

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SAMSUNG ELECTRONICS CO., LTD., and  
SAMSUNG ELECTRONICS AMERICA, INC.,

Petitioners

v.

HERMES IP MANAGEMENT LLC,

Patent Owner

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Case IPR2025-00872

U.S. Patent No. 8,855,720

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**Petition for *Inter Partes* Review of  
U.S. Patent No. 8,855,720**

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**PETITIONER’S EXHIBIT LIST**

<b>Exhibit No.</b>	<b>Description</b>
1001	U.S. Patent No. 8,855,720 (“’720Pat”)
1002	Declaration of Dr. Clifton Forlines (“Forlines”)
1003	Curriculum Vitae of Dr. Clifton Forlines
1004	File History of U.S. Patent 8,855,720 (“’720FH”)
1005	U.S. Patent No. 7,231,229 (“Hawkins”)
1006	U.S. Patent App. Pub. 2006/0236266 (“Majava”)
1007	U.S. Patent App. Pub. 2007/0094596 (“Nielsen”)
1008	U.S. Patent App. Pub. 2006/0030371 (“Tanaka”)
1009	U.S. Patent App. Pub. 2006/0030370 (“Wardimon”)
1010	U.S. Patent App. Pub. 2007/0257097 (“Nurmela”)
1011	U.S. Patent App. Pub. No. 2006/0290661 (“Innanen”)
1012	Excerpts from Microsoft Computer Dictionary (5 <sup>th</sup> ed. 2002) (“Computer Dictionary”)
1013	U.S. Patent No. 6,516,202 (“Hawkins ’202 Patent”)
1014	File History of ’720 Patent Parent Application No. 11/911,277 (“’277FH”)
1015	Patent Owner’s Infringement Contentions for the ’720 Patent, in <i>Hermes IP Management LLC v. Samsung Electronics Co., Ltd. et al.</i> , No. 2:24-CV-00540-JRG (E.D. Tex.)

**LISTING OF CHALLENGED CLAIMS**

<b>Claim 1</b>	
1[pre]	A method of setting an idle screen to be displayed in an idle state of a mobile terminal among a plurality of screens usable as the idle screen, the method comprising
1[a]	selecting application programs from application programs installed in the mobile terminal, based on a selection from a user, wherein each of the selected application programs is allocated to one of the screens so that the screens present shortcut icons of the application programs allocated thereto
1[b]	displaying, in the idle state, one of the screens as the idle screen on a display unit of the mobile terminal, wherein the displayed idle screen presents the shortcut icons corresponding to the application programs allocated thereto
1[c]	displaying, in response to an idle screen switch request, a next one of the screens on the display unit according to an order of the screens
1[d]	setting a currently displayed screen as the idle screen to be displayed in the idle state
1[e]	wherein the idle screen is displayed on the display unit with indicators corresponding to the screens, and
1[f]	an indicator corresponding to the screen, which is set as the idle screen, is displayed distinguishably from the rest of the indicators.
<b>Claim 2</b>	
2	The method as claimed in claim 1, wherein the selecting comprises displaying, on the display unit, the shortcut icons of the application programs.
<b>Claim 3</b>	
3	The method as claimed in claim 1, wherein the idle screen switch request is inputted from a key button positioned on the mobile phone.

<b>Claim 4</b>	
4	The method as claimed in claim 1, wherein the idle screen switch request is a leftward or rightward movement request.
<b>Claim 5</b>	
5	The method as claimed in claim 1, wherein the idle screen switch request indicates whether the screens are switched either in an ascending or in a descending order.
<b>Claim 6</b>	
6	The method as claimed in claim 1, wherein the screens display an operating condition of the mobile terminal in common, and the displayed operating condition comprises power utilization and radio wave reception strength.
<b>Claim 7</b>	
7	The method as claimed in claim 1, wherein the order of the screens is usable in a circular manner.
<b>Claim 8</b>	
8[pre]	A mobile terminal for setting an idle screen to be displayed in an idle state among a plurality of screens usable as the idle screen, the mobile terminal comprising:
8[a]	a user interface configured to be operable by a user
8[b]	a display
8[c]	a control unit configured to
8[d]	select application programs from application programs installed in the mobile terminal, based on an input from the user interface, wherein each of the selected application programs is allocated to one of the screens so that the screens present shortcut icons of the application programs allocated thereto
8[e]	display, in the idle state, one of the screens as the idle screen on the display unit of the mobile terminal, wherein the currently displayed idle screen presents the shortcut icons corresponding to the application programs allocated thereto

8[f]	display, in response to an idle screen switch request from the user interface, a next one of the screens on the display unit according to an order of the screens
8[g]	set a currently displayed screen as the idle screen to be displayed in the idle state
8[h]	wherein the control unit is configured to display, on the display unit, the idle screen with indicators corresponding to the screens, and
8[i]	wherein an indicator corresponding to the screen, which is set as the idle screen, is displayed distinguishably from the rest of the indicators.
<b>Claim 9</b>	
9	The mobile terminal as claimed in claim 8, wherein the idle screen switch request is a leftward or rightward movement request.
<b>Claim 10</b>	
10	The mobile terminal as claimed in claim 8, wherein the idle screen switch request indicates whether the screens are switched either in an ascending or in a descending order.
<b>Claim 11</b>	
11	The mobile terminal as claimed in claim 8, wherein the display unit is further configured to display at least one icon for indicating an operating condition of the mobile terminal and said at least one icon remains displayed even with the idle screen switch request, wherein the operating condition comprises at least one of power utilization, radio wave reception strength and time.
<b>Claim 12</b>	
12	The mobile terminal as claimed in claim 8, wherein the order of the screens is usable in a circular manner.
<b>Claim 13</b>	
13[pre]	A non-transitory computer-readable recording medium for storing a program for setting an idle screen to be displayed in an idle state of a mobile terminal among a plurality of screens usable as the idle

