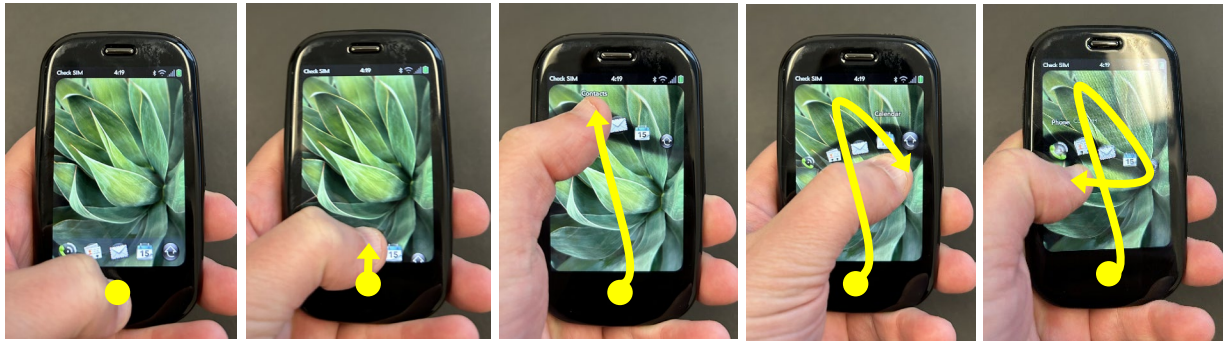
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Fig. 6<br>Hinckley at FIG. 6.<br>On information and belief, the Samsung Galaxy GT-i7500 1.5 operates substantially the same with respect to the pull-down notifications interface as the HTC Hero and HTC Magic 1.6. *See, e.g.*, https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface as the same, |

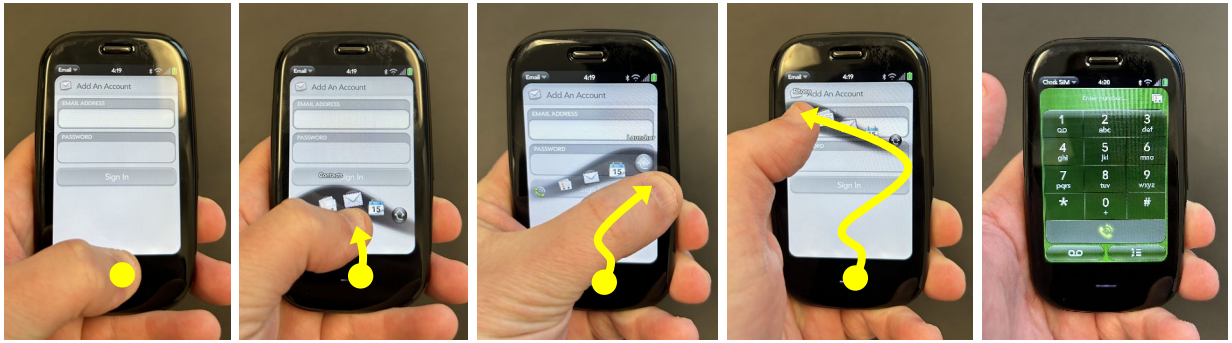
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."); https://www.youtube.com/watch?v=rhBgLQSxfjE at 1:20-1:34 (describing as running Android 1.5 and similar to HTC Hero device, showing opening notification menu from status bar contact at 1:32). On information and belief, a user may perform a gliding action from the plastic housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display toward the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar); https://www.youtube.com/watch?v=wVF8dLkgW7c at 0:40-0:56 (showing swipe down over status bar to open notifications interface); https://www.youtube.com/watch?v=4Pv04Tw6wvQ at 3:30-3:35 (showing gliding gesture on status bar to show notification interface for Android 1.5 operating system). The user's touch first interacts with the status bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status bar window causes a processor to perform the action of displaying the notifications window. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar). Furthermore, on information and belief, a user may perform a gliding action from the plastic housing bezel below the touch screen (from outside of the screen) over the tab shown at the bottom of the screen towards the main application display inside of the touch screen (e.g., over the tab window) to display an applications selection interface. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having the application selection interface tab); https://www.youtube.com/watch?v=wVF8dLkgW7c at 0:54-1:14 (showing swipe up over application selection tab at bottom of screen to open application selection interface); https://www.youtube.com/watch?v=4Pv04Tw6wvQ at 1:36-2:30 (showing gliding gesture on tab to show application selection interface for Android 1.5 operating system).<br><br>The Samsung Behold II operates substantially the same with respect to the pull-down notifications interface as the HTC Hero and the HTC Magic 1.6. *See, e.g.*, |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | https://www.cnet.com/tech/mobile/hands-on-samsung-behold-ii-plus-release-details/ (explaining that the Samsung Behold II runs on Android 1.5); https://www.t-mobile.com/news/press/t-mobile-usa-launches-the-samsung-behold-ii-on-november-18. For the Samsung Behold II, a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar.<br>  <br>Moreover, in the Samsung Behold II, a user may also perform a gliding action from the plastic housing surrounding the touch screen to the left of the applications drawer tab (from outside of the screen) over the applications tab towards the main application display the inside of the touch screen (e.g., crossing over the applications tab window). The user's touch first interacts with the applications tab window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the applications tab causes a processor to perform the action of displaying the applications drawer menu from the side of the screen. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>The Samsung Behold II device.<br><br>On information and belief, the HTC Magic 1.5 operates substantially the same with respect to the pull-down notifications interface as the HTC Hero and the Samsung Galaxy GT-i7500. *See, e.g.*, https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface as the same, showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."). On information and belief, a user may perform a gliding action from the plastic housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display toward the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. The user's touch first interacts with the status bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status bar window causes a processor to perform the action of displaying the notifications window. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 (In addition to being able to drag (or double tap if your fingers are a little tired) the menu bar up from the bottom of the screen, you can also drag from the top and find your notifications all grouped nicely together."); https://ianrenton.com/blog/review-htc-magic/ ("Dragging the top drawer (where app notifications, incoming messages etc. sit) is a lot more intuitive on an actual device than on the emulator, and the kinetic scrolling - you can 'throw' menus |

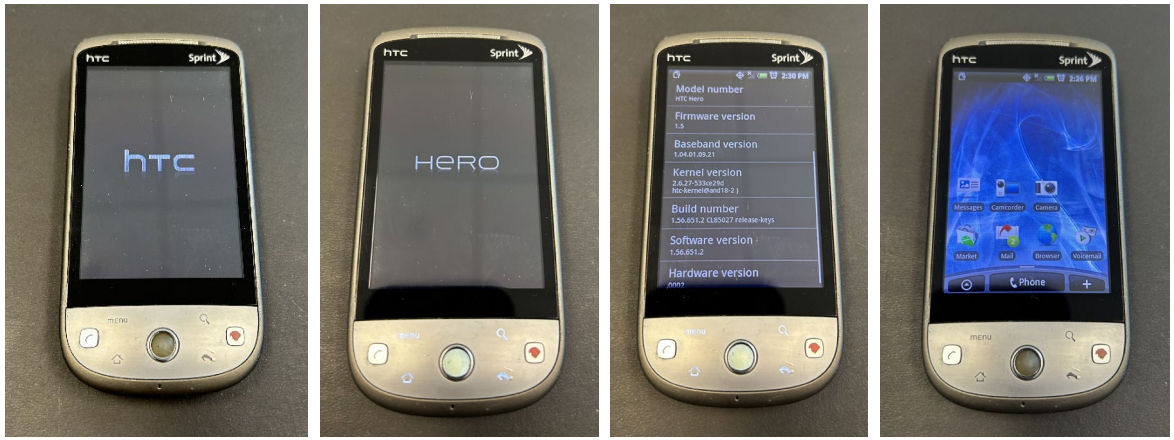
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | - feels just right."); https://www.youtube.com/watch?v=LghBOTZ-HuE at 5:08-5:20 (describing "drag-down notification drawer"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:35-8:55 (describing notification menu as "a drawer" that you "pull down" allowing you to "click" notifications to open the corresponding application).<br><br>Furthermore, on information and belief, a user may perform a gliding action from the plastic housing bezel below the touch screen (from outside of the screen) over the tab shown at the bottom of the screen towards the main application display inside of the touch screen (e.g., over the tab window) to display an applications selection interface. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 ("you can simply drag up the menu from the bottom and access all your recently downloaded applications and menu functions, sorted alphabetically"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:15-7:35, 8:17-8:55 (showing swipe-up action to open application selection interface).<br><br>The Motorola Droid A855 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status towards to the main application display toward the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar.<br><br>  <br>Droid A855. |

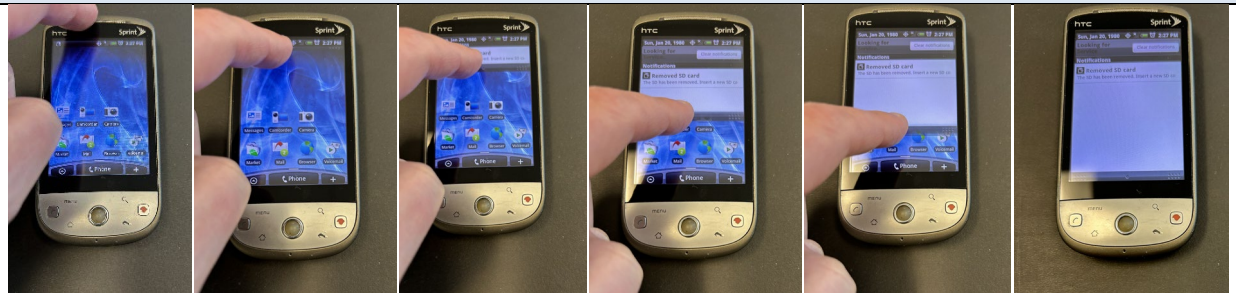
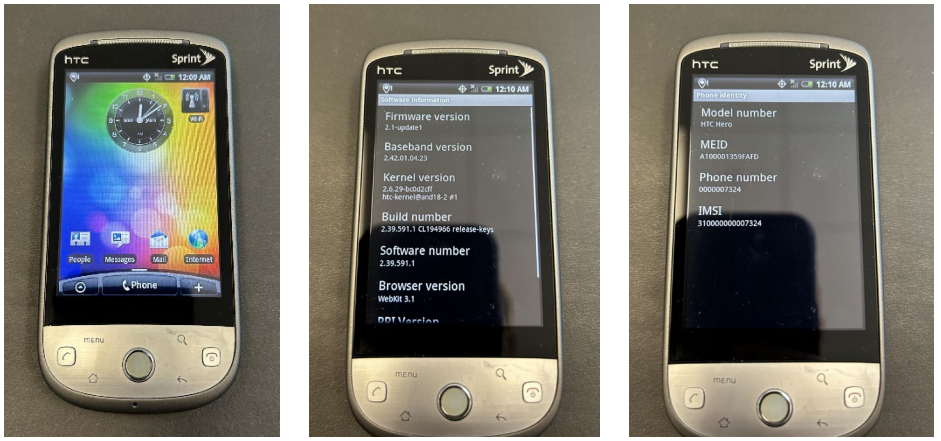
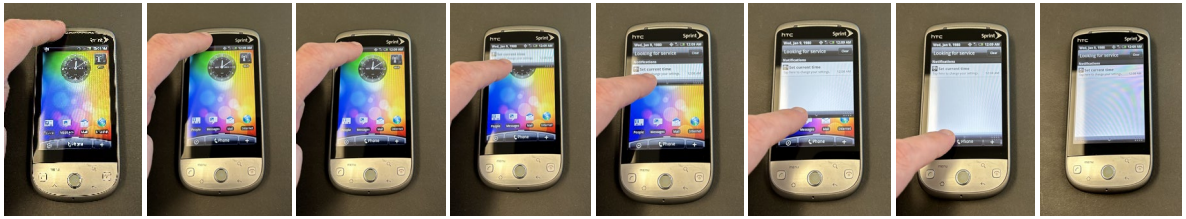
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | The Palm Pre teaches, as one example, that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen (e.g., crossing over the Quick Launch window showing five application icons and identifying the movement from off-to-on screen). The user's touch first interacts with the Quick Launch window on the touch screen because the Quick Launch window is not displayed in the gesture area. The gliding action over the Quick Launch window from off-to-on screen causes a processor to perform the action associated with the window, such as moving the Quick Launch window with the user's finger in any arbitrary direction around the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. For example, lifting on the "Phone" icon opens the Phone application.<br>  <br>Palm Pre.<br>The Palm Pre also teaches, as another example, that, when an application is open on the Palm Pre device (such as the mail application shown below), a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen to display the Quick Launch window (e.g., crossing from off-to-on screen to display the Quick Launch window). The user's touch first interacts with the Quick Launch window on the touch screen because the Quick Launch window is not displayed in the gesture area, but as shown below, appears with the user's off-to-on screen gesture as the finger moves onto the screen. The gliding action causes a processor to perform the action associated with the Quick Launch window, |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | such as moving the Quick Launch window with the user's finger in any arbitrary direction around the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. As shown below, lifting on the "Phone" icon opens the Phone application.<br>  <br>Palm Pre.<br>The Neonode N2 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen over the indicated icons or from the sides of the screen as indicated by the various arrows (from outside of the screen), over the arrows towards the main application display toward the inside of the touch screen (e.g., crossing over the window identifying the movement from off-to-on screen). The user's touch first interacts with the window showing the arrows on the touch screen because the outer housing does not contain touch-sensitive elements. The gliding action over the arrows from off-to-on screen causes a processor to perform the action associated with one of the three icons printed below the touch screen or from the side of the touch screen. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Neonode N2.<br>A POSITA would have found it obvious to incorporate the functionality of permitting an off-to-on-screen gliding action, where the gliding action first interacts with the touch screen of the HTC Hero's status bar window, to cause the notifications menu to be displayed as described in the HTC Hero, as claimed. Each of the HTC Hero, Wilairat, Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC Magic 1.5, the Motorola Droid A855, the Palm Pre, and/or the Neonode N2, teaches causing an action associated with a gliding gesture that may be an off-to-on-screen gesture, such as causing the HTC Hero's notification menu to be slid open using a gesture that starts off screen and glides towards the main display area. A POSITA would have been motivated to provide for opening (e.g., sliding open, as used in the HTC Hero) the HTC Hero's notification menu using a gesture that starts off screen and glides towards the main display area because it allows for the same operation as the HTC Hero uses, but simplifies the user's experience of opening the notifications menu. For example, by registering the touch as the user's finger slides onto the screen (e.g., either as a regular touch on the status bar, as known in the HTC Hero, or as a pull-in gesture, such as taught by Wilairat, Roth, or Roth Bezel Swipe) results in effectively increasing the size of the status bar and application tab. This simplifies the user's experience because the user does not have to try to specifically touch the narrow status bar and may instead start the gliding gesture off-screen to cross over the status bar to pull the notifications menu open. As explained by Roth Bezel Swipe, "screens of mobile devices are necessarily small," which leads to the development of "smaller widgets" that "are harder to hit." Roth Bezel Swipe at 1523. But out-to-in swiping gestures that "start on the bezel and move[] into the display" allow for |

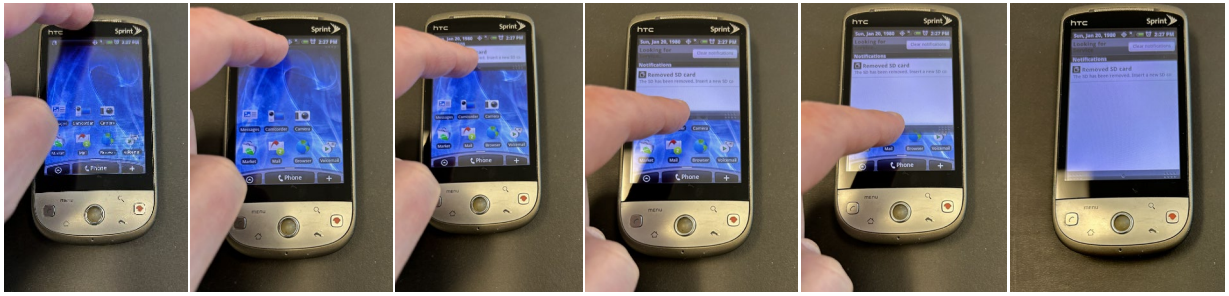
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | contacting "a narrow target (the red bar) positioned flush against the display edge." Roth Bezel Swipe at 1524. In other words, "[s]wipes" from outside-to-inside the touch screen "are recognized by detecting touches inside a thin rectangular area [window] positioned flush against the display screen." Roth Bezel Swipe at 1524. This "enables the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524.<br><br>It was well known to a POSITA that activating a function when a user performs an out-to-in gliding gesture, such as over the HTC Hero's status bar, "enables the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524. Activating functions where "[u]sers can invoke actions with swiping features across a section of the display [touch screen] side from the outside to the inside" also "requires minimal display real estate," whereby being beneficial to mobile devices that have small screens. Roth, [0009]. A POSITA would have known that such activation operations, like crossing activations, "can be more efficient than pointing tasks," especially on small-screen devices, such as mobile phones. Roth, [0009]. When outside-to-inside gliding activations are used, a POSITA would have known that the activation bar or window can be "made small so as to not take up valuable space on the display." Roth, [0036].<br><br>Activating a function when a user performs an out-to-in gliding gesture over a window on a touch screen, such as over the HTC Hero's status bar, was routine and conventional to POSITAs, as shown by the HTC Hero, Wilairat, Roth, and/or Roth Bezel Swipe. Moreover, it was successfully implemented in commercial prior art devices, such as the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC Magic 1.5, the Motorola Droid A855, the Palm Pre, and the Neonode N2. Incorporating a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, being processed by the processor to cause an action assigned to said window into the HTC Hero, shown above, represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved |

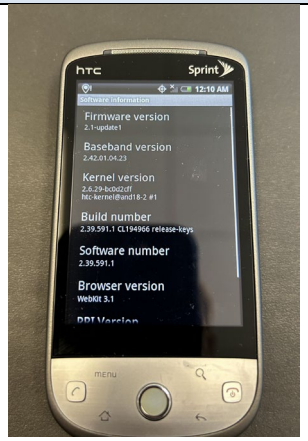
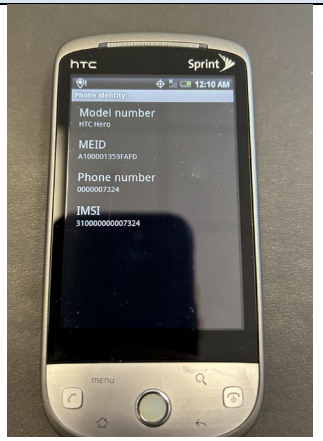
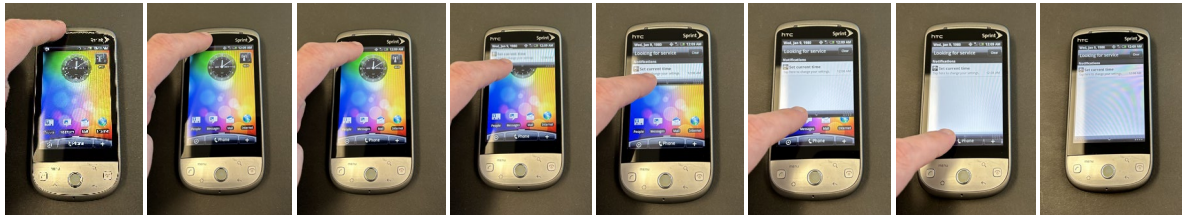
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with the HTC Hero, represent nothing more than combining prior art elements according to known methods and techniques (registering a user's gliding action when it first crosses into the status bar of the HTC Hero and then moves towards the inside of the touch screen) to yield predictable results (to open the HTC Hero's notification menu, such as by sliding it open, as used in the HTC Hero). |
| **[1E]** wherein said at least one window is located on the touch screen before said gliding action begins. | The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said at least one window is located on the touch screen before said gliding action begins."<br><br>For example, the HTC Hero includes that said at least one window, such as the status bar window, is located on the touch screen before said gliding action begins.<br><br>  <br><br>HTC Hero 1.5 Device. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>HTC Hero 1.5 Device.<br>  <br>HTC Hero 2.1 Device.<br>  <br>HTC Hero 2.1 Device. |

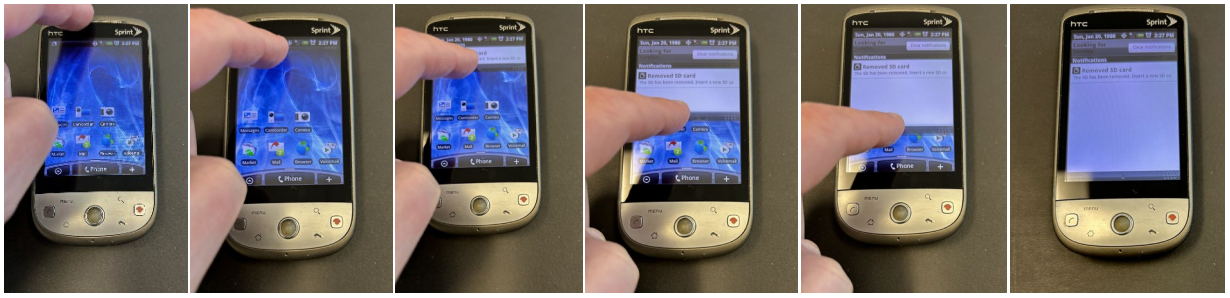
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | *See, e.g.*, HTC Hero (Sprint) review: HTC Hero (Sprint); HTC Hero review; HTC Hero (Sprint); Review: HTC Hero from Sprint. |

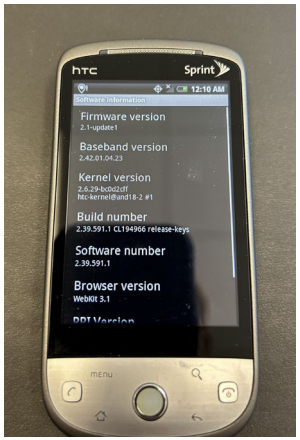
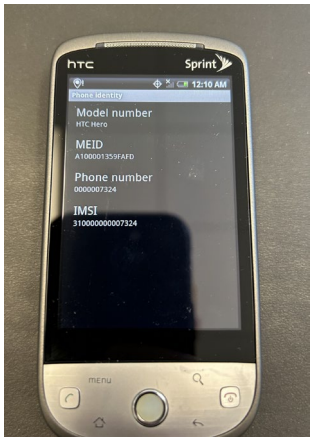
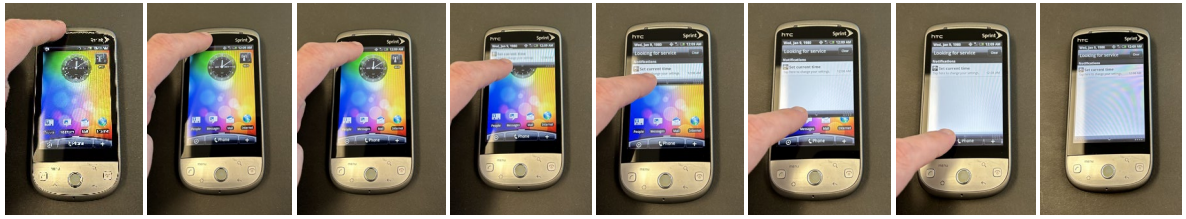
| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| **[2]** The system of claim 1, wherein the system relates said gliding action to a function which is not related to a mouse function. | Claim 2 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 2 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "the system relates said gliding action to a function which is not related to a mouse function."<br><br>For example, the HTC Hero relates the gliding action over the status bar to a function (e.g., opening a menu interface) that is not related to a mouse function. |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>HTC Hero 1.5 Device.<br>  <br>HTC Hero 1.5 Device. |

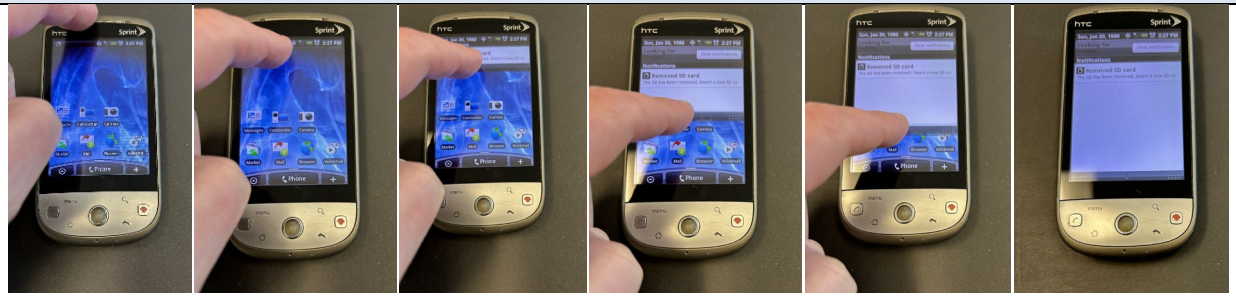
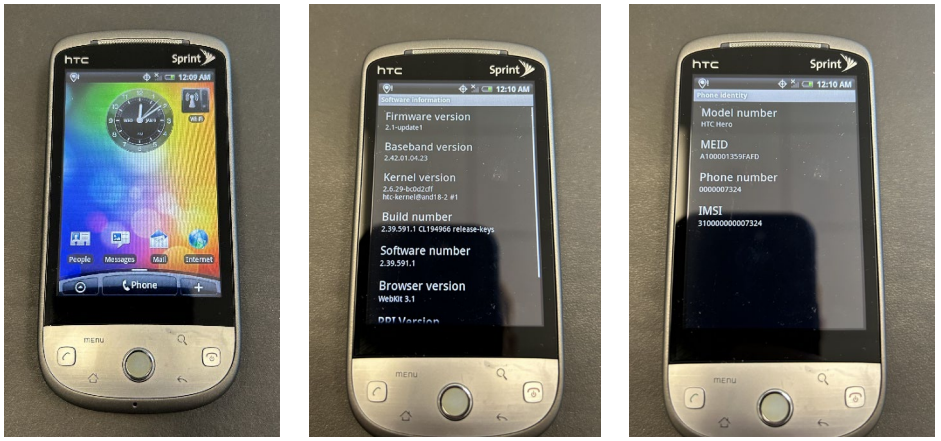
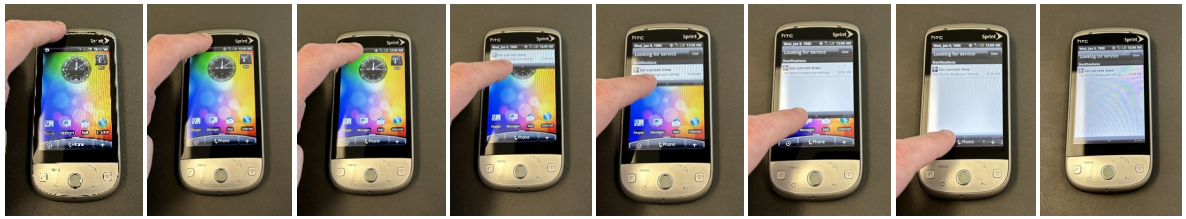
| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |      HTC Hero 2.1 Device.  HTC Hero 2.1 Device. *See, e.g.*, HTC Hero (Sprint) review: HTC Hero (Sprint); HTC Hero review; HTC Hero (Sprint); Review: HTC Hero from Sprint. |

| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[3]** The system of claim 1, wherein said at least one window comprises at least | Claim 3 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 |

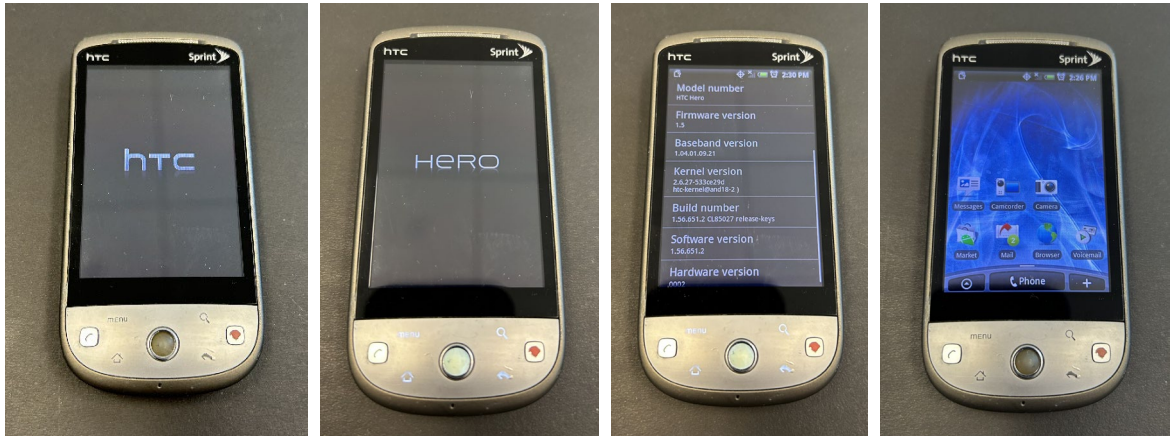
| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| one bar located on said edge of the screen. | to show the additional limitations of claim 3 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window comprises at least one bar located on said edge of the screen."<br><br>For example, the HTC Hero includes the status bar window as a bar located on the top edge of the touch screen.<br><br>  <br><br>HTC Hero 1.5 Device.<br><br>  |

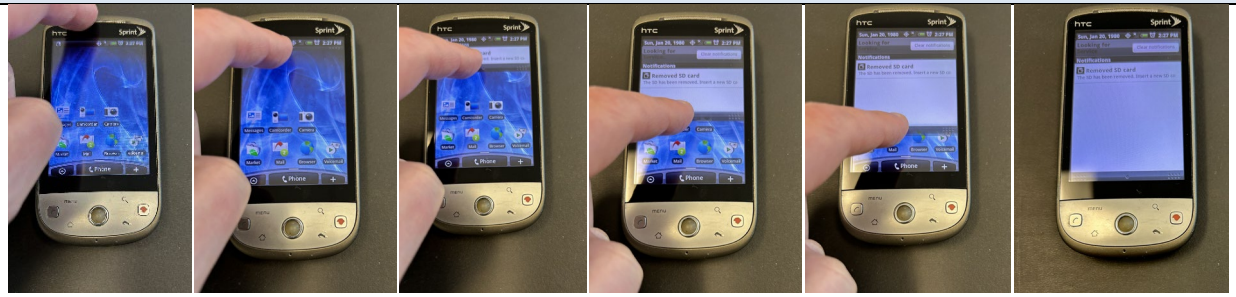
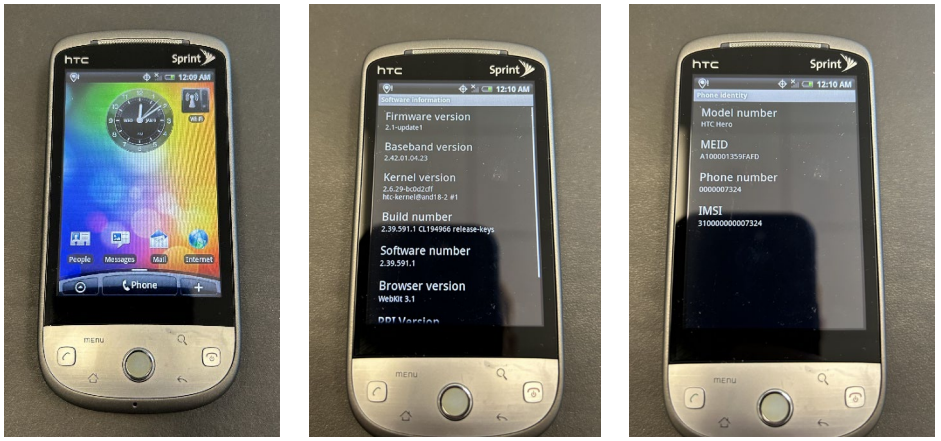
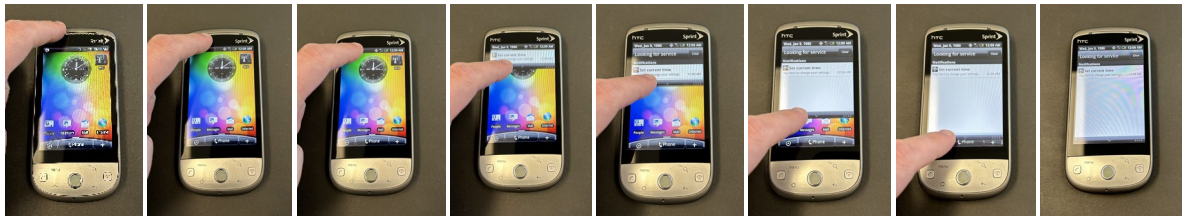
| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | HTC Hero 1.5 Device.<br>    <br>HTC Hero 2.1 Device.<br>  <br>HTC Hero 2.1 Device.<br>*See, e.g.*, HTC Hero (Sprint) review: HTC Hero (Sprint); HTC Hero review; HTC Hero (Sprint); Review: HTC Hero from Sprint. |

| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[4]** The system of claim 3, wherein said at least one bar extends along a substantial portion of an edge of the touch screen. | Claim 4 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 4 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one bar extends along a substantial portion of an edge of the touch screen."<br><br>For example, the HTC Hero has the status bar extending along the length of the top edge of the touch screen.<br><br>  <br><br>HTC Hero 1.5 Device. |

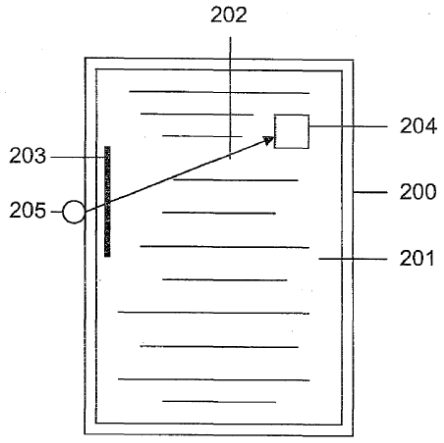
| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC Hero 1.5 Device.<br>  <br>HTC Hero 2.1 Device.<br>  <br>HTC Hero 2.1 Device. |

| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, HTC Hero (Sprint) review: HTC Hero (Sprint); HTC Hero review; HTC Hero (Sprint); Review: HTC Hero from Sprint. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[5]** The system of claim 3, wherein said bar is in a form of a line. | Claim 5 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 an 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 5 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said bar is in a form of a line."<br><br>For example, the HTC Hero has the status bar in the form of a line.<br><br>  <br><br>HTC Hero 1.5 Device. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>HTC Hero 1.5 Device.<br>  <br>HTC Hero 2.1 Device.<br>  <br>HTC Hero 2.1 Device. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | *See, e.g.*, HTC Hero (Sprint) review: HTC Hero (Sprint); HTC Hero review; HTC Hero (Sprint); Review: HTC Hero from Sprint.<br><br>To the extent Keyless argues that the HTC Hero does not disclose or render obvious the additional limitations of claim 5, it would have been obvious in view of the HTC Hero, POSITA's pre-existing knowledge, and/or the HTC Hero combined with the other references charted for this patent in these invalidity contentions, including Roth, Roth Bezel Swipe, Hinckley, the Samsung Behold II, the Palm Pre, and the Neonode N2. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>For example, Roth teaches using a swiping (e.g., gliding) action from outside a screen through a window in the form of a line at the edge of the screen on the screen towards the inside of the touch screen to activate a function associated with the window. For example, Roth describes "[a] crossing-based interface along the bounds of the display is a viable solution. Users can invoke actions with swiping gestures across a section of the display side from the outside to the inside." Roth at [0009]. Roth teaches advantages of such outside-to-inside gliding activations, for example, that "they can be more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to the distance vector between the line and the cursor," and "that a well positioned line requires significantly less display space than a button for similar performance characteristics." Roth at [0010]. "One example of such a gesture is a continuous swiping motion from the activation point representing a desired action or even from the bezel of the device, through the activation point and to the target on the display." Roth at [0015]. Roth explains that such outside-to-inside gliding actions "allow[] the active area of an activation point to be much smaller on a display, such as the lines shown in Roth's figures, "due to the utilization of a greater average weight throughout a touch sensitive display, which creates a higher probability of activating on a narrow activation point or |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | operating on a small target," "save[s] valuable display space on the screen, since the activation point can be made smaller on the display as a result," and may "begin from outside the display for ease of use." Roth at [0015]. As Roth explains, a "bar," which Roth shows as a line on the touch screen, may "represent[] the desired action." Roth at [0017]. "[A]n activation point 203 (represented as a bar in this example) displayed on the edge of the screen which represents the desired action of selecting. The bar is made small [e.g., a line] so as to not take up valuable space on the display. The user can then select the target 204 through the use of a gesture 202, such as swiping, pinching, tapping or other gestures …." Roth at [0036]. As shown in FIG. 2B, "[t]he user can begin his gesture from either on the bar [line 203] itself or from outside the display 205 and continue the gesture through the bar and to target as if the user were bringing the action to the target. An example of such a gesture is if the user utilized a continuous swiping motion with his finger from the bar representing a desired action to the target on the display." Roth at [0039].<br>  <br><br>Roth at FIG. 2B. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Moreover, each of Roth Bezel Swipe, Hinckley, the Samsung Behold II, the Palm Pre, and the Neonode N2 teaches a gliding action from off screen to on screen to activate a function assigned to the window, where the window is a bar in a form of a line.<br><br>Roth Bezel Swipe teaches activation gestures related to mobile devices having touch screens. A bezel swipe gestures is an outside-to-inside swiping (e.g., gliding) gesture across a line shown on the edge of the display screen, in which "[t]he user starts a Bezel Swipe gesture on the bezel, which is the physical touch insensitive frame that surrounds the display. The finger is then swiped through a part of the display edge into the display, which enters selection mode. Next, the user moves the finger onto an object or display position and selects it by lifting the finger off the display, which ends selection mode. Different edge portions represent different actions and are distinctively marked." Roth Bezel Swipe at 1524. "Swipes are recognized by detecting touches inside a thin rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524. As such, "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display. Figure 2 illustrates this. A touch sensitive display translates the contact area of the finger with the display into an activation point." Roth Bezel Swipe at 1524. "The Bezel Swipe gesture … starts on the bezel and moves into the display. Therefore the contact area is gradually increased until it exceeds the contact threshold of the display. … Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. Roth Bezel Swipe "use[s] a thin colored bar," shown as a line, to indicate where Bezel Swipe actions may be performed. Roth Bezel Swipe, 1524, Figures 1, 2 (showing and describing a "red bar" in the form of a line). As one example, Roth Bezel Swipe describes "a green 8 x 160 pixels bar [line] centered vertically against the left display edge, with an active area that was 12 pixels wide." Roth Bezel Swipe, 1525, Figure 1. This outside-to-inside crossing gesture has advantages, for example, "the crossing of the touch-insensitive bezel in conjunction with the properties of touch sensitive displays enables the reliable activation of a button that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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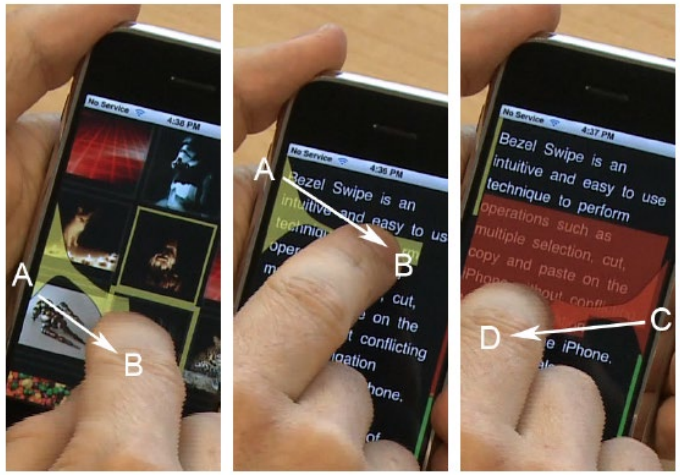



**Figure 1. The Bezel Swipe prototype in action. Left panel: A swipe from A to B selects an image. Middle panel: A swipe from A to B marks the beginning of a text selection. Right panel: A swipe from C to D marks the end of the text selection.**

Roth Bezel Swipe at Figure 1.

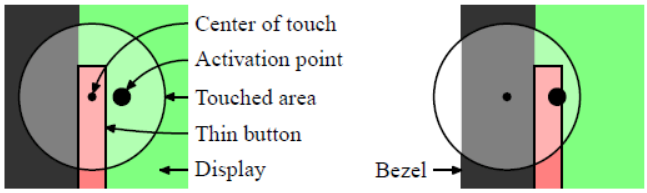
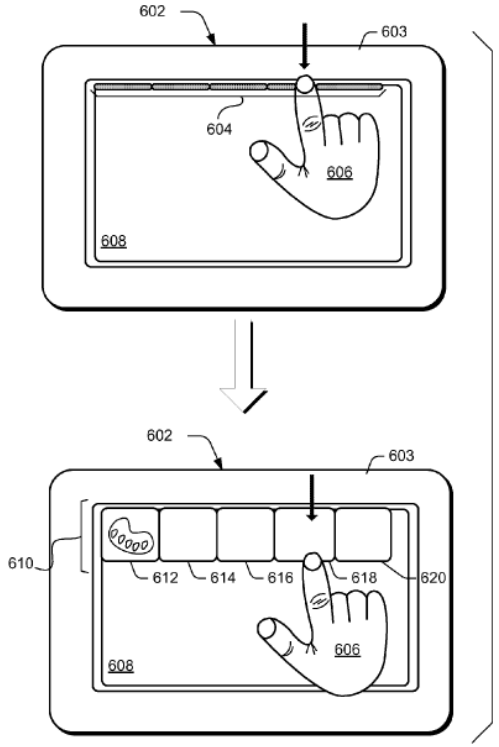


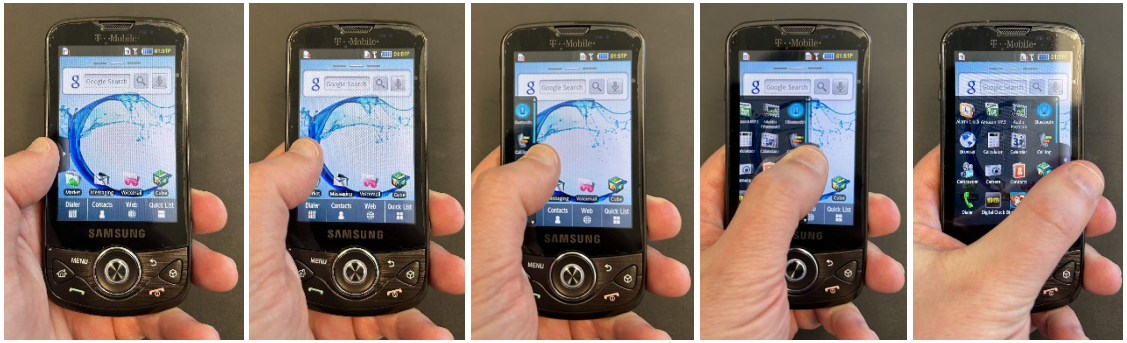

**Figure 2. Touching narrow targets close to the bezel: a touch (large circle) centered on the target (left) may not activate it whereas a touch significantly overlapping the bezel (right) does.**

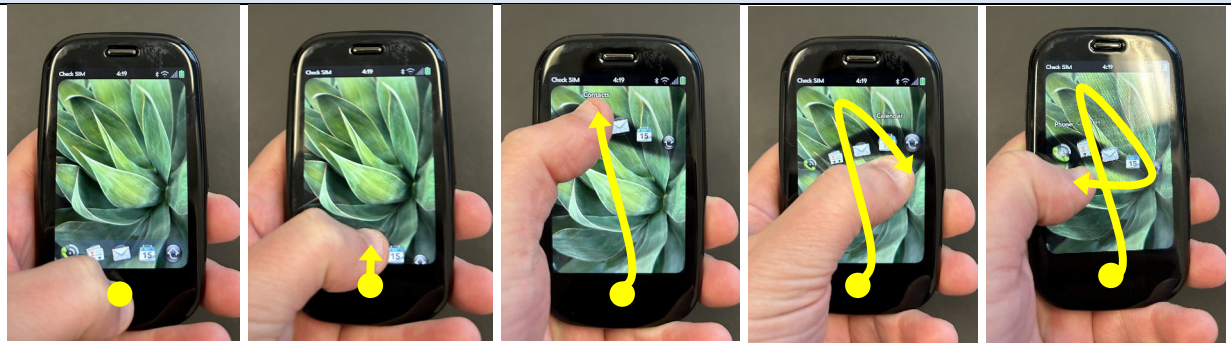
Roth Bezel Swipe at Figure 2.

Hinckley teaches a visual affordance window, shown as a line across the top of the touch screen, indicating a pull-down bezel menu is shown at the edge of a mobile device using a gliding action

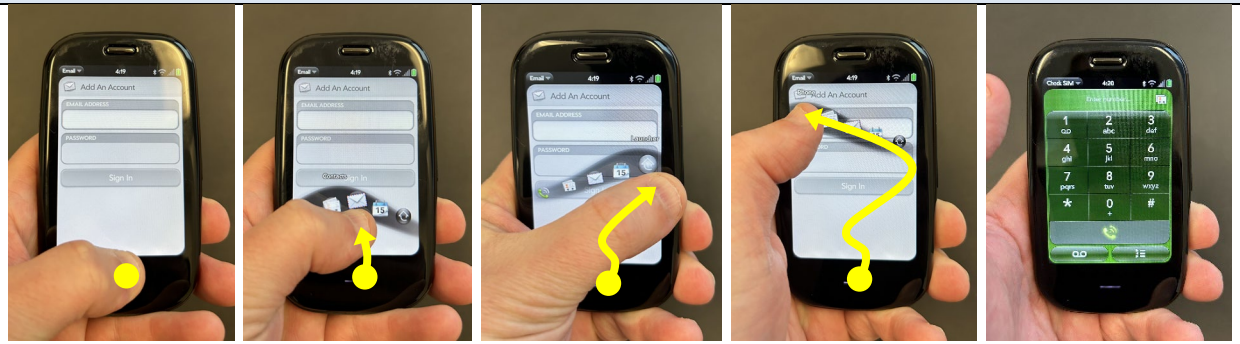
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | from outside of the touch screen towards the inside of the touch screen. Hinckley at FIGS. 5, 6. For example, in FIG. 5, "[s]tep 500 displays a visual affordance on a display device associated with a computing device" and is shown at as a window or bar 604 being a five-part line in FIG. 6. Hinckley at [0068], [0072], FIGS. 5, 6. Then, "[s]tep 502 receives a bezel gesture input relative to the visual affordance," such as from off-screen to on-screen over the visual affordance. Hinckley at [0068], [0072], FIGS. 5, 6. After the off-screen to on-screen gesture, "[s]tep 504 accesses functionality associated with the received bezel gesture input." Hinckley at [0068], [0072], FIGS. 5, 6. Hinckley explains that "off-screen to on-screen motion (or vice versa) can be utilized as a mechanism to expose a menu or to access some other type of functionality." Hinckley at [0071]. As shown in FIG. 6, "device 602 includes a bezel 603 and a visual affordance 604 that is rendered on display device 608." Hinckley at [0072], FIG. 6. The "visual affordance 604" may appear as "in the form of a semi-transparent strip" (e.g., line) and "can be utilized to provide a hint or indication of accessible functionality, in this case a bezel menu, associated with the bezel." Hinckley at [0072], FIG. 6; *see also* [0062], [0063], [0092] (describing visual affordance as "semi-transparent strip"). "[T]he bezel menu can be accessed through a bezel gesture in which a finger of user's hand 606 touches the bezel and then moves across the bezel and onto the display device 608 in the direction of the illustrated arrow." Hinckley at [0073], FIG. 6. After this off-screen to on-screen gesture across the line of the semi-transparent visual affordance, the "bezel menu 610 to be dropped down at which time it can become fully opaque." Hinckley at [0073], FIG. 6. Hinckley further explains that "bezel menu 610 includes multiple selectable icons or slots 612, 614, 616, 618, and 620. Each of the icons or slots is associated with a different functionality such as, for example, paint functionality, pen functionality, note functionality, object creation, object editing, and the like." Hinckley at [0074], FIG. 6. Hickley teaches, however, that "any type of functionality can be associated with the icons or slots." Hinckley at [0074], FIG. 6. The "bezel menu 610 can enable a user to access and activate commands, tools, and objects." Hinckley at [0075], FIG. 6. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Fig. 6<br>Hinckley at FIG. 6.<br>The Samsung Behold II teaches, as one example, that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status bar, which is a bar in the form of a line. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>The Samsung Behold II device.<br>The Samsung Behold II also teaches that the user may perform a gliding action from the plastic housing surrounding the touch screen to the left of the applications tab window, which is a bar in the form of a line.<br>  <br>The Samsung Behold II device.<br>The Palm Pre teaches, as one example, that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen (e.g., crossing over the line of the Quick Launch window that is in the form of a line and shows five application icons and identifying the movement from off-to-on screen). |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Palm Pre.<br>The Palm Pre also teaches, as another example, that, when an application is open on the Palm Pre device (such as the mail application shown below), a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen to display the Quick Launch window (e.g., crossing from off-to-on screen to display the Quick Launch window). On information and belief, the demarcation between the Palm Pre's gesture area and the touch screen area forms a line. The user's touch first interacts with the Quick Launch window on the touch screen by crossing the line between the gesture area and the display area, because the Quick Launch window is not displayed in the gesture area, but as shown below, appears with the user's off-to-on screen gesture as the finger moves onto the screen. The gliding action causes a processor to perform the action associated with the Quick Launch window, such as moving the Quick Launch window with the user's finger in any arbitrary direction around the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. As shown below, lifting on the "Phone" icon opens the Phone application. |

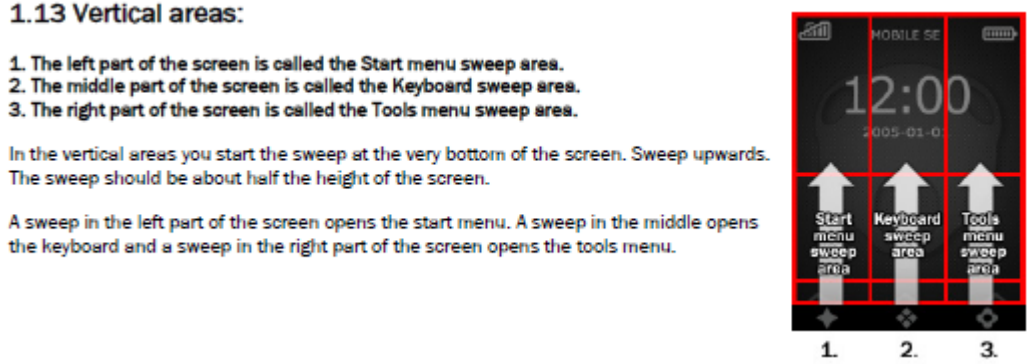
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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Palm Pre.

The Neonode N2 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen over the indicated icons or from the sides of the screen as indicated by the various arrows (from outside of the screen), over the arrows towards the main application display toward the inside of the touch screen (e.g., crossing over the window identifying the movement from off-to-on screen). The user's touch first interacts with the window showing the arrows on the touch screen because the outer housing does not contain touch-sensitive elements. The gliding action over the arrows from off-to-on screen causes a processor to perform the action associated with one of the three icons printed below the touch screen or from the side of the touch screen. As shown in the N2's User Manual, such gestures cross over a thin line at the bottom of the touch screen between the printed marking and the middle of the display.

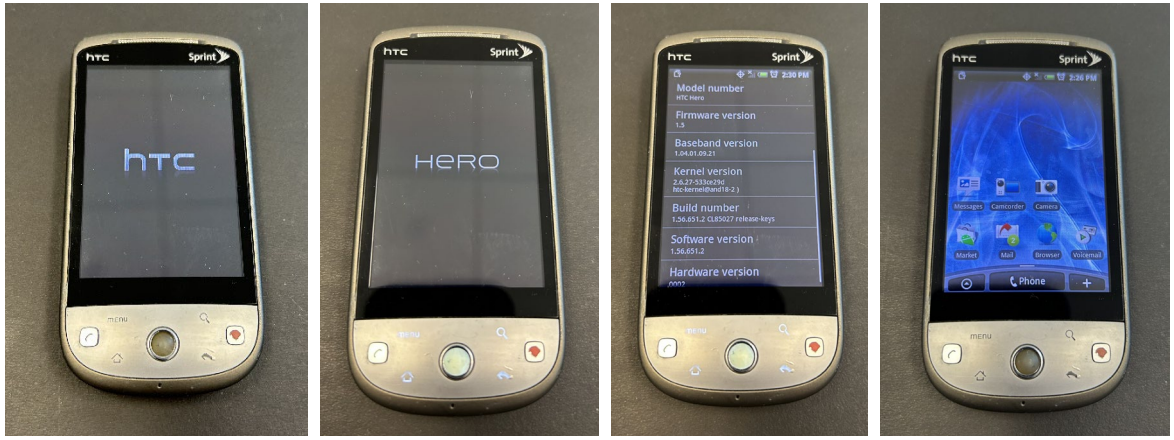
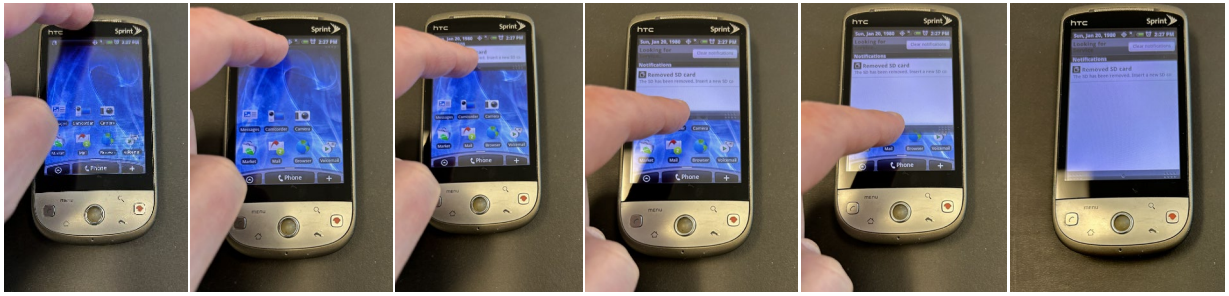


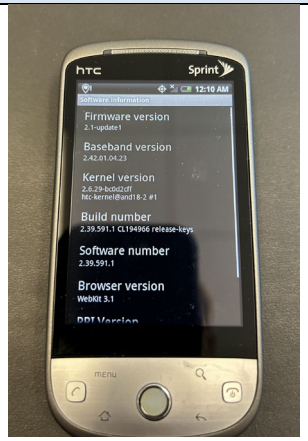
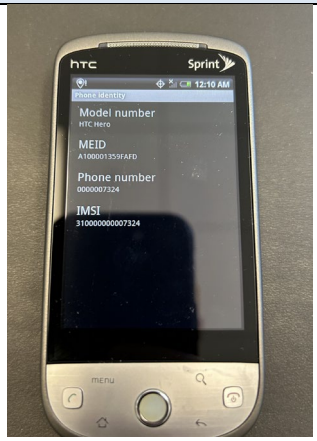
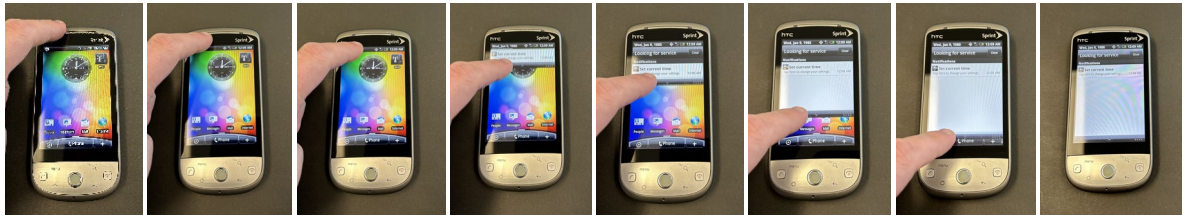
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Neonode N2.<br>  <br><br>Neonode N2 User Manual 7.<br>A POSITA would have found it obvious to incorporate the HTC Hero's status bar window in the form of a line, as claimed, to reduce the amount of space used to display the status bar, thereby permitting more space for the main screen content to be shown. Each of the HTC Hero, Roth, Roth Bezel Swipe, Hinckley, the Samsung Behold II, the Palm Pre, and/or the Neonode N2, teaches the window or area for implementing the gliding gesture may be in a form of a line. Roth and Roth Bezel Swipe teach the advantages of using a line, which would have motivated a POSITA to modify the HTC Hero's status bar window to reduce its size on the screen, thereby providing more space for the main display. Roth explains that using lines or thin bars "is a viable solution" for the types of off-to-on screen gliding gestures used to open the notifications menu and/or applications menu in the HTC Hero. Roth at [0009]. Roth also teaches that, even though the bars may be thin (which Roth shows as a line), "they can be more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to the distance vector between the line and the cursor," and "that a well positioned line requires significantly less display space than a button for similar performance characteristics." Roth at [0010], FIG. 2B. Roth further explains that using a thin "bar," which Roth shows as thin lines, "save[s] valuable display space on the screen, since the activation point can be made smaller on the display as a result," and may "begin from outside the display for ease of use." Roth at [0015], [0017], FIG. 2B. A POSITA would have been further motivated because, the "bar [line] is made small [e.g., a line] so as to not take up valuable space on the |

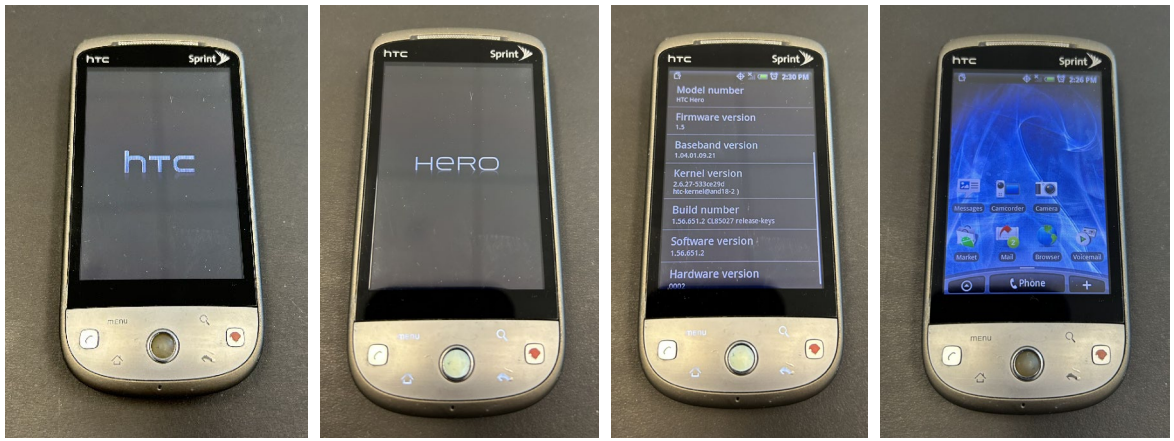
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | display" so the user can activate it using, for example, an off-to-on screen swiping gesture Roth at [0036], FIG. 2B.<br><br>Roth Bezel Swipe provides further motivations to a POSITA to make the window a bar in a form of a line, such as for the status bar window of the HTC Hero. For example, "[s]wipes are recognized by detecting touches inside a thin rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524, Figures 1, 2. This has the advantage that "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display," and therefore "leverages display pixels that are not typically touched during regular interactions" because they use the thin line on the edge of the screen. Roth Bezel Swipe at 1524, Figure 2. Roth Bezel Swipe provides an example of "a thin colored bar," shown as a line, to indicate where Bezel Swipe actions may be performed. Roth Bezel Swipe, 1524, Figures 1, 2 (showing and describing a "red bar" in the form of a line). As one example, Roth Bezel Swipe describes "a green 8 x 160 pixels bar [line] centered vertically against the left display edge, with an active area that was 12 pixels wide." Roth Bezel Swipe, 1525, Figure 1. One advantage of using the thin line is that "the crossing of the touch-insensitive bezel in conjunction with the properties of touch sensitive displays enables the reliable activation of a button that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524-25, Figures 1, 2. Such combination would also allow for the status bar to be always accessible, thereby making it easier for the user to view the notifications menu because, as Roth Bezel Swipe teaches, the thin line and crossing-gliding gesture "enables the reliable activation of a button that is so narrow that it would be difficult to activate by a direct touch" and thus would not be accidentally activated by a user (both because of the difficulty or direct tapping and also the off-to-on screen gliding activation gesture). Roth Bezel Swipe at 1524-25, Figures 1, 2.<br><br>It was well known to a POSITA that implementing the status bar in the HTC Hero's interface as a window that is a bar in the form of a line merely requires drawing the window for the activation area (e.g., status bar) as a line, which merely uses conventional graphics rendering, thus representing a mere design choice as to the shape of the activation area. The off-to-on screen activation is similarly well known and conventional operations to determine the user's gliding |

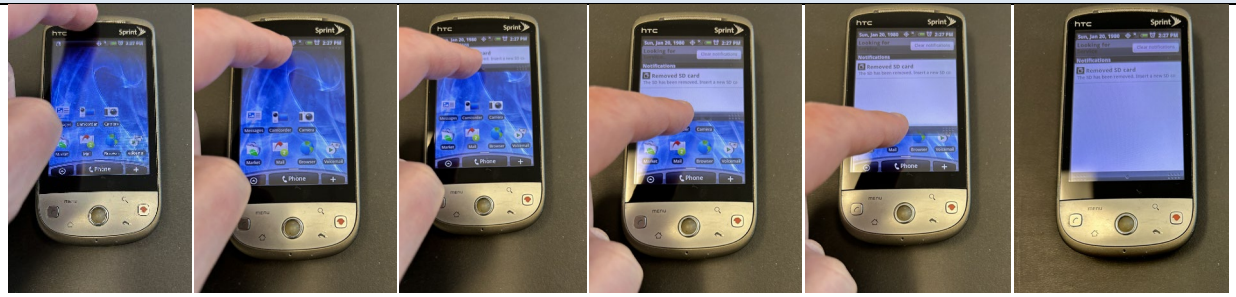
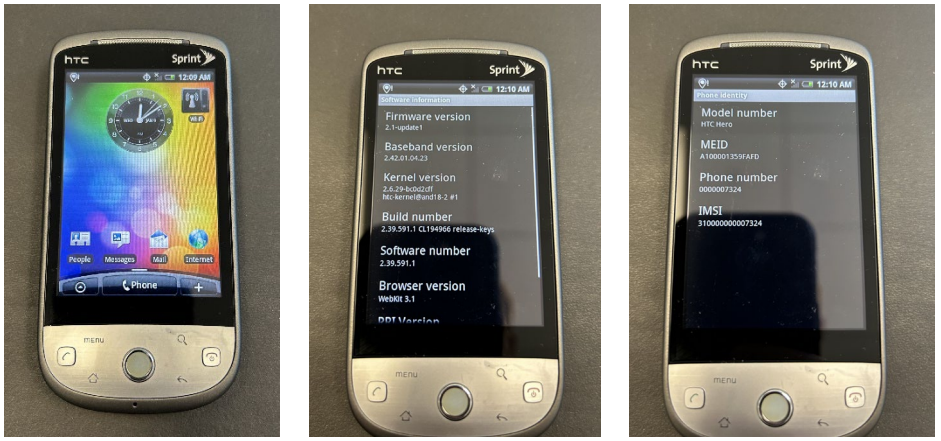
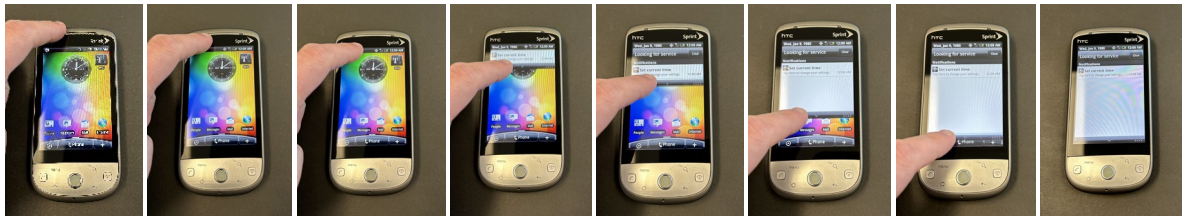
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | action across the activation area, such as used in the HTC Hero, Roth, Roth Bezel Swipe, Hinckley, the Samsung Behold II, the Palm Pre, and/or the Neonode N2.<br><br>The use of a bar in the form of a line for the HTC Hero's status bar for the user to perform an out-to-in gliding gesture to activate the respective menu function was routine and conventional to POSITAs, as shown by the HTC Hero, Tseng, Roth, and/or Roth Bezel Swipe. Moreover, it was successfully implemented in commercial prior art devices, such as the Samsung Behold II, the Palm Pre, and the Neonode N2. Incorporating the shape of the activation area, such as the status bar or applications tab to be a bar in the form of a line represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with the HTC Hero, represent nothing more than combining prior art elements according to known methods and techniques (rendering the status bar window of the HTC Hero as a bar in the form of a line, then activating the menu as already known in the HTC Hero as the user's gliding action moves from offscreen towards the inside of the touch screen) to yield predictable results (to open the HTC Hero's notification menu, such as by sliding it open, as used in the HTC Hero). |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[6]** The system of claim 5, wherein said action is displaying an interface on the screen. | Claim 6 depends from claims 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 5, 3, and 1 here, which anticipate and/or render claims 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 5, 3, and 1 to show the additional limitations of claim 6 are anticipated and/or obvious for the same reasons set out in claims 5, 3, and 1.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Keyless's apparent interpretation of this limitation, discloses that "said action is displaying an interface on the screen."<br><br>For example, the HTC Hero's gliding action at the status bar initiates an action of displaying the notifications panel interface on the touch screen.<br><br>  <br><br>HTC Hero 1.5 Device.<br><br>  <br>HTC Hero 1.5 Device. |

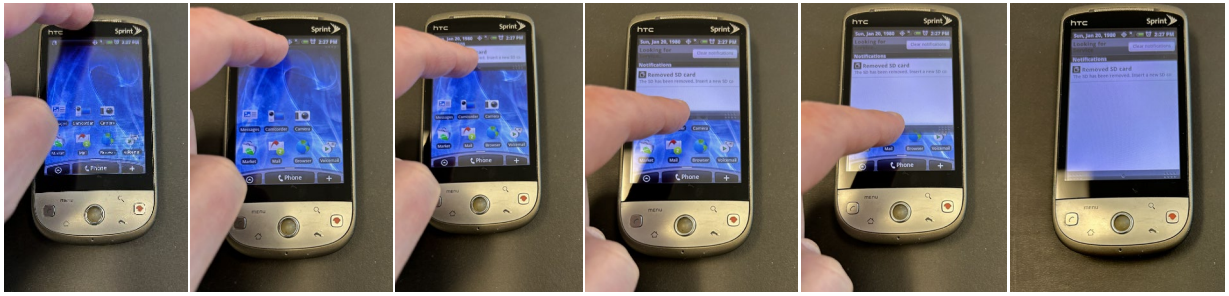
| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |     <br>HTC Hero 2.1 Device.<br>  <br>HTC Hero 2.1 Device.<br>*See, e.g.*, HTC Hero (Sprint) review: HTC Hero (Sprint); HTC Hero review; HTC Hero (Sprint); Review: HTC Hero from Sprint.<br><br>A POSITA would have found it obvious that the HTC Hero's status bar window is a line, as explained in claim 5. *Supra* claim 5. |

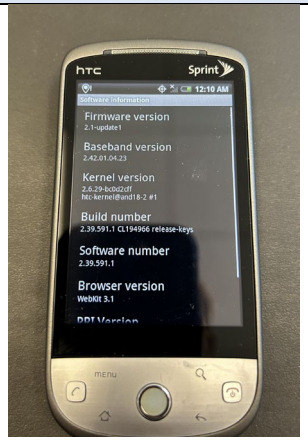
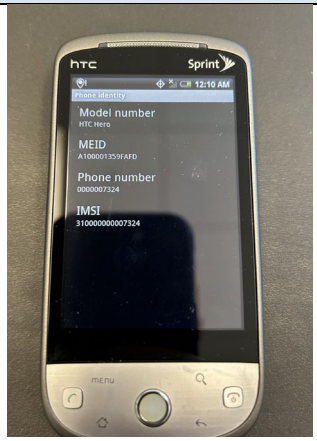
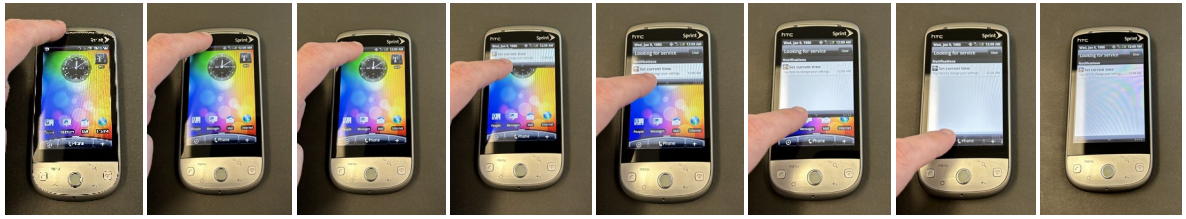
| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[7]** The system of claim 5, wherein said action is displaying a portion of an interface on the screen. | Claim 7 depends from claims 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 5, 3, and 1 here, which anticipate and/or render claims 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 5, 3, and 1 to show the additional limitations of claim 7 are anticipated and/or obvious for the same reasons set out in claims 5, 3, and 1.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying a portion of an interface on the screen."<br><br>For example, the HTC Hero includes the action to open the notifications menu displaying a portion of the notifications menu on the touch screen. For example, when there are more notifications than can be shown, the user may scroll through the remainder of the interface to see the additional notifications and/or applications. Moreover, a portion of the notifications menu may be displayed during the user's gliding action, as explained below in claim 8. *Infra* claim 8.<br><br>  <br><br>HTC Hero 1.5 Device. |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC Hero 1.5 Device.<br>  <br>HTC Hero 2.1 Device.<br>  <br>HTC Hero 2.1 Device. |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, HTC Hero (Sprint) review: HTC Hero (Sprint); HTC Hero review; HTC Hero (Sprint); Review: HTC Hero from Sprint.<br><br>A POSITA would have found it obvious that the HTC Hero's status bar is a line, as explained in claim 5. *Supra* claim 5. |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[8]** The system of claim 7, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 8 depends from claims 7, 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 7, 5, 3, and 1 here, which anticipate and/or render claims 7, 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 7, 5, 3, and 1 to show the additional limitations of claim 8 are anticipated and/or obvious for the same reasons set out in claims 7, 5, 3, and 1.<br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br>For example, the HTC Hero includes that, during the user's gliding action to drag/slide open the notifications menu, a length of the portion of the interface being displayed is substantially equal to the length of the user's gliding action from the status bar. |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC Hero 1.5 Device.<br>  <br>HTC Hero 1.5 Device. |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |     <br>HTC Hero 2.1 Device.<br>  <br>HTC Hero 2.1 Device.<br>*See, e.g.*, HTC Hero (Sprint) review: HTC Hero (Sprint); HTC Hero review; HTC Hero (Sprint); Review: HTC Hero from Sprint.<br><br>A POSITA would have found it obvious that the HTC Hero's status bar is a line, as explained in claim 5. *Supra* claim 5. |

| Claim 9 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[9]** The system of claim 3, wherein said action is displaying an interface on the screen. | Claim 9 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 9 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying an interface on the screen."<br><br>Claim 9 recites substantially the same limitations as claim 6 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 6. *See, e.g.*, *supra* claim 6.<br><br>As discussed *supra* claim 6, the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said action is displaying an interface on the screen." *See supra* claim 6. |

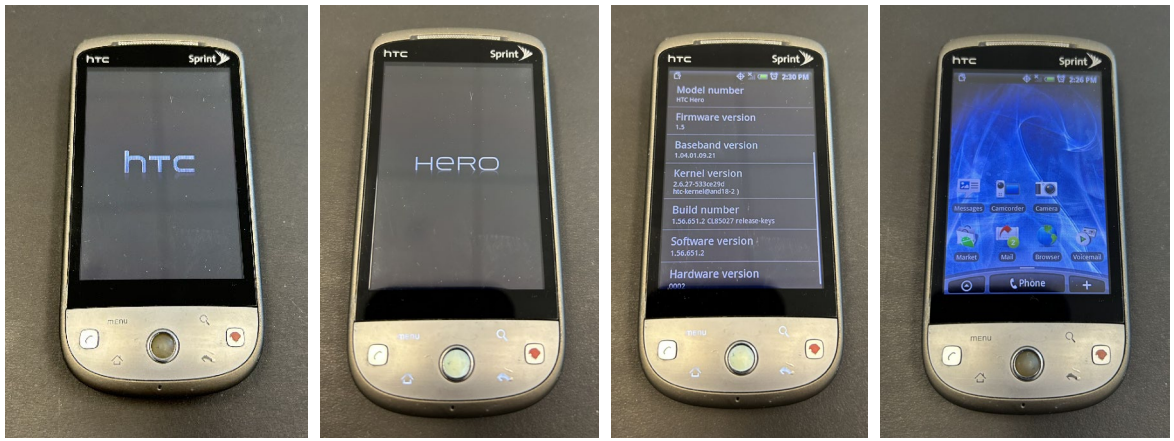
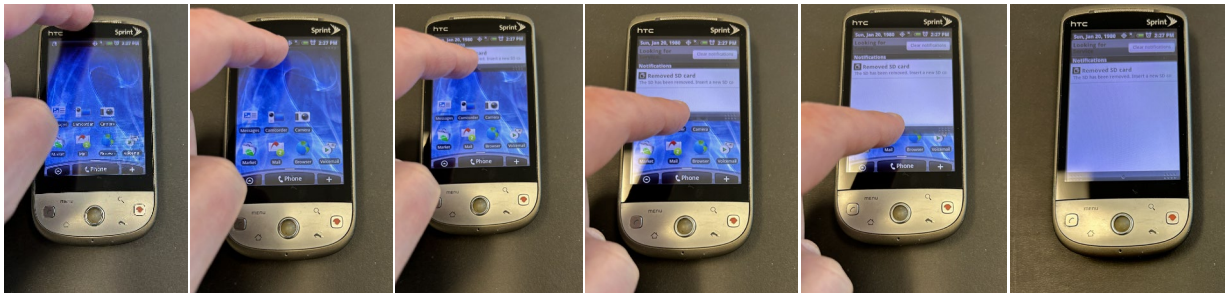
| Claim 10 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[10]** The system of claim 3, wherein said action is displaying a portion of an interface on the screen. | Claim 10 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 10 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying a portion of an interface on the screen." |

