

UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC and MOTOROLA MOBILITY LLC,
Petitioners,

v.

MULTIFOLD INTERNATIONAL INCORPORATED PTE. LTD.,
Patent Owner.

Case IPR2025-00059

U.S. Patent 9,141,135

PATENT OWNER'S PRELIMINARY RESPONSE

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EXHIBIT LIST	
2001	Definition of “Selective” from the Cambridge English Dictionary archived by the Wayback Machine, retrieved from https://web.archive.or/web/20150910032841/http://dictionary.cambridge.org/us/dictionary/english/selective

I. INTRODUCTION

Challenged claims 1-3, 5-9, 15, 16, 19, and 20 of U.S. Patent 9,141,135 (the “135 Patent”) are directed to methods of displaying at least two desktops and/or applications on a multi-display device having at least two displays. The method selects a first desktop or application to display on a first display, selects a second desktop or application to display on a second display, and configures a displayed annunciator window to extend across a portion of the first display and a portion of the second display. The display of the annunciator window is modified in response to a changed state of at least one of a device status, a connectivity status, and a messaging status, and the modified window displays information selectively.

The Petition fails to demonstrate that the prior art suggests multiple claim steps. For example, neither Yook nor Lee suggests that a processor “select[s] a first desktop or application to display on the first display” after an instruction “to reveal one of a first desktop or application on the first display” or “select[s] a second desktop or application to display on the second display” after an instruction “to reveal one of a second desktop or application on the second display.” Furthermore, neither Yook nor Lee suggests an “annunciator window [that] displays information selectively across the annunciator window.” Therefore, institution must be denied.

II. BACKGROUND

A. The '135 Patent

The '135 Patent is titled “Full-screen Annunciator” and describes an exemplary “device and methods for revealing a combination of desktops on single and multiple screens.” Ex.1001, abstract. Fig. 1 shows an exemplary dual-screen device that includes a primary screen 104 comprising a display 110 and a secondary screen 108 comprising a display 114:

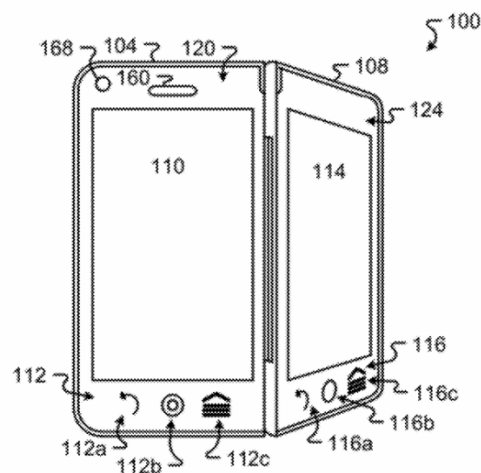


FIG. 1A

“Selected desktops and/or running applications are displayed on dual screen displays.” Ex.1001, abstract. For example, a first desktop or application may be displayed on a primary display, and a second desktop or application may be displayed on a secondary display, as shown in Fig. 10:

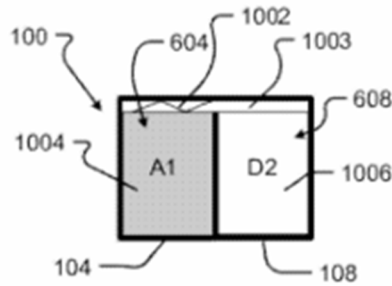


FIG. 10A

Ex.1001, 31:16-23. The user provides gestures and, based on the context of the gesture, the device may select a desktop or application to display on the first display (Ex.1001, 17:48-67), select a desktop or application to display on the second display (*id.*), maximize a desktop or application on both displays (Ex.1001, 31:43-53), or minimize an application displayed on both displays onto only the primary or secondary display (Ex.1001, 31:60-67). Thus, the dual-screen device presents “a user with an intuitive ability to manage multiple applications/desktops running simultaneously.” Ex.1001, abstract.