	screen, wherein the program, when executed by the mobile terminal, instructs the mobile terminal to perform:
13[a]	selecting application programs from application programs installed in the mobile terminal, based on an input from a user, wherein each of the selected application programs is allocated to one of the screens so that the screens presents shortcut icons of the application programs allocated thereto
13[b]	displaying, in the idle state, one of the screens as the idle screen on a display unit of the mobile terminal, wherein the displayed idle screen presents the shortcut icons corresponding to the application programs allocated thereto
13[c]	displaying, in response to an idle screen switch request, a next one of the screens on the display unit according to an order of the screens; and
13[d]	setting a currently displayed screen as the idle screen to be displayed in the idle state
13[e]	wherein the idle screen is displayed on the display unit with indicators corresponding to the screens, and
13[f]	an indicator corresponding to the screen, which is set as the idle screen, is displayed distinguishably from the rest of the indicators.
<b>Claim 14</b>	
14	The non-transitory computer-readable recording medium as claimed in claim 13, wherein the idle screen switch request is a leftward or rightward movement request.
<b>Claim 15</b>	
15	The non-transitory computer-readable recording medium as claimed in claim 13, wherein the screens display an operating condition of the mobile terminal in common, and the displayed operating condition comprises at least one of power utilization, radio wave reception strength and time.
<b>Claim 16</b>	
16	The non-transitory computer-readable recording medium as claimed in claim 13, wherein the order of the screens is usable in a circular manner.

## **I. INTRODUCTION**

Petitioners Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (collectively, “Petitioners” or “Samsung”) request *inter partes* review of all Claims 1-16 of U.S. Patent No. 8,855,720 (the “’720 Patent”) (Ex-1001), assigned to Patent Owner Hermes IP Management LLC (“Hermes” or “PO”).

## **II. GROUNDS FOR STANDING (37 C.F.R. §42.104(A))**

Petitioners certify that the ’720 Patent is available for *inter partes* review and that Petitioners are not barred or estopped from requesting *inter partes* review to challenge the claims on the grounds herein.

## **III. STATEMENT OF PRECISE RELIEF REQUESTED FOR EACH CLAIM CHALLENGED**

For purposes of this proceeding only, Petitioners apply the earliest alleged priority date of the ’720 Patent: June 15, 2006. Pre-AIA 35 U.S.C. §102 applies for purposes of determining prior art status of references in the Grounds.

Petitioners respectfully request review and cancellation under 35 U.S.C. §311 of claims 1-16 (“Challenged Claims”) in view of:<sup>1</sup>

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<sup>1</sup> Petitioners do not concede that any Challenged Claim satisfies other requirements for patentability that cannot be raised in IPR, including 35 U.S.C. §§101 and 112.

Ground	Claims	Basis
1	1-16	§103: <i>Hawkins, Majava</i>
2	7, 12, 16	§103: <i>Hawkins, Majava, Nielsen</i>

As shown below, each reference predates the '720 Patent's earliest purported priority date of June 15, 2006.

Reference	Date(s)	Prior Art At Least Under
US 7,231,229 (" <i>Hawkins</i> ") (Ex-1005)	02/05/2004 (filed) 06/12/2007 (issued)	§102(e)
US 2006/0236266 (" <i>Majava</i> ") (Ex-1006)	03/18/2005 (filed) 10/19/2006 (published)	§102(e)
US 2007/0094596 (" <i>Nielsen</i> ") (Ex-1007)	10/25/2005 (filed) 04/26/2007 (published)	§102(e)

#### IV. OVERVIEW OF THE '720 PATENT

##### A. Specification

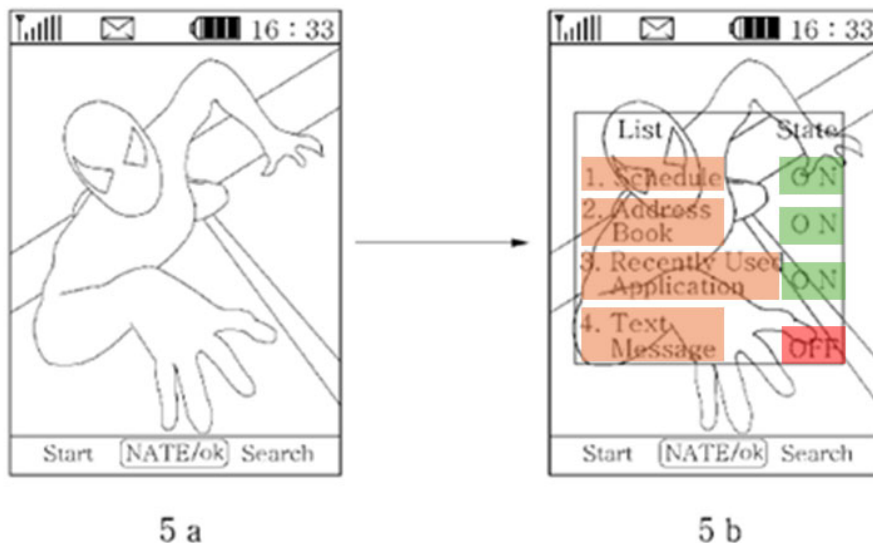
The '720 Patent purports to relate to “providing a plurality of screens in an idle state of a mobile terminal.” *'720Pat*, Abstract. According to the '720 Patent, “mobile communication terminals can realize [a] colorful graphic environment on the idle screen,” which is “a starting point for using various applications provided by mobile” devices. *Id.*, 1:63-67. For example, a “user can decorate the idle screen

with his favorite photo, image, or animation.” *Id.*, 2:1-2. Mobile terminals also include “a function similar to that of shortcut icons on the base screen of conventional computers,” such that “[w]hen the user selects a specific icon on the shortcut icon screen, a corresponding application is driven.” *Id.*, 4:44-55. The ’720 Patent alleges that mobile terminals faced certain purported “problems” “for setting up the idle screen,” including that “once an application is used for the idle screen, it is impossible to present another application on the same idle screen,” and “inconvenien[ce]” in using “tree-structured menu items [that] must be searched through,” if “another application is to be used for the idle screen. *Id.*, 2:21-34.