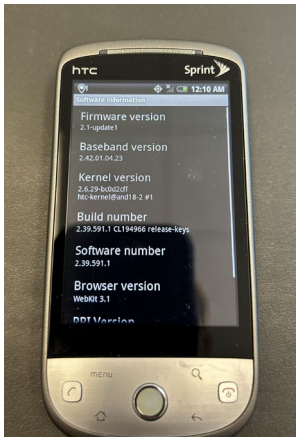
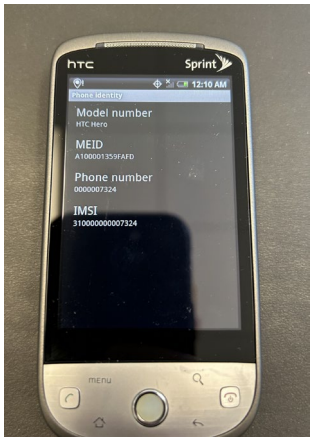
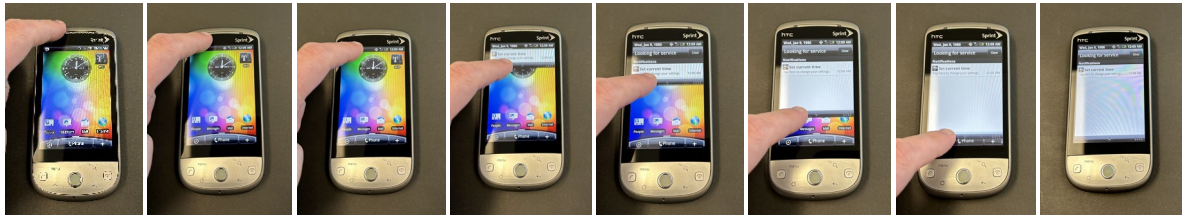
| Claim 10 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Claim 10 recites substantially the same limitations as claim 7 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 7. *See, e.g.*, *supra* claim 7.<br><br>As discussed *supra* claim 7, the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said action is displaying a portion of an interface on the screen." *See supra* claim 7. |

| Claim 11 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[11]** The system of claim 10, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 11 depends from claims 10, 3, and 1. Defendants incorporate all the prior art disclosures from claims 10, 3, and 1 here, which anticipate and/or render claims 10, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 10, 3, and 1 to show the additional limitations of claim 11 are anticipated and/or obvious for the same reasons set out in claims 10, 3, and 1.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>Claim 11 recites substantially the same limitations as claim 8 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 8. *See, e.g.*, *supra* claim 8.<br><br>As discussed *supra* claim 8, the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claim 8. |

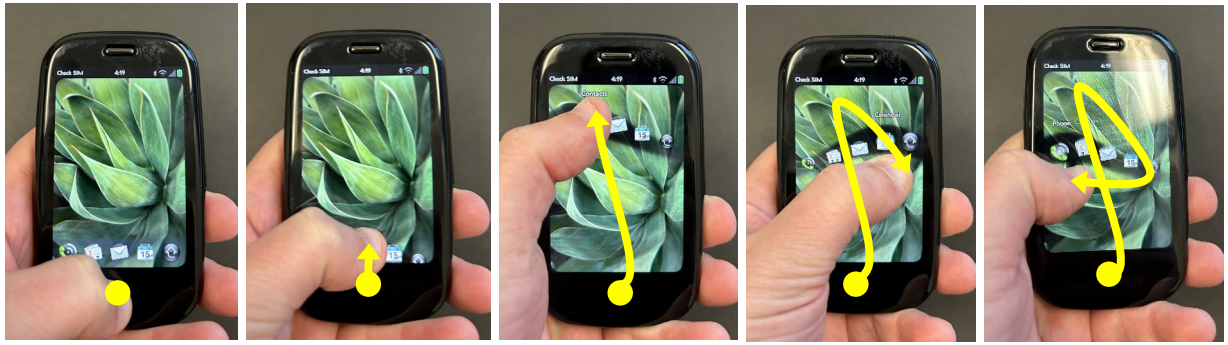
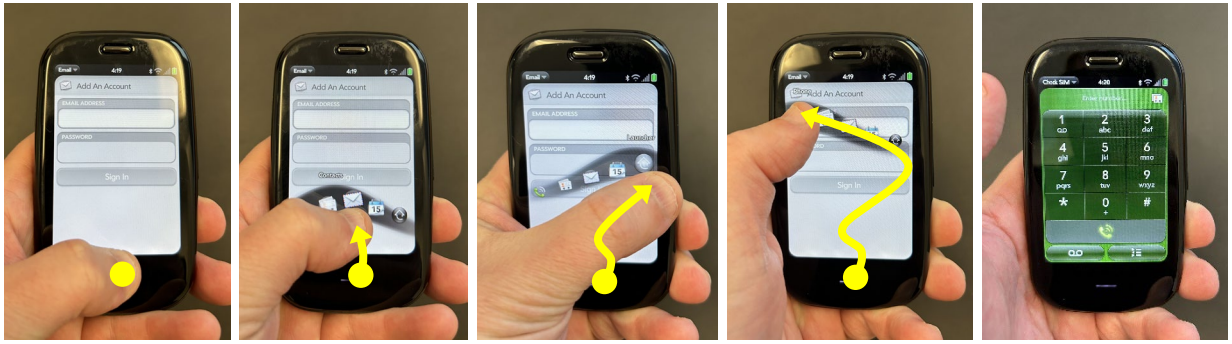
| Claim 12 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[12]** The system of claim 1, wherein upon detecting said gliding action, the system displays an interface on said touch screen. | Claim 12 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 12 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said gliding action, the system displays an interface on said touch screen."<br><br>Claim 12 recites substantially the same limitations as claims 6 and 9 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6 ad 9. *See, e.g.*, *supra* claims 6, 9.<br><br>As discussed *supra* claims 6 and 9, the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "upon detecting said gliding action, the system displays an interface on said touch screen." *See supra* claims 6, 9. |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[13]** The system of claim 12, wherein upon detecting said gliding action, the system relates said gliding action to setting the location of said interface on said touch screen. | Claim 13 depends from claims 12 and 1. Defendants incorporate all the prior art disclosures from claims 12 and 1 here, which anticipate and/or render claims 12 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 12 and 1 to show the additional limitations of claim 13 are anticipated and/or obvious for the same reasons set out in claims 12 and 1.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said gliding |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | action, the system relates said gliding action to setting the location of said interface on said touch screen."<br><br>For example, the HTC Hero includes, upon detecting the gliding action at the status bar, the HTC Hero relates the respective gliding action to setting the location of the notifications menu interface, as explained for claim 8. *Supra* claim 8. For example, during the user's gliding action to drag/slide open the notifications menu, the location of portion of the notifications menu interface being displayed changes based on the location of the user's finger.<br><br>  <br><br>HTC Hero 1.5 Device.<br><br>  |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | HTC Hero 1.5 Device.<br>    <br>HTC Hero 2.1 Device.<br>  <br>HTC Hero 2.1 Device.<br>*See, e.g.*, HTC Hero (Sprint) review: HTC Hero (Sprint); HTC Hero review; HTC Hero (Sprint); Review: HTC Hero from Sprint.<br>To the extent Keyless argues that the HTC Hero does not disclose or render obvious the additional limitations of claim 13, it would have been obvious in view of the HTC Hero, POSITA's pre-existing knowledge, and/or the HTC Hero combined with the other references charted for this patent in these invalidity contentions, including Tseng, Jeong, and the Palm Pre. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>Tseng teaches that, upon detecting the user's gliding action, the system relates the gliding action to setting the location of the message area interface on the touch screen by "stick[ing]" the edge of the interface to the user's finger. Tseng at [0029]. Tseng explains the message area 206/226 may remain "partially" open. Tseng at [0046]. As another example, Tseng explains that, in one embodiment, "if a user drags the bar quickly and releases it, the bar may continue moving until its momentum runs out *or* until it hits the bottom of the display," meaning that it is possible for the message area to stop before the bottom of the display is reached. Tseng at [0060]. As another example, Tseng explains that, in one embodiment, "if the user pulls the bar below a determined level on the display, the bar may automatically keep moving until it reaches the bottom of the display, or until it reaches a graphical element that it is not allowed to pass over." Tseng at [0060].<br><br>Jeong teaches the mobile terminal 100, upon detecting the user's gliding action on the tag 330/410, relates the gliding action to setting the location of the interface (e.g., application menu interface) on the touch screen by exposing how much of the menu is shown. Jeong's FIGS. 7B and 7B "shows a second example of displaying a menu screen by dragging a tag in FIG. 6B." Jeong at [0018], [0019], FIGS. 6B, 7B, 7C. Jeong explains that, "[i]f [the] tag dragging is stopped before the entire menu screen image 320 is exposed, or when the touch to the tag being dragged is released, the menu screen maintains a currently exposed state as it is" to relate the gliding action to set the location of the interface by exposing or hiding a portion of the menu both during the dragging action and when the user ceases the dragging action. Jeong at [0059], FIGS. 7A-7C. The menus displayed from the two tags (bottom tag in 7B and side tag in 7C) show the same application icons, which suggests displaying the same menu from different directions. Jeong's system also changes the location of the interface corresponding to the tag from which the gliding action starts from below an executed screen image to above an executed screen image, according to the distance of the gliding action. Jeong at [0062], FIG. 9D. |

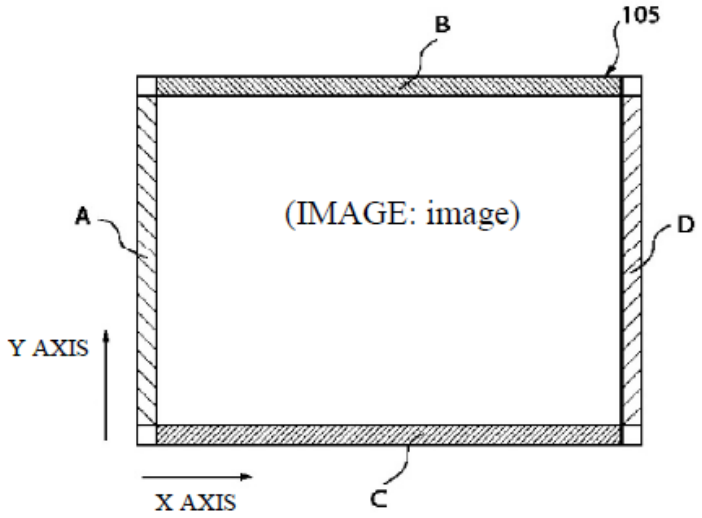
| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | The Palm Pre teaches, as one example, that upon detecting a user's gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area and upwards towards the main application display, the system relates the gliding action to setting the location of the Quick Launch interface by moving the location of the interface with the user's gliding action on the touch screen both when the Quick Launch window is shown on the screen and when the Quick Launch interface is displayed while an application is displayed on the screen, such as shown below.<br>  <br>Palm Pre.<br>  <br>Palm Pre.<br>A POSITA would have found it obvious to incorporate one or more of Tseng's, Jeong's, and/or the Palm Pre's teaching of relating the gliding action to setting the location of the interface on the touch |

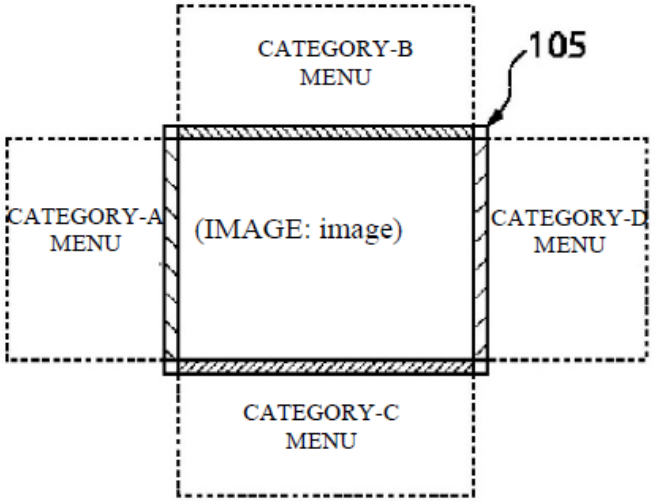
| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | screen upon detecting the gliding action. A POSITA would have recognized the advantage of incorporating a quick launch bar into the HTC Hero's system that travels with the user's gesture, as taught by the Palm Pre to make selection of the desired application from the Quick Launch interface easier because the user's touch does not need to be as precise on a static interface. A POSITA would have been motivated to include such Quick Launch from a thin window, such as a line or bar taught by the HTC Hero, Roth, and Roth Bezel Swipe, when an application is displayed on the touch screen or an invisible window as taught by the Palm Pre, to provide the user with efficient and quick access to a desired subset of applications shown in the Quick Launch interface. A POSITA also would have recognized the advantages of allowing the status bar of the HTC Hero to remain partially open at a location on the screen, as taught by Tseng and Jeong, to provide the user with easier access to desired portions of the interface(s) without having to open the entire interface. A POSITA would have been motivated to provide this functionality for similar reasons discussed in claims 1, 7, and 8 above.<br><br>It was well known to a POSITA to implement interfaces, such as partially open interface locations taught by Tseng and Jeong and/or the Quick Launch interface of the Palm Pre, that launch based on a gliding action from an activation area using windows that are bars in the form of a line for the activation area (e.g., status bar), which merely uses conventional graphics rendering, thus representing a mere design choice as to the shape of the activation area. Relating the user's gliding action to setting the location of the interface on the touch screen was also well known, as taught by Tseng, Jeong, and/or the Palm Pre. Moreover, a POSITA would have been motivated to implement the Palm Pre's Quick Launch interface to provide access to the applications list when another application is open full screen. Such functionality would have been desirable, as the HTC Hero already provides users with the ability to run multiple applications at once, so implementing a Quick Launch window as a bar or line to launch the Quick Launch interface would have provided users with the ability to quickly switch between favorite applications would have improved the user experience.<br><br>The system relating the user's gliding action to setting the location of the interface on the touch screen upon detecting the gliding action was routine and conventional to POSITAs, as shown by the HTC Hero, Tseng, Jeong, and/or the Palm Pre. Moreover, it was successfully implemented in commercial prior art devices, such as the Palm Pre. Incorporating the partial opening to set the location of the interface and/or a Quick Launch interface represents nothing more than the |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with the HTC Hero, represent nothing more than combining prior art elements according to known methods and techniques (rendering the interface on the screen of the HTC Hero either partially open or as a Quick Launch interface moving with the user's glide) to yield predictable results (to open the desired interface and set its location based on partial opening and/or as a Quick Launch interface moving with the user's gliding action). |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[15]** The system of claim 1, wherein said at least one window comprises more than one window located on one or more edges of the touch screen. | Claim 15 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 15 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window comprises more than one window located on one or more edges of the touch screen."<br><br>To the extent Keyless argues that the HTC Hero does not disclose or render obvious claim 15, it would have been obvious in view of the HTC Hero, POSITA's pre-existing knowledge, and/or the teachings of the HTC Hero combined with the other references charted for this patent in these invalidity contentions, including Hisatomi, Wilairat, Jeong, Roth, Roth Bezel Swipe, the Samsung Behold II, the HTC G1 1.6, Motorola Droid A855, and the Neonode N2. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>For example, as discussed *supra* claim 13, it would have been obvious to implement a Quick Launch window in addition to the status bar window located on one or more edges of the touch screen. *See supra* claim 13.<br><br>For example, Hisatomi discloses "FIG. 5 to FIG. 7 are drawings showing examples of coordinate definitions for 'drawer menu display-triggering areas' on the display 105." Hisatomi at [0029], FIGS. 5-7. In Hisatomi, "FIG. 5 to FIG. 7, functions that have been pre-sorted into four broad categories, i.e., A, B, C, and D, are assigned to the edges of the oblong display 105 in a layout resembling virtual drawers. Hereinafter, these functions will be referred to as "drawer menus.'" Hisatomi at [0030], FIGS. 5-7. "[I]n FIG. 5 to FIG. 7, category A, which is a bundle of functions for procedures performed before an image is displayed on the display screen, is on the left side of the display screen the display 105, and search functions, for example, are assigned to this category-A menu. In addition, categories B and C, which are bundles of additional functions that can be applied to a displayed image, are on the upper and lower sides of the display screen; text input functions, for example, are assigned to the category-B menu on the upper side of the display screen and processing/editing functions, for example, are assigned to the category-C menu on the lower side of the display screen. In particular, it is appropriate, as shown in FIG. 7, to lay out the category-B menu at a location such that the image will not be hidden by the input device 107 or by a hand even when writing text onto the image with the menu in a slid-in state, as shown in FIG. 7, or when selecting the menu. Furthermore, a category D, which is a bundle of functions for specifying destinations for processed image data, is on the right side of the display screen; saving/organizing functions or the like, for example, are assigned to this category-D menu, and a list of icons or the like for processing various related functions is displayed therein." Hisatomi at [0032]. "The user can display the menus for the respective categories by performing an operation resembling pulling out from the edges of the display 105 according to the required function. With repeated use, it is possible to memorize the display triggers for the major categories at the locations |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | of the four edges relative to the display 105." Hisatomi at [0033]. "FIG. 7 shows a state in which the category-B menu is being displayed (a stored image of the drawer menu). That is, a state is shown in which the "drawer menu" for category B is displayed via a manipulation means, wherein coordinates within the category-B region shown in FIG. 5 are indicated by the dedicated input device (pen-type pointing device) 107 and, in that state, sliding the input device 107 in the direction of arrow E toward the center of the display screen." Hisatomi at [0034], FIG. 7.<br><br>FIG. 5<br>  <br><br>Hisatomi at FIG. 5. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 6<br>  <br><br>Hisatomi at FIG. 6. |

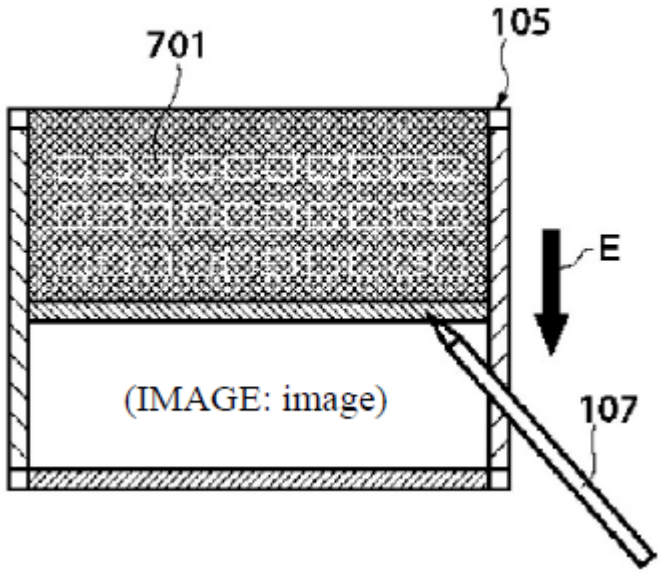
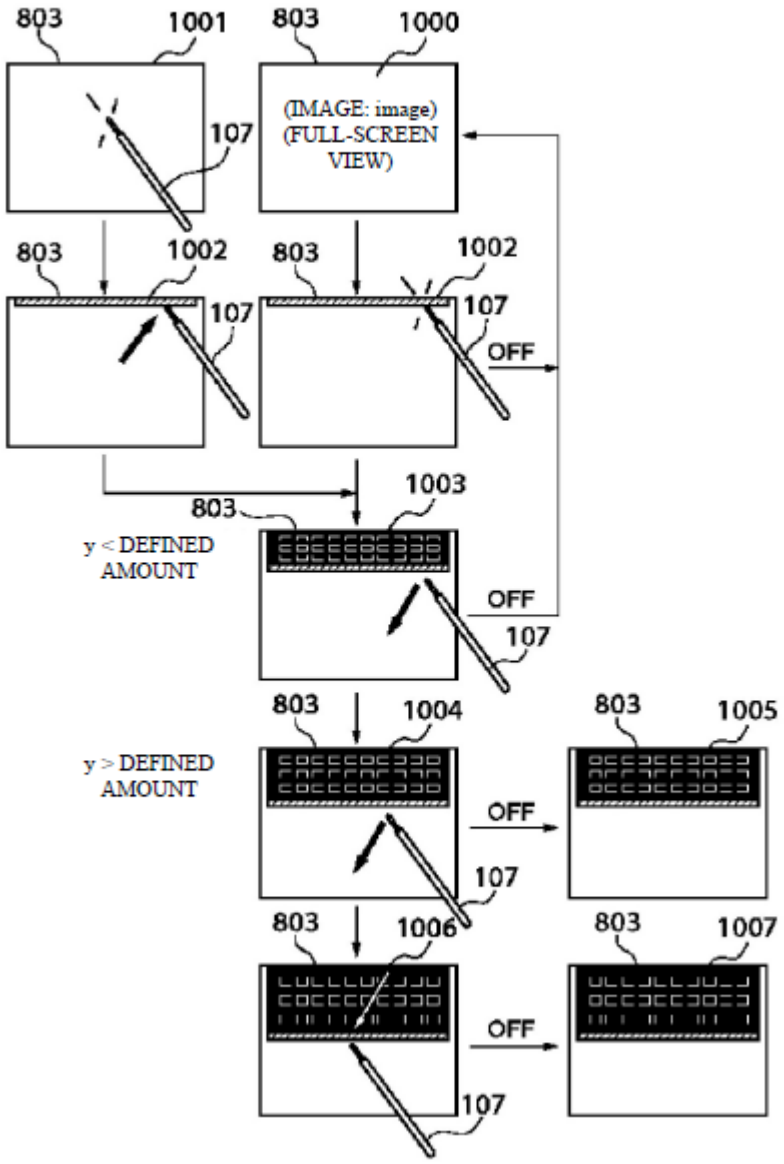
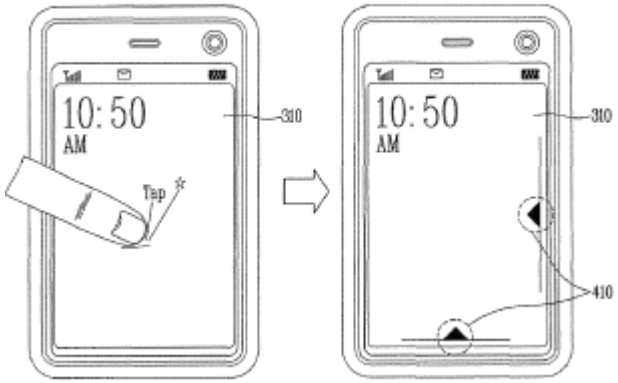
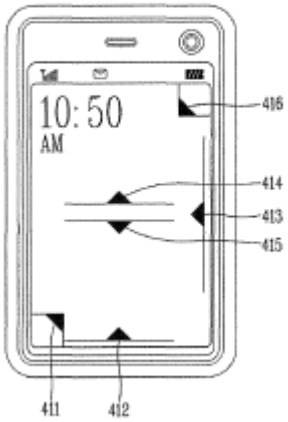
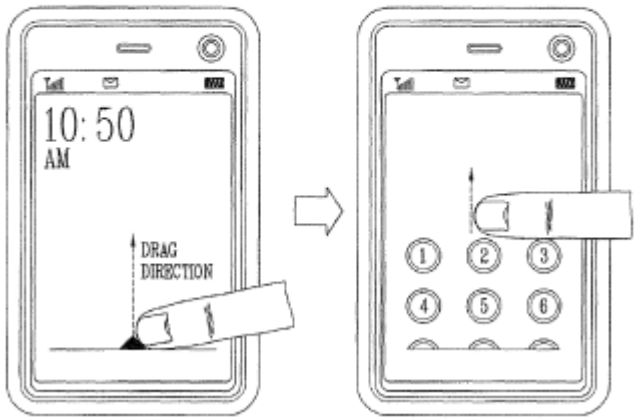
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7<br>  <br><br>Hisatomi at FIG. 7. |

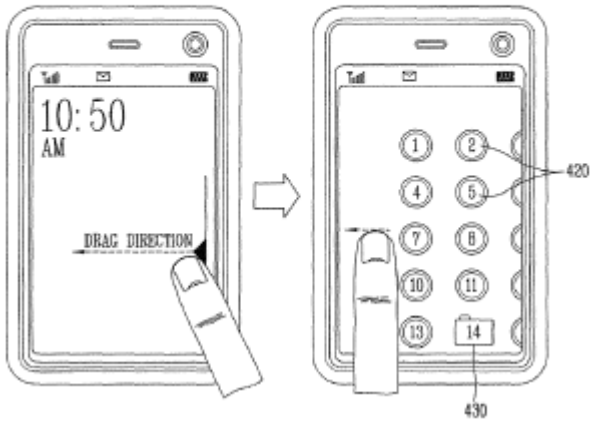
FIG. 10


803
1001
803
1000
(IMAGE: image)
(FULL-SCREEN VIEW)
107
803
1002
803
1002
107
107
OFF
1003
803
y < DEFINED AMOUNT
OFF
107
803
1004
803
1005
y > DEFINED AMOUNT
OFF
107
803
1006
803
1007
OFF
107

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Hisatomi at FIG. 10; *see also id.* FIGS. 11-47.<br><br>Jeong discloses that, "when a touch is inputted with nothing displayed on the background screen image 310, the tags 410 related to the menu screen image 320 are displayed (Sl0l to S103)." Jeong at [0057], FIGS. 5, 6A. "As shown in FIG. 6B, one or more tags 411 to 416 may be displayed, and the tags 410 may be displayed at one of a side, a corner or an internal region of the touch screen." Jeong at [0058]. "With the tags 410 displayed, when the user touches one of the tags 410 and drags it (S104), the controller 180 exposes a menu screen image 320, which has been hidden, in the direction in which the tag is dragged as shown in FIGS. 7A to 7C. Likewise, if the tag is dragged in a different direction, an exposed menu screen image 320 may be hidden (S105)." Jeong at [0058], FIGS. 7A-7C.<br><br>FIG. 6A<br>  <br><br>Jeong at FIG. 6A. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 6B<br>  <br><br>Jeong at FIG. 6B. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7B<br>  <br><br>Jeong at FIG. 7B. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7C<br>  <br><br>Jeong at FIG. 7C.<br>Moreover, each of Wilairat, Roth, Roth Bezel Swipe, the Samsung Behold II, the HTC G1 1.6, the Neonode N2, teaches wherein said at least one window comprises more than one window located on one or more edges of the touch screen.<br>For example, Wilairat discloses "[e]mbodiments of a touch pull-in gesture provide techniques for a user of a portable device to motion a pull-in gesture which gives the appearance of dragging a user interface component onto a touch-screen of the device for display. For example, a user can initiate a touch input with a finger just off an edge of the touch-screen and then motion a pull-in gesture across the touch-screen." Wilairat at [0009]. "When the motion of the touch pull-in gesture is initiated by the user, a progression of the motion as the touch input remains in contact with the touch-screen creates a contact region on the touch-screen that progressively expands and is detected. The progressive expansion of the contact region on the touch-screen is then determined or recognized as the touch pull-in gesture that initiates a display of a user interface component proximate a location of the touch pull-in gesture on the touch-screen. A user interface component |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | can include any type of hidden menu, slide menu, drop-down menu, scrollbar, and/or any other type of user interface displayable element." Wilairat at [0009]. "In an embodiment of a touch pull-in gesture, a user of portable device 102 can initiate a touch input 112 with a finger just off an edge of the touch-screen 104 and then motion a pull-in gesture 114 in a direction 116 across the touch-screen. The motion of the touch pull-in gesture 114 is illustrated in the direction 116 as the hand moves from position 118, to position 120, and to position 122 (shown successively in the three views). When the motion of the touch pull-in gesture 114 is initiated by the user, a contact region 124 progressively expands. Such as illustrated when the hand moves from the edge of the touch-screen at position 118 to position 120, and then from position 120 to position 122. The progressive expansion of the contact region 124 is then determined or recognized as the touch pull-in gesture 114." Wilairat at [0012]. Wilairat describes that the pull-in gesture can be facilitated from multiple edges (e.g., top, side, and/or bottom). "In various implementations, the interface application 108 can initiate a display of a vertical scrollbar 128 as a user interface component when the touch pull-in gesture 114 starts at a side edge 130 of the touch-screen 104. Alternatively or in addition, the interface application 108 can initiate a display of a drop-down menu (not shown) as a user interface component when the touch pull-in gesture 114 starts at a top edge 132 of the touch-screen 104. Alternatively or in addition, the interface application 108 can initiate a display of a horizontal scrollbar (not shown), or other user interface component, when the touch pull-in gesture 114 starts at a bottom edge 134 of the touch-screen 104." Wilairat at [0014]. "A user interface component can include any type of hidden menu, slide menu, drop-down menu, scrollbar, image, graphic, text, user-selectable control, menu selection, map element, and/or any other type of user interface displayable feature or item." Wilairat at [0015]. Wilairat explains that indications of the pull-in gestures may appear on the touch screen. "When embodiments of a touch pull-in gesture are implemented, the various representations and indications may or may not appear on the touch-screen and/or on a user interface." Wilairat at [0017]. |

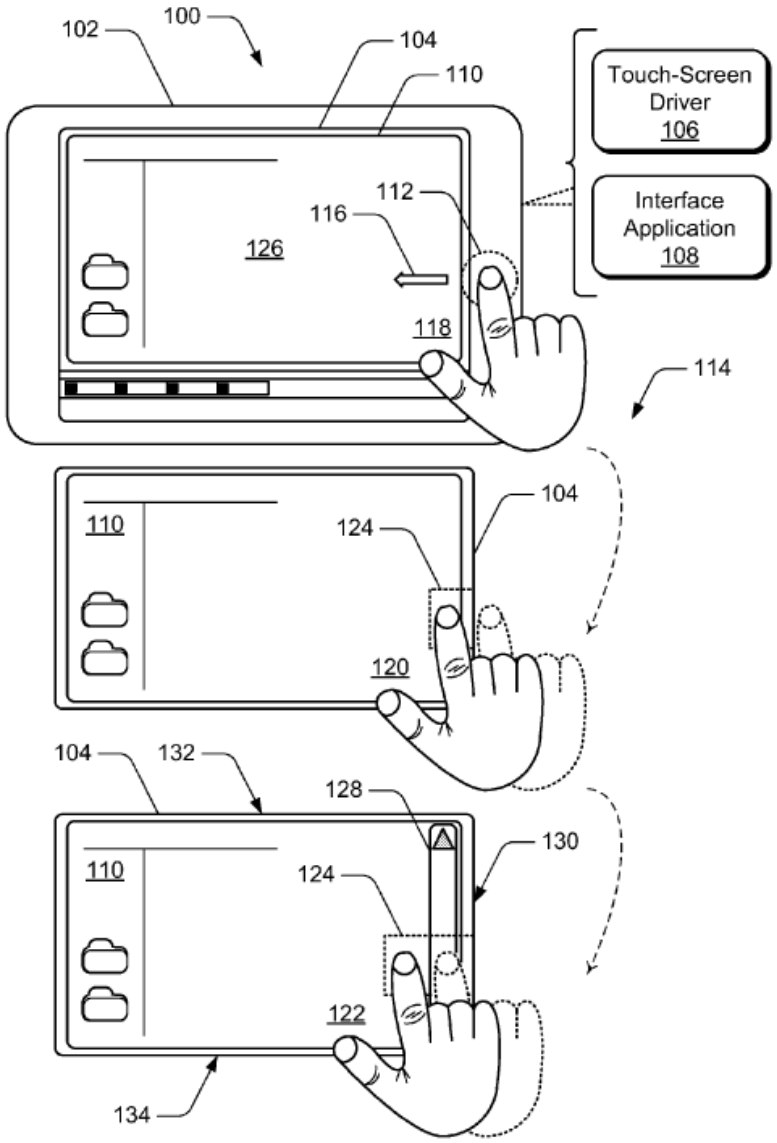
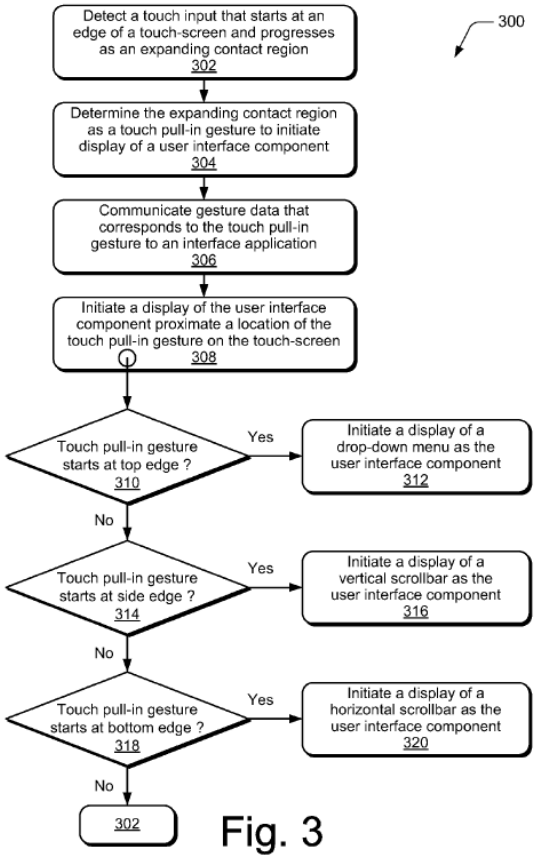
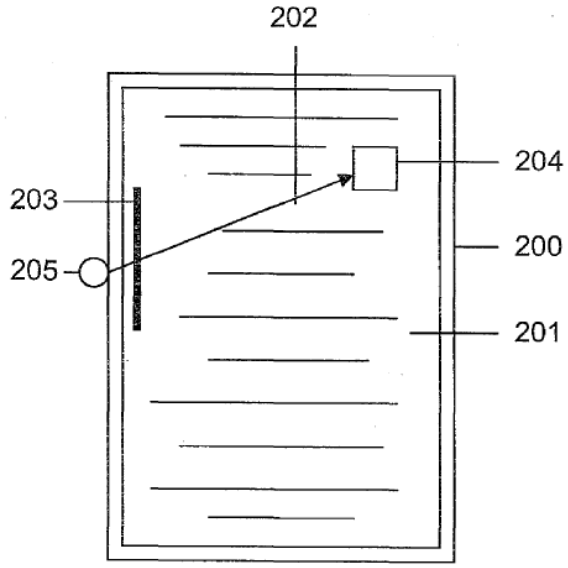
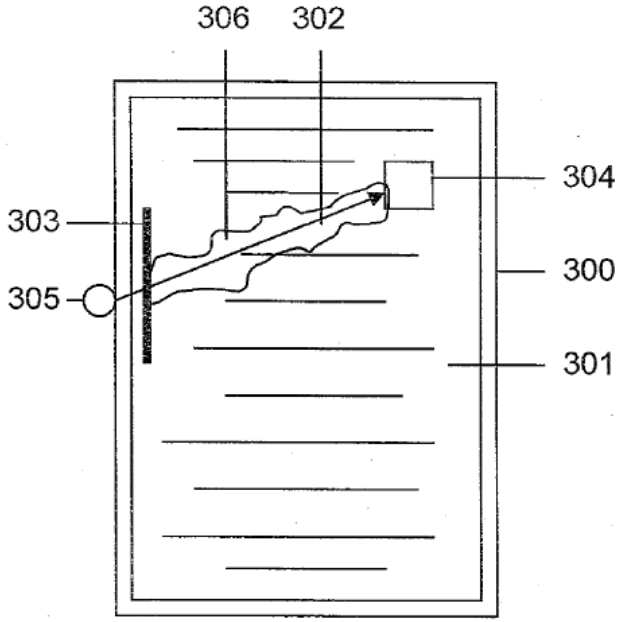

102
100
104
110
Touch-Screen Driver 106
Interface Application 108
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124
122
134

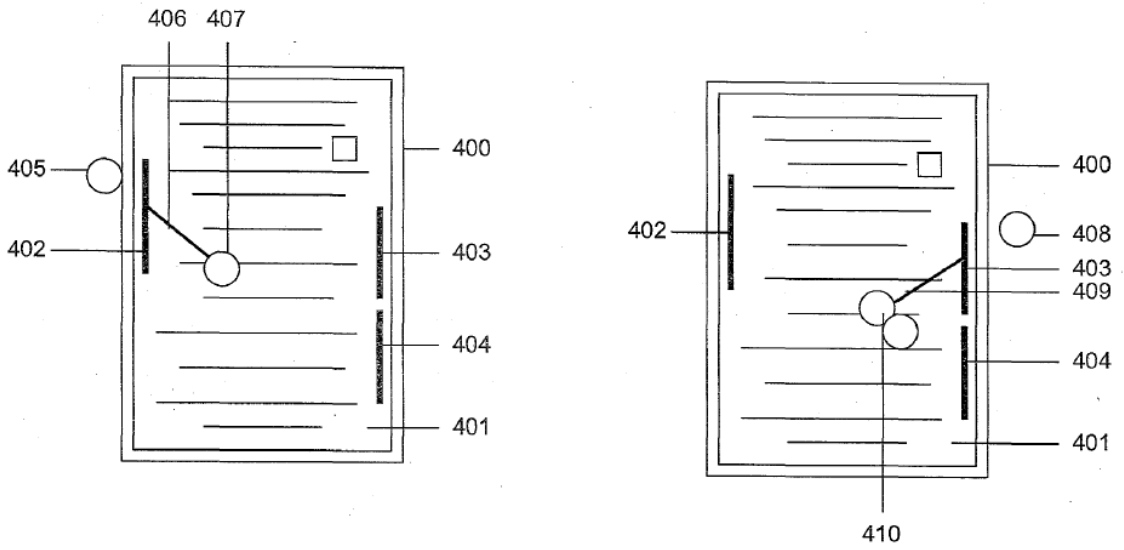
Fig. 1

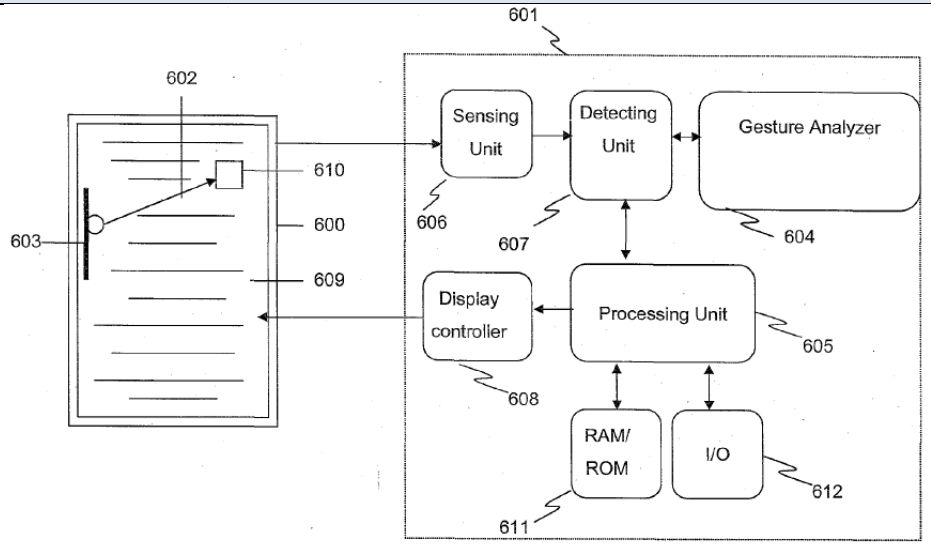
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Wilairat at FIG. 1.<br>  <br><br>Fig. 3<br>Wilairat at FIG. 3.<br>Roth discloses "[a] crossing-based interface along the bounds of the display" where "[u]sers can invoke actions with swiping gestures across a section of the display side from the outside to the inside." Roth at [0009]. "One example of such a gesture is a continuous swiping motion from the |

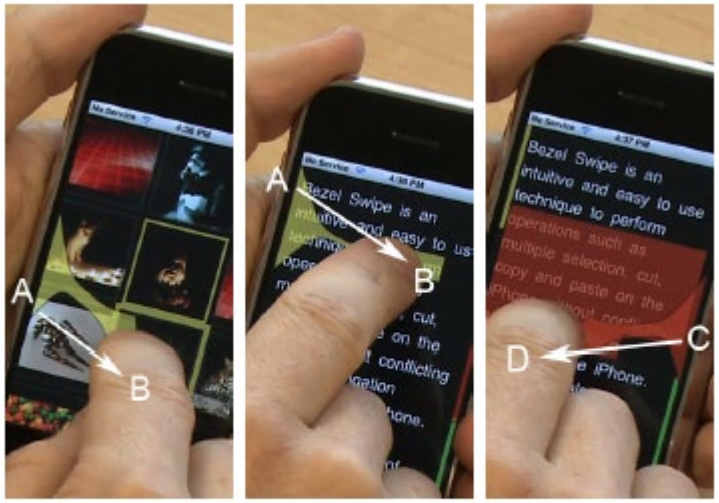
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | activation point representing a desired action or even from the bezel of the device, through the activation point and to the target on the display. Such a gesture allows the active area of an activation point to be much smaller on a display due to the utilization of a greater average weight throughout a touch sensitive display, which creates a higher probability of activating on a narrow activation point or operating on a small target." Roth at [0015]. "The continuous swiping motion may also begin from outside the display for ease of use." Roth at [0015]. In FIG. 2A, "[t]he user can then select the target 204 through the use of a gesture 202, such as swiping, pinching, tapping or other gestures, between the bar representing the desired action and the target." Roth at [0036]. Roth provides for multiple bars on the screen, such as shown in FIG. 4. "Of course, the present invention is not limited to merely having a singular bar representing an action. Several such bars may be dispersed around the edges of the screen so as to allow the user access to several different desired actions. These bars may be color coded to represent different actions, or the bars may utilize patterns or other color-independent markings to assist color blind users. Furthermore, the shape of the activation point is not limited to a bar-like shape; other shapes such as a dot, circle, star, gap or so forth may be used to represent the edge portion." Roth at [0037]. "In FIG. 4, we demonstrate several different embodiments of the invention, including the use of multiple bars, multiple gestures, and the placing of markers to indicate a desired action. The placing of a marker is useful in utilizing multiple gestures with multiple bars to execute a desired action in tandem." Roth at [0043]. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Fig. 2B<br>  <br><br>Roth at FIG. 2B. |

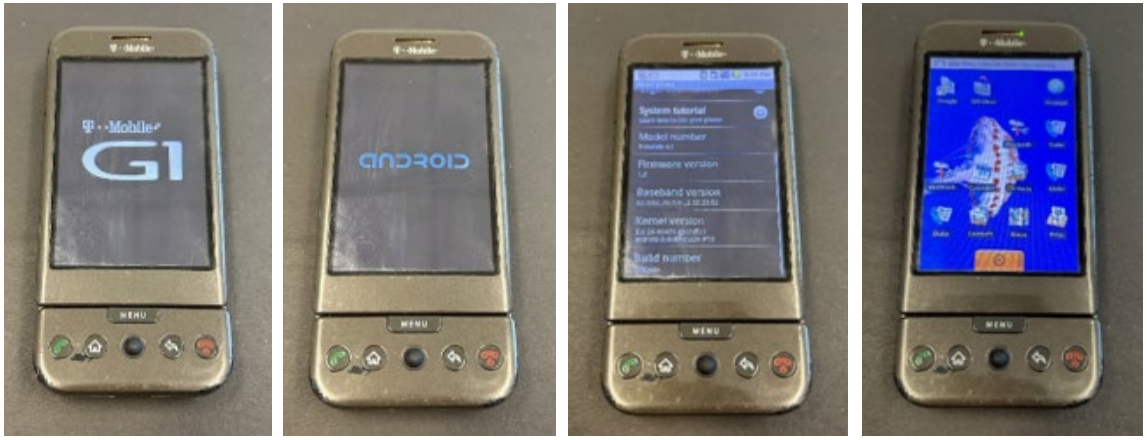
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Fig. 3<br>  <br><br>Roth at FIG. 3. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Fig. 4<br>  <br><br>Roth at FIG. 4. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 6<br><br>Roth at FIG. 6.<br><br>Roth Bezel Swipe discloses "screens of mobile devices are necessarily small, which limits the size of displayed pages and the space that can be devoted to user interface widgets" and "smaller widgets are harder to hit." Roth Bezel Swipe at 1523. Roth Bezel Swipe describes a "bezel swipe" activation gesture, where "[t]he user starts a Bezel Swipe gesture on the bezel, which is the physical touch insensitive frame that surrounds the display. The finger is then swiped through a part of the display edge into the display, which enters selection mode." Roth Bezel Swipe at 1524. Multiple such bars are described. " In our prototype, we used a colored line that stretches from the activation bar to the user's fingertip on the display." Roth Bezel Swipe at 1524. "A touch sensitive display translates the contact area of the finger with the display into an activation point." Roth Bezel Swipe at 1524. "The Bezel Swipe gesture … starts on the bezel and moves into the display." Roth Bezel |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Swipe at 1524. "Bezel Swipe relies on flat bezels and gestures from the bezel into the display …." Roth Bezel Swipe at 1524.<br>  <br>**Figure 1. The Bezel Swipe prototype in action. Left panel: A swipe from A to B selects an image. Middle panel: A swipe from A to B marks the beginning of a text selection. Right panel: A swipe from C to D marks the end of the text selection.**<br>Roth Bezel Swipe at FIG. 1.<br>The Samsung Behold II includes the status bar window and the applications tab window (e.g., more than one window) located on the top and left (e.g., one or more window) edges of the touch screen. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>  <br>  <br>The Samsung Behold II device. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | The HTC G1 1.6 includes the status bar window and the applications tab window (e.g., more than one window) located on the top and bottom (e.g., one or more window) edges of the touch screen.<br>  <br><br>HTC G1 1.6 Device.<br>  <br>HTC G1 1.6 Device |

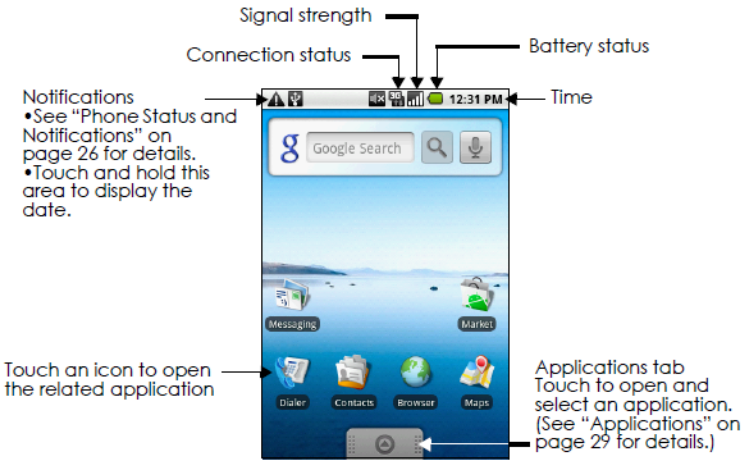
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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HTC G1 1.6 Device.

## 1.7 Home Screen

The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.

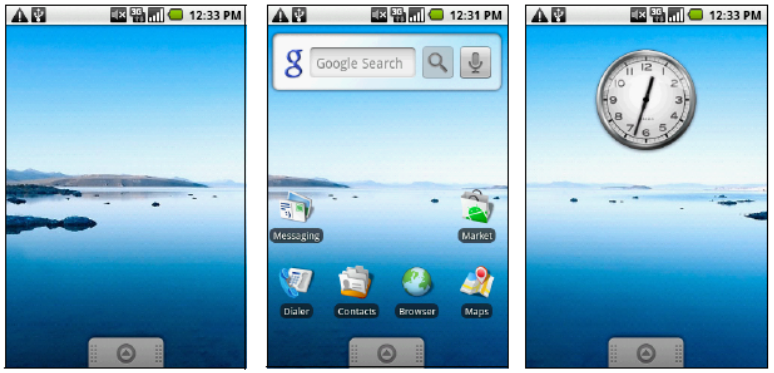



**Tip** While in any application, press **HOME** to go back to the Home screen.

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

### Extended Home screen

The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.




Extended Home screen left

Extended Home screen right

G1 User Manual 24.

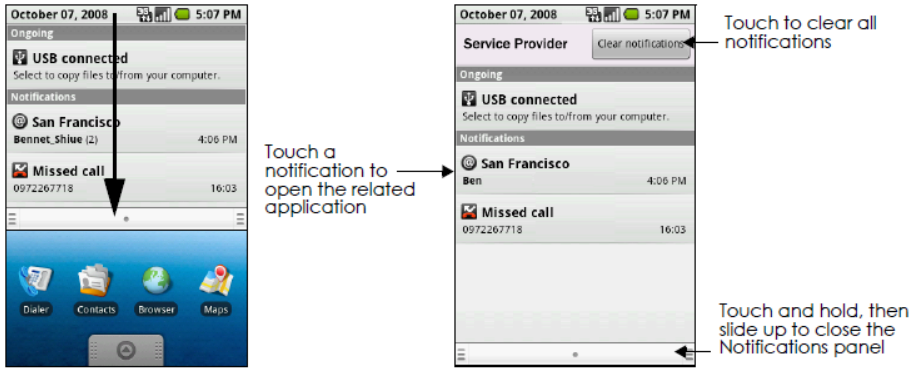
### Notifications panel

Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.

**To open the Notifications panel**

When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|




If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

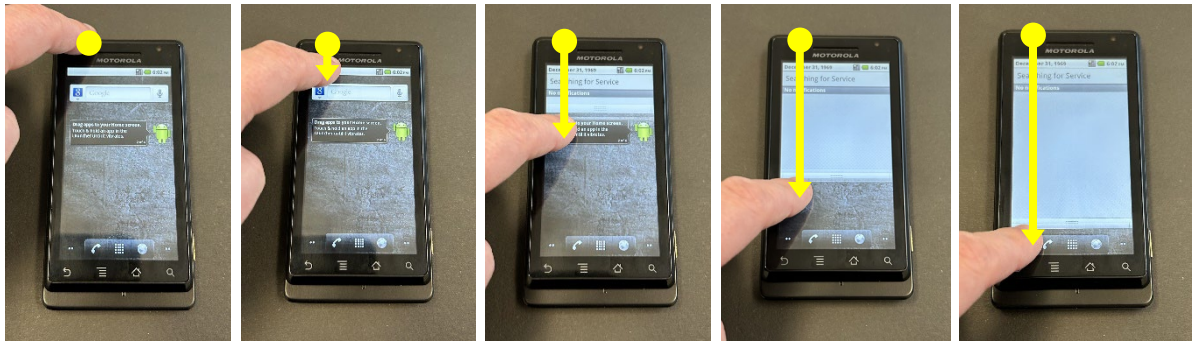
Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

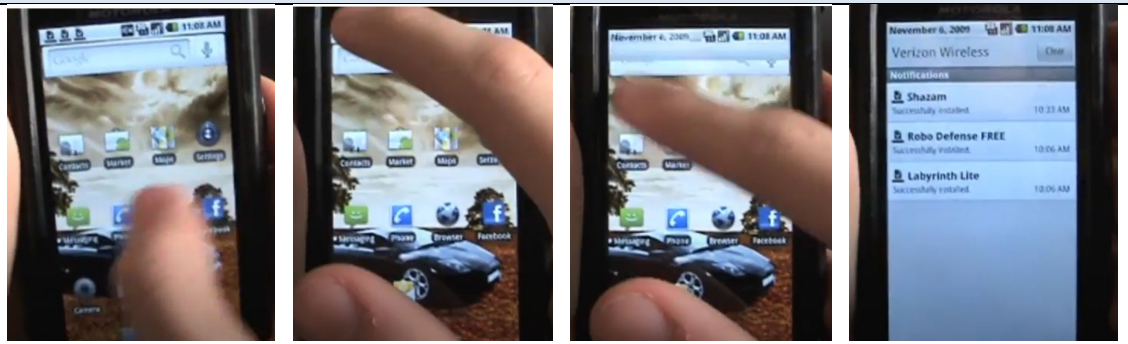
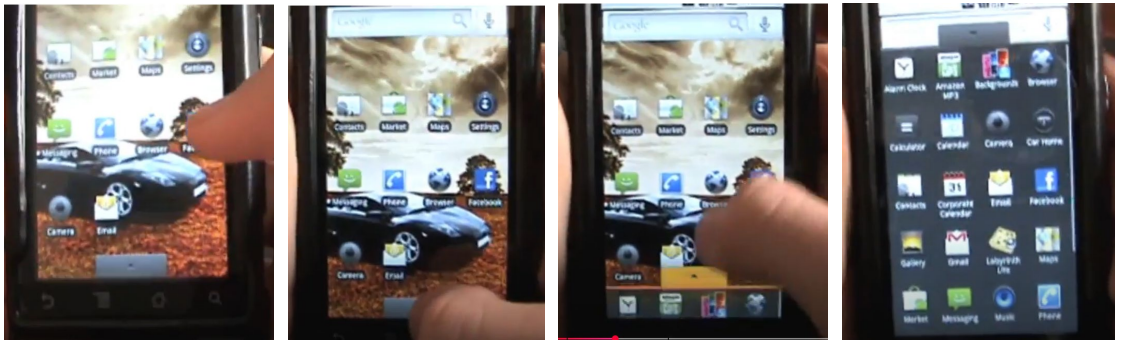
**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

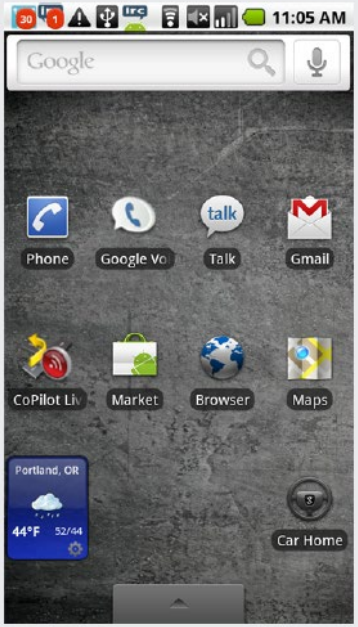
**To close the Applications tab**

Touch  .

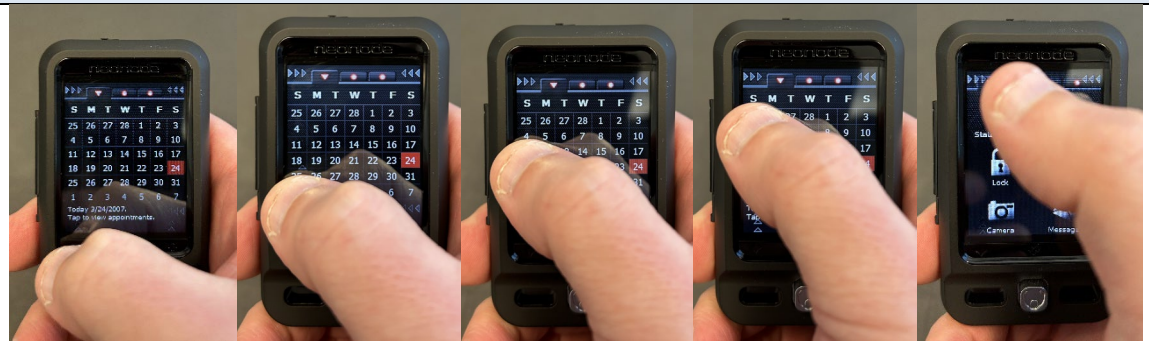
G1 User Manual 29.

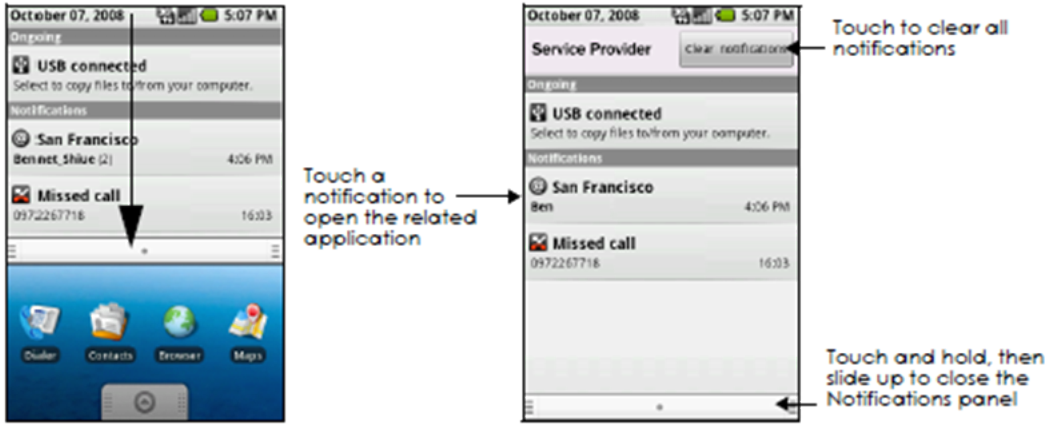
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | The Motorola Droid A855 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status towards to the main application display inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar. The Motorola Droid A855 similarly teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen below the applications bar (from outside of the screen) over the applications bar to the main application display inside of the touch screen (e.g., crossing over the applications bar). The gliding action over the applications bar causes a processor to perform the action of displaying the applications menu assigned to the applications bar.<br>  <br>Droid A855. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Motorola DROID: Android 2.0 Overview.<br>  <br>Motorola DROID: Android 2.0 Overview. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **Interfacing with Android 2.0**<br>Android 2.0, aka "Eclair," is an evolutionary step up from previous releases of Android. While some may call the interface jumbled, once you understand the paradigm it makes decent sense. Commonly used applications and widgets are stored on the user-configurable "Home" screens. The Droid comes with 3, which you switch between by swiping left and right.<br>  <br><br>Home Screen<br>Additional applications are accessed by dragging up or clicking the program tray at the bottom of the home screen.<br><br>About a DROID: a review of Motorola's newest smartphone.<br><br>The Neonode N2 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen from multiple sides with multiple windows showing arrows indicating that a gliding action is available. For example, the screen over the indicated icons or from the sides of the screen as indicated by the various arrows (from outside of the screen), over the arrows towards the main application display toward the inside of the touch screen (e.g., crossing over the window identifying the movement from off-to-on screen) or from the side of the display (e.g., |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | crossing over the arrow window shown on the screen). As one example, both opening applications menu (gliding action up) and returning to the home screen (bottom right-to-left gliding action) are shown below.<br>  <br>Neonode N2.<br>  <br>Neonode N2. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Neonode N2.<br>  <br>Neonode N2<br>A POSITA would have found it obvious to incorporate more than one window located on one or more edges of the touch screen in the HTC Hero, as claimed. Each of Hisatomi, Wilairat, Jeong, Roth, Roth Bezel Swipe, the Samsung Behold II, the HTC G1 1.6, Motorola Droid A855, and/or the Neonode N2, teaches including more than on window located on one or more edges of the touch screen being responsive to the user's gliding action.<br>A POSITA would have been motivated to incorporate the additional windows of one or more of Hisatomi, Wilairat, Roth, Roth Bezel Swipe, the Samsung Behold II, the HTC G1 1.6, Motorola Droid A855, and/or the Neonode N2 into the HTC Hero to provide additional functionality for a user. For example, a POSITA would have been motivated to provide a second pull-out menu at a |

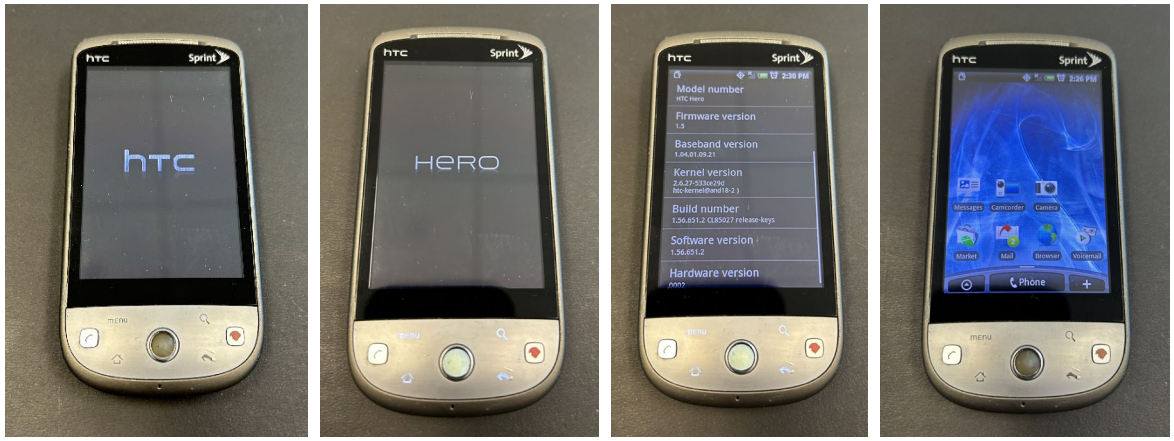
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | second edge of the HTC Hero's screen to allow a user to quickly access a list of applications, as was known in the prior art. For example, the HTC G1 1.6, Samsung Behold II, and Motorola Droid A855 allowed a user to drag open an applications selection interface, as shown above and below.<br>**To open the Notifications panel**<br>When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.<br>  <br><br>Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.<br>T-Mobile G1 User Manual at 27-29.<br>A POSITA would have been motivated to, for example, provide a second menu, such as an applications menu, for users to access other functions, such as viewing all applications available to open to interact with them from a side-out or bottom-up menu at the applications bar window, in the HTC Hero by including a second window located on the touch screen, such as at the bottom or side edge. *See, e.g.*, T-Mobile G1 User Manual at 27-29 (describing slide-in menus to show notifications and applications); Jeong at [0052], [0053], FIG. 6A; Hisatomi at [0030], [0032]-[0034], FIGS. 5-7, 10-47; Samsung Behold II. A POSITA also would have been motivated to use the second window to provide additional functionality, such as a keyboard taught by Wilairat, the "back" or "close" function of the Neonode N2 device, or any other user interface component, such |

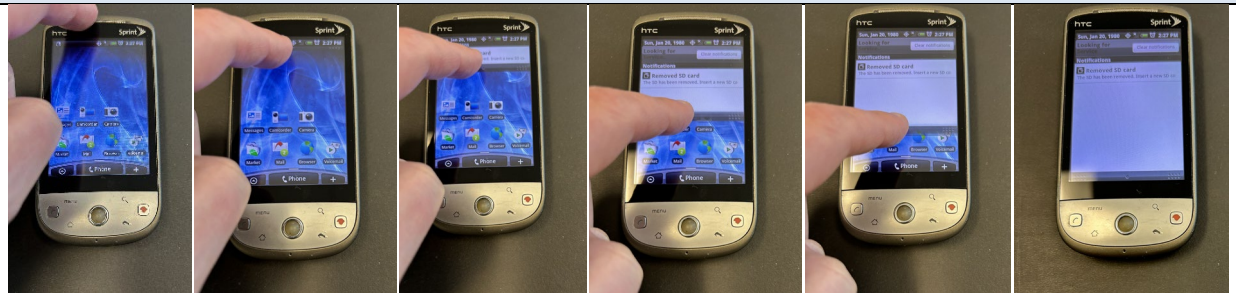
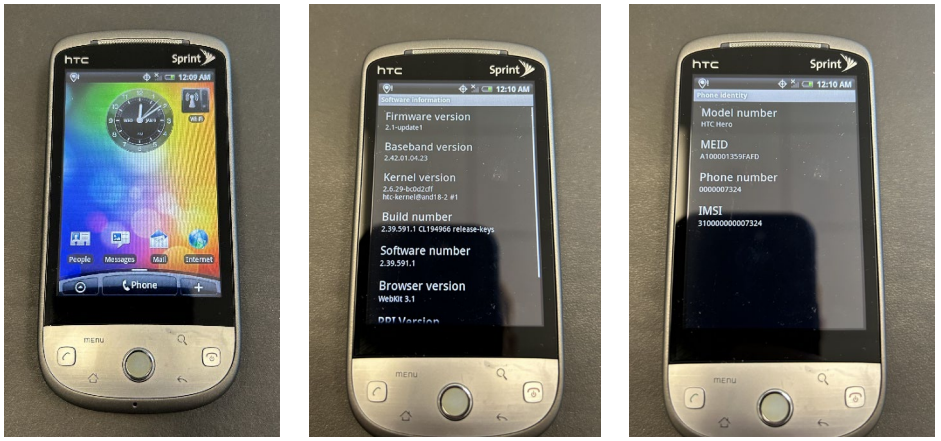
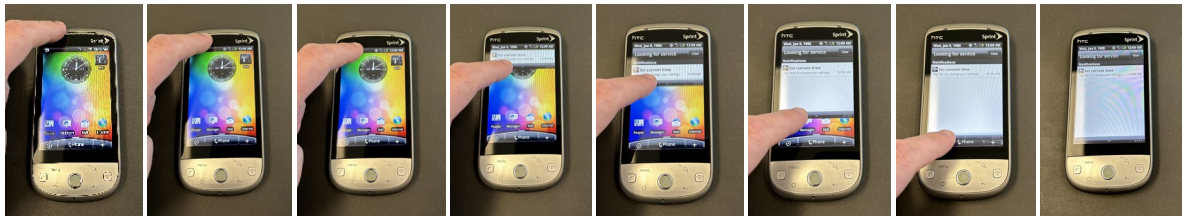
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | as a "hidden menu, slide menu, drop-down menu, scrollbar, image, graphic, text, user-selectable control, menu selection, map element, and/or any other type of user interface displayable feature or item." Wilairat at [0015].<br><br>As was known in the art, a POSITA would have been motivated to provide the second window of the at least one windows using a thin window, such as using an applications bar at the side or bottom of the HTC Hero's screen as was known in the HTC G1 1.6, the Samsung Behold II, and the Motorola Droid A855.<br><br>A POSITA also would have been motivated by the teachings in the prior art itself. Roth Bezel Swipe describes using off-to-on screen gliding gestures allows a user to "start [a swiping gesture] on the bezel and move[] into the display" to contact "a narrow target (the red bar) positioned flush against the display edge" along with other colored bars on the same or different display edges. Roth Bezel Swipe at 1524, Figure 1. A POSITA would have recognized that such bezel swipe gestures are "recognized by detecting touches inside a thin rectangular area [e.g. red application bar window of Figure A] positioned flush against the display screen," which "enables the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch." Roth Bezel Swipe at 1524, Figures 1, 2 (emphasis added). A POSITA also would have been motivated to use a very thin indicator to provide a second window because it "requires minimal display real estate" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]," which a POSITA would have recognized makes it ideal for smaller device screens, such as the Palm Pre. Roth Bezel Swipe at 1524; Roth at [0009].<br><br>A POSITA would have been motivated to provide more than one window with varying functions and/or sizes, depending on the design preferences, such as shown in Roth Bezel Swipe, Roth, Jeong, and the T-Mobile G1 User Manual, or the entire edge, as shown in the HTC Hero and Hisatomi. Roth Bezel Swipe at Figures 1, 2; Roth at FIGS. 2A-4; T-Mobile G1 User Manual at 27-29. In such cases, a POSITA would have known that the design would not have hindered the user's use of the application in the HTC Hero's main application area because, by design, the second window would have been a thin applications bar displayed at the side or bottom of the HTC Hero's screen, as disclosed by T-Mobile G1 User Manual, and in commercial devices, such as the HTC G1 1.6, the Samsung Behold II, and the Motorola Droid A855. A POSITA would have found |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | this obvious, for example, by using a thin bar similar to that taught by Roth or Roth Bezel Swipe or by making a determination of a pull-in gesture, using, for example, the expanding contact method taught by Wilairat. A POSITA would have recognized this would further safeguard against accidental activation from direct touch.<br><br>It was well known to a POSITA that including more than one window for activating gliding actions would have provided additional functionality for a user. Including more than one window for activation by a gliding action would have "enable[d] the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524. Activating functions where "[u]sers can invoke actions with swiping features across a section of the display [touch screen] side from the outside to the inside" also "requires minimal display real estate," whereby being beneficial to mobile devices that have small screens. Roth at [0009]. A POSITA would have known that such activation operations, like crossing activations, "can be more efficient than pointing tasks," especially on small-screen devices, such as mobile phones and can each be "made small so as to not take up valuable space on the display." Roth at [0009], [0036].<br><br>Including more than one window located on one or more edges of the touch screen, such as the applications bar to open an interface of available applications/widgets, was routine and conventional to POSITAs, as shown by the Samsung Behold II, the HTC G1 1.6, and Motorola Droid A855. The use of multiple gliding-action-activated windows was also routine and conventional, as shown by Hisatomi, Wilairat, Jeong, Roth, Roth Bezel Swipe, and/or the Neonode N2. Incorporating more than one window located on one or more edges of the touch screen into the HTC Hero represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with the HTC Hero, represent nothing more than combining prior art elements according to known methods and techniques (including a second glide-activated window, such as known in Hisatomi, Wilairat, Jeong, Roth, Roth Bezel Swipe, the Samsung Behold II, the HTC G1 1.6, the |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Motorola Droid A855, and/or the Neonode N2) to yield predictable results (performing the function associated with the window(s)). |

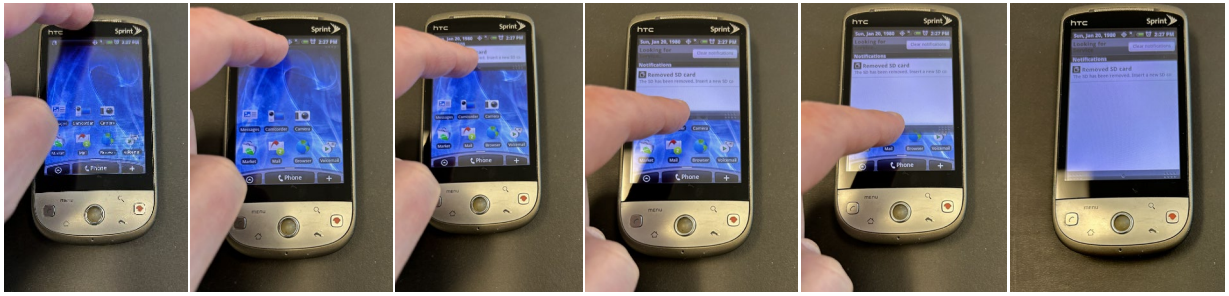
| Claim 16 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[16]** The system of claim 15, wherein said at least one window extends along a substantial portion of an edge of the touch screen. | Claim 16 depends from claims 15 and 1. Defendants incorporate all the prior art disclosures from claims 15 and 1 here, which anticipate and/or render claims 15 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 15 and 1 to show the additional limitations of claim 16 are anticipated and/or obvious for the same reasons set out in claims 15 and 1.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window extends along a substantial portion of an edge of the touch screen."<br><br>Claim 16 recites substantially the same limitations as claim 4 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 4. *See, e.g.*, *supra* claim 4.<br><br>As discussed *supra* claim 4, the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said at least one window extends along a substantial portion of an edge of the touch screen." *See supra* claim 4. |

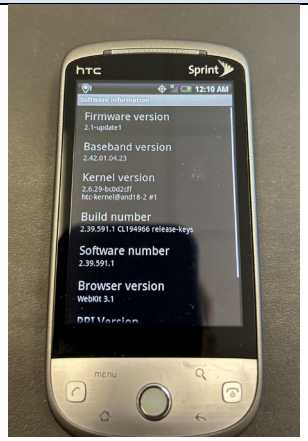
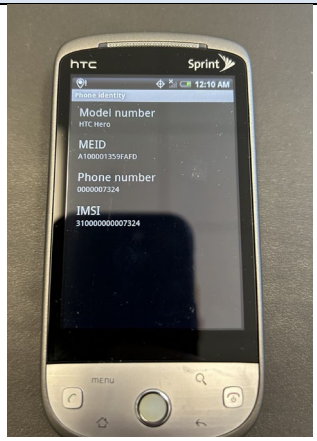
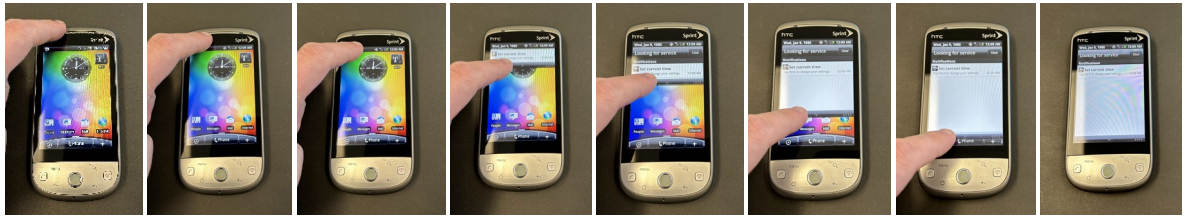
| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[17]** The system of claim 1, wherein during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen. | Claim 17 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 17 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen."<br><br>For example, the HTC Hero includes, during providing the gliding action from the status bar window, the HTC Hero dynamically drags and shows the notifications menu interface, or a portion of those interfaces, on the touch screen, such as explained in claims 1, 7, and 8. *Supra* claims 1, 7, 8.<br><br>  <br><br>HTC Hero 1.5 Device. |

| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>HTC Hero 1.5 Device.<br>  <br>HTC Hero 2.1 Device.<br>  <br>HTC Hero 2.1 Device. |

| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | *See, e.g.*, HTC Hero (Sprint) review: HTC Hero (Sprint); HTC Hero review; HTC Hero (Sprint); Review: HTC Hero from Sprint. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[18]** The system of claim 1, wherein the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface. | Claim 18 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 18 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface."<br><br>For example, the HTC Hero's processor relates the gliding action from the status bar window provided in any arbitrary direction inside the touch screen to presenting the same notifications menu, respectively, because the user's gliding action can proceed in any direction or path while the edge of the respective menu travels with the user's finger. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>HTC Hero 1.5 Device.<br>  <br>HTC Hero 1.5 Device. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |     <br>HTC Hero 2.1 Device.<br>  <br>HTC Hero 2.1 Device.<br>*See, e.g.*, HTC Hero (Sprint) review: HTC Hero (Sprint); HTC Hero review; HTC Hero (Sprint); Review: HTC Hero from Sprint. |

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[19Pre]**[4] A system for capturing an event provided from an edge of a touch screen comprising: | To the extent that the preamble is held to be limiting, the HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[a] system for capturing an event provided from an edge of a touch screen."<br><br>[19Pre] recites substantially the same limitations as [1Pre] and is therefore anticipated or rendered obvious for substantially the same reasons as [1Pre]. *See, e.g.*, *supra* [1Pre].<br><br>As discussed *supra* [1Pre], the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "[a] system for capturing an event provided from an edge of a touch screen." *See supra* [1Pre]. |
| **[19A]** a device having a touch screen; | The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a device having a touch screen."<br><br>[19A] recites substantially the same limitations as [1A] and is therefore anticipated or rendered obvious for substantially the same reasons as [1A]. *See, e.g.*, *supra* [1A].<br><br>As discussed *supra* [1A], the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "a device having a touch screen." *See supra* [1A]. |
| **[19B]** a zone in form of a bar located in the touch screen on an edge of the touch screen; and | The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a zone in form of a bar located in the touch screen on an edge of the touch screen; and a processor." |

[4] Claim 19 as corrected in the Certificate of Correction issued February 16, 2021.

