

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC and MOTOROLA MOBILITY LLC,
Petitioner,

v.

MULTIFOLD INTERNATIONAL INCORPORATED PTE. LTD.,
Patent Owner.

Case IPR2025-00058
Patent No. 9,158,494

PETITIONER'S NOTICE OF APPEAL

Director of the United States Patent and Trademark Office
c/o Office of the General Counsel
Madison Building East, 10B20
600 Dulany Street
Alexandria, VA 22314-5793

Notice is hereby given, pursuant to 37 C.F.R. § 90.2(a), that Petitioners Google LLC and Motorola Mobility LLC (“Petitioners”) appeal to the United States Court of Appeals for the Federal Circuit from the Final Written Decision entered on May 13, 2026 (Paper 45) (the “Final Written Decision”) by the United States Patent and Trademark Office, Patent Trial and Appeal Board (the “Board”), and from all underlying orders, decisions, rulings, and opinions. A copy of the Final Written Decision is attached.

In accordance with 37 C.F.R. § 90.2(a)(3)(ii), Petitioners indicate that the issues on appeal include, but are not limited to, the Board’s ruling that Petitioners have not demonstrated, by a preponderance of the evidence, that claims 1, 2, 4, 6, 9, 10, 12–14, and 18–20 of U.S. Patent No. 9,158,494 (“the ’494 patent”) are unpatentable over the prior art, and any findings or determinations supporting or related to that ruling including, without limitation, the Board’s assessment of whether the prior art qualified as such, the Board’s analysis of conception and reduction to practice, the Board’s construction and application of the claim language, the Board’s interpretation of the prior art, the Board’s interpretation of expert evidence, and the Board’s interpretation of fact evidence.

Simultaneous with this submission, a copy of this Notice of Appeal is being filed with the Board. In addition, the Notice of Appeal and the required fee are being filed electronically with the Clerk of Court for the United States Court of Appeals for the Federal Circuit.

Respectfully submitted,

Dated: June 15, 2026

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CERTIFICATE OF SERVICE

The undersigned certifies that, in addition to being filed electronically through P-TACTS, the original version of this Notice of Appeal was filed by overnight express delivery on June 15, 2026 with the Director of the United States Patent and Trademark Office, at the following address:

Office of the General Counsel
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450

The undersigned also certifies that a true and correct copy of this Notice of Appeal and the required fee were filed electronically via CM/ECF on June 15, 2026, with the Clerk of Court for the United States Court of Appeals for the Federal Circuit.

The undersigned also certifies that a true and correct copy of this Notice of Appeal was served on June 15, 2026, on counsel of record for Patent Owner Multifold International Incorporated Pte. Ltd. by electronic mail at the following addresses:

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GOOGLE LLC and MOTOROLA MOBILITY LLC,
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MULTIFOLD INTERNATIONAL INCORPORATED PTE. LTD.,
Patent Owner.

IPR2025-00058
Patent 9,158,494 B2

Before KRISTEN L. DROESCH, HYUN J. JUNG, and
ARTHUR M. PESLAK, *Administrative Patent Judges*.

PESLAK, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining No Challenged Claims Unpatentable
Dismissing Petitioner's Motion to Exclude - Paper 37
35 U.S.C. § 318(a)

I. INTRODUCTION

Google LLC and Motorola Mobility LLC (collectively “Petitioner”) filed a Petition requesting an *inter partes* review of claims 1, 2¹, 4, 6, 9, 10, 12–14, and 18–20 (“the Challenged Claims”) of U.S. Patent No. 9,158,494 B2 (Ex. 1001, “the ’494 patent”) supported by a Declaration of Dr. Sandeep Chatterjee (Ex. 1002). Paper 1 (“Pet.”). Multifold International Incorporated Pte. Ltd. (“Patent Owner”) filed a Preliminary Response supported by a Declaration of Sanjiv Sirpal (Ex. 2001), a Declaration of Ron Cassar (Ex. 2002), and a Declaration of Ed Becze (Ex. 2003). Paper 8. Thereafter, with our authorization, Petitioner filed a Preliminary Reply. Paper 9 (“Prelim. Reply”). Patent Owner filed a Preliminary Sur-reply. Paper 10 (“Prelim. Sur-reply”). On May 21, 2025, we instituted *inter partes* review of the Challenged Claims. Paper 11 (“Dec.”).

After institution, Patent Owner filed a Response to the Petition. Paper 20 (“PO Resp.”). Petitioner filed a Reply. Paper 31 (“Pet. Reply”). Patent Owner filed a Sur-reply. Paper 35 (“Sur-reply”).

Petitioner filed a Motion to Exclude Evidence (“Motion” or “MTE”). Paper 37. Patent Owner filed an Opposition (Paper 39) (“MTE Opp.”) and Petitioner filed a Reply in support of its Motion (Paper 40) (“MTE Reply”).

An oral hearing was held on February 25, 2026, and a transcript is in the record. Paper 44 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6. This is a Final Written Decision under 35 U.S.C. § 318(a) as to the patentability of the Challenged Claims. We determine Petitioner does not establish by a preponderance of

¹ After institution, Patent Owner statutorily disclaimed claim 2. Paper 22.

the evidence that any Challenged Claim is unpatentable. We also dismiss Petitioner’s Motion to Exclude as moot.

A. Related Matters

Petitioner states “[t]he ’494 patent is asserted in *Multifold International Incorporated Pte. Ltd. v. Google LLC*, Case No. 1:23-cv-01323 (D. Del.) and *Multifold International Incorporated Pte. Ltd. v. Motorola Mobility LLC*, Case No. 1-23-cv-01173 (D. Del.)” and was “previously asserted in *Multifold International Incorporated Pte. Ltd. v. Samsung Electronics Co., Ltd.*, Case No. 2-21-cv-00371 (E.D. Tex.).” Pet. 1–2. Patent Owner lists *Multifold International Incorporated Pte. Ltd. v. Motorola Mobility LLC*, No. 1:23-CV-1173-UNA (D. Del.) (filed October 17, 2023) and *Multifold International Incorporated Pte. Ltd. v. Google LLC*, No. 1:23:CV-01323-UNA (D. Del.) (filed November 17, 2023) as related matters. Paper 5, 1.

B. Real Parties-in-Interest

Petitioner identifies Google LLC and Motorola Mobility LLC as the real parties-in-interest. Pet. 1. Petitioner further notes that Google LLC is a subsidiary of XXVI Holdings Inc., which is a subsidiary of Alphabet Inc., but XXVI Holdings Inc. and Alphabet Inc. are not real parties-in-interest; and Motorola Mobility LLC is a direct, wholly owned subsidiary of Motorola Mobility Holdings LLC, which is indirectly a wholly-owned subsidiary of Lenovo Group Ltd., but Motorola Mobility Holdings LLC and Lenovo Group Ltd. are not real parties-in-interest. *Id.*

Patent Owner identifies itself as the sole real party-in-interest. Paper 5, 1.

C. Summary of the '494 Patent (Ex. 1001)

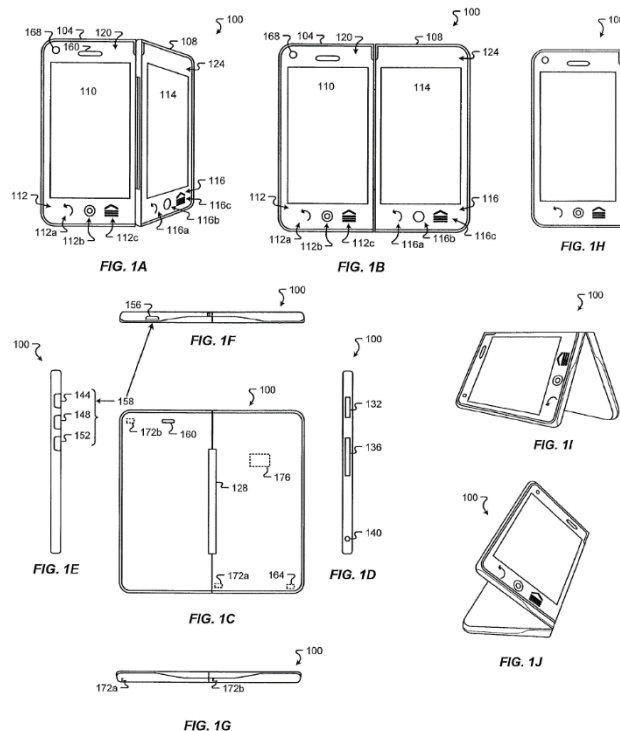
The '494 patent is titled “Minimizing and Maximizing Between Portrait Dual Display and Portrait Single Display” and describes methods and devices for minimizing and maximizing displayed output associated with applications. Ex. 1001, codes (54), (57). The inventors named on the '494 patent are Sanjiv Sirpal and Mohammed Selim. *Id.* at code (75). The '494 patent's application, No. 13/366,483, was filed February 6, 2012. *Id.* at codes (21), (22). The '494 patent also identifies related provisional application, No. 61/539,884, filed September 27, 2011. *Id.* at code (60).

The '494 patent explains that while touch screen displays of handheld computing devices provide useful dual use to both deliver information and receive user inputs, the small form factor of such devices and their displays “require[] a careful balancing between the displayed graphics and the area provided for receiving inputs.” Ex. 1001, 1:16–29. That is because “[o]n the one hand, the small display constrains the display space, which may increase the difficulty of interpreting actions or results” but “[o]n the other, a virtual keypad or other user interface scheme is superimposed on or positioned adjacent to an executing application, requiring the application to be squeezed into an even smaller portion of the display.” *Id.* at 1:29–35. The '494 patent explains that single display touch screen devices are particularly “crippled by their limited screen space” because “[w]hen users are entering information into the device, through the single display, the ability to interpret information in the display can be severely hampered, particularly when a complex interaction between display and interface is required.” *Id.* at 1:36–42. Thus, according to the '494 patent “[t]here is a need for a dual multi-display handheld computing device that provides for

enhanced power and/or versatility compared to conventional single display handheld computing devices.” *Id.* at 1:45–49.

The '494 patent discloses a device (and associated method for controlling the display of the device) by which a first page of a first application is presented in a first portion of the screen of the device, and a second page of the first application is presented in a second portion of the screen. Ex. 1001, 2:12–48. In response to a first input entered by the user (e.g., in a gesture capture region of the screen) to minimize the first application to one of the first and second portions of the screen, the second page of the first application is presented in one of the first and second portions of the screen, and the presentation of the first page of the application is discontinued. *Id.* An application presented as two or more pages in a portrait mode can be minimized to present one of the two or more pages following a minimization operation. *Id.* at code (57).

Figures 1A–1J of the '494 patent are reproduced below:



Figures 1A-1J illustrate a multi-screen user device that can be positioned in a number of different ways, each of which provides different functionality to a user. Ex. 1001, 8:55–60.

Device 100 is a multi-screen device that includes primary screen 104 and secondary screen 108, both of which are touch sensitive. Ex. 1001, 8:60–9:3. Primary screen 104 includes touch sensitive display 110, which, in addition to being touch sensitive, also displays information to a user. *Id.* Secondary screen 108 includes touch sensitive display 114, which also displays information to a user. *Id.* Screens 104 and 108 may include more than one display area. *Id.* Primary screen 104 also includes configurable area 112 that has been configured for specific inputs when the user touches portions of configurable area 112. *Id.* at 9:4–27. Secondary screen 108 also includes configurable area 116 that has been configured for specific inputs. *Id.*

In addition to touch sensing, primary screen 104 and secondary screen 108 also include areas that receive input from a user without requiring the user to touch the display area of the screen. *Id.* at 9:28–38. For example, primary screen 104 includes gesture capture area 120, and secondary screen 108 includes gesture capture area 124. *Id.* These areas are able to receive input by recognizing gestures made by a user without the need for the user to actually touch the surface of the display area. *Id.*

Figures 37A and 37B of the '494 patent are reproduced below:

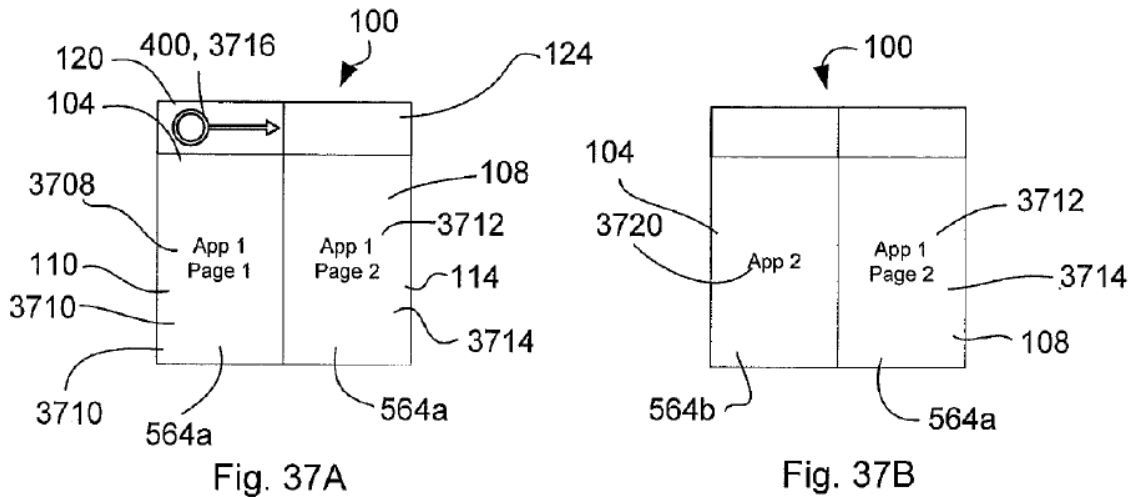


Figure 37A is a representation of an output of a multiple screen device, and Figure 37B is a representation of an output of the multiple screen device illustrated in Figure 37A but after a minimization operation. *Id.* at 8:13–18.

Figure 37A illustrates device 100 with first 104 and second 108 screens in a dual portrait mode. Ex. 1001, 46:38–47:4. Device 100 is shown executing or accessing first application 564a. *Id.* First screen 104 displays a first set of information comprising first page 3708 of first application 564a. *Id.* Second screen 108 displays a second set of information comprising second page 3712 of first application 564a. *Id.* For example, first application 564a may comprise a browser application; first page 3708 may comprise a control page or other ancillary page 3710. *Id.* Control page 3710 may present a list of bookmarks, a list of most visited websites, or a browsing history; second page 3712 may comprise a content page or other primary page 3714; and content page 3714 may comprise the content of a website accessed by the browser application, or a landing page generated by the browser application. *Id.* Gesture 3716 shown in Figure 37A depicts a gesture or other touch input provided by a user to minimize the view of the

first application 564a from two pages to one. *Id.* As shown, gesture 3716 may be entered in an area or region of screens 104, 108 that is outside of the areas where pages 3708, 3712 are presented or displayed. *Id.* Gesture 3716 can be received in gesture capture region 120 of first screen 104 or gesture capture region 124 of second screen 108; gesture 3716 may be entered in touch sensitive display region 110 of first screen 104 or touch sensitive display region 114 of second screen 108. *Id.*

Figure 37B depicts the output of the screens 104, 108 after the receipt of gesture 3716 from the user. Ex. 1001, 47:5–22. First screen 104 displays a page or other output 3720 related to a second application 564b in stack 760, or alternatively a desktop view where second application 564b is not active. *Id.* Second screen 108 continues to display second page 3712 of first application 564a. *Id.*

D. Illustrative Claim

Independent claim 1 is reproduced below with Petitioner's claim limitation identifiers²:

1. [1.pre] A method for controlling a display of a device, comprising:

[1.a] presenting a first page of a first application on a first display of the device, wherein the first page is an auxiliary page;

[1.b] presenting a second page of the first application on a second display of the device, wherein the second page is a primary page,

[1.c] wherein the first and second pages present different content and are distinct pages, and wherein the auxiliary page is a child of the primary page;

² We use Petitioner's identifiers throughout this Decision for ease of reference.

[1.d] receiving a first input from a user, wherein the first input includes an input to minimize the first application to one of the first and second displays of the device, wherein the second page of the first application is displayed by one of the first display of the device and the second display of the device, and wherein the first page of the first application is not displayed.

Ex. 1001, 51:32–47.

E. Asserted Grounds of Unpatentability

Petitioner, supported by the declaration of Sandeep Chatterjee, Ph.D. (Ex. 1002), asserts the following grounds of unpatentability (Pet. 4)³:

Claims Challenged	35 U.S.C. §	References/Basis
1, 2, 4, 6, 10, 12	§ 102	Seo ⁴
1, 2, 4, 6, 10, 12, 13	§ 103 (a)	Seo
14, 18–20	§ 103 (a)	Seo, Yook ⁵
9	§ 103 (a)	Seo, Choi ⁶

II. ANALYSIS

A. Overview

Petitioner bears the burden of establishing the unpatentability of the Challenged Claims by a preponderance of the evidence. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d). This burden of persuasion never shifts to Patent Owner.

³ We apply the pre-AIA version of 35 U.S.C. § 102 and 35 U.S.C. § 103 because the claims at issue have an effective filing date prior to March 16, 2013, the effective date of the Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”). *See* Ex. 1001, code (22).

⁴ Seo et al., U.S. Pat. Appl. Pub. 2012/0306782 A1, published December 6, 2012 (Ex. 1005, “Seo”).

⁵ Yook et al., U.S. Pat. Appl. Pub. 2010/0248788 A1, published September 30, 2010 (Ex. 1007, “Yook”).

⁶ Choi, U.S. Pat. 8,649,824 B2, issued February 11, 2014 (Ex. 1010, “Choi”).

Dynamic Drinkware, LLC v. Nat'l Graphics, Inc., 800 F.3d 1375, 1378 (Fed. Cir. 2015).

To establish anticipation under 35 U.S.C. § 102, each and every element in a claim, arranged as recited in the claim, must be found in a single prior art reference. *Net MoneyConn, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008); *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383 (Fed. Cir. 2001). Each element of the challenged claim must be found, either expressly or inherently, in the single prior art reference. *Verdegaal Bros., Inc. v. Union Oil Co. of Cal.*, 814 F.2d 628, 631 (Fed. Cir. 1987).

A claim is unpatentable under § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) when in evidence, objective indicia of non-obviousness (i.e., secondary considerations).⁷ *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

The Supreme Court explained in *KSR* that

[o]ften, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary

⁷ No evidence of secondary considerations has been presented by the parties.

skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.

550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)) (“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” (alteration in original)).