Traditionally, dual display devices display messages, alerts, and other annunciations on a single screen. Ex.1001, 1:59-62. But a single screen annunciation window is not always a user-friendly format. Ex.1001, 1:62-2:2. Thus, the '135 Patent proposes an “annunciator display or window is provided that spans across both the primary and secondary screens.” Ex. 1001, 2:3-17. The '135 Patent describes benefits made possible by certain embodiments of the annunciator

window. For example, “[b]ecause of the increase in size of the annunciator window, annunciations are better displayed. Further, messages or alerts received through the annunciator window do not have to be abbreviated, as the expanded annunciator window acts as one continuous display surface across both of the primary and secondary screens. This improved annunciation capability does not sacrifice the overall display capability of the primary and secondary screens, since the annunciator window can be conveniently located along a selected edge of the primary and secondary screens, such as the upper or lower portions which typically do not have critical application or desktop information displayed in these areas.”

Id. In an embodiment, “it is also contemplated that a longer alert or message having greater text or data content can span across the entire annunciator window 1100, thereby temporarily masking or covering the other icons for a period of time until the alert or message is cleared by the user.” Ex.1001, 26:45-50.

B. The Alleged Prior Art

The Petition asserts the following four grounds of invalidity:

- Obviousness of claims 1, 5-6, 9, 15, and 20 in view of U.S. Pub. 2010/0248788 (“Yook”)
- Obviousness of claims 2-3, 7-8, and 19 in view of Yook and U.S. Patent 7,996,045 (“Bauer”)

- Obviousness of claims 1, 5-6, 9, 15, and 20 in view of Yook and U.S. Patent 8,265,705 (“Lee”)
- Obviousness of claims 2-3, 7-8, 16, and 19 in view of Yook, Lee, and Bauer

The Petition exclusively relies on the teachings of Yook for the limitations of independent claims 1 and 6 at issue in this preliminary response. Therefore, for the purposes of this preliminary response, Patent Owner focuses on the alleged teachings of Yook.

1. Yook

Yook is a patent application titled “Method of Dividing Screen Areas and Mobile Terminal Employing the Same” and discloses a device with a touch screen that can be divided into multiple areas. Ex.1005, abstract.

As shown in Figs. 1 and 3, Yook’s exemplary device has touch screen 140 which may be divided into two areas labeled “A” and “B” in Fig. 3:

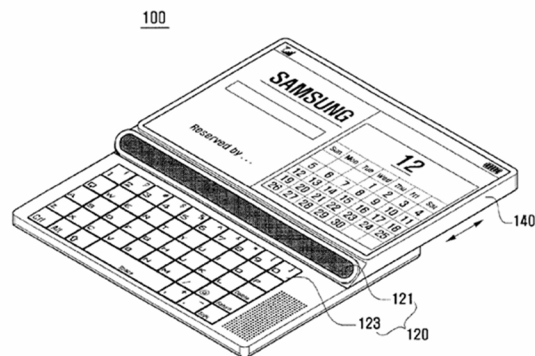
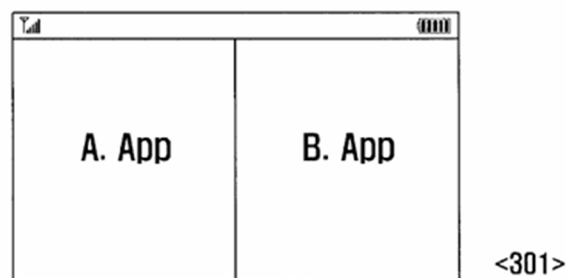


FIG . 3



Yook's Fig. 3 shows a bar at the top of touch screen 140 that spans across the entire screen. But Yook does not disclose whether or how the icons on the bar are selected for display.