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | [19B] recites substantially the same limitations as [1B] and claim 3, except that it recites a "zone in the form of a bar" instead of a "window," and is anticipated or rendered obvious for substantially the same reasons as [1B] and claim 3. *See, e.g.*, *supra* [1B], claim 3. The HTC Hero's status bar is a "zone in the form of a bar" located on the edge of a touch screen, as explains in [1B] and claim 3.<br><br>As discussed *supra* [1B] and claim 3, the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "a zone in form of a bar located in the touch screen on an edge of the touch screen." *See supra* [1B] and claim 3. |
| **[19C]** a processor; | The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a processor."<br><br>[19C] recites substantially the same limitations as [1C] and is therefore anticipated or rendered obvious for substantially the same reasons as [1C]. *See, e.g.*, *supra* [1C].<br><br>As discussed *supra* [1C], the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "a processor." *See supra* [1C]. |
| **[19D]** wherein a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone, and wherein the | The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone, and wherein the processor executes a function related to said zone, and wherein said zone is present on said edge regardless of the interface of an application on said touch screen." |

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| processor executes a function related to said zone, and wherein said zone is present on said edge regardless of the interface of an application on said touch screen, and | [19D] recites substantially the same limitations as [1B] ("said at least one window functions independently of an interface of an application in use on the touch screen"), [1D] ("a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said processor to cause an action assigned to said window"), and claim 18 ("the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface"), except that it does not recite that the gliding action begins off screen, and is therefore anticipated or rendered obvious for substantially the same reasons as [1B], [1D], and claim 18. *See, e.g.*, *supra* [1B], [1D], and claim 18.<br><br>As discussed *supra* [1B], [1D], and claim 18, the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone, and wherein the processor executes a function related to said zone, and wherein said zone is present on said edge regardless of the interface of an application on said touch screen." *See supra* [1B], [1D], and claim 18. |
| **[19E]** wherein said zone is located on the touch screen before said gliding action begins. | The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said zone is located on the touch screen before said gliding action begins."<br><br>[19E] recites substantially the same limitations as [1E], except that it recites "said zone" instead of "said at least one window," and is therefore anticipated or rendered obvious for substantially the same reasons as [1E] and [19B]. *See, e.g.*, *supra* [1E] and [19B].<br><br>As discussed *supra* [1E] and [19B], the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that |

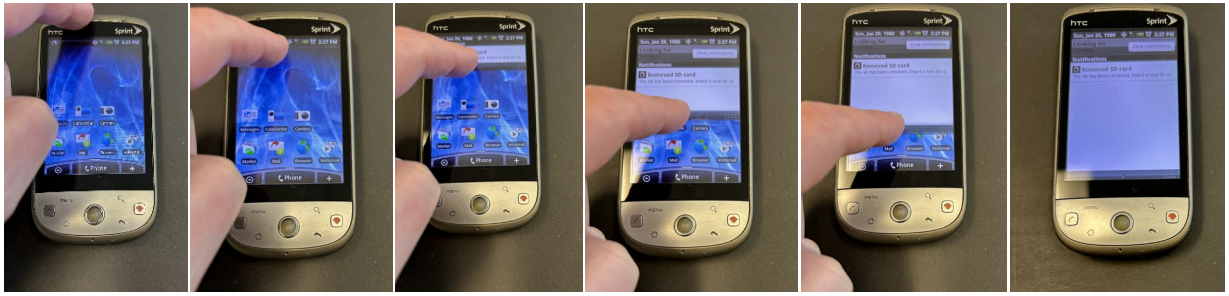
| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | "said zone is located on the touch screen before said gliding action begins." *See supra* [1E] and [19B]. |

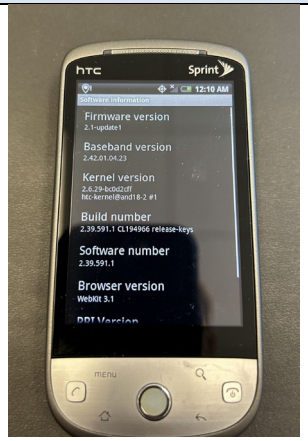
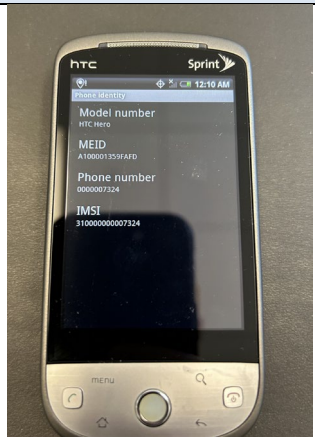
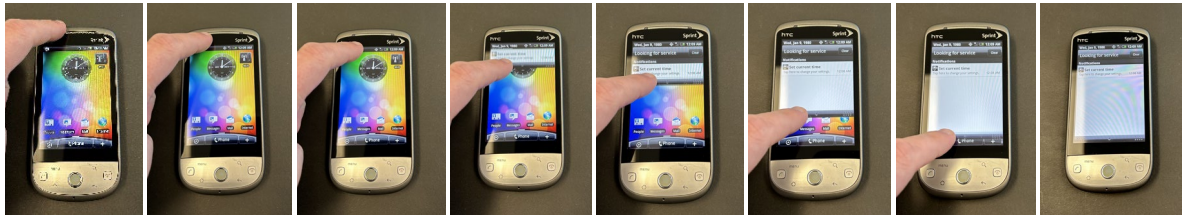
| Claim 21 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[21]** The system of claim 19, wherein upon detecting said gliding action, the system relates said gliding action to setting the location of an interface on the touch screen. | Claim 21 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 21 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said gliding action, the system relates said gliding action to setting the location of an interface on the touch screen."<br><br>Claim 21 recites substantially the same limitations as claim 13 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 13. *See, e.g.*, *supra* claim 13. As discussed *supra* claim 13, the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "upon detecting said gliding action, the system relates said gliding action to setting the location of an interface on the touch screen." *See supra* claim 13. |

| Claim 22 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[22]** The system of claim 19, wherein said bar comprises | Claim 22 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right |

| Claim 22 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| more than one bar located on one or more edges of the touch screen. | to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 22 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said bar comprises more than one bar located on one or more edges of the touch screen."<br><br>Claim 22 recites substantially the same limitations as claim 15 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 15. *See, e.g.*, *supra* claim 15.<br><br>As discussed *supra* claim 15, the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said bar comprises more than one bar located on one or more edges of the touch screen." *See supra* claim 15. |

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[23]** The system of claim 19, wherein said zone is in a form of a visible or invisible line. | Claim 23 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 23 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said zone is in a form of a visible or invisible line."<br><br>For example, the HTC Hero includes the status bar being in the form of a visible line. |

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC Hero 1.5 Device.<br>  <br>HTC Hero 1.5 Device. |

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |      HTC Hero 2.1 Device.  HTC Hero 2.1 Device. *See, e.g.*, HTC Hero (Sprint) review: HTC Hero (Sprint); HTC Hero review; HTC Hero (Sprint); Review: HTC Hero from Sprint. Moreover, claim 23 recites substantially the same limitations as claim 5 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 5. *See, e.g.*, *supra* claim 5. As discussed *supra* claim 5, the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said zone is in a form of a visible or invisible line." *See supra* claim 5. |

| Claim 24 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[24]** The system of claim 23, wherein said function is displaying an interface on the screen. | Claim 24 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 23 and 19 to show the additional limitations of claim 24 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying an interface on the screen."<br><br>Claim 24 recites substantially the same limitations as claims 6, 9, and 12 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6, 9, and 12. *See, e.g.*, *supra* claims 6, 9, 12.<br><br>As discussed *supra* claims 6, 9, and 12, the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying an interface on the screen." *See supra* claims 6, 9, 12. |

| Claim 25 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[25]** The system of claim 23, wherein said function is displaying a portion of an interface on the screen. | Claim 25 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 23 and 19 to show the additional limitations of claim 25 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and |

| Claim 25 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen."<br><br>Claim 25 recites substantially the same limitations as claims 7 and 10 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7 and 10. *See, e.g.*, *supra* claims 7 and 10.<br><br>As discussed *supra* claims 7 and 10, the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10. |

| Claim 26 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[26]** The system of claim 23, wherein said function is displaying a portion of an interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action. | Claim 26 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 23 and 19 to show the additional limitations of claim 26 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action."<br><br>Claim 26 recites substantially the same limitations as claims 8 and 11 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8 and 11. *See, e.g.*, *supra* claims 8, 11.<br><br>As discussed *supra* claims 8 and 11, the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further |

| Claim 26 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action." *See supra* claims 8, 11. |

| Claim 27 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[27]** The system of claim 19, wherein said bar is visible or invisible. | Claim 27 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 27 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said bar is visible or invisible."<br><br>Claim 27 recites substantially the same limitations as claim 23 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 23. *See, e.g.*, *supra* claim 23. As discussed *supra* claim 23, the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said bar is visible or invisible." *See supra* claim 23. |

| Claim 28 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[28]** The system of claim 27, wherein said function is | Claim 28 depends from claims 27 and 19. Defendants incorporate all the prior art disclosures from claims 27 and 19 here, which anticipate and/or render claims 27 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale |

| | |
|---|---|
| displaying an interface on the screen. | and evidence set out for claims 27 and 19 to show the additional limitations of claim 28 are anticipated and/or obvious for the same reasons set out in claims 27 and 19.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying an interface on the screen."<br><br>Claim 28 recites substantially the same limitations as claims 6, 9, 12, and 24 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6, 9, 12, and 24. *See, e.g.*, *supra* claims 6, 9, 12, 24. As discussed *supra* claims 6, 9, 12, and 24, the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying an interface on the screen." *See supra* claims 6, 9, 12, 24. |

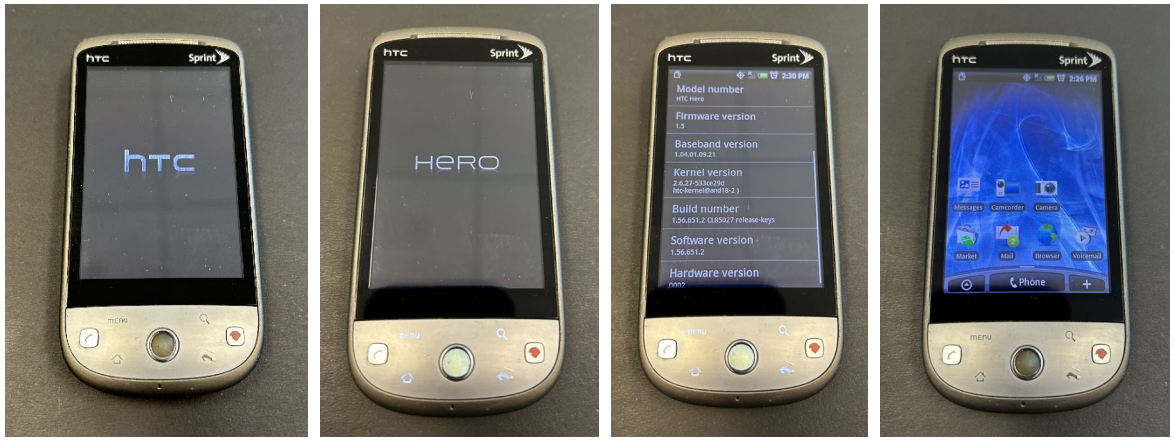
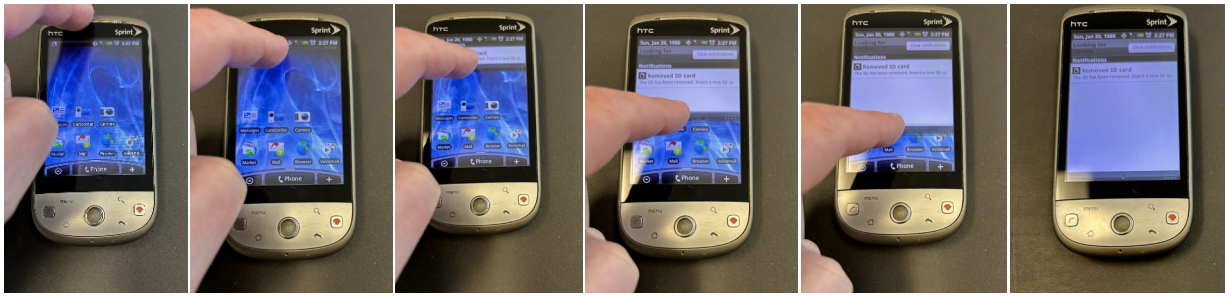
| **Claim 29** | **Exemplary Disclosures (Express and/or Inherent) and Citations** |
|---|---|
| **[29]** The system of claim 27, wherein said function is displaying a portion of an interface on the screen. | Claim 29 depends from claims 27 and 19. Defendants incorporate all the prior art disclosures from claims 27 and 19 here, which anticipate and/or render claims 27 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 27 and 19 to show the additional limitations of claim 29 are anticipated and/or obvious for the same reasons set out in claims 27 and 19.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen."<br><br>Claim 29 recites substantially the same limitations as claims 7, 10, and 25 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7, 10, and 25. *See, e.g.*, *supra* claims 7, 10, 25. |

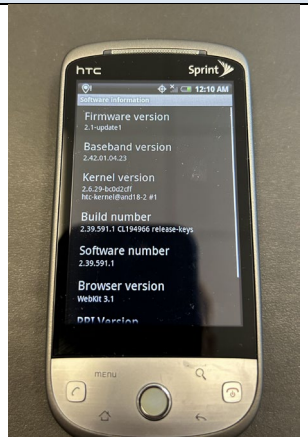
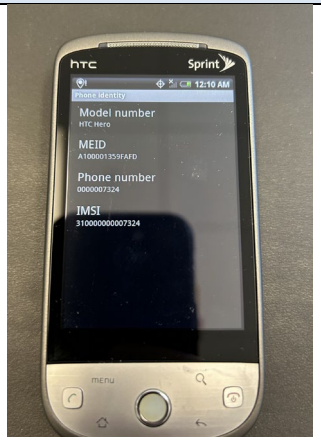
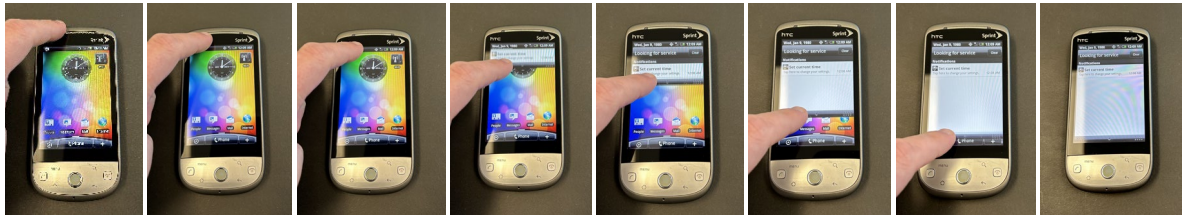
| Claim 29 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | As discussed *supra* claims 7, 10, and 25, the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10, 25. |

| Claim 30 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[30]** The system of claim 29, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 30 depends from claims 29, 27, and 19. Defendants incorporate all the prior art disclosures from claims 29, 27, and 19 here, which anticipate and/or render claims 29, 27, and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 29, 27, and 19 to show the additional limitations of claim 30 are anticipated and/or obvious for the same reasons set out in claims 29, 27, and 19.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>Claim 30 recites substantially the same limitations as claims 8, 11, and 26 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8, 11, and 26. *See, e.g.*, *supra* claims 8, 11, 26.<br><br>As discussed *supra* claims 8, 11, and 26, the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claims 8, 11, 26. |

| Claim 31 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[31]** The system of claim 19, wherein during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen. | Claim 31 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 31 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen."<br><br>Claim 31 recites substantially the same limitations as claim 17 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 17. *See, e.g.*, *supra* claim 17.<br><br>As discussed *supra* claim 17, the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen." *See supra* claim 17. |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[32]** The system of claim 19, wherein said function is displaying a same interface for any said gliding action, said gliding action interacting with any portion of said zone. | Claim 32 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 32 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a same interface for any said gliding action, said gliding action interacting with any portion of said zone."<br><br>For example, the HTC Hero includes that the function of displaying the notifications menu displays the same notifications menu interface for any gliding action from the status bar, respectively, where said gliding actions interact with any portion of the status bar, respectively.<br>  <br>HTC Hero 1.5 Device.<br>  <br>HTC Hero 1.5 Device. |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |      HTC Hero 2.1 Device.  HTC Hero 2.1 Device. *See, e.g.*, HTC Hero (Sprint) review: HTC Hero (Sprint); HTC Hero review; HTC Hero (Sprint); Review: HTC Hero from Sprint. |

| Claim 33 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[33]** The system of claim 32, wherein said gliding action is | Claim 33 depends from claims 32 and 19. Defendants incorporate all the prior art disclosures from claims 32 and 19 here, which anticipate and/or render claims 32 and 19 obvious as set out above. |

| Claim 33 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen. | Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 32 and 19 to show the additional limitations of claim 33 are anticipated and/or obvious for the same reasons set out in claims 32 and 19.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said gliding action is provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen."<br><br>Claim 33 recites substantially the same limitations as [1D] ("wherein a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen") and is therefore anticipated or rendered obvious for substantially the same reasons as [1D]. *See, e.g.*, *supra* [1D].<br><br>As discussed *supra* [1D], the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "wherein said gliding action is provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen." *See supra* [1D]. |

| Claim 34 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[34]** The system of claim 19, wherein said function is displaying a portion of an interface on the screen. | Claim 34 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 34 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and |

| Claim 34 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen."<br><br>Claim 34 recites substantially the same limitations as claims 7, 10, 25, and 29 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7, 10, 25, and 29. *See, e.g.*, *supra* claims 7, 10, 25, 29.<br><br>As discussed *supra* claims 7, 10, 25, and 29, the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10, 25, 29. |

| Claim 35 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[35]** The system of claim 34, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 35 depends from claims 34 and 19. Defendants incorporate all the prior art disclosures from claims 34 and 19 here, which anticipate and/or render claims 34 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 34 and 19 to show the additional limitations of claim 35 are anticipated and/or obvious for the same reasons set out in claims 34 and 19.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>Claim 35 recites substantially the same limitations as claims 8, 11, 26, and 30 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8, 11, 26, and 30. *See, e.g.*, *supra* claims 8, 11, 26, 30. |

| Claim 35 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | As discussed *supra* claims 8, 11, 26, and 30, the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claims 8, 11, 26, 30. |

| Claim 36 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[36]** The system of claim 19, wherein said zone extends along a substantial portion of said edge. | Claim 36 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 36 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The HTC Hero, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said zone extends along a substantial portion of said edge."<br><br>Claim 36 recites substantially the same limitations as claims 4 and 16 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 4 and 16. *See, e.g.*, *supra* claims 4, 16.<br><br>As discussed *supra* claims 4 and 16, the HTC Hero teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said zone extends along a substantial portion of said edge." *See supra* claims 4, 16. |

# Appendix A7

**Exhibit A7**

**Invalidity of Asserted Claims of the '602 Patent**

**in view of the Palm Pre**

The Palm Pre running Palm's WebOS ("Palm Pre") was, on information and belief, publicly available in the United States on or about February 2009. Although Palm WebOS 1.4.5 was not released until on or about July 2010, the relied-upon functionality was, on information and belief, substantially the same in the February 2009 WebOS release. The Palm Pre qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). The Palm Pre is described in at least the following documents and other materials cited in this chart:

- User Guide palm pre plus (Palm Inc. 2009) ("Palm Pre Plus User Guide") (SAM-KEY_00985925-SAM-KEY_00986133).
- Edward C. Baig, *Palm Pre The Missing Manual* 1st ed. (O'Reilly Media Inc. Aug. 2009) ("Palm Pre The Missing Manual") (SAM-KEY_00985412-SAM-KEY_00985700).
- "Palm Pre Review," *available at* https://www.techradar.com/reviews/phones/mobile-phones/palm-pre-500030/review/3 (Oct. 8, 2009) (SAM-KEY_00993167-SAM-KEY_00993179).
- "Ars reviews the Palm Pre, part 2: the webOS experience," *available at* https://arstechnica.com/gadgets/2009/06/ars-palm-pre-review/ (June 23, 2009) (SAM-KEY_00993096-SAM-KEY_00993129).
- "Palm Pre Review," *available at* https://gizmodo.com/palm-pre-review-5277499 (June 3, 2009) (SAM-KEY_00993130-SAM-KEY_00993144).
- "Review: Palm Pre," *available at* https://www.wired.com/2009/06/palmpre/ (June 4, 2009) (SAM-KEY_00993003-SAM-KEY_00993009; SAM-KEY_00993069-SAM-KEY_00993075).
- "Palm Pre (Sprint) review: Palm Pre (Sprint)," *available at* https://www.cnet.com/reviews/palm-pre-sprint-review/ (June 3, 2009) (SAM-KEY_00993145-SAM-KEY_00993161).
- "Review: Palm Pre software helps it beat iPhone," *available at* https://www.nbcnews.com/id/wbna31093797 (June 3, 2009) (SAM-KEY_00993162-SAM-KEY_00993166).
- "Palm Pre Review: Part 1," *available at* https://bgr.com/general/palm-pre-review/ (May 29, 2009) (SAM-KEY_00993010- SAM-KEY_00993024).

- "Palm Pre Review," *available at* https://www.palminfocenter.com/news/9813/palm-pre-review/ (June 4, 2009) (SAM-KEY_00993053-SAM-KEY_00993068).
- "Palm Pre (Sprint) Review," *available at* https://www.laptopmag.com/reviews/smartphones/palm-pre-sprint (June 4, 2009) (SAM-KEY_00993025-SAM-KEY_00993052).
- "Palm Pre Review," *available at* https://www.youtube.com/watch?v=o_xRBdMfnzM (June 15, 2009) (SAM-KEY_00992958).
- "Palm Pre Review," *available at* https://www.youtube.com/watch?v=eoBx5O6KKz8 (June 2, 2009) (SAM-KEY_00992959).
- "Palm Pre – Web OS and UI Review," *available at* https://www.youtube.com/watch?v=XgwUs6h57PE (June 9, 2009) (SAM-KEY_00992960).
- "CNET Palm Pre Review," *available at* https://www.youtube.com/watch?v=dyvELxQZLqc (June 4, 2009) (SAM-KEY_00992952).
- Documents produced in this litigation, as cited herein.
- Physical products acquired in this litigation, including but not limited to, a Palm Pre device running on WebOS, that shows the functionality of Palm Pre devices before the earliest priority date of the '602 patent, as referenced herein ("Palm Pre").
- Expected testimony and evidence regarding the development, design, and/or use of the Palm Pre, running WebOS, that shows the functionality of Palm Pre devices before the earliest priority date of the '602 patent.
- Source code for a Palm Pre device, running WebOS, that shows the functionality of Palm Pre devices before the earliest priority date of the '602 patent, as referenced herein and/or acquired.

Citations to the above-listed references are exemplary, and Samsung reserves the right to rely on additional passages, prior art, and information regarding the operation and functionality of the Palm Pre obtained through fact, expert, and third-party discovery, which is ongoing.

The Palm Pre qualifies as prior art to U.S. Patent No. 9,304,602 ("'602 patent") at least under pre-AIA 35 U.S.C. §§ 102(a) and/or (b) and AIA 35 U.S.C. §§ 102(a)(1).[1] The Palm Pre running WebOS release was publicly available, sold, offered for sale, and/or used before the priority date to which the '602 patent claims are entitled, if any.

The Palm Pre anticipates or, alone or with other references, renders obvious one or more of asserted claims 1-13, 15-19, and 21-36 of the '602 patent. To the extent Keyless contends the Palm Pre does not disclose one or more limitations of the claims, it would have been obvious to combine the Palm Pre with the knowledge of a person of ordinary skill in the art ("POSITA") and/or with one or more of the following references to render the claims at issue in the '602 patent invalid. The chart below illustrates how the asserted claims of the '602 patent are invalid in view of the Palm Pre and/or additional secondary references listed below, including but not limited to the prior art identified in Defendant's Invalidity Contentions.

- U.S. Patent Application Publication No. 2004/0109013 A1 to Goertz ("Goertz"), filed December 10, 2002, and published on June 10, 2004. Goertz qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b) and/or (e).
- U.S. Patent Application Publication No. 2008/0207188 A1 to Ahn et al. ("Ahn"), filed on February 14, 2008, and published on August 28, 2008. Ahn qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b) and/or (e).
- U.S. Patent Application Publication No. 2009/0094562 A1 to Jeong et al. ("Jeong"), filed on October 3, 2008, and published on April 9, 2009. Jeong qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b) and/or (e).
- U.S. Patent Application Publication No. 2009/0249247 to Tseng et al. ("Tseng"), filed on January 30, 2009, and published on October 1, 2009, claims priority to U.S. Provisional Application No. 61/024,869, filed January 30, 2008. Tseng qualifies as prior art at least under pre-AIA 35 U.S.C. §§ 102(a), (b), and/or (e) and AIA 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2).
- U.S. Patent Application Publication No. 2009/0295750 A1 to Yamazaki et al. ("Yamazaki"), filed on May 27, 2009, and published on December 3, 2009. Yamazaki qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b), and/or (e).

[1] Keyless Licensing LLC (or "Keyless") alleges that the asserted claims of the '602 patent are entitled to priority as early as December 20, 2009. However, as explained in the cover pleading, the asserted claims of the '602 patent are not entitled to Keyless's claimed priority date due to inadequate written description support. Assuming the claims are not invalid under Section 112 (*see, e.g.*, cover pleading), the earliest possible priority date for the asserted '602 patent claims is 2/11/2010 or later.

- U.S. Patent Application Publication No. 2010/0050076 A1 to Roth ("Roth"), filed on August 29, 2008, and published on February 25, 2010. Roth qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).
- U.S. Patent Application Publication No. 2010/0164959 A1 to Brown et al. ("Brown"), filed on December 26, 2008, and published on July 1, 2010. Brown qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).
- U.S. Patent Application Publication No. 2010/0302172 A1 to Wilairat ("Wilairat"), filed on May 27, 2009, and published on December 2, 2010. Wilairat qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).
- U.S. Patent Application Publication No. 2011/0209099 A1 to Hinckley et al. ("Hinckley"), filed on February 19, 2010, and published on August 25, 2011. Hinckley qualifies as prior art at least under 35 U.S.C. § 102(a)(2) as well as pre-AIA 35 U.S.C. §(e).
- Japanese Laid-Open Patent Application No. JP2003195998A to Hisatomi ("Hisatomi"), filed on December 26, 2001, and published on July 11, 2003. Hisatomi qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).[2]
- V. Roth & T. Turner, "Bezel Swipe: Conflict-Free Scrolling and Multiple Selection on Mobile Touch Screen Devices," CHI 2009 ~ Multimodal Mobile Interaction, pp. 1523-26 (ACM 2009) ("Roth Bezel Swipe"), published April 8, 2009. Roth Bezel Swipe qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).
- The Samsung Galaxy GT-i7500 running Android 1.5 ("Samsung Galaxy GT-i7500 1.5") was, on information and belief, publicly available in the United States on or about June 29, 2009. The Samsung Galaxy GT-i7500 1.5 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).
- The Samsung Behold II running Android and TouchWiz UI (Samsung Behold II") was, on information and belief, publicly available in the United States on or about November 18, 2009. The Samsung Behold II qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A4.

[2] Defendants' invalidity contentions rely on the certified translation of Hisatomi.

- The HTC G1 (also known as the HTC Dream) running Android 1.6 ("HTC G1 1.6") was, on information and belief, publicly available in the United States on or about September 15, 2009. The HTC G1 1.6 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A3.
- The HTC Hero running Android 1.5 ("HTC Hero 1.5") was, on information and belief, publicly available in the United States on or about October 11, 2009. The HTC Hero 1.5 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A6.
- The HTC Hero running Android 2.1 ("HTC Hero 2.1") was, on information and belief, publicly available in the United States on or about January 2010. The HTC Hero 2.1 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a). *See also* Ex. A6.
- The HTC Magic running Android 1.6 ("HTC Magic 1.6") was, on information and belief, publicly available in the United States on or about July 8, 2009. The HTC Magic 1.6 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).
- The Motorola Droid A855 ("Motorola Droid A855") was publicly available in the United States with Android 2.0 on or about November 6, 2009, and with Android 2.2 on or about May 2010. The Motorola Droid A855 running Android 2.0, on information and belief, was substantially the same with respect to the relied-upon functionality as the Motorola Droid A855 running Android 2.2. The Motorola Droid A855 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A5.
- The Neonode N2 ("Neonode N2") was, on information and belief, publicly available in the United States not later than 2008. *See also* Ex. A8.

With respect to the proposed modifications to the Palm Pre, such modification would have been obvious to try, an obvious combination of prior art elements according to known methods to yield predictable results, a simple substitution of one known element for another to obtain predictable results, a use of known techniques to improve a similar devices or method in the same way, an application of a known technique to a known device or method ready for improvement to yield predictable results, a variation of a known work in one field of endeavor for use in either the same field or a different one based on design incentives or other market forces with variations that are predictable to a POSITA, and/or obvious in view of teachings, suggestions, and motivations in the prior art that would have led a POSITA to modify or combine the prior art references.

The chart below illustrates how the asserted claims of the '602 patent are anticipated by the Palm Pre and/or would have been obvious in view of by the Palm Pre and/or additional secondary references. The excerpts cited herein are exemplary. For any claim limitation, Samsung may rely on excerpts cited for any other limitation and/or additional excerpts not set forth fully herein to the

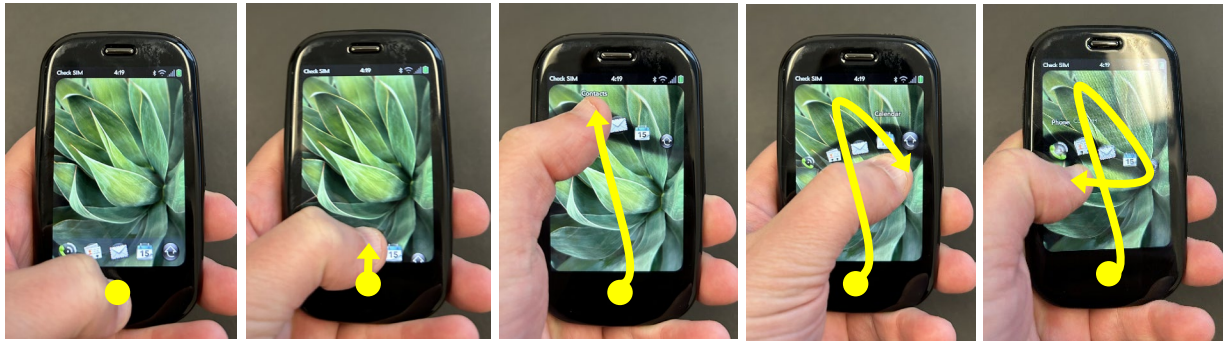
extent necessary to provide further explanation for a reference's disclosure of a limitation. Where an excerpt refers to or discusses a figure or figure items, that figure and any additional descriptions of that figure should be understood to be incorporated by reference as if set forth fully herein. Samsung reserves the right to further supplement this chart.

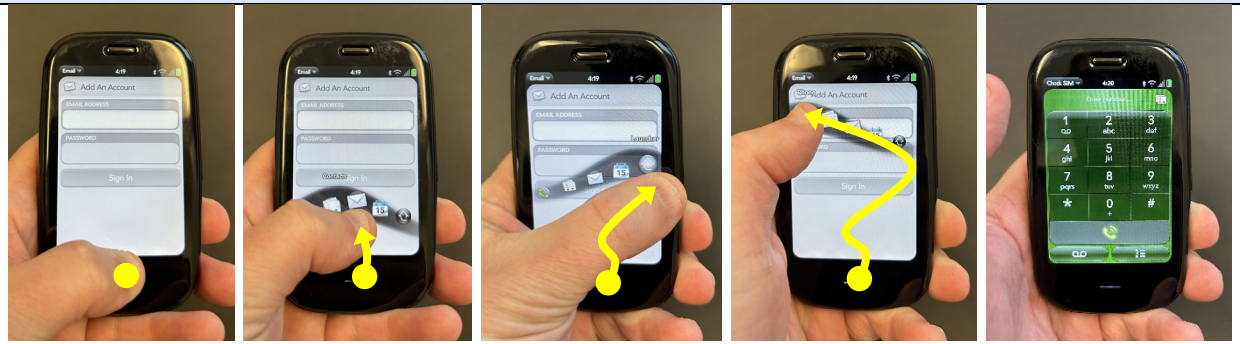
To the extent that these Invalidity Contentions rely on or otherwise embody particular interpretations of terms or phrases in the asserted claims, Samsung is not proposing any such interpretations as proper interpretations or constructions of those terms or phrases. Various positions put forth in this document are predicated on Keyless's interpretation of its claims as evidenced by its Infringement Contentions. Those positions are not intended to and do not necessarily reflect Samsung's interpretation of the true and proper scope of the asserted claims. Samsung further incorporates by reference all reservations of rights set forth in the Invalidity Contentions, as if fully set forth herein.

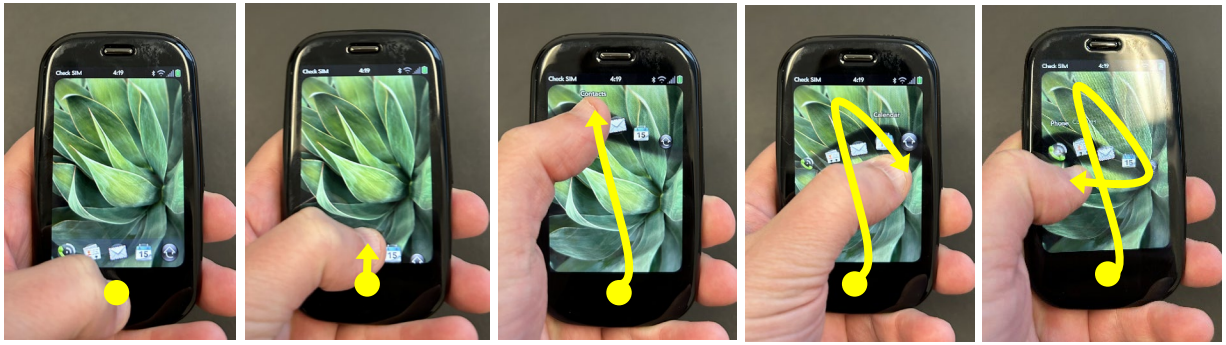
Defendants' arguments throughout these invalidity contentions are based on Keyless's apparent interpretation of the claims in its infringement contentions. Defendants do not agree that such interpretation is proper and reserve the right to argue that the mapped actions do not infringe any claims of the '602 patent. In the alternative, should the Court or factfinder construe and/or apply the claims in a manner consistent with Keyless's interpretations in its infringement contentions for the '602 patent, the claims are invalid for at least the reasons set forth herein.

In some instances, the referenced prior art includes priority applications, including prior provisional applications, that provide adequate §112 support for the claim(s) in the referenced prior art. *See, e.g.*, Tseng at cover. In those instances, the consistent disclosures in those earlier applications, including prior provisional applications, are incorporated herein by reference. As such, those earlier disclosures apply equally in terms of their application to the elements of the asserted claims, and thus provide even earlier dates in terms of prior art, state of the art, and the knowledge base of those of ordinary skill in the art. *See Dynamic Drinkware LLC v. National Graphics Inc*., 800 F.3d 1375 (Fed. Cir. 2015).

To the extent any of the art describes different embodiments of its inventions, a POSITA would have found it obvious to combine the Palm Pre's teachings regarding these embodiments. A POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the embodiments, and would have a reasonable expectation of success in doing so, at least because the embodiments use known variations of existing technology to solve routine and well understood problems in predictable ways. A POSITA would have recognized that the Palm Pre's embodiments describe related advancements for mobile devices, and a POSITA would have been motivated to combine elements of the embodiments to achieve the Palm Pre's goals.

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[1Pre]** A system for capturing an event provided from an edge of a touch screen comprising: | To the extent that the preamble is held to be limiting, the Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[a] system for capturing an event provided from an edge of a touch screen."<br><br>For example, the Palm Pre is a system for capturing an event provided from an edge of a touch screen. For example, the Palm Pre captures a user's gliding event from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen (e.g., crossing over the Quick Launch window showing five application icons and identifying the movement from off-to-on screen at the edge of the touch screen). The Palm Pre also teaches, as another example, that, when an application is open on the Palm Pre device (such as the mail application shown below), a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen to display the Quick Launch window (e.g., crossing from off-to-on screen to display the Quick Launch window at the edge of the touch screen).<br><br>  <br>The Palm Pre. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>The Palm Pre.<br>  <br>Palm Pre Plus User Guide at 20, 25.<br>*See, e.g.*, Palm Pre The Missing Manual; Palm Pre reviews listed above. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[1A]** a device having a touch screen; | The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a device having a touch screen."<br><br>For example, the Palm Pre includes the Palm Pre device having a 3.1 inch touchscreen, such as shown and described below.<br><br>  <br>The Palm Pre.<br><br>  <br>The Palm Pre. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Display<br>• 3.1-inch touchscreen<br>• 24-bit color<br>• Resolution: 320 x 480 HVGA<br>• User-adjustable brightness<br>Palm Pre Plus User Guide at 194.<br>  <br>1 Earpiece<br>2 **Touchscreen:** Tap and make other gestures directly on the screen. See Touchscreen.<br>Touchscreen<br>  <br>1 **Application name:** Displays the name of the currently open application. Drag down over the app name to open the application menu.<br>2 **Launcher:** See Open an application in the Launcher.<br>3 **Scroll arrow:** Swipe up or down to see icons that are on the page but hidden.<br>4 **Quick Launch:** See Open an application in Quick Launch.<br>5 **Connection icons:** Show the status of wireless service connections and battery strength (see Icons in the title bar). Drag down over the icons to open the connection menu.<br>6 **Page indicators:** Show how many Launcher pages are to the right or the left of the currently displayed page. Swipe left or right on the screen to see other pages.<br>7 **Notification icons:** Show missed calls, new voicemail and email messages, and more. Tap the bottom of the screen to view notification details. See View all your notifications.<br>Palm Pre Plus User Guide at 10, 11.<br>You make gestures in two areas on your phone: the touchscreen and the gesture area. The gesture area is the black area extending along the bottom of the screen. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

Palm Pre Plus User Guide at 18.

## The Face of the Pre

The front of the Pre has both a touchscreen and a *gesture area*—the two primary ways you communicate with the phone—as well as a physical button. It's also where you'll find the phone's earpiece and microphone.







The screen is divided into five sections:

- **Status bar.** This narrow strip at the top of the screen gives you info like the name of the program you're working with, the time, how much charge your battery has left, and more. It's covered in detail on the next page.
- **Touchscreen.** The touchscreen displays open programs and responds to finger taps and gestures. For more on the touchscreen, flip to page 15.
- **Quick Launch panel.** This section near the bottom of the touchscreen gives you easy access to the four most widely used applications on the Pre—the phone, your Contacts lists (page 61), the email program (page 126), and the calendar program—along with a shortcut to the Launcher (see page 19).

## The Touchscreen

Your Pre's screen is touchy—but in a good way: It responds to finger taps and movements, which is how you tell the Pre what to do. So the touchscreen isn't just a display, it's also your mouse and telephone dial pad. Try it—tap the phone icon , and the dial pad pops up.

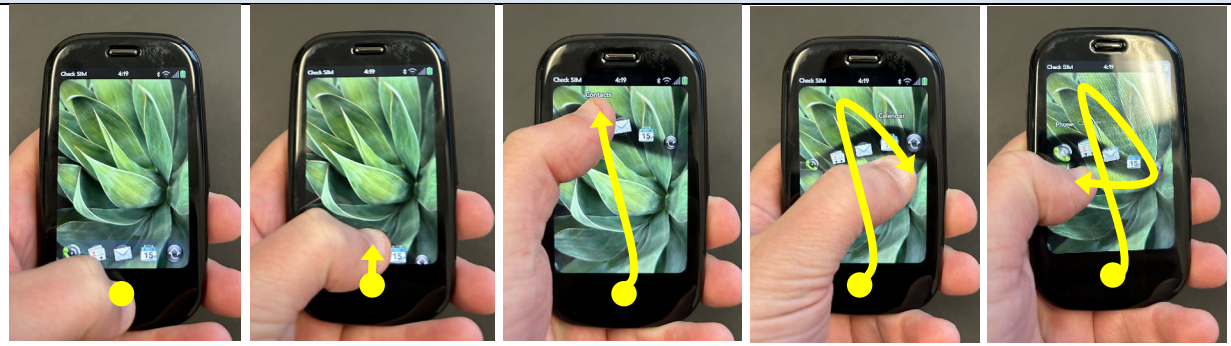
Palm Pre The Missing Manual at 12-13.

## The touchscreen

The Pre's main display area, called the *touchscreen*, is where the action is most of the time. It's the Pre's equivalent of a PC's desktop—it displays open programs and serves as the conduit for communications between you and the Pre. It's one of the two places that responds to the finger gestures that tell the Pre what to do (the other is the gesture area; see page 18).

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | If you have a program open, the touchscreen displays a miniature screen shot of the program, which Palm calls an *activity card*. If you have several programs open, the touchscreen displays a set of cards, one beside the other, as in the image below. Palm calls this overview look at open programs the *Card view*. To work within one of the programs, tap its card. The application takes over the touchscreen and you're ready to get to work.<br>  <br>**Quick Launch panel**<br>As mentioned on page 13, the Quick Launch panel gives you shortcuts to the programs you use most often. Think of it as Palm's version of the Windows Toolbar or the Mac OS X's Dock.<br>  |

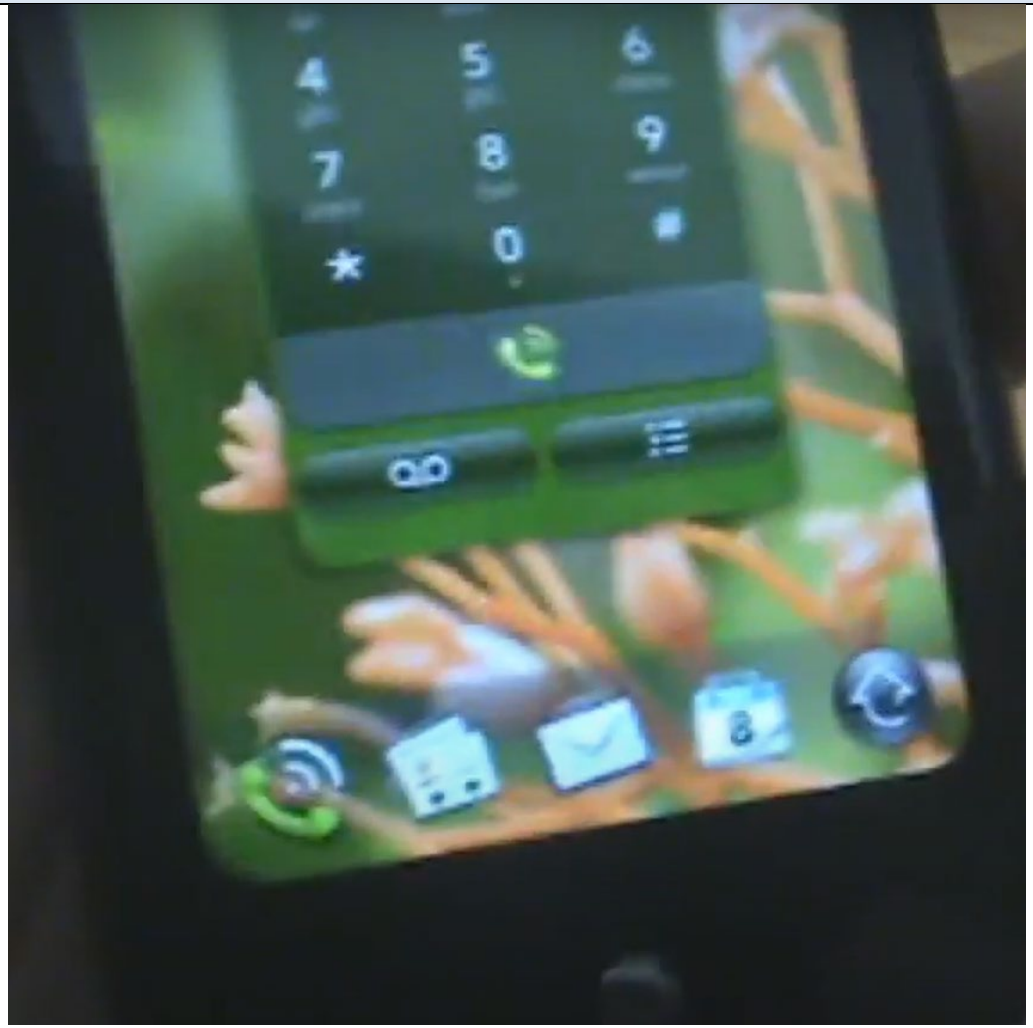
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | The panel has five shortcuts: for the phone, your Contacts list (see page 61), the email program (see page 126), and the calendar program (see page 105) in that order. The fifth link takes you to the Launcher, a master list of all the programs installed on your Pre (including the Quick Launch panel and its icons). You can remove or replace any of the Quick Launch panel icons (see page 33) except the one for the Launcher, because you'll always need a way to get to the Launcher.<br><br>Palm Pre The Missing Manual at 15-17.<br><br>*See, e.g.*, Palm Pre reviews listed above. |
| **[1B]** at least one window located in the touch screen on an edge of the touch screen, wherein said at least one window functions independently of an interface of an application in use on the touch screen; and | The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "at least one window located in the touch screen on an edge of the touch screen, wherein said at least one window functions independently of an interface of an application in use on the touch screen."<br><br>For example, the Palm Pre includes at least one window, such as the Quick Launch window when the home screen interface or the cards interface is open and, on information and belief, a window for opening a Quick Launch interface when an application interface is open full screen, located in the touch screen on the bottom edge of the touch screen in each case. Each of these windows functions independently of an interface of an application in use on the touch screen. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>The Palm Pre.<br>  <br>The Palm Pre. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>One kind of drag that you'll use a lot brings up **Quick Launch** when you're in an application. This drag gesture begins in the gesture area and ends on the touchscreen. As your fingertip slowly crosses the border between the gesture area and the touchscreen, it seems to drag Quick Launch into view. To open one of the apps in Quick Launch, move your finger to its icon. When you see the app name appear, lift your finger. The application opens.<br><br>Palm Pre Plus User Guide at 20. |

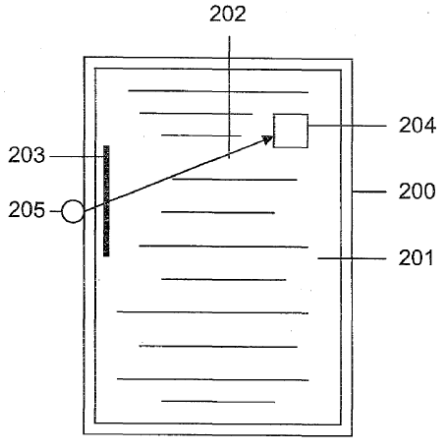
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | 1 Drag up slowly from the gesture area to the screen.<br><br>NOTE Don't confuse this "drag up" with the up gesture, which is a flick up from the gesture area to the screen that displays Card view.<br><br>2 Move your finger to the application icon. When you see the app name appear, lift your finger. The application opens.<br><br>  <br><br>Palm Pre Plus User Guide at 25.<br><br>**Quick Launch**<br>A bar of up to five icons that give you quick access to applications. Quick Launch always appears at the bottom of Card view and the Launcher. By default, Quick Launch displays icons for the following apps: Phone, Email, Contacts, and Calendar. The fifth icon is the Launcher. Tap a Quick Launch icon to open the app.<br><br>You can also open Quick Launch from any maximized application window by dragging up from the gesture area to the screen. Move your finger to the app you want, and then lift your finger. The application opens.<br><br>Palm Pre Plus User Guide at 183. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **Quick Launch Panel**<br>As you learned in the last chapter, Palm figures you'll use certain programs all the time, so they've put shortcuts for those programs—Phone, Email, Contacts, and Calendar—in the *Quick Launch panel*. Tap one of the program's icons to open that program.<br>  <br>The Quick Launch panel is always at the bottom of the Pre's touchscreen (see page 12) when you're in Card view (page 36). But you're not always in Card view. For example, if you're working in an application, you don't see the Quick Launch panel. In cases like that, you can pull up a "floating" version of the panel, which looks like something out of the psychedelic '60s.<br>  <br>Here's how to do that: Drag your finger from the gesture area toward the center of the touchscreen. As you cross the border between the two, a bendy version of the Quick Launch panel pops up, looking a bit like a shape-shifting boomerang. Keep your finger on the panel, and slide it over to the program you want to open. The Pre displays the application's name to confirm your choice. Simply lift your finger to open that application.<br>Palm Pre The Missing Manual at 32-33. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br><br>Palm Pre – Web OS and UI Review.<br>*See, e.g.*, the Palm Pre reviews listed above. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | To the extent Keyless argues that the Palm Pre does not disclose or render obvious this limitation, it would have been obvious in view of the Palm Pre, POSITA's pre-existing knowledge, and/or the teachings of the Palm Pre combined with the other references charted for this patent in these invalidity contentions, including Tseng, Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC G1 1.6, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, and the Neonode N2. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | For example, Tseng discloses at least one window, such as a "status bar" or "status area," located on the top edge of the touch screen that functions independently of an interface of an application in use on the touch screen. Tseng at Abstract, FIGS. 1, 2A-2C, 3, 4A-4B, 5, [0005], [0014], [0031]. Tseng explains that the status bar is capable of displaying notifications at the edge of the touch screen display. For example, "the notifications may occur by having a notification message … be displayed in a peripheral area at the edge of a display, such as a status area, or status bar, for the mobile device." Tseng at [0028], FIGS. 1, 2A-2C, 3, 4A-4B, 5. Tseng's "status bar" or "status area" is a window that functions independently of an interface of an application, such as the interface of the "active programs" or "active applications" being displayed in the touch screen display area. Tseng at [0005], [0014], [0028], [0032], [0040], FIGS. 1, 2A-2C, 3, 4A-4B, 5. The status bar is shown regardless of the application being displayed in the main display. "A status bar area is the typically-static area on a device that displays information such as bars for wireless signal strength, a remaining battery life indicator, an icon that shows the network over which wireless communication is occurring, and the like. The main area or zone of the display is generally the central, largest area of a display where active programs are displayed, while supplemental elements are typically displayed around the periphery of the main area …." Tseng at [0005]. As one example, "one or more applications may be shown in the main zone [of the touch screen]. Such as an application tracking an ongoing telephone call," which is independent of the status bar that is shown regardless of the application in the main display. Tseng at [0040].<br><br>Moreover, each of Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC G1 1.6, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, and the Neonode N2 teaches a gliding action from off screen to on screen to activate a function assigned to the window when the gliding action is detected.<br><br>Roth teaches using a swiping (e.g., gliding) action from outside a screen through a window in the form of a line at the edge of the screen on the screen towards the inside of the touch screen to activate a function associated with the window. For example, Roth describes "[a] crossing-based interface along the bounds of the display is a viable solution. Users can invoke actions with swiping gestures across a section of the display side from the outside to the inside." Roth at [0009]. Roth teaches advantages of such outside-to-inside gliding activations, for example, that "they can be more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to the distance vector between the line and the cursor," and "that a well positioned line requires |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | significantly less display space than a button for similar performance characteristics." Roth at [0010]. "One example of such a gesture is a continuous swiping motion from the activation point representing a desired action or even from the bezel of the device, through the activation point and to the target on the display." Roth at [0015]. Roth explains that such outside-to-inside gliding actions "allow[] the active area of an activation point to be much smaller on a display due to the utilization of a greater average weight throughout a touch sensitive display, which creates a higher probability of activating on a narrow activation point or operating on a small target," "save[s] valuable display space on the screen, since the activation point can be made smaller on the display as a result," and may "begin from outside the display for ease of use." Roth at [0015]. As Roth explains, a "bar" may "represent[] the desired action." Roth at [0017]. "[A]n activation point 203 (represented as a bar in this example) displayed on the edge of the screen which represents the desired action of selecting. The bar is made small so as to not take up valuable space on the display. The user can then select the target 204 through the use of a gesture 202, such as swiping, pinching, tapping or other gestures …." Roth at [0036]. As shown in FIG. 2B, "[t]he user can begin his gesture from either on the bar itself or from outside the display 205 and continue the gesture through the bar and to target as if the user were bringing the action to the target. An example of such a gesture is if the user utilized a continuous swiping motion with his finger from the bar representing a desired action to the target on the display." Roth at [0039].<br>  <br> |

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| | Roth at FIG. 2B.<br><br>Roth Bezel Swipe teaches activation gestures related to mobile devices having touch screens. A bezel swipe gesture is an outside-to-inside swiping (e.g., gliding) gesture across a window in the form of a line or bar, in which "[t]he user starts a Bezel Swipe gesture on the bezel, which is the physical touch insensitive frame that surrounds the display. The finger is then swiped through a part of the display edge into the display, which enters selection mode. Next, the user moves the finger onto an object or display position and selects it by lifting the finger off the display, which ends selection mode. Different edge portions represent different actions and are distinctively marked." Roth Bezel Swipe at 1524. "Swipes are recognized by detecting touches inside a thin rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524. As such, "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display. Figure 2 illustrates this. A touch sensitive display translates the contact area of the finger with the display into an activation point." Roth Bezel Swipe at 1524. "The Bezel Swipe gesture … starts on the bezel and moves into the display. Therefore the contact area is gradually increased until it exceeds the contact threshold of the display. … Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. This outside-to-inside crossing gesture has advantages, for example, "the crossing of the touch-insensitive bezel in conjunction with the properties of touch sensitive displays enables the reliable activation of a button that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. |

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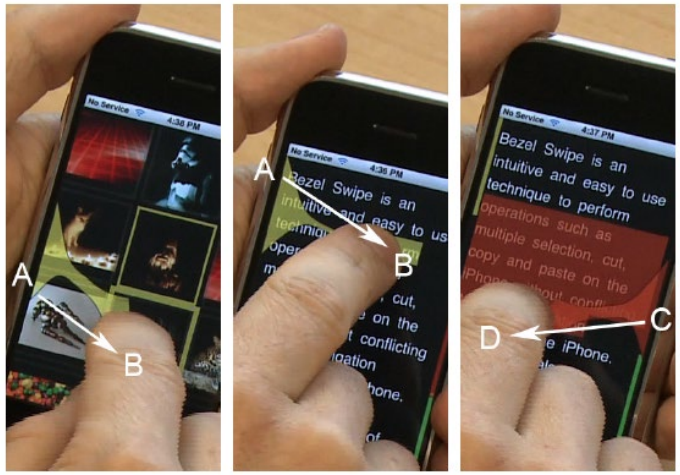



**Figure 1. The Bezel Swipe prototype in action. Left panel: A swipe from A to B selects an image. Middle panel: A swipe from A to B marks the beginning of a text selection. Right panel: A swipe from C to D marks the end of the text selection.**

Roth Bezel Swipe at Figure 1.

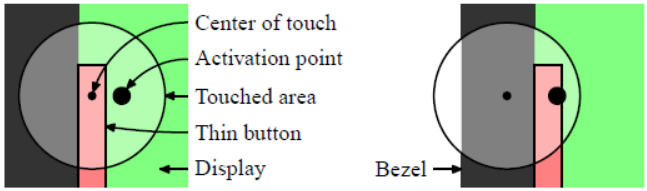
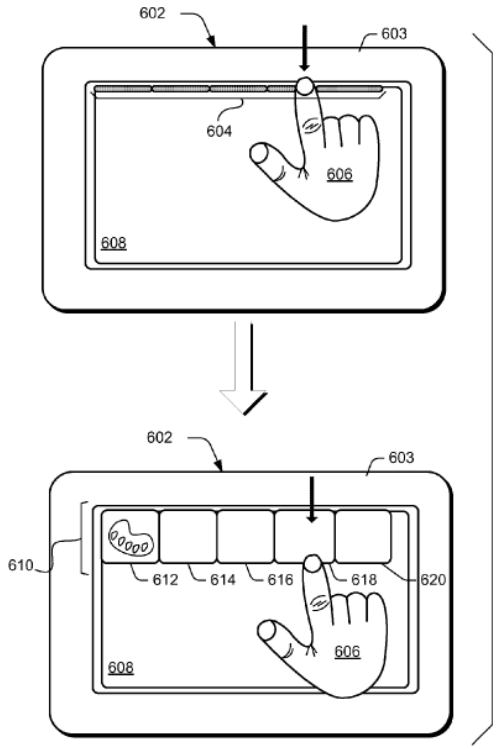


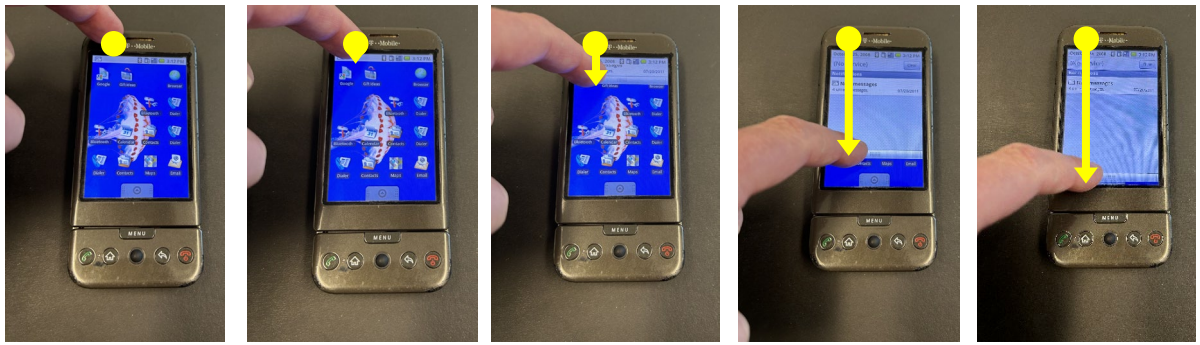
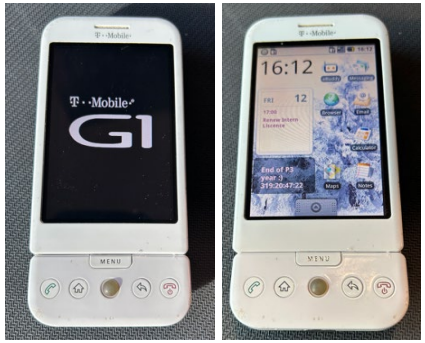

**Figure 2. Touching narrow targets close to the bezel: a touch (large circle) centered on the target (left) may not activate it whereas a touch significantly overlapping the bezel (right) does.**

Roth Bezel Swipe at Figure 2.

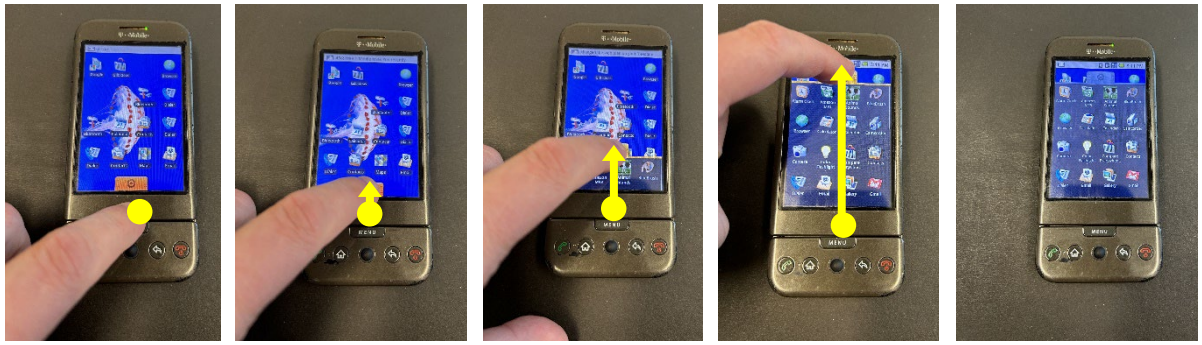
Hinckley teaches a visual affordance window indicating a pull-down bezel menu is shown at the edge of a mobile device using a gliding action from outside of the touch screen towards the inside

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | of the touch screen. Hinckley at FIGS. 5, 6. For example, in FIG. 5, "[s]tep 500 displays a visual affordance on a display device associated with a computing device" and is shown at as a window or bar 604 being a five-part line in FIG. 6. Hinckley at [0068], [0072], FIGS. 5, 6. Then, "[s]tep 502 receives a bezel gesture input relative to the visual affordance," such as from off-screen to on-screen over the visual affordance. Hinckley at [0068], [0072], FIGS. 5, 6. After the off-screen to on-screen gesture, "[s]tep 504 accesses functionality associated with the received bezel gesture input." Hinckley at [0068], [0072], FIGS. 5, 6. Hinckley explains that "off-screen to on-screen motion (or vice versa) can be utilized as a mechanism to expose a menu or to access some other type of functionality." Hinckley at [0071]. As shown in FIG. 6, "device 602 includes a bezel 603 and a visual affordance 604 that is rendered on display device 608." Hinckley at [0072], FIG. 6. The "visual affordance 604" may appear as "in the form of a semi-transparent strip" and "can be utilized to provide a hint or indication of accessible functionality, in this case a bezel menu, associated with the bezel." Hinckley at [0072], FIG. 6. "[T]he bezel menu can be accessed through a bezel gesture in which a finger of user's hand 606 touches the bezel and then moves across the bezel and onto the display device 608 in the direction of the illustrated arrow." Hinckley at [0073], FIG. 6. After this off-screen to on-screen gesture, the "bezel menu 610 to be dropped down at which time it can become fully opaque." Hinckley at [0073], FIG. 6. Hinckley further explains that "bezel menu 610 includes multiple selectable icons or slots 612, 614, 616, 618, and 620. Each of the icons or slots is associated with a different functionality such as, for example, paint functionality, pen functionality, note functionality, object creation, object editing, and the like." Hinckley at [0074], FIG. 6. Hickley teaches, however, that "any type of functionality can be associated with the icons or slots." Hinckley at [0074], FIG. 6. The "bezel menu 610 can enable a user to access and activate commands, tools, and objects." Hinckley at [0075], FIG. 6. |

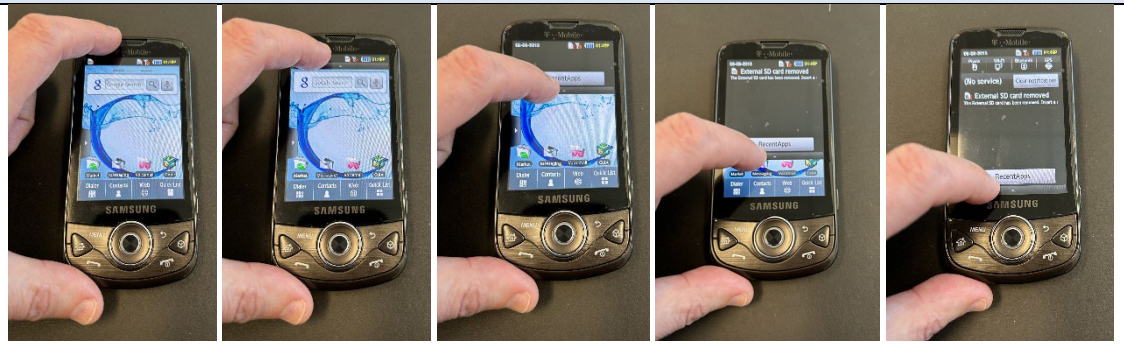
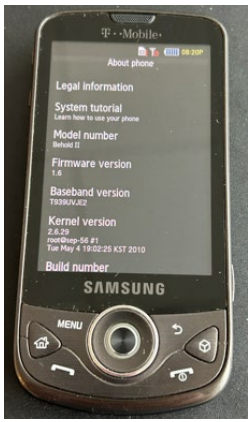
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| |  <br>Fig. 6<br>Hinckley at FIG. 6.<br>The HTC G1 1.6 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar window (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | crossing over the status/notification bar window). The status bar window functions independently of an interface of an application in use on the touch screen (for example, a widget application on a home screen or an application, such as mail or messaging, open on the touch screen).<br>  <br>HTC G1 1.6.<br>  <br>HTC G1 1.6.[3]<br>Alternatively, the HTC G1 1.6 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen below the tab window at the bottom of the screen (from outside of the screen) over the tab towards the main application display the inside of the touch |

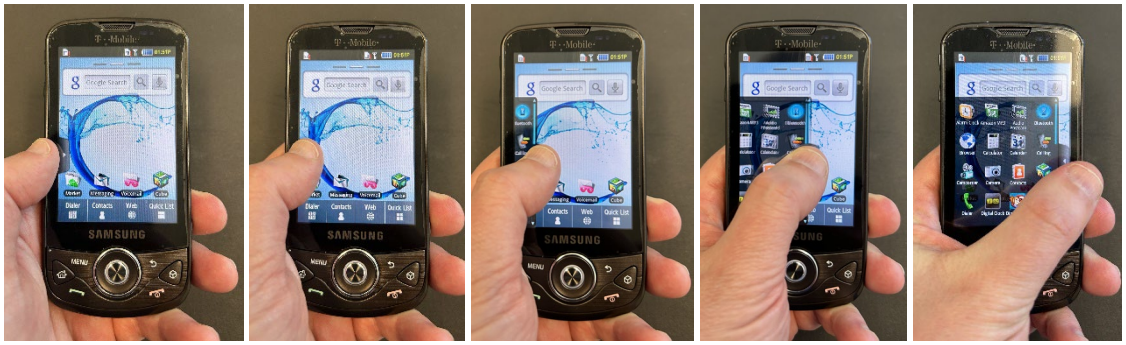
[3] Samsung reserves the right to rely on any HTC G1 device, including either or both of the HTC G1 devices shown here. On information and belief, such devices function substantially the same as disclosed in this chart.

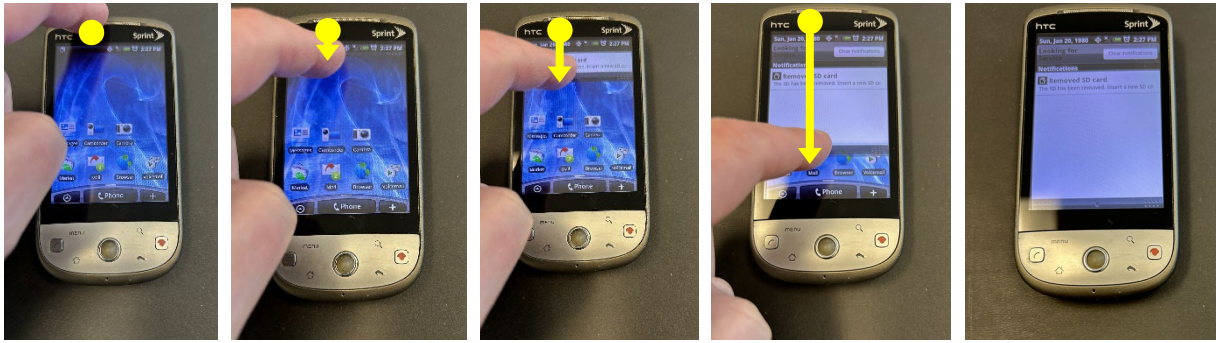
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | screen (e.g., crossing over the tab). The status bar window functions independently of an interface of an application in use on the touch screen (for example, a widget application on a home screen).  HTC G1 1.6. On information and belief, the Samsung Galaxy GT-i7500 1.5 operates substantially the same with respect to the pull-down notifications interface as the HTC G1 1.6 and the HTC Magic 1.6. *See, e.g.*, https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface as the same, showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."); https://www.youtube.com/watch?v=rhBgLQSxfjE at 1:20-1:34 (describing as running Android 1.5 and similar to HTC G1 device, showing opening notification menu from status bar contact at 1:32). On information and belief, a user may perform a gliding action from the plastic housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar); https://www.youtube.com/watch?v=wVF8dLkgW7c at 0:40-0:56 (showing swipe down over status bar to open notifications interface); https://www.youtube.com/watch?v=4Pv04Tw6wvQ at 3:30-3:35 (showing gliding gesture on status bar to show notification interface for Android 1.5 operating system). The user's touch first interacts with the status bar window on the touch screen |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | because the bezel does not contain touch-sensitive elements. The gliding action over the status bar window causes a processor to perform the action of displaying the notifications window. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar). Furthermore, on information and belief, a user may perform a gliding action from the plastic housing bezel below the touch screen (i.e., from outside of the screen) over the tab shown at the bottom of the screen towards the main application display inside of the touch screen (e.g., over the tab window) to display an applications selection interface. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having the application selection interface tab); https://www.youtube.com/watch?v=wVF8dLkgW7c at 0:54-1:14 (showing swipe up over application selection tab at bottom of screen to open application selection interface); https://www.youtube.com/watch?v=4Pv04Tw6wvQ at 1:36-2:30 (showing gliding gesture on tab to show application selection interface for Android 1.5 operating system).<br><br>The Samsung Behold II operates substantially the same with respect to the pull-down notifications interface across the status bar window as the HTC G1 1.6 and the HTC Magic 1.6. *See, e.g.*, https://www.cnet.com/tech/mobile/hands-on-samsung-behold-ii-plus-release-details/ (explaining that the Samsung Behold II runs on Android 1.5); https://www.t-mobile.com/news/press/t-mobile-usa-launches-the-samsung-behold-ii-on-november-18. For the Samsung Behold II, a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The status bar window functions independently of an interface of an application in use on the touch screen (for example, a widget application on a home screen or an application, such as mail or messaging, open on the touch screen). |

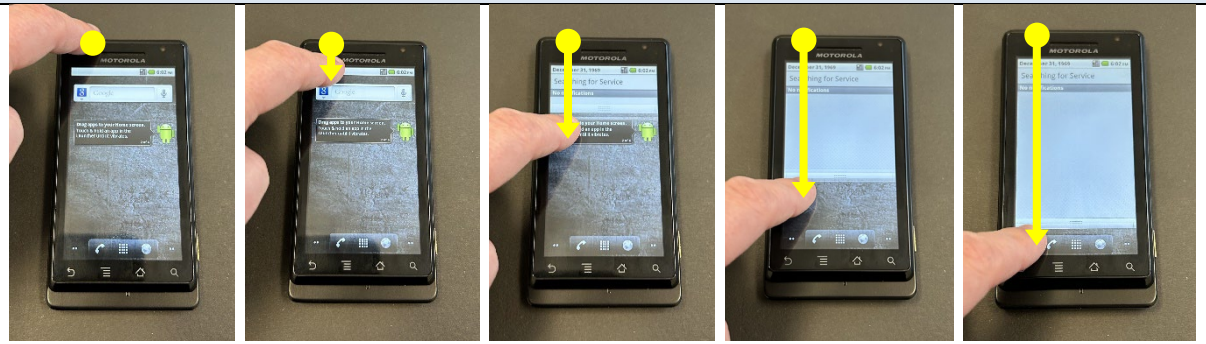
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>The Samsung Behold II device.<br>  <br>The Samsung Behold II device.[4]<br>Moreover, in the Samsung Behold II, a user may also perform a gliding action from the plastic housing surrounding the touch screen to the left of the applications drawer tab window (from outside of the screen) over the applications tab towards the main application display the inside of the touch screen (e.g., crossing over the applications tab window). The applications tab window |

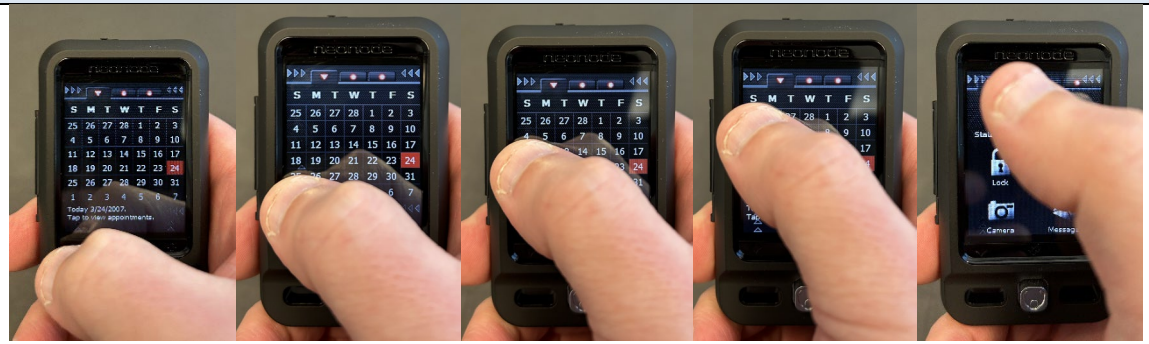
[4] Samsung reserves the right to rely on any Behold II device, including either or both of the Behold II devices shown here. On information and belief, such devices function substantially the same as disclosed in this chart.