B. Level of Ordinary Skill in the Art

Petitioner asserts that:

[a] person of ordinary skill in the art at the time of the alleged invention of the '494 patent (“POSITA”) would have had an undergraduate degree in electrical engineering, computer engineering, computer science or a related field along with two years of work experience in the field of user interface technologies, including e.g., graphical user interface technologies, or a related field. (EX1002 ¶¶20–21.)[] More education can supplement practical experience and vice versa. (*Id.*)

Pet. 5–6.

Patent Owner does not dispute Petitioner’s proffered of skill in the art.

PO Resp. 8.

We apply Petitioner’s uncontested definition because it appears consistent with the problems addressed in the '494 patent and the prior art.

C. Claim Construction

Petitioner submits that “the Board need not construe any terms of the challenged claims to resolve the underlying controversy” as “the prior art in the proposed grounds disclose or suggest and render obvious the challenged claims under their plain and ordinary meaning of the terms.” Pet. 11.

Patent Owner submits that it “interprets all claim terms in accordance with their plain and ordinary meaning.” PO Resp. 7.

After reviewing the entirety of the record, we determine that we need not expressly construe any claim terms to resolve the controversy before us. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

D. Prior Art Status of Seo

The Petition is premised on the assumption that “the earliest possible priority date of the ’494 patent is September 27, 2011 [(date of the related provisional application)].” Pet. 5. Petitioner contends that “Seo published from an application filed February 10, 2012 and claims priority to provisional application No. 61/441,491 filed February 10, 20[11].” *Id.* at 5. According to Petitioner, the Petition “demonstrates that (1) at least one claim of Seo is supported by the Seo Provisional, and (2) the subject matter relied upon in Seo is also described by the Seo Provisional.” *Id.* at 12.

Patent Owner challenges the prior art status of Seo. PO Resp. 11. According to Patent Owner, “the claimed invention was conceived and reduced to practice before the earliest possible effective filing date of Seo (February 10, 2011) by prototypes of the Imerj dual display smartphone.” *Id.* at 11–12 (citing Ex. 2001 ¶¶ 10, 25; Ex. 2002 ¶ 25; Ex. 2003 ¶¶ 23, 25).

“Imerj” refers to a project, undertaken by a company called Flextronics that, according to Patent Owner, resulted in a fully functional foldable dual-display smartphone with an innovative feature allowing for

minimizing and maximizing distinct pages of information within the same application.” PO Resp. 1–2. The assignee listed on the ’494 patent is “Z124.” Ex. 1001, code (73). Patent Owner does not list Flextronics or Z124 as a real party in interest. Paper 43, 1. Patent Owner’s declarants, Mr. Sirpal, Mr. Cassar, and Mr. Becze worked on the Imerj project at Flextronics. Ex. 1019, 28:9–13; Ex. 2001 ¶ 1; Ex. 2002 ¶ 1; Ex. 2003 ¶ 1. None are currently employed by Flextronics or Patent Owner. Ex. 1019, 17:15–17; Ex. 1020, 11:11–18; Ex. 1021, 10:10–14.

1. Patent Owner’s Conception Evidence

The following is a summary of Patent Owner’s most pertinent evidence concerning conception of the claimed invention.

Patent Owner argues that the claimed invention was conceived prior to February 10, 2011. PO Resp. 12. Mr. Sirpal testifies that conception “occurred no later than November 18, 2010.” Ex. 2001 ¶ 10.

Patent Owner’s evidence of conception includes:

(i) co-inventor Sanjiv Sirpal’s testimony (Ex. 2001 ¶¶ 9–24) which Patent Owner contends is corroborated by documents, objects, and testimony by non-inventors (PO Resp. 12);⁸

(ii) “UX Foundation Overview” (Ex. 2006), which is a PowerPoint Presentation authored by Sanjiv Sirpal on November 18, 2010. Ex. 2001 ¶ 11;

(iii) “Windowing Management Interaction Design Specification” (Ex. 2012) which is an interaction design specification dated September 10, 2010, which on its face states it was created by Martin Gimpl. *Id.* at 1.

⁸ Patent Owner does not submit any testimony of co-inventor Mohammed Selim.

Mr. Sirpal testifies that Exhibit 2012 was created by his design team with his “input and evidenc[es][his] conception of the invention of the challenged claims.” Ex. 2001 ¶ 15;

(iv) “Browser–Interaction Design” (Ex. 2013) which is a UX design specification created by co-inventor Mohammed Selim and dated October 6, 2010. *Id.* at 1. Mr. Sirpal testified that he revised Exhibit 2013. Ex. 2001 ¶ 22. Mr. Sirpal further testifies that Exhibit 2013 “defines the operation of the Browser including its support for ‘Portrait Dual’ (or ‘Portrait Dual Screen,’ or ‘Dual Portrait, or ‘PD’) mode which is a mode where the Browser displays two views (or pages) on two displays.” *Id.*;

(v) Mr. Cassar testifies that Exhibit 2006 confirms his recollection that Mr. Sirpal came up with the idea for gesture functionality at issue here . . . no later than November 18, 2010. Ex. 2002 ¶ 12; and

(vii) Mr. Becze offers substantially identical testimony to Mr. Cassar that Exhibit 2006 confirms his recollection that Mr. Sirpal conceived “the idea for the gesture functionality at issue here . . . no later than November 18, 2010.” Ex. 2003 ¶ 8.

2. Patent Owner’s Reduction to Practice Evidence

The following is a summary of Patent Owner’s most pertinent evidence that the claimed invention was actually reduced to practice before February 10, 2011:

1) EV-1 prototype smartphones of which 50 were manufactured, with 20 to 26 of those used for software testing. PO Resp. 25; Ex. 2001 ¶ 30; Ex. 2002 ¶ 23; Ex. 2003 ¶ 16; Ex. 2017.

2) EV-2 prototype smartphones of which at least 200 had been distributed to Imerj engineers by the end of January 2011. PO Resp. 25–26; Ex. 2001 ¶ 32; Ex. 2002 ¶ 24; Ex. 2003 ¶ 21; Ex. 2018; Ex. 2036; Ex. 2038.

3) Imerj Smartpad prototype with dual display capabilities. PO Resp. 32–33; Ex. 2001 ¶¶ 79–80; Ex. 2002 ¶¶ 34–35; Ex. 2023; Ex. 2024.

*3. Patent Owner’s Evidence that The Invention Was
Actually Reduced to Practice
No Later Than February 22, 2011*

The following is a summary of Patent Owner’s most pertinent evidence and argument that the invention was actually reduced to practice no later than February 22, 2011, with continuous diligence from before February 10, 2011, through February 22, 2011.

Patent Owner argues that EV-2 prototypes had successfully implemented maximizing and minimizing between dual display and single display because members of the Imerj team had begun “polish” testing on the EV-2 prototypes. PO Resp. 35–38; Ex. 2001 ¶¶ 37–48; Ex. 2002 ¶¶ 50–57; Ex. 2003 ¶¶ 28–31; Ex. 2007; Ex. 2008.

4. Patent Owner’s Mapping of the Evidence to the Challenged Claims

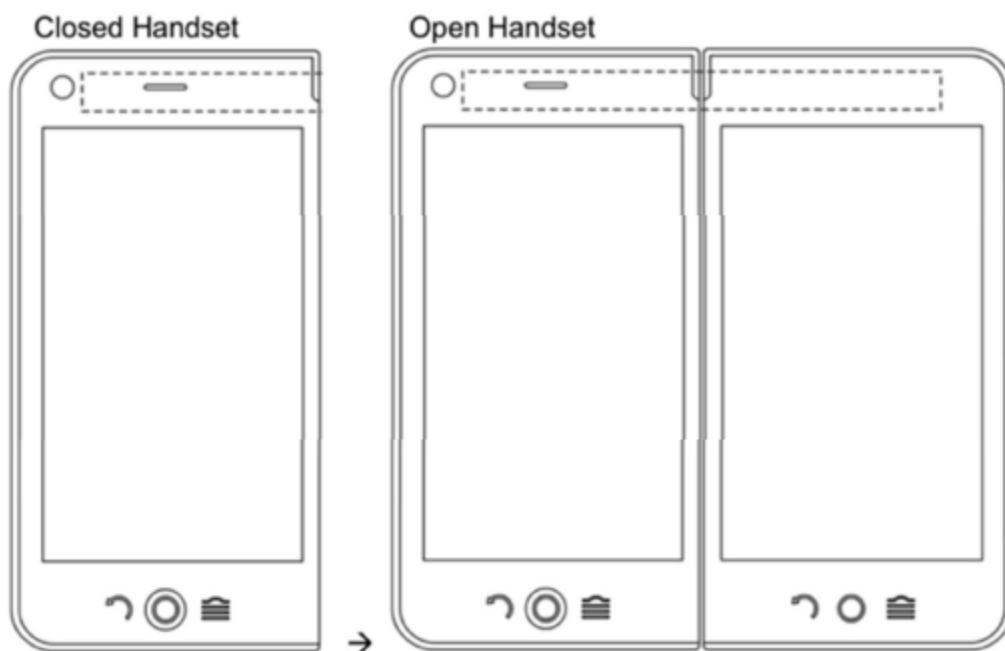
Patent Owner submits a mapping of the evidence it relies on to show that each limitation of Challenged Claims 1, 4, 6, 9, 10, 12, 13, and 18–20⁹ was implemented and functional on both EV-1 and EV-2 Prototypes. PO Resp. 38–94.

⁹ Based on Patent Owner’s mapping, Patent Owner apparently concedes that the limitations of claim 14 were not reduced to practice by the EV-1 and EV-2 prototypes. PO Resp. 38–94.

5. Patent Owner's Contentions

i. Conception

Patent Owner contends that “[t]he functionality of maximizing and minimizing between a dual display and single display was conceived no later than November 18, 2010.” PO Resp. 12 (citing Ex. 2001 ¶¶ 9–24; Ex. 2002 ¶¶ 10–18; Ex. 2003 ¶¶ 6–12; Ex. 2006, 1; Ex. 2012; Ex. 2013). Patent Owner further contends that “Sirpal authored a PowerPoint Presentation titled ‘UX Foundation Overview [Ex. 2006].’ *Id.* at 13 (citing Ex. 2001 ¶ 11, Ex. 2002 ¶ 11; Ex. 2003 ¶ 7). Patent Owner reproduces the following drawing from Exhibit 2006 which it contends “discloses a dual-screen handset with a gesture strip across the top bounded by the dashed rectangle”:



Id. (reproducing drawing from Ex. 2006, 15; citing Ex. 2001 ¶ 11; Ex. 2002 ¶ 13; Ex. 2003 ¶ 9). The above drawing illustrates a dual display device in the closed position, on the left, and in the open position on the right. Ex. 2006, 15.

Patent Owner further contends that Exhibit 2006 “discusses that the ‘Capacitive Gesture Strip’ can be ‘used to track the gestures that are used to ‘Move,’ ‘Maximize,’ and ‘Minimize’” and “that ‘[d]ual screen capable applications will first maximize, and then minimize.’” PO Resp. 14 (citing Ex. 2001 ¶ 11; Ex. 2002 ¶¶ 14, 16; Ex. 2003 ¶ 10; Ex. 2006, 30–31).

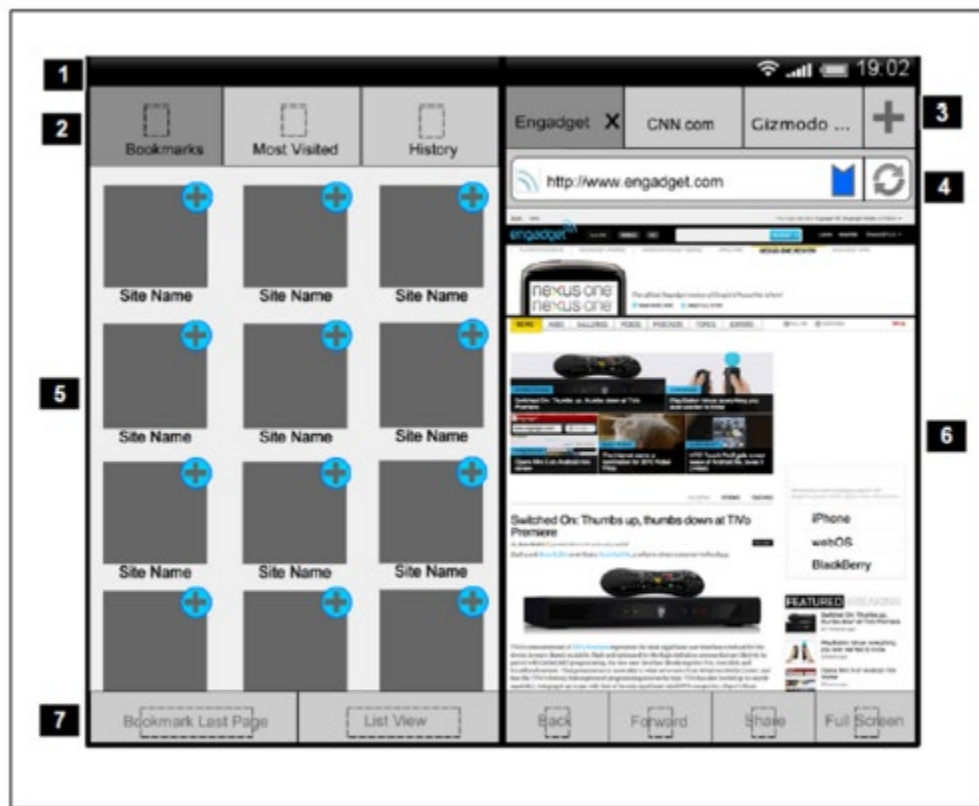
Patent Owner next contends that Exhibit 2006 “shows dual display applications in what the Imerj project referred to as ‘dual portrait mode’” that is “display[ing] two different pages from a single app.” PO Resp. 14 (citing Ex. 2001 ¶ 13; Ex. 2002 ¶ 17; Ex. 2003 ¶ 12); *see id.* at 15 (reproducing photograph from Exhibit 2006 which, according to Patent Owner “shows an internet browser in dual portrait mode with a parent page showing browser content and the child page showing bookmarks.” (citing Ex. 2006, 79)).

Patent Owner next contends that Exhibit 2012 “corroborates that conception was accomplished by November 18, 2010.” PO Resp. 16 (citing Ex. 2001 ¶ 15). Patent Owner argues “[t]he specification defines ‘WPC operations’ (or Window Position Control operations) that could be performed by gesture input including ‘maximizing a dual-screen capable application to two screens, or minimizing one to a single-screen.” *Id.* (citing Ex. 2001 ¶ 16; Ex. 2012, 4, 8); *see also id.* at 17–20 (providing examples of gestures and rules for maximizing and minimizing dual-screen applications set forth in Exhibit 2012 (citing Ex. 2001 ¶¶ 16–19; Ex. 2012, 6, 9–19)).

Patent Owner next contends that the internet browser in the Imerj project had additional maximization and minimization rules as reflected in Exhibit 2013. PO Resp. 21. According to Patent Owner, Exhibit 2013

“demonstrates that this functionality was conceived no later than November 18, 2020.” *Id.* (citing Ex. 2001 ¶ 21).

Patent Owner further argues that Exhibit 2013 “defines the operation of the Browser, including its support for ‘Portrait Dual’ . . . mode, which is a mode where the Browser displays two views (or pages).” PO Resp. 21 (citing Ex. 2001 ¶ 22; Ex. 2013, 1–2, 34). Patent Owner reproduces the following figure from Exhibit 2013 (PO Resp. 22):



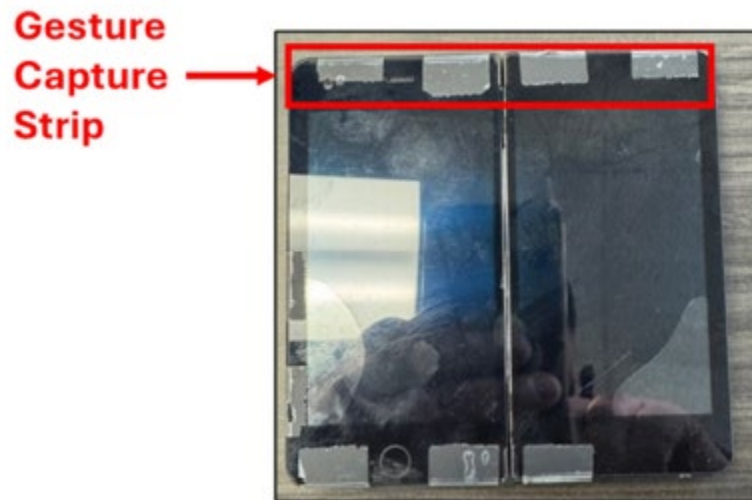
Patent Owner argues that Exhibit 2013 “explains that ‘The Default view in Portrait Dual displays the Control Page on the Left (with Bookmark tab selected) and the Web Browser view on the right. This is the view that is always seen when the application is minimized in Portrait Mode.’” PO Resp. 22 (citing Ex. 2001 ¶ 22; Ex. 2013, 34). Patent Owner further argues that “the Browser specification specifies that the ‘Web Browser’ view

remains visible on minimization gestures, unless there is a modal on the ‘Control Page’ on the left.” *Id.* at 23 (citing Ex. 2001 ¶ 23; Ex. 2013, 44).

Patent Owner next argues that EV-1 prototypes had been manufactured by December 2010 “and had fully tested software implementing maximizing and minimizing dual display applications.” PO Resp. 24 (citing Ex. 2001 ¶ 30; Ex. 2002 ¶ 18; Ex. 2003 ¶ 16; Ex. 2019; Ex. 2033, rows 55–56, 66). According to Patent Owner, “that the claimed functionality was implemented and already working for its intended purpose before February 10, 2011 means that conception occurred earlier” and “no later than November 18, 2010.” *Id.*

ii. Reduction to Practice

Patent Owner contends that “EV-1 prototypes implemented minimizing and maximizing between dual display and single display no later than February 9, 2011.” PO Resp. 27 (citing Ex. 2001 ¶ 32; Ex. 2002 ¶ 25; Ex. 2003 ¶ 20). Patent Owner provides the following photograph of an EV-1 prototype:



PO Resp. 27 (reproducing Ex. 2017; citing Ex. 2003 ¶ 18). Patent Owner annotates the photograph of the EV-1 prototype with a red rectangle along

the top of both screens of the phone with red text “Gesture Capture Strip.”
Id.