The ’720 Patent purports to solve these alleged problems with a “spin-home program,” whereby a user can designate “at least one application as a spin-home” and select a key “for driving the spin-home program,” which displays the “first application designated as the spin-home on the LCD display.” *Id.*, 2:51-67. The user can select another button for “circulating [the] next application designated as the spin-home and displaying the application on the LCD display.” *Id.* The ’720 Patent only describes one “shortcut icon screen,” which can be “switched to” when “the spin-home program is run.” *Id.*, 7:13-22. When “the user selects a specific icon,” the “corresponding application is driven.” *Id.*, 4:49-53.

The ’720 Patent also describes a “screen setup program,” for “application items, which have been designated as the spin-home.” *Id.*, 7:49-56, Fig. 5. By

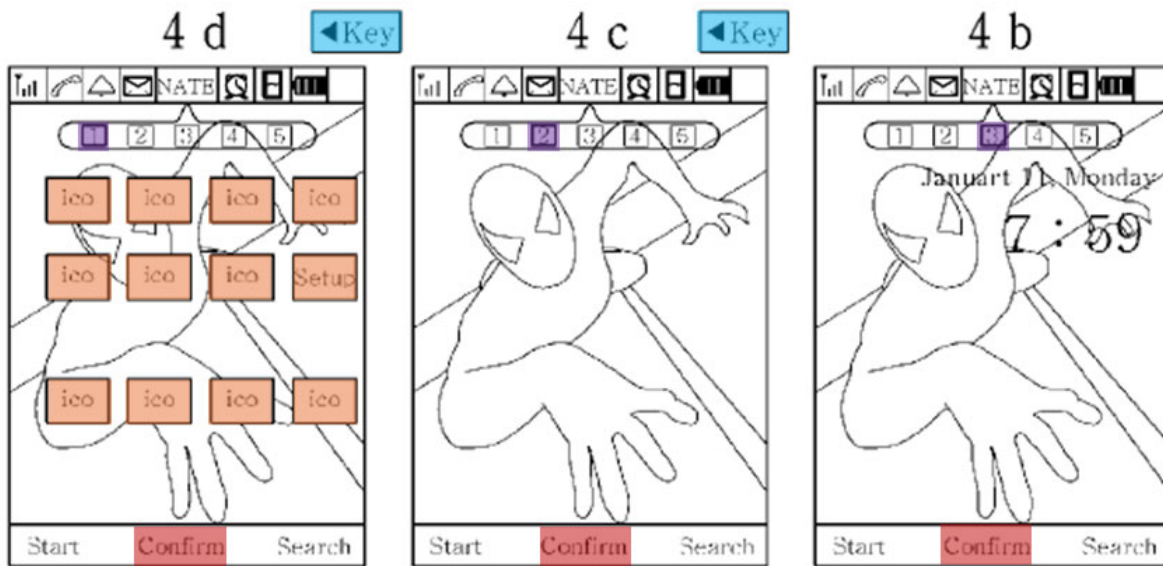
“selecting desired items, the spin-home setup of **selected applications** is toggled **on/off**.”<sup>2</sup> *Id.*, 7:51-56, Fig. 5A.



*'720Pat*, FIGs. 5a-5b (annotated).

Figure 4 depicts a series of screens “when the terminal provides a spin-home function,” only one of which is “a **shortcut icon** screen,” with graphics showing a “spin-home **number of 2 and 1**” (as well as **3**). *Id.*, 7:23-48, Fig. 4. A “**key button** is operated to circulate and display the applications, which have been designated as the spin-home.” *Id.*, 7:39-41. “When the user operates the **confirmation key button**,” the device “sets up” the screen “which is currently displayed on the LCD display” as the “idle screen.” *Id.*, 7:5-8.

<sup>2</sup> All **bold/italics/color** emphases and annotations added unless noted otherwise.



'720Pat, FIGs. 4b-4d (annotated and excerpted).

## B. Prosecution History

The '720 Patent issued from U.S. Patent Application No. 13/466,699 (the "'699 Application"), which was filed May 8, 2012, and which is a continuation of Application No. 11/911,277 (the "'277 Application"), filed on October 11, 2007, which is the national stage entry of International Application No. PCT/KR2006/002302, filed on June 15, 2006. '720Pat, Cover.

The '699 Application originally presented 20 claims, and during prosecution the Examiner rejected the presented claims five times, as anticipated and/or rendered obvious by numerous prior art references. *See, e.g., '720FH*, at 314-329 (2012-07-18 NFOA, rejecting under U.S. Patent App. Pub. 2001/0029193 ("*Ishigaki*") and U.S. Patent App. Pub. 2006/0290661 ("*Innanen*")); 273-286

(2012-12-04 FOA, under U.S. Patent App. Pub. 2007/0035513 (“*Sherrard*”)); 193-216 (2013-07-10 NFOA, under U.S. Patent App. Pub. 2006/0030370 (“*Wardimon*”) and U.S. Patent App. Pub. 2004/02502217 (“*Tojo*”)); 153-179 (2013-11-22 NFOA, again under *Wardimon* and *Tojo* ), and 072-099 (2014-04-03 NFOA, under U.S. Patent App. Pub. 2006/0030371 (“*Tanaka*”) in view of U.S. Patent App. Pub. 2006/0084477 (“*Wardimon2*”), and further in view of U.S. Patent App. Pub. 2007/0257097 (“*Nurmela*”).