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | functions independently of an interface of an application in use on the touch screen (for example, a widget application on a home screen).<br>  <br>The Samsung Behold II device.<br>On information and belief, the HTC Magic 1.5 operates substantially the same with respect to the pull-down notifications interface as the HTC G1 1.6 and the Samsung Galaxy GT-i7500. *See, e.g.*, https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface as the same, showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."). On information and belief, a user may perform a gliding action from the plastic housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. The user's touch first interacts with the status bar window on the touch screen because the bezel does not contain touch-sensitive elements. The gliding action over the status bar window causes a processor to perform the action of displaying the notifications window. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 (In addition to being able to drag (or double tap if your fingers are a little tired) the menu bar up from the bottom of the screen, you can also drag from the top and find your notifications all grouped nicely together."); https://ianrenton.com/blog/review-htc-magic/ ("Dragging the top drawer (where app notifications, incoming messages etc. sit) is a lot more |

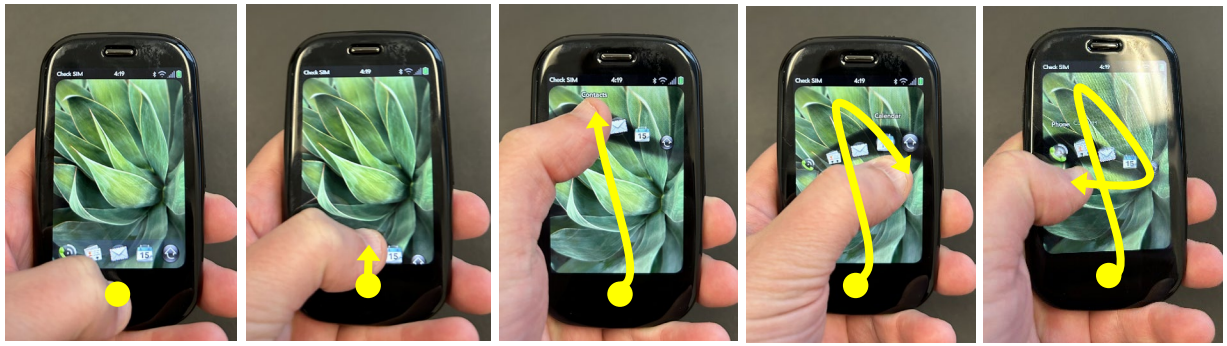
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | intuitive on an actual device than on the emulator, and the kinetic scrolling - you can 'throw' menus - feels just right."); https://www.youtube.com/watch?v=LghBOTZ-HuE at 5:08-5:20 (describing "drag-down notification drawer"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:35-8:55 (describing notification menu as "a drawer" that you "pull down" allowing you to "click" notifications to open the corresponding application).<br><br>Furthermore, on information and belief, a user may perform a gliding action from the plastic housing bezel below the touch screen (i.e., from outside of the screen) over the tab window shown at the bottom of the screen towards the main application display inside of the touch screen (e.g., over the tab window) to display an applications selection interface and functions independently of an application shown on the touch screen. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 ("you can simply drag up the menu from the bottom and access all your recently downloaded applications and menu functions, sorted alphabetically"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:15-7:35, 8:17-8:55 (showing swipe-up action to open application selection interface).<br><br>The HTC Hero 1.5 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar window (from outside of the screen) over the status bar window towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The status bar window functions independently of an interface of an application in use on the touch screen (for example, a widget application on a home screen or an application, such as mail or messaging, open on the touch screen).<br><br>  |

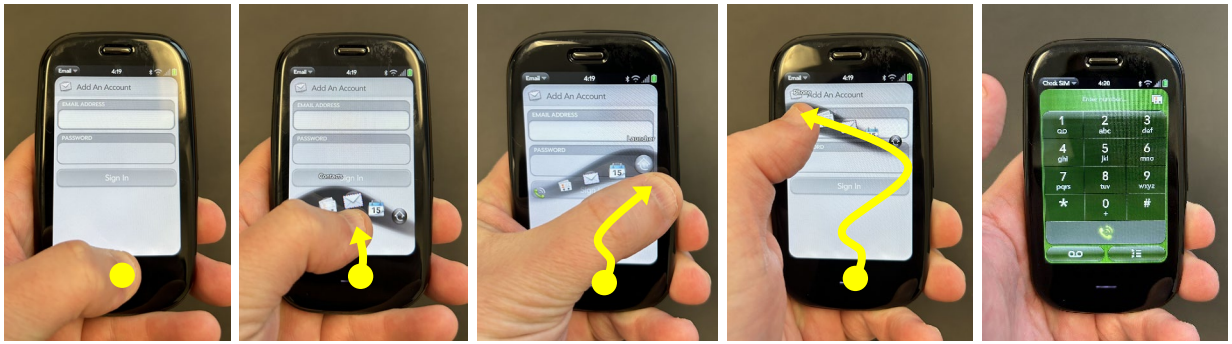
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | HTC Hero 1.5.<br><br>The HTC Hero 2.1 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar window (from outside of the screen) over the status bar window towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The status bar window functions independently of an interface of an application in use on the touch screen (for example, a widget application on a home screen or an application, such as mail or messaging, open on the touch screen).<br><br>  <br><br>HTC Hero 2.1.<br><br>The Motorola Droid A855 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar window (from outside of the screen) over the status bar window towards to the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The status bar window functions independently of an interface of an application in use on the touch screen (for example, a widget application on a home screen or an application, such as mail or messaging, open on the touch screen). |

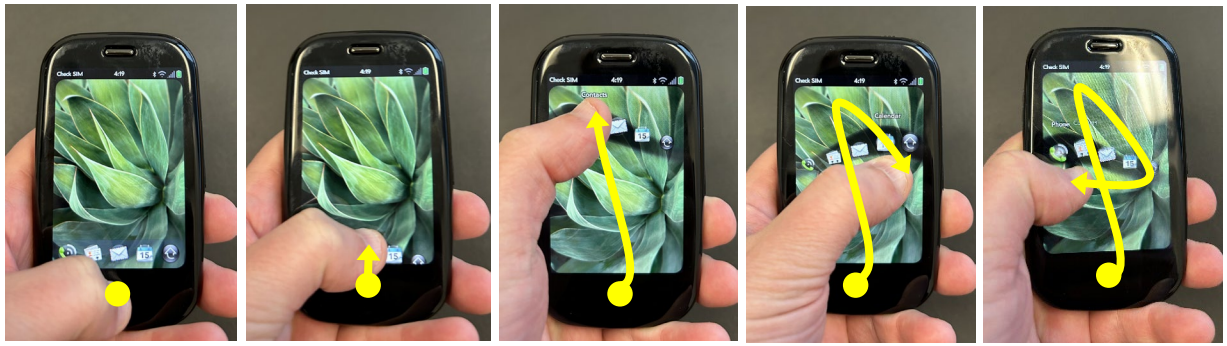
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Droid A855.<br>The Neonode N2 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen over the indicated icons or from the sides of the screen as indicated by the various arrows in a window (from outside of the screen), over the arrows towards the main application display toward the inside of the touch screen (e.g., crossing over the window identifying the movement from off-to-on screen). The arrow window functions independently of an interface of an application in use on the touch screen (for example, an application, such as mail or messaging, open on the touch screen).<br>  <br>Neonode N2. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Neonode N2.<br>A POSITA would have found it obvious to incorporate the functionality of permitting said at least one window at an edge of the touch screen that functions independently of an interface of an application in use on the touch screen, as claimed. Each of the Palm Pre, Roth, Roth Bezel Swipe, Hinckley, Tseng, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC G1 1.6, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, and/or the Neonode N2, teaches using a gliding action over a window, where the window is independent of an application shown on the touch screen, such as causing the Palm Pre's Quick Launch interface to be pulled open using a gesture that a gliding action over a window, such as a line or bar or the Quick Launch panel. A POSITA would have been motivated to provide for opening (e.g., sliding open, as taught by the Palm Pre) the Palm Pre's Quick Launch interface using at least one window that functions independently of an interface of an application in use on the touch screen because it allows for the same operation as the Palm Pre discloses, but would have improved the user's experience of opening the menu by allowing the user to take the action regardless of another application shown on the touch screen (as already known in the Roth, Roth Bezel Swipe, Hinckley, Tseng, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC G1 1.6, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, and/or the Neonode N2). Indeed, the Palm Pre already discloses the ability to drag open the Quick Launch interface that functions independently of an executed screen image corresponding to an already executed program, for example, by gliding up from the gesture area when an application is open on the screen. Moreover, a POSITA would have recognized that providing the window for a narrower or |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | smaller tag window region would have the benefit of indicating to the user that the Quick Launch interface is available to open while avoiding obscuring an application shown on the touch screen display (such as taught by various devices known in the art, such as the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC G1 1.6, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, and/or the Neonode N2). This improves the user's experience because the user can still activate the function associated with the window, such as the Palm Pre's Quick Launch interface, but does not reduce the size of the displayed application in a meaningful way because the window may be "a narrow target (the red bar) positioned flush against the display edge." Roth Bezel Swipe at 1524. In other words, "[s]wipes" from outside-to-inside the touch screen "are recognized by detecting touches inside a thin rectangular area [window] positioned flush against the display screen." Roth Bezel Swipe at 1524. This "enables the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524.<br><br>It was well known to a POSITA that activating a function of at least one window at an edge of the touch screen that functions independently of an interface of an application in use on the touch screen continues to "enable[] the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524. Activating functions where "[u]sers can invoke actions with swiping features across a section of the display [touch screen] side from the outside to the inside" also "requires minimal display real estate," whereby being beneficial to mobile devices that have small screens and does not obscure the active applications. Roth, [0009], [0036].<br><br>Activating a function using at least one window that functions independently of an interface of an application in use on the touch screen, was routine and conventional to POSITAs, as shown by Roth, Roth Bezel Swipe, Hinckley, Tseng, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC G1 1.6, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, the Palm Pre, and/or the Neonode N2. Moreover, it was successfully implemented in commercial prior art devices, such as the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | the HTC G1 1.6, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, the Palm Pre, and/or the Neonode N2. Incorporating an operation at least one window located at an edge of the touch screen that functions independently of an interface of an application in use on the touch screen into the Palm Pre, represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with the Palm Pre, represent nothing more than combining prior art elements according to known methods and techniques (rendering a window at the edge of the Palm Pre's touch screen, which is independent of an application in use on the touch screen) to yield predictable results (to open the Palm Pre's Quick Launch menu, such as by sliding it open, as disclosed by the Palm Pre). |
| **[1C]** a processor; | The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a processor."<br><br>For example, the Palm Pre includes a processor, such as a Dual-band MSM6801A processor and a TI OMAP 3430 processor, to process instructions related to user inputs on the touch screen and display applications.<br><br>  |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | The Palm Pre.<br>  <br>The Palm Pre.<br>Processor technologies<br>• Dual-band MSM6801A processor<br>• TI® OMAP 3430 processor<br>Palm Pre Plus User Guide at 193.<br>*See, e.g.*, Palm Pre The Missing Manual; the Palm Pre reviews listed above. |
| **[1D]** wherein a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said | The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said processor to cause an action assigned to said window."<br>For example, the Palm Pre teaches, as one example, that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| processor to cause an action assigned to said window, and | outside of the screen) and upwards towards the main application display toward the inside of the touch screen (e.g., crossing over the Quick Launch window showing five application icons and identifying the movement from off-to-on screen). The user's touch first interacts with the Quick Launch window on the touch screen because the Quick Launch window is not displayed in the gesture area. The gliding action over the Quick Launch window from off-to-on screen causes a processor to perform the action associated with the window, such as moving the Quick Launch window and/or interface with the user's finger in any arbitrary direction around the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. For example, lifting on the "Phone" icon opens the Phone application.<br>  <br>The Palm Pre.<br>The Palm Pre also teaches, as another example, that, when an application is open on the Palm Pre device (such as the mail application shown below), a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen to display the Quick Launch window (e.g., crossing from off-to-on screen to display the Quick Launch window). The user's touch first interacts with the Quick Launch window on the touch screen because the Quick Launch window is not displayed in the gesture area, but as shown below, appears with the user's off-to-on screen gesture as the finger moves onto the screen. The gliding action causes a processor to perform the action associated with the Quick Launch window, such as moving the Quick Launch window with the user's finger in any arbitrary direction around |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. As shown below, lifting on the "Phone" icon opens the Phone application.<br>  <br>The Palm Pre. |

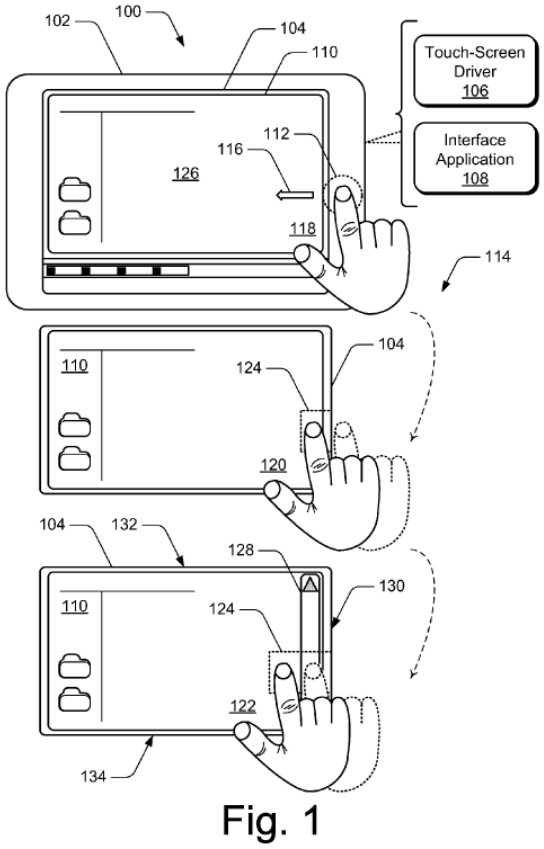
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>One kind of drag that you'll use a lot brings up **Quick Launch** when you're in an application. This drag gesture begins in the gesture area and ends on the touchscreen. As your fingertip slowly crosses the border between the gesture area and the touchscreen, it seems to drag Quick Launch into view. To open one of the apps in Quick Launch, move your finger to its icon. When you see the app name appear, lift your finger. The application opens.<br><br>Palm Pre Plus User Guide at 20. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | 1 Drag up slowly from the gesture area to the screen.<br><br>NOTE Don't confuse this "drag up" with the up gesture, which is a flick up from the gesture area to the screen that displays Card view.<br><br>2 Move your finger to the application icon. When you see the app name appear, lift your finger. The application opens.<br><br>  <br><br>Palm Pre Plus User Guide at 25.<br><br>**Quick Launch**<br>A bar of up to five icons that give you quick access to applications. Quick Launch always appears at the bottom of Card view and the Launcher. By default, Quick Launch displays icons for the following apps: Phone, Email, Contacts, and Calendar. The fifth icon is the Launcher. Tap a Quick Launch icon to open the app.<br><br>You can also open Quick Launch from any maximized application window by dragging up from the gesture area to the screen. Move your finger to the app you want, and then lift your finger. The application opens.<br><br>Palm Pre Plus User Guide at 183. |

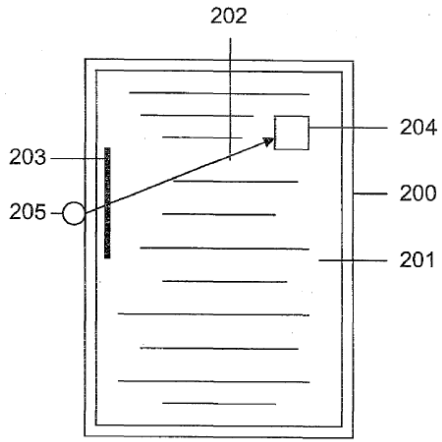
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | **Quick Launch Panel**<br>As you learned in the last chapter, Palm figures you'll use certain programs all the time, so they've put shortcuts for those programs—Phone, Email, Contacts, and Calendar—in the *Quick Launch panel*. Tap one of the program's icons to open that program.<br>  <br>The Quick Launch panel is always at the bottom of the Pre's touchscreen (see page 12) when you're in Card view (page 36). But you're not always in Card view. For example, if you're working in an application, you don't see the Quick Launch panel. In cases like that, you can pull up a "floating" version of the panel, which looks like something out of the psychedelic '60s.<br>  <br>Here's how to do that: Drag your finger from the gesture area toward the center of the touchscreen. As you cross the border between the two, a bendy version of the Quick Launch panel pops up, looking a bit like a shape-shifting boomerang. Keep your finger on the panel, and slide it over to the program you want to open. The Pre displays the application's name to confirm your choice. Simply lift your finger to open that application.<br>Palm Pre The Missing Manual at 32-33.<br>*See, e.g.*, the Palm Pre reviews listed above. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | To the extent Keyless argues that the Palm Pre does not disclose or render obvious this limitation, it would have been obvious in view of the Palm Pre, POSITA's pre-existing knowledge, and/or the Palm Pre combined with the other references charted for this patent in these invalidity contentions, including Tseng, Wilairat, Roth, Roth Bezel Swipe, Hinckley, the HTC G1 1.6, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, Motorola Droid A855, and the Neonode N2. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>For example, Tseng teaches that a gliding action that results in dragging the status bar downward to display a message area (e.g., message area 206, 224) showing new notifications, with the gliding action first interacting with the status bar or status area window on the touch screen during the gliding movement. Tseng at [0011], [0014], [0041], FIGS. 2A-2C, 3, 4A-4B, 5. Tseng's processor processes the gliding movement to drag or open a message area (e.g., 206, 224). For example, the mobile device may "comprise instructions [that] cause … one or more processors to receive a dragging manipulation on a touch screen display of the graphical interface, from the status area and across the display, and move the slider mechanism in response to the dragging mechanism, and display the detail regarding the plurality of recent messaging events behind the slider mechanism as it is slid across the display." Tseng at [0013], FIGS. 2A-2C, 4A-4B. As one example, "[t]he first display in FIG. 2B also shows a large circle surrounded by a ring having a downward pointing arrow. This element indicates a press by a user on the device 218 over the status bar 222, with a subsequent dragging downward of the status bar 222. (The element does not appear on the display.) Such action may be programmed to result in the expanding of a message area 224 into the main zone of the display 220. As with the message area 206 discussed above, the message area 224 may show the various messages that the user's device has received in the user's absence." Tseng at [0053], FIG. 2B. Also, in FIG. 2C, "[t]he second display shows, by a circle having a ring around it in the status bar, a selection by a user, such as … by directly pressing on the display with a fingertip |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | on top of the status bar. Upon the user selecting the status bar, the bar may expand slightly, and a 'slide down' indicator may be displayed, in the form of a notification bar with up and down arrows. The indicator may visually signal the user that they can pull the indicator down to show messages associated with the notification icons. Alternatively, a tab like that shown in FIG. 2A may be displayed below the status area. The third display shows the user dragging the notification bar downward across the main part of the display, like a roll shade." Tseng at [0058]-[0059], FIG. 2C<br><br>Moreover, each of Wilairat, Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, and the Neonode N2 teaches a gliding action from off screen to on screen to activate a function assigned to the window when the gliding action is detected.<br><br>Wilairat further teaches an off-to-on-screen gliding action, referred to as a "pull-in gesture." Wilairat teaches that, although the gliding motion begins off of the touch screen, it first interacts with the touch screen as the finger enters the touch screen. Wilairat teaches that "a user can initiate a touch input with a finger just off an edge of the touch-screen and then motion a pull-in gesture across the touch-screen. When the motion of the touch pull-in gesture is initiated by the user, a progression of the motion as the touch input remains in contact with the touch-screen creates a contact region on the touch-screen that progressively expands and is detected. The progressive expansion of the contact region on the touch-screen is then determined or recognized as the touch pull-in gesture that initiates a display of a user interface component proximate a location of the touch pull-in gesture on the touch-screen. A user interface component can include any type of hidden menu, slide menu, drop-down menu, Scrollbar, and/or any other type of user interface displayable element." Wilairat at [0009].<br><br>Wilairat further teaches that "a user of portable device 102 can initiate a touch input 112 with a finger just off an edge of the touch-screen 104 and then motion a pull-in gesture 114 in a direction 116 across the touch-screen. The motion of the touch pull-in gesture 114 is illustrated in the direction 116 as the hand moves from position 118, to position 120, and to position 122 (shown successively in the three views). When the motion of the touch pull-in gesture 114 is initiated by the user, a contact region 124 progressively expands. Such as illustrated when the hand moves from the edge of the touch-screen at position 118 to position 120, and then from position 120 to position |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | 122. The progressive expansion of the contact region 124 is then determined or recognized as the touch pull-in gesture 114." Wilairat at [0012].<br><br>An exemplary pull-in gesture from off-screen to on-screen is shown in Wilairat FIG. 1.<br><br>  <br><br>Fig. 1<br><br>Wilairat at FIG. 1.<br><br>Roth teaches using a swiping (e.g., gliding) action from outside a screen through a window in the form of a line at the edge of the screen on the screen towards the inside of the touch screen to |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | activate a function associated with the window. For example, Roth describes "[a] crossing-based interface along the bounds of the display is a viable solution. Users can invoke actions with swiping gestures across a section of the display side from the outside to the inside." Roth at [0009]. Roth teaches advantages of such outside-to-inside gliding activations, for example, that "they can be more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to the distance vector between the line and the cursor," and "that a well positioned line requires significantly less display space than a button for similar performance characteristics." Roth at [0010]. "One example of such a gesture is a continuous swiping motion from the activation point representing a desired action or even from the bezel of the device, through the activation point and to the target on the display." Roth at [0015]. Roth explains that such outside-to-inside gliding actions "allow[] the active area of an activation point to be much smaller on a display due to the utilization of a greater average weight throughout a touch sensitive display, which creates a higher probability of activating on a narrow activation point or operating on a small target," "save[s] valuable display space on the screen, since the activation point can be made smaller on the display as a result," and may "begin from outside the display for ease of use." Roth at [0015]. As Roth explains, a "bar" may "represent[] the desired action." Roth at [0017]. "[A]n activation point 203 (represented as a bar in this example) displayed on the edge of the screen which represents the desired action of selecting. The bar is made small so as to not take up valuable space on the display. The user can then select the target 204 through the use of a gesture 202, such as swiping, pinching, tapping or other gestures …." Roth at [0036]. As shown in FIG. 2B, "[t]he user can begin his gesture from either on the bar itself or from outside the display 205 and continue the gesture through the bar and to target as if the user were bringing the action to the target. An example of such a gesture is if the user utilized a continuous swiping motion with his finger from the bar representing a desired action to the target on the display." Roth at [0039]. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Roth at FIG. 2B.<br><br>Roth Bezel Swipe teaches activation gestures related to mobile devices having touch screens. A bezel swipe gestures is an outside-to-inside swiping (e.g., gliding) gesture, in which "[t]he user starts a Bezel Swipe gesture on the bezel, which is the physical touch insensitive frame that surrounds the display. The finger is then swiped through a part of the display edge into the display, which enters selection mode. Next, the user moves the finger onto an object or display position and selects it by lifting the finger off the display, which ends selection mode. Different edge portions represent different actions and are distinctively marked." Roth Bezel Swipe at 1524. "Swipes are recognized by detecting touches inside a thin rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524. As such, "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display. Figure 2 illustrates this. A touch sensitive display translates the contact area of the finger with the display into an activation point." Roth Bezel Swipe at 1524. "The Bezel Swipe gesture … starts on the bezel and moves into the display. Therefore the contact area is gradually increased until it exceeds the contact threshold of the display. … Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. This outside-to-inside crossing gesture has advantages, for example, "the crossing of the touch-insensitive bezel in conjunction with the properties of touch sensitive displays enables the reliable |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | activation of a button that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. |

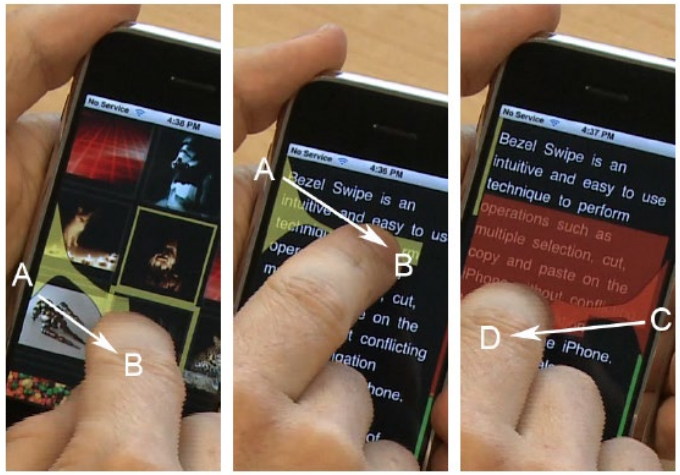



**Figure 1. The Bezel Swipe prototype in action. Left panel: A swipe from A to B selects an image. Middle panel: A swipe from A to B marks the beginning of a text selection. Right panel: A swipe from C to D marks the end of the text selection.**

Roth Bezel Swipe at Figure 1.

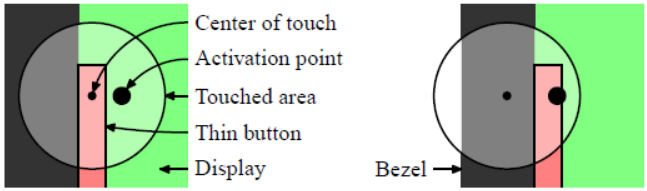
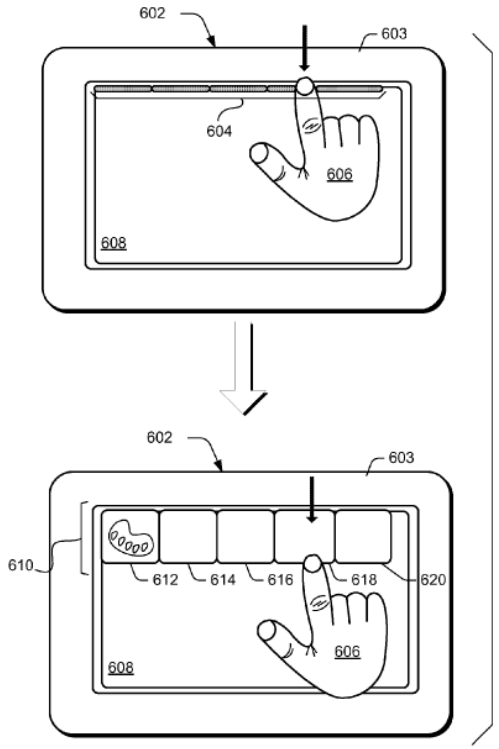
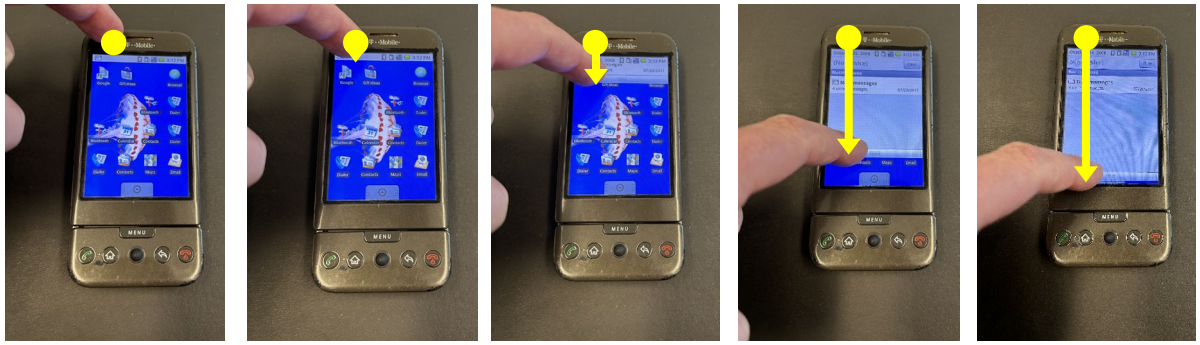
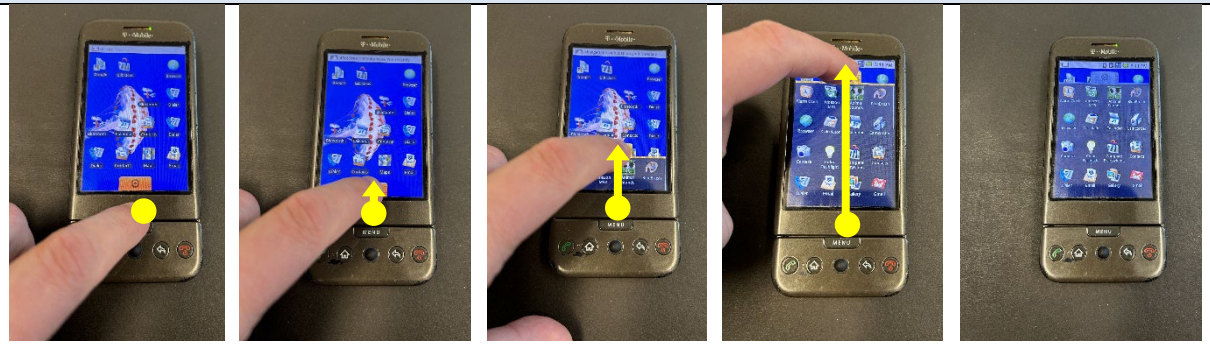



**Figure 2. Touching narrow targets close to the bezel: a touch (large circle) centered on the target (left) may not activate it whereas a touch significantly overlapping the bezel (right) does.**

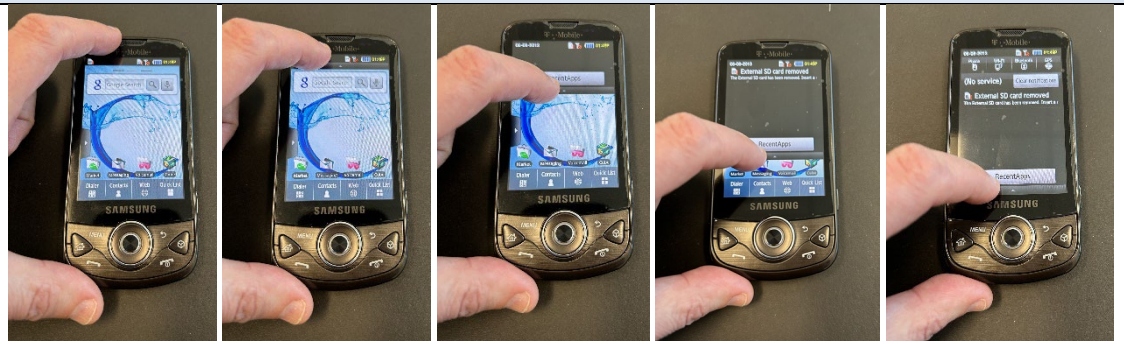
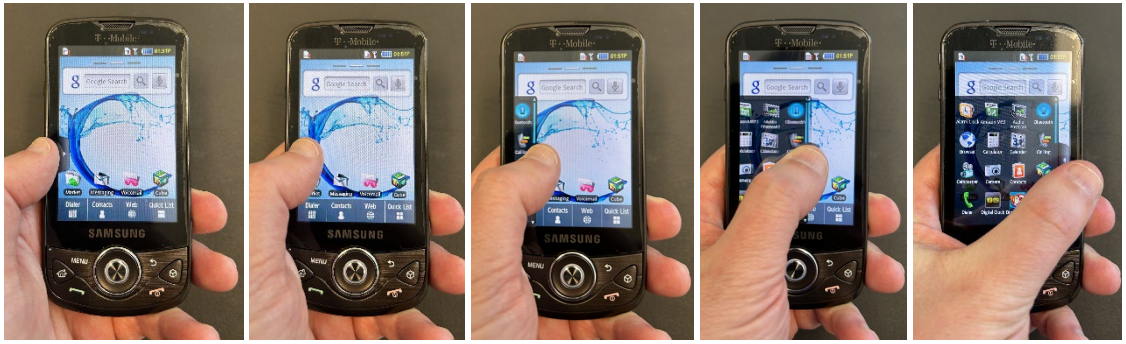
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | Roth Bezel Swipe at Figure 2.<br><br>Hinckley teaches a visual affordance window indicating a pull-down bezel menu is shown at the edge of a mobile device using a gliding action from outside of the touch screen towards the inside of the touch screen. Hinckley at FIGS. 5, 6. For example, in FIG. 5, "[s]tep 500 displays a visual affordance on a display device associated with a computing device" and is shown at as a window or bar 604 being a five-part line in FIG. 6. Hinckley at [0068], [0072], FIGS. 5, 6. Then, "[s]tep 502 receives a bezel gesture input relative to the visual affordance," such as from off-screen to on-screen over the visual affordance. Hinckley at [0068], [0072], FIGS. 5, 6. After the off-screen to on-screen gesture, "[s]tep 504 accesses functionality associated with the received bezel gesture input." Hinckley at [0068], [0072], FIGS. 5, 6. Hinckley explains that "off-screen to on-screen motion (or vice versa) can be utilized as a mechanism to expose a menu or to access some other type of functionality." Hinckley at [0071]. As shown in FIG. 6, "device 602 includes a bezel 603 and a visual affordance 604 that is rendered on display device 608." Hinckley at [0072], FIG. 6. The "visual affordance 604" may appear as "in the form of a semi-transparent strip" and "can be utilized to provide a hint or indication of accessible functionality, in this case a bezel menu, associated with the bezel." Hinckley at [0072], FIG. 6. "[T]he bezel menu can be accessed through a bezel gesture in which a finger of user's hand 606 touches the bezel and then moves across the bezel and onto the display device 608 in the direction of the illustrated arrow." Hinckley at [0073], FIG. 6. After this off-screen to on-screen gesture, the "bezel menu 610 to be dropped down at which time it can become fully opaque." Hinckley at [0073], FIG. 6. Hinckley further explains that "bezel menu 610 includes multiple selectable icons or slots 612, 614, 616, 618, and 620. Each of the icons or slots is associated with a different functionality such as, for example, paint functionality, pen functionality, note functionality, object creation, object editing, and the like." Hinckley at [0074], FIG. 6. Hickley teaches, however, that "any type of functionality can be associated with the icons or slots." Hinckley at [0074], FIG. 6. The "bezel menu 610 can enable a user to access and activate commands, tools, and objects." Hinckley at [0075], FIG. 6. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Fig. 6<br>Hinckley at FIG. 6.<br>The HTC G1 1.6 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over |

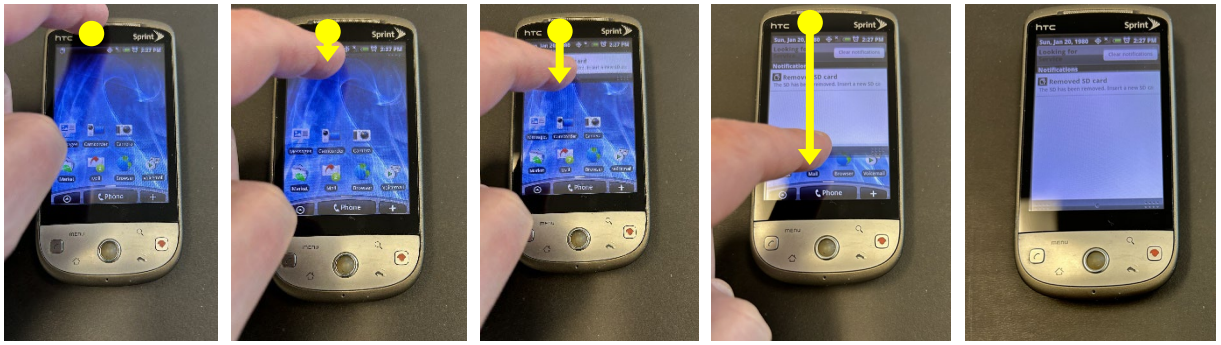
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar.<br>  <br>HTC G1 1.6.<br>Alternatively, the HTC G1 1.6 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen below the tab window at the bottom of the screen (from outside of the screen) over the tab towards the main application display the inside of the touch screen (e.g., crossing over the tab). The user's touch first interacts with the tab window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the tab window causes a processor to perform the action of displaying the applications list assigned to the tab window. |

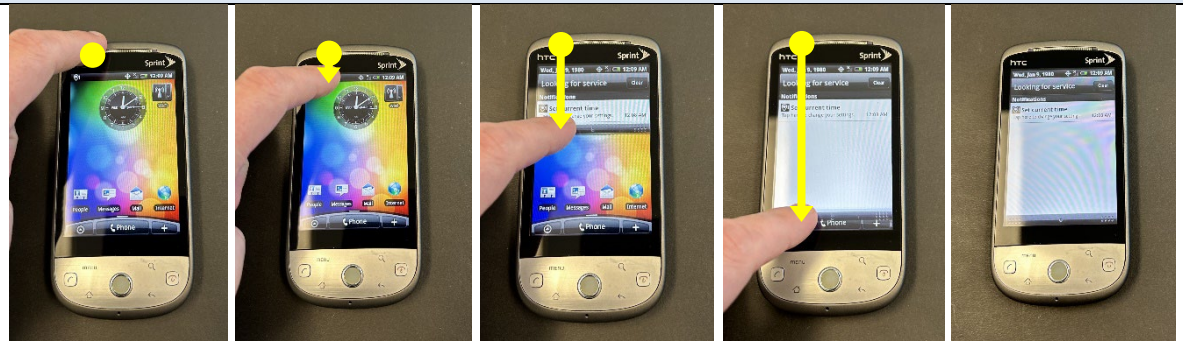
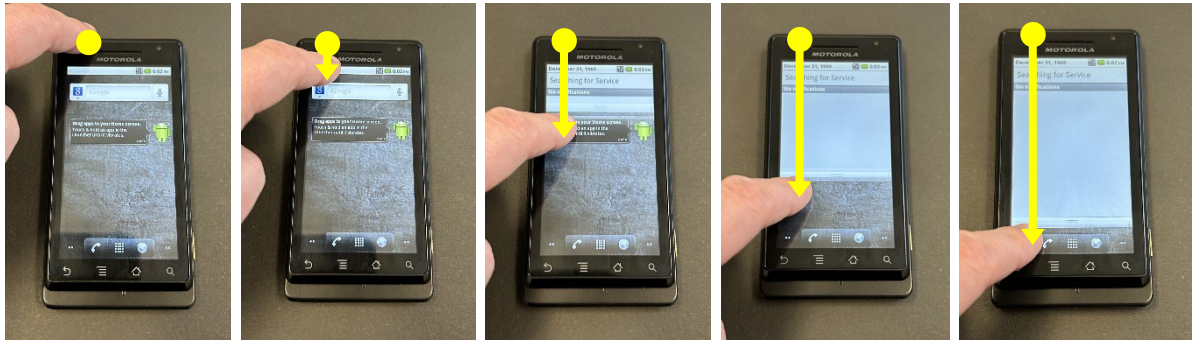
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>HTC G1 1.6.<br>On information and belief, the Samsung Galaxy GT-i7500 1.5 operates substantially the same with respect to the pull-down notifications interface as the HTC G1 1.6 and the HTC Magic 1.6. *See, e.g.*, https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface as the same, showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."); https://www.youtube.com/watch?v=rhBgLQSxfjE at 1:20-1:34 (describing as running Android 1.5 and similar to HTC G1 device, showing opening notification menu from status bar contact at 1:32). On information and belief, a user may perform a gliding action from the plastic housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display toward the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar); https://www.youtube.com/watch?v=wVF8dLkgW7c at 0:40-0:56 (showing swipe down over status bar to open notifications interface); https://www.youtube.com/watch?v=4Pv04Tw6wvQ at 3:30-3:35 (showing gliding gesture on status bar to show notification interface for Android 1.5 operating system). The user's touch first interacts with the status bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | bar window causes a processor to perform the action of displaying the notifications window. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar). Furthermore, on information and belief, a user may perform a gliding action from the plastic housing bezel below the touch screen (from outside of the screen) over the tab shown at the bottom of the screen towards the main application display inside of the touch screen (e.g., over the tab window) to display an applications selection interface. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having the application selection interface tab); https://www.youtube.com/watch?v=wVF8dLkgW7c at 0:54-1:14 (showing swipe up over application selection tab at bottom of screen to open application selection interface); https://www.youtube.com/watch?v=4Pv04Tw6wvQ at 1:36-2:30 (showing gliding gesture on tab to show application selection interface for Android 1.5 operating system).<br><br>The Samsung Behold II operates substantially the same with respect to the pull-down notifications interface as the HTC G1 1.6 and the HTC Magic 1.6. *See, e.g.*, https://www.cnet.com/tech/mobile/hands-on-samsung-behold-ii-plus-release-details/ (explaining that the Samsung Behold II runs on Android 1.5); https://www.t-mobile.com/news/press/t-mobile-usa-launches-the-samsung-behold-ii-on-november-18. For the Samsung Behold II, a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Moreover, in the Samsung Behold II, a user may also perform a gliding action from the plastic housing surrounding the touch screen to the left of the applications drawer tab (from outside of the screen) over the applications tab towards the main application display the inside of the touch screen (e.g., crossing over the applications tab window). The user's touch first interacts with the applications tab window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the applications tab causes a processor to perform the action of displaying the applications drawer menu from the side of the screen.<br>  <br>The Samsung Behold II device.<br><br>On information and belief, the HTC Magic 1.5 operates substantially the same with respect to the pull-down notifications interface as the HTC G1 1.6 and the Samsung Galaxy GT-i7500. *See, e.g.*, |

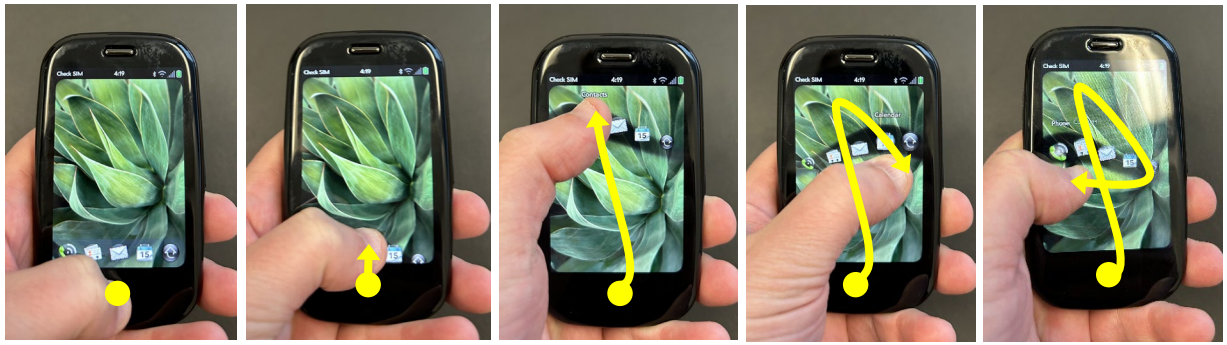
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface as the same, showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."). On information and belief, a user may perform a gliding action from the plastic housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display toward the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. The user's touch first interacts with the status bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status bar window causes a processor to perform the action of displaying the notifications window. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 (In addition to being able to drag (or double tap if your fingers are a little tired) the menu bar up from the bottom of the screen, you can also drag from the top and find your notifications all grouped nicely together."); https://ianrenton.com/blog/review-htc-magic/ ("Dragging the top drawer (where app notifications, incoming messages etc. sit) is a lot more intuitive on an actual device than on the emulator, and the kinetic scrolling - you can 'throw' menus - feels just right."); https://www.youtube.com/watch?v=LghBOTZ-HuE at 5:08-5:20 (describing "drag-down notification drawer"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:35-8:55 (describing notification menu as "a drawer" that you "pull down" allowing you to "click" notifications to open the corresponding application).<br><br>Furthermore, on information and belief, a user may perform a gliding action from the plastic housing bezel below the touch screen (from outside of the screen) over the tab shown at the bottom of the screen towards the main application display inside of the touch screen (e.g., over the tab window) to display an applications selection interface. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 ("you can simply drag up the menu from the bottom and access all your recently downloaded applications and menu functions, sorted alphabetically"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:15-7:35, 8:17-8:55 (showing swipe-up action to open application selection interface).<br><br>The HTC Hero 1.5 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the |

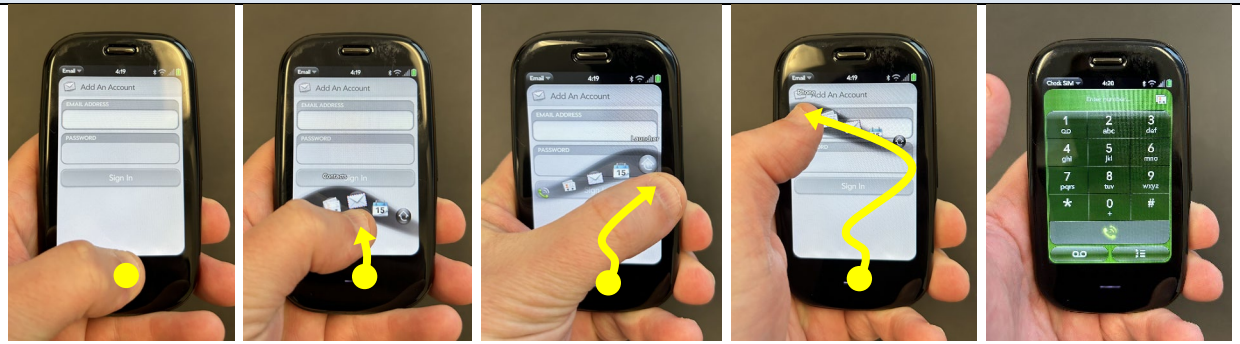
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | status bar towards the main application display toward the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar.<br>  <br>HTC Hero 1.5.<br>The HTC Hero 2.1 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display toward the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC Hero 2.1.<br>The Motorola Droid A855 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status towards to the main application display toward the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar.<br>  <br>Droid A855.<br>The Neonode N2 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen over the indicated icons or from the sides of |

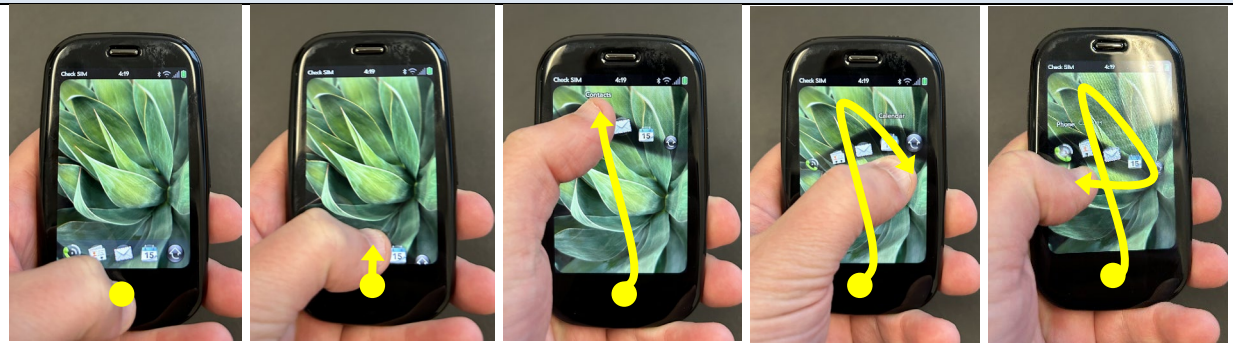
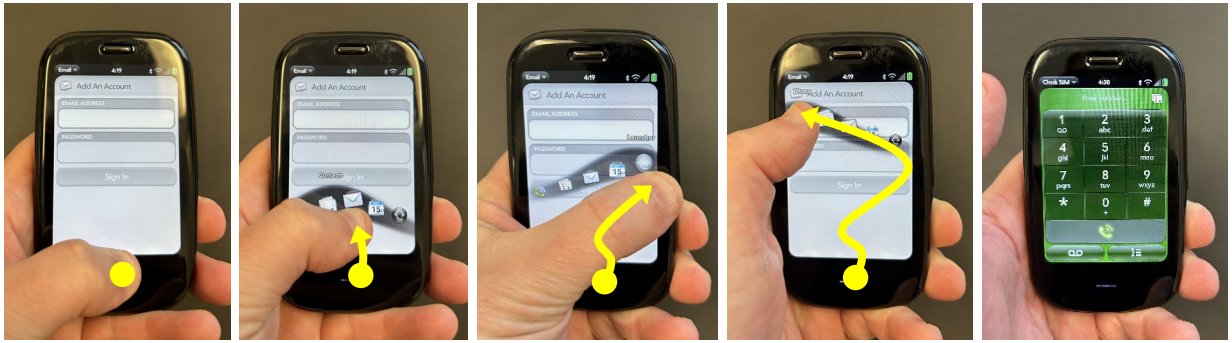
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | the screen as indicated by the various arrows (from outside of the screen), over the arrows towards the main application display toward the inside of the touch screen (e.g., crossing over the window identifying the movement from off-to-on screen). The user's touch first interacts with the window showing the arrows on the touch screen because the outer housing does not contain touch-sensitive elements. The gliding action over the arrows from off-to-on screen causes a processor to perform the action associated with one of the three icons printed below the touch screen or from the side of the touch screen.<br>  <br><br>Neonode N2.<br>A POSITA would have found it obvious to incorporate the functionality of the Palm Pre's off-to-on-screen gliding action, where the gliding action first interacts with the touch screen of the Palm Pre at a window, to cause the Quick Launch interface or other interface to be displayed as described in the Palm Pre, as claimed. A POSITA would have found the use of a window to activate the function obvious, as discussed in [1B] above. Each of the HTC G1 1.6, Wilairat, Roth, Roth Bezel Swipe, Hinckley, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, and/or the Neonode N2, teaches causing an action associated with a gliding gesture that may be an off-to-on-screen gesture activated when the gesture interacts with the window on the touch screen, such as causing the Palm Pre's Quick Launch menu or other interface to be slid open using a gesture that starts off screen and glides towards the main display area and interacts with a window on the display area. A POSITA would have been motivated to provide for opening (e.g., displaying the Quick Launch interface, as used in the Palm Pre) the Palm Pre's Quick Launch interface or other interface using a gesture that |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | starts off screen and glides towards the main display area and first interacts with the window on the touch screen because it allows for the same operation as the Palm Pre uses, but simplifies the user's experience of opening the Quick Launch interface or other interface by providing an indication of the possible action(s). For example, registering the touch on the window as the user's finger slides onto the touch screen, as known in the Palm Pre, HTC G1 1.6, and other devices discussed above, or as a pull-in gesture, such as taught by Wilairat, Roth, or Roth Bezel Swipe) was a known design choice in the art and provides an indication of the available functions based on the gliding gesture. This simplifies the user's experience because it provides an indication of the available actions when an application is open.<br><br>It was well known to a POSITA that activating a function when a user performs an out-to-in gliding gesture where the gesture first interacts with the window on the touch screen, such as over the Palm Pre's Quick Launch window, "enables the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524. Activating functions where "[u]sers can invoke actions with swiping features across a section of the display [touch screen] side from the outside to the inside" also "requires minimal display real estate," whereby being beneficial to mobile devices that have small screens. Roth, [0009]. A POSITA would have known that the activation bar or window can be "made small so as to not take up valuable space on the display" and been motivated to use such windows in the Palm Pre to activate the Quick Launch interface or other interface. Roth, [0036].<br><br>Activating a function when a user performs an out-to-in gliding gesture over a window on a touch screen, such as over a window to open the Palm Pre's Quick Launch interface or other interface, was routine and conventional to POSITAs, as shown by the Palm Pre, Tseng, Roth, Roth Bezel Swipe, and/or Hinckley. Moreover, it was successfully implemented in commercial prior art devices, such as the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, and the Neonode N2. Incorporating a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, being processed by the processor to cause an action assigned to said window into the Palm Pre represents nothing more than the application of known operations performing according to their known functions to |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with the Palm Pre, represent nothing more than combining prior art elements according to known methods and techniques (displaying a window on the edge of the Palm Pre's screen, as discussed in [1B] to indicate that an off-to-on screen gliding gesture can activate the function, such as the Palm Pre's Quick Launch interface or other interface) to yield predictable results (to open the Palm Pre's Quick Launch interface or other interface, such as used in the Palm Pre). |
| **[1E]** wherein said at least one window is located on the touch screen before said gliding action begins. | The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said at least one window is located on the touch screen before said gliding action begins."<br><br>For example, the Palm Pre includes that said at least one window, such as the Quick Launch window, is located on the touch screen before said gliding action begins. As discussed in [1B] and [1D], to the extent Keyless argues that the Palm Pre does not include at least one window, a POSITA would have found it obvious to include at least one window on the screen before the gliding action begins. *See supra* elements [1B], [1D].<br><br>  <br>The Palm Pre. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>The Palm Pre.<br>*See, e.g.*, Palm Pre Plus User Guide; Palm Pre The Missing Manual; Palm Pre reviews listed above. |

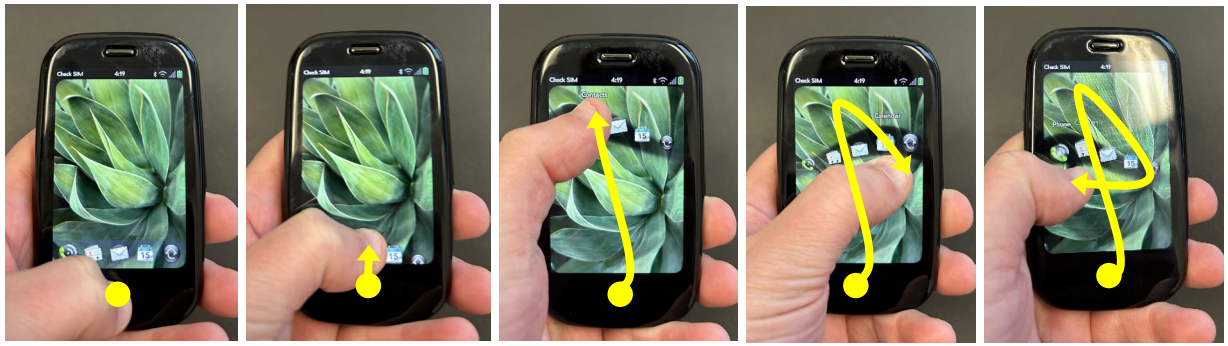
| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[2]** The system of claim 1, wherein the system relates said gliding action to a function which is not related to a mouse function. | Claim 2 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 2 are anticipated and/or obvious for the same reasons set out in claim 1.<br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "the system relates said gliding action to a function which is not related to a mouse function."<br>For example, the Palm Pre relates the gliding action over the Quick Launch bar to a function (e.g., opening Quick Launch interface) that is not related to a mouse function. |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>The Palm Pre.<br>  <br>The Palm Pre. |

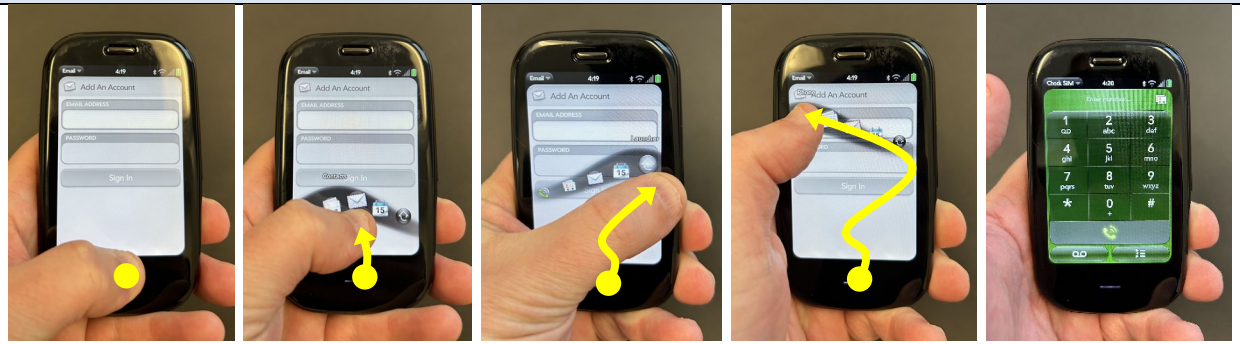
| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>One kind of drag that you'll use a lot brings up **Quick Launch** when you're in an application. This drag gesture begins in the gesture area and ends on the touchscreen. As your fingertip slowly crosses the border between the gesture area and the touchscreen, it seems to drag Quick Launch into view. To open one of the apps in Quick Launch, move your finger to its icon. When you see the app name appear, lift your finger. The application opens.<br><br>Palm Pre Plus User Guide at 20. |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | 1 Drag up slowly from the gesture area to the screen.<br><br>NOTE Don't confuse this "drag up" with the up gesture, which is a flick up from the gesture area to the screen that displays Card view.<br><br>2 Move your finger to the application icon. When you see the app name appear, lift your finger. The application opens.<br><br>  <br><br>Palm Pre Plus User Guide at 25.<br><br>**Quick Launch**<br>A bar of up to five icons that give you quick access to applications. Quick Launch always appears at the bottom of Card view and the Launcher. By default, Quick Launch displays icons for the following apps: Phone, Email, Contacts, and Calendar. The fifth icon is the Launcher. Tap a Quick Launch icon to open the app.<br><br>You can also open Quick Launch from any maximized application window by dragging up from the gesture area to the screen. Move your finger to the app you want, and then lift your finger. The application opens.<br><br>Palm Pre Plus User Guide at 183. |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **Quick Launch Panel**<br>As you learned in the last chapter, Palm figures you'll use certain programs all the time, so they've put shortcuts for those programs—Phone, Email, Contacts, and Calendar—in the *Quick Launch panel*. Tap one of the program's icons to open that program.<br>  <br>The Quick Launch panel is always at the bottom of the Pre's touchscreen (see page 12) when you're in Card view (page 36). But you're not always in Card view. For example, if you're working in an application, you don't see the Quick Launch panel. In cases like that, you can pull up a "floating" version of the panel, which looks like something out of the psychedelic '60s.<br>  <br>Here's how to do that: Drag your finger from the gesture area toward the center of the touchscreen. As you cross the border between the two, a bendy version of the Quick Launch panel pops up, looking a bit like a shape-shifting boomerang. Keep your finger on the panel, and slide it over to the program you want to open. The Pre displays the application's name to confirm your choice. Simply lift your finger to open that application.<br>Palm Pre The Missing Manual at 32-33.<br>*See, e.g.*, the Palm Pre reviews listed above. |

| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[3]** The system of claim 1, wherein said at least one window comprises at least one bar located on said edge of the screen. | Claim 3 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 3 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window comprises at least one bar located on said edge of the screen."<br><br>For example, the Palm Pre includes the Quick Launch bar window as a bar located on the bottom edge of the touch screen. A POSITA also would have found it obvious to include a window in the form of a bar at the bottom edge of the Palm Pre's touch screen as explained in element [1B]. *See supra* element [1B].<br><br>  <br>The Palm Pre. |

| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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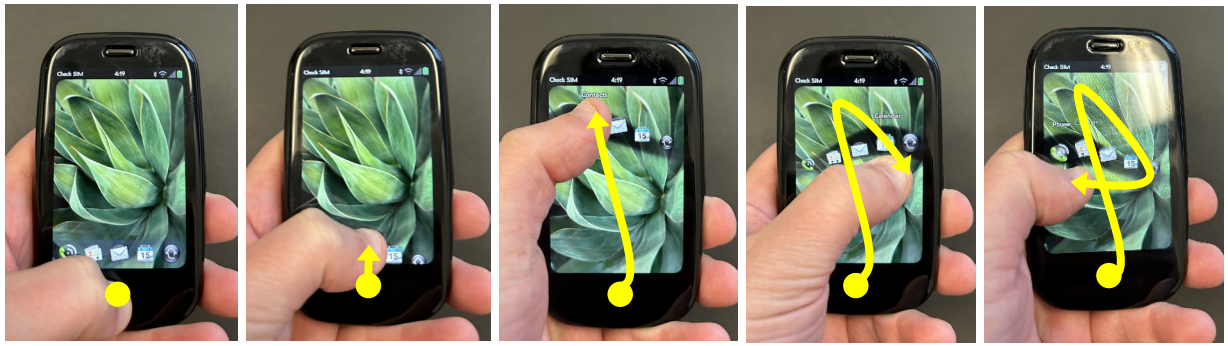
The Palm Pre.



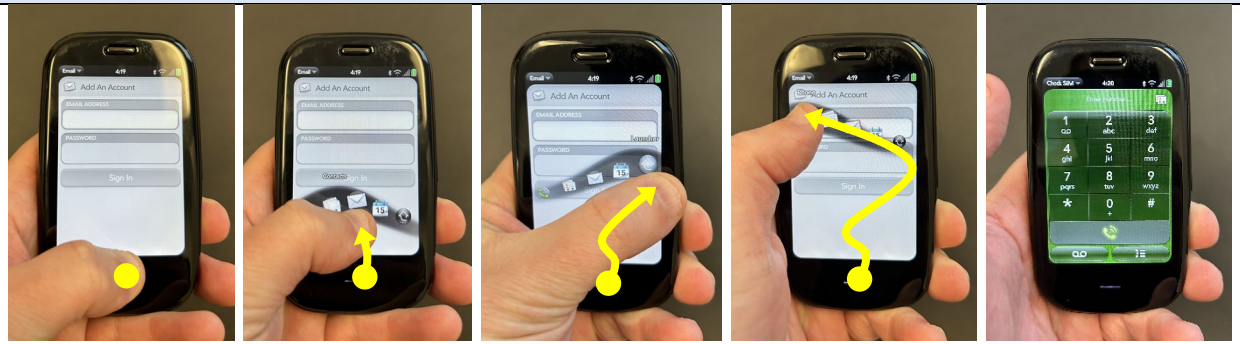
One kind of drag that you'll use a lot brings up **Quick Launch** when you're in an application. This drag gesture begins in the gesture area and ends on the touchscreen. As your fingertip slowly crosses the border between the gesture area and the touchscreen, it seems to drag Quick Launch into view. To open one of the apps in Quick Launch, move your finger to its icon. When you see the app name appear, lift your finger. The application opens.

| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Palm Pre Plus User Guide at 20.<br><br>1 Drag up slowly from the gesture area to the screen.<br><br>NOTE Don't confuse this "drag up" with the up gesture, which is a flick up from the gesture area to the screen that displays Card view.<br><br>2 Move your finger to the application icon. When you see the app name appear, lift your finger. The application opens.<br><br>  <br><br>Palm Pre Plus User Guide at 25.<br><br>**Quick Launch**<br>A bar of up to five icons that give you quick access to applications. Quick Launch always appears at the bottom of Card view and the Launcher. By default, Quick Launch displays icons for the following apps: Phone, Email, Contacts, and Calendar. The fifth icon is the Launcher. Tap a Quick Launch icon to open the app.<br><br>You can also open Quick Launch from any maximized application window by dragging up from the gesture area to the screen. Move your finger to the app you want, and then lift your finger. The application opens.<br><br>Palm Pre Plus User Guide at 183. |

| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **Quick Launch Panel**<br>As you learned in the last chapter, Palm figures you'll use certain programs all the time, so they've put shortcuts for those programs—Phone, Email, Contacts, and Calendar—in the *Quick Launch panel*. Tap one of the program's icons to open that program.<br>  <br>The Quick Launch panel is always at the bottom of the Pre's touchscreen (see page 12) when you're in Card view (page 36). But you're not always in Card view. For example, if you're working in an application, you don't see the Quick Launch panel. In cases like that, you can pull up a "floating" version of the panel, which looks like something out of the psychedelic '60s.<br>  <br>Here's how to do that: Drag your finger from the gesture area toward the center of the touchscreen. As you cross the border between the two, a bendy version of the Quick Launch panel pops up, looking a bit like a shape-shifting boomerang. Keep your finger on the panel, and slide it over to the program you want to open. The Pre displays the application's name to confirm your choice. Simply lift your finger to open that application.<br>Palm Pre The Missing Manual at 32-33.<br>*See, e.g.*, the Palm Pre reviews listed above. |

| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[4]** The system of claim 3, wherein said at least one bar extends along a substantial portion of an edge of the touch screen. | Claim 4 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 4 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one bar extends along a substantial portion of an edge of the touch screen."<br><br>For example, the Palm Pre has the Quick Launch interface bar extend along the bottom edge of the touch screen. A POSITA also would have found it obvious to include a window in the form of a bar at the bottom edge of the Palm Pre's touch screen as explained in element [1B]. *See supra* element [1B].<br><br>  <br>The Palm Pre. |

| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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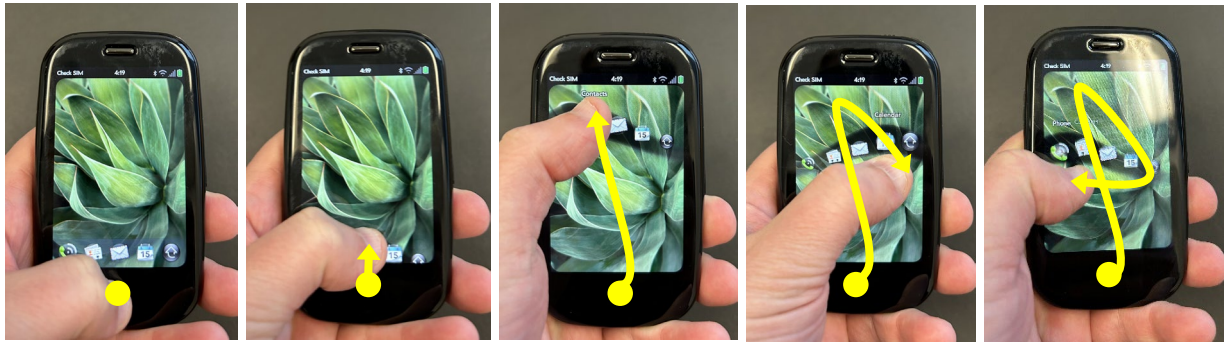
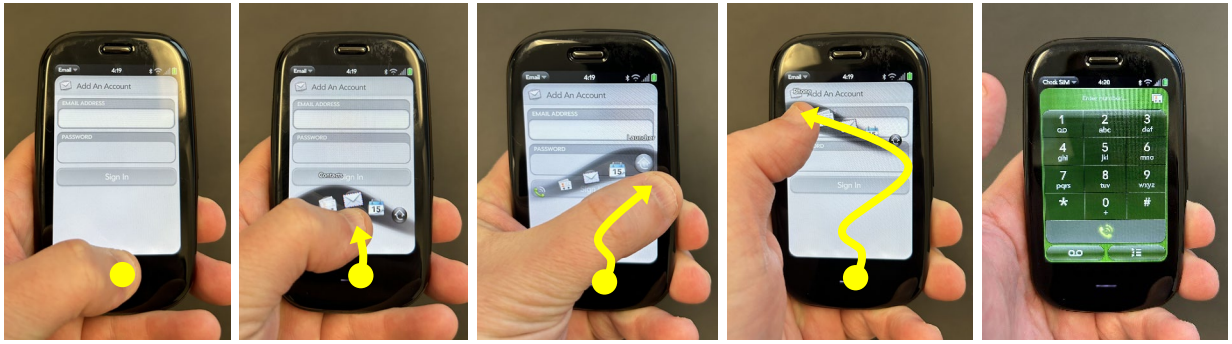
The Palm Pre.



One kind of drag that you'll use a lot brings up **Quick Launch** when you're in an application. This drag gesture begins in the gesture area and ends on the touchscreen. As your fingertip slowly crosses the border between the gesture area and the touchscreen, it seems to drag Quick Launch into view. To open one of the apps in Quick Launch, move your finger to its icon. When you see the app name appear, lift your finger. The application opens.

| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Palm Pre Plus User Guide at 20.<br><br>1 Drag up slowly from the gesture area to the screen.<br><br>NOTE Don't confuse this "drag up" with the up gesture, which is a flick up from the gesture area to the screen that displays Card view.<br><br>2 Move your finger to the application icon. When you see the app name appear, lift your finger. The application opens.<br><br>  <br><br>Palm Pre Plus User Guide at 25.<br><br>**Quick Launch**<br>A bar of up to five icons that give you quick access to applications. Quick Launch always appears at the bottom of Card view and the Launcher. By default, Quick Launch displays icons for the following apps: Phone, Email, Contacts, and Calendar. The fifth icon is the Launcher. Tap a Quick Launch icon to open the app.<br><br>You can also open Quick Launch from any maximized application window by dragging up from the gesture area to the screen. Move your finger to the app you want, and then lift your finger. The application opens.<br><br>Palm Pre Plus User Guide at 183. |

| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **Quick Launch Panel**<br>As you learned in the last chapter, Palm figures you'll use certain programs all the time, so they've put shortcuts for those programs—Phone, Email, Contacts, and Calendar—in the *Quick Launch panel*. Tap one of the program's icons to open that program.<br>  <br>The Quick Launch panel is always at the bottom of the Pre's touchscreen (see page 12) when you're in Card view (page 36). But you're not always in Card view. For example, if you're working in an application, you don't see the Quick Launch panel. In cases like that, you can pull up a "floating" version of the panel, which looks like something out of the psychedelic '60s.<br>  <br>Here's how to do that: Drag your finger from the gesture area toward the center of the touchscreen. As you cross the border between the two, a bendy version of the Quick Launch panel pops up, looking a bit like a shape-shifting boomerang. Keep your finger on the panel, and slide it over to the program you want to open. The Pre displays the application's name to confirm your choice. Simply lift your finger to open that application.<br>Palm Pre The Missing Manual at 32-33.<br>*See, e.g.*, the Palm Pre reviews listed above. |

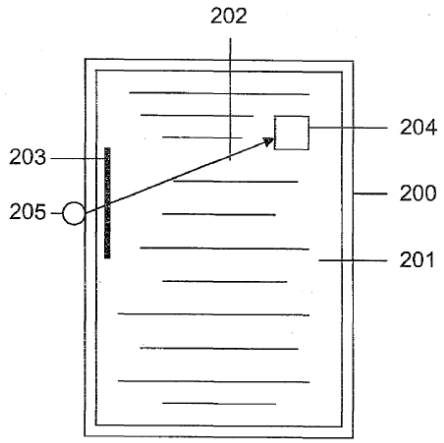
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[5]** The system of claim 3, wherein said bar is in a form of a line. | Claim 5 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 an 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 5 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>For example, the Palm Pre has the Quick Launch interface bar in the form of a line. A POSITA also would have found it obvious to include a window in the form of a line at the bottom edge of the Palm Pre's touch screen as explained in element [1B]. *See supra* element [1B].<br><br>  <br>The Palm Pre.<br>  |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | The Palm Pre.<br>  <br>One kind of drag that you'll use a lot brings up **Quick Launch** when you're in an application. This drag gesture begins in the gesture area and ends on the touchscreen. As your fingertip slowly crosses the border between the gesture area and the touchscreen, it seems to drag Quick Launch into view. To open one of the apps in Quick Launch, move your finger to its icon. When you see the app name appear, lift your finger. The application opens.<br><br>Palm Pre Plus User Guide at 20. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | 1 Drag up slowly from the gesture area to the screen.<br><br>NOTE Don't confuse this "drag up" with the up gesture, which is a flick up from the gesture area to the screen that displays Card view.<br><br>2 Move your finger to the application icon. When you see the app name appear, lift your finger. The application opens.<br><br>  <br><br>Palm Pre Plus User Guide at 25.<br><br>**Quick Launch**<br>A bar of up to five icons that give you quick access to applications. Quick Launch always appears at the bottom of Card view and the Launcher. By default, Quick Launch displays icons for the following apps: Phone, Email, Contacts, and Calendar. The fifth icon is the Launcher. Tap a Quick Launch icon to open the app.<br><br>You can also open Quick Launch from any maximized application window by dragging up from the gesture area to the screen. Move your finger to the app you want, and then lift your finger. The application opens.<br><br>Palm Pre Plus User Guide at 183. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **Quick Launch Panel**<br>As you learned in the last chapter, Palm figures you'll use certain programs all the time, so they've put shortcuts for those programs—Phone, Email, Contacts, and Calendar—in the *Quick Launch panel*. Tap one of the program's icons to open that program.<br>  <br>The Quick Launch panel is always at the bottom of the Pre's touchscreen (see page 12) when you're in Card view (page 36). But you're not always in Card view. For example, if you're working in an application, you don't see the Quick Launch panel. In cases like that, you can pull up a "floating" version of the panel, which looks like something out of the psychedelic '60s.<br>  <br>Here's how to do that: Drag your finger from the gesture area toward the center of the touchscreen. As you cross the border between the two, a bendy version of the Quick Launch panel pops up, looking a bit like a shape-shifting boomerang. Keep your finger on the panel, and slide it over to the program you want to open. The Pre displays the application's name to confirm your choice. Simply lift your finger to open that application.<br>Palm Pre The Missing Manual at 32-33.<br>*See, e.g.*, the Palm Pre reviews listed above. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | To the extent Keyless argues that the Palm Pre does not disclose or render obvious the additional limitations of claim 5, it would have been obvious in view of the Palm Pre, POSITA's pre-existing knowledge, and/or the Palm Pre combined with the other references charted for this patent in these invalidity contentions, including Roth, Roth Bezel Swipe, Hinckley, the HTC G1 1.6, the Samsung Behold II, and the Neonode N2. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>For example, Roth teaches using a swiping (e.g., gliding) action from outside a screen through a window in the form of a line at the edge of the screen on the screen towards the inside of the touch screen to activate a function associated with the window. For example, Roth describes "[a] crossing-based interface along the bounds of the display is a viable solution. Users can invoke actions with swiping gestures across a section of the display side from the outside to the inside." Roth at [0009]. Roth teaches advantages of such outside-to-inside gliding activations, for example, that "they can be more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to the distance vector between the line and the cursor," and "that a well positioned line requires significantly less display space than a button for similar performance characteristics." Roth at [0010]. "One example of such a gesture is a continuous swiping motion from the activation point representing a desired action or even from the bezel of the device, through the activation point and to the target on the display." Roth at [0015]. Roth explains that such outside-to-inside gliding actions "allow[] the active area of an activation point to be much smaller on a display, such as the lines shown in Roth's figures, "due to the utilization of a greater average weight throughout a touch sensitive display, which creates a higher probability of activating on a narrow activation point or operating on a small target," "save[s] valuable display space on the screen, since the activation point can be made smaller on the display as a result," and may "begin from outside the display for ease of use." Roth at [0015]. As Roth explains, a "bar," which Roth shows as a line on the touch screen, may "represent[] the desired action." Roth at [0017]. "[A]n activation |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | point 203 (represented as a bar in this example) displayed on the edge of the screen which represents the desired action of selecting. The bar is made small [e.g., a line] so as to not take up valuable space on the display. The user can then select the target 204 through the use of a gesture 202, such as swiping, pinching, tapping or other gestures ….” Roth at [0036]. As shown in FIG. 2B, “[t]he user can begin his gesture from either on the bar [line 203] itself or from outside the display 205 and continue the gesture through the bar and to target as if the user were bringing the action to the target. An example of such a gesture is if the user utilized a continuous swiping motion with his finger from the bar representing a desired action to the target on the display.” Roth at [0039].<br>  <br><br>Roth at FIG. 2B.<br><br>Moreover, each of Roth Bezel Swipe, Hinckley, the HTC G1 1.6, the Samsung Behold II, and the Neonode N2 teaches a gliding action from off screen to on screen to activate a function assigned to the window, where the window is a bar in a form of a line.<br><br>Roth Bezel Swipe teaches activation gestures related to mobile devices having touch screens. A bezel swipe gestures is an outside-to-inside swiping (e.g., gliding) gesture across a line shown on the edge of the display screen, in which “[t]he user starts a Bezel Swipe gesture on the bezel, which |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | is the physical touch insensitive frame that surrounds the display. The finger is then swiped through a part of the display edge into the display, which enters selection mode. Next, the user moves the finger onto an object or display position and selects it by lifting the finger off the display, which ends selection mode. Different edge portions represent different actions and are distinctively marked." Roth Bezel Swipe at 1524. "Swipes are recognized by detecting touches inside a thin rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524. As such, "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display. Figure 2 illustrates this. A touch sensitive display translates the contact area of the finger with the display into an activation point." Roth Bezel Swipe at 1524. "The Bezel Swipe gesture … starts on the bezel and moves into the display. Therefore the contact area is gradually increased until it exceeds the contact threshold of the display. … Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. Roth Bezel Swipe "use[s] a thin colored bar," shown as a line, to indicate where Bezel Swipe actions may be performed. Roth Bezel Swipe, 1524, Figures 1, 2 (showing and describing a "red bar" in the form of a line). As one example, Roth Bezel Swipe describes "a green 8 x 160 pixels bar [line] centered vertically against the left display edge, with an active area that was 12 pixels wide." Roth Bezel Swipe, 1525, Figure 1. This outside-to-inside crossing gesture has advantages, for example, "the crossing of the touch-insensitive bezel in conjunction with the properties of touch sensitive displays enables the reliable activation of a button that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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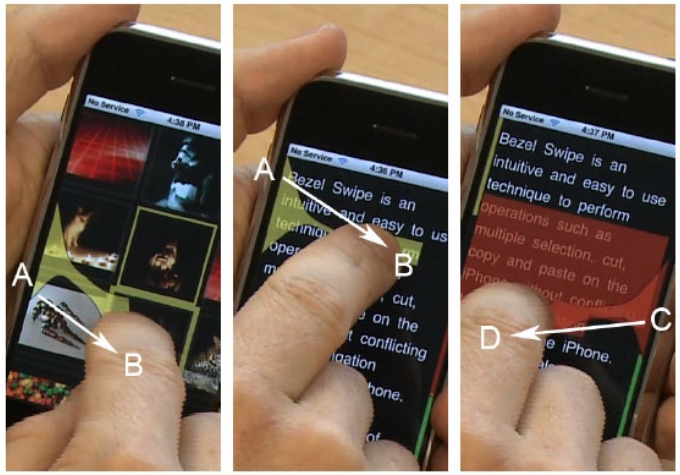



**Figure 1. The Bezel Swipe prototype in action. Left panel: A swipe from A to B selects an image. Middle panel: A swipe from A to B marks the beginning of a text selection. Right panel: A swipe from C to D marks the end of the text selection.**

Roth Bezel Swipe at Figure 1.

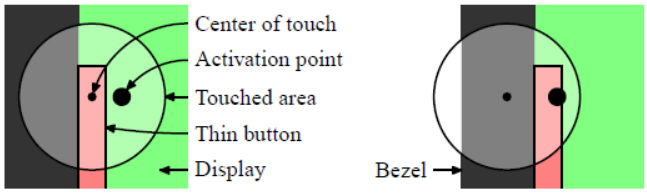
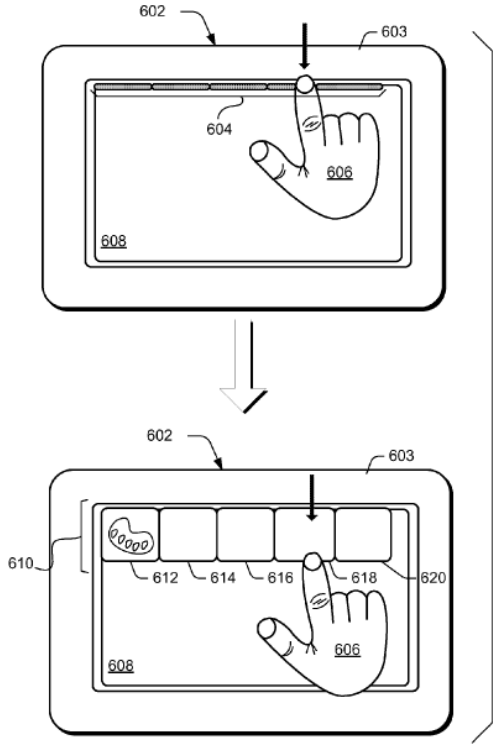



**Figure 2. Touching narrow targets close to the bezel: a touch (large circle) centered on the target (left) may not activate it whereas a touch significantly overlapping the bezel (right) does.**

Roth Bezel Swipe at Figure 2.