Patent Owner argues that “[t]he gesture functionality in the Imerj smartphones was part of the software referred to as Window Position Controls, or ‘WPC’” which “included gesture functionality in general, as well as other inputs and interactions that could collectively affect how the user could interact with the phone, including . . . orientation, open/close state, what type of application was visible and docking state.” PO Resp. 28 (citing Ex. 2001 ¶ 12; Ex. 2002 ¶ 27). Patent Owner further argues that “the WPC functionality was implemented on EV-1 and remained functionally the same for EV-2.” *Id.* (citing Ex. 2002 ¶¶ 25–29, 36–39; Ex. 2003 ¶ 20; Ex. 2033, rows 49–70). According to Patent Owner, “[t]he WPC gesture capability necessary to support the relevant gesture functionality (e.g., minimization, maximization, parent/child relationships) was complete well before February 10, 2011 on EV-1 prototypes.” *Id.* (citing Ex. 2001 ¶¶ 32–34; Ex. 2002 ¶¶ 36–39)); *id.* at 28–29 (reproducing Ex. 2033, 1 and arguing that progress on “Gestures” is “100%” complete (citing Ex. 2002 ¶ 36)); *id.* at 29–30 (reproducing Ex. 2033, 1 and arguing that “minimization, maximization and parent/child relationship features were complete as early as November 2010”).

Patent Owner next contends that Mr. Cassar “received an email from Rod Schrock (the manager on the Imerj project) stating that Rod Schrock is ‘meeting with Vodaphone and CPW in Europe next week’ to ‘showcase the handset.’” PO Resp. 30–31 (citing Ex. 2035). Patent Owner argues that “Imerj was demonstrating WPC functionality for the phone, email, browser and calendar applications the week of January 17, 2011” and, according to

Patent Owner, “WPC functionality . . . was implemented and operating for its intended purpose in apps including the phone, email, browser and calendar apps by January 2011.” *Id.* (citing Ex. 2001 ¶¶ 33, 54; Ex. 2002 ¶¶ 32–35).

Patent Owner next contends that Exhibits [2022 and 2023]¹⁰ are video excerpts of an Imerj Smartpad¹¹ “perform[ing] minimization and maximization functionality on the Smartpad in dual display portrait mode.” PO Resp. 33 (citing Ex. 2001 ¶¶ 79–80). According to Patent Owner, “the video clips demonstrate sufficient testing of the Smartpad to determine that the invention worked for its intended purpose of minimizing and maximizing between dual display and single display.” *Id.* (citing Ex. 2001 ¶¶ 79–80; Ex. 2023; Ex. 2024).

Patent Owner next contends that Ron Cassar received an email from Rod Schrock on January 17, 2011 “detailing ‘an ad hoc multi-hour review of’ an EV-2 handset” which, according to Patent Owner, “indicates testing was performed on an EV-2 handset by January 17, 2011.” PO Resp. 34 (citing Ex. 2002 ¶ 40; Ex. 2036).

Patent Owner next contends that Mr. Sirpal and Mr. Cassar received an email from Rod Schrock on January 25, 2011 which “states ‘The EV-2 prototypes are now relatively functional smartphones.’” PO Resp. 34 (citing Ex. 2001 ¶ 38; Ex. 2002 ¶ 42; Ex. 2037). According to Patent Owner, this email “confirms Sanjiv Sirpal and Ron Cassar’s recollection that, that, as of

¹⁰ Petitioner cites to Exhibits 2023 and 2024 which is a typographical error. Pet. 33.

¹¹ “The Smartpad was essentially a tablet shell that the Imerj smartphone could plug into or dock with” and the “smartphone had the CPU and memory that operated Smartpad.” Pet. 33 (citing Ex. 2001 ¶ 80).

January 25, 2011, the EV-2 prototypes were functional.” *Id.* (citing Ex. 2001 ¶ 38; Ex. 2002 ¶ 42).

Patent Owner argues that before January 25, 2011, “the project was geared toward establishing core functionality on the EV-1 and EV-2 prototypes” but after the email “the project turned ‘to the refined user experience stage of [the] design’ (i.e., polishing) to ensure the experience is ‘smooth and intuitive for the user.’” *Id.* at 34–35 (citing Ex. 2001 ¶ 82; Ex. 2037). Patent Owner further argues that “as of January 25, 2011, the EV-2 prototypes had been tested sufficiently (‘relatively functional smartphones’).” *Id.* at 35 (citing Ex. 2001 ¶ 83).

Patent Owner next contends that “[t]here was more than reasonably continuous diligence on the EV-2 prototypes from before February 10, 2011 through February 22, 2011” because “[t]he entire Imerj team was working on a daily basis throughout 2010 and 2011, testing and developing the EV-2 prototype.” PO Resp. 36 (citing Ex. 2002 ¶¶ 5, 60; Ex. 2003 ¶ 5). Patent Owner’s “[Exhibit] 2008 is an issue tracker for the Imerj project’s internal Tiger Team of user experience testers that shows Top issues being reported, assigned, and resolved on a near daily basis during the time period of January 26, 20[11]¹² through February 22, 20[11].” *Id.* (citing Ex. 2001 ¶ 44; Ex. 2002 ¶ 55; Ex. 2003 ¶¶ 31–32; Ex. 2008, 1, 3, 5, 7, 9); *id.* at 37 (“EX2007 . . . explains how the Tiger Team operated . . . show[ing] roughly 40 team members drawn from the Imerj software development, design and QA teams . . . spread across eight Tiger Teams to identify issues on a daily

¹² The Patent Owner Response refers to “January 26, 2007 through February 22, 2007” which is a typographical error. PO Resp. 36.

basis with the daily EV-2 builds.” (citing Ex. 2001 ¶ 41; Ex. 2002 ¶ 52; Ex. 2007, 4)).

6. Petitioner’s Contentions

i. Witness Credibility

Petitioner argues that the declarations of Mr. Sirpal, Mr. Cassar, and Mr. Becze are so similar as to suggest collaboration rather than independent corroboration. Pet. Reply 3. Petitioner further argues that “[t]he declarations are so similar because PO’s counsel wrote them all . . . after group meetings between those witnesses and PO’s counsel.” *Id.* at 3–4 (citing Ex. 1019, 22:5–12, 37:18–38:9; Ex. 1020, 45:21–46:1, 52:4–11; Ex. 1021, 33:3–8, 36:8–38:12).

Petitioner next argues that “PO’s counsel also represents [Mr. Sirpal, Mr. Cassar, and Mr. Becze] in this IPR” and Patent Owner “is paying those attorneys.” Pet. Reply 4 (citing Ex. 1019, 162:19–163:2; Ex. 1020, 38:2–8; Ex. 1021, 8:7–9). Petitioner further argues that Patent Owner is paying Mr. Sirpal, Mr. Cassar, and Mr. Becze. *Id.* Petitioner submits that “Sirpal is receiving \$950/hour—as a *fact* witness—and has made at least \$70,000 in this proceeding” and “Cassar and Becze initially were receiving \$200-\$250/hour, but then apparently demanded to increase their rates to \$500/hour.” *Id.* (citing Ex. 1019, 16:3–17:1; Ex. 1020, 24:15–27:19; Ex. 1021, 24:5–9, 25:22–26:13).

Petitioner next argues that “Cassar and Becze received a liability waiver from Flextronics in exchange for their help in this proceeding.” Pet. Reply 10 (citing Ex. 1020, 83:2–7). Apparently, Mr. Cassar “had retained documents and devices from Flextronics, potentially in violation of his employment agreement, and was worried he could face liability” and “in the

release that [Flextronics] sent [him and Mr. Becze], it said that . . . because we were cooperating, that they would give a waiver.” *Id.* (citing Ex. 1020, 80:6–83:18, 85:11–16, 86:3–87:4).

Petitioner next argues that “Sirpal’s testimony lacks weight because he lacks credibility” by “argu[ing] the evidence shows things it plainly does not.” Pet. Reply 5. In support of this argument, Petitioner points to Mr. Sirpal’s testimony “‘the Browser specification *specifies* that the ‘Web Browser’ view remains visible *on minimization gestures*, unless there is a modal on the ‘Control Page’ on the left.” *Id.* at 5–6 (citing Ex. 2001 ¶ 23 (citing Ex. 2013, 44)). According to Petitioner, ‘the browser specification never mentions any gesture inputs’ but ‘shows only button inputs.’ *Id.* at 6 (citing Ex. 2013, 33, 35).

Petitioner next argues that “Sirpal contradicted his declaration when testifying about the gesture capture region of claims 2 and 14” which require the gesture capture region to be part of a display. Pet. Reply 6 (citing Dec. 24). Petitioner further argues that “on the Imerj EV devices, the gesture capture region shown in Sirpal’s declaration is not part of any display” but he “represented that ‘[e]ach display had a gesture capture region along the top of the display and a touch display encompassing most of the display below the gesture capture region.’” *Id.* at 6–7 (citing Ex. 2001 ¶¶ 62, 70). According to Petitioner, Mr. Sirpal testified at deposition that “the gesture capture region was not part of any display.” *Id.* at 7 (citing Ex. 1019, 95:9–17).

With respect to Mr. Cassar, Petitioner argues that “he and PO withheld evidence that appears to be inconsistent with positions that [Patent Owner] has taken in this IPR.” Pet. Reply 11. Mr. Cassar testified that “he

managed to power on certain EV-1 and EV-2 prototypes and determine the date their software was installed” but “[h]e did not recall the exact dates but believed ‘it was either February or March 2011’ (and it could have been later).” *Id.* (citing Ex. 1020, 196:6–197:12). Further, Mr. Cassar “sent those dates, maybe with pictures (he was not certain) to PO’s counsel.” *Id.* (citing Ex. 1020, 198:2–199:9).

Petitioner further argues “that Cassar’s testimony deserves no weight” because “he made a clear misstatement about the evidence during his deposition.” Pet. Reply 11. Mr. Cassar testified that an image of an Imerj device in his declaration “is ‘a picture of one of the phones at our office’ that he managed to power on and operate and that either he, Becze, or Sirpal took the photograph ‘recently’.” *Id.* (citing Ex. 2002 ¶ 3; Ex. 1020, 87:6–88:12, 88:13–92:20). According to Petitioner, this testimony “is provably false. That photograph, bearing the same watermark in the bottom left corner, has been available on the internet since around June 2011.” *Id.* at 11–12 (citing Ex. 1022, 2).

Petitioner next argues that Mr. Cassar “testified that bug reports for Imerj showed no issues with the relevant functionality.” Pet. Reply 12. Petitioner criticizes Mr. Cassar because he “only reviewed the bug reports provided to him and did not have access to or investigate any bug reports after the alleged February 22, 2011, reduction to practice date, even though they ‘kept testing and testing . . . for another year.’” *Id.* (citing Ex. 1022, 249:5–19).

Petitioner next contends that “Becze lacks sufficient knowledge to corroborate anything” because he “was not involved in the software development for the Imerj project” but “worked on hardware.” Pet.

Reply 12 (citing Ex. 2003 ¶¶ 4, 6). According to Petitioner, “Becze could not recall having seen, before this proceeding, the documents cited in his declaration’s discussion of the software development” and “nor had he seen a document allegedly ‘confirming’ his recollection Sirpal ‘came up with the concept of minimizing and maximizing apps . . . on the Imerj smartphone.’” *Id.* at 12–13 (citing Ex. 1021, 56:6–15, 56:21–56:4; Ex. 2003 ¶¶ 7–12, 28–31). Further, Petitioner contends that Mr. Becze “could not answer basic questions about how the software would respond to user inputs, demonstrating his lack of personal knowledge,” “lacks an understanding of what a parent or child was at Flextronics, even though a ‘child’ is recited in every independent claim at issue,” and “does not map anything to any claim limitations.” *Id.* at 13 (citing Ex. 1019, 106:3–107:9; Ex. 2003).

ii. Corroboration of Reduction to Practice

Petitioner argues that “because Cassar and Becze’s declarations were written by PO’s counsel as a byproduct of group meetings, the non-inventor declarations and testimony are not ‘independent evidence.’” Pet. Reply 15. Petitioner further argues that Exhibits 2006–2009, 2011–2013, and 2022–2025 were “obtained from Sirpal’s files” and “cannot corroborate his testimony because they are not evidence independent of Sirpal.” Pet. Reply 15.

Petitioner contends that “there is no corroborated evidence showing such a device embodied each element of the challenged claims as of those dates.” Pet. Reply 15. According to Petitioner, Patent Owner’s “‘reduction to practice’ evidence uses vague terms like ‘minimize,’ ‘maximize,’ ‘ParentChild,’ and ‘Visual Multitasking’ with no explanation as to what those functions are, insufficient detail to determine if they correspond to any

claim limitations, and no indication of whether they match what was in the alleged conception documents.” *Id.* at 16 (citing Ex. 2033, 1; Ex. 2035, 1). Petitioner further contends that “there are no documents showing how the EV-1 and EV-2 prototypes operated” and “there are no user manuals, presentations, demonstration videos, or even an email to a potential customer describing how an Imerj device operates. Nothing evidences what Flextronics showed to Vodaphone or CPW, if those meetings even occurred.” *Id.* (citing PO Resp. 30–31; Ex. 1019, 118:8–16; Ex. 1021, 90:3–17; Ex. 2035); *id.* at 17 (arguing that assuming “bug reports . . . showed no issues with the claimed functionality, that could only matter if PO proved the claimed functionality was implemented in the devices being tested” and “an Imerj presentation to a prospective customer dated eight months after the alleged reduction to practice does not show the claimed functionality implemented”); *id.* at 18 (arguing that Exhibit 2007 “does not give any particulars as to what was being polished”); (arguing that emails “referencing ‘an ad hoc multi-hour review of our handset’ (EX2035) and EV-2 prototypes being ‘relatively functional smartphones’ (EX20236) include no indication that those devices practiced any challenged claims”); *id.* at 19 (“For the Smartpad video excerpts . . . neither the excerpts’ authenticity nor the date of creation is corroborated by non-inventor evidence” but “are supported solely by inventor Sirpal’s testimony and a screenshot of purported metadata (Exhibit 2025) from Sirpal himself.”).

Petitioner also contends that “there are missing documents.” Pet. Reply 1. According to Petitioner, Mr. Cassar “revealed that he and PO withheld evidence that appears to be inconsistent with positions Multifold has taken in this IPR.” *Id.* at 11. Petitioner argues that “Cassar said he

managed to power on certain EV-1 and EV-2 prototypes and determine the date their software was installed,” “did not recall the exact dates but believed ‘it was either February or March 2011,’” and “sent those dates, maybe with pictures (he was not certain) to PO’s counsel.” *Id.* (citing Ex. 1020, 196:6–197:12, 198:2–199:9). Petitioner further argues that despite a request after Mr. Cassar’s deposition to produce the evidence, the evidence was never disclosed to Petitioner. *Id.* (citing Ex. 1023, 1).

iii. Inventorship

Petitioner contends that Patent Owner has not “establish[ed] that the applicants themselves conceived of the alleged invention.” Pet. Reply 20 (citing 35 U.S.C. § 102 (e)(1), (f)). According to Petitioner, “the evidence presented by PO, if accepted as showing prior invention, at best implies that Martin Gimpl conceived of, and John Viosky contributed to the concepts described in the documents that PO presents.” *Id.* at 21 (footnote omitted).

Petitioner contends that “[t]he earliest alleged ‘conception’ document Multifold produced is the September 10, 2010 ‘Windowing Management Interaction Design Specification,’ Exhibit 2012 . . . [b]ut the only person’s name on that document is Gimpl—not Sirpal or Selim.” Pet. Reply 21 (citing Ex., 2012, 1).

Petitioner next contends that “Cassar testified that John Viosky contributed ideas associated with minimizing and maximizing functionality.” Pet. Reply 24 (citing Ex. 1020, 113:22–117:20). Petitioner further contends that Mr. Cassar also testified “that Viosky ‘brought to the table’ the minimized dual display application transition controller, maximized dual display application controller, maximized dual display application transition controller.” *Id.* Petitioner argues that “to the extent

EX2033 relates to the *claimed* minimizing and maximizing functionality as Multifold argues . . . Multifold has not shown those features were conceived of by the named inventors.” *Id.* (citation omitted) (citing PO Resp. 28–30).

7. *Patent Owner’s Sur-reply*

Patent Owner, in turn, argues that “Petitioner never properly sought any such discovery” concerning the alleged missing evidence. Sur-reply 2. Patent Owner argues that it provided the routine discovery required by 37 C.F.R. § 42.51(b)(1). *Id.* Patent Owner further argues that what Petitioner requested is additional discovery under 37 C.F.R. § 42.51(b)(2) which requires either agreement by the parties to produce the material or a motion if the parties cannot agree. *Id.* at 3. According to Patent Owner, it “made Petitioners aware of the requirement to seek additional discovery if they thought it necessary.” *Id.* (citing Ex. 1023, 2–4).¹³

Patent Owner argues that Mr. Sirpal, Mr. Cassar, and Mr. Becze do not have an inappropriate financial interest in this matter. Sur-reply 7. Patent Owner argues that “[a]ll three declarants are third-parties that only received hourly compensation unconnected to the outcome of this proceeding for their time spent working on matters related to this proceeding.” *Id.* at 7–8. Patent Owner also argues that it is not “improper for a witness to be compensated—indeed Petitioners have retained expert witnesses in this and related proceedings, paying them upwards of \$600/hour.” *Id.* at 9 (citing Ex. 1002, 6).

¹³ We note that Petitioner did not seek leave to file a motion for discovery of the alleged missing evidence or otherwise timely seek the Board’s intervention.

Patent Owner next argues that Mr. Sirpal’s declaration testimony is not inconsistent but fails to address the actual testimony on claims 2 and 14 that we found in our Decision on Institution to be inconsistent. Sur-reply 9–10.

With respect to the photograph in Mr. Cassar’s declaration, Patent Owner argues that Petitioner omits “that he initially explained, ‘I don’t know who took that picture.’” Sur-reply 11 (citing Ex. 1020, 87:6–15). Patent Owner argues that, in any event, “Petitioners do not explain why it would *discredit* Mr. Cassar, if true, that one of the photos actually dates back to 2011, the timeframe at issue here.” *Id.*

Patent Owner argues that “Petitioners cite no evidence other than Mr. Gimpl’s name appearing on a single document” and “[t]hat is simply not enough, especially in light of the undisputed testimony that Mr. Gimpl ‘was an interaction designer that reported to [Sanjiv Sirpal],’ who is a named inventor.” Sur-reply 22–23 (citing Ex. 1019, 52:2–4). Patent Owner further argues that “no witness testified that Mr. Gimpl contributed anything to the ’494 Patent.” *Id.* at 23 (citing Ex. 1020, 250:19–251:4).