The applicant amended the claims in response to each rejection. In response to the Examiner’s last rejection, the applicant amended the presented independent claims in accordance with the Examiner’s suggestions (’720FH, 059-068 (2014-07-02 Amendment)), after which they were allowed in substantially the same form as issued independent Claims 1, 8, and 13. *Id.*, 017-021 (2014-08-04 NOA).

In the notice of allowance, the Examiner found that most of the claimed graphical user interface features were disclosed in a single “closest prior art” reference, *Tanaka*, which “teaches

**[pre]** A method of setting an idle screen to be displayed in an idle state of a mobile terminal among a plurality of screen usable as the idle screen, the method comprising

**[a]** selecting application programs from applications programs installed in the mobile terminal, based on a selection from a user, wherein each of the selected application programs is allocated to one of the screens

so that the screens present shortcut icons of the applications programs allocated thereto,

[b] displaying, in the idle state, one of the screens as the idle screen on a display unit of the mobile terminal, wherein the displayed idle screen presents the shortcut icons corresponding to the application program allocated thereto,

[c] displaying, in response to an idle screen switch request, a next one of the screens on the display unit according an order of the screens.”

'720FH, 018-019 (element letters added to show correspondence to the limitations of Claim 1). In fact, the Examiner remarked that only setting a “currently displayed screen” as an “idle screen,” wherein that “idle screen” includes “indicators” corresponding to a set of screens, was not disclosed in *Tanaka* alone, which the examiner found was reflected in the following claim language:

[d] setting a currently displayed screen as the idle screen as the idle screen [sic] to be displayed in the idle state,

[e] wherein the idle screen is displayed on the display unit with indicators corresponding to the screens, and

[f] an indicator corresponding to the screen, which is set as the idle screen, is displayed distinguishably from the rest of the indicators.

*Id.* (element letters added to show correspondence to the limitations of Claim 1).

## V. OVERVIEW OF THE PRIOR ART

However, by June 2006, setting an idle screen in an idle state, with indicators corresponding to a set of screens, were well-known features in the art of mobile

device graphical user interfaces. *Hawkins*, *Majava*, and *Nielsen* (discussed below) are just a few examples of references that disclose such features.

Moreover, the prior art references analyzed in the grounds are analogous to the '720 Patent because they are within the same field of endeavor as the '720 Patent and are reasonably pertinent to one or more problems addressed by the '720 Patent. *Forlines* ¶¶57-60. For example, like the '720 Patent, *Hawkins* is directed to an “interface” for a mobile device, which is user-customizable and provides multiple screens with icons that can be selected to launch corresponding applications. *Id.* ¶58. *Majava* is directed to a similar mobile “user interface,” with multiple screens that display different content, including a default screen, which can be set by the user as any of the available screens. *Id.* ¶59. Similarly, *Nielsen* is also directed to a mobile interface with a home screen, and multiple additional screens showing user-selected content, which the user navigates through. *Id.* ¶60.

**A. *Hawkins* (Ex-1005)**

*Hawkins* relates to a “communication device interface.” *Hawkins*, Title. The device may be a “cellular phone, smart phone, or communicator having wireless telephony capabilities and wireless email capabilities,” and capabilities for “surfing the web.” *Id.*, 5:20-35, 13:15. The device also includes a “display for presenting output to the user,” and “one or more mechanisms for accepting input from the user,” including a keyboard, buttons, a five-way button with “a mechanism for specifying

any of at least four directions and further including an activation switch in the center,” “‘soft’ buttons, or icons,” and a “touch-sensitive” screen, which is operated “using a stylus, finger, or other object.” *Id.*, 5:36-6:13. The device also includes a “general-purpose computer selectively activated or reconfigured by a computer program stored in ... a computer readable storage medium, such as ... any type of disk ... RAMs ... or any type of media suitable for storing electronic instructions,” with “each coupled to a computer bus system.” *Id.*, 18:43-55.

As shown in figure 7 (and other figures), *Hawkins* discloses “a user interface display including favorites buttons.” *Id.*, 4:28-29, Fig. 7. The favorites buttons are “user-assignable,” and “provide functionality for accessing any feature, command, or option that the user designates as a favorite,” including “launching applications.” *Id.*, 12:64-13:9.<sup>3</sup>

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<sup>3</sup> The buttons can also be “speed-dial buttons,” which when selected “initiate a conversation with” the assigned entities, including via a telephone call, page, email, or text message, as selected by the user. *Id.*, 6:26-45, 7:47-8-9, Figs. 2-3.