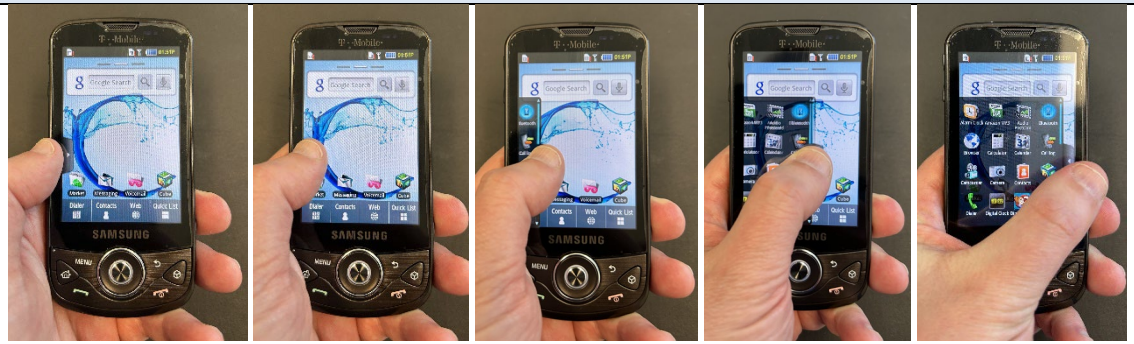
Hinckley teaches a visual affordance window, shown as a line across the top of the touch screen, indicating a pull-down bezel menu is shown at the edge of a mobile device using a gliding action

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | from outside of the touch screen towards the inside of the touch screen. Hinckley at FIGS. 5, 6. For example, in FIG. 5, "[s]tep 500 displays a visual affordance on a display device associated with a computing device" and is shown at as a window or bar 604 being a five-part line in FIG. 6. Hinckley at [0068], [0072], FIGS. 5, 6. Then, "[s]tep 502 receives a bezel gesture input relative to the visual affordance," such as from off-screen to on-screen over the visual affordance. Hinckley at [0068], [0072], FIGS. 5, 6. After the off-screen to on-screen gesture, "[s]tep 504 accesses functionality associated with the received bezel gesture input." Hinckley at [0068], [0072], FIGS. 5, 6. Hinckley explains that "off-screen to on-screen motion (or vice versa) can be utilized as a mechanism to expose a menu or to access some other type of functionality." Hinckley at [0071]. As shown in FIG. 6, "device 602 includes a bezel 603 and a visual affordance 604 that is rendered on display device 608." Hinckley at [0072], FIG. 6. The "visual affordance 604" may appear as "in the form of a semi-transparent strip" (e.g., line) and "can be utilized to provide a hint or indication of accessible functionality, in this case a bezel menu, associated with the bezel." Hinckley at [0072], FIG. 6; *see also* [0062], [0063], [0092] (describing visual affordance as "semi-transparent strip"). "[T]he bezel menu can be accessed through a bezel gesture in which a finger of user's hand 606 touches the bezel and then moves across the bezel and onto the display device 608 in the direction of the illustrated arrow." Hinckley at [0073], FIG. 6. After this off-screen to on-screen gesture across the line of the semi-transparent visual affordance, the "bezel menu 610 to be dropped down at which time it can become fully opaque." Hinckley at [0073], FIG. 6. Hinckley further explains that "bezel menu 610 includes multiple selectable icons or slots 612, 614, 616, 618, and 620. Each of the icons or slots is associated with a different functionality such as, for example, paint functionality, pen functionality, note functionality, object creation, object editing, and the like." Hinckley at [0074], FIG. 6. Hickley teaches, however, that "any type of functionality can be associated with the icons or slots." Hinckley at [0074], FIG. 6. The "bezel menu 610 can enable a user to access and activate commands, tools, and objects." Hinckley at [0075], FIG. 6. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Fig. 6<br>Hinckley at FIG. 6.<br>The HTC G1 1.6 teaches, as one example, that the user may perform a gliding action from the plastic housing surrounding the touch screen above the status bar, which is a bar in the form of a line. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC G1 1.6 Device<br><br>The Samsung Behold II teaches, as one example, that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status bar, which is a bar in the form of a line.<br>  <br>The Samsung Behold II device.<br><br>The Samsung Behold II also teaches that the user may perform a gliding action from the plastic housing surrounding the touch screen to the left of the applications tab window, which is a bar in the form of a line. |

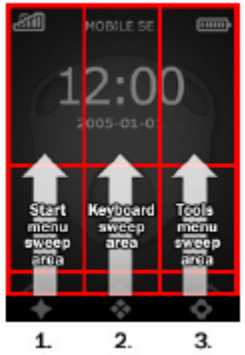
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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The Samsung Behold II device.

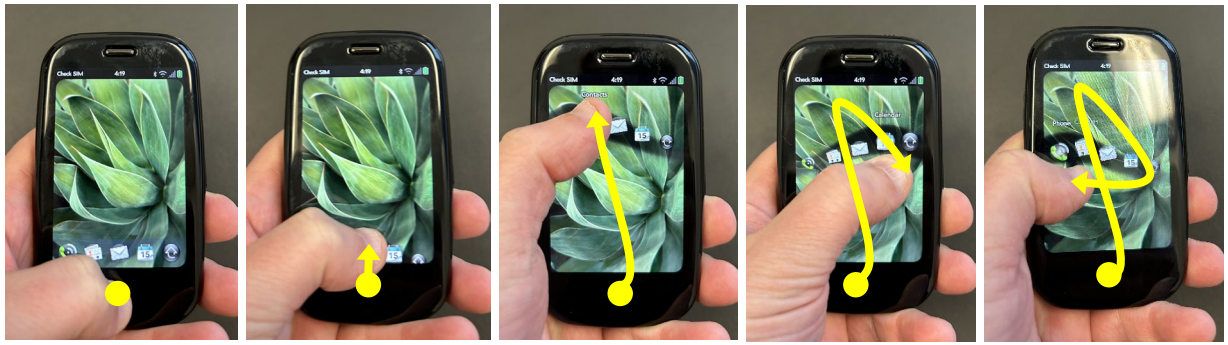
The Neonode N2 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen over the indicated icons or from the sides of the screen as indicated by the various arrows (from outside of the screen), over the arrows towards the main application display toward the inside of the touch screen (e.g., crossing over the window identifying the movement from off-to-on screen). The user's touch first interacts with the window showing the arrows on the touch screen because the outer housing does not contain touch-sensitive elements. The gliding action over the arrows from off-to-on screen causes a processor to perform the action associated with one of the three icons printed below the touch screen or from the side of the touch screen. As shown below and in the N2's User Manual, such gestures cross over a thin line at the bottom of the touch screen between the printed marking and the middle of the display.

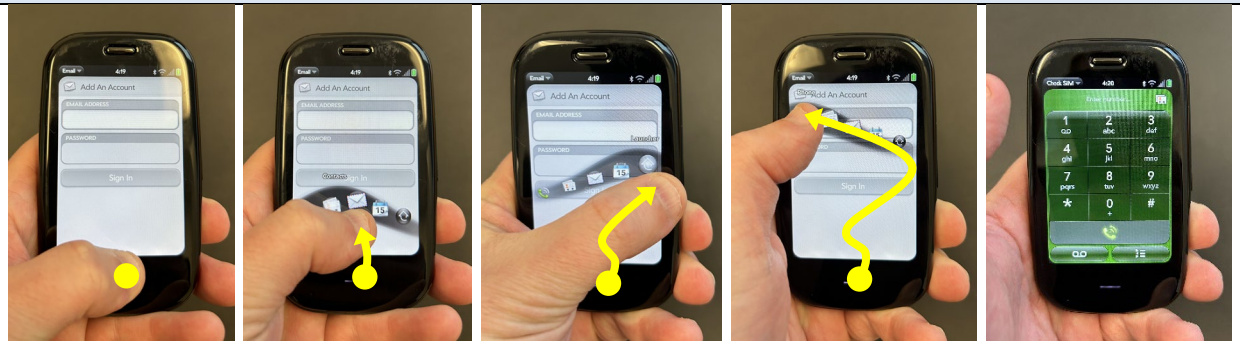


| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Neonode N2.<br><br>**1.13 Vertical areas:**<br><br>**1. The left part of the screen is called the Start menu sweep area.**<br>**2. The middle part of the screen is called the Keyboard sweep area.**<br>**3. The right part of the screen is called the Tools menu sweep area.**<br><br>In the vertical areas you start the sweep at the very bottom of the screen. Sweep upwards. The sweep should be about half the height of the screen.<br><br>A sweep in the left part of the screen opens the start menu. A sweep in the middle opens the keyboard and a sweep in the right part of the screen opens the tools menu.<br><br>  <br><br><br>Neonode N2 User Manual 7.<br><br>A POSITA would have found it obvious to incorporate the Palm Pre's Quick Launch window to be a bar in the form of a line, as claimed, to indicate that the Quick Launch interface or other interface may be displayed using the gliding action, while still permitting more space for the main screen content to be shown. Each of the Palm Pre, Roth, Roth Bezel Swipe, Hinckley, the HTC G1 1.6, the Samsung Behold II, and/or the Neonode N2, teaches the window or area for implementing the gliding gesture may be in a form of a line. Roth and Roth Bezel Swipe teach the advantages of using a line, as opposed to a tab when implementing such dragging/crossing interfaces, which would have motivated a POSITA to modify the Palm Pre's operation to indicate the ability to slide open the Quick Launch interface using a bar in the form of a line, thereby providing more space for the main display and also providing an indication of this functionality when an application is open full-screen on the main display. Roth explains that using lines or thin bars "is a viable solution" for the types of off-to-on screen gliding gestures used to open the interfaces, such as the Palm Pre's Quick Launch interface. Roth at [0009]. Roth also teaches that, even though the bars may be thin (which Roth shows as a line), "they can be more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to the distance vector between the line and the cursor," and "that a well positioned line requires significantly less display space than a button for similar performance characteristics." Roth at [0010], FIG. 2B. Roth further explains that using a thin "bar," which Roth shows as thin lines, "save[s] valuable display space on the screen, since the activation |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | point can be made smaller on the display as a result," and may "begin from outside the display for ease of use." Roth at [0015], [0017], FIG. 2B. A POSITA would have been further motivated because, the "bar [line] is made small [e.g., a line] so as to not take up valuable space on the display" so the user can activate it using, for example, an off-to-on screen swiping gesture Roth at [0036], FIG. 2B.<br><br>Roth Bezel Swipe provides further motivations to a POSITA to make the window a bar in a form of a line, such as for activating the Quick Launch interface or another interface in the Palm Pre. For example, "[s]wipes are recognized by detecting touches inside a thin rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524, Figures 1, 2. This has the advantage that "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display," and therefore "leverages display pixels that are not typically touched during regular interactions" because they use the thin line on the edge of the screen. Roth Bezel Swipe at 1524, Figure 2. Roth Bezel Swipe provides an example of "a thin colored bar," shown as a line, to indicate where Bezel Swipe actions may be performed. Roth Bezel Swipe, 1524, Figures 1, 2 (showing and describing a "red bar" in the form of a line). As one example, Roth Bezel Swipe describes "a green 8 x 160 pixels bar [line] centered vertically against the left display edge, with an active area that was 12 pixels wide." Roth Bezel Swipe, 1525, Figure 1. One advantage of using the thin line is that "the crossing of the touch-insensitive bezel in conjunction with the properties of touch sensitive displays enables the reliable activation of a button that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524-25, Figures 1, 2. Indeed, the Palm Pre's Quick Launch bar, when shown, is already in the form of a line, and a POSITA would have been motivated to carry that through to indicate the functionality is available when other applications are shown on the screen, as a thin line to minimize the amount of display required. Such combination would also allow for the Quick Launch bar or other line indicating the functionality to be always accessible, thereby making it easier for the user to switch applications or navigate between applications because, as Roth Bezel Swipe teaches, the thin line and crossing-gliding gesture "enables the reliable activation of a button that is so narrow that it would be difficult to activate by a direct touch" and thus would not be accidentally activated by a user (both because |

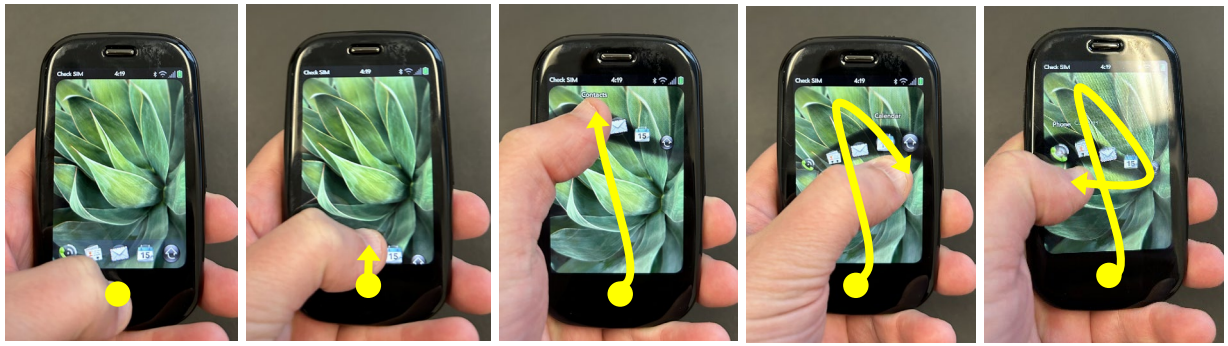
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | of the difficulty or direct tapping and also the off-to-on screen gliding activation gesture). Roth Bezel Swipe at 1524-25, Figures 1, 2.<br><br>It was well known to a POSITA that the Quick Launch bar or indicator that the Quick Launch interface or another interface is available in the Palm Pre's interface could be implemented as windows that are bars in the form of a line merely requires drawing the window for the activation area as a line, which merely uses conventional graphics rendering, thus representing a mere design choice as to the shape of the activation area. The off-to-on screen activation is similarly well known and conventional operations to determine the user's gliding action across the activation area, such as used in the Palm Pre, Roth, Roth Bezel Swipe, Hinckley, the HTC G1 1.6, the Samsung Behold II, and/or the Neonode N2.<br><br>The use of a bar in the form of a line to indicate that the user can perform an out-to-in gliding gesture to activate the Palm Pre's Quick Launch interface or another interface was routine and conventional to POSITAs, as shown by the Palm Pre, Tseng, Roth, Roth Bezel Swipe, and/or Hinckley. Moreover, it was successfully implemented in commercial prior art devices, such as the Palm Pre, the HTC G1 1.6, the Samsung Behold II, and the Neonode N2. Incorporating the shape of the activation area, such as an indicator that the Quick Launch interface is available, to be a bar in the form of a line represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with the Palm Pre, represent nothing more than combining prior art elements according to known methods and techniques (rendering a window as a bar in the form of a line, then activating the Quick Launch interface or other interface as already known in the Palm Pre as the user's gliding action moves from offscreen towards the inside of the touch screen) to yield predictable results (to open the Palm Pre's Quick Launch interface or other interface, as used in the Palm Pre). |

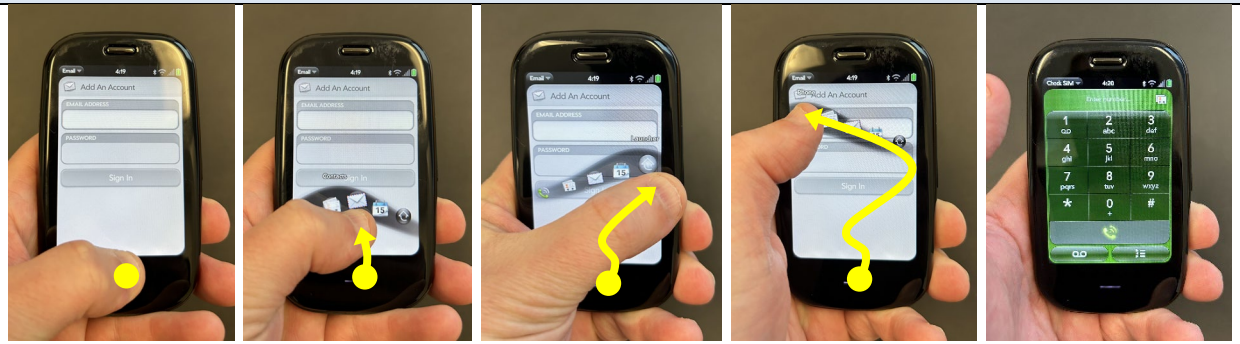
| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[6]** The system of claim 5, wherein said action is displaying an interface on the screen. | Claim 6 depends from claims 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 5, 3, and 1 here, which anticipate and/or render claims 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 5, 3, and 1 to show the additional limitations of claim 6 are anticipated and/or obvious for the same reasons set out in claims 5, 3, and 1.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying an interface on the screen."<br><br>For example, the Palm Pre's gliding action at the Quick Launch bar or when an application is open initiates an action of displaying the Quick Launch interface on the touch screen. A POSITA would have found it obvious that the Palm Pre's activatable window is in the form of a line, as explained in claim 5. *Supra* claim 5.<br><br>  <br>The Palm Pre. |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  The Palm Pre.  One kind of drag that you'll use a lot brings up **Quick Launch** when you're in an application. This drag gesture begins in the gesture area and ends on the touchscreen. As your fingertip slowly crosses the border between the gesture area and the touchscreen, it seems to drag Quick Launch into view. To open one of the apps in Quick Launch, move your finger to its icon. When you see the app name appear, lift your finger. The application opens. |

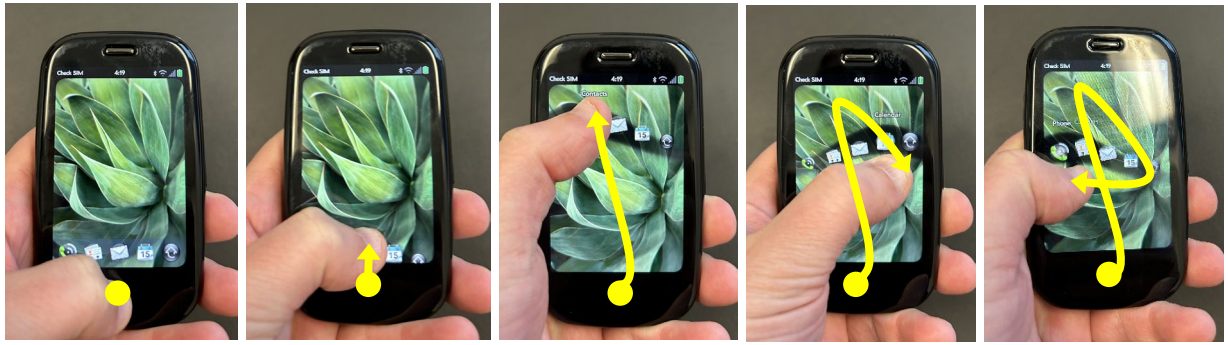
| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Palm Pre Plus User Guide at 20.<br><br>1 Drag up slowly from the gesture area to the screen.<br><br>NOTE Don't confuse this "drag up" with the up gesture, which is a flick up from the gesture area to the screen that displays Card view.<br><br>2 Move your finger to the application icon. When you see the app name appear, lift your finger. The application opens.<br><br>  <br><br>Palm Pre Plus User Guide at 25.<br><br>**Quick Launch**<br>A bar of up to five icons that give you quick access to applications. Quick Launch always appears at the bottom of Card view and the Launcher. By default, Quick Launch displays icons for the following apps: Phone, Email, Contacts, and Calendar. The fifth icon is the Launcher. Tap a Quick Launch icon to open the app.<br><br>You can also open Quick Launch from any maximized application window by dragging up from the gesture area to the screen. Move your finger to the app you want, and then lift your finger. The application opens.<br><br>Palm Pre Plus User Guide at 183. |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **Quick Launch Panel**<br>As you learned in the last chapter, Palm figures you'll use certain programs all the time, so they've put shortcuts for those programs—Phone, Email, Contacts, and Calendar—in the *Quick Launch panel*. Tap one of the program's icons to open that program.<br>  <br>The Quick Launch panel is always at the bottom of the Pre's touchscreen (see page 12) when you're in Card view (page 36). But you're not always in Card view. For example, if you're working in an application, you don't see the Quick Launch panel. In cases like that, you can pull up a "floating" version of the panel, which looks like something out of the psychedelic '60s.<br>  <br>Here's how to do that: Drag your finger from the gesture area toward the center of the touchscreen. As you cross the border between the two, a bendy version of the Quick Launch panel pops up, looking a bit like a shape-shifting boomerang. Keep your finger on the panel, and slide it over to the program you want to open. The Pre displays the application's name to confirm your choice. Simply lift your finger to open that application.<br>Palm Pre The Missing Manual at 32-33.<br>*See, e.g.*, the Palm Pre reviews listed above. |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[7]** The system of claim 5, wherein said action is displaying a portion of an interface on the screen. | Claim 7 depends from claims 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 5, 3, and 1 here, which anticipate and/or render claims 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 5, 3, and 1 to show the additional limitations of claim 7 are anticipated and/or obvious for the same reasons set out in claims 5, 3, and 1.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying a portion of an interface on the screen."<br><br>For example, during the gliding action, the Palm Pre displays a portion of an interface on the screen, such as shown in the second image below where the Quick Launch interface is partially offscreen.<br><br>A POSITA would have found it obvious that the Palm Pre's activatable window is in the form of a line, as explained in claim 5. *Supra* claim 5.<br><br>  <br>The Palm Pre. |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>The Palm Pre.<br>*See, e.g.*, Palm Pre Plus User Guide; Palm Pre The Missing Manual; the Palm Pre reviews listed above. |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[8]** The system of claim 7, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 8 depends from claims 7, 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 7, 5, 3, and 1 here, which anticipate and/or render claims 7, 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 7, 5, 3, and 1 to show the additional limitations of claim 8 are anticipated and/or obvious for the same reasons set out in claims 7, 5, 3, and 1.<br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | For example, during the gliding action, the length of the Palm Pre's interface is substantially equal to the length of the gliding action while the Quick Launch interface is partially displayed, as shown in the second image below.<br><br>A POSITA would have found it obvious that the Palm Pre's activatable window is in the form of a line, as explained in claim 5. *Supra* claim 5.<br><br>  <br>The Palm Pre.<br><br>  <br>The Palm Pre.<br><br>*See, e.g.*, Palm Pre Plus User Guide; Palm Pre The Missing Manual; the Palm Pre reviews listed above. |

| Claim 9 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[9]** The system of claim 3, wherein said action is displaying an interface on the screen. | Claim 9 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 9 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying an interface on the screen."<br><br>Claim 9 recites substantially the same limitations as claim 6 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 6. *See, e.g.*, *supra* claim 6.<br><br>As discussed *supra* claim 6, the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said action is displaying an interface on the screen." *See supra* claim 6. |

| Claim 10 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[10]** The system of claim 3, wherein said action is displaying a portion of an interface on the screen. | Claim 10 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 10 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and |

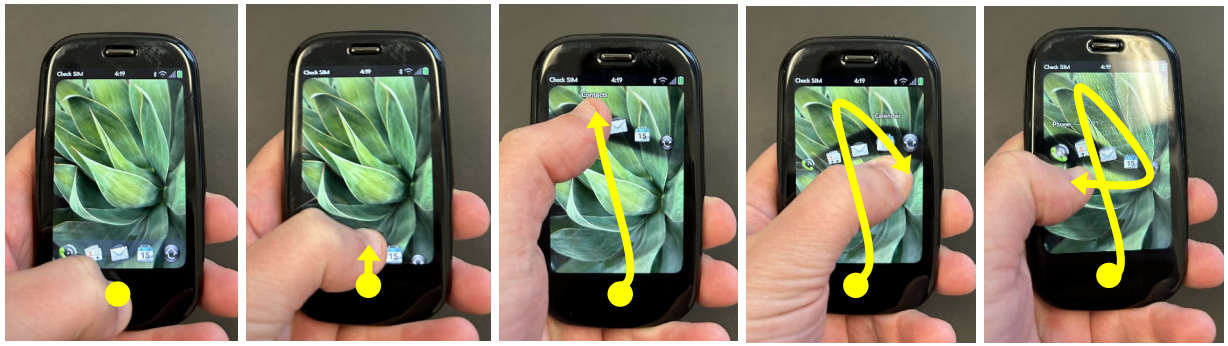
| Claim 10 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Keyless's apparent interpretation of this limitation, discloses that "said action is displaying a portion of an interface on the screen."<br><br>Claim 10 recites substantially the same limitations as claim 7 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 7. *See, e.g.*, *supra* claim 7.<br><br>As discussed *supra* claim 7, the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said action is displaying a portion of an interface on the screen." *See supra* claim 7. |

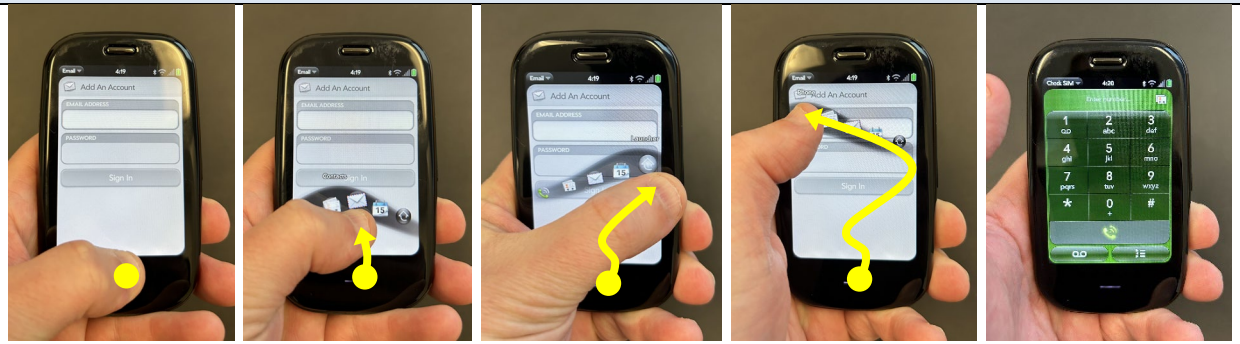
| Claim 11 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[11]** The system of claim 10, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 11 depends from claims 10, 3, and 1. Defendants incorporate all the prior art disclosures from claims 10, 3, and 1 here, which anticipate and/or render claims 10, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 10, 3, and 1 to show the additional limitations of claim 11 are anticipated and/or obvious for the same reasons set out in claims 10, 3, and 1.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>Claim 11 recites substantially the same limitations as claim 8 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 8. *See, e.g.*, *supra* claim 8.<br><br>As discussed *supra* claim 8, the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during |

| Claim 11 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claim 8. |

| Claim 12 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[12]** The system of claim 1, wherein upon detecting said gliding action, the system displays an interface on said touch screen. | Claim 12 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 12 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said gliding action, the system displays an interface on said touch screen."<br><br>Claim 12 recites substantially the same limitations as claims 6 and 9 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6 ad 9. *See, e.g.*, *supra* claims 6, 9.<br><br>As discussed *supra* claims 6 and 9, the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "upon detecting said gliding action, the system displays an interface on said touch screen." *See supra* claims 6, 9. |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[13]** The system of claim 12, wherein upon detecting said gliding action, the system | Claim 13 depends from claims 12 and 1. Defendants incorporate all the prior art disclosures from claims 12 and 1 here, which anticipate and/or render claims 12 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| relates said gliding action to setting the location of said interface on said touch screen. | and evidence set out for claims 12 and 1 to show the additional limitations of claim 13 are anticipated and/or obvious for the same reasons set out in claims 12 and 1.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said gliding action, the system relates said gliding action to setting the location of said interface on said touch screen."<br><br>For example, the Palm Pre includes, upon detecting the gliding action to open the Quick Launch interface, the Palm Pre relates the respective gliding action to setting the location of the Quick Launch interface by tracking the location of the interface with the user's gliding action.<br><br>  <br>The Palm Pre. |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  |

The Palm Pre.



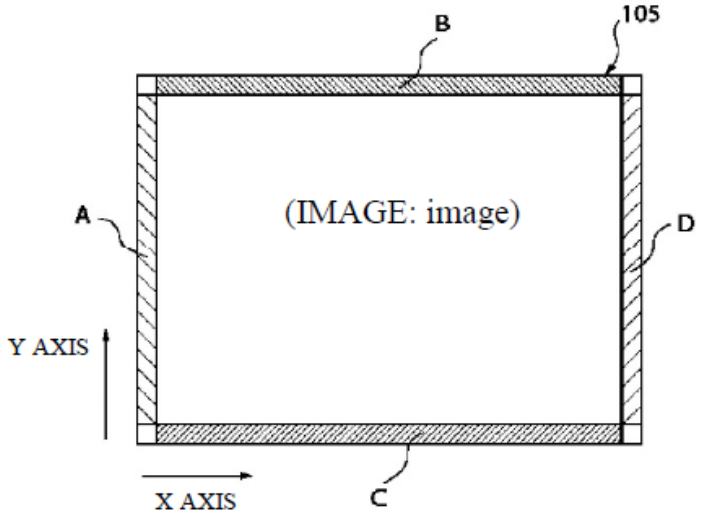
One kind of drag that you'll use a lot brings up **Quick Launch** when you're in an application. This drag gesture begins in the gesture area and ends on the touchscreen. As your fingertip slowly crosses the border between the gesture area and the touchscreen, it seems to drag Quick Launch into view. To open one of the apps in Quick Launch, move your finger to its icon. When you see the app name appear, lift your finger. The application opens.

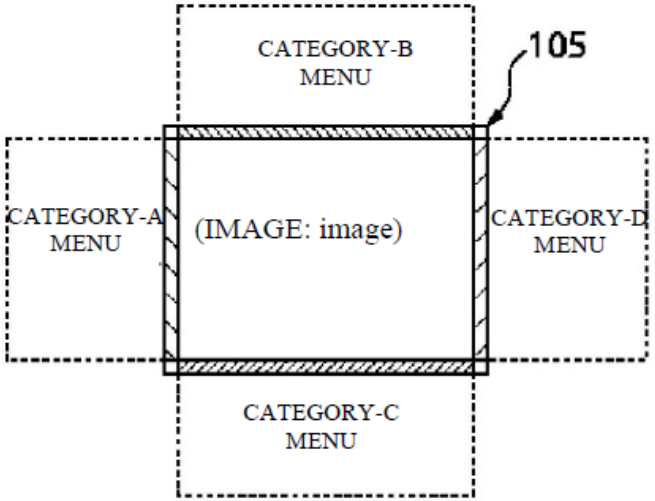
| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Palm Pre Plus User Guide at 20.<br><br>1 Drag up slowly from the gesture area to the screen.<br><br>NOTE Don't confuse this "drag up" with the up gesture, which is a flick up from the gesture area to the screen that displays Card view.<br><br>2 Move your finger to the application icon. When you see the app name appear, lift your finger. The application opens.<br><br>  <br><br>Palm Pre Plus User Guide at 25.<br><br>**Quick Launch**<br>A bar of up to five icons that give you quick access to applications. Quick Launch always appears at the bottom of Card view and the Launcher. By default, Quick Launch displays icons for the following apps: Phone, Email, Contacts, and Calendar. The fifth icon is the Launcher. Tap a Quick Launch icon to open the app.<br><br>You can also open Quick Launch from any maximized application window by dragging up from the gesture area to the screen. Move your finger to the app you want, and then lift your finger. The application opens.<br><br>Palm Pre Plus User Guide at 183. |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **Quick Launch Panel**<br>As you learned in the last chapter, Palm figures you'll use certain programs all the time, so they've put shortcuts for those programs—Phone, Email, Contacts, and Calendar—in the *Quick Launch panel*. Tap one of the program's icons to open that program.<br>  <br>The Quick Launch panel is always at the bottom of the Pre's touchscreen (see page 12) when you're in Card view (page 36). But you're not always in Card view. For example, if you're working in an application, you don't see the Quick Launch panel. In cases like that, you can pull up a "floating" version of the panel, which looks like something out of the psychedelic '60s.<br>  <br>Here's how to do that: Drag your finger from the gesture area toward the center of the touchscreen. As you cross the border between the two, a bendy version of the Quick Launch panel pops up, looking a bit like a shape-shifting boomerang. Keep your finger on the panel, and slide it over to the program you want to open. The Pre displays the application's name to confirm your choice. Simply lift your finger to open that application.<br>Palm Pre The Missing Manual at 32-33.<br>*See, e.g.*, the Palm Pre reviews listed above. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[15]** The system of claim 1, wherein said at least one window comprises more than one window located on one or more edges of the touch screen. | Claim 15 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 15 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window comprises more than one window located on one or more edges of the touch screen."<br><br>To the extent Keyless argues that the Palm Pre does not disclose or render obvious claim 15, it would have been obvious in view of the Palm Pre, POSITA's pre-existing knowledge, and/or the teachings of the Palm Pre combined with the other references charted for this patent in these invalidity contentions, including Hisatomi, Wilairat, Jeong, Roth, Roth Bezel Swipe, the Samsung Behold II, the HTC G1 1.6, Motorola Droid A855, HTC Hero 1.5, HTC Hero 2.1, and the Neonode N2. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>For example, Hisatomi discloses "FIG. 5 to FIG. 7 are drawings showing examples of coordinate definitions for 'drawer menu display-triggering areas' on the display 105." Hisatomi at [0029], FIGS. 5-7. In Hisatomi, "FIG. 5 to FIG. 7, functions that have been pre-sorted into four broad categories, i.e., A, B, C, and D, are assigned to the edges of the oblong display 105 in a layout resembling virtual drawers. Hereinafter, these functions will be referred to as "drawer menus.'" |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Hisatomi at [0030], FIGS. 5-7. "[I]n FIG. 5 to FIG. 7, category A, which is a bundle of functions for procedures performed before an image is displayed on the display screen, is on the left side of the display screen the display 105, and search functions, for example, are assigned to this category-A menu. In addition, categories B and C, which are bundles of additional functions that can be applied to a displayed image, are on the upper and lower sides of the display screen; text input functions, for example, are assigned to the category-B menu on the upper side of the display screen and processing/editing functions, for example, are assigned to the category-C menu on the lower side of the display screen. In particular, it is appropriate, as shown in FIG. 7, to lay out the category-B menu at a location such that the image will not be hidden by the input device 107 or by a hand even when writing text onto the image with the menu in a slid-in state, as shown in FIG. 7, or when selecting the menu. Furthermore, a category D, which is a bundle of functions for specifying destinations for processed image data, is on the right side of the display screen; saving/organizing functions or the like, for example, are assigned to this category-D menu, and a list of icons or the like for processing various related functions is displayed therein." Hisatomi at [0032]. "The user can display the menus for the respective categories by performing an operation resembling pulling out from the edges of the display 105 according to the required function. With repeated use, it is possible to memorize the display triggers for the major categories at the locations of the four edges relative to the display 105." Hisatomi at [0033]. "FIG. 7 shows a state in which the category-B menu is being displayed (a stored image of the drawer menu). That is, a state is shown in which the "drawer menu" for category B is displayed via a manipulation means, wherein coordinates within the category-B region shown in FIG. 5 are indicated by the dedicated input device (pen-type pointing device) 107 and, in that state, sliding the input device 107 in the direction of arrow E toward the center of the display screen." Hisatomi at [0034], FIG. 7. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 5<br>  <br><br>Hisatomi at FIG. 5. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 6<br>  <br><br>Hisatomi at FIG. 6. |

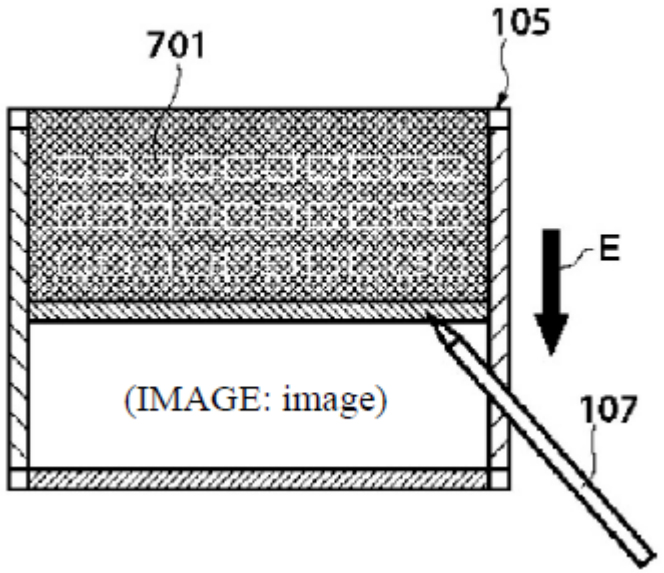
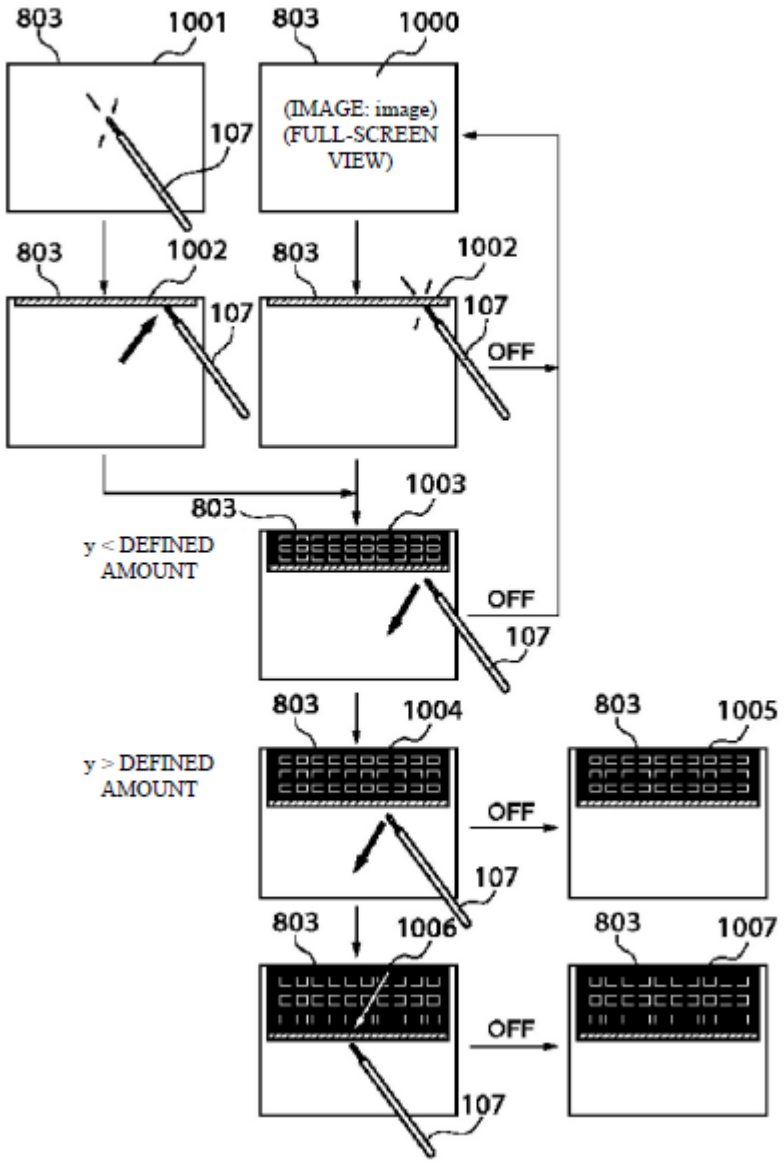
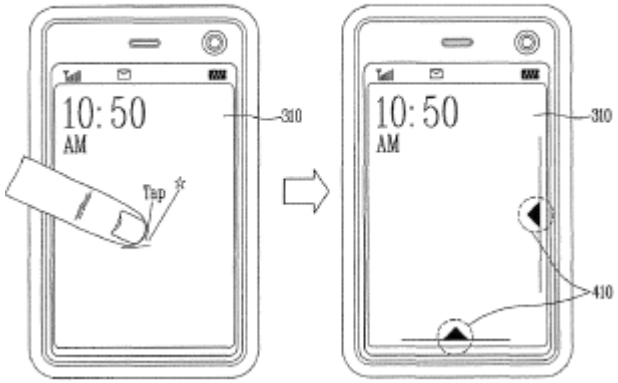
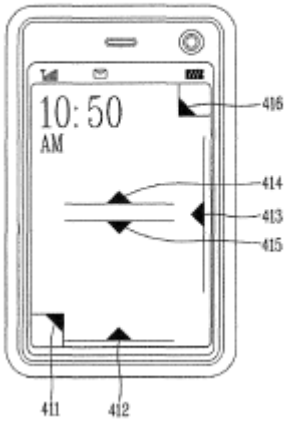
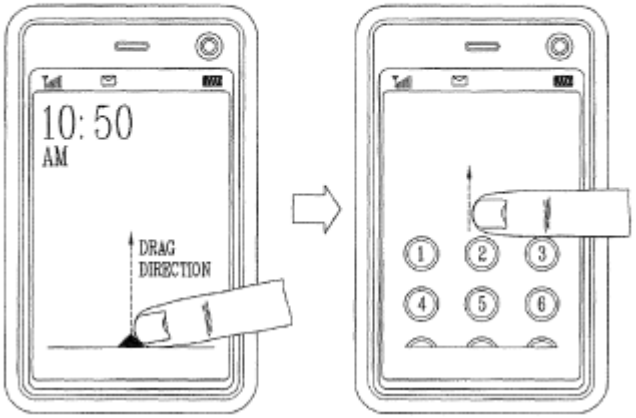
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7<br>  <br><br>Hisatomi at FIG. 7. |

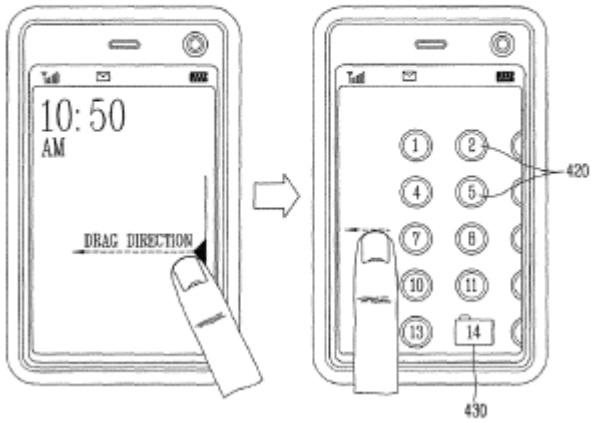
FIG. 10


803
1001
803
1000
(IMAGE: image)
(FULL-SCREEN VIEW)
107
803
1002
803
1002
107
107
OFF
1003
803
y < DEFINED AMOUNT
OFF
107
803
1004
803
1005
y > DEFINED AMOUNT
OFF
107
803
1006
803
1007
OFF
107

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Hisatomi at FIG. 10; *see also id.* FIGS. 11-47.<br><br>Jeong discloses that, "when a touch is inputted with nothing displayed on the background screen image 310, the tags 410 related to the menu screen image 320 are displayed (Sl0l to S103)." Jeong at [0057], FIGS. 5, 6A. "As shown in FIG. 6B, one or more tags 411 to 416 may be displayed, and the tags 410 may be displayed at one of a side, a corner or an internal region of the touch screen." Jeong at [0058]. "With the tags 410 displayed, when the user touches one of the tags 410 and drags it (S104), the controller 180 exposes a menu screen image 320, which has been hidden, in the direction in which the tag is dragged as shown in FIGS. 7A to 7C. Likewise, if the tag is dragged in a different direction, an exposed menu screen image 320 may be hidden (S105)." Jeong at [0058], FIGS. 7A-7C.<br><br>FIG. 6A<br>  <br><br>Jeong at FIG. 6A. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 6B<br>  <br><br>Jeong at FIG. 6B. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7B<br>  <br><br>Jeong at FIG. 7B. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | FIG. 7C<br>  <br><br>Jeong at FIG. 7C.<br>Moreover, each of Wilairat, Roth, Roth Bezel Swipe, the Samsung Behold II, the HTC G1 1.6, the Neonode N2, teaches wherein said at least one window comprises more than one window located on one or more edges of the touch screen.<br>For example, Wilairat discloses "[e]mbodiments of a touch pull-in gesture provide techniques for a user of a portable device to motion a pull-in gesture which gives the appearance of dragging a user interface component onto a touch-screen of the device for display. For example, a user can initiate a touch input with a finger just off an edge of the touch-screen and then motion a pull-in gesture across the touch-screen." Wilairat at [0009]. "When the motion of the touch pull-in gesture is initiated by the user, a progression of the motion as the touch input remains in contact with the touch-screen creates a contact region on the touch-screen that progressively expands and is detected. The progressive expansion of the contact region on the touch-screen is then determined or recognized as the touch pull-in gesture that initiates a display of a user interface component proximate a location of the touch pull-in gesture on the touch-screen. A user interface component |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | can include any type of hidden menu, slide menu, drop-down menu, scrollbar, and/or any other type of user interface displayable element." Wilairat at [0009]. "In an embodiment of a touch pull-in gesture, a user of portable device 102 can initiate a touch input 112 with a finger just off an edge of the touch-screen 104 and then motion a pull-in gesture 114 in a direction 116 across the touch-screen. The motion of the touch pull-in gesture 114 is illustrated in the direction 116 as the hand moves from position 118, to position 120, and to position 122 (shown successively in the three views). When the motion of the touch pull-in gesture 114 is initiated by the user, a contact region 124 progressively expands. Such as illustrated when the hand moves from the edge of the touch-screen at position 118 to position 120, and then from position 120 to position 122. The progressive expansion of the contact region 124 is then determined or recognized as the touch pull-in gesture 114." Wilairat at [0012]. Wilairat describes that the pull-in gesture can be facilitated from multiple edges (e.g., top, side, and/or bottom). "In various implementations, the interface application 108 can initiate a display of a vertical scrollbar 128 as a user interface component when the touch pull-in gesture 114 starts at a side edge 130 of the touch-screen 104. Alternatively or in addition, the interface application 108 can initiate a display of a drop-down menu (not shown) as a user interface component when the touch pull-in gesture 114 starts at a top edge 132 of the touch-screen 104. Alternatively or in addition, the interface application 108 can initiate a display of a horizontal scrollbar (not shown), or other user interface component, when the touch pull-in gesture 114 starts at a bottom edge 134 of the touch-screen 104." Wilairat at [0014]. "A user interface component can include any type of hidden menu, slide menu, drop-down menu, scrollbar, image, graphic, text, user-selectable control, menu selection, map element, and/or any other type of user interface displayable feature or item." Wilairat at [0015]. Wilairat explains that indications of the pull-in gestures may appear on the touch screen. "When embodiments of a touch pull-in gesture are implemented, the various representations and indications may or may not appear on the touch-screen and/or on a user interface." Wilairat at [0017]. |

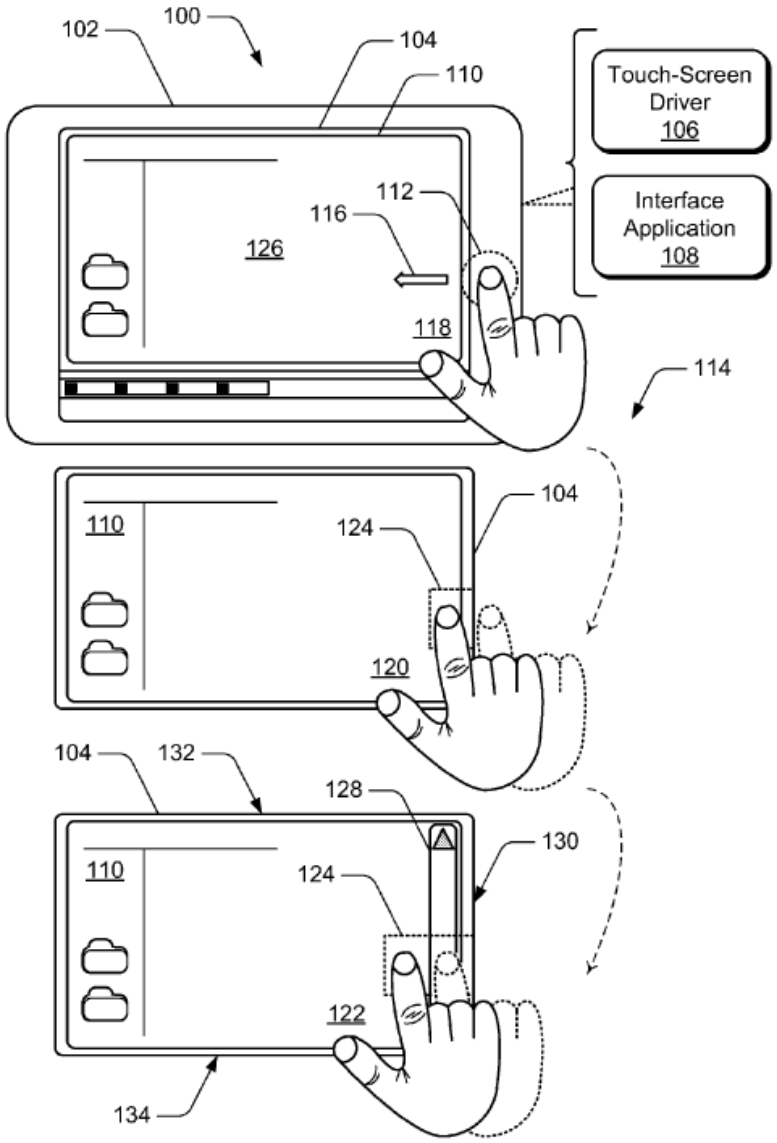
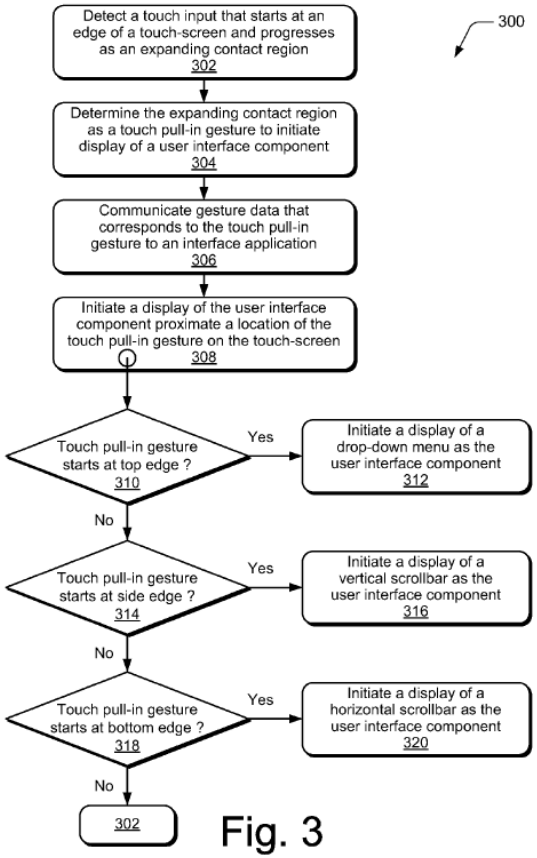
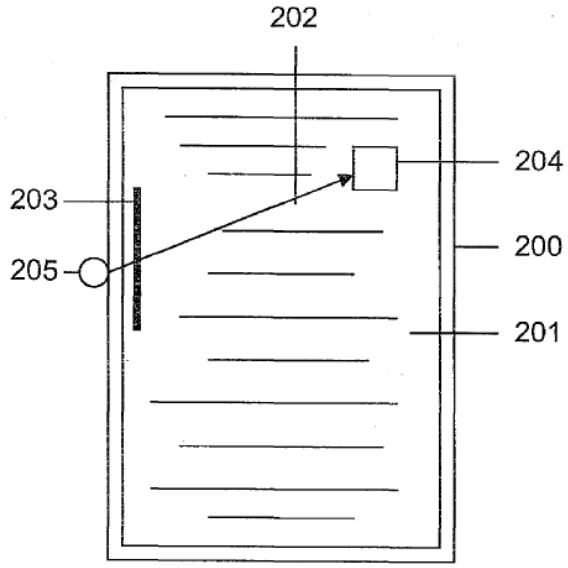
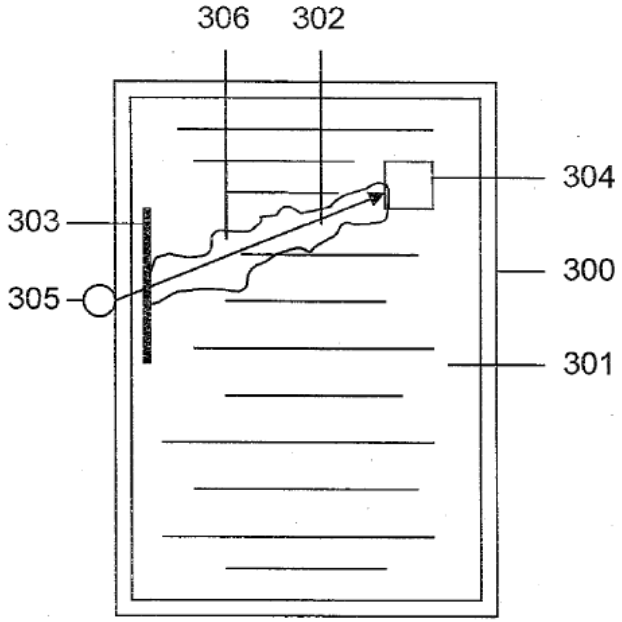

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Touch-Screen Driver 106
Interface Application 108
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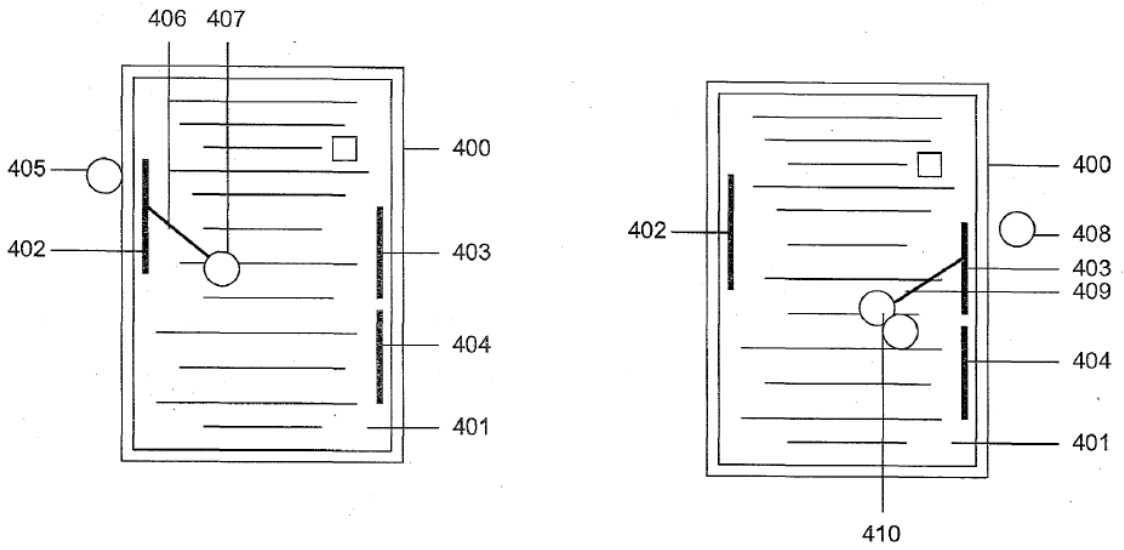
Fig. 1

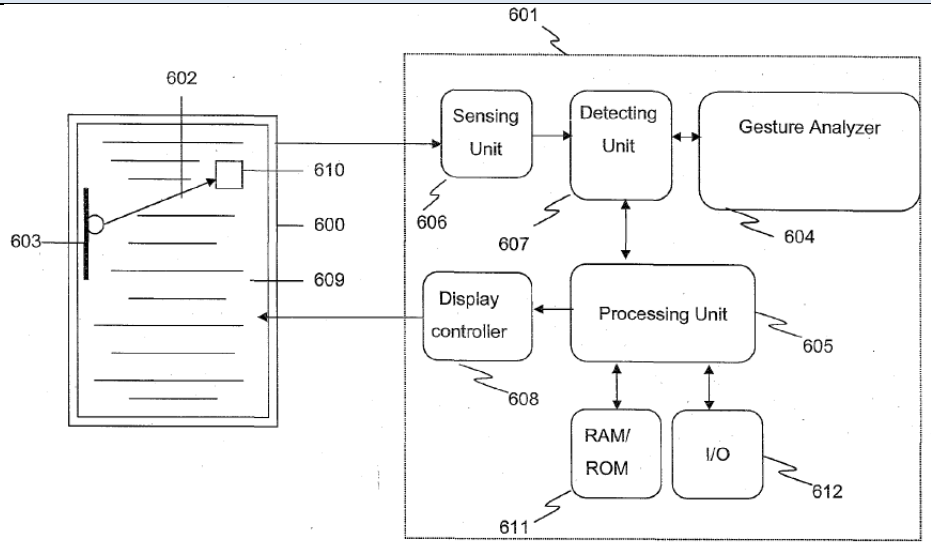
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Wilairat at FIG. 1.<br>  <br><br>Fig. 3<br>Wilairat at FIG. 3.<br>Roth discloses "[a] crossing-based interface along the bounds of the display" where "[u]sers can invoke actions with swiping gestures across a section of the display side from the outside to the inside." Roth at [0009]. "One example of such a gesture is a continuous swiping motion from the |

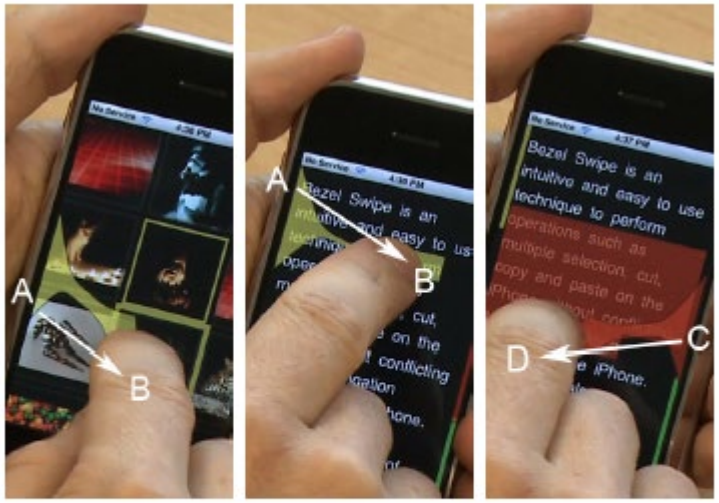
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | activation point representing a desired action or even from the bezel of the device, through the activation point and to the target on the display. Such a gesture allows the active area of an activation point to be much smaller on a display due to the utilization of a greater average weight throughout a touch sensitive display, which creates a higher probability of activating on a narrow activation point or operating on a small target." Roth at [0015]. "The continuous swiping motion may also begin from outside the display for ease of use." Roth at [0015]. In FIG. 2A, "[t]he user can then select the target 204 through the use of a gesture 202, such as swiping, pinching, tapping or other gestures, between the bar representing the desired action and the target." Roth at [0036]. Roth provides for multiple bars on the screen, such as shown in FIG. 4. "Of course, the present invention is not limited to merely having a singular bar representing an action. Several such bars may be dispersed around the edges of the screen so as to allow the user access to several different desired actions. These bars may be color coded to represent different actions, or the bars may utilize patterns or other color-independent markings to assist color blind users. Furthermore, the shape of the activation point is not limited to a bar-like shape; other shapes such as a dot, circle, star, gap or so forth may be used to represent the edge portion." Roth at [0037]. "In FIG. 4, we demonstrate several different embodiments of the invention, including the use of multiple bars, multiple gestures, and the placing of markers to indicate a desired action. The placing of a marker is useful in utilizing multiple gestures with multiple bars to execute a desired action in tandem." Roth at [0043]. |

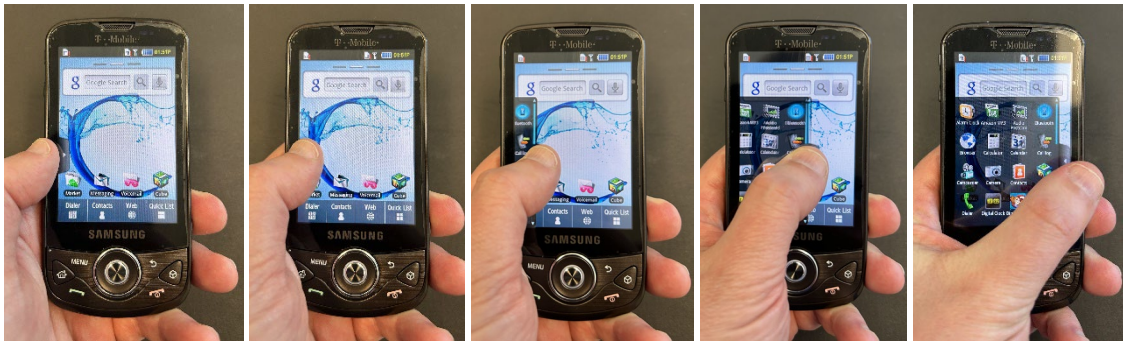
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | Fig. 2B<br>  <br><br>Roth at FIG. 2B. |

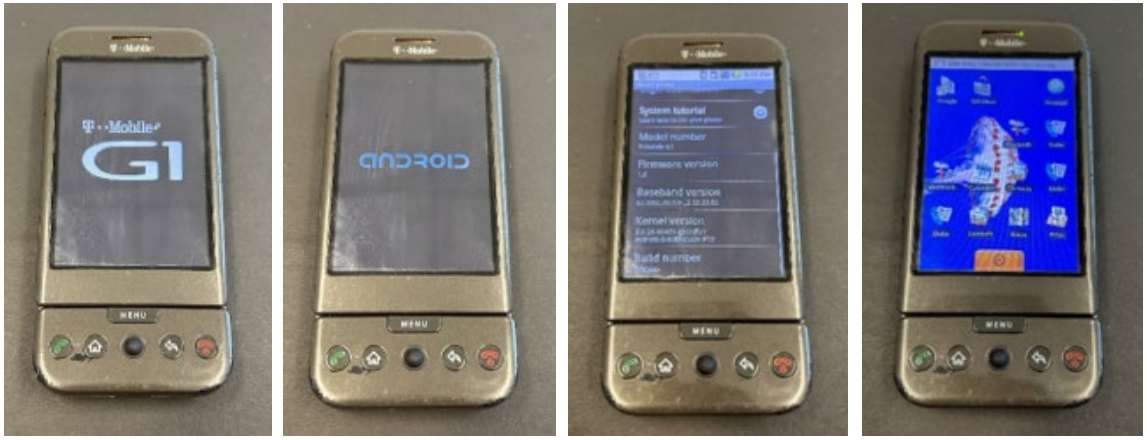
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Fig. 3<br>  <br><br>Roth at FIG. 3. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Fig. 4<br>  <br><br>Roth at FIG. 4. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 6<br>Roth at FIG. 6.<br>Roth Bezel Swipe discloses "screens of mobile devices are necessarily small, which limits the size of displayed pages and the space that can be devoted to user interface widgets" and "smaller widgets are harder to hit." Roth Bezel Swipe at 1523. Roth Bezel Swipe describes a "bezel swipe" activation gesture, where "[t]he user starts a Bezel Swipe gesture on the bezel, which is the physical touch insensitive frame that surrounds the display. The finger is then swiped through a part of the display edge into the display, which enters selection mode." Roth Bezel Swipe at 1524. Multiple such bars are described. "In our prototype, we used a colored line that stretches from the activation bar to the user's fingertip on the display." Roth Bezel Swipe at 1524. "A touch sensitive display translates the contact area of the finger with the display into an activation point." Roth Bezel Swipe at 1524. "The Bezel Swipe gesture … starts on the bezel and moves into the display." Roth Bezel |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Swipe at 1524. "Bezel Swipe relies on flat bezels and gestures from the bezel into the display …." Roth Bezel Swipe at 1524.<br>  <br><br>**Figure 1. The Bezel Swipe prototype in action. Left panel: A swipe from A to B selects an image. Middle panel: A swipe from A to B marks the beginning of a text selection. Right panel: A swipe from C to D marks the end of the text selection.**<br>Roth Bezel Swipe at FIG. 1.<br>The Samsung Behold II includes the status bar window and the applications tab window (e.g., more than one window) located on the top and left (e.g., one or more window) edges of the touch screen. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>  <br>  <br>The Samsung Behold II device. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | The HTC G1 1.6 includes the status bar window and the applications tab window (e.g., more than one window) located on the top and bottom (e.g., one or more window) edges of the touch screen.<br>  <br>HTC G1 1.6 Device.<br>  <br>HTC G1 1.6 Device |

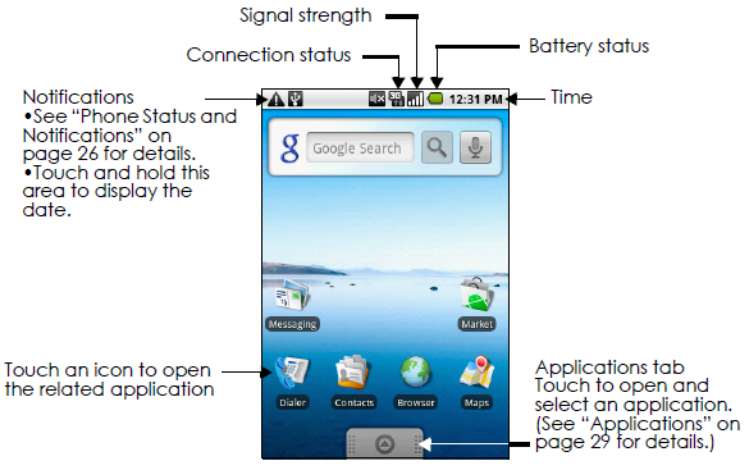
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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HTC G1 1.6 Device.

## 1.7 Home Screen

The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.

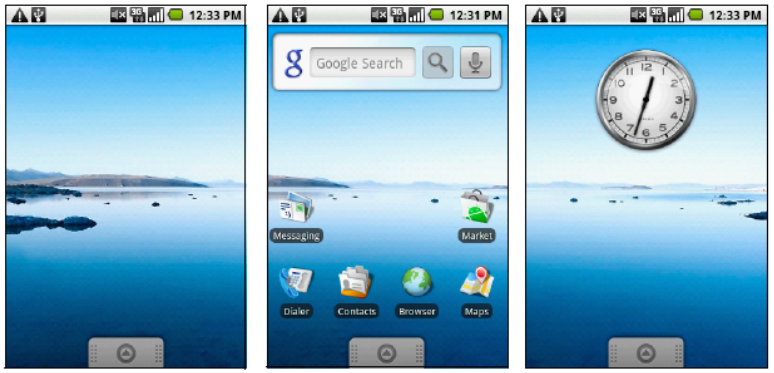



**Tip** While in any application, press **HOME** to go back to the Home screen.

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

## Extended Home screen

The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.




Extended Home screen left

Extended Home screen right

G1 User Manual 24.

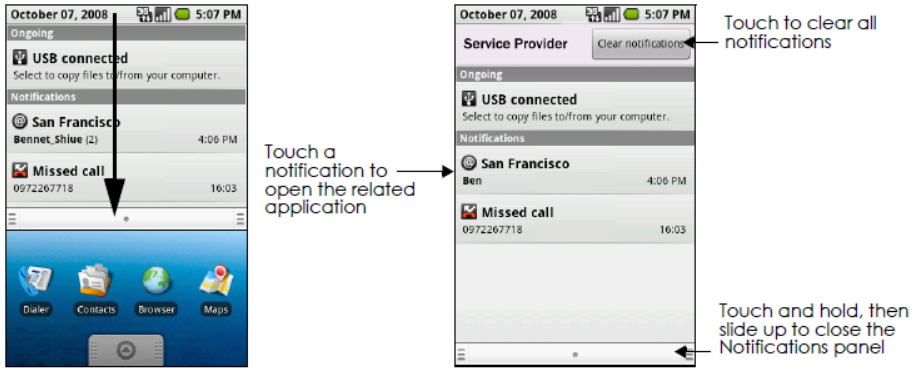
## Notifications panel

Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.

**To open the Notifications panel**

When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|




If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

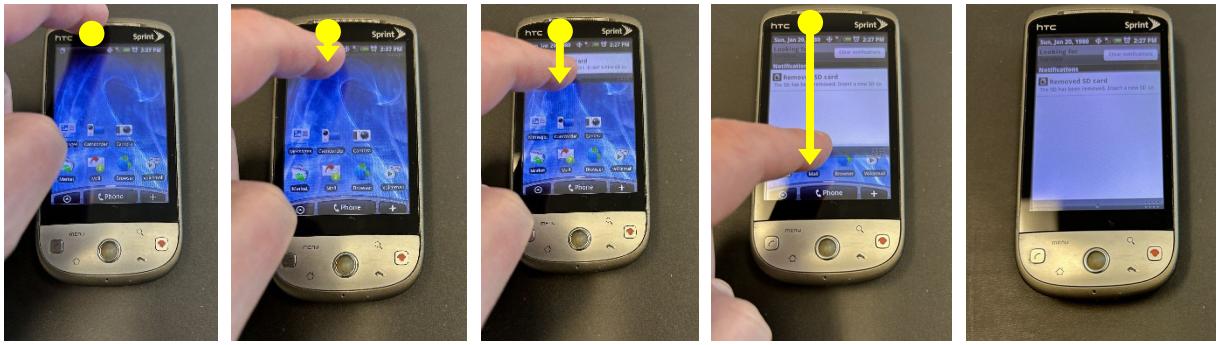
Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

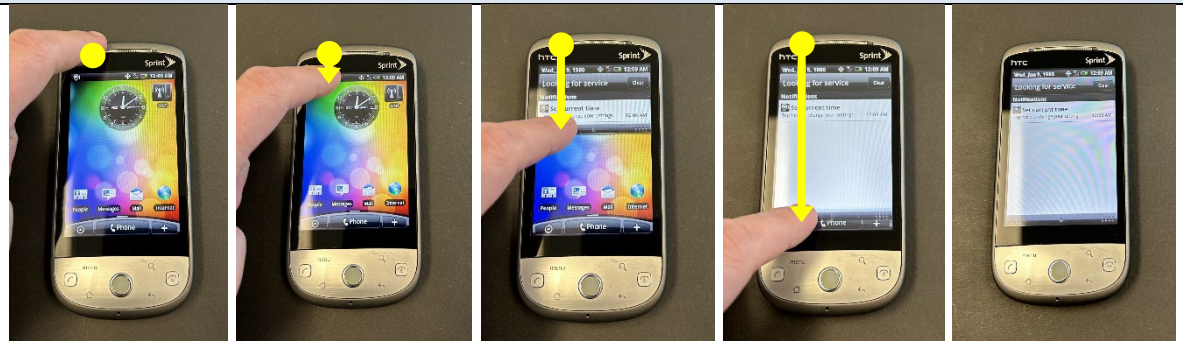
**To close the Applications tab**

Touch  .

G1 User Manual 29.

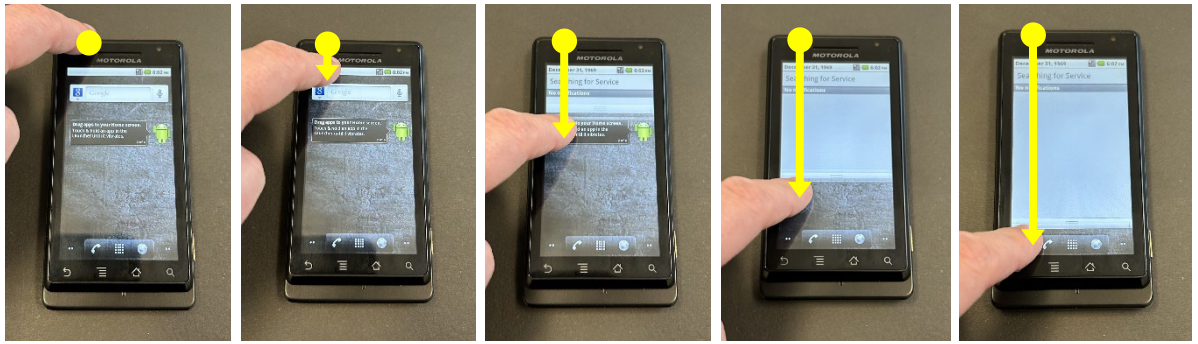
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | The HTC Hero 1.5 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar.<br>  <br>HTC Hero 1.5.<br>The HTC Hero 2.1 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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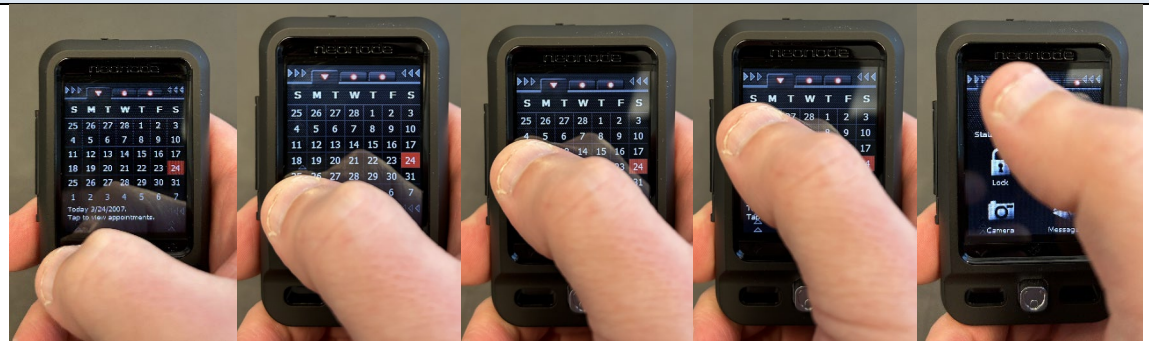
HTC Hero 2.1.

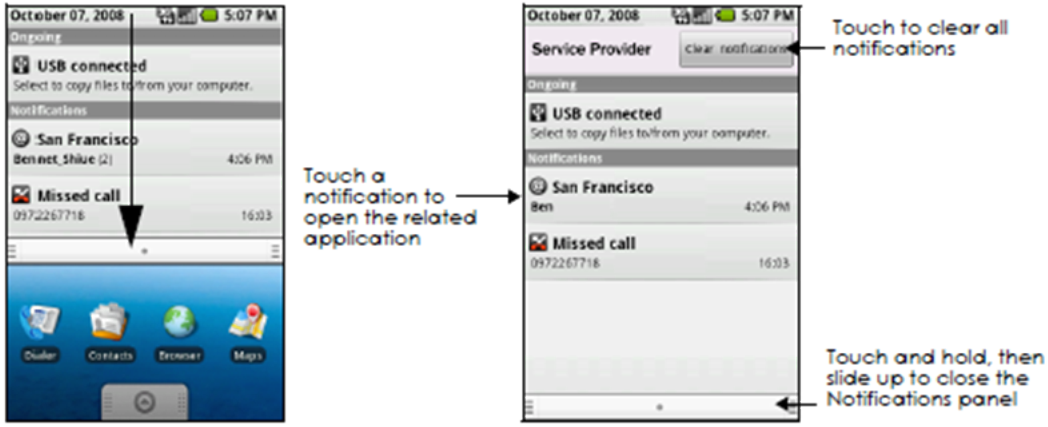
The Motorola Droid A855 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status towards to the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar.

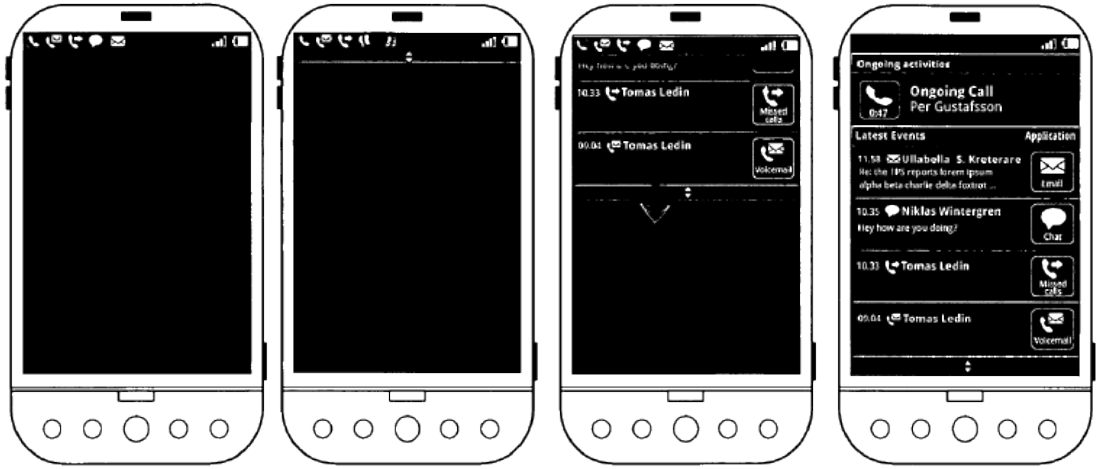


Droid A855.