Yook's Fig. 4. shows functions that may be performed by the divided areas. For example, Fig. 4A shows the division of touch screen 140 into two areas A and B. Ex.1005, [0044]. Fig. 4B shows that function A may be displayed on the entirety of touch screen 140, that function C may be displayed on the entirety of touch screen 140, or that touch screen 140 may be divided into two areas, with

function A displayed in one area and function C displayed in the other area.

Ex.1005, [0046].

III. CLAIM CONSTRUCTION

The Petition states that “the Board need not construe any terms of the challenged claims to resolve the underlying controversy, as any reasonable construction reads on the prior art.” Pet., 11. Patent Owner disagrees. For the reasons discussed below, the term “displays information selectively” should be construed to require “display[ing] information in a way that involves intentionally choosing some information to display and not others,” which is in accordance with the term’s plain and ordinary meaning. As such, none of the prior art suggests “display[ing] information selectively.”

For the purposes of this preliminary response, Patent Owner interprets all other terms under their plain and ordinary meaning as understood by a POSITA. Patent Owner reserves the right to expressly construe other terms of the ’135 Patent should the Board institute review.

A. “Displays information selectively”

“Displays information selectively” as recited by the independent claims means “displays information in a way that involves intentionally choosing some information to display and not others.” This construction is supported by both the

plain and ordinary meaning of the word “selectively” at the time of invention and the specification.

For example, the Cambridge English Dictionary defines “selective” as “intentionally choosing certain things or people, and not others.” Ex.2001. Thus, “selectively displaying information” must intentionally display some information, and not other information.

This is also how the specification describes the invention. For example, col. 26 ln. 45-50 discloses an annunciator window that prominently displays some information and gives examples of how not to display other information:

[I]t is also contemplated that a longer alert or message having greater text or data content can span across the entire annunciator window 1100, thereby temporarily masking or covering the other icons for a period of time until the alert or message is cleared by the user.

Ex.1001, 26:45-50 (providing “masking or covering” as examples of how information is not displayed). Thus, when the specification discloses that the annunciator window “displays information selectively,” it discloses that the annunciator window intentionally displays some information while not displaying other information.

The Board should therefore adopt Patent Owner's proposed construction of "displays information selectively" because it is consistent with both the intrinsic and extrinsic evidence.

IV. PERSON OF ORDINARY SKILL

The Petition submits that a "person of ordinary skill in the art at the time of the alleged invention of the '135 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. More education can supplement practical experience and vice versa." Pet., 5-6. Patent Owner applies this definition of a POSITA for the purposes of this preliminary response but expressly reserves the right to urge a different definition of a POSITA and support such definition with evidence including expert testimony.

V. CLAIMS 1-3, 5-9, 15, 16, 19, and 20 ARE NOT ANTICIPATED BY OR OBVIOUS IN VIEW OF PETITIONERS' PRIOR ART

- A. Yook alone or in combination with any other reference does not suggest a processor “select[s] the first desktop or application to display on the first display” after an instruction “to reveal one of a first desktop or application on the first display” or “select[s] the second desktop or application to display on the second display” after an instruction “to reveal one of a second desktop or application on the second display” (All Grounds)**

Independent claim 1 requires that “a *processor*” “select[s] the first desktop or application to display on the first display” and the processor “select[s] the second desktop or application to display on the second display.” In addition, the claim explicitly recites that the first selection step occurs after the step of “receiving[] a first input that represents an instruction to reveal one of a first desktop or application on the first display” and the second selection step occurs after the step of “receiving[] a second input that represents an instruction to reveal one of a second desktop or application on the second display.” Thus, claim 1 explicitly requires that [1] the selection step be performed *after* the instructions are received from the user and [2] the selection step be performed by the *processor*. In any case, a selection step performed by a user (as set forth in the prior art discussed below) does not disclose the claim language because [1] the user selection is the input received by device and not the claimed selection that occurs after the device receives the input and [2] the user selection is not made by the processor.

Independent claim 6 (and unchallenged independent claim 10) recite analogous requirements.