8. *Analysis*

The dispositive issue in this case is whether Petitioner has shown that the claimed invention was not reduced to practice prior to Seo’s priority date. As explained below, because we determine that Petitioner has not made the requisite showing, we find that Seo does not qualify as prior art to claims 1, 4, 6, 9, 10, 12, 13, and 18–20.

Petitioner has “the burden of persuasion to prove unpatentability by a preponderance of the evidence, and this burden never shift[s]” to Patent Owner. *Dynamic Drinkware, LLC v. Nat. Graphics*, 800 F.3d 1375, 1379

(Fed. Cir. 2015). By alleging that Seo is prior art to the Challenged Claims under 35 U.S.C. § 102, Petitioner satisfied its “initial burden of production.” *Dynamic Drinkware*, 800 F.3d at 1379. In order to satisfy the ultimate burden of persuasion to prove unpatentability by a preponderance of the evidence Petitioner must persuade us “that the invention was not actually reduced to practice as argued” by Patent Owner. *Id.*

The Federal Circuit instructs that: “[t]o demonstrate an actual reduction to practice, the applicant must have: (1) constructed an embodiment or performed a process that met all the limitations of the claim and (2) determined that the invention would work for its intended purpose.” *In re Steed*, 802 F.3d 1311, 1318 (Fed. Cir. 2015). “That is, to reduce any particular claim to practice, the applicant must have constructed an operational embodiment within the scope of that claim.” *Nintendo of America Inc. v. iLife Technologies, Inc.*, 717 Fed. Appx. 996 (Fed. Cir. 2017) (addressing *Steed*’s above, two-prong standard). The Board may find an actual reduction to practice based on, for example, “testimony of the inventors, corroborating witnesses, and corroborating documentary evidence” (*id.* at 1002) if “[t]his evidence, taken together, is sufficient for a reasonable mind to conclude that the prototype created by the inventors . . . was within the scope of claims . . . and would work for its intended purpose.” *Id.* at 1003. But if “[t]he prototype has not been shown to meet all the limitations of the[] claims, . . . the record thus lacks evidence sufficient to support the . . . conclusion [of an actual reduction to practice].” *Id.* at 1004 (citing *Steed*, 802 F.3d at 1318).

Inventor testimony “must be corroborated by independent evidence” and “a ‘rule of reason’ analysis is applied to determine whether an inventor’s

testimony regarding reduction to practice has been sufficiently corroborated.” *Cooper v. Goldfarb*, 154 F.3d 1321, 1330 (Fed. Cir. 1998). But, “[t]he law does not impose an impossible standard of ‘independence’ on corroborative evidence by requiring that every point of a reduction to practice be corroborated by evidence having a source totally independent of the inventor, such a standard is the antithesis of the rule of reason.” *Id.*; see also *Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1169 (Fed. Cir. 2006) (“[I]t should be noted that no similar condition of ‘corroboration’ is imposed on an inventor’s notebook, or indeed on any documentary or physical evidence, as a condition for its serving as evidence of a reduction to practice.”).

The Federal Circuit instructs us that “[t]he requirement of independent knowledge remains key to the corroboration inquiry.” *Medichem*, 437 F.3d at 1170 (citing *Reese v. Hurst*, 661 F. 2d 1222, 1225 (CCPA 1981)). “Independent corroboration may consist of testimony of a witness, other than the inventor, to the actual reduction to practice or it may consist of evidence of surrounding facts and circumstances independent of information received from the inventor.” *Medichem*, 437 F.3d. at 1171.

Although there are two inventors named on the ’494 patent, only inventor Mr. Sirpal provides testimony. Therefore, we first analyze his testimony in light of the credibility issues raised by Petitioner. Then, we must look to corroborating testimony and evidence, if any, to determine if all the evidence would lead a reasonable mind to conclude that the applicant constructed an embodiment that “met all the limitations of the claim[s]” and “determined that the invention would work for its intended purpose.” *In re Steed*, 802 F.3d at 1318.

i. Credibility Issues

In our Decision on Institution, we pointed to Mr. Sirpal’s inconsistent testimony regarding the location of the gesture capture region of the EV-1 prototype.¹⁴ Dec. 22–24. In particular, he testifies in connection with claim 2, that “[t]hat the gesture strip runs across the top of the two screens” but in connection with claim 14 he testifies that “[e]ach display had a gesture capture region along the top of the display and a touch display encompassing most of the display below the gesture capture region.” Ex. 2001 ¶¶ 31, 62. In our Decision on Institution, we stated that “Mr. Sirpal’s testimony concerning whether the gesture capture region in the EV-1 smartphone shown in Exhibit 2017 is located ‘on the display’ or potentially ‘off the display’ is inconsistent and potentially calls into question his credibility on this point.” Dec. 24.

Mr. Sirpal also is being compensated by Patent Owner to be a fact witness in this proceeding. Mr. Sirpal testified:

Q. What are you charging in this case?

A. In this case, its 950 USD.

¹⁴ The ’494 patent explains that “[t]he term ‘screen’ . . . refers to a physical structure that includes one or more hardware components” and ‘can encompass any combination of gesture capture region, touch sensitive display, and /or configurable area.’ Ex. 1001, 3:57–72. “A ‘display’ refers to a portion of one or more screens used to display the output of a computer to a user.” *Id.* at 4:22–23. Further, the ’494 patent explains that: The term ‘gesture capture’ refers to a sense or otherwise a detection of an instance and/or type of user gesture. The gesture capture can occur in one or more areas of the screen. A gesture region can be on the display, where it may be referred to as a touch sensitive display or off the display where it may be referred to as a gesture capture area. *Id.* at 5:4–9.

Q. Do you know who's paying you that?

A. Yes, I do.

Q. And just to clarify, 950 USD is 950 per hour?

A. That's correct.

Q. And who is paying you?

A. Multifold is paying.

Q. And how much have you been paid to date on this case?

A. I don't have an exact number, but approximately I think 70 hours worth of work excluding this. I don't think I've tallied anything up for this case for the last two days.

Ex. 1019, 16:3–20. Consequently, prior to his deposition, Mr. Sirpal was paid approximately \$66,000 by Patent Owner. Additionally, as discussed above, Patent Owner is paying for its attorneys to represent Mr. Sirpal, as well as Mr. Cassar and Mr. Becze. Ex. 1019, 162:19–163:2; Ex. 1020, 38:2–8; Ex. 1021, 8:7–9

Mr. Sirpal's testimony which we cite in our Decision on Institution relates to our analysis of whether Seo qualifies as prior art to claims 2 and 14. Dec. 21. At this point, whether Seo qualifies as prior art to claims 2 and 14 is no longer at issue because claim 2 is disclaimed and Patent Owner does not assert that claim 14 was reduced to practice prior to Seo's priority date. Thus, Mr. Sirpal's testimony, cited in the Decision on Institution, does not relate to a material issue in this proceeding.

In terms of the compensation received by Mr. Sirpal, Mr. Cassar, and Mr. Becze, none are employed by Patent Owner and are receiving compensation for their time devoted to the case. Ex. 1019, 16:3–17:6; Ex. 1020, 24:15–27:1; Ex. 1021, 24:5–9. Further, none of them have a

financial stake in the outcome of this proceeding. Ex. 2001 ¶ 1; Ex. 2002 ¶ 1; Ex. 2003 ¶ 1.

We now address Petitioner's contention that the declarations of Mr. Sirpal, Mr. Cassar, and Mr. Becze are similar because Patent Owner's "counsel wrote them all." Pet. Reply 3–4 (citing Ex. 1019, 22:5–12, 37:18–38:9; Ex. 1020, 45:21–46:1, 52:4–11; Ex. 1021, 33:3–8, 36:8–38:12).

Petitioner does not cite to the following testimony by the witnesses. Mr. Sirpal testified that "I directed counsel, Carmichael, to write the declaration. I worked with them through multiple reviews to ensure that what's contained in the declaration represented my recollection." Ex. 1019, 23:10–15. Mr. Cassar testified that "at some point, [the attorneys] penned this for me, and we began iterating through and reviewing it, because I wanted to make sure it was accurate." Ex. 1020, 48:21–49:2. Mr. Becze testified that "we had a meeting with the Carmichael group where they took down information from us and they prepared the declaration. They gave it back to us, we read it, edited it for accuracy, and then submitted it back to them." Ex. 1021, 33:6–10.

To the extent Petitioner is asserting that the declarants' testimony should be discounted because attorneys prepared drafts of the declarations for the witnesses to review and edit, we decline to do so based on the above-quoted testimony. Each of Mr. Sirpal, Mr. Cassar, and Mr. Becze testified that he reviewed the draft declaration for accuracy before it was submitted. When we consider the witnesses' testimony as a whole, we decline to draw a negative inference from the snippets of testimony cited by Petitioner.

To the extent that Petitioner asserts that we should discount Mr. Cassar's and Mr. Becze's testimony because it is not "independent" as a

result of group meetings or that the documents came from Mr. Sirpal's files, Petitioner overstates the requirement of "independence." Pet. Reply 15. The Federal Circuit directs that independent corroborating evidence "may consist of testimony of a witness, other than an inventor, to the actual reduction to practice or it may consist of evidence of surrounding facts and circumstances independent of information received from the inventor." *Hahn v. Wong*, 892 F.2d 1028, 1032–33 (Fed. Cir. 1989). Here, as discussed below, both Mr. Cassar and Mr. Becze were personally involved in the manufacture and/or testing of the EV–1 and EV–2 prototypes and, thus, are witnesses to the actual reduction to practice. Additionally, certain documents that corroborate Mr. Sirpal's testimony are not authored by Mr. Sirpal, Mr. Cassar, or Mr. Becze. The fact that Mr. Sirpal retrieved from his files, during this proceeding, copies of documents from the relevant time period relating to the Imerj project at Flextronics is not dispositive of whether the evidence is "independent."¹⁵

With respect to Petitioner's contention that Patent Owner withheld evidence, all we have before us is an email chain between counsel discussing the parties' respective contentions. Ex. 1023. As discussed above, Petitioner did not request authorization to file a motion seeking additional discovery, but argues that Patent Owner's failure to produce the evidence goes to the weight of the evidence supporting Patent Owner's contentions. Tr. 57:18–21; *id.* at 58:7–9 ("[I]f there was ever a case where such a strong negative inference is appropriate, it's this case, where it – it's not us speculating the there's documents."). Given Petitioner's failure to seek

¹⁵ Petitioner has not moved to exclude from evidence that documents upon which we rely in this Decision.

relief by way of motion, we will not draw a strong negative inference against Patent Owner because doing so would require speculation about the contents of the allegedly withheld evidence.

We also note that the prototypes that Mr. Cassar testified he powered on to get firmware dates are not in the record before us. Further, Petitioner did not even informally request Patent Owner to produce the prototype that was powered on for inspection after learning of the existence of the prototype during Mr. Cassar's deposition. Ex. 1023, 1; Tr. 62:10–62.

Providing evidence of the existence of a working prototype prior to the priority date of a prior art reference can be persuasive of actual reduction to practice. *See, e.g., Mahurkar v. C.R. Bard, Inc.*, 79 F.3d 1572, 1578–79 (Fed. Cir. 1996). Consequently, we find it rather curious that Patent Owner did not produce the working prototype for inspection by Petitioner and/or enter it into the record and that Petitioner did not request to inspect the prototype during discovery. Because Petitioner did not even bother to informally request inspection of the working prototype let alone seek relief from us and the fact that the prototypes are in the possession of a third-party, Mr. Cassar who is located in Canada, we will not draw an inference against Patent Owner for not producing the prototypes or against Petitioner for not requesting the prototypes.

Petitioner also argues that it is concerning that Mr. Cassar and Mr. Becze received a liability waiver from Flextronics relating to Flextronics' documents and devices that Mr. Cassar apparently kept after leaving his employment at Flextronics. Pet. Reply 9–10. Flextronics is not a party to this proceeding nor is it a real party-in-interest in this proceeding.

Paper 5, 1. Consequently, Petitioner does not persuade us that this waiver impacts the credibility of Mr. Cassar and Mr. Becze in this proceeding.

With respect to Petitioner's argument that "Cassar's testimony deserves no weight [because] he made a clear misstatement" about the origin of a photograph of Imerj phone (Pet. Reply 11–12), the origin of that photograph is not material to our Decision and does not support giving no weight to any of Mr. Cassar's testimony.

ii. Reduction to Practice

As discussed above, neither an EV-1 nor an EV-2 prototype has been entered into the record in this case. Consequently, we analyze the testimony of Mr. Sirpal and the evidence that may corroborate his testimony, in light of Petitioner's contentions, to determine whether Petitioner has shown "that the invention was not actually reduced to practice as argued" by Patent Owner. *Dynamic Drinkware*, 800 F.3d at 1379.

We first address the question of whether Patent Owner has shown that an embodiment of the EV-1 and/or EV-2, which worked for its intended purpose, was made prior to February 10, 2011. If the answer to that question is yes, then we address whether Patent Owner has shown that the embodiment met the limitations of claims 1, 4, 6, 9, 10, 12, 13, and 18–20.

Mr. Sirpal testifies that the "minimization and maximization between portrait dual display and portrait single was reduced to practice on both EV-1 and EV-2 prototypes prior to February 10, 2011" and "[a]lternately, this feature was reduced to practice on EV-2 prototypes no later than February 22, 2011 with constant diligence during the 12 days between February 10 and February 22, 2011." Ex. 2001 ¶ 25.

In order to understand the testimony of Mr. Sirpal and the other declarants, it is useful to understand the terminology based on the documents in the record.¹⁶ For example, the earliest document is Exhibit 2012 which provides that “transitions seen during WPC operations, like moving an application to the other screen, maximizing a dual-screen capable application to two screens or minimizing one to a single-screen are generally performed with off-screen gestures.” Ex. 2012, 4. The document explains the various “gestures” and provides rules for maximization and minimization of applications. *Id.* at 8–24. It particularly explains minimizing and maximizing parent/child views. *Id.* at 15–16. It further shows a “Dual Screen Application” (*id.* at 45–48) and a “Portrait Dual Screen (*id.* at 78–80); *see also id.* at 84 (illustrating a Portrait Dual Screen for a camera application).

Mr. Sirpal testifies in detail how the claimed invention was purportedly reduced to practice on both the EV-1 and EV-2 prototypes. Ex. 2001 ¶¶ 25–48.¹⁷ Other than as discussed above in connection with our analysis of Petitioner’s credibility contentions, Petitioner doesn’t specifically dispute any of Mr. Sirpal’s reduction to practice testimony. Pet. Reply 13–19. Rather, Petitioner challenges the sufficiency of the corroborating

¹⁶ We find Petitioner’s argument (Pet. Reply 16) that Patent Owner’s evidence “uses vague terms like ‘minimize,’ ‘maximize,’ ‘ParentChild,’ and ‘Visual Multitasking’ . . . [that provide] insufficient detail to determine if they correspond to any claim limitations” not persuasive because it ignores large swaths of the actual testimony and documents relied on by Patent Owner. Further, Petitioner fails to cite any authority that evidence of reduction to practice must utilize the same verbiage as the claim limitations at issue.

¹⁷ Petitioner moves to exclude paragraphs 38 and 82 of Exhibit 2001. MTE 1. We do not rely on either paragraph herein.

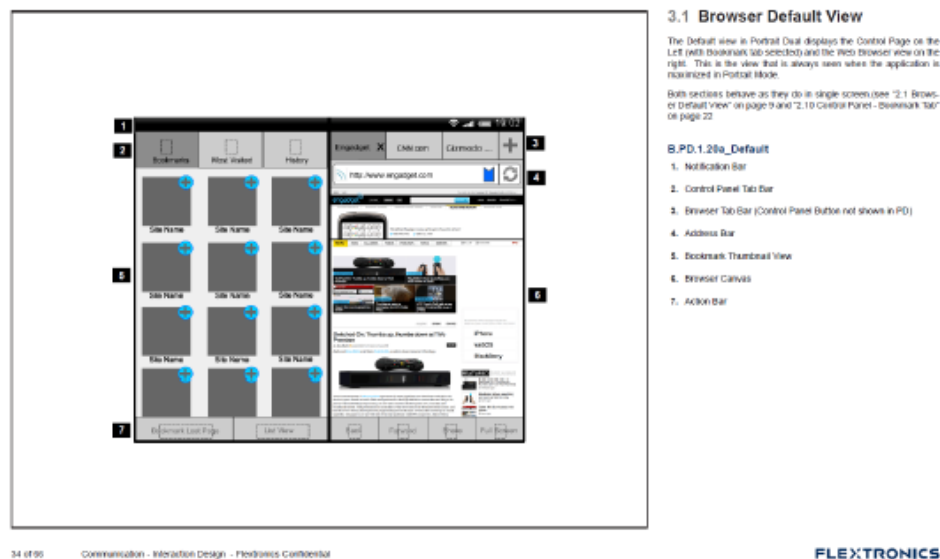
evidence provided by Patent Owner. *See id.* Consequently, we now turn to the evidence that we find corroborates Mr. Sirpal's testimony.

Mr. Sirpal testifies that Exhibit 2012, dated September 10, 2010, is a document created by his design team with his input and evidencing conception of the invention of the challenged claims. Ex. 2001 ¶ 15. Although Petitioner makes an issue of the fact that the document was created by Martin Gimpl (Ex. 2012, 1) who worked for Mr. Sirpal, Exhibit 2012 corroborates Mr. Sirpal's testimony. *Medichem*, 437 F.3d at 1169 (“[I]t should be noted that no similar condition of ‘corroboration’ is imposed on an inventor’s notebook, or indeed on any documentary or physical evidence”).

Petitioner argues that Exhibit 2012 “at best implies that Martin Gimpl conceived of . . . the concepts described in the documents that PO presents.” Pet. Reply 21. Mr. Sirpal testified that Mr. Gimpl “was an interaction designer that reported” to Mr. Sirpal. Ex. 1019, 52:2–24. Other than Mr. Gimpl's name appearing on Exhibit 2012, Petitioner provides no testimony from Mr. Gimpl or other evidence that he, not Mr. Sirpal, conceived of the claimed invention or the concepts described in Exhibit 2012. *See* Pet. Reply 20–25. Petitioner makes a similarly evidence-free argument that a John Visosky also should have been named as an inventor on the '494 patent. *Id.* at 21. Mr. Cassar testified that Mr. Visosky was part of a team of 15 to 20 software engineers employed by Flextronics working on the Imerj project. Ex. 1020, 113:22–114:13. There is no testimony from Mr. Visosky or other documentary evidence that would support a finding that Mr. Visosky should have been named as an inventor on the '494 patent and not also Mr. Cassar or the 15 other software engineers. Consequently,

Petitioner’s argument that Mr. Gimpl and/or Mr. Visosky are unnamed inventors is speculative and not persuasive.