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | The Neonode N2 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen from multiple sides with multiple windows showing arrows indicating that a gliding action is available. For example, the screen over the indicated icons or from the sides of the screen as indicated by the various arrows (from outside of the screen), over the arrows towards the main application display toward the inside of the touch screen (e.g., crossing over the window identifying the movement from off-to-on screen) or from the side of the display (e.g., crossing over the arrow window shown on the screen). As one example, both opening applications menu (gliding action up) and returning to the home screen (bottom right-to-left gliding action) are shown below.<br>  <br><br>Neonode N2.<br>  <br><br>Neonode N2. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Neonode N2.<br>  <br>Neonode N2<br>A POSITA would have found it obvious to incorporate more than one window located on one or more edges of the touch screen in the Palm Pre, as claimed. Each of Hisatomi, Wilairat, Jeong, Roth, Roth Bezel Swipe, the Samsung Behold II, the HTC G1 1.6, Motorola Droid A855, HTC Hero 1.5, HTC Hero 2.1, and/or the Neonode N2, teaches including more than on window located on one or more edges of the touch screen being responsive to the user's gliding action.<br>A POSITA would have been motivated to incorporate the additional windows of one or more of Hisatomi, Wilairat, Roth, Roth Bezel Swipe, the Samsung Behold II, the HTC G1 1.6, Motorola Droid A855, HTC Hero 1.5, HTC Hero 2.1, and/or the Neonode N2 into the Palm Pre to provide additional functionality for a user. For example, a POSITA would have been motivated to provide a |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | second pull-out menu at a second edge of the Palm Pre's screen to allow a user to quickly access a list of notifications or alerts, as was known in the prior art. For example, the HTC G1 1.6, Samsung Behold II, Motorola Droid A855, HTC Hero 1.5, and HTC Hero 2.1 allowed a user to drag open a status bar notifications panel and drag open an applications selection interface, as shown above and below.<br>**To open the Notifications panel**<br>When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.<br>  <br>Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.<br>T-Mobile G1 User Manual at 27-29.<br>Tseng describes a similar pull-down notifications menu from a status bar. For example, Tseng discloses a gliding action that results in dragging the status bar downward to display a message area (e.g., message area 206, 224) showing new notifications, with the gliding action first interacting with the status bar or status area window on the touch screen during the gliding movement. Tseng at [0011], [0014], [0041], FIGS. 2A-2C, 3, 4A-4B, 5. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>FIG. 2C<br>Tseng at FIG. 2C.<br>A POSITA would have been motivated to, for example, provide a second menu, such as a notifications or alert menu, for users to access other functions, such as viewing all alerts to interact with them from a top-down menu at the status bar window, in the Palm Pre by including a second window located on the touch screen, such as at the bottom shown in Figure A below. *See, e.g.*, T-Mobile G1 User Manual at 27-29 (describing slide-in menus to show notifications and applications); Jeong at [0052], [0053], FIG. 6A; Hisatomi at [0030], [0032]-[0034], FIGS. 5-7, 10-47. A POSITA also would have been motivated to use the second window to provide additional functionality, such as a keyboard taught by Wilairat, the "back" or "close" function of the Neonode N2 device, or any other user interface component, such as a "hidden menu, slide menu, drop-down menu, scrollbar, image, graphic, text, user-selectable control, menu selection, map element, and/or any other type of user interface displayable feature or item." Wilairat at [0015].<br>As was known in the art, a POSITA would have been motivated to provide the second window of the at least one windows using a thin window, such as using the status bar at the top of the Palm |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Pre's screen as was described in Tseng and known in the HTC G1 1.6, the Samsung Behold II, the Motorola Droid A855, the HTC Hero 1.5, and the HTC Hero 2.1.<br><br>A POSITA also would have been motivated by the teachings in the prior art itself. Roth Bezel Swipe describes using off-to-on screen gliding gestures allows a user to "start [a swiping gesture] on the bezel and move[] into the display" to contact "a narrow target (the red bar) positioned flush against the display edge" along with other colored bars on the same or different display edges. Roth Bezel Swipe at 1524, Figure 1. A POSITA would have recognized that such bezel swipe gesture are "recognized by detecting touches inside a thin rectangular area [e.g. red application bar window of Figure A] positioned flush against the display screen," which "enables the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch." Roth Bezel Swipe at 1524, Figures 1, 2 (emphasis added). A POSITA also would have been motivated to use a very thin indicator to provide a second window because it "requires minimal display real estate" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]," which a POSITA would have recognized makes it ideal for smaller device screens, such as the Palm Pre. Roth Bezel Swipe at 1524; Roth at [0009].<br><br>A POSITA would have been motivated to provide more than one window with varying functions and/or sizes, depending on the design preferences, such as shown in Roth Bezel Swipe, Roth, Jeong, and the T-Mobile G1 User Manual, or the entire edge, as shown in Tseng and Hisatomi. Roth Bezel Swipe at Figures 1, 2; Roth at FIGS. 2A-4; T-Mobile G1 User Manual at 27-29; Tseng at FIGS. 2A-2C. In such cases, a POSITA would have known that the design would not have hindered the user's use of the application in the Palm Pre's main application area because, by design, the second window would have been the status bar already displayed at the top of the Palm Pre's screen, as disclosed by Tseng and the T-Mobile G1 User Manua, and in commercial devices, such as the HTC G1 1.6, the Samsung Behold II, the Motorola Droid A855, the HTC Hero 1.5, and the HTC Hero 2.1. A POSITA would have found this obvious, for example, by using the status bar, which is a thin bar similar to that taught by Roth or Roth Bezel Swipe or by making a determination of a pull-in gesture, using, for example, the expanding contact method taught by Wilairat. A POSITA would have recognized this would further safeguard against accidental activation from direct touch. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | It was well known to a POSITA that including more than one window for activating gliding actions would have provided additional functionality for user. Including more than one window for activation by a gliding action would have "enable[d] the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524. Activating functions where "[u]sers can invoke actions with swiping features across a section of the display [touch screen] side from the outside to the inside" also "requires minimal display real estate," whereby being beneficial to mobile devices that have small screens. Roth at [0009]. A POSITA would have known that such activation operations, like crossing activations, "can be more efficient than pointing tasks," especially on small-screen devices, such as mobile phones and can each be "made small so as to not take up valuable space on the display." Roth at [0009], [0036].<br><br>Including more than one window located on one or more edges of the touch screen, such as the status bar to open a pull-down notifications and alerts interface, was routine and conventional to POSITAs, as shown by Tseng, the Samsung Behold II, the HTC G1 1.6, and Motorola Droid A855, the HTC Hero 1.5, and the HTC Hero 2.1. The use of multiple gliding-action-activated windows was also routine and conventional, as shown by Hisatomi, Wilairat, Jeong, Roth, Roth Bezel Swipe, and/or the Neonode N2. Incorporating more than one window located on one or more edges of the touch screen into the Palm Pre represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with the Palm Pre, represent nothing more than combining prior art elements according to known methods and techniques (including a second glide-activated window, such as known in Hisatomi, Wilairat, Jeong, Tseng, Roth, Roth Bezel Swipe, the Samsung Behold II, the HTC G1 1.6, the Motorola Droid A855, the HTC Hero 1.5, the HTC Hero 2.1, and/or the Neonode N2) to yield predictable results (performing the function associated with the window(s)). |

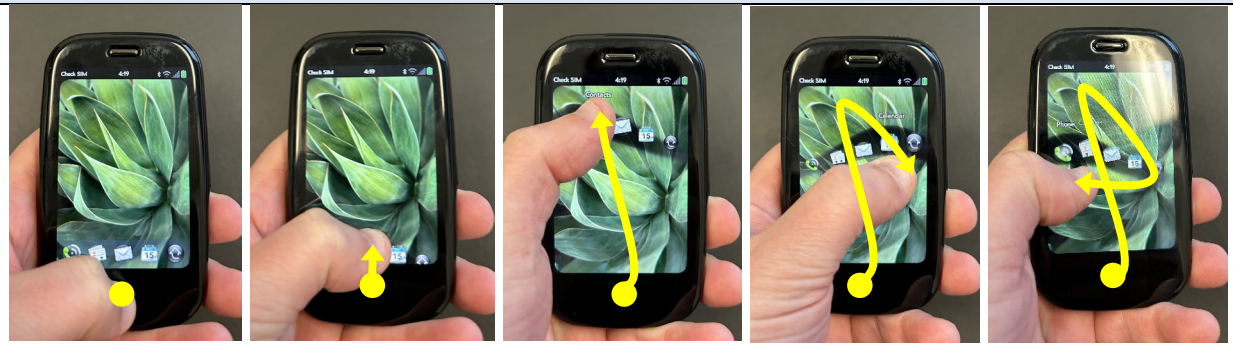
| Claim 16 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[16]** The system of claim 15, wherein said at least one window extends along a substantial portion of an edge of the touch screen. | Claim 16 depends from claims 15 and 1. Defendants incorporate all the prior art disclosures from claims 15 and 1 here, which anticipate and/or render claims 15 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 15 and 1 to show the additional limitations of claim 16 are anticipated and/or obvious for the same reasons set out in claims 15 and 1.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window extends along a substantial portion of an edge of the touch screen."<br><br>Claim 16 recites substantially the same limitations as claim 4 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 4. *See, e.g.*, *supra* claim 4.<br><br>As discussed *supra* claim 4, the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said at least one window extends along a substantial portion of an edge of the touch screen." *See supra* claim 4. |

| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[17]** The system of claim 1, wherein during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen. | Claim 17 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 17 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during providing said gliding |

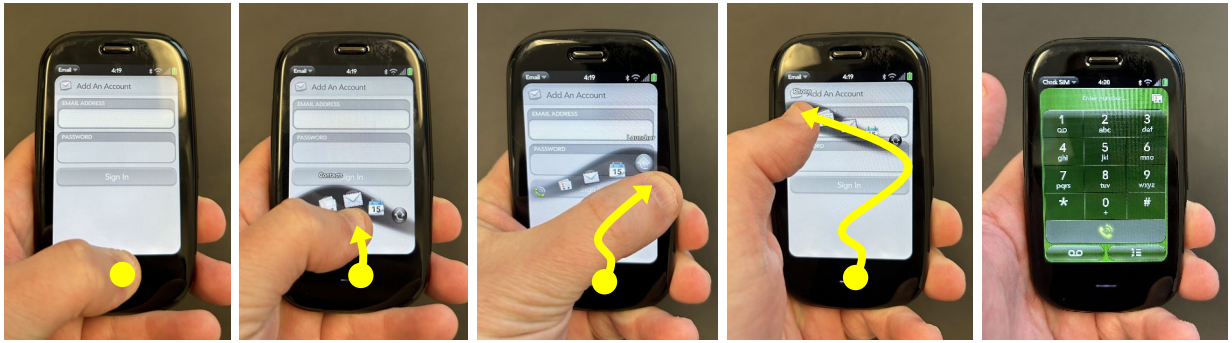
| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen."<br><br>For example, the Palm Pre includes, during providing the gliding action, Palm Pre dynamically drags and shows the Quick Launch interface on the touch screen, such as explained in claims 1, 7, 8, and 13. *Supra* claims 1, 7, 8, 13. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[18]** The system of claim 1, wherein the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface. | Claim 18 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 18 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface."<br><br>For example, the Palm Pre's processor relates the gliding action from the gesture area towards the display screen provided in any arbitrary direction inside the touch screen to presenting the same Quick Launch interface because the user's gliding action can proceed in any direction or path while the interface travels with the user's finger. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|



The Palm Pre.



The Palm Pre.

Display

- 3.1-inch touchscreen
- 24-bit color
- Resolution: 320 x 480 HVGA
- User-adjustable brightness

Palm Pre Plus User Guide at 194.

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>1 Earpiece<br>2 **Touchscreen:** Tap and make other gestures directly on the screen. See Touchscreen.<br><br>Touchscreen<br>  <br>1 **Application name:** Displays the name of the currently open application. Drag down over the app name to open the application menu.<br>2 **Launcher:** See Open an application in the Launcher.<br>3 **Scroll arrow:** Swipe up or down to see icons that are on the page but hidden.<br>4 **Quick Launch:** See Open an application in Quick Launch.<br>5 **Connection icons:** Show the status of wireless service connections and battery strength (see Icons in the title bar). Drag down over the icons to open the connection menu.<br>6 **Page indicators:** Show how many Launcher pages are to the right or the left of the currently displayed page. Swipe left or right on the screen to see other pages.<br>7 **Notification icons:** Show missed calls, new voicemail and email messages, and more. Tap the bottom of the screen to view notification details. See View all your notifications.<br><br>Palm Pre Plus User Guide at 10, 11.<br><br>You make gestures in two areas on your phone: the touchscreen and the gesture area. The gesture area is the black area extending along the bottom of the screen.<br><br>Palm Pre Plus User Guide at 18. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

## The Face of the Pre

The front of the Pre has both a touchscreen and a *gesture area*—the two primary ways you communicate with the phone—as well as a physical button. It's also where you'll find the phone's earpiece and microphone.







The screen is divided into five sections:

- **Status bar.** This narrow strip at the top of the screen gives you info like the name of the program you're working with, the time, how much charge your battery has left, and more. It's covered in detail on the next page.
- **Touchscreen.** The touchscreen displays open programs and responds to finger taps and gestures. For more on the touchscreen, flip to page 15.
- **Quick Launch panel.** This section near the bottom of the touchscreen gives you easy access to the four most widely used applications on the Pre—the phone, your Contacts lists (page 61), the email program (page 126), and the calendar program—along with a shortcut to the Launcher (see page 19).

## The Touchscreen

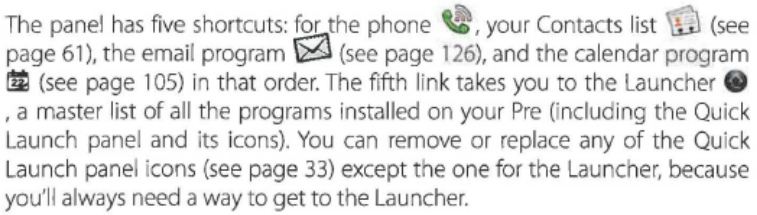
Your Pre's screen is touchy—but in a good way: It responds to finger taps and movements, which is how you tell the Pre what to do. So the touchscreen isn't just a display, it's also your mouse and telephone dial pad. Try it—tap the phone icon , and the dial pad pops up.

Palm Pre The Missing Manual at 12-13.

## The touchscreen

The Pre's main display area, called the *touchscreen*, is where the action is most of the time. It's the Pre's equivalent of a PC's desktop—it displays open programs and serves as the conduit for communications between you and the Pre. It's one of the two places that responds to the finger gestures that tell the Pre what to do (the other is the gesture area; see page 18).

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | If you have a program open, the touchscreen displays a miniature screen shot of the program, which Palm calls an *activity card*. If you have several programs open, the touchscreen displays a set of cards, one beside the other, as in the image below. Palm calls this overview look at open programs the *Card view*. To work within one of the programs, tap its card. The application takes over the touchscreen and you're ready to get to work.<br>  <br>**Quick Launch panel**<br>As mentioned on page 13, the Quick Launch panel gives you shortcuts to the programs you use most often. Think of it as Palm's version of the Windows Toolbar or the Mac OS X's Dock.<br>  |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Palm Pre The Missing Manual at 15-17.<br>*See, e.g.*, Palm Pre reviews listed above. |

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[19Pre]**[5] A system for capturing an event provided from an edge of a touch screen comprising: | To the extent that the preamble is held to be limiting, the Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[a] system for capturing an event provided from an edge of a touch screen."<br>[19Pre] recites substantially the same limitations as [1Pre] and is therefore anticipated or rendered obvious for substantially the same reasons as [1Pre]. *See, e.g.*, *supra* [1Pre].<br>As discussed *supra* [1Pre], the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "[a] system for capturing an event provided from an edge of a touch screen." *See supra* [1Pre]. |

[5] Claim 19 as corrected in the Certificate of Correction issued February 16, 2021.

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[19A]** a device having a touch screen; | The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a device having a touch screen."<br><br>[19A] recites substantially the same limitations as [1A] and is therefore anticipated or rendered obvious for substantially the same reasons as [1A]. *See, e.g.*, *supra* [1A].<br><br>As discussed *supra* [1A], the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "a device having a touch screen." *See supra* [1A]. |
| **[19B]** a zone in form of a bar located in the touch screen on an edge of the touch screen; and | The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a zone in form of a bar located in the touch screen on an edge of the touch screen; and a processor."<br><br>[19B] recites substantially the same limitations as [1B] and claim 3, except that it recites a "zone in the form of a bar" instead of a "window," and is anticipated or rendered obvious for substantially the same reasons as [1B] and claim 3. *See, e.g.*, *supra* [1B], claim 3. Each of the Palm Pre's status bar and/or applications tab are a "zone in the form of a bar" located on the edge of a touch screen, as explains in [1B] and claim 3.<br><br>As discussed *supra* [1B] and claim 3, the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "a zone in form of a bar located in the touch screen on an edge of the touch screen." *See supra* [1B] and claim 3. |

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[19C]** a processor; | The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a processor."<br><br>[19C] recites substantially the same limitations as [1C] and is therefore anticipated or rendered obvious for substantially the same reasons as [1C]. *See, e.g.*, *supra* [1C].<br><br>As discussed *supra* [1C], the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "a processor." *See supra* [1C]. |
| **[19D]** wherein a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone, and wherein the processor executes a function related to said zone, and wherein said zone is present on said edge regardless of the interface of an application on said touch screen, and | The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone, and wherein the processor executes a function related to said zone, and wherein said zone is present on said edge regardless of the interface of an application on said touch screen."<br><br>[19D] recites substantially the same limitations as [1B] ("said at least one window functions independently of an interface of an application in use on the touch screen"), [1D] ("a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said processor to cause an action assigned to said window"), and claim 18 ("the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface"), except that it does not recite that the gliding action begins off screen, and is therefore anticipated or rendered obvious for substantially the same reasons as [1B], [1D], and claim 18. *See, e.g.*, *supra* [1B], [1D], and claim 18.<br><br>As discussed *supra* [1B], [1D], and claim 18, the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or |

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone, and wherein the processor executes a function related to said zone, and wherein said zone is present on said edge regardless of the interface of an application on said touch screen." *See supra* [1B], [1D], and claim 18. |
| **[19E]** wherein said zone is located on the touch screen before said gliding action begins. | The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said zone is located on the touch screen before said gliding action begins."<br><br>[19E] recites substantially the same limitations as [1E], except that it recites "said zone" instead of "said at least one window," and is therefore anticipated or rendered obvious for substantially the same reasons as [1E] and [19B]. *See, e.g.*, *supra* [1E] and [19B].<br><br>As discussed *supra* [1E] and [19B], the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said zone is located on the touch screen before said gliding action begins." *See supra* [1E] and [19B]. |

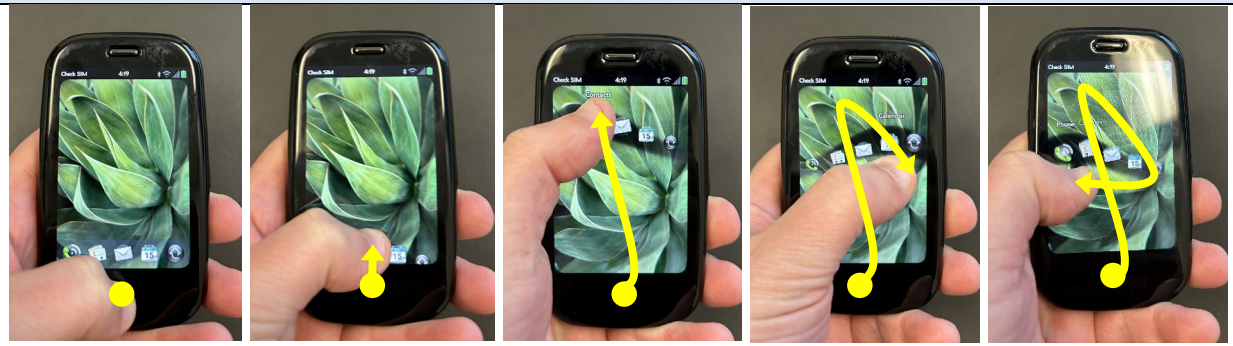
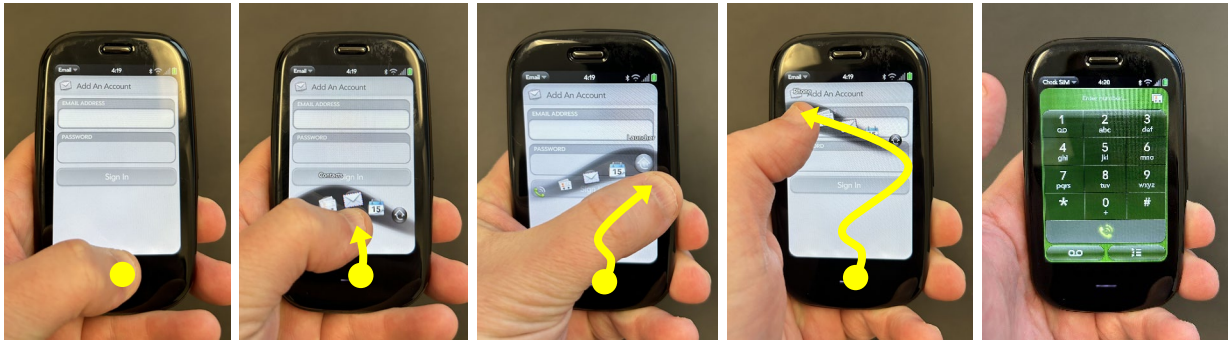
| Claim 21 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[21]** The system of claim 19, wherein upon detecting said gliding action, the system relates said gliding action to setting the location of an interface on the touch screen. | Claim 21 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 21 are anticipated and/or obvious for the same reasons set out in claim 19. |

| Claim 21 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said gliding action, the system relates said gliding action to setting the location of an interface on the touch screen."<br><br>Claim 21 recites substantially the same limitations as claim 13 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 13. *See, e.g.*, *supra* claim 13.<br><br>As discussed *supra* claim 13, the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "upon detecting said gliding action, the system relates said gliding action to setting the location of an interface on the touch screen." *See supra* claim 13. |

| Claim 22 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[22]** The system of claim 19, wherein said bar comprises more than one bar located on one or more edges of the touch screen. | Claim 22 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 22 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said bar comprises more than one bar located on one or more edges of the touch screen."<br><br>Claim 22 recites substantially the same limitations as claim 15 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 15. *See, e.g.*, *supra* claim 15. |

| Claim 22 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | As discussed *supra* claim 15, the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said bar comprises more than one bar located on one or more edges of the touch screen." *See supra* claim 15. |

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[23]** The system of claim 19, wherein said zone is in a form of a visible or invisible line. | Claim 23 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 23 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said zone is in a form of a visible or invisible line."<br><br>For example, the Palm Pre includes the zone to open the Quick Launch interface being in the form of a visible line on the home screen and, on information and belief, and invisible line when an application is open full screen. |

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>The Palm Pre.<br>  <br>The Palm Pre. |

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>One kind of drag that you'll use a lot brings up **Quick Launch** when you're in an application. This drag gesture begins in the gesture area and ends on the touchscreen. As your fingertip slowly crosses the border between the gesture area and the touchscreen, it seems to drag Quick Launch into view. To open one of the apps in Quick Launch, move your finger to its icon. When you see the app name appear, lift your finger. The application opens.<br>Palm Pre Plus User Guide at 20. |

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | 1 Drag up slowly from the gesture area to the screen.<br><br>NOTE Don't confuse this "drag up" with the up gesture, which is a flick up from the gesture area to the screen that displays Card view.<br><br>2 Move your finger to the application icon. When you see the app name appear, lift your finger. The application opens.<br><br>  <br><br>Palm Pre Plus User Guide at 25.<br><br>**Quick Launch**<br>A bar of up to five icons that give you quick access to applications. Quick Launch always appears at the bottom of Card view and the Launcher. By default, Quick Launch displays icons for the following apps: Phone, Email, Contacts, and Calendar. The fifth icon is the Launcher. Tap a Quick Launch icon to open the app.<br><br>You can also open Quick Launch from any maximized application window by dragging up from the gesture area to the screen. Move your finger to the app you want, and then lift your finger. The application opens.<br><br>Palm Pre Plus User Guide at 183. |

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **Quick Launch Panel**<br>As you learned in the last chapter, Palm figures you'll use certain programs all the time, so they've put shortcuts for those programs—Phone, Email, Contacts, and Calendar—in the *Quick Launch panel*. Tap one of the program's icons to open that program.<br>  <br>The Quick Launch panel is always at the bottom of the Pre's touchscreen (see page 12) when you're in Card view (page 36). But you're not always in Card view. For example, if you're working in an application, you don't see the Quick Launch panel. In cases like that, you can pull up a "floating" version of the panel, which looks like something out of the psychedelic '60s.<br>  <br>Here's how to do that: Drag your finger from the gesture area toward the center of the touchscreen. As you cross the border between the two, a bendy version of the Quick Launch panel pops up, looking a bit like a shape-shifting boomerang. Keep your finger on the panel, and slide it over to the program you want to open. The Pre displays the application's name to confirm your choice. Simply lift your finger to open that application.<br>Palm Pre The Missing Manual at 32-33.<br>*See, e.g.*, the Palm Pre reviews listed above.<br>Moreover, claim 23 recites substantially the same limitations as claim 5 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 5. *See, e.g.*, *supra* claim 5. |

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | As discussed *supra* claim 5, the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said zone is in a form of a visible or invisible line." *See supra* claim 5. |

| Claim 24 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[24]** The system of claim 23, wherein said function is displaying an interface on the screen. | Claim 24 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 23 and 19 to show the additional limitations of claim 24 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying an interface on the screen."<br><br>Claim 24 recites substantially the same limitations as claims 6, 9, and 12 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6, 9, and 12. *See, e.g.*, *supra* claims 6, 9, 12.<br><br>As discussed *supra* claims 6, 9, and 12, the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying an interface on the screen." *See supra* claims 6, 9, 12. |

| Claim 25 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[25]** The system of claim 23, wherein said function is displaying a portion of an interface on the screen. | Claim 25 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 23 and 19 to show the additional limitations of claim 25 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen."<br><br>Claim 25 recites substantially the same limitations as claims 7 and 10 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7 and 10. *See, e.g.*, *supra* claims 7 and 10.<br><br>As discussed *supra* claims 7 and 10, the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10. |

| Claim 26 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[26]** The system of claim 23, wherein said function is displaying a portion of an interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action. | Claim 26 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 23 and 19 to show the additional limitations of claim 26 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a |

| Claim 26 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | portion of an interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action."<br><br>Claim 26 recites substantially the same limitations as claims 8 and 11 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8 and 11. *See, e.g.*, *supra* claims 8, 11.<br><br>As discussed *supra* claims 8 and 11, the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action." *See supra* claims 8, 11. |

| Claim 27 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[27]** The system of claim 19, wherein said bar is visible or invisible. | Claim 27 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 27 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said bar is visible or invisible."<br><br>Claim 27 recites substantially the same limitations as claim 23 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 23. *See, e.g.*, *supra* claim 23.<br><br>As discussed *supra* claim 23, the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of |

| Claim 27 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said bar is visible or invisible." *See supra* claim 23. |

| Claim 28 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[28]** The system of claim 27, wherein said function is displaying an interface on the screen. | Claim 28 depends from claims 27 and 19. Defendants incorporate all the prior art disclosures from claims 27 and 19 here, which anticipate and/or render claims 27 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 27 and 19 to show the additional limitations of claim 28 are anticipated and/or obvious for the same reasons set out in claims 27 and 19.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying an interface on the screen."<br><br>Claim 28 recites substantially the same limitations as claims 6, 9, 12, and 24 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6, 9, 12, and 24. *See, e.g.*, *supra* claims 6, 9, 12, 24.<br><br>As discussed *supra* claims 6, 9, 12, and 24, the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying an interface on the screen." *See supra* claims 6, 9, 12, 24. |

| Claim 29 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[29]** The system of claim 27, wherein said function is | Claim 29 depends from claims 27 and 19. Defendants incorporate all the prior art disclosures from claims 27 and 19 here, which anticipate and/or render claims 27 and 19 obvious as set out above. |

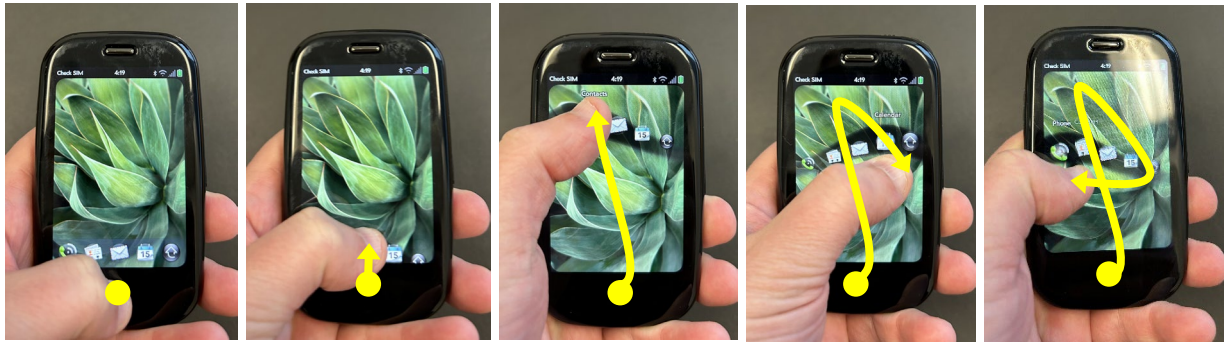
| Claim 29 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| displaying a portion of an interface on the screen. | Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 27 and 19 to show the additional limitations of claim 29 are anticipated and/or obvious for the same reasons set out in claims 27 and 19.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen."<br><br>Claim 29 recites substantially the same limitations as claims 7, 10, and 25 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7, 10, and 25. *See, e.g.*, *supra* claims 7, 10, 25.<br><br>As discussed *supra* claims 7, 10, and 25, the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10, 25. |

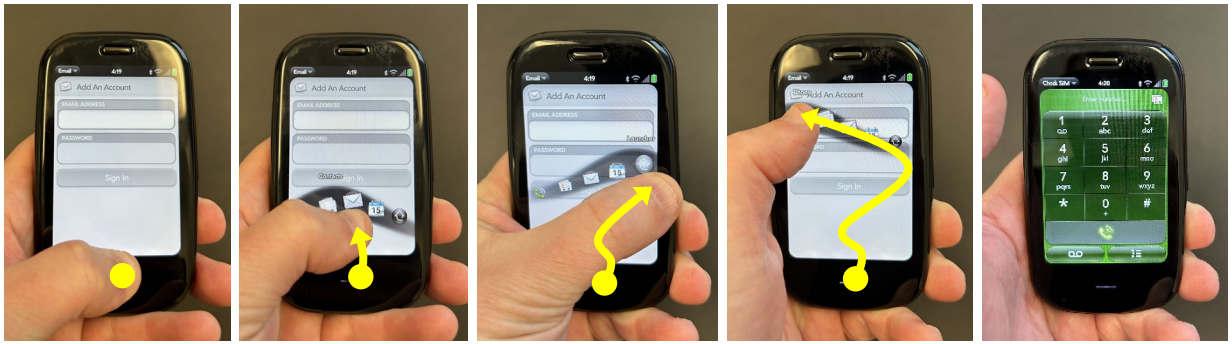
| Claim 30 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[30]** The system of claim 29, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 30 depends from claims 29, 27, and 19. Defendants incorporate all the prior art disclosures from claims 29, 27, and 19 here, which anticipate and/or render claims 29, 27, and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 29, 27, and 19 to show the additional limitations of claim 30 are anticipated and/or obvious for the same reasons set out in claims 29, 27, and 19.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a |

| Claim 30 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>Claim 30 recites substantially the same limitations as claims 8, 11, and 26 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8, 11, and 26. *See, e.g.*, *supra* claims 8, 11, 26.<br><br>As discussed *supra* claims 8, 11, and 26, the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claims 8, 11, 26. |

| Claim 31 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[31]** The system of claim 19, wherein during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen. | Claim 31 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 31 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen."<br><br>Claim 31 recites substantially the same limitations as claim 17 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 17. *See, e.g.*, *supra* claim 17.<br><br>As discussed *supra* claim 17, the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of |

| Claim 31 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen." *See supra* claim 17. |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[32]** The system of claim 19, wherein said function is displaying a same interface for any said gliding action, said gliding action interacting with any portion of said zone. | Claim 32 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 32 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a same interface for any said gliding action, said gliding action interacting with any portion of said zone."<br><br>For example, the Palm Pre includes that the functions of displaying the same Quick Launch interface for any gliding action from the gesture area into the display screen, where the gliding action may begin on any portion of the gesture area outside of the display screen.<br><br>  |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | The Palm Pre.<br>  <br>The Palm Pre. |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>One kind of drag that you'll use a lot brings up **Quick Launch** when you're in an application. This drag gesture begins in the gesture area and ends on the touchscreen. As your fingertip slowly crosses the border between the gesture area and the touchscreen, it seems to drag Quick Launch into view. To open one of the apps in Quick Launch, move your finger to its icon. When you see the app name appear, lift your finger. The application opens.<br>Palm Pre Plus User Guide at 20. |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | 1 Drag up slowly from the gesture area to the screen.<br><br>NOTE Don't confuse this "drag up" with the up gesture, which is a flick up from the gesture area to the screen that displays Card view.<br><br>2 Move your finger to the application icon. When you see the app name appear, lift your finger. The application opens.<br><br>  <br><br>Palm Pre Plus User Guide at 25.<br><br>**Quick Launch**<br>A bar of up to five icons that give you quick access to applications. Quick Launch always appears at the bottom of Card view and the Launcher. By default, Quick Launch displays icons for the following apps: Phone, Email, Contacts, and Calendar. The fifth icon is the Launcher. Tap a Quick Launch icon to open the app.<br><br>You can also open Quick Launch from any maximized application window by dragging up from the gesture area to the screen. Move your finger to the app you want, and then lift your finger. The application opens.<br><br>Palm Pre Plus User Guide at 183. |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **Quick Launch Panel**<br>As you learned in the last chapter, Palm figures you'll use certain programs all the time, so they've put shortcuts for those programs—Phone, Email, Contacts, and Calendar—in the *Quick Launch panel*. Tap one of the program's icons to open that program.<br>  <br>The Quick Launch panel is always at the bottom of the Pre's touchscreen (see page 12) when you're in Card view (page 36). But you're not always in Card view. For example, if you're working in an application, you don't see the Quick Launch panel. In cases like that, you can pull up a "floating" version of the panel, which looks like something out of the psychedelic '60s.<br>  <br>Here's how to do that: Drag your finger from the gesture area toward the center of the touchscreen. As you cross the border between the two, a bendy version of the Quick Launch panel pops up, looking a bit like a shape-shifting boomerang. Keep your finger on the panel, and slide it over to the program you want to open. The Pre displays the application's name to confirm your choice. Simply lift your finger to open that application.<br>Palm Pre The Missing Manual at 32-33.<br>*See, e.g.*, the Palm Pre reviews listed above. |

| Claim 33 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[33]** The system of claim 32, wherein said gliding action is provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen. | Claim 33 depends from claims 32 and 19. Defendants incorporate all the prior art disclosures from claims 32 and 19 here, which anticipate and/or render claims 32 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 32 and 19 to show the additional limitations of claim 33 are anticipated and/or obvious for the same reasons set out in claims 32 and 19.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said gliding action is provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen."<br><br>Claim 33 recites substantially the same limitations as [1D] ("wherein a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen") and is therefore anticipated or rendered obvious for substantially the same reasons as [1D]. *See, e.g.*, *supra* [1D].<br><br>As discussed *supra* [1D], the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "wherein said gliding action is provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen." *See supra* [1D]. |

| Claim 34 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[34]** The system of claim 19, wherein said function is displaying a portion of an interface on the screen. | Claim 34 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 34 are anticipated and/or obvious for the same reasons set out in claim 19. |

| Claim 34 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen."<br><br>Claim 34 recites substantially the same limitations as claims 7, 10, 25, and 29 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7, 10, 25, and 29. *See, e.g.*, *supra* claims 7, 10, 25, 29.<br><br>As discussed *supra* claims 7, 10, 25, and 29, the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10, 25, 29. |

| Claim 35 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[35]** The system of claim 34, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 35 depends from claims 34 and 19. Defendants incorporate all the prior art disclosures from claims 34 and 19 here, which anticipate and/or render claims 34 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 34 and 19 to show the additional limitations of claim 35 are anticipated and/or obvious for the same reasons set out in claims 34 and 19.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." |

| Claim 35 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Claim 35 recites substantially the same limitations as claims 8, 11, 26, and 30 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8, 11, 26, and 30. *See, e.g.*, *supra* claims 8, 11, 26, 30.<br><br>As discussed *supra* claims 8, 11, 26, and 30, the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claims 8, 11, 26, 30. |

| Claim 36 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[36]** The system of claim 19, wherein said zone extends along a substantial portion of said edge. | Claim 36 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 36 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Palm Pre, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said zone extends along a substantial portion of said edge."<br><br>Claim 36 recites substantially the same limitations as claims 4 and 16 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 4 and 16. *See, e.g.*, *supra* claims 4, 16.<br><br>As discussed *supra* claims 4 and 16, the Palm Pre teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said zone extends along a substantial portion of said edge." *See supra* claims 4, 16. |

# Appendix A8

**Exhibit A8**

**Invalidity of Asserted Claims of the ’602 Patent**

**in view of the Neonode N2**

The Neonode N2 device (“the Neonode N2”), was, on information and belief, publicly available, sold, offered for sale, and/or used in the United States and was thus available to and known or used by others, at least as early as 2008, including at CES 2008 in the United States. The Neonode N2 is described in at least the following documents and other materials cited in this chart:

- Neonode N2 user guide (“Neonode N2 User Manual”) (SAM-KEY_00984787-SAM-KEY_00984831).
- “Neonode N2 Review,” *available at* https://www.phonearena.com/reviews/Neonode-N2-Review_id1849 (Dec. 9, 2008) (SAM-KEY_00994268-SAM-KEY_00994285).
- “Neonode N2,” *available at* https://www.cnet.com/videos/neonode-n2/ (Feb. 15, 2008) (SAM-KEY_00992962-SAM-KEY_00992963).
- “Neonode N2 – black (unlocked) review: Neonode N2 – black (unlocked),” *available at* https://www.cnet.com/reviews/neonode-n2-black-unlocked-review/ (Jan. 23, 2008) (SAM-KEY_00992964-SAM-KEY_00992986).
- “Wired Video: Meet the Neonode N2, a Tiny, Supercool Swedish Cellphone,” *available at* https://www.wired.com/2008/01/wired-video-chr/?intcid=inline_amp (Jan. 10, 2008) (SAM-KEY_00992987-SAM-KEY_00992990).
- “Wired CES 2008: The Ultra-Tiny Neonode 2 Cellphone,” *available at* https://www.youtube.com/watch?v=KTitUq1ffCA (Jan. 10, 2008) (SAM-KEY_00992961).
- “iPhone-Killer part 1, Neonode N2 – the intuitive phone,” *available at* https://lqchinh.wordpress.com/2007/07/05/iphone-killer-part-1-neonode-n2-the-intuitive-phone/ (July 5, 2007) (SAM-KEY_00992991-SAM-KEY_00992993).
- “Neonode N2 unbox and review video,” *available at* https://www.youtube.com/watch?v=Ux_9tbioS_8 (Feb. 17, 2008) (SAM-KEY_00992956).
- “Neonode N2 review: Simply cool,” *available at* https://www.gsmarena.com/neonode_n2-review-174p2.php (Oct. 15, 2007) (SAM-KEY_00992994-SAM-KEY_00992997).

- "Neonode N2 instructions film," *available at* https://www.youtube.com/watch?v=Hq3S8Crxf2s (Oct. 18, 2007) (SAM-KEY_00992955).
- "Neonode N2 overview," *available at* https://www.youtube.com/watch?v=vQNUQm3-qJA (Mar. 26, 2008) (SAM-KEY_00992954).
- "Neonode N2 user interface," *available at* https://www.youtube.com/watch?v=MfDMHmlZRLc (Feb. 13, 2007) (SAM-KEY_00992957).
- Documents produced in this litigation, as cited herein.
- Physical products acquired in this litigation, including but not limited to, a Neonode N2 device ("Neonode N2 Device").
- Expected testimony and evidence regarding the development, design, and/or use of the Neonode N2.
- Source code for the Neonode N2, as referenced herein and/or acquired.

Citations to the above-listed references are exemplary, and Samsung reserves the right to rely on additional passages, prior art, and information regarding the operation and functionality of the Neonode N2 obtained through fact, expert, and third-party discovery, which is ongoing.

The Neonode N2 qualifies as prior art to U.S. Patent No. 9,304,602 ("'602 patent") at least under pre-AIA 35 U.S.C. §§ 102(a) and/or (b) and AIA 35 U.S.C. §§ 102(a)(1).[1] The Neonode N2 was publicly available, sold, offered for sale, and/or used before the priority date to which the '602 patent claims are entitled, if any.

The Neonode N2 anticipates or, alone or with other references, renders obvious one or more of asserted claims 1-13, 15-19, and 21-36 of the '602 patent. To the extent Keyless contends the Neonode N2 does not disclose one or more limitations of the claims, it would have been obvious to combine the Neonode N2 with the knowledge of a person of ordinary skill in the art ("POSITA") and/or with one or more of the following references to render the claims at issue in the '602 patent invalid. The chart below illustrates how the asserted claims of the '602 patent are invalid in view of the Neonode N2 and/or additional secondary references listed below, including but not limited to the prior art identified in Defendant's Invalidity Contentions.

[1] Keyless Licensing LLC (or "Keyless") alleges that the asserted claims of the '602 patent are entitled to priority as early as December 20, 2009. However, as explained in the cover pleading, the asserted claims of the '602 patent are not entitled to Keyless's claimed priority date due to inadequate written description support. Assuming the claims are not invalid under Section 112 (*see, e.g.*, cover pleading), the earliest possible priority date for the asserted '602 patent claims is 2/11/2010 or later.

- U.S. Patent Application Publication No. 2004/0109013 A1 to Goertz ("Goertz"), filed December 10, 2002, and published on June 10, 2004. Goertz qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b) and/or (e).
- U.S. Patent Application Publication No. 2008/0207188 A1 to Ahn et al. ("Ahn"), filed on February 14, 2008, and published on August 28, 2008. Ahn qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b) and/or (e).
- U.S. Patent Application Publication No. 2009/0094562 A1 to Jeong et al. ("Jeong"), filed on October 3, 2008, and published on April 9, 2009. Jeong qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b) and/or (e).
- U.S. Patent Application Publication No. 2009/0249247 to Tseng et al. ("Tseng"), filed on January 30, 2009, and published on October 1, 2009, claims priority to U.S. Provisional Application No. 61/024,869, filed January 30, 2008. Tseng qualifies as prior art at least under pre-AIA 35 U.S.C. §§ 102(a), (b), and/or (e) and AIA 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2).
- U.S. Patent Application Publication No. 2009/0295750 A1 to Yamazaki et al. ("Yamazaki"), filed on May 27, 2009, and published on December 3, 2009. Yamazaki qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a), (b), and/or (e).
- U.S. Patent Application Publication No. 2010/0050076 A1 to Roth ("Roth"), filed on August 29, 2008, and published on February 25, 2010. Roth qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).
- U.S. Patent Application Publication No. 2010/0164959 A1 to Brown et al. ("Brown"), filed on December 26, 2008, and published on July 1, 2010. Brown qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).
- U.S. Patent Application Publication No. 2010/0302172 A1 to Wilairat ("Wilairat"), filed on May 27, 2009, and published on December 2, 2010. Wilairat qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (e).
- U.S. Patent Application Publication No. 2011/0209099 A1 to Hinckley et al. ("Hinckley"), filed on February 19, 2010, and published on August 25, 2011. Hinckley qualifies as prior art at least under 35 U.S.C. § 102(a)(2) as well as pre-AIA 35 U.S.C. §(e).

- Japanese Laid-Open Patent Application No. JP2003195998A to Hisatomi ("Hisatomi"), filed on December 26, 2001, and published on July 11, 2003. Hisatomi qualifies as prior art at least under 35 U.S.C. §§ 102(a)(1) and/or 102(a)(2) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).[2]
- V. Roth & T. Turner, "Bezel Swipe: Conflict-Free Scrolling and Multiple Selection on Mobile Touch Screen Devices," CHI 2009 ~ Multimodal Mobile Interaction, pp. 1523-26 (ACM 2009) ("Roth Bezel Swipe"), published April 8, 2009. Roth Bezel Swipe qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).
- The Samsung Galaxy GT-i7500 running Android 1.5 ("Samsung Galaxy GT-i7500 1.5") was, on information and belief, publicly available in the United States on or about June 29, 2009. The Samsung Galaxy GT-i7500 1.5 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).
- The Samsung Behold II running Android and TouchWiz UI (Samsung Behold II") was, on information and belief, publicly available in the United States on or about November 18, 2009. The Samsung Behold II qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A4.
- The HTC G1 (also known as the HTC Dream) running Android 1.6 ("HTC G1 1.6") was, on information and belief, publicly available in the United States on or about September 15, 2009. The HTC G1 1.6 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A3.
- The HTC Hero running Android 1.5 ("HTC Hero 1.5") was, on information and belief, publicly available in the United States on or about October 11, 2009. The HTC Hero 1.5 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A6.
- The HTC Hero running Android 2.1 ("HTC Hero 2.1") was, on information and belief, publicly available in the United States on or about January 2010. The HTC Hero 2.1 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a). *See also* Ex. A6.
- The HTC Magic running Android 1.6 ("HTC Magic 1.6") was, on information and belief, publicly available in the United States on or about July 8, 2009. The HTC Magic 1.6 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b).
- The Motorola Droid A855 ("Motorola Droid A855") was publicly available in the United States with Android 2.0 on or about November 6, 2009, and with Android 2.2 on or about May 2010. The Motorola Droid A855 running Android 2.0, on

[2] Defendants' invalidity contentions rely on the certified translation of Hisatomi.

information and belief, was substantially the same with respect to the relied-upon functionality as the Motorola Droid A855 running Android 2.2. The Motorola Droid A855 qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A5.

- The Palm Pre running Palm's WebOS ("Palm Pre") was, on information and belief, publicly available in the United States on or about February 2009. Although Palm WebOS 1.4.5 was not released until on or about July 2010, the relied-upon functionality was, on information and belief, substantially the same in the February 2009 WebOS release. The Palm Pre qualifies as prior art under at least 35 U.S.C. §§ 102(a)(1) as well as pre-AIA 35 U.S.C. §§ 102(a) and/or (b). *See also* Ex. A7.

With respect to the proposed modifications to the Neonode N2, such modification would have been obvious to try, an obvious combination of prior art elements according to known methods to yield predictable results, a simple substitution of one known element for another to obtain predictable results, a use of known techniques to improve a similar devices or method in the same way, an application of a known technique to a known device or method ready for improvement to yield predictable results, a variation of a known work in one field of endeavor for use in either the same field or a different one based on design incentives or other market forces with variations that are predictable to a POSITA, and/or obvious in view of teachings, suggestions, and motivations in the prior art that would have led a POSITA to modify or combine the prior art references.

The chart below illustrates how the asserted claims of the '602 patent are anticipated by the Neonode N2 and/or would have been obvious in view of by the Neonode N2 and/or additional secondary references. The excerpts cited herein are exemplary. For any claim limitation, Samsung may rely on excerpts cited for any other limitation and/or additional excerpts not set forth fully herein to the extent necessary to provide further explanation for a reference's disclosure of a limitation. Where an excerpt refers to or discusses a figure or figure items, that figure and any additional descriptions of that figure should be understood to be incorporated by reference as if set forth fully herein. Samsung reserves the right to further supplement this chart.

To the extent that these Invalidity Contentions rely on or otherwise embody particular interpretations of terms or phrases in the asserted claims, Samsung is not proposing any such interpretations as proper interpretations or constructions of those terms or phrases. Various positions put forth in this document are predicated on Keyless's interpretation of its claims as evidenced by its Infringement Contentions. Those positions are not intended to and do not necessarily reflect Samsung's interpretation of the true and proper scope of the asserted claims. Samsung further incorporates by reference all reservations of rights set forth in the Invalidity Contentions, as if fully set forth herein.

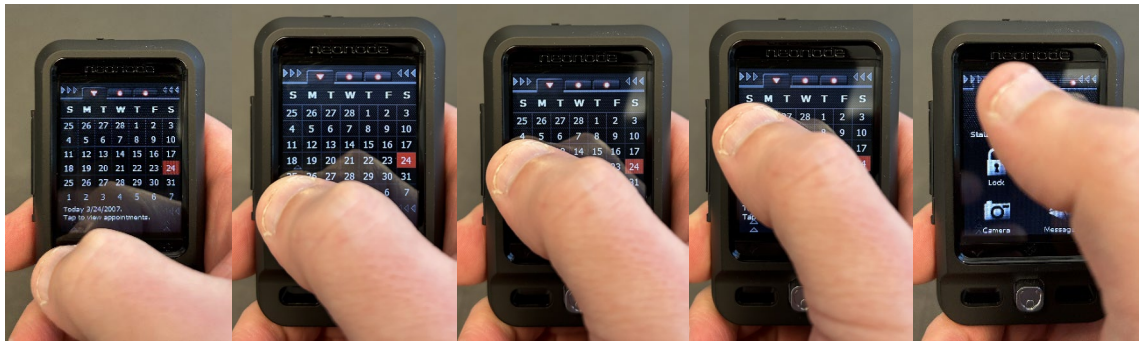
Defendants' arguments throughout these invalidity contentions are based on Keyless's apparent interpretation of the claims in its infringement contentions. Defendants do not agree that such interpretation is proper and reserve the right to argue that the mapped actions do not infringe any claims of the '602 patent. In the alternative, should the Court or factfinder construe and/or apply the claims

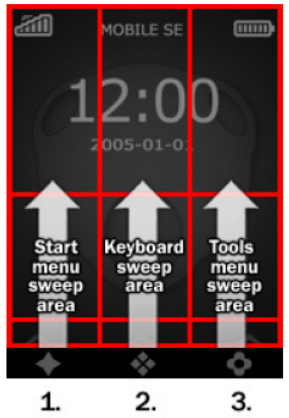
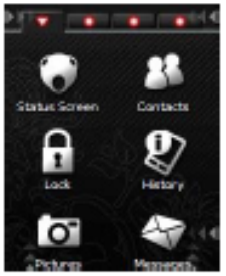
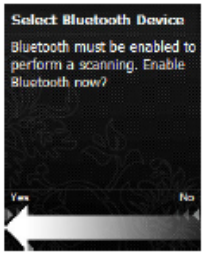
in a manner consistent with Keyless's interpretations in its infringement contentions for the '602 patent, the claims are invalid for at least the reasons set forth herein.

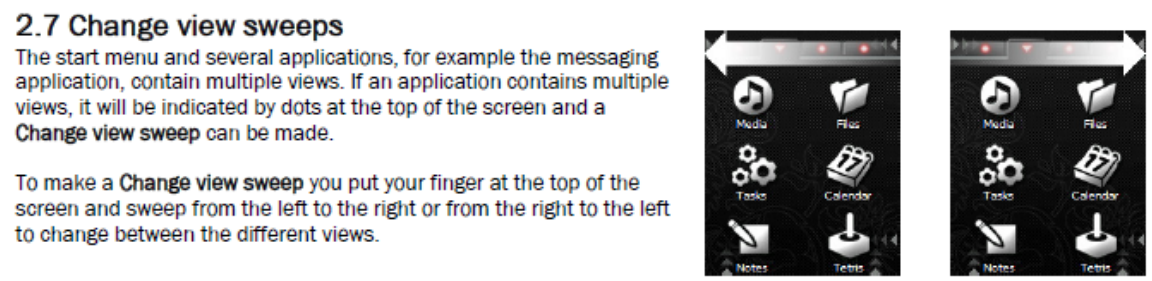
In some instances, the referenced prior art includes priority applications, including prior provisional applications, that provide adequate §112 support for the claim(s) in the referenced prior art. *See, e.g.*, Tseng at cover. In those instances, the consistent disclosures in those earlier applications, including prior provisional applications, are incorporated herein by reference. As such, those earlier disclosures apply equally in terms of their application to the elements of the asserted claims, and thus provide even earlier dates in terms of prior art, state of the art, and the knowledge base of those of ordinary skill in the art. *See Dynamic Drinkware LLC v. National Graphics Inc*., 800 F.3d 1375 (Fed. Cir. 2015).

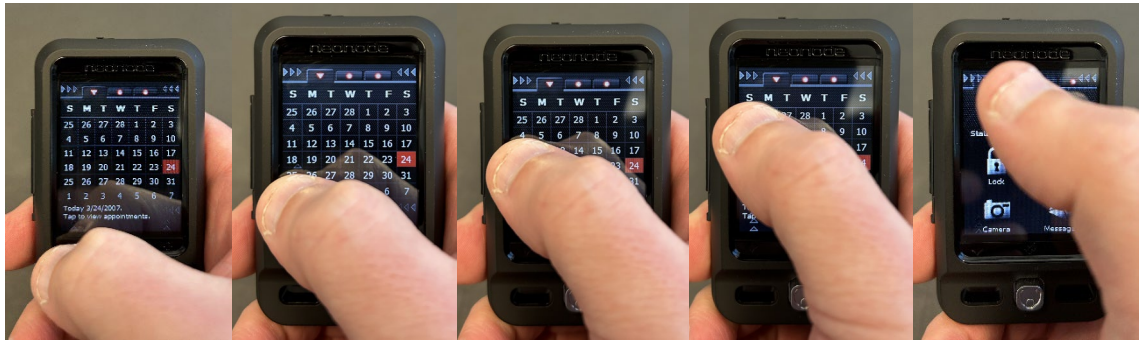
To the extent any of the art describes different embodiments of its inventions, a POSITA would have found it obvious to combine the Neonode N2's teachings regarding these embodiments. A POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the embodiments, and would have a reasonable expectation of success in doing so, at least because the embodiments use known variations of existing technology to solve routine and well understood problems in predictable ways. A POSITA would have recognized that the the Neonode N2's embodiments describe related advancements for mobile devices, and a POSITA would have been motivated to combine elements of the embodiments to achieve the Neonode N2's goals.

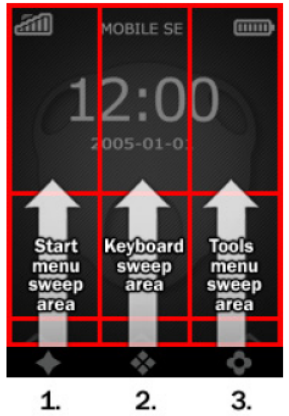
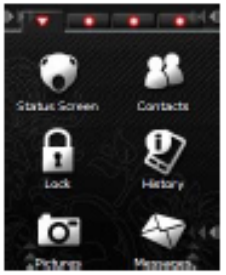
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[1Pre]** A system for capturing an event provided from an edge of a touch screen comprising: | To the extent that the preamble is held to be limiting, the Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[a] system for capturing an event provided from an edge of a touch screen."<br><br>For example, the Neonode N2 is a system for capturing an event provided from an edge of a touch screen. For example, the Neonode N2 captures a user's swipe/drag event from the lower edge or side edge of the touch screen to display various interfaces, such as an applications menu, or performing other functions such as changes interface pages, or performing a back or close action.<br><br>  <br><br>Neonode N2 Device.<br><br>  <br><br>Neonode N2 Device. |

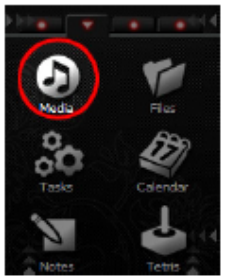
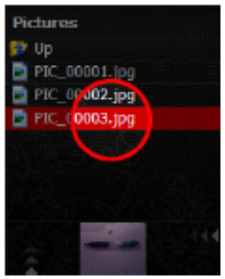
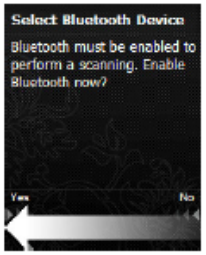
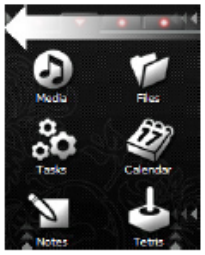
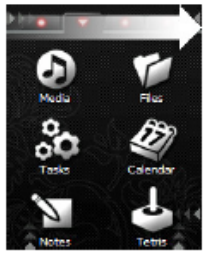
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Neonode N2 Device.<br>  <br>Neonode N2 Device. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **1.13 Vertical areas:**<br><br>1. The left part of the screen is called the Start menu sweep area.<br>2. The middle part of the screen is called the Keyboard sweep area.<br>3. The right part of the screen is called the Tools menu sweep area.<br><br>In the vertical areas you start the sweep at the very bottom of the screen. Sweep upwards. The sweep should be about half the height of the screen.<br><br>A sweep in the left part of the screen opens the start menu. A sweep in the middle opens the keyboard and a sweep in the right part of the screen opens the tools menu.<br><br>  <br><br>**2.1 Open the Start Menu**<br>To open the start menu, you sweep from the **Start menu sweep area** which is from the bottom left side of the screen and upwards. The sweep should be about half the height of the screen. When you lift your finger, the start menu will appear.<br><br>The start menu is available from all applications.<br><br>  <br>  <br><br>Neonode N2 User Guide at 7.<br><br>**2.6 Close view sweep**<br>Sweep from the right to the left at the bottom of the screen.<br><br>A **Close view sweep** means close view, no, back, cancel, depending on the context<br><br>  |

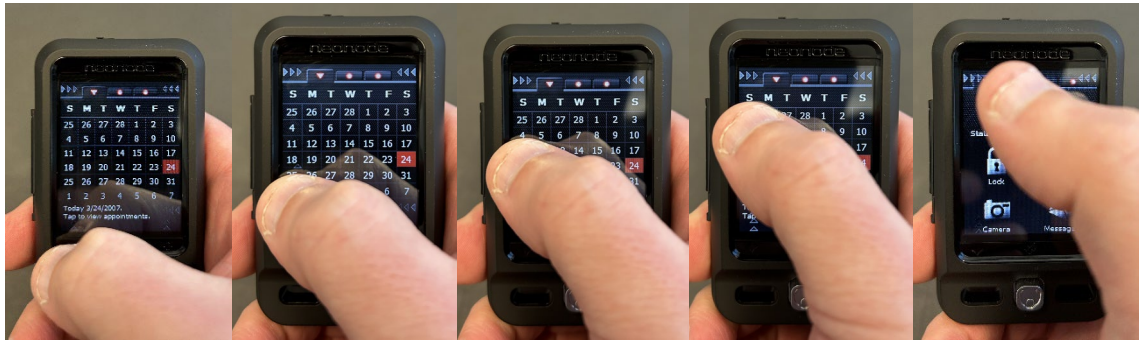
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Neonode N2 User Guide at 8.<br>*See, e.g.*, the Neonode N2 reviews listed above. |
| **[1A]** a device having a touch screen; | The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a device having a touch screen."<br>For example, the Neonode N2 has a touch screen on which the user can perform actions, such as tap or sweep.<br>  <br>Neonode N2 Device. |

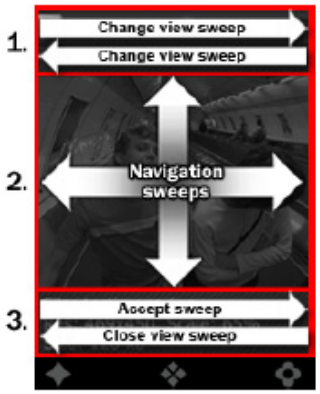
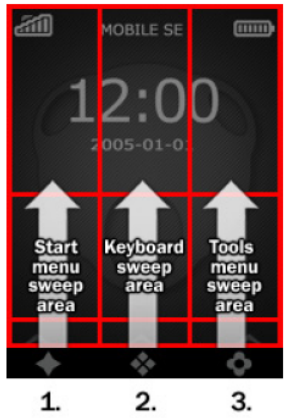
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  Neonode N2 Device.  Neonode N2 Device.  |

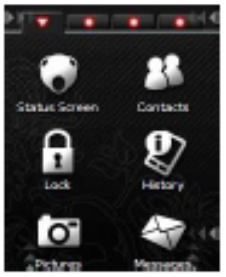
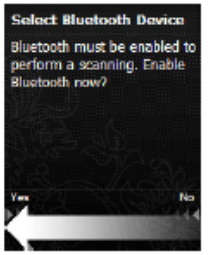
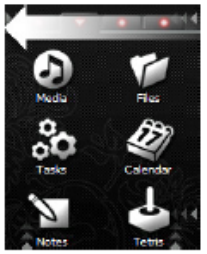
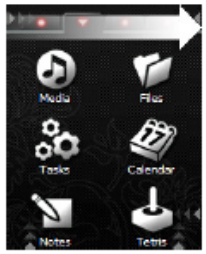
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Neonode N2 Device.<br><br>**1.13 Vertical areas:**<br><br>1. The left part of the screen is called the Start menu sweep area.<br>2. The middle part of the screen is called the Keyboard sweep area.<br>3. The right part of the screen is called the Tools menu sweep area.<br><br>In the vertical areas you start the sweep at the very bottom of the screen. Sweep upwards. The sweep should be about half the height of the screen.<br><br>A sweep in the left part of the screen opens the start menu. A sweep in the middle opens the keyboard and a sweep in the right part of the screen opens the tools menu.<br><br>  <br><br>**2.1 Open the Start Menu**<br>To open the start menu, you sweep from the **Start menu sweep area** which is from the bottom left side of the screen and upwards. The sweep should be about half the height of the screen. When you lift your finger, the start menu will appear.<br><br>The start menu is available from all applications.<br><br>  <br>  |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | 2.2 Tap<br>To open the applications you tap on icons visible at the screen. You also tap the screen to select an item in a list, for example in the address book.<br><br>A tap is a very quick light touch on the screen, no pressure is needed. You put down your finger, lightly touch the screen and lift the finger right back up<br><br>  <br><br>  <br><br>Neonode N2 User Guide at 7.<br><br>2.6 Close view sweep<br>Sweep from the right to the left at the bottom of the screen.<br><br>A **Close view sweep** means close view, no, back, cancel, depending on the context<br><br>  <br><br><br>2.7 Change view sweeps<br>The start menu and several applications, for example the messaging application, contain multiple views. If an application contains multiple views, it will be indicated by dots at the top of the screen and a **Change view sweep** can be made.<br><br>To make a **Change view sweep** you put your finger at the top of the screen and sweep from the left to the right or from the right to the left to change between the different views.<br><br>  <br><br>  <br><br>Neonode N2 User Guide at 8.<br><br>*See, e.g.*, the Neonode N2 reviews listed above. |

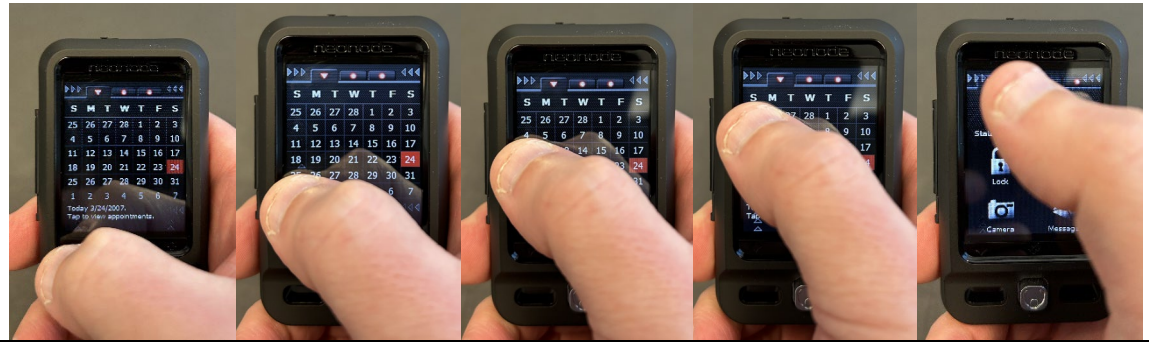
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[1B]** at least one window located in the touch screen on an edge of the touch screen, wherein said at least one window functions independently of an interface of an application in use on the touch screen; and | The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "at least one window located in the touch screen on an edge of the touch screen, wherein said at least one window functions independently of an interface of an application in use on the touch screen."<br><br>For example, the Neonode N2 includes at least one window, such as windows that each display arrows indicating possible sweep/glide actions, located on the various edges of the touch screen. Many of these windows function independently of an interface of an application in use on the touch screen, for example, the window corresponding to the start menu icon is shown irrespective of any application shown on the touch screen. Similarly, at least the window corresponding to the back action is shown irrespective of which application interface is in use on the touch screen. Moreover, for each of the three printed icons on the Neonode N2's housing below the bottom edge of the touch screen, a thin window in the form of a bar or line is located along the bottom edge of the touch screen above the printed icons.<br><br>  <br><br>Neonode N2 Device. |

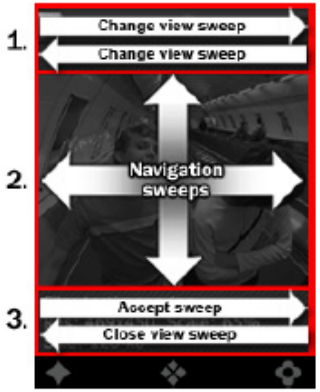
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Neonode N2 Device.<br>  <br>Neonode N2 Device.<br>  |

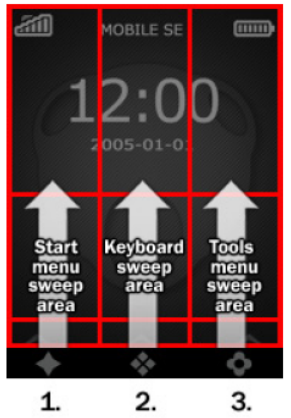
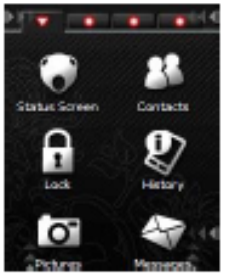
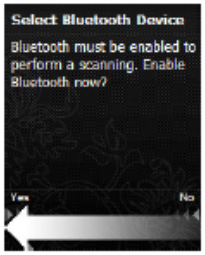
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Neonode N2 Device.<br><br>1. The upper area of the screen is called the Change view area.<br>2. The centre of the screen is called the Navigation area.<br>3. The bottom area of the screen is called the Accept/Close view area.<br><br>In the Change view area you sweep from left to right or from right to left to change views. The Navigation area is used to navigate within a view. Put your finger in the very middle part of the screen and sweep up/down/right/left in the Navigation area to navigate within a view.<br><br>Right under Navigation area is the Notification area. In the Notification area, icons for active programs will show if they need some kind of input from the user. For example if you have an active alarm that you have not dismissed, the alarm icon will show in this area.<br><br>In the Accept/Close view area you sweep from the left to the right to make an Accept sweep and from the right to the left to make a Close view sweep.<br><br>  <br><br><br>1.13 Vertical areas:<br><br>1. The left part of the screen is called the Start menu sweep area.<br>2. The middle part of the screen is called the Keyboard sweep area.<br>3. The right part of the screen is called the Tools menu sweep area.<br><br>In the vertical areas you start the sweep at the very bottom of the screen. Sweep upwards. The sweep should be about half the height of the screen.<br><br>A sweep in the left part of the screen opens the start menu. A sweep in the middle opens the keyboard and a sweep in the right part of the screen opens the tools menu.<br><br>  <br> |

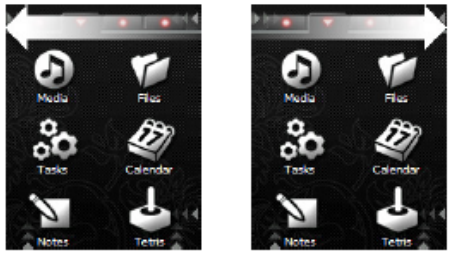
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **2.1 Open the Start Menu**<br>To open the start menu, you sweep from the **Start menu sweep area** which is from the bottom left side of the screen and upwards. The sweep should be about half the height of the screen. When you lift your finger, the start menu will appear.<br><br>The start menu is available from all applications.<br><br>  <br><br>  <br><br>Neonode N2 User Guide at 7.<br><br>**2.6 Close view sweep**<br>Sweep from the right to the left at the bottom of the screen.<br><br>A **Close view sweep** means close view, no, back, cancel, depending on the context<br><br>  <br><br>**2.7 Change view sweeps**<br>The start menu and several applications, for example the messaging application, contain multiple views. If an application contains multiple views, it will be indicated by dots at the top of the screen and a **Change view sweep** can be made.<br><br>To make a **Change view sweep** you put your finger at the top of the screen and sweep from the left to the right or from the right to the left to change between the different views.<br><br>  <br><br>  <br><br>Neonode N2 User Guide at 8.<br><br>*See, e.g.*, the Neonode N2 reviews listed above. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | |
| **[1C]** a processor; | The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a processor."<br><br>For example, the Neonode N2 includes a processor to process instructions related to user inputs on the touch screen and display applications on the touch screen.<br><br>*See, e.g.*, Neonode N2 User Guide; the Neonode N2 reviews listed above. |
| **[1D]** wherein a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said processor to cause an action assigned to said window, and | The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said processor to cause an action assigned to said window."<br><br>For example, the Neonode N2 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the touch screen over the indicated icons or to the side of the touch screen as indicated by the various arrows (from outside of the screen), over the arrows of the respective window towards the main application display toward the inside of the touch screen (e.g., crossing over the window identifying the movement from off-to-on screen). The user's touch first interacts with the window showing the arrows on the touch screen because the outer housing does not contain touch-sensitive elements. The gliding action over the arrows from off-to-on screen causes a processor to perform the action associated with the particular arrow window where the user's gliding action is performed. |

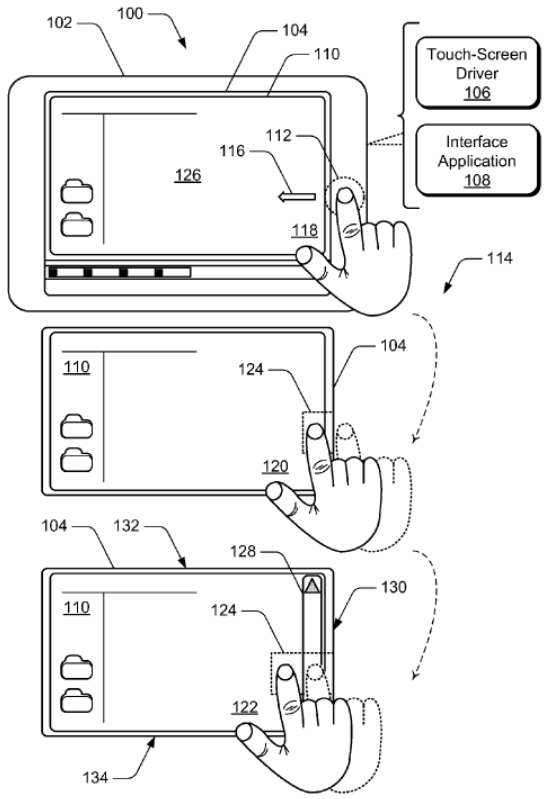
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Neonode N2 Device.<br>  <br>Neonode N2 Device.<br>  |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Neonode N2 Device.<br>  <br>Neonode N2 Device.<br>1. The upper area of the screen is called the Change view area.<br>2. The centre of the screen is called the Navigation area.<br>3. The bottom area of the screen is called the Accept/Close view area.<br>In the Change view area you sweep from left to right or from right to left to change views. The Navigation area is used to navigate within a view. Put your finger in the very middle part of the screen and sweep up/down/right/left in the Navigation area to navigate within a view.<br>Right under Navigation area is the Notification area. In the Notification area, icons for active programs will show if they need some kind of input from the user. For example if you have an active alarm that you have not dismissed, the alarm icon will show in this area.<br>In the Accept/Close view area you sweep from the left to the right to make an Accept sweep and from the right to the left to make a Close view sweep.<br>  |

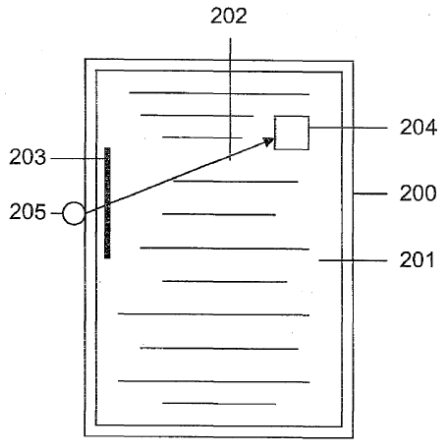
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | **1.13 Vertical areas:**<br><br>1. The left part of the screen is called the Start menu sweep area.<br>2. The middle part of the screen is called the Keyboard sweep area.<br>3. The right part of the screen is called the Tools menu sweep area.<br><br>In the vertical areas you start the sweep at the very bottom of the screen. Sweep upwards. The sweep should be about half the height of the screen.<br><br>A sweep in the left part of the screen opens the start menu. A sweep in the middle opens the keyboard and a sweep in the right part of the screen opens the tools menu.<br><br>  <br><br><br>**2.1 Open the Start Menu**<br>To open the start menu, you sweep from the **Start menu sweep area** which is from the bottom left side of the screen and upwards. The sweep should be about half the height of the screen. When you lift your finger, the start menu will appear.<br><br>The start menu is available from all applications.<br><br>  <br><br>  <br><br><br>Neonode N2 User Guide at 7.<br><br>**2.6 Close view sweep**<br>Sweep from the right to the left at the bottom of the screen.<br><br>A **Close view sweep** means close view, no, back, cancel, depending on the context<br><br>  <br> |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | **2.7 Change view sweeps**<br>The start menu and several applications, for example the messaging application, contain multiple views. If an application contains multiple views, it will be indicated by dots at the top of the screen and a **Change view sweep** can be made.<br><br>To make a **Change view sweep** you put your finger at the top of the screen and sweep from the left to the right or from the right to the left to change between the different views.<br>  <br><br>Neonode N2 User Guide at 8.<br>*See, e.g.*, the Neonode N2 reviews listed above.<br><br>To the extent Keyless argues that the Neonode N2 does not disclose or render obvious this limitation, it would have been obvious in view of the Neonode N2, POSITA's pre-existing knowledge, and/or the Neonode N2 combined with the other references charted for this patent in these invalidity contentions, including Wilairat, Roth, Roth Bezel Swipe, Hinckley, the HTC G1 1.6, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, Motorola Droid A855, and the Palm Pre. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>For example, Wilairat further teaches an off-to-on-screen gliding action, referred to as a "pull-in gesture." Wilairat teaches that, although the gliding motion begins off of the touch screen, it first interacts with the touch screen as the finger enters the touch screen. Wilairat teaches that "a user can initiate a touch input with a finger just off an edge of the touch-screen and then motion a pull-in gesture across the touch-screen. When the motion of the touch pull-in gesture is initiated by the |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | user, a progression of the motion as the touch input remains in contact with the touch-screen creates a contact region on the touch-screen that progressively expands and is detected. The progressive expansion of the contact region on the touch-screen is then determined or recognized as the touch pull-in gesture that initiates a display of a user interface component proximate a location of the touch pull-in gesture on the touch-screen. A user interface component can include any type of hidden menu, slide menu, drop-down menu, Scrollbar, and/or any other type of user interface displayable element." Wilairat at [0009].<br><br>Wilairat further teaches that "a user of portable device 102 can initiate a touch input 112 with a finger just off an edge of the touch-screen 104 and then motion a pull-in gesture 114 in a direction 116 across the touch-screen. The motion of the touch pull-in gesture 114 is illustrated in the direction 116 as the hand moves from position 118, to position 120, and to position 122 (shown successively in the three views). When the motion of the touch pull-in gesture 114 is initiated by the user, a contact region 124 progressively expands. Such as illustrated when the hand moves from the edge of the touch-screen at position 118 to position 120, and then from position 120 to position 122. The progressive expansion of the contact region 124 is then determined or recognized as the touch pull-in gesture 114." Wilairat at [0012].<br><br>An exemplary pull-in gesture from off-screen to on-screen is shown in Wilairat FIG. 1. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Fig. 1<br>Wilairat at FIG. 1.<br>Moreover, each of Roth, Roth Bezel Swipe, Hinckley, the HTC G1 1.6, the Samsung Galaxy GT-i7500 1.5, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, and/or the Palm Pre teaches a gliding action from off screen to on screen to activate a function assigned to the window when the gliding action is detected.<br>Roth teaches using a swiping (e.g., gliding) action from outside a screen through a window in the form of a line at the edge of the screen on the screen towards the inside of the touch screen to |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | activate a function associated with the window. For example, Roth describes "[a] crossing-based interface along the bounds of the display is a viable solution. Users can invoke actions with swiping gestures across a section of the display side from the outside to the inside." Roth at [0009]. Roth teaches advantages of such outside-to-inside gliding activations, for example, that "they can be more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to the distance vector between the line and the cursor," and "that a well positioned line requires significantly less display space than a button for similar performance characteristics." Roth at [0010]. "One example of such a gesture is a continuous swiping motion from the activation point representing a desired action or even from the bezel of the device, through the activation point and to the target on the display." Roth at [0015]. Roth explains that such outside-to-inside gliding actions "allow[] the active area of an activation point to be much smaller on a display due to the utilization of a greater average weight throughout a touch sensitive display, which creates a higher probability of activating on a narrow activation point or operating on a small target," "save[s] valuable display space on the screen, since the activation point can be made smaller on the display as a result," and may "begin from outside the display for ease of use." Roth at [0015]. As Roth explains, a "bar" may "represent[] the desired action." Roth at [0017]. "[A]n activation point 203 (represented as a bar in this example) displayed on the edge of the screen which represents the desired action of selecting. The bar is made small so as to not take up valuable space on the display. The user can then select the target 204 through the use of a gesture 202, such as swiping, pinching, tapping or other gestures …." Roth at [0036]. As shown in FIG. 2B, "[t]he user can begin his gesture from either on the bar itself or from outside the display 205 and continue the gesture through the bar and to target as if the user were bringing the action to the target. An example of such a gesture is if the user utilized a continuous swiping motion with his finger from the bar representing a desired action to the target on the display." Roth at [0039]. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Roth at FIG. 2B.<br><br>Roth Bezel Swipe teaches activation gestures related to mobile devices having touch screens. A bezel swipe gestures is an outside-to-inside swiping (e.g., gliding) gesture, in which "[t]he user starts a Bezel Swipe gesture on the bezel, which is the physical touch insensitive frame that surrounds the display. The finger is then swiped through a part of the display edge into the display, which enters selection mode. Next, the user moves the finger onto an object or display position and selects it by lifting the finger off the display, which ends selection mode. Different edge portions represent different actions and are distinctively marked." Roth Bezel Swipe at 1524. "Swipes are recognized by detecting touches inside a thin rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524. As such, "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display. Figure 2 illustrates this. A touch sensitive display translates the contact area of the finger with the display into an activation point." Roth Bezel Swipe at 1524. "The Bezel Swipe gesture … starts on the bezel and moves into the display. Therefore the contact area is gradually increased until it exceeds the contact threshold of the display. … Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. This outside-to-inside crossing gesture has advantages, for example, "the crossing of the touch-insensitive bezel in conjunction with the properties of touch sensitive displays enables the reliable |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | activation of a button that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. |

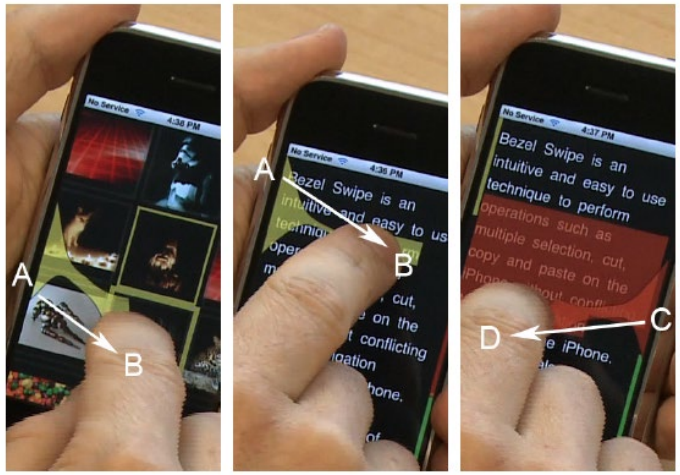



**Figure 1. The Bezel Swipe prototype in action. Left panel: A swipe from A to B selects an image. Middle panel: A swipe from A to B marks the beginning of a text selection. Right panel: A swipe from C to D marks the end of the text selection.**

Roth Bezel Swipe at Figure 1.