The claimed processor selection of the desktop or application to display is distinct from a user selection of a desktop or application to display. For example, the '135 Patent teaches that the processor determines the application to display in a separate step from the user providing input to display an application:

The functional result of receiving a gesture can vary depending on a number of factors, including a state of the device 100, display 110, 114, or screen 104, 108, a context associated with the gesture, or sensed location of the gesture. The state of the device commonly refers to one or more of a configuration of the device 100, a display orientation, and user and other inputs received by the device 100. Context commonly refers to one or more of the particular application(s) selected by the gesture and the portion(s) of the application currently executing, whether the application is a single- or multi-screen application, and whether the application is a multi-screen application displaying one or more windows in one or more screens or in one or more stacks. Sensed location of the gesture commonly refers to whether the sensed set(s) of gesture location coordinates are on a touch sensitive display 110, 114 or a gesture capture region 120, 124, whether the sensed set(s) of gesture location coordinates are associated with a common or different display or screen 104,108, and/or what portion of the gesture capture region contains the sensed set(s) of gesture location coordinates.

Ex.1001, 16:62-17:14. The claims are consistent with this disclosure. For example, the claims specify that the input “represents an instruction to reveal [a] desktop or application.” The processor selects or determines the desktop or application and causes it to be displayed in a separate step from the user input. Thus, the claims explicitly require a *user* providing an input to display an application and a *processor* selecting and causing an application to be displayed. In this way, the claims explicitly require a separate step of the processor selecting and causing the desktop or application to be displayed, in addition to the user selection of the desktop or application.

The Petition relies exclusively on Yook for this element. Pet., 50 (relying on Bauer to suggest dependent claims), 62 (relying on Lee to suggest dual screens), 70 (relying on Bauer again to suggest dependent claims). But the Petition concedes that Yook discloses that a user selects or determines a first desktop or application to display on a first display and a second desktop or application to display on a second display. It does not disclose a processor determining and causing a desktop or application to be displayed on a first display and a second display. Thus, Yook cannot suggest the Challenged Claims. Specifically, the Petition alleges that for Element [1.b], Yook discloses that a user “selects... a first user function... and a second user function”:

For example, as shown in Figure 3, a user may activate (or select) a first user function (“first...application”) and a second user function (“second...application” recited in limitation [1.c]) sequentially. (EX1005, [0038] (“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”).)

Pet., 25. Similarly, the Petition relies on the same allegation that Yook discloses that a user “selects... a first user function... and a second user function” for Element [1.c]:

Consistent with as shown in Figure 3 below, Yook discloses that a user may activate (or select) a first user function (“first...application” recited in limitation [1.b]) and a second user function (“second...application”) in sequence. (EX1005, [0038] (“when a first user function and a second user function...are activated...in sequence, as illustrated in screen 301”).)

Pet., 29. But this disclosure addresses how a *user* selects first and second user functions to display on first and second screen areas. As discussed above, the Petition’s description of a *user* selection of a user function does not disclose Element [1.b] and Element [1.c]’s requirement of a separate step of the *processor* selecting a desktop or application to display based on an instruction to display a desktop or application. Nor does it disclose that the selecting step occur after receiving an input from the user. Thus, the Petition fails to demonstrate that Yook suggests this limitation.

As the Petition does not rely on any other reference to suggest this teaching, it fails to demonstrate that any combination of Yook and the other prior art suggests the claimed selection steps.

B. The Petition does not demonstrate how the prior art suggests “the annunciator window displays information selectively across the annunciator window” (All Grounds)

The final element of independent claims 1 and 6 requires “the modified display of the annunciator window displays information selectively across the annunciator window.” As discussed in Section III.A above, “displays information selectively” means “displays information in a way that involves intentionally choosing some information to display and not others.” The Petition fails to demonstrate that the prior art suggests selectively displaying information in a way that involves intentionally choosing some information to display and not others.