Mr. Sirpal testifies that Exhibit 2013, dated October 6, 2010 and created by Mo Selim, “defines the operation of the Browser including its support for ‘Portrait Dual’ (or ‘Portrait Dual Screen’, or ‘Dual Portrait’, or ‘PD’) mode which is a mode where the Browser displays two views on two displays as shown below:



Ex. 2001 ¶ 22. Mr. Sirpal testifies that “[t]his specification explains that ‘The Default view in Portrait Dual displays the Control Page on the Left (with Bookmark tab selected) and the Web Browser view on the right. This is the view that is always seen when the application is maximized in Portrait Mode.’” *Id.* (citing Ex. 2013, 34).

Mr. Sirpal next testifies that “the Browser specification specifies that the ‘Web Browser’ view remains visible on minimization gestures unless there is modal on the ‘Control Page’ on the left:



Ex. 2001 ¶ 23 (citing Ex. 2013, 44).¹⁸ This document corroborates Mr. Sirpal’s testimony of conception of the Dual Portrait Mode.

Mr. Sirpal testifies that “Software development on the Imerj project had already started no later than early 2010.” Ex. 2001 ¶ 27. Further, early prototypes referred to as “dev kits” “used a single screen with software that imitated a dual screen wired to a bread board with early versions of other system components.” *Id.*

¹⁸Petitioner attempts to discredit this testimony by arguing that “the browser specification never mentions any gesture input” but “shows only button inputs.” Pet. Reply 6 (citing Ex. 2013, 33). We reviewed page 33 of Exhibit 2013 and find no mention of button inputs on that page or other support for Petitioner’s argument.

Mr. Sirpal provides a photograph of an early prototype:



Id. (reproducing Ex. 2014).

Mr. Cassar corroborates Mr. Sirpal’s testimony of the existence and testing of the dev kit. Ex. 2002 ¶ 21¹⁹. He testifies that “we tested the software on what we referred to as dev kits.” *Id.*

Mr. Becze further corroborates Mr. Sirpal’s testimony. He testifies that “I was devoted to designing prototypes that eventually became the Imerj dual screen folding smartphone. Initially in late 2009 and early 2010, we built what we referred to as ‘dev kits’ . . . that we could use to run the Imerj software being developed and demonstrate its functionality.” Ex. 2003 ¶ 13.

¹⁹ Petitioner moves to exclude paragraphs 30–35, 40–48, and portions of paragraphs 49, 64, 65, and 69 of Exhibit 2002. MTE 1. We do not rely on those paragraphs.

Both Mr. Sirpal and Mr. Becze testify to later versions of the dev kits that “used two separate screens wired to a bread board.” Ex. 2001 ¶ 28; Ex. 2003 ¶ 14. Mr. Sirpal testifies that the dev kits “demonstrated the basic software functionality . . . including touch input and swiping/gesture functionality.” Ex. 2001 ¶ 29; *see also* Ex. 2002 ¶ 22 (“Basic gesture functionality was enabled on these dev kits.”).

Mr. Sirpal next testifies that EV-1 prototype smartphones were manufactured in October and November 2010. Ex. 2001 ¶ 30. Mr. Becze corroborates this time frame for manufacturing the EV-1 prototypes. Ex. 2003 ¶ 19. He testifies that he “personally travelled to Linköping during this time to assist in the manufacture of the EV-1 prototypes.” *Id.* Exhibit 2019 is a copy of Mr. Becze’s “travel ticket from Flextronics showing my flight to Linköping from October 12–21, 2010.” *Id.*

Mr. Sirpal next testifies “that EV-1 prototypes were being tested and that the gesture inputs were functional before February 10, 2011.” Ex. 2001 ¶ 32. Mr. Sirpal further testifies that Flextronics contracted with a software developer Thundersoft to work with Mr. Sirpal and his team “to develop the browser application for the Imerj smartphone.” *Id.* ¶ 33. Flextronics “received the Browser software from Thundersoft” by January 2011 for testing by Mr. Sirpal and his team. *Id.* Mr. Sirpal refers to Exhibit 2011 “used by my team to log issues discovered during testing of the Browser software on one or more Imerj prototypes including EV-1, and last modified on January 20, 2011.” *Id.* Mr. Sirpal then testifies that none of the issues listed on Exhibit 2011 “indicate that the claimed minimization/maximization gesture functionality was not working for its intended purpose.” *Id.*

Mr. Becze testifies that “[i]n January 2011, the Imerj project moved on to EV-2. A third batch of [50 EV-2] Imerj prototypes was manufactured in Linkoping in January 2011.” Ex. 2003 ¶ 21. Mr. Becze further testifies that “[t]here was no functional difference between EV1 and subsequent EV builds from a software perspective, only improvements in durability, reliability, cosmetics and user experience such as button feel and paint colour finish.” *Id.* ¶ 22.

Mr. Sirpal testifies “[t]he EV-2 prototypes maintained the existing touch input functionality of the EV-1 prototypes.” Ex. 2001 ¶ 36. Mr. Sirpal further testifies that “[n]o later than February 9, 2011, EV-2 prototypes had been adequately tested to ensure they functioned for their intended purpose.” *Id.* ¶ 37.

Mr. Cassar testifies that “[i]n October and November of 2010, we manufactured EV-1 prototypes and installed the Imerj software I and my team had developed.” Ex. 2002 ¶ 10. Mr. Cassar testifies that “[i]n January 2011, we manufactured EV-2 prototypes that had installed the Imerj software I and my team had developed. This software enabled the relevant gesture functionality (e.g., minimizing and maximizing apps in dual portrait mode on the Imerj smartphone) on the prototype.” *Id.* at ¶ 24; *id.* ¶ 25 (“The gesture functionality of minimizing and maximizing apps in dual portrait mode on the Imerj smartphone was implemented in Imerj smartphones at least as early as the EV-1 (around December 2010) and EV-2 (January 2011) prototypes.”).

Mr. Cassar also testifies that he authored Exhibit 2033. Ex. 2002 ¶ 36. He testifies that Exhibit 2033 details the “Imerj project process.” *Id.* Mr. Cassar testifies that the spreadsheet shows that “WPC functions”

including “Gestures” are listed as 100% complete, “Minimize Dual Display Application Transition Controller” is listed as 100% complete as of 11/26/2010, “Maximize Dual Display Application Transition Controller” is listed as 100% complete as of 11/26/2010, and “Integration with Parent/Child Infrastructure” is listed as 100% complete by 11/22/2010. *Id.* ¶¶ 36–39.

Based on the foregoing cited testimony of Mr. Sirpal, the cited corroborating testimony of Mr. Cassar and Mr. Becze, and the documents discussed above, i.e., Exhibits 2012, 2013, 2014, 2019, and 2033, we find that EV-1 and EV-2 prototypes were made prior to February 10, 2011. We further find that the EV-1 and EV-2 prototypes contained software that functioned for its intended purpose of minimizing and maximizing application screens on dual display devices prior to February 10, 2011. Consequently, we need not reach the question of whether Patent Owner has shown that it exercised diligence between February 10, 2011 and February 22, 2011.

In addition to showing that the EV-1 and EV-2 prototypes were built prior to February 10, 2011 and that each worked for its intended purpose, Patent Owner must show that the embodiments “met all the limitations of the claim.” *In re Steed*, 802 F.3d at 1318. We now turn to the question of whether the EV-1 and EV-2 meet all limitations of the Challenged Claims.

Patent Owner provides a mapping of the EV-1 and EV-2 prototypes to claims 1, 4, 6, 9, 10, 12, 13, and 18–20. PO Resp. 38–94.

Petitioner does not dispute Patent Owner’s mapping. *See generally* Pet. Reply.

Claim 1

[1.pre] A method for controlling a display of a device comprising:

Patent Owner argues that, to the extent the preamble is limiting, the EV-1 and EV-2 “prototypes were operable such that a user could control whether one or both pages of the application were displayed on the screens of the device by inputting gestures to minimize or maximize applications.” PO Resp. 39 (citing Ex. 2001 ¶¶ 53–54; Ex. 2002 ¶¶ 28, 29, 64, 65; Ex. 2003 ¶¶ 12, 20, 25, 29, 31; Ex. 2006, 15, 30, 31, 34–36, 45–49, 53, 79, 118, 119, 129; Ex. 2012, 8–23; Ex. 2013, 33, 34, 44; Ex. 2022; Ex. 2023)²⁰.

We have reviewed Patent Owner’s arguments and evidence for the preamble of claim 1 which are undisputed by Petitioner.

We find that Patent Owner has shown the EV-1 and EV-2 prototypes meet the subject matter of the preamble of claim 1.

[1.a] presenting a first page of a first application on a first display of the device, wherein the first page is an auxiliary page;

Patent Owner contends that “[t]he EV-1 and EV-2 prototypes performed this limitation.” PO Resp. 40 (citing Ex. 2001 ¶¶ 53–54). Patent Owner contends that each of the EV-1 and EV-2 prototypes had two displays that “permitted displaying two pages from a single application on

²⁰ Petitioner argues Exhibit 2006–2009, 2011–2013, and 2022–2025 “cannot corroborate Sirpal’s testimony because they are not independent of Sirpal.” However, Petitioner does not move to exclude these documents from evidence. MTE 1. Further, it is not required “that every point of a reduction to practice be corroborated by evidence having a source totally independent of the inventor.” *Cooper*, 154 F. 3d at 1330; *see also Medichem*, 437 F.3d at 1169 (corroboration requirement not imposed “on any documentary or physical evidence.”).

the two different displays of the prototypes” and the functionality of this limitation “could be performed using the Browser application, as well as other applications such as email, camera, photo galleries, etc.” *Id.* (citing Ex. 2006, 33, 45–49, 75, 79, 84, 94–104, 105–112, 113–131).

Patent Owner next asserts that “the claimed ‘first page,’ which is an auxiliary page, is the Bookmarks/Control page shown on page 79 of Exhibit 2006 which Patent Owner reproduces:

Portrait Dual Screen



PO Resp. 41 (reproducing Exhibit 2006, 79 with red rectangle added by Patent Owner around the left side screen).

Patent Owner further contends that in the example shown above, “the Bookmark/Control page [annotated with red rectangle on left] is the auxiliary page and the Browser Content page [on the right] is the primary page because the Browser content page is the default view.” PO Resp. 42 (citing Ex. 2013, 9). Patent Owner further contends that “when the Browser application is minimized from Dual Screen to Single Screen, ‘priority’ is

given to the Browser Content view page when assessing which screen remains in view.” *Id.* (citing Ex. 2013, 44).

Patent Owner next contends that “the EV-1 and EV-2 prototypes implemented the gesture functionality set forth in the design specifications” and the specifications “disclose how the prototypes operated to display and minimize applications.” PO Resp. 42–43 (citing Ex. 2001 ¶¶ 24, 55; Ex. 2002 ¶ 10; Ex. 2003 ¶ 6). Patent Owner next contends that Exhibit 2012 shows that “the prototypes were capable of displaying page 1.1 of an application in one display and page 1.2 of the same application in another display of the device.” *Id.* at 43 (citing Ex. 2012, 16).

We have reviewed Patent Owner’s arguments and evidence for limitation [1.a] which are undisputed by Petitioner.

We find that Patent Owner has shown the EV-1 and EV-2 prototypes meet limitation [1.a].

[1.b] presenting a second page of the first application on a second display of the device, wherein the second page is a primary page,

Patent Owner contends that “[t]he EV-1 and EV-2 prototypes performed this limitation.” PO Resp. 44 (citing Ex. 2001 ¶¶ 53–54). Relying on substantially the same evidence as for limitation 1.a, Patent Owner argues that the right-side screen maps to the recited “primary page.” *See id.* at 45–48.

We have reviewed Patent Owner’s arguments and evidence for limitation [1.b] which are undisputed by Petitioner.

We find that Patent Owner has shown the EV-1 and EV-2 prototypes meet limitation [1.b].

[1.c] wherein the first and second pages present different content and are distinct pages, and wherein the auxiliary page is a child of the primary page;

Patent Owner contends that “[t]he EV-1 and EV-2 prototypes performed this limitation.” PO Resp. 48 (citing Ex. 2001 ¶¶ 53–54).

Patent Owner contends that “the Browser application, the Bookmark/Control page (‘first page’) and the Browser Content page (‘second page’) present different content and are distinct pages, and the Bookmark/Control page is a child of the Browser Content page.” PO Resp. 49 (citing Ex. 2013, 9, 22, 31); *id.* at 49–50 (reproducing figure shown on Exhibit 2012, 16 and arguing that “the prototypes were capable of displaying page 1.1 of an application in one display, and page 1.2 of the same application in another display, where ‘1.1 is the parent of 1.2’”). Patent Owner also reiterates its contention discussed above in connection with limitation 1.a that “the EV-1 and EV-2 prototypes implemented the functionality set forth in the design specifications regarding gesture functionality.” *Id.* at 50.

We have reviewed Patent Owner’s arguments and evidence for limitation [1.c] which are undisputed by Petitioner.

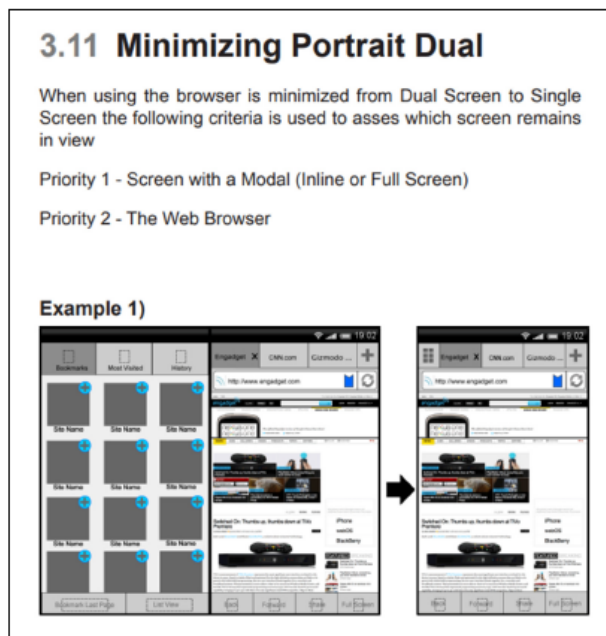
We find that Patent Owner has shown the EV-1 and EV-2 prototypes meet limitation [1.c].

[1.d] receiving a first input from a user, wherein the first input includes an input to minimize the first application to one of the first and second displays of the device, wherein the second page of the first application is displayed by one of the first display of the device and the

second display of the device, and wherein the first page of the application is not displayed.

Patent Owner contends that “[t]he EV-1 and EV-2 prototypes performed this limitation.” PO Resp. 51 (citing Ex. 2001 ¶¶ 53–54).

Patent Owner specifically contends that “the EV-1 and EV-2 prototypes could receive a first input from a user to minimize the displayed dual screen application to one of the first and second displays of the device.” *Id.* at 51–52 (citing Ex. 2012, 8). Patent Owner further contends that “[f]or example, upon receipt of a minimization input, parent page 1.1 of the application (the ‘second page’) is displayed, and child page 1.2 (the ‘first page’) is not displayed.” *Id.* at 52 (citing Ex. 2012, 16). Patent Owner also contends that “for the Browser application, upon receipt of a minimization input, the EV-1 and EV-2 prototypes would display the Browser Content page (‘the second page’) and not the Bookmarks/Control page (‘the first page’).” *Id.* at 52–53. In support, Patent Owner reproduces the following page from Exhibit 2013:



PO Resp. 53 (reproducing Ex. 2013, 44). Patent Owner also reproduces excerpts from Exhibit 2023 illustrating how the prototypes performed this limitation. *Id.* at 53–54 (citing Ex. 2023).

We have reviewed Patent Owner’s arguments and evidence for limitation [1.d] which are undisputed by Petitioner.

We find that Patent Owner has shown the EV-1 and EV-2 prototypes meet limitation [1.d].

For all the foregoing reasons, we find that the EV-1 and EV-2 prototypes meet all limitations of claim 1.

Claim 4

The method of claim 1, wherein after receiving the first input a first page of a second application is presented by the first display.

Patent Owner refers to its contentions for claim 1 and contends that “the prototypes allowed for the end result of the minimization input received by the device . . . to be that ‘second page’ (the primary page) of the first application would be displayed on the second display of the device.” PO Resp. 55 (citing Ex. 2012, 16 (example 2 showing that page 1.1 ends up where it was initially displayed – on the second display)). Patent Owner further contends that Exhibit 2023 “show[s] that, for the Browser application, the second page—the Browser Content page—remains on the second display after minimization.” *Id.* at 56–57 (reproducing excerpts from Ex. 2023). Patent Owner further contends that “[a]fter minimization input resulted in the second page of the first application being displayed on the second display of the device, the EV-1 and EV-2 prototypes allowed for a first page of a second application to be presented in the first display.” *Id.* at 58 (citing Ex. 2001 ¶ 56; Ex. 2002 ¶¶ 29, 68; Ex. 2003 ¶¶ 12, 20, 25).

We have reviewed Patent Owner’s arguments and evidence for claim 4 which are undisputed by Petitioner.

We find that Patent Owner has shown the EV-1 and EV-2 prototypes meet the limitations of claim 4.

Claim 6

[6.a] The method of claim 1, wherein the device is oriented such that the first and second displays are presented in a dual portrait format,

Patent Owner refers to its contentions for claim 1 and contends that “the prototypes could perform the method when the device is oriented such that the first and second displays are presented in dual portrait format—e.g., when the device’s displays are each oriented and displayed in a portrait orientation.” PO Resp. 58; *id.* at 59 (reproducing Ex. 2006, 79 showing the Dual Portrait Screen); *id.* at 61 (citing Ex. 2002 ¶¶ 29, 69; Ex. 2003 ¶¶ 20, 25).

We have reviewed Patent Owner’s arguments and evidence for limitation [6.a] which are undisputed by Petitioner.