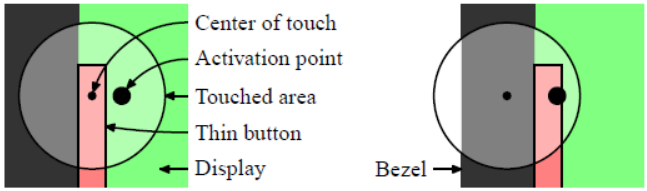
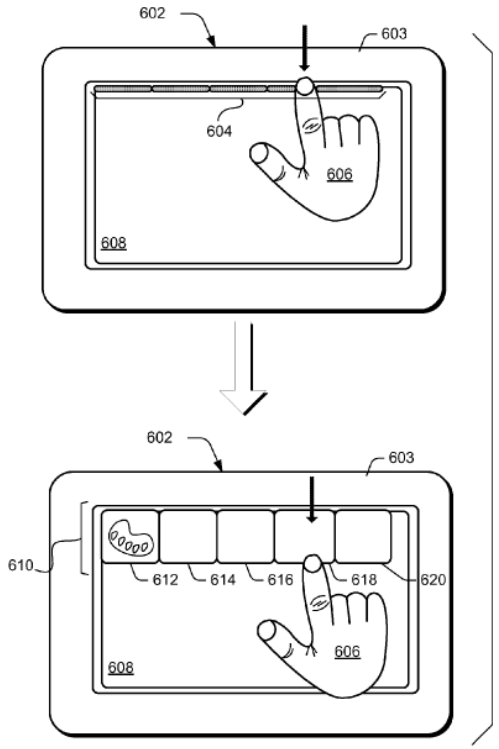
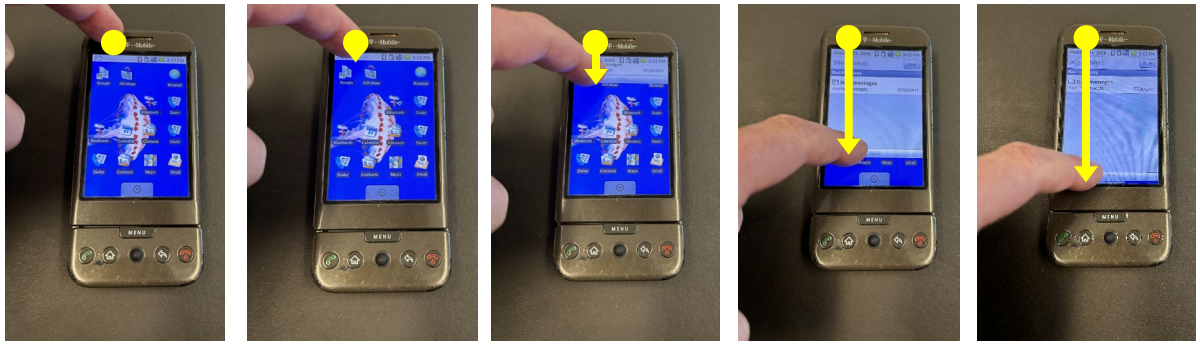
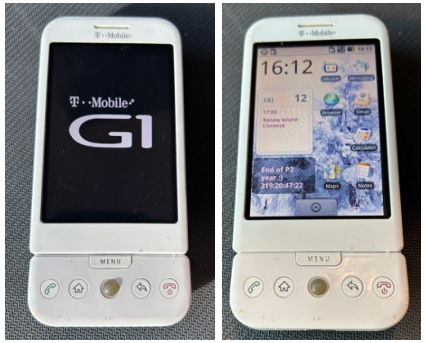


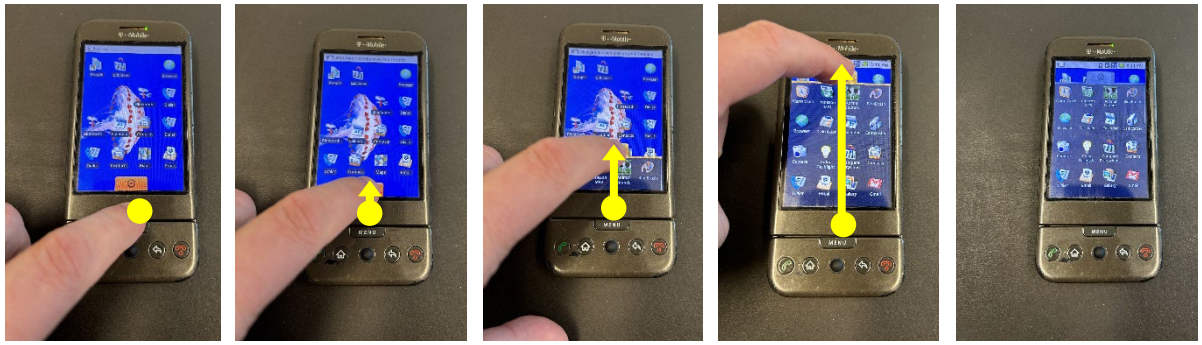

**Figure 2. Touching narrow targets close to the bezel: a touch (large circle) centered on the target (left) may not activate it whereas a touch significantly overlapping the bezel (right) does.**

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | Roth Bezel Swipe at Figure 2.<br><br>Hinckley teaches a visual affordance window indicating a pull-down bezel menu is shown at the edge of a mobile device using a gliding action from outside of the touch screen towards the inside of the touch screen. Hinckley at FIGS. 5, 6. For example, in FIG. 5, "[s]tep 500 displays a visual affordance on a display device associated with a computing device" and is shown at as a window or bar 604 being a five-part line in FIG. 6. Hinckley at [0068], [0072], FIGS. 5, 6. Then, "[s]tep 502 receives a bezel gesture input relative to the visual affordance," such as from off-screen to on-screen over the visual affordance. Hinckley at [0068], [0072], FIGS. 5, 6. After the off-screen to on-screen gesture, "[s]tep 504 accesses functionality associated with the received bezel gesture input." Hinckley at [0068], [0072], FIGS. 5, 6. Hinckley explains that "off-screen to on-screen motion (or vice versa) can be utilized as a mechanism to expose a menu or to access some other type of functionality." Hinckley at [0071]. As shown in FIG. 6, "device 602 includes a bezel 603 and a visual affordance 604 that is rendered on display device 608." Hinckley at [0072], FIG. 6. The "visual affordance 604" may appear as "in the form of a semi-transparent strip" and "can be utilized to provide a hint or indication of accessible functionality, in this case a bezel menu, associated with the bezel." Hinckley at [0072], FIG. 6. "[T]he bezel menu can be accessed through a bezel gesture in which a finger of user's hand 606 touches the bezel and then moves across the bezel and onto the display device 608 in the direction of the illustrated arrow." Hinckley at [0073], FIG. 6. After this off-screen to on-screen gesture, the "bezel menu 610 to be dropped down at which time it can become fully opaque." Hinckley at [0073], FIG. 6. Hinckley further explains that "bezel menu 610 includes multiple selectable icons or slots 612, 614, 616, 618, and 620. Each of the icons or slots is associated with a different functionality such as, for example, paint functionality, pen functionality, note functionality, object creation, object editing, and the like." Hinckley at [0074], FIG. 6. Hickley teaches, however, that "any type of functionality can be associated with the icons or slots." Hinckley at [0074], FIG. 6. The "bezel menu 610 can enable a user to access and activate commands, tools, and objects." Hinckley at [0075], FIG. 6. |

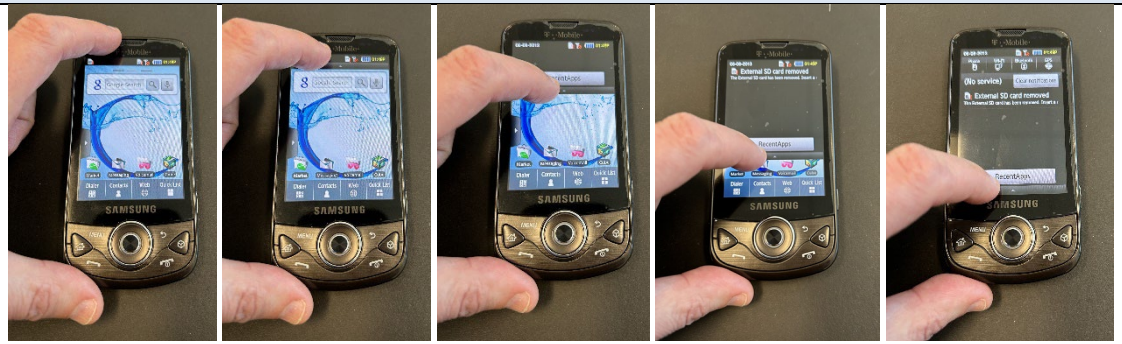
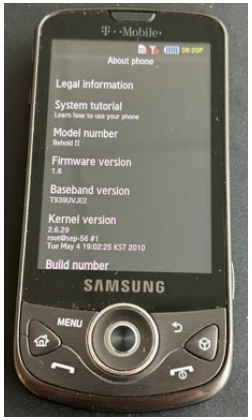
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Fig. 6<br>Hinckley at FIG. 6.<br>The HTC G1 1.6 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar.<br>  <br>HTC G1 1.6.<br>  <br>HTC G1 1.6.[3]<br>Alternatively, the HTC G1 1.6 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen below the tab window at the bottom of the screen (from |

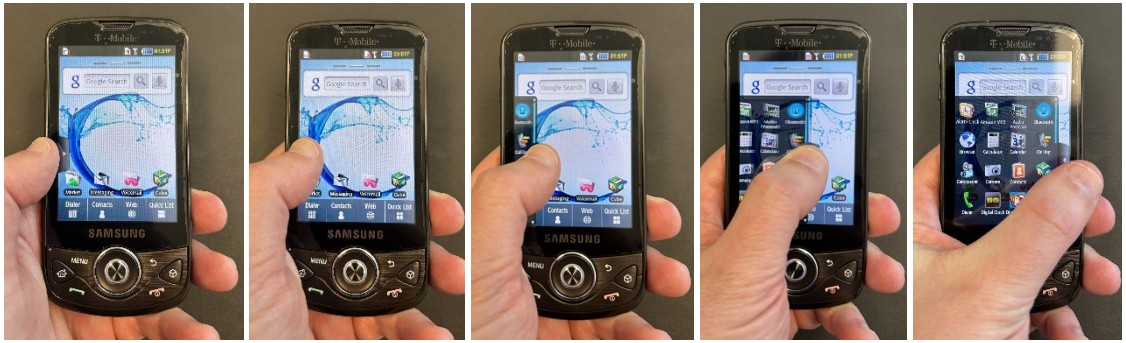
[3] Samsung reserves the right to rely on any HTC G1 device, including either or both of the HTC G1 devices shown here. On information and belief, such devices function substantially the same as disclosed in this chart.

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | outside of the screen) over the tab towards the main application display the inside of the touch screen (e.g., crossing over the tab). The user's touch first interacts with the tab window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the tab window causes a processor to perform the action of displaying the applications list assigned to the tab window.<br>  <br>HTC G1 1.6.<br>On information and belief, the Samsung Galaxy GT-i7500 1.5 operates substantially the same with respect to the pull-down notifications interface as the HTC G1 1.6 and the HTC Magic 1.6. *See, e.g.*, https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface as the same, showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."); https://www.youtube.com/watch?v=rhBgLQSxfjE at 1:20-1:34 (describing as running Android 1.5 and similar to HTC G1 device, showing opening notification menu from status bar contact at 1:32). On information and belief, a user may perform a gliding action from the plastic housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display toward the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar); |

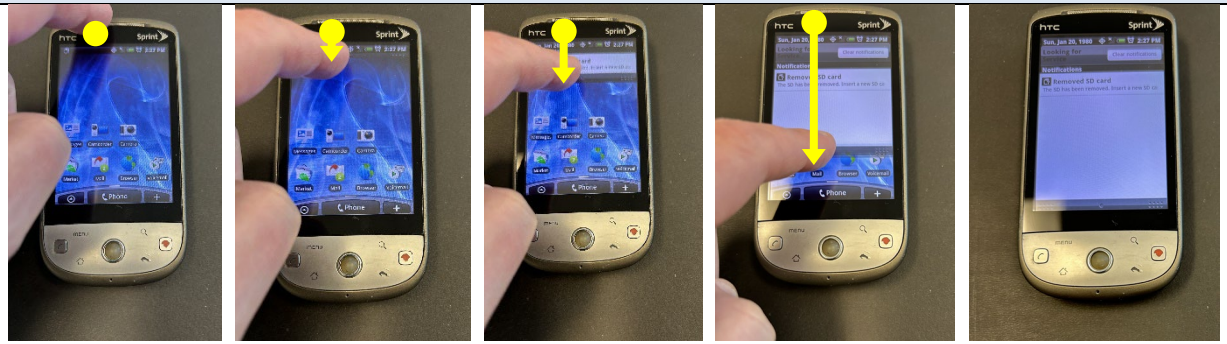
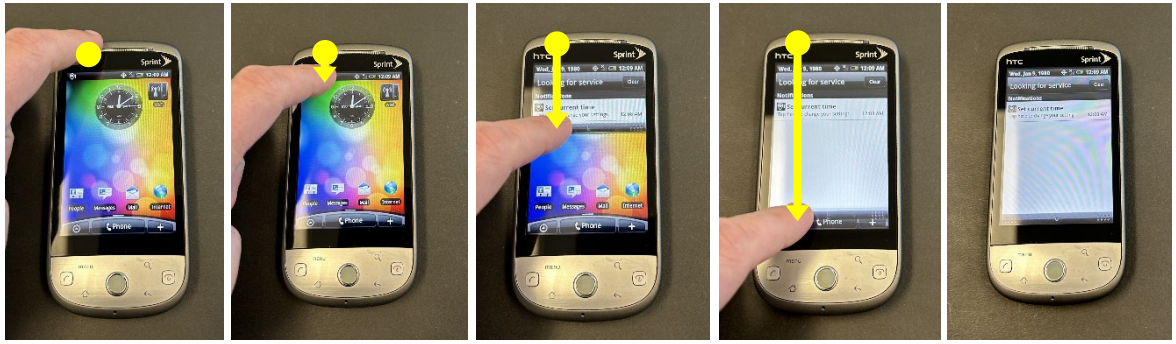
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | https://www.youtube.com/watch?v=wVF8dLkgW7c at 0:40-0:56 (showing swipe down over status bar to open notifications interface); https://www.youtube.com/watch?v=4Pv04Tw6wvQ at 3:30-3:35 (showing gliding gesture on status bar to show notification interface for Android 1.5 operating system). The user's touch first interacts with the status bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status bar window causes a processor to perform the action of displaying the notifications window. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having pull-down notification status bar). Furthermore, on information and belief, a user may perform a gliding action from the plastic housing bezel below the touch screen (from outside of the screen) over the tab shown at the bottom of the screen towards the main application display inside of the touch screen (e.g., over the tab window) to display an applications selection interface. *See, e.g.*, https://www.youtube.com/watch?v=qOsYw2xMXsQ at 6:50-7:02 (showing "stock" Android 1.5 operating system having the application selection interface tab); https://www.youtube.com/watch?v=wVF8dLkgW7c at 0:54-1:14 (showing swipe up over application selection tab at bottom of screen to open application selection interface); https://www.youtube.com/watch?v=4Pv04Tw6wvQ at 1:36-2:30 (showing gliding gesture on tab to show application selection interface for Android 1.5 operating system).<br><br>The Samsung Behold II operates substantially the same with respect to the pull-down notifications interface as the HTC G1 1.6 and the HTC Magic 1.6. *See, e.g.*, https://www.cnet.com/tech/mobile/hands-on-samsung-behold-ii-plus-release-details/ (explaining that the Samsung Behold II runs on Android 1.5); https://www.t-mobile.com/news/press/t-mobile-usa-launches-the-samsung-behold-ii-on-november-18. For the Samsung Behold II, a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar. |

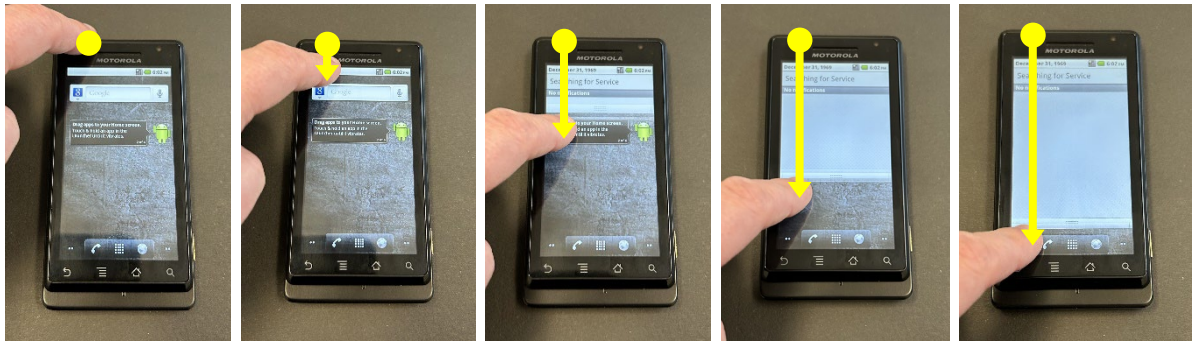
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>The Samsung Behold II device.<br>  <br>The Samsung Behold II device.[4]<br>Moreover, in the Samsung Behold II, a user may also perform a gliding action from the plastic housing surrounding the touch screen to the left of the applications drawer tab (from outside of the screen) over the applications tab towards the main application display the inside of the touch screen (e.g., crossing over the applications tab window). The user's touch first interacts with the |

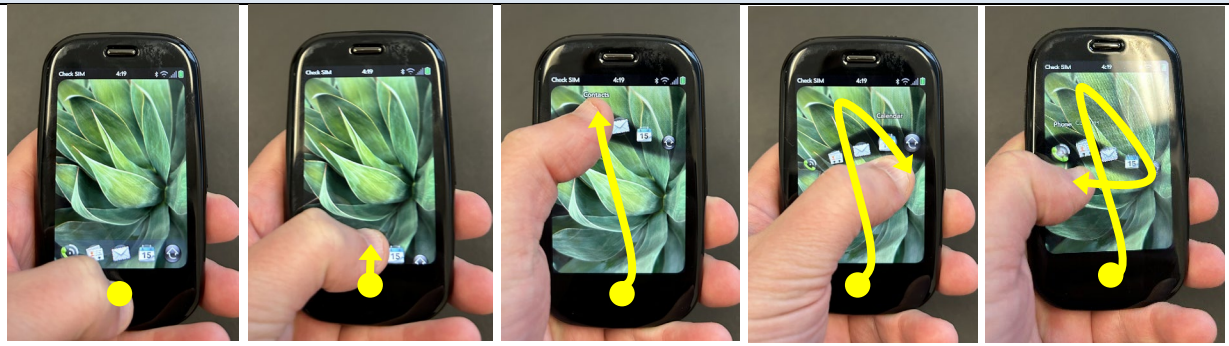
[4] Samsung reserves the right to rely on any Behold II device, including either or both of the Behold II devices shown here. On information and belief, such devices function substantially the same as disclosed in this chart.

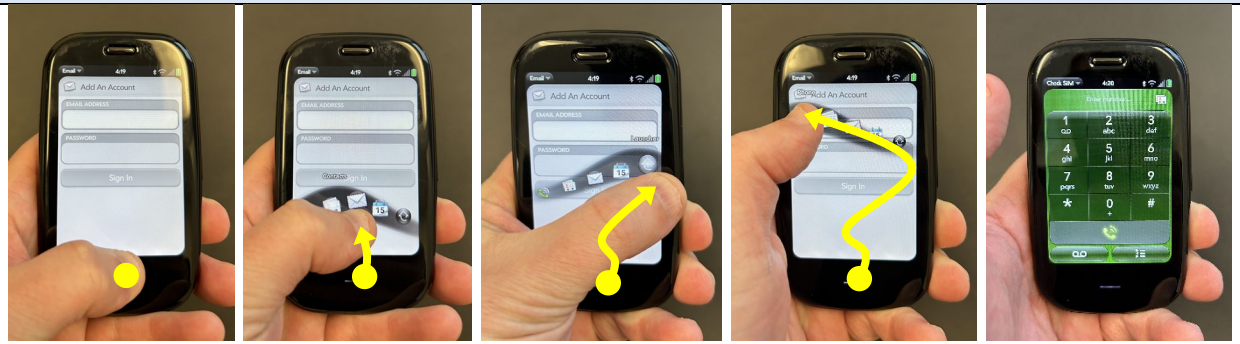
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | applications tab window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the applications tab causes a processor to perform the action of displaying the applications drawer menu from the side of the screen.<br>  <br>The Samsung Behold II device.<br><br>On information and belief, the HTC Magic 1.5 operates substantially the same with respect to the pull-down notifications interface as the HTC G1 1.6 and the Samsung Galaxy GT-i7500. *See, e.g.*, https://www.youtube.com/watch?v=l1BvvjqwYFM at 2:11-2:16 (describing interface as the same, showing notifications in status bar); https://www.phonearena.com/reviews/Samsung-Galaxy-I7500-Review_id2235 (describing "[t]he Samsung Galaxy I7500 utiliz[ing] the latest version of the Google-made operating system, **Android 1.5** also known as the Cupcake update. … Unfortunately, you won't find anything different from what you can see on the T-Mobile G1 and the HTC Magic."). On information and belief, a user may perform a gliding action from the plastic housing bezel above the touch screen (from outside of the screen) over the status bar towards the main application display toward the inside of the touch screen (e.g., crossing over the status bar window) to display the notifications interface. The user's touch first interacts with the status bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status bar window causes a processor to perform the action of displaying the notifications window. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 (In addition to being able to drag (or double tap if your fingers are a little tired) the menu bar up from the bottom of the screen, you can also drag from the top and find your |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | notifications all grouped nicely together."); https://ianrenton.com/blog/review-htc-magic/ ("Dragging the top drawer (where app notifications, incoming messages etc. sit) is a lot more intuitive on an actual device than on the emulator, and the kinetic scrolling - you can 'throw' menus - feels just right."); https://www.youtube.com/watch?v=LghBOTZ-HuE at 5:08-5:20 (describing "drag-down notification drawer"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:35-8:55 (describing notification menu as "a drawer" that you "pull down" allowing you to "click" notifications to open the corresponding application).<br><br>Furthermore, on information and belief, a user may perform a gliding action from the plastic housing bezel below the touch screen (from outside of the screen) over the tab shown at the bottom of the screen towards the main application display inside of the touch screen (e.g., over the tab window) to display an applications selection interface. *See, e.g.*, https://www.techradar.com/reviews/phones/mobile-phones/htc-magic-532657/review/2 ("you can simply drag up the menu from the bottom and access all your recently downloaded applications and menu functions, sorted alphabetically"); https://www.youtube.com/watch?v=Gt5CbOu765Q at 7:15-7:35, 8:17-8:55 (showing swipe-up action to open application selection interface).<br><br>The HTC Hero 1.5 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display toward the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC Hero 1.5.<br>The HTC Hero 2.1 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the status bar towards the main application display toward the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar.<br>  <br>HTC Hero 2.1.<br>The Motorola Droid A855 teaches that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status/notification bar (from outside of the screen) over the |

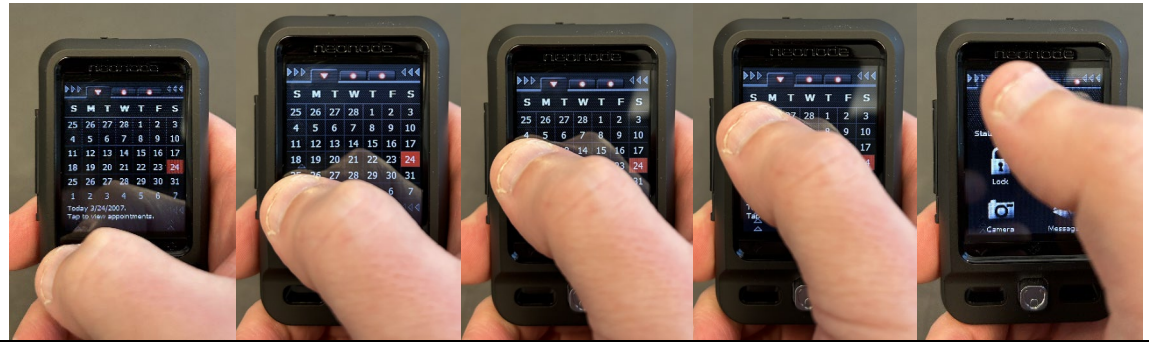
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | status towards to the main application display toward the inside of the touch screen (e.g., crossing over the status/notification bar window). The user's touch first interacts with the status/notification bar window on the touch screen because the bezel's plastic housing does not contain touch-sensitive elements. The gliding action over the status/notification bar causes a processor to perform the action of displaying the notifications list assigned to the status/notifications bar.<br>  <br>Droid A855.<br>The Palm Pre teaches, as one example, that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen (e.g., crossing over the Quick Launch window showing five application icons and identifying the movement from off-to-on screen). The user's touch first interacts with the Quick Launch window on the touch screen because the Quick Launch window is not displayed in the gesture area. The gliding action over the Quick Launch window from off-to-on screen causes a processor to perform the action associated with the window, such as moving the Quick Launch window with the user's finger in any arbitrary direction around the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. For example, lifting on the "Phone" icon opens the Phone application. |

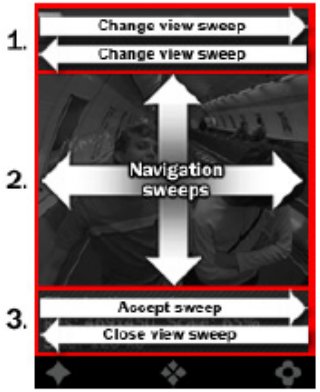
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Palm Pre.<br>The Palm Pre also teaches, as another example, that, when an application is open on the Palm Pre device (such as the mail application shown below), a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen to display the Quick Launch window (e.g., crossing from off-to-on screen to display the Quick Launch window). The user's touch first interacts with the Quick Launch window on the touch screen because the Quick Launch window is not displayed in the gesture area, but as shown below, appears with the user's off-to-on screen gesture as the finger moves onto the screen. The gliding action causes a processor to perform the action associated with the Quick Launch window, such as moving the Quick Launch window with the user's finger in any arbitrary direction around the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. As shown below, lifting on the "Phone" icon opens the Phone application. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Palm Pre.<br>A POSITA would have found it obvious to incorporate the functionality of permitting an off-to-on-screen gliding action, where the gliding action first interacts with the touch screen of the Neonode N2's, for the windows associated with the edges of the screen, such as the arrow windows, to cause various functions to be performed, such as displaying the start menu, perform a back or close action, or switching between interfaces, as described in the Neonode N2, as claimed. Each of the Neonode N2, Wilairat, Roth, Roth Bezel Swipe, Hinckley, the HTC G1 1.6, the Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, and/or the Palm Pre teaches causing an action associated with a gliding gesture that may be an off-to-on-screen gesture, such as causing the Neonode N2 to display the start menu, perform a back action, or switch between interfaces, using a gesture that starts off screen and glides towards the main display area. A POSITA would have been motivated to provide for performing these actions assigned to the respective window using a gesture that starts off screen and glides towards the main display area because it allows for the same operation as the Neonode N2 uses, but simplifies the user's experience of opening the notifications menu. For example, by registering the touch as the user's finger slides onto the screen (e.g., either as a regular touch on the arrow window associated with each gliding action, as known in the Neonode N2, or as a pull-in gesture, such as taught by Wilairat, Roth, or Roth Bezel Swipe) results in effectively increasing the size of the windows being activated. This simplifies the user's experience because the user does not have to try to specifically touch the edge of the screen and may instead start the gliding gesture off-screen to cross over window to activate the assigned function and also allows the window to be |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | thinner, thereby providing more space for actions to be taken on the main display given the small size of the Neonode N2's touch screen. As explained by Roth Bezel Swipe, "screens of mobile devices are necessarily small," which leads to the development of "smaller widgets" that "are harder to hit." Roth Bezel Swipe at 1523. But out-to-in swiping gestures that "start on the bezel and move[] into the display" allow for contacting "a narrow target (the red bar) positioned flush against the display edge." Roth Bezel Swipe at 1524. In other words, "[s]wipes" from outside-to-inside the touch screen "are recognized by detecting touches inside a thin rectangular area [window] positioned flush against the display screen." Roth Bezel Swipe at 1524. This "enables the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524.<br><br>It was well known to a POSITA that activating a function when a user performs an out-to-in gliding gesture, such as over the Neonode N2's windows located at the edges of the screen, "enables the reliable activation of a button that is so narrow that it would be difficult to activate by direct touch" and "does not typically reduce the accessible display area" on small screens "because the swiping gesture minimizes the area of initial contact with the touch sensitive display [touch screen]." Roth Bezel Swipe at 1524. Activating functions where "[u]sers can invoke actions with swiping features across a section of the display [touch screen] side from the outside to the inside" also "requires minimal display real estate," whereby being beneficial to mobile devices that have small screens. Roth, [0009]. A POSITA would have known that such activation operations, like crossing activations, "can be more efficient than pointing tasks," especially on small-screen devices, such as mobile phones. Roth, [0009]. When outside-to-inside gliding activations are used, a POSITA would have known that the activation bar or window can be "made small so as to not take up valuable space on the display." Roth, [0036].<br><br>Activating a function when a user performs an out-to-in gliding gesture over a window on a touch screen, such as over the Neonode N2's windows associated with arrows and gesture actions from the edge of the screen, was routine and conventional to POSITAs, as shown by Wilairat, Roth, and/or Roth Bezel Swipe. Moreover, it was successfully implemented in commercial prior art devices, such as the Neonode N2, the HTC G1 1.6, Samsung Galaxy GT-i7500 1.5, the Samsung Behold II, the HTC Hero 1.5, the HTC Hero 2.1, the HTC Magic 1.5, the Motorola Droid A855, |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | and the Palm Pre. Incorporating a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, being processed by the processor to cause an action assigned to said window into the Neonode N2, shown above, represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with the Neonode N2, represent nothing more than combining prior art elements according to known methods and techniques (registering a user's gliding action when it first crosses onto touch screen, such as at the arrow windows, and then moves towards the inside of the touch screen) to yield predictable results (to perform the action assigned to the particular window, such as launching the start menu, performing a back action, or switching interfaces, as used in the Neonode N2). |
| **[1E]** wherein said at least one window is located on the touch screen before said gliding action begins. | The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said at least one window is located on the touch screen before said gliding action begins."<br><br>For example, the Neonode N2 includes that said at least one window, such as the windows associated with the printed icons at the bottom edge of the touch screen or the windows associated with arrows indicating actions at the side edges of the touch screen, is located on the touch screen before said gliding action begins. |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Neonode N2 Device.<br>  <br>Neonode N2 Device.<br>  |

| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Neonode N2 Device.<br>  <br>Neonode N2 Device.<br>1. The upper area of the screen is called the Change view area.<br>2. The centre of the screen is called the Navigation area.<br>3. The bottom area of the screen is called the Accept/Close view area.<br>In the Change view area you sweep from left to right or from right to left to change views. The Navigation area is used to navigate within a view. Put your finger in the very middle part of the screen and sweep up/down/right/left in the Navigation area to navigate within a view.<br>Right under Navigation area is the Notification area. In the Notification area, icons for active programs will show if they need some kind of input from the user. For example if you have an active alarm that you have not dismissed, the alarm icon will show in this area.<br>In the Accept/Close view area you sweep from the left to the right to make an Accept sweep and from the right to the left to make a Close view sweep.<br>  <br> |

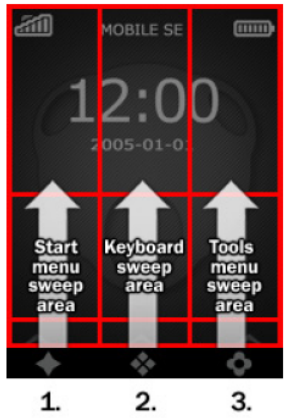
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

### 1.13 Vertical areas:

1. The left part of the screen is called the Start menu sweep area.
2. The middle part of the screen is called the Keyboard sweep area.
3. The right part of the screen is called the Tools menu sweep area.

In the vertical areas you start the sweep at the very bottom of the screen. Sweep upwards. The sweep should be about half the height of the screen.

A sweep in the left part of the screen opens the start menu. A sweep in the middle opens the keyboard and a sweep in the right part of the screen opens the tools menu.

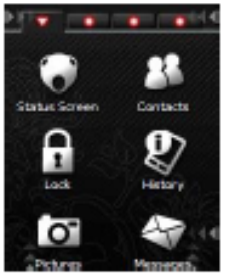



### 2.1 Open the Start Menu

To open the start menu, you sweep from the **Start menu sweep area** which is from the bottom left side of the screen and upwards. The sweep should be about half the height of the screen. When you lift your finger, the start menu will appear.

The start menu is available from all applications.



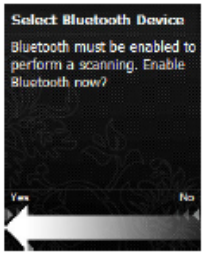



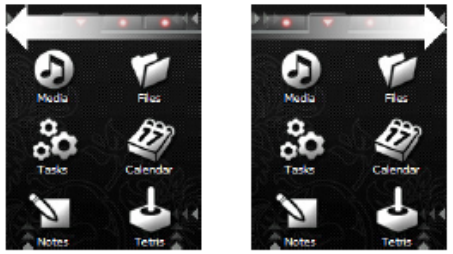

Neonode N2 User Guide at 7.

### 2.6 Close view sweep

Sweep from the right to the left at the bottom of the screen.

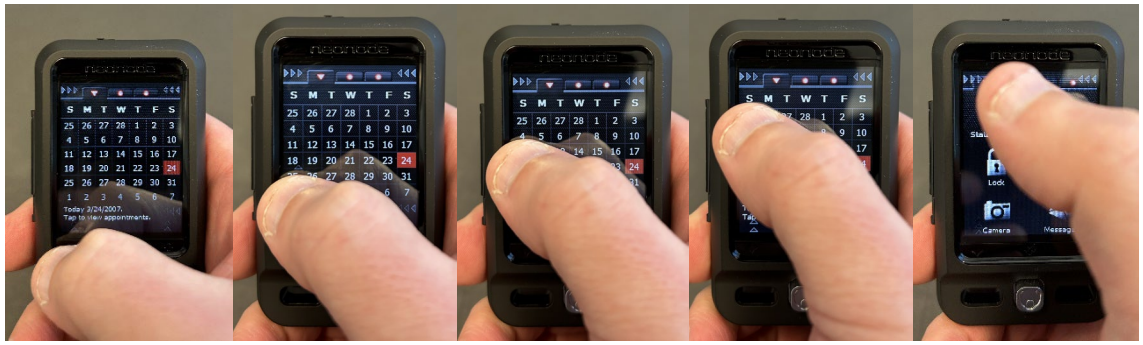
A **Close view sweep** means close view, no, back, cancel, depending on the context

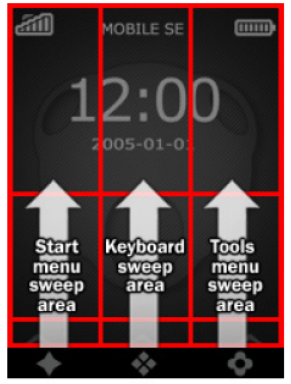


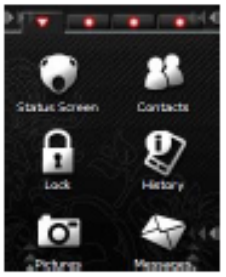
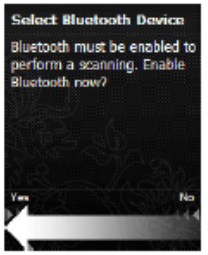
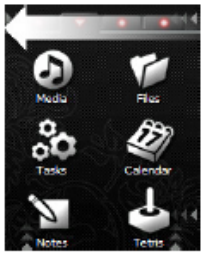
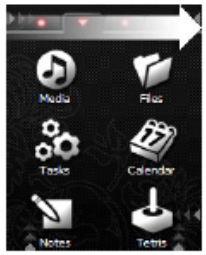
| Claim 1 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **2.7 Change view sweeps**<br>The start menu and several applications, for example the messaging application, contain multiple views. If an application contains multiple views, it will be indicated by dots at the top of the screen and a **Change view sweep** can be made.<br><br>To make a **Change view sweep** you put your finger at the top of the screen and sweep from the left to the right or from the right to the left to change between the different views.<br><br>  <br><br><br>Neonode N2 User Guide at 8.<br><br>*See, e.g.*, the Neonode N2 reviews listed above. |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[2]** The system of claim 1, wherein the system relates said gliding action to a function which is not related to a mouse function. | Claim 2 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 2 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "the system relates said gliding action to a function which is not related to a mouse function." |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | For example, the Neonode relates the gliding action from an edge of the touch screen, such as to open the start menu, perform a back action, or switch interfaces, that is not related to a mouse function.<br>  <br>Neonode N2 Device.<br>  <br>Neonode N2 Device. |

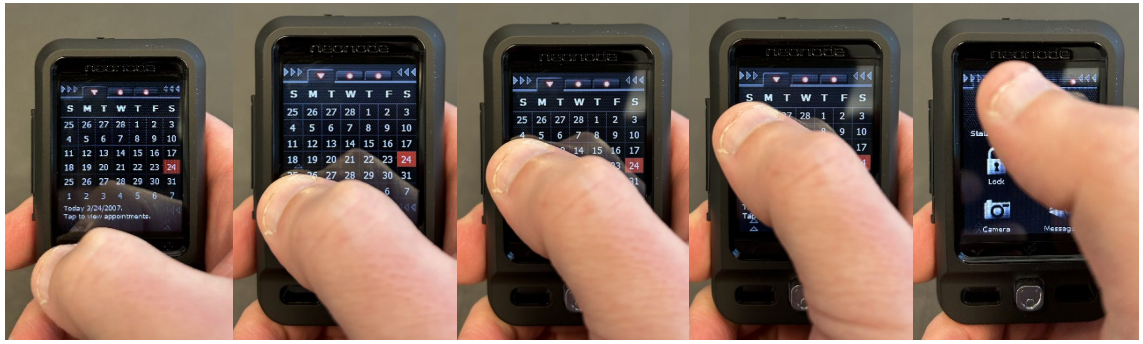
| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Neonode N2 Device.<br>  <br>Neonode N2 Device. |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | 1. The upper area of the screen is called the Change view area.<br>2. The centre of the screen is called the Navigation area.<br>3. The bottom area of the screen is called the Accept/Close view area.<br><br>In the Change view area you sweep from left to right or from right to left to change views. The Navigation area is used to navigate within a view. Put your finger in the very middle part of the screen and sweep up/down/right/left in the Navigation area to navigate within a view.<br><br>Right under Navigation area is the Notification area. In the Notification area, icons for active programs will show if they need some kind of input from the user. For example if you have an active alarm that you have not dismissed, the alarm icon will show in this area.<br><br>In the Accept/Close view area you sweep from the left to the right to make an Accept sweep and from the right to the left to make a Close view sweep.<br><br>1.  <br>2.<br>3.<br><br>## 1.13 Vertical areas:<br><br>1. The left part of the screen is called the Start menu sweep area.<br>2. The middle part of the screen is called the Keyboard sweep area.<br>3. The right part of the screen is called the Tools menu sweep area.<br><br>In the vertical areas you start the sweep at the very bottom of the screen. Sweep upwards. The sweep should be about half the height of the screen.<br><br>A sweep in the left part of the screen opens the start menu. A sweep in the middle opens the keyboard and a sweep in the right part of the screen opens the tools menu.<br><br>  <br>1. 2. 3. |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **2.1 Open the Start Menu**<br>To open the start menu, you sweep from the **Start menu sweep area** which is from the bottom left side of the screen and upwards. The sweep should be about half the height of the screen. When you lift your finger, the start menu will appear.<br><br>The start menu is available from all applications.<br><br>  <br><br>  <br><br>Neonode N2 User Guide at 7.<br><br>**2.6 Close view sweep**<br>Sweep from the right to the left at the bottom of the screen.<br><br>A **Close view sweep** means close view, no, back, cancel, depending on the context<br><br>  <br><br>**2.7 Change view sweeps**<br>The start menu and several applications, for example the messaging application, contain multiple views. If an application contains multiple views, it will be indicated by dots at the top of the screen and a **Change view sweep** can be made.<br><br>To make a **Change view sweep** you put your finger at the top of the screen and sweep from the left to the right or from the right to the left to change between the different views.<br><br>  <br><br>  <br><br>Neonode N2 User Guide at 8.<br><br>*See, e.g.*, the Neonode N2 reviews listed above. |

| Claim 2 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | |

| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[3]** The system of claim 1, wherein said at least one window comprises at least one bar located on said edge of the screen. | Claim 3 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 3 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window comprises at least one bar located on said edge of the screen."<br><br>For example, the Neonode N2 includes the windows as bars located on the edges of the touch screen. For example, each of the printed icons has a window as a bar on the bottom edge of the touch screen and the windows on the side edges of the touch screen are bars in the form of a line.<br><br>  <br><br>Neonode N2 Device. |

| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  Neonode N2 Device.  Neonode N2 Device.  |

| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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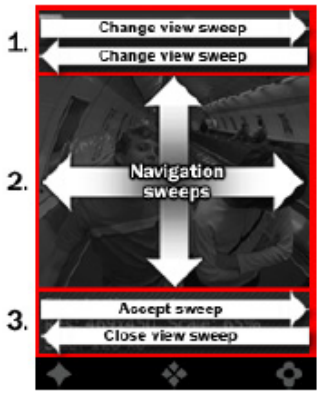
Neonode N2 Device.

1. The upper area of the screen is called the Change view area.
2. The centre of the screen is called the Navigation area.
3. The bottom area of the screen is called the Accept/Close view area.

In the Change view area you sweep from left to right or from right to left to change views. The Navigation area is used to navigate within a view. Put your finger in the very middle part of the screen and sweep up/down/right/left in the Navigation area to navigate within a view.

Right under Navigation area is the Notification area. In the Notification area, icons for active programs will show if they need some kind of input from the user. For example if you have an active alarm that you have not dismissed, the alarm icon will show in this area.

In the Accept/Close view area you sweep from the left to the right to make an Accept sweep and from the right to the left to make a Close view sweep.

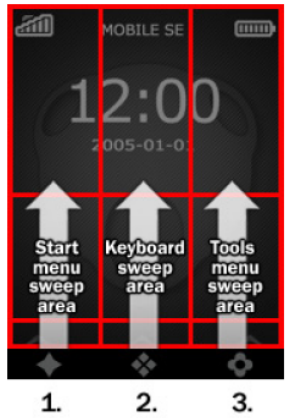


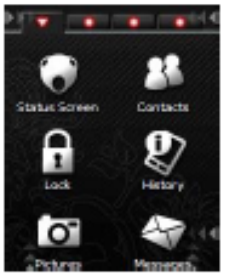
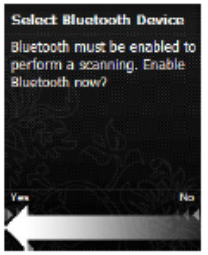
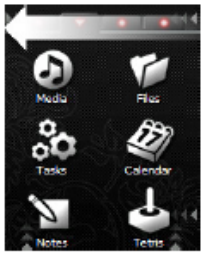
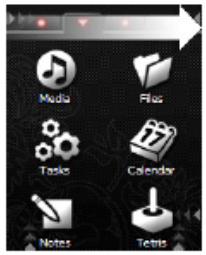

## 1.13 Vertical areas:

1. The left part of the screen is called the Start menu sweep area.
2. The middle part of the screen is called the Keyboard sweep area.
3. The right part of the screen is called the Tools menu sweep area.

In the vertical areas you start the sweep at the very bottom of the screen. Sweep upwards. The sweep should be about half the height of the screen.

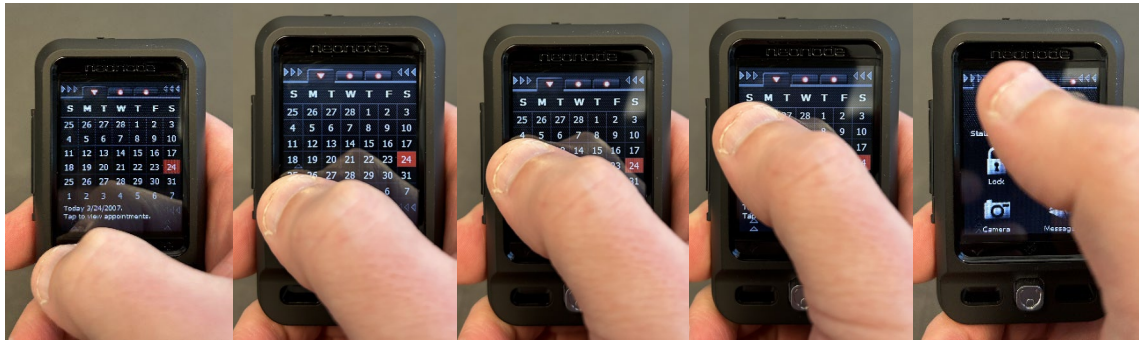
A sweep in the left part of the screen opens the start menu. A sweep in the middle opens the keyboard and a sweep in the right part of the screen opens the tools menu.

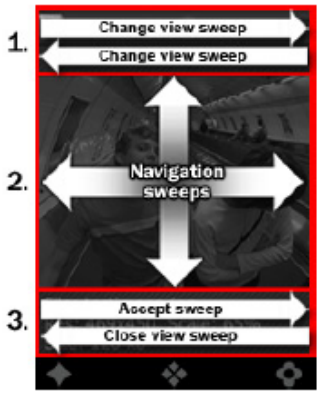
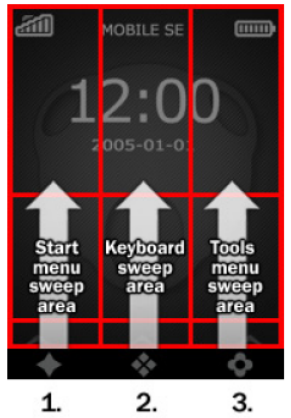


| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **2.1 Open the Start Menu**<br>To open the start menu, you sweep from the **Start menu sweep area** which is from the bottom left side of the screen and upwards. The sweep should be about half the height of the screen. When you lift your finger, the start menu will appear.<br><br>The start menu is available from all applications.<br><br>  <br><br>  <br><br>Neonode N2 User Guide at 7.<br><br>**2.6 Close view sweep**<br>Sweep from the right to the left at the bottom of the screen.<br><br>A **Close view sweep** means close view, no, back, cancel, depending on the context<br><br>  <br><br>**2.7 Change view sweeps**<br>The start menu and several applications, for example the messaging application, contain multiple views. If an application contains multiple views, it will be indicated by dots at the top of the screen and a **Change view sweep** can be made.<br><br>To make a **Change view sweep** you put your finger at the top of the screen and sweep from the left to the right or from the right to the left to change between the different views.<br><br>  <br><br>  <br><br>Neonode N2 User Guide at 8.<br><br>*See, e.g.*, the Neonode N2 reviews listed above. |

| Claim 3 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | |

| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[4]** The system of claim 3, wherein said at least one bar extends along a substantial portion of an edge of the touch screen. | Claim 4 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 4 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one bar extends along a substantial portion of an edge of the touch screen."<br><br>For example, the Neonode N2 has the window bar for the three printed icons extending along the bottom edge of the touch screen. Similarly, the windows associated with the back and interface switching functions extend along the bottom and top edges of the touch screen.<br><br>  <br><br>Neonode N2 Device. |

| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  Neonode N2 Device.  Neonode N2 Device.  |

| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Neonode N2 Device.<br><br>1. The upper area of the screen is called the Change view area.<br>2. The centre of the screen is called the Navigation area.<br>3. The bottom area of the screen is called the Accept/Close view area.<br><br>In the Change view area you sweep from left to right or from right to left to change views. The Navigation area is used to navigate within a view. Put your finger in the very middle part of the screen and sweep up/down/right/left in the Navigation area to navigate within a view.<br><br>Right under Navigation area is the Notification area. In the Notification area, icons for active programs will show if they need some kind of input from the user. For example if you have an active alarm that you have not dismissed, the alarm icon will show in this area.<br><br>In the Accept/Close view area you sweep from the left to the right to make an Accept sweep and from the right to the left to make a Close view sweep.<br><br>  <br><br><br>1.13 Vertical areas:<br><br>1. The left part of the screen is called the Start menu sweep area.<br>2. The middle part of the screen is called the Keyboard sweep area.<br>3. The right part of the screen is called the Tools menu sweep area.<br><br>In the vertical areas you start the sweep at the very bottom of the screen. Sweep upwards. The sweep should be about half the height of the screen.<br><br>A sweep in the left part of the screen opens the start menu. A sweep in the middle opens the keyboard and a sweep in the right part of the screen opens the tools menu.<br><br>  <br> |

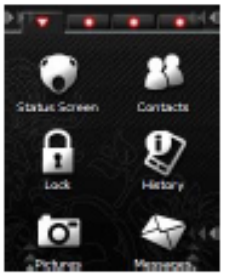
| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

## 2.1 Open the Start Menu

To open the start menu, you sweep from the **Start menu sweep area** which is from the bottom left side of the screen and upwards. The sweep should be about half the height of the screen. When you lift your finger, the start menu will appear.

The start menu is available from all applications.



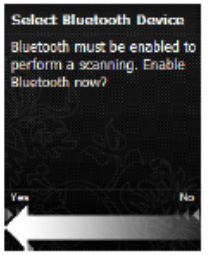




Neonode N2 User Guide at 7.

## 2.6 Close view sweep

Sweep from the right to the left at the bottom of the screen.

A **Close view sweep** means close view, no, back, cancel, depending on the context

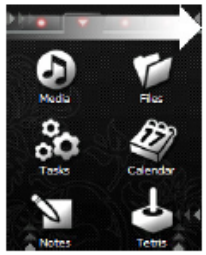



## 2.7 Change view sweeps

The start menu and several applications, for example the messaging application, contain multiple views. If an application contains multiple views, it will be indicated by dots at the top of the screen and a **Change view sweep** can be made.

To make a **Change view sweep** you put your finger at the top of the screen and sweep from the left to the right or from the right to the left to change between the different views.



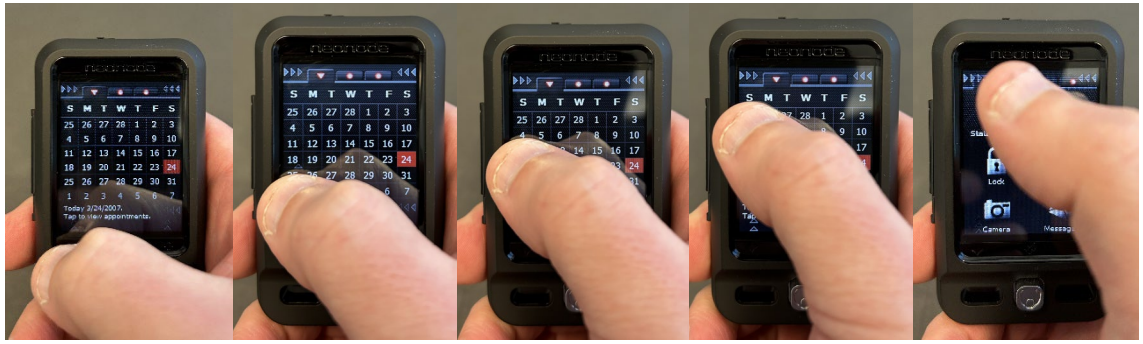



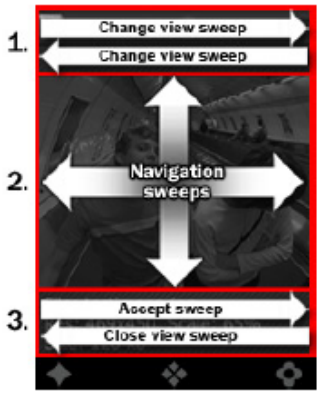
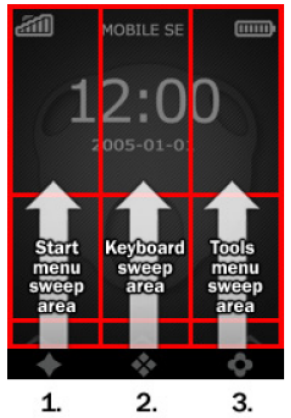

Neonode N2 User Guide at 8.

*See, e.g.*, the Neonode N2 reviews listed above.

| Claim 4 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[5]** The system of claim 3, wherein said bar is in a form of a line. | Claim 5 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 an 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 5 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said bar is in a form of a line."<br><br>For example, the Neonode N2 has windows that are a bar in the form of a line as explained for claim 3 and shown below. For example, as shown below and in the N2's User Manual, such gestures cross over a thin line at the bottom of the touch screen between the printed marking and the middle of the display and the gliding gestures from the edge of the display are parallel to the line direction of the window.<br><br>  <br><br>Neonode N2 Device. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Neonode N2 Device.<br>  <br>Neonode N2 Device.<br>  |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Neonode N2 Device.<br><br>1. The upper area of the screen is called the Change view area.<br>2. The centre of the screen is called the Navigation area.<br>3. The bottom area of the screen is called the Accept/Close view area.<br><br>In the Change view area you sweep from left to right or from right to left to change views. The Navigation area is used to navigate within a view. Put your finger in the very middle part of the screen and sweep up/down/right/left in the Navigation area to navigate within a view.<br><br>Right under Navigation area is the Notification area. In the Notification area, icons for active programs will show if they need some kind of input from the user. For example if you have an active alarm that you have not dismissed, the alarm icon will show in this area.<br><br>In the Accept/Close view area you sweep from the left to the right to make an Accept sweep and from the right to the left to make a Close view sweep.<br><br>  <br><br><br>1.13 Vertical areas:<br><br>1. The left part of the screen is called the Start menu sweep area.<br>2. The middle part of the screen is called the Keyboard sweep area.<br>3. The right part of the screen is called the Tools menu sweep area.<br><br>In the vertical areas you start the sweep at the very bottom of the screen. Sweep upwards. The sweep should be about half the height of the screen.<br><br>A sweep in the left part of the screen opens the start menu. A sweep in the middle opens the keyboard and a sweep in the right part of the screen opens the tools menu.<br><br>  <br> |

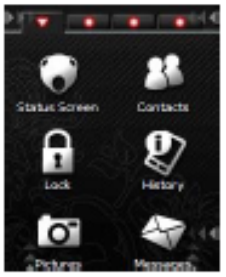
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

## 2.1 Open the Start Menu

To open the start menu, you sweep from the **Start menu sweep area** which is from the bottom left side of the screen and upwards. The sweep should be about half the height of the screen. When you lift your finger, the start menu will appear.

The start menu is available from all applications.



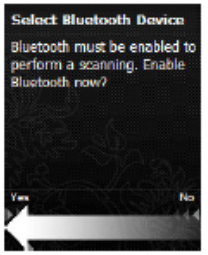




Neonode N2 User Guide at 7.

## 2.6 Close view sweep

Sweep from the right to the left at the bottom of the screen.

A **Close view sweep** means close view, no, back, cancel, depending on the context

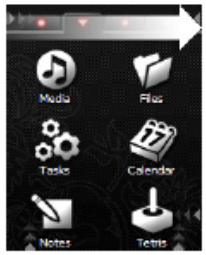



## 2.7 Change view sweeps

The start menu and several applications, for example the messaging application, contain multiple views. If an application contains multiple views, it will be indicated by dots at the top of the screen and a **Change view sweep** can be made.

To make a **Change view sweep** you put your finger at the top of the screen and sweep from the left to the right or from the right to the left to change between the different views.

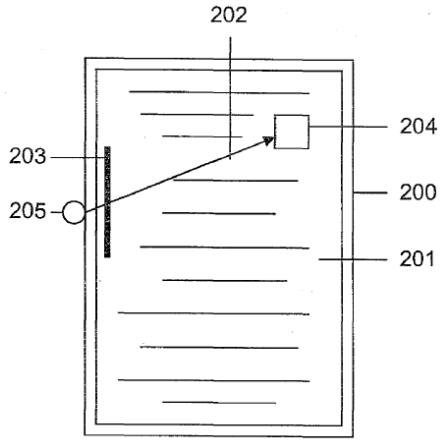



Neonode N2 User Guide at 8.

*See, e.g.*, the Neonode N2 reviews listed above.

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | To the extent Keyless argues that the Neonode N2 does not disclose or render obvious the additional limitations of claim 5, it would have been obvious in view of the Neonode N2, a POSITA's pre-existing knowledge, and/or the Neonode N2 combined with the other references charted for this patent in these invalidity contentions, including Roth, Roth Bezel Swipe, Hinckley, the HTC G1 1.6, the Samsung Behold II, and the Palm Pre. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>For example, Roth teaches using a swiping (e.g., gliding) action from outside a screen through a window in the form of a line at the edge of the screen on the screen towards the inside of the touch screen to activate a function associated with the window. For example, Roth describes "[a] crossing-based interface along the bounds of the display is a viable solution. Users can invoke actions with swiping gestures across a section of the display side from the outside to the inside." Roth at [0009]. Roth teaches advantages of such outside-to-inside gliding activations, for example, that "they can be more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to the distance vector between the line and the cursor," and "that a well positioned line requires significantly less display space than a button for similar performance characteristics." Roth at [0010]. "One example of such a gesture is a continuous swiping motion from the activation point representing a desired action or even from the bezel of the device, through the activation point and to the target on the display." Roth at [0015]. Roth explains that such outside-to-inside gliding actions "allow[] the active area of an activation point to be much smaller on a display, such as the lines shown in Roth's figures, "due to the utilization of a greater average weight throughout a touch sensitive display, which creates a higher probability of activating on a narrow activation point or operating on a small target," "save[s] valuable display space on the screen, since the activation point can be made smaller on the display as a result," and may "begin from outside the display for ease of use." Roth at [0015]. As Roth explains, a "bar," which Roth shows as a line on the touch |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | screen, may "represent[] the desired action." Roth at [0017]. "[A]n activation point 203 (represented as a bar in this example) displayed on the edge of the screen which represents the desired action of selecting. The bar is made small [e.g., a line] so as to not take up valuable space on the display. The user can then select the target 204 through the use of a gesture 202, such as swiping, pinching, tapping or other gestures …." Roth at [0036]. As shown in FIG. 2B, "[t]he user can begin his gesture from either on the bar [line 203] itself or from outside the display 205 and continue the gesture through the bar and to target as if the user were bringing the action to the target. An example of such a gesture is if the user utilized a continuous swiping motion with his finger from the bar representing a desired action to the target on the display." Roth at [0039].<br>  <br><br>Roth at FIG. 2B.<br><br>Moreover, each of Roth Bezel Swipe, Hinckley, the HTC G1 1.6, the Samsung Behold II, and the Palm Pre teaches a gliding action from off screen to on screen to activate a function assigned to the window, where the window is a bar in a form of a line.<br><br>Roth Bezel Swipe teaches activation gestures related to mobile devices having touch screens. A bezel swipe gestures is an outside-to-inside swiping (e.g., gliding) gesture across a line shown on |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | the edge of the display screen, in which "[t]he user starts a Bezel Swipe gesture on the bezel, which is the physical touch insensitive frame that surrounds the display. The finger is then swiped through a part of the display edge into the display, which enters selection mode. Next, the user moves the finger onto an object or display position and selects it by lifting the finger off the display, which ends selection mode. Different edge portions represent different actions and are distinctively marked." Roth Bezel Swipe at 1524. "Swipes are recognized by detecting touches inside a thin rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524. As such, "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display. Figure 2 illustrates this. A touch sensitive display translates the contact area of the finger with the display into an activation point." Roth Bezel Swipe at 1524. "The Bezel Swipe gesture … starts on the bezel and moves into the display. Therefore the contact area is gradually increased until it exceeds the contact threshold of the display. … Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. Roth Bezel Swipe "use[s] a thin colored bar," shown as a line, to indicate where Bezel Swipe actions may be performed. Roth Bezel Swipe, 1524, Figures 1, 2 (showing and describing a "red bar" in the form of a line). As one example, Roth Bezel Swipe describes "a green 8 x 160 pixels bar [line] centered vertically against the left display edge, with an active area that was 12 pixels wide." Roth Bezel Swipe, 1525, Figure 1. This outside-to-inside crossing gesture has advantages, for example, "the crossing of the touch-insensitive bezel in conjunction with the properties of touch sensitive displays enables the reliable activation of a button that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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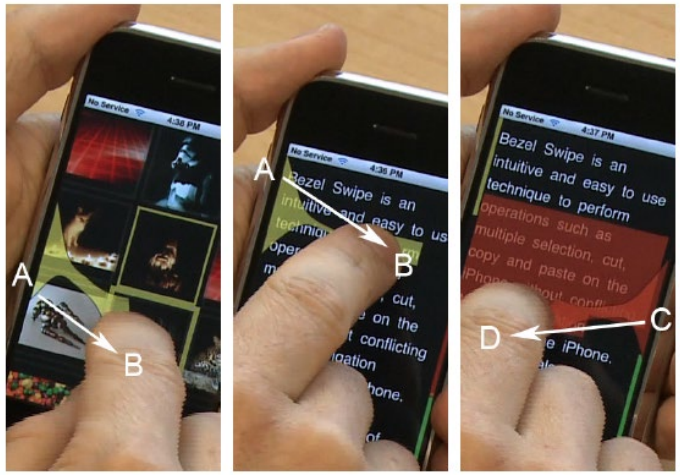



**Figure 1. The Bezel Swipe prototype in action. Left panel: A swipe from A to B selects an image. Middle panel: A swipe from A to B marks the beginning of a text selection. Right panel: A swipe from C to D marks the end of the text selection.**

Roth Bezel Swipe at Figure 1.

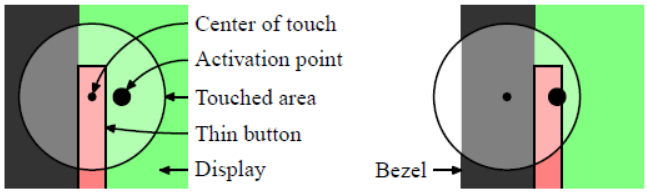
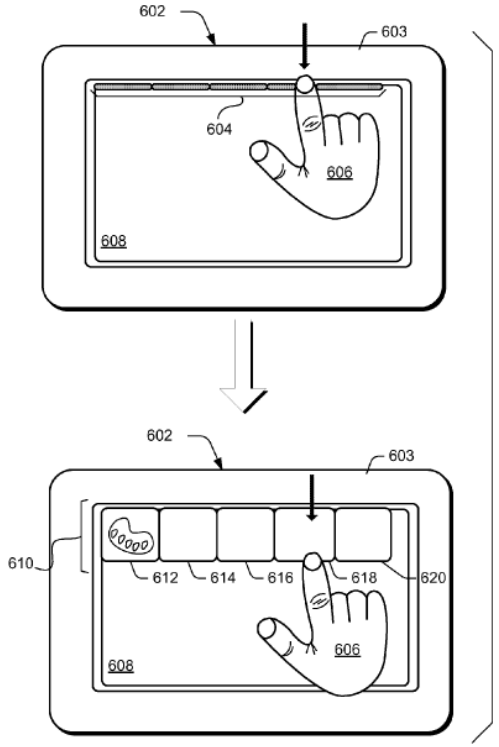


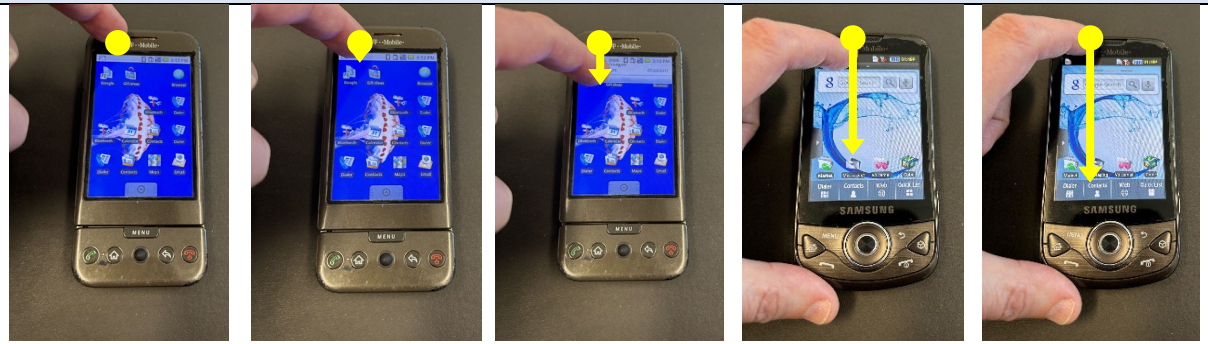

**Figure 2. Touching narrow targets close to the bezel: a touch (large circle) centered on the target (left) may not activate it whereas a touch significantly overlapping the bezel (right) does.**

Roth Bezel Swipe at Figure 2.

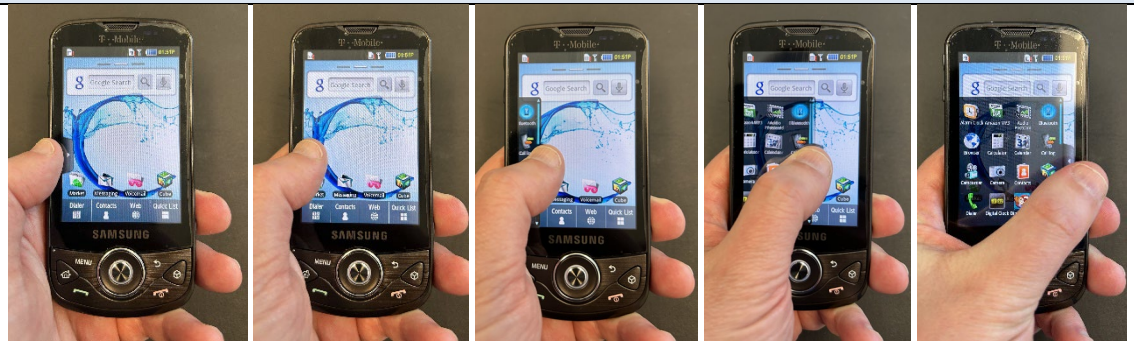
Hinckley teaches a visual affordance window, shown as a line across the top of the touch screen, indicating a pull-down bezel menu is shown at the edge of a mobile device using a gliding action

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | from outside of the touch screen towards the inside of the touch screen. Hinckley at FIGS. 5, 6. For example, in FIG. 5, "[s]tep 500 displays a visual affordance on a display device associated with a computing device" and is shown at as a window or bar 604 being a five-part line in FIG. 6. Hinckley at [0068], [0072], FIGS. 5, 6. Then, "[s]tep 502 receives a bezel gesture input relative to the visual affordance," such as from off-screen to on-screen over the visual affordance. Hinckley at [0068], [0072], FIGS. 5, 6. After the off-screen to on-screen gesture, "[s]tep 504 accesses functionality associated with the received bezel gesture input." Hinckley at [0068], [0072], FIGS. 5, 6. Hinckley explains that "off-screen to on-screen motion (or vice versa) can be utilized as a mechanism to expose a menu or to access some other type of functionality." Hinckley at [0071]. As shown in FIG. 6, "device 602 includes a bezel 603 and a visual affordance 604 that is rendered on display device 608." Hinckley at [0072], FIG. 6. The "visual affordance 604" may appear as "in the form of a semi-transparent strip" (e.g., line) and "can be utilized to provide a hint or indication of accessible functionality, in this case a bezel menu, associated with the bezel." Hinckley at [0072], FIG. 6; *see also* [0062], [0063], [0092] (describing visual affordance as "semi-transparent strip"). "[T]he bezel menu can be accessed through a bezel gesture in which a finger of user's hand 606 touches the bezel and then moves across the bezel and onto the display device 608 in the direction of the illustrated arrow." Hinckley at [0073], FIG. 6. After this off-screen to on-screen gesture across the line of the semi-transparent visual affordance, the "bezel menu 610 to be dropped down at which time it can become fully opaque." Hinckley at [0073], FIG. 6. Hinckley further explains that "bezel menu 610 includes multiple selectable icons or slots 612, 614, 616, 618, and 620. Each of the icons or slots is associated with a different functionality such as, for example, paint functionality, pen functionality, note functionality, object creation, object editing, and the like." Hinckley at [0074], FIG. 6. Hickley teaches, however, that "any type of functionality can be associated with the icons or slots." Hinckley at [0074], FIG. 6. The "bezel menu 610 can enable a user to access and activate commands, tools, and objects." Hinckley at [0075], FIG. 6. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| |  <br>Fig. 6<br>Hinckley at FIG. 6.<br>The HTC G1 1.6 teaches, as one example, that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status bar, which is a bar in the form of a line. |

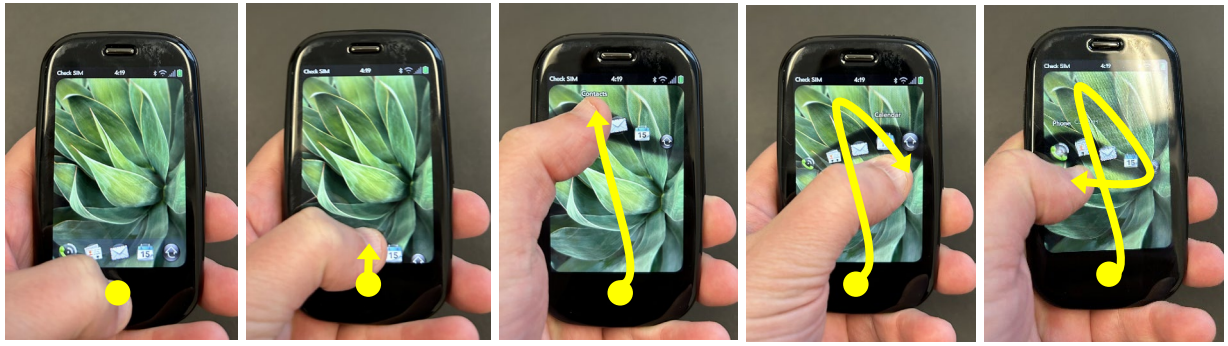
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>The HTC G1 1.6.<br>The Samsung Behold II teaches, as one example, that a user may perform a gliding action from the plastic housing surrounding the touch screen above the status bar, which is a bar in the form of a line.<br>  <br>The Samsung Behold II device.<br>The Samsung Behold II also teaches that the user may perform a gliding action from the plastic housing surrounding the touch screen to the left of the applications tab window, which is a bar in the form of a line. |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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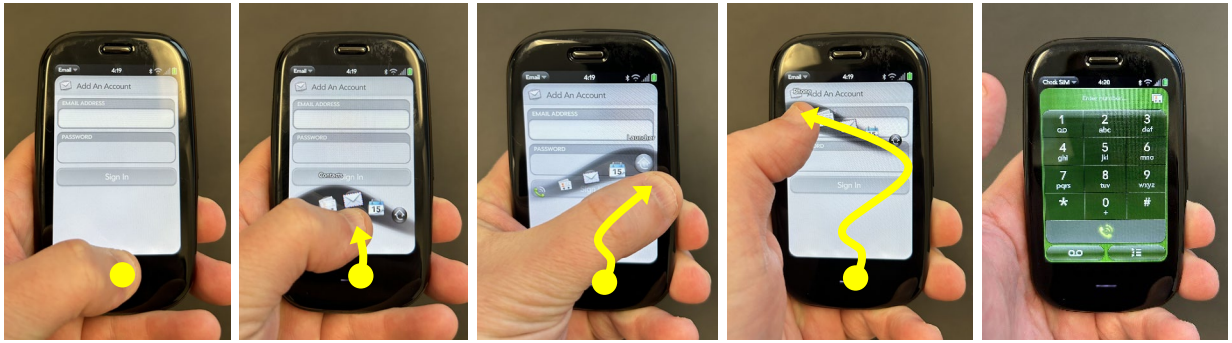
The Samsung Behold II device.