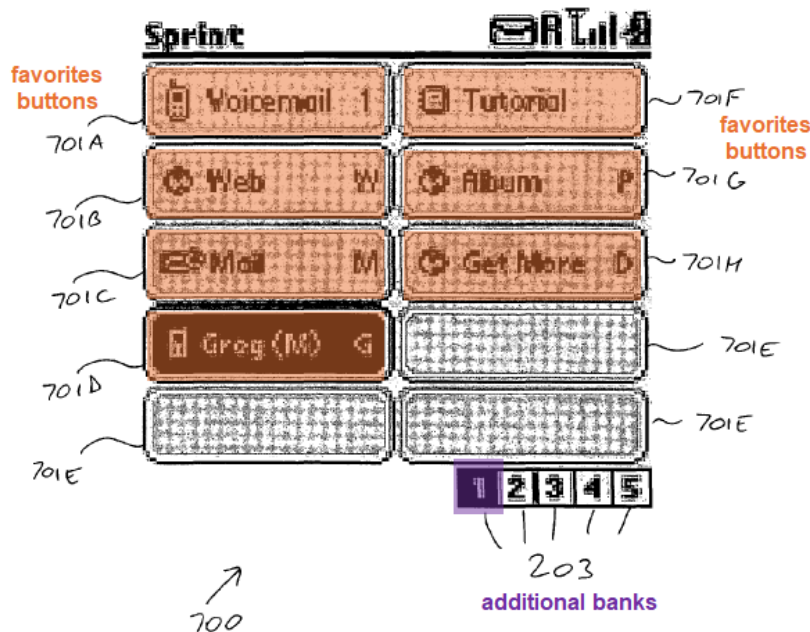


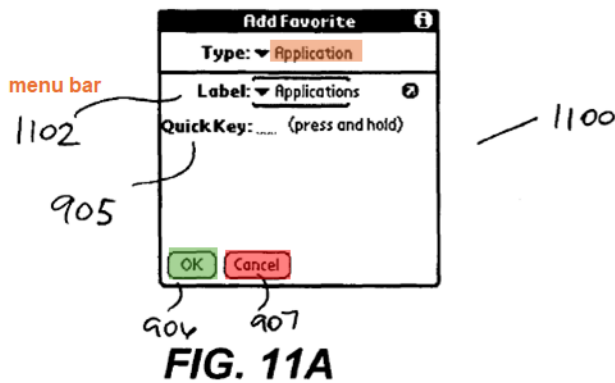
FIG. 7

Hawkins, FIG. 7 (annotated).

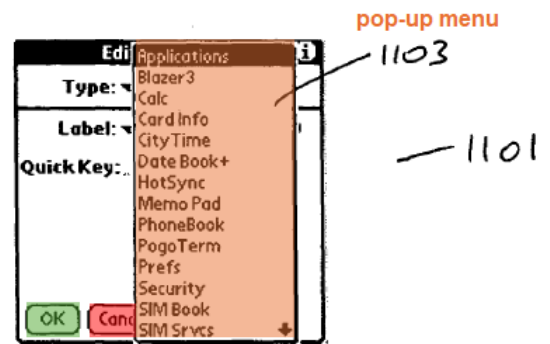
For example, the interface shown in figure 7 depicts ten buttons, with “**favorites buttons 701A through 701H**” assigned to “various functions, such as checking voicemail, surfing the web, checking email, dialing a particular telephone number, and the like.” *Id.*, 13:10-16; *see also id.*, 13:29-37. Figure 7 also shows “[b]uttons 701E,” which “are currently unassigned, although the user can assign them if he or she wishes.” *Id.*, 13:16-18. For each button, the “user can assign and/or configure the text, icons, and keyboard shortcuts as desired.” *Id.*, 13:18-24. The buttons are also referred to as “favorites,” and the screen showing the buttons is also referred to as the “favorites view.” *Id.*, 13:2-9, 16:66-17:2.

The user interface “also includes **icons 203 for accessing additional banks**” of buttons, which are also referred to as “pages.” *Id.*, 13:25-28, 13:54-57. Figure 7 shows “five banks of favorites buttons,” which include “a total of fifty buttons.” *Id.* The user can rearrange the buttons by “dragging the button 701 from one location to another,” and can select “a command for rearranging or configuring button 701 pages” into any desired order. *Id.*, 13:47-53.

The “user can assign a favorites button 701, or edit characteristics of a favorites button 701 (such as the text label, keyboard shortcut, or the like), by selecting an ‘Edit Favorites Button’ from an onscreen menu,” where the “user is then presented with a dialog box for performing button 701 configuration and/or editing.” *Id.*, 13:47-53. For example, figures 11A and 11B show functionality “for configuring a favorites button 701 as an application button.” *Id.*, 16:51-17:2. A “**menu bar 1102**” and “**pop-up menu 1103**” show “available **applications** that can be assigned to button 701.” *Id.* The “user can select from the applications shown in the menu,” and elect “**OK button 906**,” which “accepts the user’s entries and configures button 701 accordingly.” *Id.* Then, the user “is returned to the favorites view, with the newly-added or edited button 701 having focus.” *Id.* Or, if the user wishes to cancel, “**[c]ancel button 907**” may be selected. *Id.*



**FIG. 11A**



**FIG. 11B**

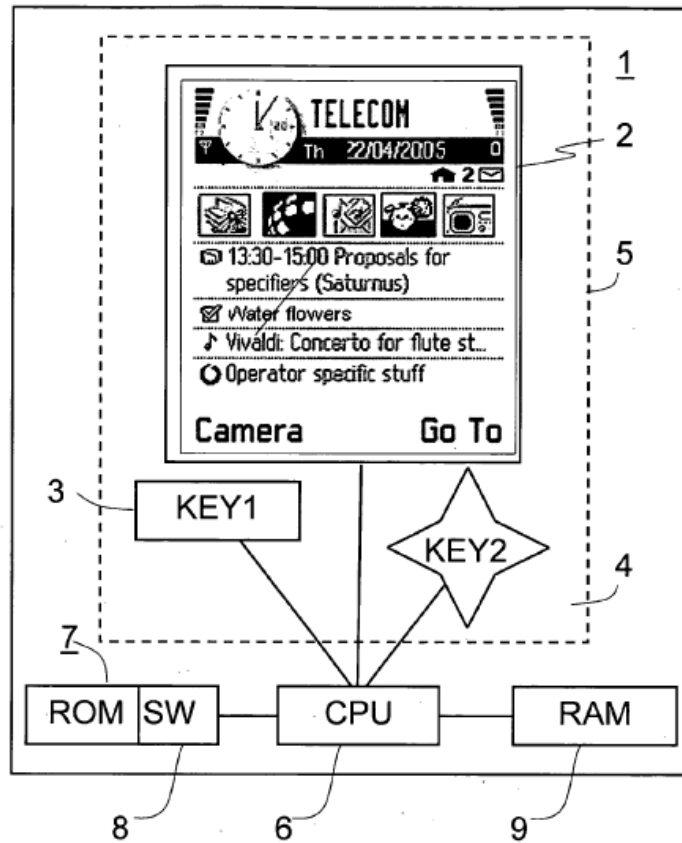
*Hawkins*, FIGs. 11A and 11B (annotated).