We find that Patent Owner has shown the EV-1 and EV-2 prototypes meet limitation [6.a].

[6.b] and wherein the first input includes a gesture that is input from a side of the device corresponding to the first display towards a side of the device corresponding to the second display.

Patent Owner contends that “the minimizing gesture could be a drag or flick performed from the left screen of the device toward the right screen of the device, or a drag or flick performed from the right screen of the device toward the left screen of the device.” PO Resp. 62 (citing Ex. 2012, 16 (Examples 1, 2)); *id.* at 63 (arguing in the Browser application, “a

minimization gesture is input from the left display (the first display displaying the Bookmark/Controls page) towards the right display (the second display displaying the Browser Content page” (reproducing excerpts from Ex. 2023)).

We have reviewed Patent Owner’s arguments and evidence for limitation [6.b] which are undisputed by Petitioner.

We find that Patent Owner has shown the EV-1 and EV-2 prototypes meet limitation [6.b].

For all the foregoing reasons, we find that the EV-1 and EV-2 prototypes meet all limitations of claim 6.

Claim 9

The method of claim 1, wherein the first application is a web browser, and wherein the primary page is a content page that includes web content.

Patent Owner refers to its contentions for claim limitation [1.b] and contends “the prototypes had a web browser (‘the first application’) that was dual screen capable” and had “the claimed ‘primary page,’ (i.e., the second page of claim 1 is the Browser Content page . . . which is ‘a content page that includes web content.’” PO Resp. 64; *id.* at 65 (reproducing Ex. 2006, 79 and excerpt from Ex. 2023). Patent Owner further contends that “[t]he Browser Content page is the primary page because the Browser Content page is the default view . . . and when the Browser application is minimized from Dual Screen to Single Screen, ‘priority’ is given to the Browser Content view page when assessing which screen remains in view.” *Id.* at 66 (citing Ex. 2002 ¶¶ 17, 28, 33, 35, 64–66, 75; Ex. 2003 ¶ 12; Ex. 2013, 9, 44).

We have reviewed Patent Owner’s arguments and evidence for claim 9 which are undisputed by Petitioner.

We find that Patent Owner has shown the EV-1 and EV-2 prototypes meet the limitations of claim 9.

Claim 10

The method of claim 1, further comprising: after receiving the first input, receiving a second input from the user, wherein the second input includes an input to maximize the first application to both of the first and second displays of the device, wherein the first page of the first application is presented on the first display of the device and the second page is displayed on the second display of the device.

Patent Owner contends that the “prototypes could receive a second input from a user to maximize the application to be displayed on both of the first and second displays of the device.” PO Resp. 67 (citing Ex. 2012, 8); *see also id.* (citing Ex. 2012, 13 and arguing that examples 1 and 2 show maximization examples). According to Patent Owner, the “prototypes allowed such maximization commands to be received for dual display applications (e.g., browser, email, messenger) **after having received** a maximization command that resulted in one of the pages of the application no longer being displayed.” *Id.* at 67–68 (citing Ex. 2002 ¶¶ 29, 70); *id.* at 69–70 (reproducing excerpts from Ex. 2020 and arguing in the Browser application, “a maximization input as shown in EX2022 that took place after a minimization input as shown in EX2023, would result in the first page . . . displayed on left display. . . and the second page . . . being displayed on the right display.”).

We have reviewed Patent Owner's arguments and evidence for claim 10 which are undisputed by Petitioner.

We find that Patent Owner has shown the EV-1 and EV-2 prototypes meet the limitations of claim 10.

Claim 12

[12.a] The method of claim 10, further comprising: after receiving the first and second inputs, receiving a third input from the user dismissing the first page of the application, wherein one of a first page of a second application or a desktop is presented by the first display of the device;

Patent Owner refers to its contentions for claim 10 and contends that the EV-1 and EV-2 prototypes meet limitation [12.a] by “[r]eceiving first minimizing input (from limitation 1[d]) as the input from minimization example 2 (from page 16 of EX2012),” “receiving the second maximizing input (from limitation 10) as the input from maximization example 1 (from page 13 of EX2012),” and “receiving the ‘third input’ (from limitation 12[a]) as the input from minimization example 2 (from page 16 of EX2012).” PO Resp. 72. Patent Owner further argues that “in EX2012, the result of the third input would be that the ‘first page of the application’ (e.g., child page 1.2) would be dismissed, and a desktop (e.g., D2) would be displayed on the first display of the device (e.g., which originally was displaying child page 1.2).” *Id.*; *id.* at 71 (“Maximizing and minimizing the [child page] of the dual portrait mode could be ***repeated indefinitely*** on EV-1 and EV-2 prototypes.”) (citing Ex. 2002 ¶ 71).

We have reviewed Patent Owner's arguments and evidence for limitation [12.a] which are undisputed by Petitioner.

We find that Patent Owner has shown the EV-1 and EV-2 prototypes meet limitation [12.a].

[12.b] after receiving the third input, receiving a fourth input from the user to maximize the first application to the first and second displays of the device, wherein the second display of the device presents the second page of the first application, and wherein the first display of the device presents the first page of the application.

Patent Owner refers to its contentions for limitation 12.a and contends the “prototypes allowed the sequence of 12[a] to continue” by “[r]eceiving the ‘fourth’ input (from limitation 12[b]) as the input from maximization example 1 (from page 13 of EX2012).” PO Resp. 73. Patent Owner further contends that

[a]s shown in EX2012, the result of the fourth input would be that the ‘second page of the first application’ (e.g., parent page 1.1) would be displayed on the second display of the device (e.g., which originally was displaying parent page 1.1), and the ‘first page of the first application’ (e.g., child page 1.2) would be displayed on the first display of the device (e.g., which originally was displaying child page 1.2).

Id. at 73–74.

We have reviewed Patent Owner’s arguments and evidence for limitation [12.b] which are undisputed by Petitioner.

We find that Patent Owner has shown the EV-1 and EV-2 prototypes meet limitation [12.b].

For all the foregoing reasons, we find that the EV-1 and EV-2 prototypes meet all limitations of claim 12.

Claim 13

The method of claim 1, wherein the first display of the device is the left-hand display, while the device is in a dual-portrait mode, and wherein the second display of the device is the right hand display while the device is in the dual-portrait mode.

Patent Owner refers to its contentions for claim 1 and argues that “the prototypes could operate in dual screen portrait mode with the ‘first display’ being [the] left display of the device, and the ‘second display’ being the right display of the device.” PO Resp. 74 (citing Ex. 2001 ¶ 61). In particular, Patent Owner refers to its contentions for limitation [1.a] of “the ‘first display’ displaying the ‘first page’ of the application was the left display.” *Id.* at 74–75 (citing Ex. 2006, 79). Patent Owner additionally refers to its contentions for limitation [1.b] of “the ‘second display’ displaying the ‘second page’ of the application was the right hand display.” *Id.* at 75–76 (citing Ex. 2006, 79).

We have reviewed Patent Owner’s arguments and evidence for claim 13 which are undisputed by Petitioner.

We find that Patent Owner has shown the EV-1 and EV-2 prototypes meet the limitations of claim 13.

Claim 18

[18.pre] A non-transitory computer readable medium having stored thereon computer-executable instructions, the computer-executable instructions causing a processor to execute a method for selectively presenting an application across a display of a device, the computer-executable instructions comprising:

Patent Owner contends that the “prototypes both had processors and memories with computer-executable instructions stored thereon” including instructions that “governed the touch and gesture inputs of the devices, and implemented the Windows Position Control functionality.” PO Resp. 76–77. Patent Owner further contends that “the instructions caused the processors to impact the display of applications (including dual display applications) on the displays of the device.” *Id.* at 77 (citing Ex. 2002 ¶¶ 27–29, 74, 76–77; Ex. 2003 ¶¶ 12, 17, 20, 22, 25, 29, 31).

We have reviewed Patent Owner’s arguments and evidence for the preamble of claim 18 which are undisputed by Petitioner.

We find that Patent Owner has shown the EV-1 and EV-2 prototypes meet the subject matter of the preamble of claim 18.

[18.a] instructions to display a first page of a first application on a first display portion of the device;

Patent Owner argues that each of the displays of the EV-1 and EV-2 prototypes correspond to the recited “display portion of the device.” PO Resp. 77. Patent Owner refers to its contentions for limitations [1.a] and [1.b] that the “prototypes both permitted displaying two pages from a single application on the two different displays of the prototypes” and contends that “[t]he prototypes had instructions . . . to display a first page of a first application on a first display portion of the device.” *Id.* at 77–78. Patent Owner argues that as an example, “for the Browser application, the claimed ‘first page,’ is the Browser Content page . . . and the first display portion is the display on the right side of the device.” *Id.* at 78–79 (citing Ex. 2006, 79).

We have reviewed Patent Owner's arguments and evidence for limitation [18.a] which are undisputed by Petitioner.

We find that Patent Owner has shown the EV-1 and EV-2 prototypes meet limitation [18.a].

[18.b] instructions to display a second page of the first application on a second display portion of the device, wherein the first and second pages present different content and are distinct pages, and wherein the second page is a child of the first page;

Again referring to its contentions for limitations 1.a and 1.b, Patent Owner cites to substantially the same evidence and arguments as for limitation [18.a] to show that the prototypes meet limitation [18.b]. PO Resp. 82–83.

We have reviewed Patent Owner's arguments and evidence for limitation [18.b] which are undisputed by Petitioner.

We find that Patent Owner has shown the EV-1 and EV-2 prototypes meet limitation [18.b].

[18.c] in response to a first input received from a user to minimize the first application to one of the first and second display portions of the device, display the second page of the first application on one of the first and second display portions of the device and discontinue the display of the first page of the application.

Patent Owner contends that “the prototypes could receive a first input from a user to minimize the displayed dual screen application to one of the first and second display portions of the devices” and “upon receipt of the minimization input, the prototypes would display the ‘second’ (child) page of the application on one of the device's displays, and not display the ‘first’

(e.g., parent page) of the application.” PO Resp. 87 (citing Ex. 2012, 8, 21 (examples 2a, 2b)); *id.* at 88–89 (arguing that Browser application “would display the ‘second page’ (child page), and not the ‘first page’ if a modal was present.” (citing Ex. 2006, 53; Ex. 2012, 16; Ex. 2013, 44)).

We have reviewed Patent Owner’s arguments and evidence for limitation [18.c] which are undisputed by Petitioner.

We find that Patent Owner has shown the EV-1 and EV-2 prototypes meet limitation [18.c].

For all the foregoing reasons, we find that the EV-1 and EV-2 prototypes meet all limitations of claim 18.

Claim 19

[19] The computer readable medium of claim 18, wherein the device includes multiple displays, wherein the first display portion of the device includes a first display of the multiple displays, wherein the second display portion of the device includes a second display of the multiple displays, and wherein in response to one of the first input and a second input received from the user the second page of the first application is displayed on the first display of the device.

Patent Owner contends “as recited above for limitations 18[a] and 18[b], each of the EV-1 and EV-2 prototypes had two displays, and each of the first and second ‘display portions of the device’ includes a display of the device (e.g., the left display or right display)” and the prototypes “also embodied the requirement, that, in response to one of the first input and a second input received from the user, the second page of the first application is displayed on the first display of the device.” PO Resp. 90–91. Patent Owner also points to its contentions for limitation [18.c] and the Browser

application example wherein “upon receipt of a minimization input from the direction of the second page to the first page, the EV-1 and EV-2 prototypes would display the ‘second page’ (child page) on the first display of the device.” *Id.* at 91–92 (citing Ex. 2006, 53; Ex. 2012, 16, 20).

We have reviewed Patent Owner’s arguments and evidence for claim 19 which are undisputed by Petitioner.

We find that Patent Owner has shown the EV-1 and EV-2 prototypes meet the limitations of claim 19.

Claim 20

The computer readable medium of claim 19, wherein in response to an input received from the user to maximize the first application the first page of the first application is displayed on the first display of the device and the second page of the application is displayed on the second display of the device.

Patent Owner contends that “[t]he prototypes also satisfied the requirements of claim 20, because as recited above for Claim 10, the EV-1 and EV-2 prototypes could receive a maximization input after receiving a minimization input.” PO Resp. 93. Referring to “the example on page 21 of EX2012,” Patent Owner contends that “after receiving the minimization inputs of claims 18–19 (described at examples 2a and 2b), the . . . prototypes could receive a maximization input (e.g., as shown in example 1 of EX2012 at page 21).” *Id.* at 93. According to Patent Owner, the result is “page 1.2 of the application (the ‘first page’) is displayed on the left display of the device (‘the first display of the device’), and child page 1.3 of the application (the ‘second page’) is displayed on the right display of the device (‘the second display of the device’).” *Id.* at 94.

We have reviewed Patent Owner's arguments and evidence for claim 20 which are undisputed by Petitioner.

We find that Patent Owner has shown the EV-1 and EV-2 prototypes meet the limitations of claim 20.

9. Conclusion

Based on our analysis of the limitations of Challenged Claims 1, 4, 6, 9, 10, 12, 13, and 18–20, we find that the EV-1 and EV-2 prototypes reflected a reduction of the subject matter of these claims prior to February 10, 2011. Consequently, Petitioner has not shown that Seo is prior art to Challenged Claims 1, 4, 6, 9, 10, 12, 13, and 18–20.

Because Seo is the primary reference in all four of Petitioner's grounds of unpatentability, its challenges to claims 1, 4, 6, 9, 10, 12, 13, and 18–20 fail for each ground of unpatentability. Consequently, Petitioner has not shown by a preponderance of the evidence that claims 1, 4, 6, 9, 10, 12, 13, and 18–20 are unpatentable.

E. Ground 4: Obviousness of Independent Claim 14 over Seo and Yook

Petitioner contends that claim 14 is obvious over Seo²¹ and Yook. Pet. 58–71. Patent Owner contends that Petitioner fails to establish that the combination of Seo and Yook teaches limitation 14.m. PO Resp. 95.

We begin with brief summaries of Seo and Yook and then analyze the parties' respective contentions.

²¹ Pursuant to *Dynamic Drinkware* 800 F. 3d at 1382, Petitioner provides a claim chart mapping claim 1 to the Seo provisional application No. 61/441,491 in order to show that Seo qualifies as prior art under 35 U.S.C. § 102(e). Pet. 12–16.

1. Seo (Ex. 1005)

Seo is titled “Apparatus Including Multiple Touch Screens and Method of Changing Screens Therein.” Ex. 1005, code (54). Seo’s method displays a first screen in a first touch screen, displays a second screen in a second touch screen, detects multiple touches in the first touch screen, detects continuous movements of the multiple touches from the first touch screen to the second touch screen, and changes the second screen of the second touch screen in response to the continuous movements of the multiple touches. *Id.* at code (57).

Seo’s Figure 1 is reproduced below:

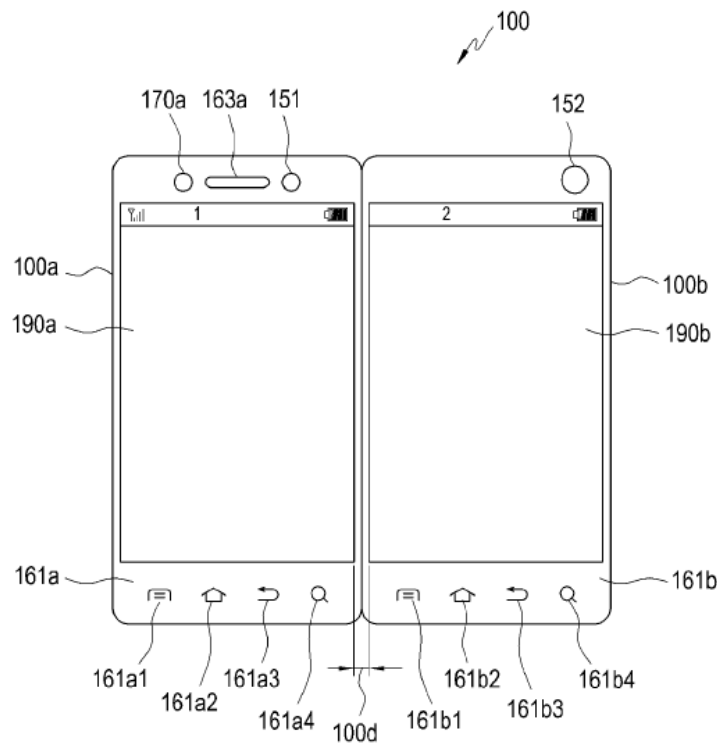


FIG. 1

Figure 1 illustrates an apparatus including multiple touch screens. Ex. 1005 ¶ 18.

Figure 8A of Seo is reproduced below:

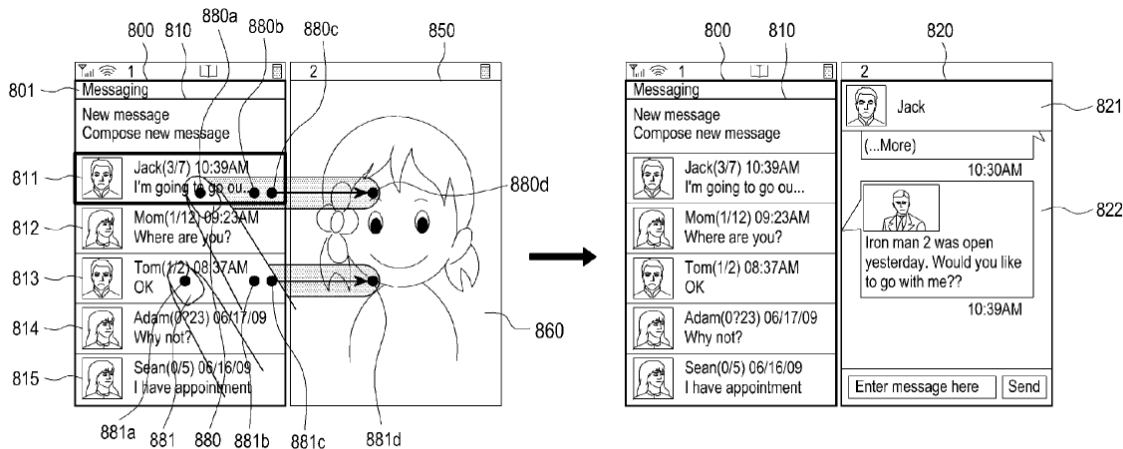


FIG.8A

Figure 8A of Seo illustrates screen images while changing screens of an apparatus including multiple touch screens (such as that shown in Figure 1). Ex. 1005 ¶¶ 25, 97.