The Palm Pre teaches, as one example, that a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the touch screen (e.g., crossing over the line of the Quick Launch window that is in the form of a line and shows five application icons and identifying the movement from off-to-on screen).



Palm Pre.

The Palm Pre also teaches, as another example, that, when an application is open on the Palm Pre device (such as the mail application shown below), a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display toward the inside of the

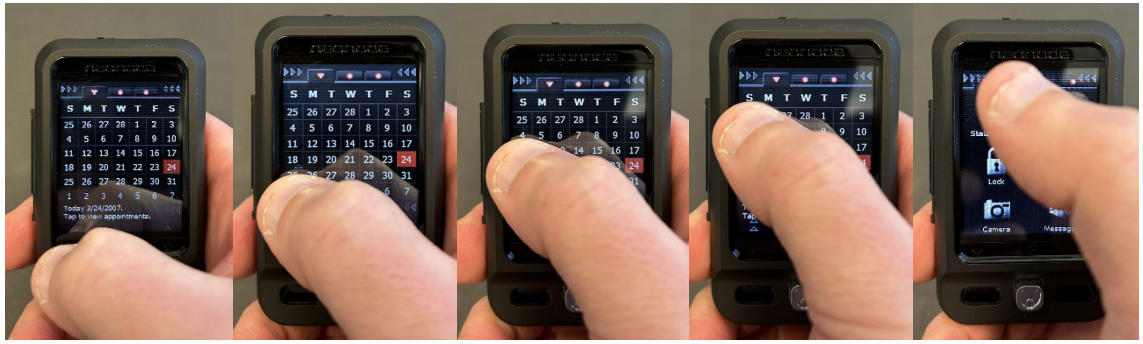
| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | touch screen to display the Quick Launch window (e.g., crossing from off-to-on screen to display the Quick Launch window). On information and belief, the demarcation between the Palm Pre's gesture area and the touch screen area forms a line. The user's touch first interacts with the Quick Launch window on the touch screen by crossing the line between the gesture area and the display area, because the Quick Launch window is not displayed in the gesture area, but as shown below, appears with the user's off-to-on screen gesture as the finger moves onto the screen. The gliding action causes a processor to perform the action associated with the Quick Launch window, such as moving the Quick Launch window with the user's finger in any arbitrary direction around the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. As shown below, lifting on the "Phone" icon opens the Phone application.<br>  <br>Palm Pre.<br>A POSITA would have found it obvious to provide the Neonode N2's windows for the off-to-on screen gliding action in the form of a line at the edge of the screen (as opposed to inwardly pointing arrows), as claimed, to reduce the amount of space used to display the gliding action indicators, thereby permitting more space for the main screen content to be shown. Each of the Neonode N2, Roth, Roth Bezel Swipe, Hinckley, the HTC G1 1.6, the Samsung Behold II, the Palm Pre, and/or the Neonode N2, teaches the window or area for implanting the gliding gesture may be in a form of a line. Roth and Roth Bezel Swipe teach the advantages of using a line along the edge of the screen, as opposed to the inward arrow lines of the Neonode N2, when implementing such dragging/crossing interfaces, which would have motivated a POSITA to modify the shape of the Neonode N2's windows to reduce its size on the screen, thereby providing more space for the main |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | display. Roth explains that using lines or thin bars "is a viable solution" for the types of off-to-on screen gliding gestures used to perform functions associated with the gliding action, like the Neonode N2. Roth at [0009]. Roth also teaches that, even though the bars may be thin (which Roth shows as a line), "they can be more efficient than pointing tasks" (e.g., tapping), "can be faster e.g., if the line is perpendicular to the distance vector between the line and the cursor," and "that a well positioned line requires significantly less display space than a button for similar performance characteristics." Roth at [0010], FIG. 2B. Roth further explains that using a thin "bar," which Roth shows as thin lines, "save[s] valuable display space on the screen, since the activation point can be made smaller on the display as a result," and may "begin from outside the display for ease of use." Roth at [0015], [0017], FIG. 2B. A POSITA would have been further motivated because, the "bar [line] is made small [e.g., a line] so as to not take up valuable space on the display" so the user can activate it using, for example, an off-to-on screen swiping gesture Roth at [0036], FIG. 2B.<br><br>Roth Bezel Swipe provides further motivations to a POSITA to make the Neonode N2's window a bar in a form of a line, for example, instead of an inwardly pointing line of arrows. For example, "[s]wipes are recognized by detecting touches inside a thin rectangular area positioned flush against the display edges." Roth Bezel Swipe at 1524, Figures 1, 2. This has the advantage that "Bezel Swipe does not typically reduce the accessible display area because the swiping gesture minimizes the area of initial contact with the touch sensitive display," and therefore "leverages display pixels that are not typically touched during regular interactions" because they use the thin line on the edge of the screen. Roth Bezel Swipe at 1524, Figure 2. Roth Bezel Swipe provides an example of "a thin colored bar," shown as a line, to indicate where Bezel Swipe actions may be performed. Roth Bezel Swipe, 1524, Figures 1, 2 (showing and describing a "red bar" in the form of a line). As one example, Roth Bezel Swipe describes "a green 8 x 160 pixels bar [line] centered vertically against the left display edge, with an active area that was 12 pixels wide." Roth Bezel Swipe at 1525, Figure 1. One advantage of using the thin line is that "the crossing of the touch-insensitive bezel in conjunction with the properties of touch sensitive displays enables the reliable activation of a button that is so narrow that it would be difficult to activate by a direct touch" and saves screen real estate because "Bezel Swipe therefore leverages display pixels that are not typically touched during regular interactions." Roth Bezel Swipe at 1524-25, Figures 1, 2. Indeed, the Neonode N2 User Manual already teaches (or at least suggested) that the window associated with the printed icons below the touch screen is already in the form of a line, and a POSITA would have been motivated |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | to carry that through to minimize the amount of display required for, for example, the applications tab at the bottom of the screen. Such combination would also allow for the application bar to be always accessible, thereby making it easier for the user to switch applications, navigate between interfaces, or perform actions such as the back action, because, as Roth Bezel Swipe teaches, the thin line and crossing-gliding gesture "enables the reliable activation of a button that is so narrow that it would be difficult to activate by a direct touch" and thus would not be accidentally activated by a user (both because of the difficulty or direct tapping and also the off-to-on screen gliding activation gesture). Roth Bezel Swipe at 1524-25, Figures 1, 2.<br><br>It was well known to a POSITA that the Neonode N2's windows indicating possible gliding actions from off screen could be implemented as windows that are bars in the form of a line merely requires drawing the window for the activation area as a line (e.g., a line on the edge of the screen rather than a line of inwardly pointing arrows), which merely uses conventional graphics rendering, thus representing a mere design choice as to the shape of the activation area. The off-to-on screen activation is similarly well known and conventional operations to determine the user's gliding action across the activation area, such as used in the Neonode N2, Roth, Roth Bezel Swipe, Hinckley, the HTC G1 1.6, the Samsung Behold II, and/or the Palm Pre.<br><br>The use of a bar in the form of a line for the Neonode N2's activation windows for the user to perform an off-to-on screen gliding gesture to activate the respective function was routine and conventional to POSITAs, as shown by Roth, and/or Roth Bezel Swipe. Moreover, it was successfully implemented in commercial prior art devices, such as the HTC G1 1.6, the Samsung Behold II, the Palm Pre, and the Neonode N2. Incorporating the shape of the activation area for the gliding gestures to be a bar in the form of a line represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with Neonode N2, represent nothing more than combining prior art elements according to known methods and techniques (rendering the activation windows of the Neonode N2 as a bar in the form of a line, rather than a line of arrows, then activating the assigned function as already known in the Neonode N2) to yield predictable |

| Claim 5 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | results (activating the assigned function, such as opening the start menu, switching portions of an interface, or executing a back action, as used in the Neonode N2). |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[6]** The system of claim 5, wherein said action is displaying an interface on the screen. | Claim 6 depends from claims 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 5, 3, and 1 here, which anticipate and/or render claims 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 5, 3, and 1 to show the additional limitations of claim 6 are anticipated and/or obvious for the same reasons set out in claims 5, 3, and 1.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying an interface on the screen."<br><br>For example, the Neonode N2's gliding action from the bottom left printed icon below the bottom edge of the screen is assigned an action of displaying the start menu interface on the screen. Similarly, the change view sweeps assigned to the gliding actions at the side edges of the screen (e.g., from the left or right edges) changes the portion of the interface shown on the touch screen.<br><br>  |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Neonode N2 Device.<br>  <br><br>Neonode N2 Device.<br>  <br>Neonode N2 Device. |

| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|



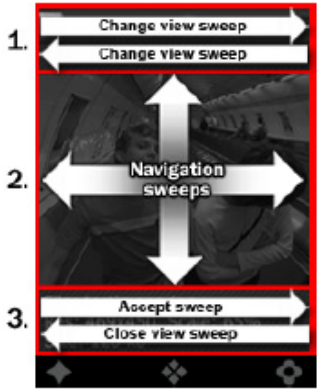

Neonode N2 Device.

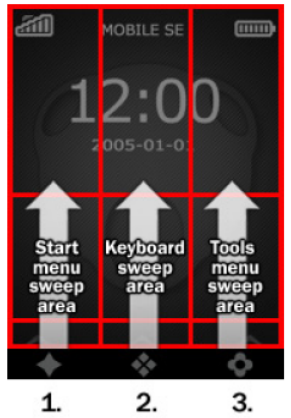
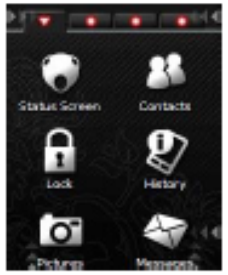
1. The upper area of the screen is called the Change view area.
2. The centre of the screen is called the Navigation area.
3. The bottom area of the screen is called the Accept/Close view area.

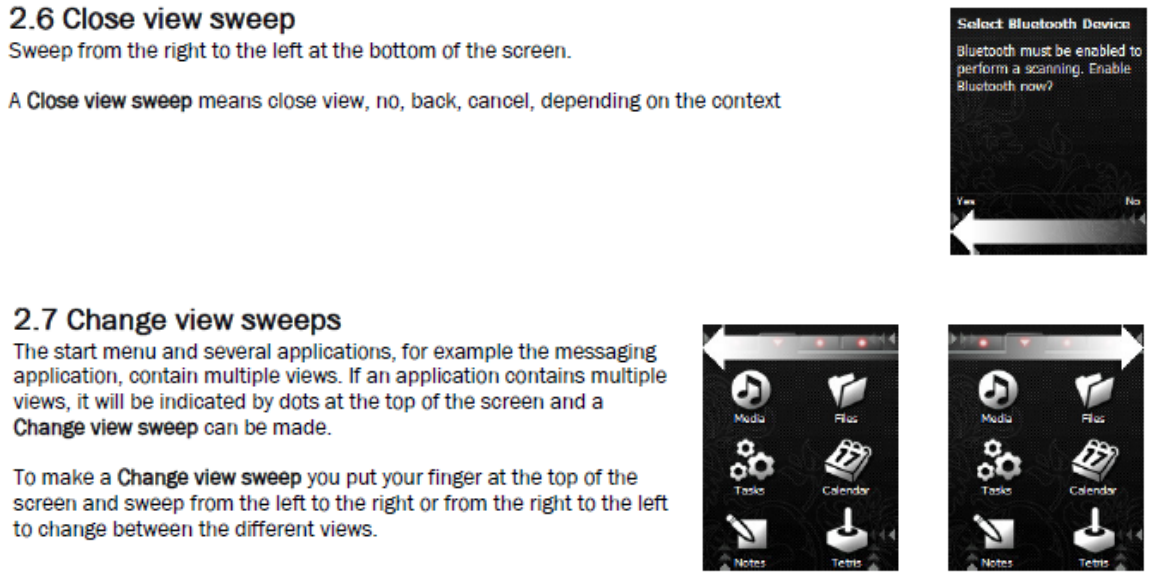
In the Change view area you sweep from left to right or from right to left to change views. The Navigation area is used to navigate within a view. Put your finger in the very middle part of the screen and sweep up/down/right/left in the Navigation area to navigate within a view.

Right under Navigation area is the Notification area. In the Notification area, icons for active programs will show if they need some kind of input from the user. For example if you have an active alarm that you have not dismissed, the alarm icon will show in this area.

In the Accept/Close view area you sweep from the left to the right to make an Accept sweep and from the right to the left to make a Close view sweep.

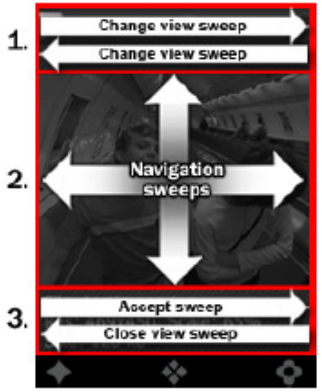


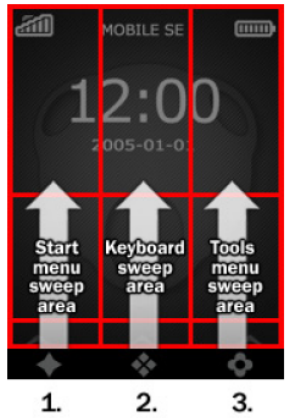
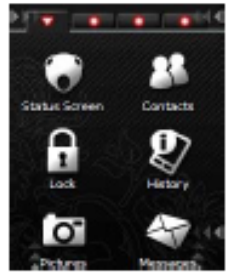
| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **1.13 Vertical areas:**<br><br>1. The left part of the screen is called the Start menu sweep area.<br>2. The middle part of the screen is called the Keyboard sweep area.<br>3. The right part of the screen is called the Tools menu sweep area.<br><br>In the vertical areas you start the sweep at the very bottom of the screen. Sweep upwards. The sweep should be about half the height of the screen.<br><br>A sweep in the left part of the screen opens the start menu. A sweep in the middle opens the keyboard and a sweep in the right part of the screen opens the tools menu.<br><br>  <br><br>**2.1 Open the Start Menu**<br>To open the start menu, you sweep from the **Start menu sweep area** which is from the bottom left side of the screen and upwards. The sweep should be about half the height of the screen. When you lift your finger, the start menu will appear.<br><br>The start menu is available from all applications.<br><br>  <br>  <br><br>Neonode N2 User Guide at 7. |

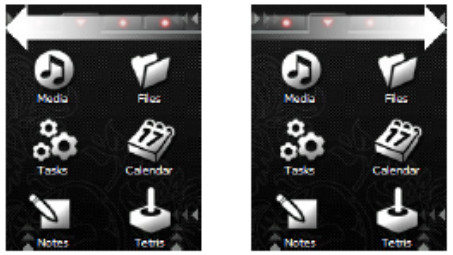
| Claim 6 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Neonode N2 User Guide at 8.<br>*See, e.g.*, the Neonode N2 reviews listed above.<br><br>A POSITA would have found it obvious that the Neonode N2's window is a line, as explained in claim 5. *Supra* claim 5. |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[7]** The system of claim 5, wherein said action is | Claim 7 depends from claims 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 5, 3, and 1 here, which anticipate and/or render claims 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| displaying a portion of an interface on the screen. | and evidence set out for claims 5, 3, and 1 to show the additional limitations of claim 7 are anticipated and/or obvious for the same reasons set out in claims 5, 3, and 1.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying a portion of an interface on the screen."<br><br>For example, the Neonode N2 includes the action to open the start menu for displaying a portion of the start menu on the touch screen. For example, there are four portions of the start menu interface that may be cycled through using the "change view" gesture. Similarly, portions of the keypad interface displayed assigned to a gliding gesture from the center printed icon onto the touch screen can be cycled through using the "change view" gesture.<br><br>  <br><br>Neonode N2 Device. |

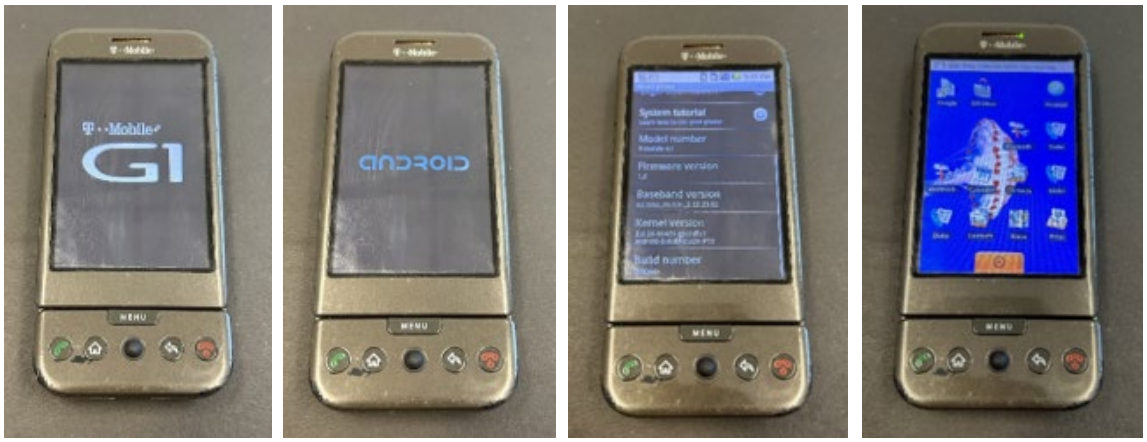
| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Neonode N2 Device.<br><br>1. The upper area of the screen is called the Change view area.<br>2. The centre of the screen is called the Navigation area.<br>3. The bottom area of the screen is called the Accept/Close view area.<br><br>In the Change view area you sweep from left to right or from right to left to change views. The Navigation area is used to navigate within a view. Put your finger in the very middle part of the screen and sweep up/down/right/left in the Navigation area to navigate within a view.<br><br>Right under Navigation area is the Notification area. In the Notification area, icons for active programs will show if they need some kind of input from the user. For example if you have an active alarm that you have not dismissed, the alarm icon will show in this area.<br><br>In the Accept/Close view area you sweep from the left to the right to make an Accept sweep and from the right to the left to make a Close view sweep.<br><br>  <br> |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | 1.13 Vertical areas:<br><br>1. The left part of the screen is called the Start menu sweep area.<br>2. The middle part of the screen is called the Keyboard sweep area.<br>3. The right part of the screen is called the Tools menu sweep area.<br><br>In the vertical areas you start the sweep at the very bottom of the screen. Sweep upwards. The sweep should be about half the height of the screen.<br><br>A sweep in the left part of the screen opens the start menu. A sweep in the middle opens the keyboard and a sweep in the right part of the screen opens the tools menu.<br><br>  <br><br><br>2.1 Open the Start Menu<br>To open the start menu, you sweep from the **Start menu sweep area** which is from the bottom left side of the screen and upwards. The sweep should be about half the height of the screen. When you lift your finger, the start menu will appear.<br><br>The start menu is available from all applications.<br><br>  <br><br>  <br><br><br>Neonode N2 User Guide at 7. |

| Claim 7 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **2.7 Change view sweeps**<br>The start menu and several applications, for example the messaging application, contain multiple views. If an application contains multiple views, it will be indicated by dots at the top of the screen and a **Change view sweep** can be made.<br><br>To make a **Change view sweep** you put your finger at the top of the screen and sweep from the left to the right or from the right to the left to change between the different views.<br><br>  <br><br><br>Neonode N2 User Guide at 8.<br><br>*See, e.g.*, the Neonode N2 reviews listed above.<br><br>A POSITA would have found it obvious that the Neonode N2's window is a line, as explained in claim 5. *Supra* claim 5. |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[8]** The system of claim 7, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 8 depends from claims 7, 5, 3, and 1. Defendants incorporate all the prior art disclosures from claims 7, 5, 3, and 1 here, which anticipate and/or render claims 7, 5, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 7, 5, 3, and 1 to show the additional limitations of claim 8 are anticipated and/or obvious for the same reasons set out in claims 7, 5, 3, and 1.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | To the extent Keyless argues that the Neonode N2 does not disclose or render obvious the additional limitations of claim 8, it would have been obvious in view of the Neonode N2, POSITA's pre-existing knowledge, and/or the Neonode N2 combined with the other references charted for this patent in these invalidity contentions, including Tseng, Jeong, the HTC G1 1.6, and the Samsung Behold II. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>For example, Tseng teaches that, upon detecting the user's gliding action, the system relates the gliding action to setting the location of the message area interface on the touch screen by "stick[ing]" the edge of the interface to the user's finger. Tseng at [0029]. Tseng explains the message area 206/226 may remain "partially" open. Tseng at [0046]. As another example, Tseng explains that, in one embodiment, "if a user drags the bar quickly and releases it, the bar may continue moving until its momentum runs out *or* until it hits the bottom of the display," meaning that it is possible for the message area to stop before the bottom of the display is reached. Tseng at [0060]. As another example, Tseng explains that, in one embodiment, "if the user pulls the bar below a determined level on the display, the bar may automatically keep moving until it reaches the bottom of the display, or until it reaches a graphical element that it is not allowed to pass over." Tseng at [0060].<br><br>Jeong teaches the mobile terminal 100, upon detecting the user's gliding action on the tag 330/410, relates the gliding action to setting the location of the interface (e.g., application menu interface) on the touch screen by exposing how much of the menu is shown. Jeong's FIGS. 7B and 7B "shows a second example of displaying a menu screen by dragging a tag in FIG. 6B." Jeong at [0018], [0019], FIGS. 6B, 7B, 7C. Jeong explains that, "[i]f [the] tag dragging is stopped before the entire menu screen image 320 is exposed, or when the touch to the tag being dragged is released, the menu screen maintains a currently exposed state as it is" to relate the gliding action to set the location of the interface by exposing or hiding a portion of the menu both during the dragging |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | action and when the user ceases the dragging action. Jeong at [0059], FIGS. 7A-7C. The menus displayed from the two tags (bottom tag in 7B and side tag in 7C) show the same application icons, which suggests displaying the same menu from different directions. Jeong's system also changes the location of the interface corresponding to the tag from which the gliding action starts from below an executed screen image to above an executed screen image, according to the distance of the gliding action. Jeong at [0062], FIG. 9D.<br><br>The HTC G1 1.6 shows a length of the portion of the notifications menu interface being displayed is substantially equal to a length of the gliding action from the status bar and a length of a portion of the applications menu interface being displayed is substantially equal to a length of the gliding action from the applications tab.<br>  <br><br>HTC G1 1.6 Device. |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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HTC G1 1.6 Device



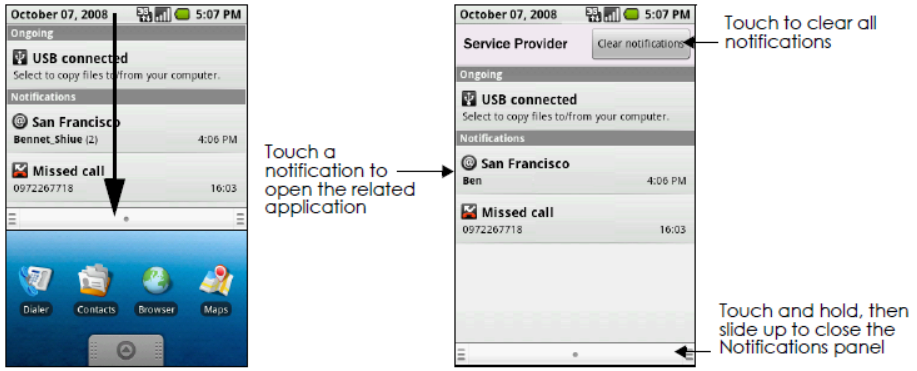
HTC G1 1.6 Device.

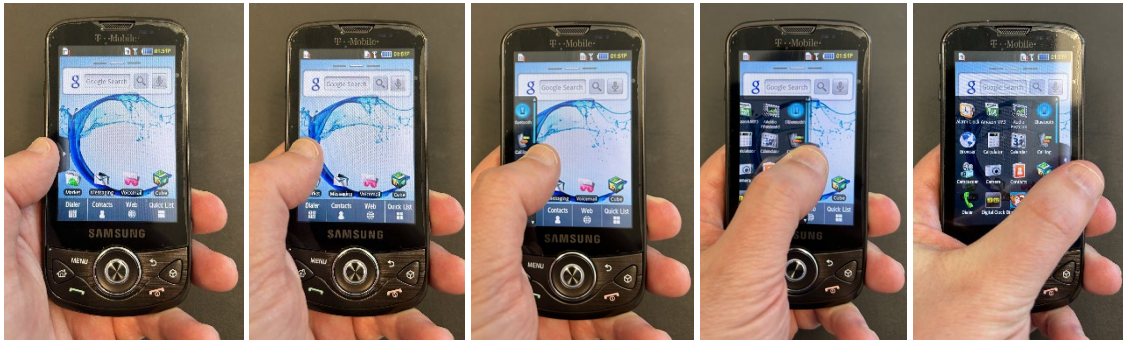
**Notifications panel**

Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.

**To open the Notifications panel**

When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>If you have several notifications, you can scroll down the screen to view more notifications.<br>**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.<br>**To close the Notifications Panel**<br>Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.<br><br>G1 User Manual 27-28.<br><br>The Samsung Behold II shows a length of the portion of the notifications menu interface being displayed is substantially equal to a length of the gliding action from the status bar and a length of a portion of the applications menu interface being displayed is substantially equal to a length of the gliding action from the applications tab. |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>The Samsung Behold II device.<br>  <br>The Samsung Behold II device.<br>A POSITA would have found it obvious to incorporate one or more of Tseng's, Jeong's, the HTC G1 1.6, and/or the Samsung Behold II's teaching of, during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. A POSITA would have recognized the advantage of incorporating this functionality, for example, to provide a visual indicator to the user of pulling open the start menu to confirm the user's action (or other screen assigned to the icons on the bottom edge of the Neonode N2's touch screen). It was well known to a POSITA to implement interfaces, such as partially open interface locations taught by Tseng, Jeong, the HTC G1, and/or the Samsung Behold II, which merely uses conventional graphics rendering, thus representing a mere design choice as to the shape of the activation area. |

| Claim 8 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Displaying the interface, such that during the gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action was also well known, as taught by Tseng, Jeong, the HTC G1 1.6, and/or the Samsung Behold II. Moreover, a POSITA would have been motivated to implement this functionality to provide a visual confirmation of the user's gliding action being performed so that the user can confirm they activated the correct icon's functionality.<br><br>The system displaying a length of the portion of the interface being displayed is substantially equal to a length of the gliding action during the gliding action was routine and conventional to POSITAs, as shown by Tseng and Jeong. Moreover, it was successfully implemented in commercial prior art devices, such as the HTC G1 1.6 and the Samsung Behold II. Incorporating this functionality into the Neonode N2 represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such processes, when combined with the Neonode N2, represent nothing more than combining prior art elements according to known methods and techniques (rendering the interface on the screen of the Neonode N2 as the user's finger moves across the screen during the gliding action) to yield predictable results (to open the desired interface with a sliding motion as was known in the art).<br><br>A POSITA would have found it obvious that the Neonode N2's window is a line, as explained in claim 5. *Supra* claim 5. |

| Claim 9 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[9]** The system of claim 3, wherein said action is displaying an interface on the screen. | Claim 9 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale |

| Claim 9 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | and evidence set out for claims 3 and 1 to show the additional limitations of claim 9 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying an interface on the screen."<br><br>Claim 9 recites substantially the same limitations as claim 6 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 6. *See, e.g.*, *supra* claim 6.<br><br>As discussed *supra* claim 6, the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said action is displaying an interface on the screen." *See supra* claim 6. |

| Claim 10 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[10]** The system of claim 3, wherein said action is displaying a portion of an interface on the screen. | Claim 10 depends from claims 3 and 1. Defendants incorporate all the prior art disclosures from claims 3 and 1 here, which anticipate and/or render claims 3 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 3 and 1 to show the additional limitations of claim 10 are anticipated and/or obvious for the same reasons set out in claims 3 and 1.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said action is displaying a portion of an interface on the screen."<br><br>Claim 10 recites substantially the same limitations as claim 7 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 7. *See, e.g.*, *supra* claim 7. |

| Claim 10 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | As discussed *supra* claim 7, the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said action is displaying a portion of an interface on the screen." *See supra* claim 7. |

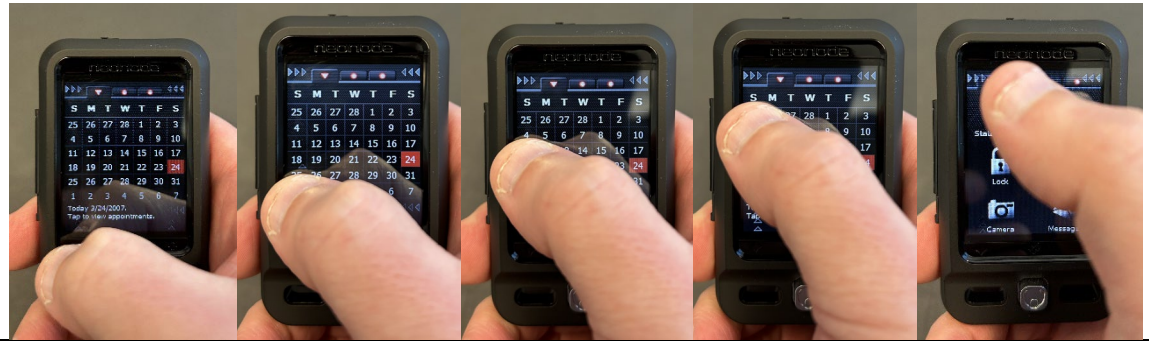
| Claim 11 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[11]** The system of claim 10, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 11 depends from claims 10, 3, and 1. Defendants incorporate all the prior art disclosures from claims 10, 3, and 1 here, which anticipate and/or render claims 10, 3, and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 10, 3, and 1 to show the additional limitations of claim 11 are anticipated and/or obvious for the same reasons set out in claims 10, 3, and 1.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>Claim 11 recites substantially the same limitations as claim 8 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 8. *See, e.g.*, *supra* claim 8.<br><br>As discussed *supra* claim 8, the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claim 8. |

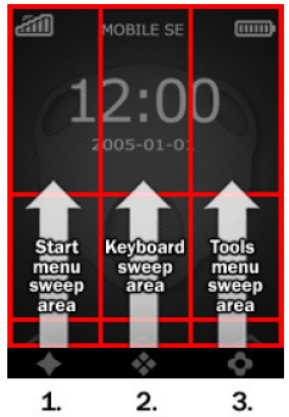
| Claim 12 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[12]** The system of claim 1, wherein upon detecting said gliding action, the system displays an interface on said touch screen. | Claim 12 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 12 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said gliding action, the system displays an interface on said touch screen."<br><br>Claim 12 recites substantially the same limitations as claims 6 and 9 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6 and 9. *See, e.g.*, *supra* claims 6, 9.<br><br>As discussed *supra* claims 6 and 9, the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "upon detecting said gliding action, the system displays an interface on said touch screen." *See supra* claims 6, 9. |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[13]** The system of claim 12, wherein upon detecting said gliding action, the system relates said gliding action to setting the location of said interface on said touch screen. | Claim 13 depends from claims 12 and 1. Defendants incorporate all the prior art disclosures from claims 12 and 1 here, which anticipate and/or render claims 12 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 12 and 1 to show the additional limitations of claim 13 are anticipated and/or obvious for the same reasons set out in claims 12 and 1.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said gliding |

| Claim 13 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | action, the system relates said gliding action to setting the location of said interface on said touch screen."<br><br>To the extent Keyless argues that the Neonode N2 does not disclose or render obvious the additional limitations of claim 13, it would have been obvious for at least the reasons set out in claim 8. *See supra* claim 8. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[15]** The system of claim 1, wherein said at least one window comprises more than one window located on one or more edges of the touch screen. | Claim 15 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 15 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window comprises more than one window located on one or more edges of the touch screen."<br><br>For example, the Neonode N2 includes more than one window located on one or more edges of the touch screen, for example, the window(s) for the printed icons on the bottom edge of the touch screen and the window(s) for gestures associated with the arrows on the left and right edges of the touch screen. |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Neonode N2 Device.<br>  <br>Neonode N2 Device.<br>  |

| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Neonode N2 Device.<br>  <br>Neonode N2 Device.<br>**1.13 Vertical areas:**<br>1. The left part of the screen is called the Start menu sweep area.<br>2. The middle part of the screen is called the Keyboard sweep area.<br>3. The right part of the screen is called the Tools menu sweep area.<br>In the vertical areas you start the sweep at the very bottom of the screen. Sweep upwards. The sweep should be about half the height of the screen.<br>A sweep in the left part of the screen opens the start menu. A sweep in the middle opens the keyboard and a sweep in the right part of the screen opens the tools menu.<br>  |

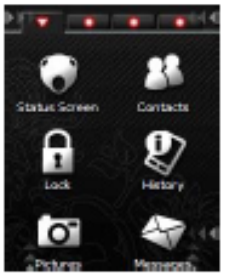
| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

## 2.1 Open the Start Menu

To open the start menu, you sweep from the **Start menu sweep area** which is from the bottom left side of the screen and upwards. The sweep should be about half the height of the screen. When you lift your finger, the start menu will appear.

The start menu is available from all applications.

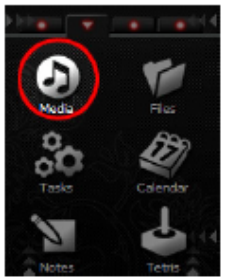


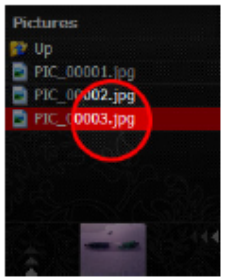




## 2.2 Tap

To open the applications you tap on icons visible at the screen. You also tap the screen to select an item in a list, for example in the address book.

A tap is a very quick light touch on the screen, no pressure is needed. You put down your finger, lightly touch the screen and lift the finger right back up



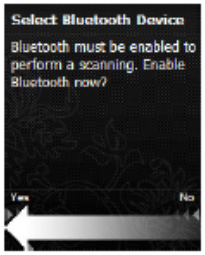



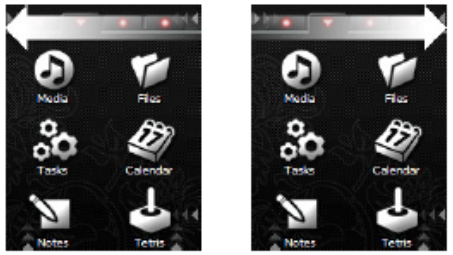

Neonode N2 User Guide at 7.

## 2.6 Close view sweep

Sweep from the right to the left at the bottom of the screen.

A **Close view sweep** means close view, no, back, cancel, depending on the context



| Claim 15 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | 2.7 Change view sweeps<br>The start menu and several applications, for example the messaging application, contain multiple views. If an application contains multiple views, it will be indicated by dots at the top of the screen and a **Change view sweep** can be made.<br><br>To make a **Change view sweep** you put your finger at the top of the screen and sweep from the left to the right or from the right to the left to change between the different views.<br><br>  <br><br><br>Neonode N2 User Guide at 8.<br><br>*See, e.g.*, the Neonode N2 reviews listed above. |

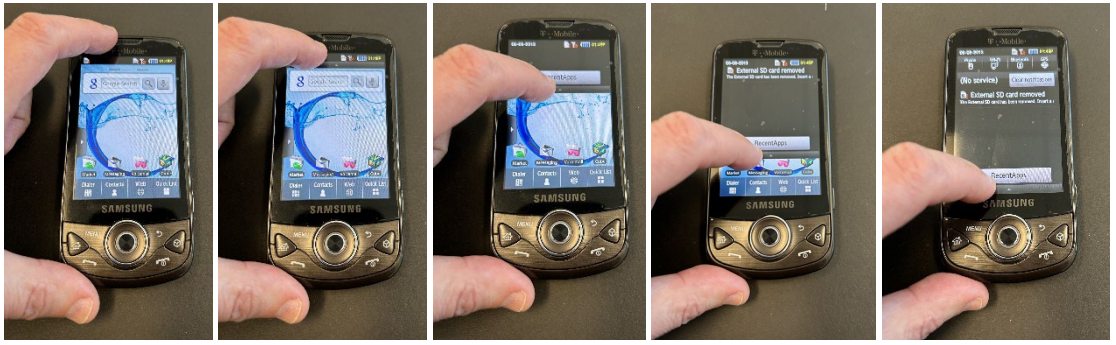
| Claim 16 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[16]** The system of claim 15, wherein said at least one window extends along a substantial portion of an edge of the touch screen. | Claim 16 depends from claims 15 and 1. Defendants incorporate all the prior art disclosures from claims 15 and 1 here, which anticipate and/or render claims 15 and 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 15 and 1 to show the additional limitations of claim 16 are anticipated and/or obvious for the same reasons set out in claims 15 and 1.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said at least one window extends along a substantial portion of an edge of the touch screen."<br><br>Claim 16 recites substantially the same limitations as claim 4 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 4. *See, e.g.*, *supra* claim 4.<br><br>As discussed *supra* claim 4, the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of |

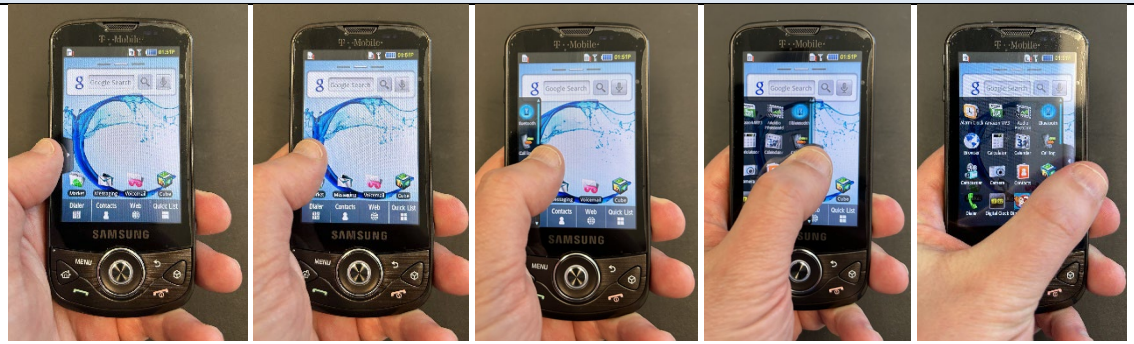
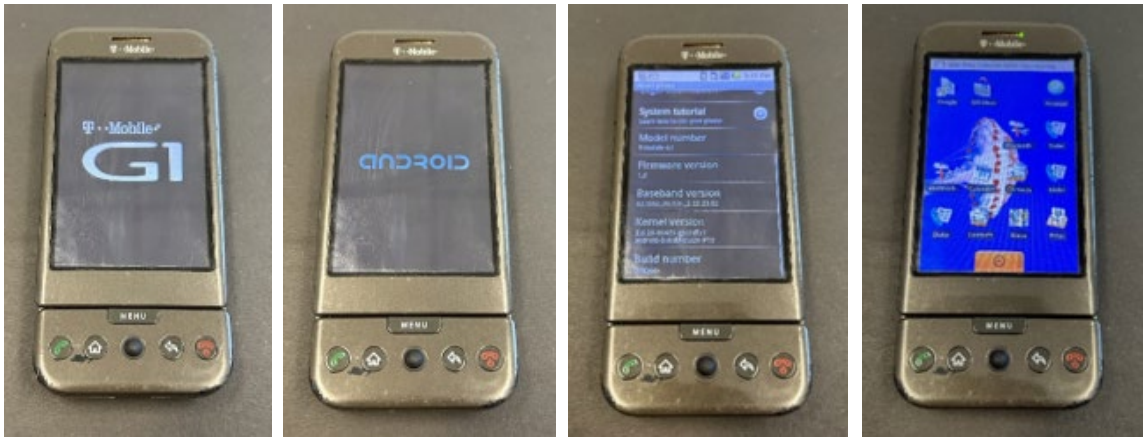
| Claim 16 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said at least one window extends along a substantial portion of an edge of the touch screen." *See supra* claim 4. |

| Claim 17 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[17]** The system of claim 1, wherein during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen. | Claim 17 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 17 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen."<br><br>To the extent Keyless argues that the Neonode N2 does not disclose or render obvious the additional limitations of claim 17, it would have been obvious for at least the reasons set out in claim 8. *See supra* claim 8. |

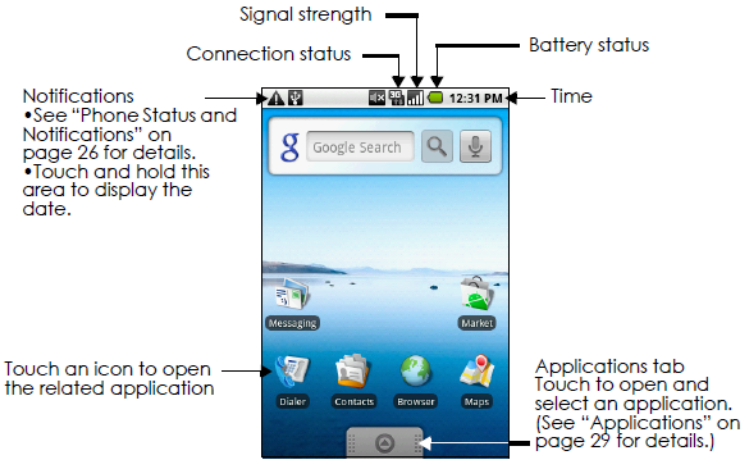
| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[18]** The system of claim 1, wherein the processor relates a gliding action provided towards any arbitrary | Claim 18 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| direction inside the screen to presenting a same interface. | to show the additional limitations of claim 18 are anticipated and/or obvious for the same reasons set out in claim 1.<br><br>To the extent Keyless argues that the Neonode N2 does not disclose or render obvious claim 18, it would have been obvious in view of the Neonode N2, POSITA's pre-existing knowledge, and/or the teachings of the Neonode N2 combined with the other references charted for this patent in these invalidity contentions, including Hisatomi, the Samsung Behold II, the HTC G1 1.6, and the Palm Pre. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have had a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.<br><br>For example, Hisatomi discloses that, when sliding open the drawer menus, "if the interior of any [menu] regions is detected, then the respective coordinate data are mapped" and when "the coordinates [of the touch/slide] are continuously updated toward the center portion of the display screen of the image-displaying display 803, the display region of the drawer is slid in the indicated direction." Hisatomi at [0059]. In tracking the slide direction, for example, up-and-down sliding of menus B and C in Hisatomi's FIGS. 5-7 (like Tseng's pull-down status bar notification menu), "X-axis information is ignored and only Y-axis information is reflected in the process." Hisatomi at [0069]. For example, the system "stands by to receive Y-coordinate information and ignores the X[-]coordinate, and … the bar display position is continuously updated in accordance with the Y-coordinate information." Hisatomi at [0065], [0069] (describing ignoring X-axis information for category-B menu). A POSITA would have recognized that, because only the Y-coordinate information is used, then then the same category-B menu is presented for this example pull-down menu, but the user's direction may be in any arbitrary direction towards the interior of the touch screen.<br><br>The Samsung Behold II's processor relates the gliding action from a status bar window and/or the applications tab window provided in any arbitrary direction inside the touch screen to presenting |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | the same notifications menu or applications menu interface, respectively, because the user's gliding action can proceed in any direction or path while the edge of the respective menu travels with the user's finger.<br>  <br>  |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>The Samsung Behold II device.<br>The HTC G1 1.6's processor relates the gliding action from a status bar window and/or the applications tab window provided in any arbitrary direction inside the touch screen to presenting the same notifications menu or applications menu interface, respectively, because the user's gliding action can proceed in any direction or path while the edge of the respective menu travels with the user's finger.<br>  <br>HTC G1 1.6 Device. |

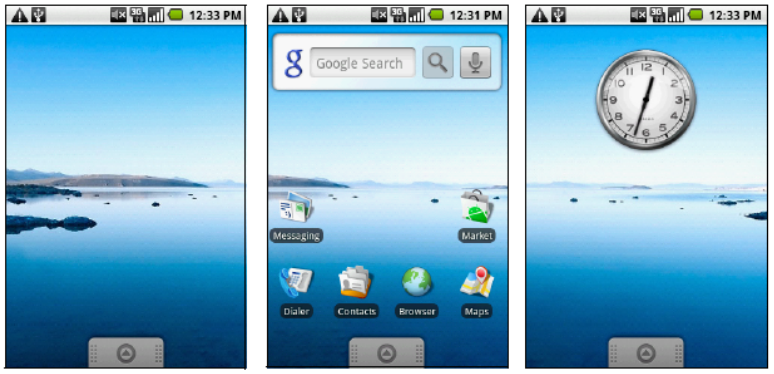
| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>HTC G1 1.6 Device<br>  <br>HTC G1 1.6 Device. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **1.7 Home Screen**<br><br>The Home screen is your starting point for using the applications on your phone. You can customize the Home screen to display application icons, shortcuts, folders, and widgets.<br><br>  <br><br><br>**Tip** While in any application, press **HOME** to go back to the Home screen. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

## Extended Home screen

The Home screen extends beyond the screen width to provide more space for adding icons, widgets, and more. Press **HOME**, then slide your finger horizontally across the screen to go to the left or right side of the extended Home screen.




Extended Home screen left

Extended Home screen right

G1 User Manual 24.

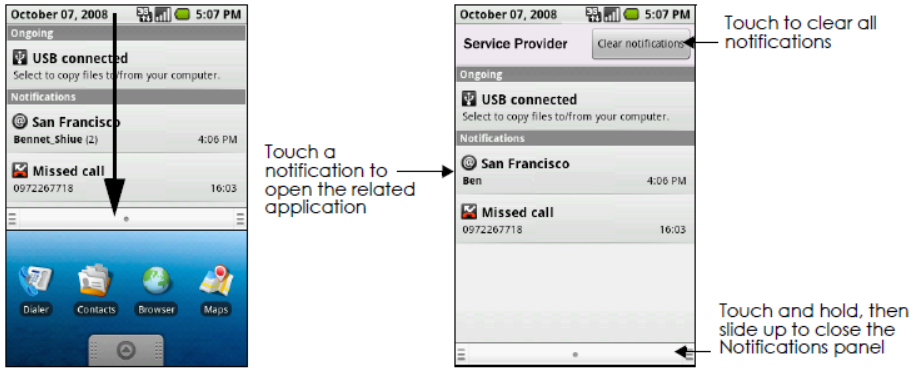
## Notifications panel

Notification icons report the arrival of new messages, calendar events, alarms set and ongoing settings such as when call forwarding is on or the current call status. You can open the Notifications panel to open the message, reminder, or event notification and see the wireless service provider name.

**To open the Notifications panel**

When a new notification icon displays in the status bar, touch and hold the status bar, then slide your finger downward to open the Notifications panel.

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|




If you have several notifications, you can scroll down the screen to view more notifications.

**Tip** You can also open the Notifications panel on the Home screen by pressing **MENU** and then touching **Notifications**.

**To close the Notifications Panel**

Touch and hold the bottom bar of the Notifications panel, then slide your finger up the screen or press **BACK**.

G1 User Manual 27-28.

## 1.9 Applications

The Applications tab holds all applications on your phone. All applications that you downloaded and installed from Android Market or from the web are also added to the Applications tab.

**To open the Applications tab**

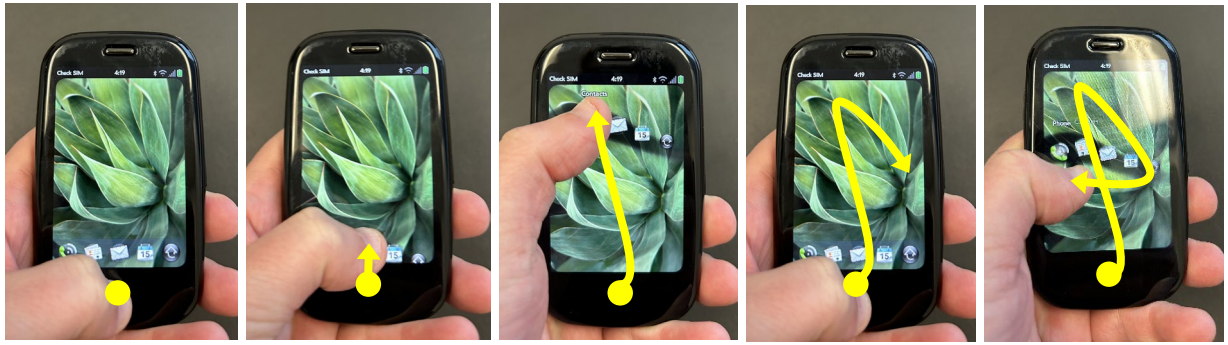
Press **HOME**, then touch  . You can also touch the Application tab and then drag it up to open it.

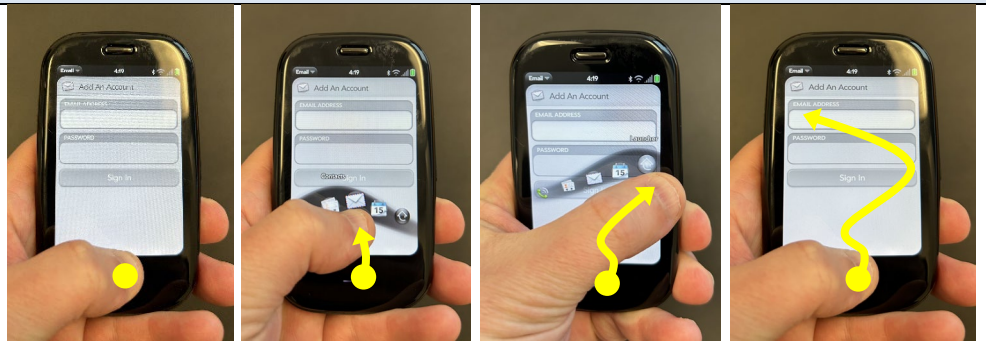
**Tip** To open applications quickly, you can add the icons of frequently-used applications to the Home screen or to folders which you have created. For details, refer to "Customizing the Home screen" on page 25.

**To close the Applications tab**

Touch  .

G1 User Manual 29.

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | The Palm Pre's processor relates a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards any arbitrary direction inside the touch screen (e.g., crossing over the Quick Launch window showing five application icons and identifying the movement from off-to-on screen). The same Quick Launch menu is presented regardless of the arbitrary direction of the gliding action, as shown below.<br>  <br>Palm Pre.<br>The Palm Pre also teaches, as another example, that, when an application is open on the Palm Pre device (such as the mail application shown below), a user may perform a gliding action from the plastic housing surrounding the touch screen, such as below the screen in the gesture area (from outside of the screen) and upwards towards the main application display towards any arbitrary direction inside of the touch screen to display the Quick Launch window. The gliding action causes a processor to perform the action associated with the Quick Launch window, such as moving the Quick Launch window with the user's finger in any arbitrary direction around the touch screen, highlighting and labeling the application icon that will be selected if the user lifts his or her finger. The same Quick Launch menu is presented regardless of the arbitrary direction of the gliding action, as shown below. |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Palm Pre.<br><br>A POSITA would have found it obvious to incorporate the processor relating a gliding action from any of the printed icons below the bottom edge of the screen in the Neonode N2 provided towards any arbitrary direction inside the screen to present a same interface, as claimed. Each of Hisatomi, the Samsung Behold II, the HTC G1 1.6, and/or the Palm Pre teaches the processor relating a gliding action provided towards any arbitrary direction inside the screen to present a same interface.<br><br>A POSITA would have been motivated to allow the user's gliding action to display, for example, the start menu in the Neonode N2, to be towards any arbitrary direction inside the screen to presenting a same interface Hisatomi, the Samsung Behold II, the HTC G1 1.6, and/or the Palm Pre into the Neonode N2 to simplify the user's activation of the start menu. For example, a POSITA would have been motivated to permit a gliding action in any arbitrary direction to open the start menu because it would allow for low-precision gesture that do not require the user to stay within a particular region (e.g., within the left third of the screen), as was known in the prior art, but rather would have based the start menu's opening based on the start location of the gliding action.<br><br>It was well known to a POSITA to have a processor relate a gliding action provided towards any arbitrary direction inside the screen to present a same interface. As Hisatomi explains, this can be accomplished by considering only the Y-coordinate (vertical direction in Tseng), while ignoring the X-coordinate of the gliding action. *See, e.g.*, Hisatomi at [0064], [0065], [0069], [0084], [0211], [0219], FIGS. 7, 10, 12, 15, 16, 17, 21, 47. A POSITA would have recognized that having a processor relate a gliding action provided towards any arbitrary direction inside the screen to present a same interface would have "enable[d] the reliable activation of a button" because it |

| Claim 18 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | removes user errors that could be introduced by requiring the glide to stay within a narrow direction, which could lead to user frustration. Roth Bezel Swipe at 1524. A POSITA also would have recognized that this would have improved the user's experience because it would have been easier to start the gesture on the desired icon and glide into the screen than to maintain the gesture within a particular region of the screen, especially when using thumb gliding actions from the bottom of the touch screen.<br><br>Having a processor relate a gliding action provided towards any arbitrary direction inside the screen to present a same interface was routine and conventional to POSITAs, as shown by Hisatomi. Moreover, it was successfully implemented in commercial prior art devices, such as the Samsung Behold II, the HTC G1 1.6 and the Palm Pre. Having a processor relate a gliding action provided towards any arbitrary direction inside the screen to present a same interface in the Neonode N2, explained above, represents nothing more than the application of known operations performing according to their known functions to achieve predictable and expected results, and there would have been a reasonable expectation of success in doing so at least because it would have involved nothing more than the routine combination of existing technology in predictable ways. Such operations, when combined with the Neonode N2, represent nothing more than combining prior art elements according to known methods and techniques (allowing the user's gliding action to be in any arbitrary direction inside the touch screen, such as known in Hisatomi, the Samsung Behold II, the HTC G1 1.6, and/or the Palm Pre) to yield predictable results (performing the function associated with the window for the gliding action). |

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[19Pre]**[5] A system for capturing an event provided | To the extent that the preamble is held to be limiting, the Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, |

[5] Claim 19 as corrected in the Certificate of Correction issued February 16, 2021.

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| from an edge of a touch screen comprising: | and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[a] system for capturing an event provided from an edge of a touch screen."<br><br>[19Pre] recites substantially the same limitations as [1Pre] and is therefore anticipated or rendered obvious for substantially the same reasons as [1Pre]. *See, e.g.*, *supra* [1Pre].<br><br>As discussed *supra* [1Pre], the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "[a] system for capturing an event provided from an edge of a touch screen." *See supra* [1Pre]. |
| **[19A]** a device having a touch screen; | The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a device having a touch screen."<br><br>[19A] recites substantially the same limitations as [1A] and is therefore anticipated or rendered obvious for substantially the same reasons as [1A]. *See, e.g.*, *supra* [1A].<br><br>As discussed *supra* [1A], the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "a device having a touch screen." *See supra* [1A]. |
| **[19B]** a zone in form of a bar located in the touch screen on an edge of the touch screen; and | The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a zone in form of a bar located in the touch screen on an edge of the touch screen; and a processor."<br><br>[19B] recites substantially the same limitations as [1B] and claim 3, except that it recites a "zone in the form of a bar" instead of a "window," and is anticipated or rendered obvious for substantially the same reasons as [1B] and claim 3. *See, e.g.*, *supra* [1B], claim 3. Each of the Neonode N2's gliding gesture are associated with a "zone in the form of a bar" located on the edge of a touch screen, as explained in [1B] and claim 3. |

| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
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| | As discussed *supra* [1B] and claim 3, the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "a zone in form of a bar located in the touch screen on an edge of the touch screen." *See supra* [1B] and claim 3. |
| **[19C]** a processor; | The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a processor."<br>[19C] recites substantially the same limitations as [1C] and is therefore anticipated or rendered obvious for substantially the same reasons as [1C]. *See, e.g.*, *supra* [1C].<br>As discussed *supra* [1C], the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "a processor." *See supra* [1C]. |
| **[19D]** wherein a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone, and wherein the processor executes a function related to said zone, and wherein said zone is present on said edge regardless of the | The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone, and wherein the processor executes a function related to said zone, and wherein said zone is present on said edge regardless of the interface of an application on said touch screen."<br>[19D] recites substantially the same limitations as [1B] ("said at least one window functions independently of an interface of an application in use on the touch screen"), [1D] ("a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first interacting with said at least one window on the touch screen, is processed by said processor to |

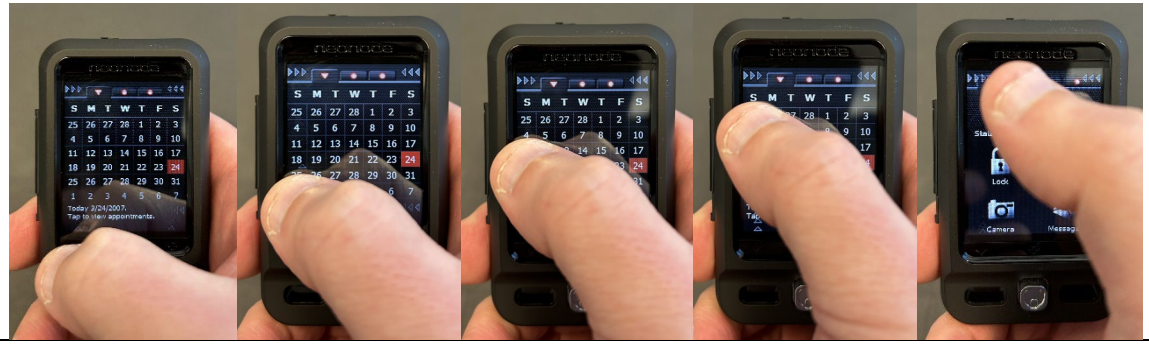
| Claim 19 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| interface of an application on said touch screen, and | cause an action assigned to said window"), and claim 18 ("the processor relates a gliding action provided towards any arbitrary direction inside the screen to presenting a same interface"), except that it does not recite that the gliding action begins off screen, and is therefore anticipated or rendered obvious for substantially the same reasons as [1B], [1D], and claim 18. *See, e.g.*, *supra* [1B], [1D], and claim 18.<br><br>As discussed *supra* [1B], [1D], and claim 18, the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "a gliding action provided from said zone of the touch screen towards any arbitrary direction inside the touch screen at first interacts with said zone, and wherein the processor executes a function related to said zone, and wherein said zone is present on said edge regardless of the interface of an application on said touch screen." *See supra* [1B], [1D], and claim 18. |
| **[19E]** wherein said zone is located on the touch screen before said gliding action begins. | The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said zone is located on the touch screen before said gliding action begins."<br><br>[19E] recites substantially the same limitations as [1E], except that it recites "said zone" instead of "said at least one window," and is therefore anticipated or rendered obvious for substantially the same reasons as [1E] and [19B]. *See, e.g.*, *supra* [1E] and [19B].<br><br>As discussed *supra* [1E] and [19B], the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said zone is located on the touch screen before said gliding action begins." *See supra* [1E] and [19B]. |

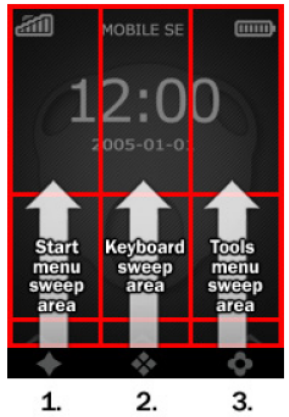
| Claim 21 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[21]** The system of claim 19, wherein upon detecting said gliding action, the system relates said gliding action to setting the location of an interface on the touch screen. | Claim 21 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 21 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "upon detecting said gliding action, the system relates said gliding action to setting the location of an interface on the touch screen."<br><br>Claim 21 recites substantially the same limitations as claim 13 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 13. *See, e.g.*, *supra* claim 13.<br><br>As discussed *supra* claim 13, the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "upon detecting said gliding action, the system relates said gliding action to setting the location of an interface on the touch screen." *See supra* claim 13. |

| Claim 22 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[22]** The system of claim 19, wherein said bar comprises more than one bar located on one or more edges of the touch screen. | Claim 22 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 22 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and |

| Claim 22 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Keyless's apparent interpretation of this limitation, discloses that "said bar comprises more than one bar located on one or more edges of the touch screen."<br><br>Claim 22 recites substantially the same limitations as claim 15 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 15. *See, e.g.*, *supra* claim 15.<br><br>As discussed *supra* claim 15, the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said bar comprises more than one bar located on one or more edges of the touch screen." *See supra* claim 15. |

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[23]** The system of claim 19, wherein said zone is in a form of a visible or invisible line. | Claim 23 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 23 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said zone is in a form of a visible or invisible line."<br><br>For example, the Neonode N2 includes the zones being in the form of visible or invisible lines. |

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Neonode N2 Device.<br>  <br>Neonode N2 Device.<br>  |

| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Neonode N2 Device.<br>  <br>Neonode N2 Device.<br>1.13 Vertical areas:<br>1. The left part of the screen is called the Start menu sweep area.<br>2. The middle part of the screen is called the Keyboard sweep area.<br>3. The right part of the screen is called the Tools menu sweep area.<br>In the vertical areas you start the sweep at the very bottom of the screen. Sweep upwards. The sweep should be about half the height of the screen.<br>A sweep in the left part of the screen opens the start menu. A sweep in the middle opens the keyboard and a sweep in the right part of the screen opens the tools menu.<br>  |

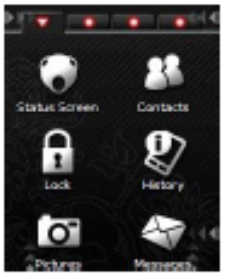
| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|

## 2.1 Open the Start Menu

To open the start menu, you sweep from the **Start menu sweep area** which is from the bottom left side of the screen and upwards. The sweep should be about half the height of the screen. When you lift your finger, the start menu will appear.

The start menu is available from all applications.

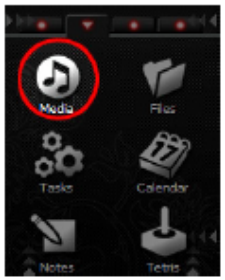


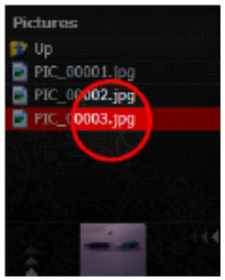




## 2.2 Tap

To open the applications you tap on icons visible at the screen. You also tap the screen to select an item in a list, for example in the address book.

A tap is a very quick light touch on the screen, no pressure is needed. You put down your finger, lightly touch the screen and lift the finger right back up



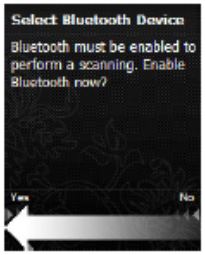



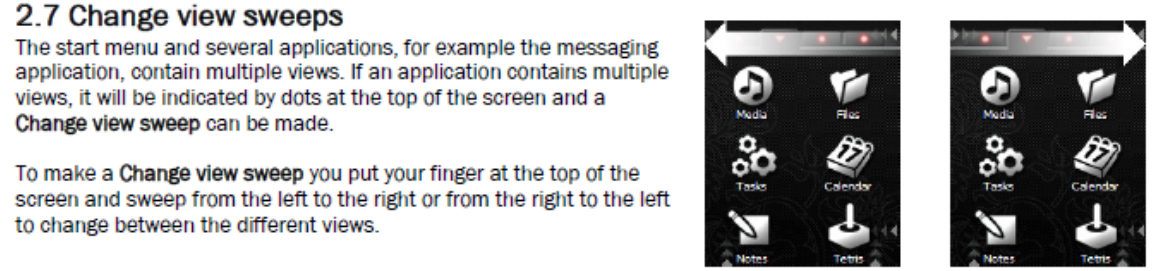

Neonode N2 User Guide at 7.

## 2.6 Close view sweep

Sweep from the right to the left at the bottom of the screen.

A **Close view sweep** means close view, no, back, cancel, depending on the context



| Claim 23 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| |  <br>Neonode N2 User Guide at 8.<br>*See, e.g.*, the Neonode N2 reviews listed above.<br>Moreover, claim 23 recites substantially the same limitations as claim 5 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 5. *See, e.g.*, *supra* claim 5. As discussed *supra* claim 5, the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said zone is in a form of a visible or invisible line." *See supra* claim 5. |

| Claim 24 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[24]** The system of claim 23, wherein said function is displaying an interface on the screen. | Claim 24 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 23 and 19 to show the additional limitations of claim 24 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and |

| Claim 24 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | Keyless's apparent interpretation of this limitation, discloses that "said function is displaying an interface on the screen."<br><br>Claim 24 recites substantially the same limitations as claims 6, 9, and 12 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6, 9, and 12. *See, e.g.*, *supra* claims 6, 9, 12.<br><br>As discussed *supra* claims 6, 9, and 12, the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying an interface on the screen." *See supra* claims 6, 9, 12. |

| Claim 25 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[25]** The system of claim 23, wherein said function is displaying a portion of an interface on the screen. | Claim 25 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 23 and 19 to show the additional limitations of claim 25 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen."<br><br>Claim 25 recites substantially the same limitations as claims 7 and 10 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7 and 10. *See, e.g.*, *supra* claims 7 and 10.<br><br>As discussed *supra* claims 7 and 10, the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further |

| Claim 25 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10. |

| Claim 26 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[26]** The system of claim 23, wherein said function is displaying a portion of an interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action. | Claim 26 depends from claims 23 and 19. Defendants incorporate all the prior art disclosures from claims 23 and 19 here, which anticipate and/or render claims 23 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 23 and 19 to show the additional limitations of claim 26 are anticipated and/or obvious for the same reasons set out in claims 23 and 19.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action."<br><br>Claim 26 recites substantially the same limitations as claims 8 and 11 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8 and 11. *See, e.g.*, *supra* claims 8, 11.<br><br>As discussed *supra* claims 8 and 11, the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen, and wherein a length of said portion of the interface is substantially equal to a length of the gliding action." *See supra* claims 8, 11. |

| Claim 27 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[27]** The system of claim 19, wherein said bar is visible or invisible. | Claim 27 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 27 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said bar is visible or invisible."<br><br>Claim 27 recites substantially the same limitations as claim 23 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 23. *See, e.g.*, *supra* claim 23. As discussed *supra* claim 23, the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said bar is visible or invisible." *See supra* claim 23. |

| Claim 28 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[28]** The system of claim 27, wherein said function is displaying an interface on the screen. | Claim 28 depends from claims 27 and 19. Defendants incorporate all the prior art disclosures from claims 27 and 19 here, which anticipate and/or render claims 27 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 27 and 19 to show the additional limitations of claim 28 are anticipated and/or obvious for the same reasons set out in claims 27 and 19.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying an interface on the screen." |

| | |
|---|---|
| | Claim 28 recites substantially the same limitations as claims 6, 9, 12, and 24 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 6, 9, 12, and 24. *See, e.g.*, *supra* claims 6, 9, 12, 24.<br><br>As discussed *supra* claims 6, 9, 12, and 24, the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying an interface on the screen." *See supra* claims 6, 9, 12, 24. |

| **Claim 29** | **Exemplary Disclosures (Express and/or Inherent) and Citations** |
|---|---|
| **[29]** The system of claim 27, wherein said function is displaying a portion of an interface on the screen. | Claim 29 depends from claims 27 and 19. Defendants incorporate all the prior art disclosures from claims 27 and 19 here, which anticipate and/or render claims 27 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 27 and 19 to show the additional limitations of claim 29 are anticipated and/or obvious for the same reasons set out in claims 27 and 19.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen."<br><br>Claim 29 recites substantially the same limitations as claims 7, 10, and 25 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7, 10, and 25. *See, e.g.*, *supra* claims 7, 10, 25.<br><br>As discussed *supra* claims 7, 10, and 25, the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10, 25. |

| Claim 30 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[30]** The system of claim 29, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 30 depends from claims 29, 27, and 19. Defendants incorporate all the prior art disclosures from claims 29, 27, and 19 here, which anticipate and/or render claims 29, 27, and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 29, 27, and 19 to show the additional limitations of claim 30 are anticipated and/or obvious for the same reasons set out in claims 29, 27, and 19.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>Claim 30 recites substantially the same limitations as claims 8, 11, and 26 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8, 11, and 26. *See, e.g.*, *supra* claims 8, 11, 26.<br><br>As discussed *supra* claims 8, 11, and 26, the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claims 8, 11, 26. |

| Claim 31 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[31]** The system of claim 19, wherein during providing said gliding action, the system dynamically drags and shows | Claim 31 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 31 are anticipated and/or obvious for the same reasons set out in claim 19. |

| Claim 31 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| an interface or a portion of an interface on the touch screen. | The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen."<br><br>Claim 31 recites substantially the same limitations as claim 17 and is therefore anticipated or rendered obvious for substantially the same reasons as claim 17. *See, e.g.*, *supra* claim 17.<br><br>As discussed *supra* claim 17, the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during providing said gliding action, the system dynamically drags and shows an interface or a portion of an interface on the touch screen." *See supra* claim 17. |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[32]** The system of claim 19, wherein said function is displaying a same interface for any said gliding action, said gliding action interacting with any portion of said zone. | Claim 32 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 32 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a same interface for any said gliding action, said gliding action interacting with any portion of said zone." |

| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | For example, the Neonode N2 includes that the functions of displaying the start menu interface for any gliding action from the left icon printed below the touch screen, respectively, where said gliding actions interact with any portion of the zone associated with that icon. |



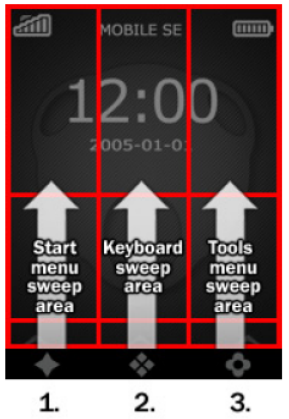

Neonode N2 Device.

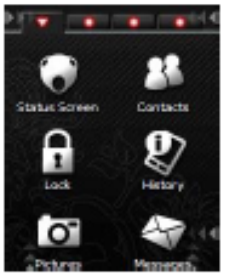
### 1.13 Vertical areas:

1. The left part of the screen is called the Start menu sweep area.
2. The middle part of the screen is called the Keyboard sweep area.
3. The right part of the screen is called the Tools menu sweep area.

In the vertical areas you start the sweep at the very bottom of the screen. Sweep upwards. The sweep should be about half the height of the screen.

A sweep in the left part of the screen opens the start menu. A sweep in the middle opens the keyboard and a sweep in the right part of the screen opens the tools menu.



| Claim 32 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | **2.1 Open the Start Menu**<br>To open the start menu, you sweep from the **Start menu sweep area** which is from the bottom left side of the screen and upwards. The sweep should be about half the height of the screen. When you lift your finger, the start menu will appear.<br><br>The start menu is available from all applications.<br><br>  <br><br>  <br><br><br>*See, e.g.*, the Neonode N2 reviews listed above. |

| Claim 33 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[33]** The system of claim 32, wherein said gliding action is provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen. | Claim 33 depends from claims 32 and 19. Defendants incorporate all the prior art disclosures from claims 32 and 19 here, which anticipate and/or render claims 32 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 32 and 19 to show the additional limitations of claim 33 are anticipated and/or obvious for the same reasons set out in claims 32 and 19.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said gliding action is provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen."<br><br>Claim 33 recites substantially the same limitations as [1D] ("wherein a gliding action provided from outside of the touch screen towards inside of the touch screen, said gliding action at first |

| Claim 33 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | interacting with said at least one window on the touch screen") and is therefore anticipated or rendered obvious for substantially the same reasons as [1D]. *See, e.g.*, *supra* [1D].<br><br>As discussed *supra* [1D], the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, "wherein said gliding action is provided from outside the touchscreen towards inside the touch screen, wherein said gliding action at first interacts with said zone on said touch screen." *See supra* [1D]. |

| Claim 34 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[34]** The system of claim 19, wherein said function is displaying a portion of an interface on the screen. | Claim 34 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 34 are anticipated and/or obvious for the same reasons set out in claim 19.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said function is displaying a portion of an interface on the screen."<br><br>Claim 34 recites substantially the same limitations as claims 7, 10, 25, and 29 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 7, 10, 25, and 29. *See, e.g.*, *supra* claims 7, 10, 25, 29.<br><br>As discussed *supra* claims 7, 10, 25, and 29, the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said function is displaying a portion of an interface on the screen." *See supra* claims 7, 10, 25, 29. |

| Claim 35 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[35]** The system of claim 34, wherein during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action. | Claim 35 depends from claims 34 and 19. Defendants incorporate all the prior art disclosures from claims 34 and 19 here, which anticipate and/or render claims 34 and 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claims 34 and 19 to show the additional limitations of claim 35 are anticipated and/or obvious for the same reasons set out in claims 34 and 19.<br><br>The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action."<br><br>Claim 35 recites substantially the same limitations as claims 8, 11, 26, and 30 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 8, 11, 26, and 30. *See, e.g.*, *supra* claims 8, 11, 26, 30.<br><br>As discussed *supra* claims 8, 11, 26, and 30, the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "during said gliding action, a length of the portion of the interface being displayed is substantially equal to a length of the gliding action." *See supra* claims 8, 11, 26, 30. |

| Claim 36 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| **[36]** The system of claim 19, wherein said zone extends along a substantial portion of said edge. | Claim 36 depends from claim 19. Defendants incorporate all the prior art disclosures from claim 19 here, which anticipate and/or render claim 19 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 19 to show the additional limitations of claim 36 are anticipated and/or obvious for the same reasons set out in claim 19. |

| Claim 36 | Exemplary Disclosures (Express and/or Inherent) and Citations |
|---|---|
| | The Neonode N2, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses that "said zone extends along a substantial portion of said edge."<br><br>Claim 36 recites substantially the same limitations as claims 4 and 16 and is therefore anticipated or rendered obvious for substantially the same reasons as claims 4 and 16. *See, e.g.*, *supra* claims 4, 16.<br><br>As discussed *supra* claims 4 and 16, the Neonode N2 teaches, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, that "said zone extends along a substantial portion of said edge." *See supra* claims 4, 16. |