*Hawkins* discloses that “the user can navigate among favorites buttons” and “pages” in multiple ways, including by “using the up/down/left/right controls on five-way button 104,” or by operating the touch screen “with a stylus or finger.” *Id.*, 13:58-14:2. *Hawkins* further discloses that if “any of the left-side buttons 701 has focus, and the user hits the left button,” then “the previous bank is displayed.” *Id.*, 14:2-41. Similarly, if “any of the right-side buttons 701 has focus, and the user hits the right button, the next bank is displayed.” *Id.* In one embodiment, if “the last bank” is “already being displayed” and the “user hits the right button,” then “the first bank is displayed.” *Id.* Similarly, if “bank #1” is “already being displayed” and the “user hits the left button,” then “the last bank is displayed.” *Id.*

### **B. *Majava* (Ex-1006)**

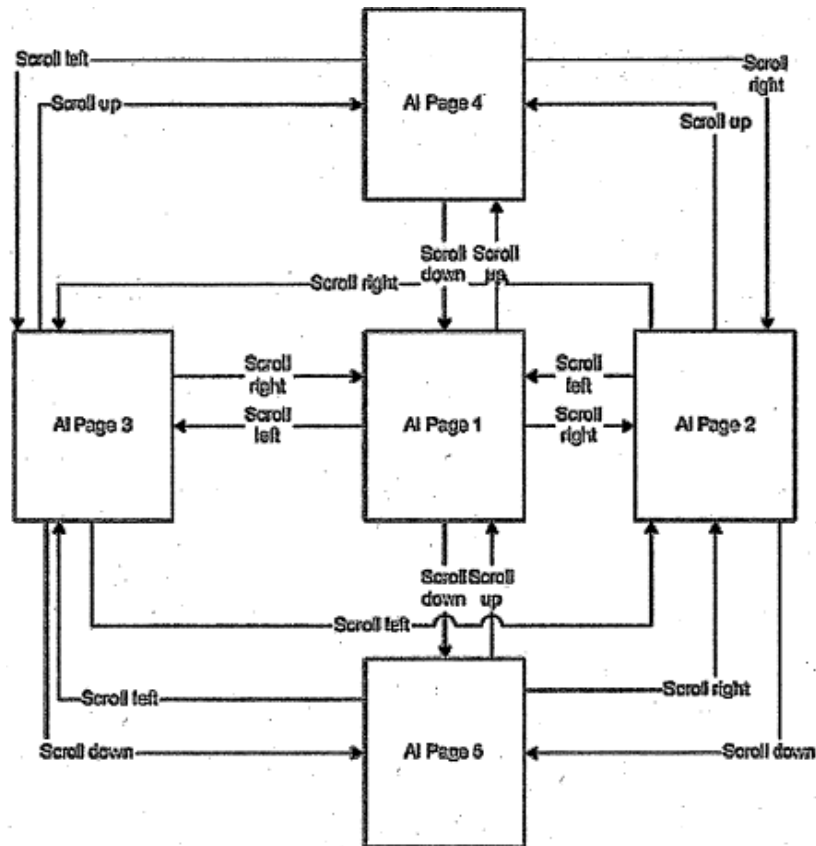
*Majava* relates to a “user interface with a display and user input for a mobile telephone that provides a set of icons or other user selectable objects in a number of

different idle mode screens.” *Majava*, Abstract. The “user interface” is implemented on a “mobile telephone,” which includes a display, and keys “for user input.” *Id.*, [0023]. The device also includes a “processor,” and “[n]on-volatile or long-lasting memory,” which “contains operating instructions, that is software, according to which the processor operates.” *Id.*, [0024]. The device has a “touch screen” that accepts input from a “hand or finger.” *Id.*, [0039]. Figure 1 shows the display with “content (such as text, images and icons),” and “indications of remaining battery charge and present signal strength.” *Id.*, [0023], [0025], Fig. 1.



*Majava*, FIG. 1.

*Majava* explains that “[w]hen switched on, mobile telephones typically first enter an idle mode.” *Id.*, [0025]. *Majava*’s “user interface” includes “three basic idle modes.” *Id.*, [0025]-[0029]. The first is “[p]assive idle mode,” which shows “traditional idle mode information such as missed calls, time, field strength and battery charge.” *Id.*, [0027]. The second is “[f]ocused active idle (AI) mode,” where the device “processes the presently displayed content” in response to “user input.” *Id.*, [0028]. The third is “[n]on-focused AI [mode],” where “the user may entirely change the presently displayed content between two or more predetermined presentations.” *Id.*, [0029]. In “non-focused AI mode,” the user can press the keys of the device to change the “presentation” on the screen to a different screen, which “contain[s] icons,” or other “content to which an easy access is desired.” *Id.*, [0030]. For example, figure 2 shows “five different displays by their name (AI page 1 to 5) wherein AI page 1 is a default page,” and pressing a directional “key” “changes to an AI page in the respective direction.” *Id.*, [0031]-[0032].



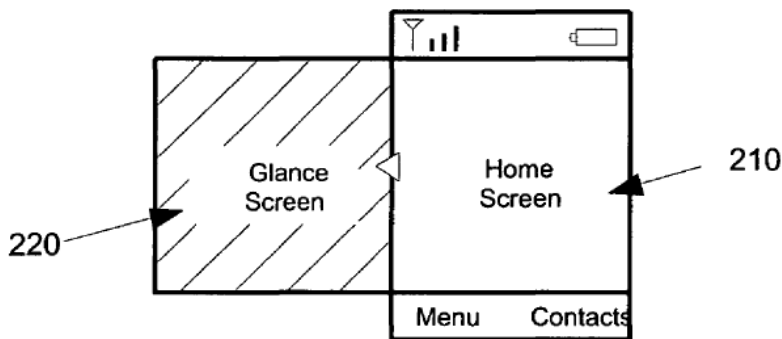
*Majava*, FIG. 2.