Figure 8A illustrates first screen 800 in first touch screen 190a. *Id.* ¶ 99. First screen 800 includes a title bar 801 displaying a name of a messenger application and a friend list screen 810. *Id.* Each of the displayed friends 811 to 815 may include a name, a picture, a number of messages, a time of message receipt, and/or a part of a message. *Id.* Second screen 850 is displayed in second touch screen 190b, where second screen 850 includes a photo screen 860 that may display multiple photos. *Id.* ¶ 101. First screen 800 and second screen 850 are screens corresponding to separate applications executed in the apparatus 100. *Id.* ¶ 102.

Figure 8A further illustrates a user inputting multiple touches 880 and 881 in first touch screen 190a. Ex. 1005 ¶ 104. A controller of the device receives positions 880a and 881a, e.g., coordinates (x, y), on first screen 800 corresponding to the multiple touches 880 and 881, from touch screen controllers of the device. *Id.* ¶ 105. In Figure 8A, the positions on

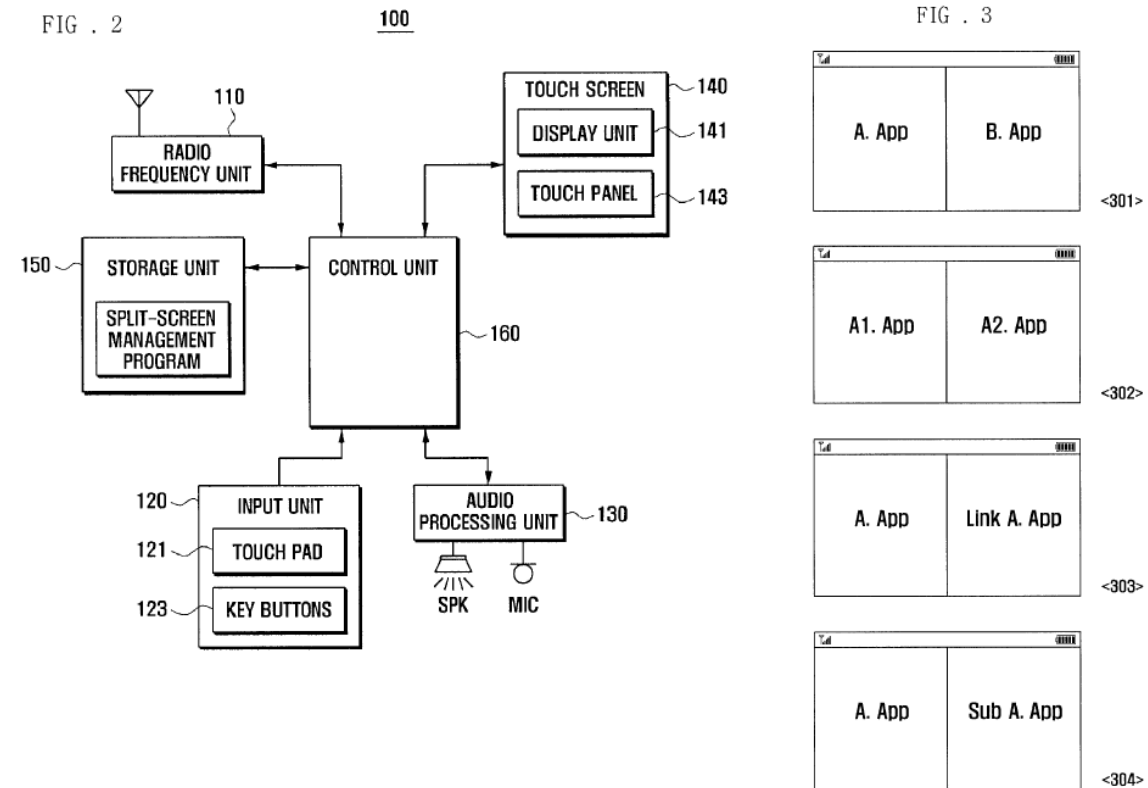
first screen 800 corresponding to the multiple touches 880 and 881 are in friend list screen 810. *Id.* ¶ 106. The friend corresponding to the position of touch 880 is identified and displayed. *Id.* Movements of the multiple touches in the first touch screen are then detected. *Id.* ¶ 107. In Figure 8A, the multiple touches 880 and 881 are drag & drop gestures or flick gestures in a direction of second touch screen 190*b*. *Id.* ¶ 108. Multiple touches 880 and 881 begin in first touch screen 190*a* and pass through space 100*d* between first touch screen 190*a* and second touch screen 190*b* to arrive at second touch screen 190*b*. *Id.* ¶¶ 111–112.

As a result of multiple touches 880 and 881, a second screen of the second touch screen is changed. Ex. 1005 ¶ 124. More particularly, as shown in Figure 8A, the device's controller changes a second screen 850 to a third screen 820 in response to the arrivals of multiple touches 880 and 881 at positions 880*c* and 881*c* in second touch screen 190*b*. *Id.* ¶ 125. The third screen 820 corresponds to the first screen 800. *Id.* For example, third screen 820 is a detailed screen of friend 811 displayed in friend list screen 810. *Id.* Third screen 820 includes a name region 821 for displaying a photo of a friend and a message region 822 for displaying a time of receipt/transmission of a message from/to a friend, and contents 823 of the received/transmitted message. *Id.*

2. *Yook* (Ex. 1007)

Yook is titled “Method of Dividing Screen Areas and Mobile Terminal Employing the Same.” Ex. 1007, code (54). *Yook* relates to “a method and mobile terminal that can divide the screen into individual divided screen areas and simultaneously present user functions on the individual divided screen areas.” *Id.* ¶ 3. *Yook*'s Figures 2 and 3,

reproduced below, illustrate a mobile terminal and user functions applied on a plurality of divided screen areas of the mobile terminal. *Id.* ¶¶ 12–13, 25.



Figures 2 and 3 illustrate a mobile terminal and user functions applied on a plurality of divided screen areas of the mobile terminal. Ex. 1007 ¶¶ 12–13, 25.

As shown in Yook's Figure 2, mobile terminal 100 includes a radio frequency unit 110, an input unit 120, an audio processing unit 130, a touch screen 140, a storage unit 150, and a control unit 160. Ex. 1007 ¶ 25.

Mobile terminal 100 may activate a screen area management program stored in storage unit 150 in response to a user request, divide the screen into divided screen areas as necessary, and output functional view areas related to activated user functions on the individual divided screen areas. *Id.* ¶ 26. Mobile terminal 100 supports information exchange between the functional view areas and performs subsequent operations using the exchanged

information. *Id.* For example, as shown in Figure 3, when a first user function and a second user function, which are independent of each other, are activated at one of the same time and in sequence (as illustrated in screen 301), control unit 160 controls display unit 141 to divide the screen into two areas and cause a functional view area A.App for the first user function to be displayed on one area and cause a functional view area B.App for the second user function to be displayed on the other area. *Id.* ¶ 38. Functional view area A.App and the functional view area B.App may include an image and a text string depending upon the first and second user functions. *Id.* For example, if the first user function is related to music playback, the functional view area A.App can include a control key map for controlling music playback and an image depicting the music file being played back. *Id.* If the second user function is related to message composition, the functional view area B.App can include a key map and a message composition view area for composing a message. *Id.*

Figures 4A–4D of Yook, reproduced below, illustrate splitting and merging of screens. Ex. 1007 ¶ 14.

FIG . 4a

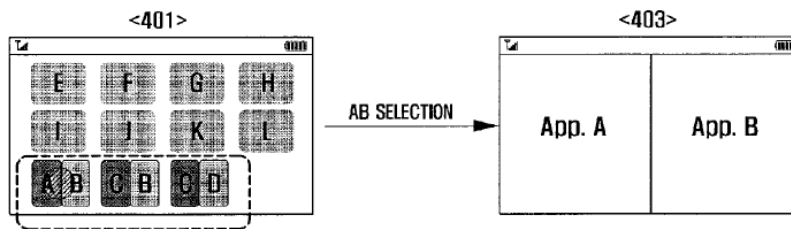


FIG . 4b

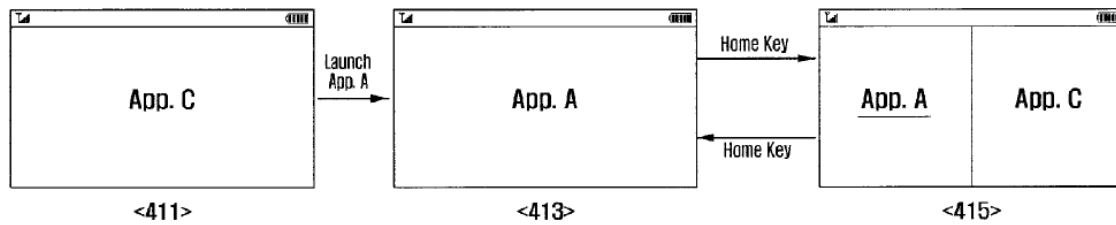


FIG . 4c

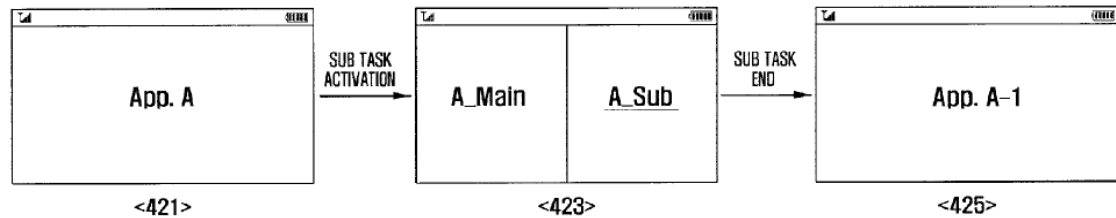
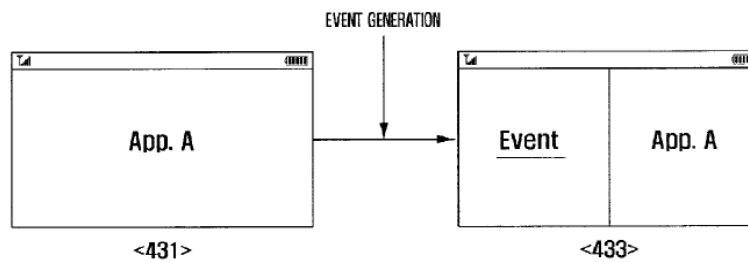


FIG . 4d



Figures 4A–4D of Yook illustrate splitting and merging of screens.

Ex. 1007 ¶ 14.

As shown in Figure 4A, the user of a mobile terminal 100 generates an input signal to display a plurality of menu items and widget items.

Ex. 1007 ¶ 44. When the user selects a dual menu item “AB” in screen 401, the mobile terminal 100 activates application programs related to the menu items A and B, displays a functional view area App.A as to the application program related to the menu item A on a divided screen area, and displays a functional view area App.B as to the application program related to the menu item B on the other divided screen area, as illustrated in screen 403.

Id. ¶ 45. As shown in Figure 4B, mobile terminal 100 can provide simultaneous presentation of two pieces of data related by an event history.

Id. ¶ 47. For example, when the user generates an input signal corresponding to one of a particular key and a touch event like the ‘Home’ key in screen 413, mobile terminal 100 can simultaneously output two functional view areas App.C and App.A to display unit 141 as illustrated in screen 415, where the functional view area App.C is related by an event history to the functional view area App.A. *Id.*

As shown in Figure 4D, when the user of mobile terminal 100 generates an input signal for activating a function ‘A’, mobile terminal 100 displays a functional view area App.A as to the function ‘A’ on display unit 141, as illustrated in screen 431. Ex. 1007 ¶ 51. Thereafter, when an event corresponding to one of a schedule and a condition is generated, mobile terminal 100 can activate an application program for handling the event and output a functional view area as to the event handling application program to display unit 141. *Id.* In particular, as illustrated in screen 433, mobile terminal 100 can display the functional view area App.A as to the function ‘A’ on one divided screen area through resizing, and display a

functional view area Event as to the event handling application program on the other divided screen area. *Id.*

3. *Motivation to Combine*

Petitioner contends that “Seo discloses a device 100 including touch screens 190a and 190b” and that “[t]hrough touch inputs, the user can change the information displayed on the dual touch screens.” Pet. 49 (citing Ex. 1002 ¶ 84; Ex. 1005, ¶¶ 97–176, Figs. 1, 5–9B; Ex. 1006, 6–73).

Petitioner next contends that the Seo provisional provides a software flowchart “showing how touch inputs are detected and processed to change the displays.” *Id.* at 50 (citing Ex. 1006, 37). Petitioner further contends that “[m]uch of this is carried over to Seo (and all it expressly incorporates by reference into Seo . . . which similarly describes an algorithm for changing the screens of the touch screen displays in response to user inputs on the touch screens” and “adds more details regarding the hardware that controls the algorithm.” *Id.* at 51–52 (citing Ex. 1002 ¶ 82; Ex. 1005 ¶¶ 1, 97–140, Figs. 5, 8A, 8B).

Petitioner next contends that Seo discloses “central Processing Unit (CPU) 11” connected to “a Read Only Memory (ROM) 112 that stores a control program for controlling the apparatus 100,” storage unit 175 for “‘stor[ing] a control program for controlling the apparatus 100’ including ‘data input/output in response to the operation of . . . the first touch screen 190a and the second touch screen 190b.’” Pet. 52 (citing Ex. 1005 ¶¶ 55, 80, Figs. 3, 4). According to Petitioner, “Seo’s implementation of the software and method described in both Seo and the Seo provisional using conventional hardware including a processor and memory confirms that a

POSITA would have found such an implementation obvious.” *Id.* (citing Ex. 1002 ¶ 86).

Petitioner next contends that “Yook relates to ‘dividing a screen into divided screen areas that correspond to activated user functions; and outputting functional view areas associated with the activated user functions to the corresponding divided screen areas.’” Pet. 52–53 (citing Ex. 1002 ¶ 87; Ex. 1007, Abstr.). Petitioner further contends that “Yook discloses a portable computer system providing divided screen areas to simultaneously present application content/images and user functions on respective displays” and “can selectively display application functional areas on separate displays on the device.” *Id.* at 53 (citing Ex. 1007 ¶¶ 6–9, 24–26, 30–36, 38–42, 43–57, Abstr., Figs. 1–4). According to Petitioner, Yook’s “features allow the portable computer device to enable a user to simultaneously view different applications on the device’s screen and allow efficient interaction with a respective active application and between applications.” *Id.* (citing Ex. 1002 ¶ 88).

Petitioner next contends that the similarity of Seo and Yook would have provided an ordinarily skilled artisan with “reasons to consider combining their teachings, and implementing Seo’s systems and methods using the generic hardware components disclosed by Yook including the processor, memory, and software stored on the memory for controlling a touch screen display in response to user input.” Pet. 57 (citing Ex. 1002 ¶ 91). According to Petitioner, an ordinarily skilled artisan “would have been motivated to look to Yook and incorporate its teachings in Seo at least because Seo lacks pertinent details (e.g., the internal hardware components) that would have been needed to implement the disclosed methods and Yook

provides those components for a similar device with similar functionality.”
Id.

Petitioner next contends that “the Seo-Yook combination would have been a routine and conventional implementation of known methods using known hardware components performing their known functions, well within a POSITA’s skills and ability to accomplish” and the “POSITA would have had a reasonable expectation of success.” Pet. 58 (citing Ex. 1002 ¶ 92). According to Petitioner, Seo, modified with Yook, would have been configured to perform the same methods “disclosed by Seo in the same way, using a processor configured to execute instructions stored on software in a memory with instructions for implementing the methods as disclosed by Yook, where the processor upon executing such software instructions would change” Seo’s touch screen displays. *Id.* (citing Ex. 1002 ¶ 92).

Patent Owner does not address Petitioner’s reasons to combine. PO Resp. 95–99.

4. *Claim 14*

[14.pre] A device comprising:

Petitioner contends that the combination of Seo and Yook teaches the subject matter of the preamble. Pet. 58 (citing Ex. 1002 ¶ 93). Petitioner specifically contends that Seo discloses apparatus 100 “depicted as a mobile computing device having two touch screens 190a and 190b” and “when combined with the teachings of Yook, the Seo-Yook device comprises a memory, processor, and application programming . . . for performing the same methods as Seo discloses.” *Id.* at 58–59 (citing Ex. 1002 ¶ 93; Ex. 1005, Figs. 1, 8A, 8B; Ex. 1006. 34. 38).

Patent Owner does not address Petitioner’s contentions for the preamble. PO Resp. 95–99.

We have reviewed Petitioner’s evidence and argument and find that the combination of Seo and Yook discloses the subject matter of the preamble.

[14.a] a first display including:

[14.b] a touch display, wherein the touch display is located within a first area of the first display;

[14.c] a gesture capture region, wherein the gestures capture region is located within a second area of the first display;

Petitioner contends that “Seo discloses and/or suggests these limitations.” Pet. 59 (citing Ex. 1002 ¶¶ 94–96). Petitioner contends that Seo’s right-side touch screen 190b corresponds to the recited “a first display, including a touch display” and considering that it is a touch screen display, an ordinarily skilled artisan “would have understood that the entire area of the right-side touch screen 190b is ‘a touch display’ and thus ‘located within a first area of the first display.’” *Id.* (citing Ex. 1002 ¶ 94; Ex. 1005, Fig. 8B; Ex. 1006, 34).

Petitioner next contends that Seo’s “multiple touch gesture input 882/883 is received by the device starting in touchscreen 190b . . . and thus Seo’s ‘first display’ necessarily contains a ‘gesture-capture region [that] is located within a second area of the first display’ because gesture inputs on the first display are received by Seo’s device.” Pet. 59 (citing Ex. 1002 ¶ 95; Ex. 1005, Fig. 8B; Ex. 1006, 34, 38). According to Petitioner, an ordinarily skilled artisan “would have understood that the multiple touch input 882/883

is a two-finger gesture . . . as illustrated in figure 8B.” *Id.* at 59–60 (citing Ex. 1005, Fig. 8B; Ex. 1006, 34, 38).²²

Patent Owner does not address Petitioner’s contentions for these limitations. PO Resp. 95–99.

We have reviewed Petitioner’s evidence and argument and find that the combination of Seo and Yook teaches limitations 14.a, 14.b, and 14.c.