The Petition again relies exclusively on Yook for this element. Pet., 50 (relying on Bauer to suggest dependent claims), 62 (relying on Lee to suggest dual screens), 70 (relying on Bauer again to suggest dependent claims). But the Petition fails to demonstrate that Yook displays information selectively across the annunciator window. Specifically, the Petition alleges that it would have been obvious to display and dynamically update a status bar to show device status (e.g., battery status) and connectivity status (e.g., signal strength status):

[A] POSITA would have found it obvious to configure the status bar such that the device status (e.g., battery status) and connectivity status (e.g., signal strength status) dynamically reflect the updates/changes of the battery level and signal strength in order to provide accurate information to the user. Thus, for similar reasons, Yook discloses and/or suggests “modifying, by the processor, the display of the annunciator window in response to a changed state of at least one of the device status, connectivity status, and messaging status.”

Pet., 38. The Petition then alleges that this renders obvious displaying information selectively:

Additionally, consistent with the reasons and teachings addressed above, given that the updates of the status are dynamically reflected in the status icon(s) where the associated status has changed, Yook discloses and/or suggests “wherein the modified display of the annunciator window displays information selectively across the annunciator window.”

Pet., 38-39.

The Petition, however, has at most alleged that Yook’s status bar always displays information showing device status and connectivity status, and that the values of this information may be dynamically updated. The Petition has not shown (or even alleged) that Yook’s status bar selects some information to display as required by the claim language. There is simply no allegation that Yook displays only some of the status icons but does not display other status icons, as would be

required by “display[ing] information selectively.” Nor could the Petition reasonably make this allegation, because Yook contains no description of the bar at the top of Fig. 3 and does not disclose any selection of the icons on that bar for display. Without such disclosure, Yook cannot suggest selectively displaying icons on the bar of Fig. 3.

Therefore, the Petition has not demonstrated that Yook in combination with the other references suggests “display[ing] information selectively” as claimed.

VI. CONCLUSION

For the foregoing reasons, the Board should deny institution.

Date: February 28, 2025

Respectfully submitted,

/Minghui Yang/

Minghui Yang

Reg. No. 71,989

Counsel for Patent Owner

CARMICHAEL IP, PLLC

8607 Westwood Center Drive

Suite 270

Tysons, VA 22182

Email: mitch@carmichaelip.com

Telephone: (703) 646-9247

Counsel for Patent Owner

Multifold International Incorporated

Pte. Ltd.

CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITS

This Patent Owner's Preliminary Response ("POPR") consists of 2976 words, excluding table of contents, table of authorities, certificate of service, this certificate, or table of exhibits. The POPR complies with the type-volume limitation of 14,000 words as mandated in 37 C.F.R. § 42.24. In preparing this certificate, counsel has relied on the word count of the word-processing system used to prepare the paper (Microsoft Word).

Dated: February 28, 2025

/Minghui Yang/
Minghui Yang
Reg. No. 71,989

CERTIFICATE OF SERVICE

The undersigned hereby certifies that, pursuant to 37 CFR § 42.6(e), a true and correct copy of the foregoing **PATENT OWNER'S PRELIMINARY RESPONSE** have been served electronically via email on counsel of record for Petitioners:

Google counsel:

Naveen Modi
Joseph E. Palys
Daniel Zellberger
Howard Kerr
Quadeer Ahmed
David Valente
Paul Hastings LLP
2050 M Street NW
Washington, DC 20036
Email: PH-Google-Multifold-IPR@paulhastings.com

Motorola counsel:

T. Vann Pearce, Jr.	TVPPTABDocket@orrick.com
Christopher J. Higgins	0CHPTABDocket@orrick.com
Geoffrey Moss	gmoss@orrick.com
Elaine Ke	eke@orrick.com
Orrick, Herrington & Sutcliffe LLP	
2100 Pennsylvania Avenue	
Washington, D.C. 20037	

Dated: February 28, 2025

Respectfully submitted,

By: / Minghui Yang /
Minghui Yang