Each of the “different AI pages” may “contain user selected items” for “phone functions,” including, e.g., e-mail, calendar, audio controls, a game, instant messaging, a remote control for external devices, and an internet or file browser. *Id.*, [0034], [0036]. The “user can also be let [sic] customise the order of AI pages, that is, to decide which page follows which one if the user navigates in them.” *Id.*, [0038]. The interface also “provide[s] the user with an access to the different AI pages without changing [the] idle mode page.” *Id.* *Majava* also discloses that “most

essential operational information such as battery and field indications are advantageous to present on all pages.” *Id.*, [0034].

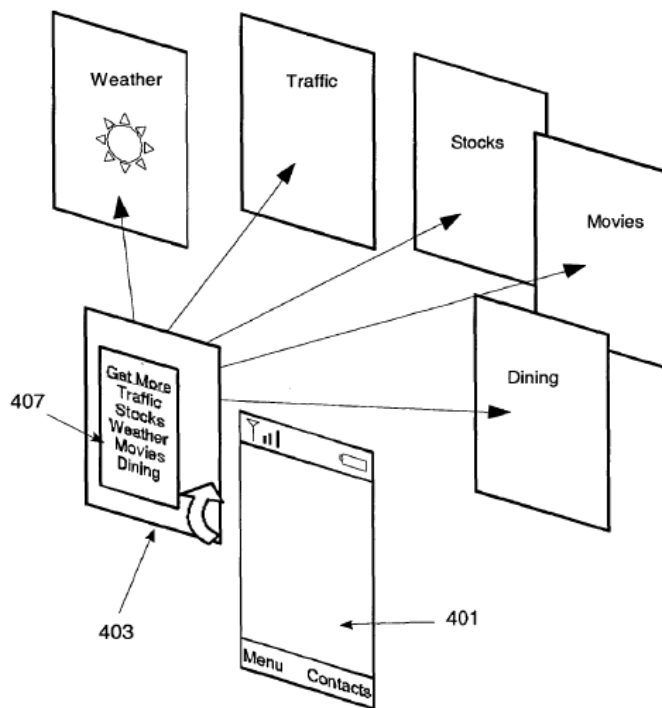
**C. Nielsen (Ex-1007)**

*Nielsen* relates to a “mobile device” where the user can “easily switch the display from a home screen, shown while the mobile device is idle, to a glance screen associated with a ‘glance module,’” with “multiple glance modules” where each “is associated with a different source of glanceable data.” *Nielsen*, Abstract. *Nielsen* discloses a user interface that “display[s] a home screen in an idle state,” which “includes information deemed to be desirable for general display.” *Id.*, [0008]. The “home screen” is “the first or default view presented, such as when the mobile device is initialized.” *Id.*, [0025]. As shown in figure 2, the interface also includes a “glance” screen, which provides “an additional screen of information” that is accessed via a “particular button or other input mechanism” to “switch the display” “from the home screen to the glance screen.” *Id.*, [0024].



*Nielsen*, FIG. 2.

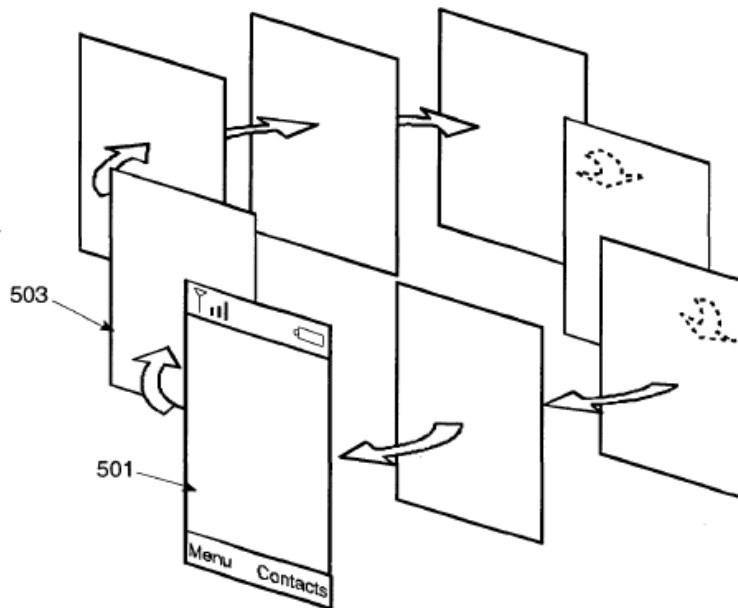
*Nielsen* discloses that each “glance module” can show information such as “stock quotes, weather reports, traffic conditions, surf reports,” etc., or a program such as an “application for playing media files.” *Id.*, [0042]. Figure 4 shows example “glance modules” that are “accessible from a listing of installed glance modules.” *Id.*, [0028], Fig. 4. The device “begins in an idle state with a home screen being displayed,” and then the display “switches to a current glance module” in response to a “trigger,” such as the user “pressing the left directional button.” *Id.*



*Nielsen*, FIG. 4.

*Nielsen* further discloses that the “glance modules” are “serially accessible,” such that, as shown in figure 5, the first “is initially displayed when the glance trigger is first activated,” and the user “continues to activate the glance trigger until the

desired glance module is presented. In other words, the display would serially cycle through each installed glance module with each activation of the glance trigger until the user stopped on one.” *Id.*, [0030], Fig. 5.



*Nielsen*, FIG. 5.

## VI. LEVEL OF ORDINARY SKILL IN THE ART

A person of ordinary skill in the art (“POSITA”) at the time of the alleged invention of the ’720 Patent, would have had a Bachelor of Science (or equivalent) in computer science, computer engineering, electrical engineering, or industrial engineering (or a similar academic field), and approximately two years of experience in the field of operating system and/or user interface design for mobile computing devices. A greater amount of education could compensate for less work experience, and vice versa. *Forlines* ¶¶23-25.