[14.d] a second display including;

[14.e] a second touch display, wherein the second touch display is located within a first area of the second display;

[14.f] a second gesture capture region, wherein the second gesture capture region is located within a second area of the second display

Petitioner contends the “Seo discloses and/or suggests these limitations.” Pet. 60 (citing Ex. 1002 ¶¶ 97–98). Petitioner next contends that Seo’s left-side touch screen 190a corresponds to the recited “a second display, including a touch display” and considering that it is a touch screen display, an ordinarily skilled artisan “would have understood that the entire area of the right-side touch screen 190a is ‘a touch display’ and thus ‘located within a second area of the second display.’” *Id.* (citing Ex. 1002 ¶ 97; Ex. 1005, Fig. 8B; Ex. 1006, 34).

Petitioner next contends that Seo’s “multiple touch gesture input 882/883 is received by the device starting in touchscreen 190b . . . continues into and is also received by touch screen 190a” and “Seo’s ‘second display’ necessarily contains a ‘gesture-capture region [that] is located within a

²² Relying on claim differentiation principles, Petitioner argues that “[c]laim 14 does not require the ‘first area’ to be separate from the ‘second area.’” Pet. 60.

second area of the second display’ because gesture inputs on the second display are received by Seo’s device.” Pet. 61 (citing Ex. 1002 ¶ 98; Ex. 1005, Fig. 8B; Ex. 1006, 34, 38).

Patent Owner does not address Petitioner’s contentions for these limitations. PO Resp. 95–99.

We have reviewed Petitioner’s evidence and argument and find that the combination of Seo and Yook teaches limitations 14.d, 14.e, and 14.f.

[14.g] memory

Petitioner contends that the combination of Seo and Yook teaches this limitation. Pet. 61 (citing Ex. 1002 ¶¶ 99–103). Petitioner specifically contends that Yook’s “storage unit 150” corresponds to the recited “memory” allowing the device to “activate a screen area management program stored in the storage unit 150 in response to a user request . . . [to] output functional view areas related to activated user functions on the individual divided screen areas.” *Id.* at 62 (citing Ex. 1002 ¶ 100; Ex. 1007 ¶¶ 25, 26, 34); *id.* at 63–64 (“Yook discloses a memory to store software for executing methods for managing multiple touch-screen display areas.”) (citing Ex. 1002 ¶ 101; Ex. 1007 ¶ 117, Fig. 2); *id.* at 64 (repeating motivation to combine contentions).

Patent Owner does not address Petitioner’s contentions for this limitation. PO Resp. 95–99.

We have reviewed Petitioner’s evidence and argument and find that the combination of Seo and Yook teaches limitation 14.g.

[14.h] a processor in communication with the first display, second display, and memory;

Petitioner contends that the combination of Seo and Yook teaches this limitation. Pet. 65 (citing Ex. 1002 ¶¶ 104–107). Petitioner contends that “[t]he Seo Provisional discloses a software touch input analyzer that receives input from the touch sensor on Seo’s touch screens to manage the screen modes and UI” and that Seo “discloses a ROM 112 and storage unit 175 connected to a controller 110 with CPU 111 that receives inputs for touch screens 190a and 190b . . . to manage the screen modes and UI.” *Id.* (citing Ex. 1005 ¶¶ 53, 55, 56, 128; Ex. 1006, 37).²³

Patent Owner does not address Petitioner’s contentions for this limitation. PO Resp. 95–99.

We have reviewed Petitioner’s evidence and argument and find that the combination of Seo and Yook teaches limitation 14.h.

[14.i] application programming stored in the memory and executed by the processor, wherein the application program is operable to:

Petitioner contends that the combination of Seo and Yook teaches this limitation. Pet. 68 (citing Ex. 1002 ¶ 108).

Petitioner refers to its contentions for limitations 14.g, 14.h, and for motivation to combine and contends that an ordinarily skilled artisan would have been motivated “to implement Seo’s method as software (‘application programming’) stored in Seo-Yook system’s memory and executed by its

²³ Petitioner alternatively argues that “[t]o the extent that Seo does not expressly disclose a processor in communication with the first display, second display and memory those features would have been obvious in view of Yook.” Pet. 65–68. In the absence of any dispute by Patent Owner, it is not necessary for us to reach this alternative theory.

processor to perform the methods disclosed by Seo for presenting application and pages on Seo's touch screen." Pet. 68 (citing Ex. 1002 ¶ 108).

Patent Owner does not address Petitioner's contentions for this limitation. PO Resp. 95–99.

We have reviewed Petitioner's evidence and argument and find that Seo teaches limitation 14.i.

[14.j] present a first page of a first application in a first portion of the first display;

Petitioner contends that the combination of Seo and Yook teaches this limitation for the same reasons stated for limitation 1.a. Pet. 69 (citing Ex. 1002 ¶ 109). Petitioner argues that "[a]lthough claim 1 recites 'on a first display,' whereas element 14[j] recites 'in a first portion of the first display,' this distinction does not change the analysis of Seo" because "[t]he '494 patent explains that '[t]he term 'display' refers to a portion of one or more screens' . . . and thus a portion of a display can similarly be a portion of one or more screens." *Id.* at 70 (citing Ex. 1001, 4:22–23; Ex. 1002 ¶ 109).

Patent Owner does not address Petitioner's contentions for this limitation. PO Resp. 95–99.

We have reviewed Petitioner's evidence and argument and find that the combination of Seo and Yook teaches limitation 14.j.

[14.k] present a second page of the first application in a second portion of the second display, wherein the first and second pages present different content and are distinct pages, and wherein the second page is a child of the first page;

Petitioner contends that the combination of Seo and Yook teaches this limitation for the same reasons stated for limitations 1.b and 1.c. Pet. 70 (citing Ex. 1002 ¶ 110).

Patent Owner does not address Petitioner's contentions for this limitation. PO Resp. 95–99.

We have reviewed Petitioner's evidence and argument and find that the combination of Seo and Yook teaches limitation 14.k.

[14.l] receive input entered by a user in the gesture capture region;

Petitioner contends that the combination of Seo and Yook teaches this limitation. Pet. 70 (citing Ex. 1002 ¶ 111). Petitioner relies on its contentions for limitation 1.d. *Id.*

Patent Owner does not address Petitioner's contentions for this limitation. PO Resp. 95–99.

We have reviewed Petitioner's evidence and argument and find that Seo teaches limitation 14.l.

[14.m] in response to a first input entered by the user to minimize the first application to one of the first and second portions of the display, present the second page of the first application in one of the first and second portions of the display and discontinue the presentation of the first page of the application.

Petitioner contends that the combination of Seo and Yook teaches this limitation for the same reasons stated for limitation 1.d. Pet. 91 (citing Ex. 1002 ¶ 112).

Patent Owner contends that Petitioner has not shown that “in response to a first input to minimize the application, the child page of the application is displayed and the presentation of the parent page is discontinued.” PO

Resp. 95. Patent Owner argues that Petitioner's reliance on its contentions for limitation 1.d is not sufficient because "for claim 1, in response to the minimization input, the parent page is displayed and the child page is discontinued." *Id.* at 96. Patent Owner further argues that "Petitioner relies upon Seo's disclosure that 'main messaging screen 800' remains on the screen and display of 'messaging screen 820' is discontinued. But, according to Petitioner, 'a POSITA would have recognized messaging screen 820 as 'a child of the primary page' . . . 800.'" *Id.* at 97–98 (citing Pet. 29). According to Patent Owner, "this functionality of Seo of discontinuing the display of the child page 820 . . . is the opposite of the minimization functions" recited in claim 14. *Id.* at 98.

Petitioner, in turn, argues that Patent Owner "does not dispute that it would have been obvious in view of Seo to discontinue the display of a first page of an application in response to a user input to minimize the first application as the Petition demonstrates." Pet. Reply 25. Petitioner further argues that the "child" identifier in the claims "is not . . . material to the Petition's analysis" and [b]eyond identifying which page's display is discontinued following a user input, the claims do not recite any functionality related to the 'child' designation." *Id.* at 26 (citing Ex. 1001, 51:32–54:32). According to Petitioner, "[t]he Petition demonstrates it would have been obvious in view of Seo to discontinue displaying the first page of the application in response to a user input, and that applies regardless of whether the first page is designated as a 'child.'" *Id.* (citing Pet. 29–31).

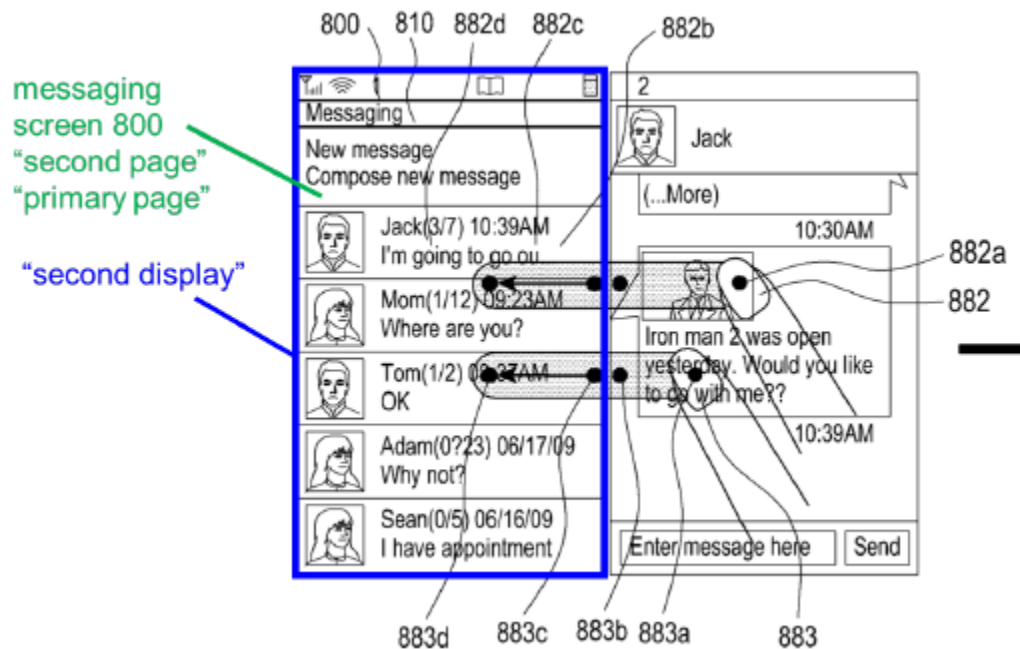
In the Sur-reply, Patent Owner argues that Petitioner does not dispute "that the Petition's only argument for obviousness of the minimization function recited in limitation[] 14[m] . . . is a simple recitation back to

limitation 1[d]” and “[n]or do Petitioners dispute that, in terms of which page is required to be minimized as a result of a minimization input, limitation 1[d] requires the opposite of limitation[] 14[m].” Sur-reply 24. Patent Owner further argues that “Petitioners have not explained why it would be obvious in view of Seo’s disclosure of minimizing the child page after receiving a minimization input to instead minimize a parent page after receiving a minimization input.” *Id.* at 25. Patent Owner further argues that “Petitioners only resort to an improper burden flipping argument in asserting that PO did not dispute it would have been obvious in view of Seo to discontinue display of the parent page after receipt of a minimization input.” *Id.*

For the following reasons, we determine that the Petition does not establish that Seo teaches limitation 14.m.

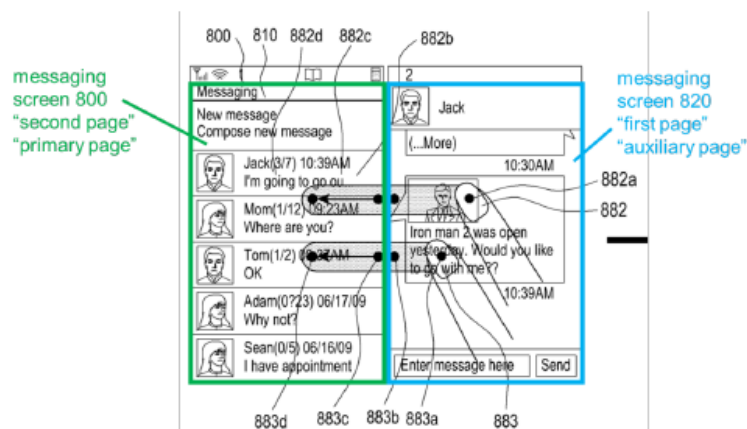
First, for limitation 14.m, the Petition relies solely on the Petition’s contentions for limitation 1.d. Pet. 71. Further, Dr. Chatterjee’s testimony concerning limitation 14.m essentially repeats the arguments in the Petition by referring back to limitation 1.d without any further analysis, citations to evidence, or explanation of why it would have been obvious to modify the disclosure of Seo relied on for limitation 1.d in the Petition to discontinue the presentation of the child page as required by claim 14. Ex. 1002 ¶ 112.

For limitation 1.b, which recites “wherein the second page is a primary page” (Ex. 1001, 51:37–38), Petitioner provides the following annotated version of Seo’s Figure 8B:



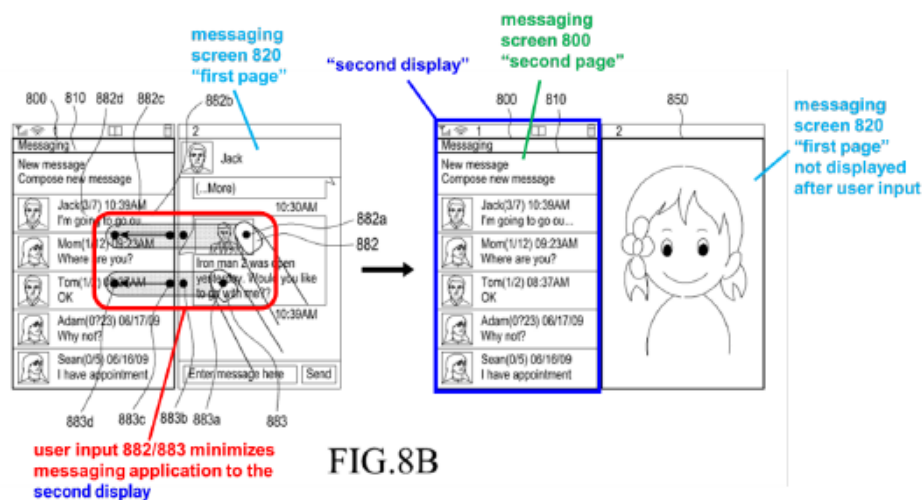
Pet. 25. Figure 8B is a “screen image[] illustrating a method of changing screens of an apparatus including multiple touch screens.” Ex. 1005 ¶ 25. Petitioner identifies the left messaging screen 800 as “second page” and “primary page.” Pet. 25.

For limitation 1.c, which recites “wherein the first and second pages present different content and are distinct pages, and wherein the auxiliary page is a child of the primary page” (Ex. 1001, 51:38–40), Petitioner provides the following annotated version of Seo’s Figure 8B:



Pet. 27. Figure 8B is a “screen image[] illustrating a method of changing screens of an apparatus including multiple touch screens.” Ex. 1005 ¶ 25. Petitioner annotates Figure 8B by identifying the left messaging screen 800 as the “second page” and “primary page” and the right message screen 820 as the “first page” and “auxiliary page.” Pet. 27. Petitioner then argues that an ordinarily skilled artisan “would have recognized messaging screen 820 as ‘a child of the primary page’ 900.” *Id.* at 29 (citing Ex. 1002 ¶ 59).

For limitation 1.d, Petitioner provides the following additional annotated version of Seo’s Figure 8B:



Pet. 30. Figure 8B is a “screen image[] illustrating a method of changing screens of an apparatus including multiple touch screens.” Ex. 1005 ¶ 25. In this annotated version of Figure 8B, Petitioner identifies the right messaging screen, the “child page,” as “first page not displayed after user input.” Pet. 30.

For limitation 14.k, which recites “wherein the second page is a child of the first page,” Petitioner relies on its contentions for limitations 1.b and 1.c. Pet. 70 (citing Ex. 1002 ¶ 110). Further, Dr. Chatterjee’s testimony concerning limitation 14.k essentially repeats the arguments in the Petition

without any further analysis or citations to evidence. Ex. 1002 ¶ 110. Consequently, Petitioner maps the “child page” of limitation 14.k to the same right side messaging screen 820 as it did for claim 1.

Petitioner’s contentions for limitations 14.k and 14.m rely on the same disclosure as it relies on for claim limitations 1.b, 1.c, and 1.d., i.e., the “child page” is the first page and the presentation of the child page is discontinued. Claim 14 requires that the “presentation of the first page is discontinued” but, based on Petitioner’s mapping of claim 14 to Seo, the first page is a parent page. Consequently, the disclosure of Seo relied on by Petitioner does not satisfy claim 14. Further, Petitioner does not argue or provide evidence that would support a finding that an ordinarily skilled artisan would have found it obvious to modify Seo to teach the requirements of limitation 14.m such that the presentation of the child page is discontinued. Pet. 71; Ex. 1002 ¶ 112.

For all the foregoing reasons, we determine that Petitioner has not shown by a preponderance of the evidence that claim 14 is obvious over Seo and Yook.

III. PETITIONER’S MOTION TO EXCLUDE

Petitioner moves to exclude Exhibits 2034–2038, paragraphs 38 and 82 of Exhibit 2001, paragraphs 30–35 and 40–48 of Exhibit 2002, and the portions of paragraphs 49, 64, 65, and 69 that cite to Exhibits 2034–2038. MTE, 1. We dismiss the MTE as moot because we do not rely on any of this evidence in this Decision.

IV. CONCLUSION

Weighing the competing evidence and testimony, we determine that Petitioner fails to establish by a preponderance of the evidence that the Challenged Claims of the '494 patent are unpatentable.

In summary:

Claim(s)	35 U.S.C. §	Reference(s)/ Basis	Claim(s) Shown Unpatentable	Claim(s) Not Shown Unpatentable
1, 2, 4, 6, 10, 12	102	Seo		1, 2, 4, 6, 10, 12
1, 2, 4, 6, 10, 12, 13	103	Seo		1, 2, 4, 6, 10, 12, 13
14, 18–20	103	Seo, Yook		14, 18–20
9	103	Seo, Choi		9
Overall Outcome				1, 2, 4, 6, 9, 10, 12–14, 18–20

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 1, 2, 4, 6, 9, 10, 12–14, and 18–20 of the '494 patent have not been shown by a preponderance of the evidence to be unpatentable;

FURTHER ORDERED that Petitioner's Motion to Exclude (Paper 37) is dismissed as moot; and

FURTHER ORDERED that any party seeking judicial review must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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