## VII. CLAIM CONSTRUCTION

Petitioners are unaware of any “prior claim construction determination” related to the ’720 Patent. *See* 37 C.F.R. §42.100(b). Given the close correlation and substantial identity between the prior art references and the Challenged Claims, no express constructions of the claims are necessary to assess whether the prior art reads on the Challenged Claims. Thus, the claims should be given their plain and ordinary meaning.<sup>4</sup> *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc); *Forlines* ¶90.

## VIII. DETAILED EXPLANATION OF GROUNDS

### A. Ground 1: *Hawkins* In Combination With *Majava* Renders Obvious Claims 1-16

#### 1. Motivation to Combine *Hawkins* and *Majava*

A POSITA would have been motivated to combine the teachings of *Hawkins* and *Majava*, and would have had a reasonable expectation of success in doing so. *Forlines* ¶¶92-102.

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<sup>4</sup> Petitioners reserve all rights to raise claim construction arguments and other arguments in any parallel or future litigation concerning the ’720 Patent. For example, comparing the claims to the accused products in the litigation may raise controversies that require construction of certain claim terms.

*Hawkins* discloses “a user interface display” with “favorites buttons,” for “mobile telephones,” which include “**screen 102**,” and keys (such as “**five-way button 104**”). *Hawkins*, 3:35-44, 4:28-29, 5:36-55, Figs. 1 and 7. The interface is also referred to as the “favorites view.” *Id.*, 13:2-9, 16:66-17:2. The buttons are “user-assignable,” and “provide functionality for” “launching applications,” or “for accessing any feature, command, or option that the user designates.” *Id.*, 12:64-13:9. Figure 7 depicts “five banks of favorites buttons 701,” with ten buttons available on the first bank, where “**favorites buttons 701A through 701H**” may be assigned to “various functions, such as checking voicemail, surfing the web, [and] checking email,” and buttons “701E are currently unassigned, although the user can assign them if he or she wishes.” *Id.*, 13:10-18, 13:25-28, Fig. 7; *see also id.*, 13:29-37.

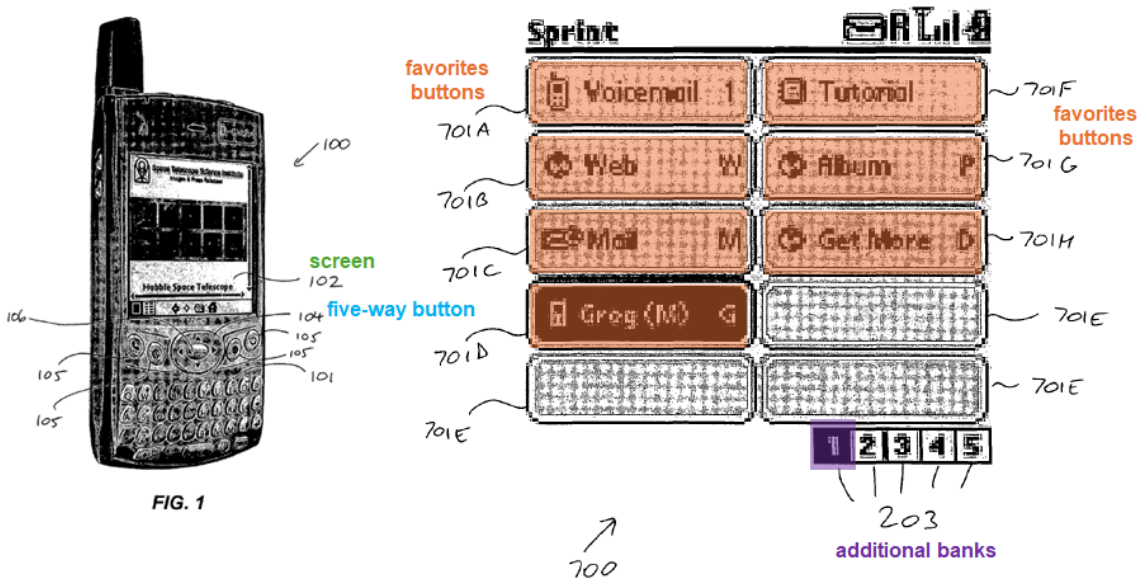


FIG. 1

FIG. 7

*Hawkins*, FIGS. 1 and 7 (annotated).

*Hawkins* also discloses “**icons 203 for accessing additional banks of favorites buttons 701**,” which are also referred to as “button 701 pages.” *Id.*, 13:25-28, 13:54-57. The “**five banks**” are indicated by “**icons**” numbered 1, 2, 3, 4, and 5. *Id.* *Hawkins* discloses that the user can rearrange “button 701 **pages**” into any order. *Id.*, 13:47-53.

*Majava* discloses a mobile device user interface with “five different displays,” which are called “active idle” pages numbered “AI page 1 to 5.” *Majava*, [0028]-[0032], Fig. 2. *Majava* discloses that “AI page 1 is a default page,” and that pressing a 4-way directional key “changes” the screen to one of the other four AI pages “in the respective direction.” *Id.*, [0032]. *Majava* discloses that the AI pages contain “icons” or “any potentially interesting content or desired content to which an easy access is desired.” *Id.*, [0030]. *Majava* further discloses that when “the user navigates” in the “AI pages” the user can “customise [sic] the order of AI pages, that is, to decide which page follows which one.” *Id.*, [0038]. A POSITA would have understood this aspect of *Majava* to teach that a user can designate any of its AI pages as the “default” page 1. *Forlines* ¶¶79, 96. *Majava* further discloses that “[a]s the AI modes may expose the user to accidentally display personal information to anyone who sees the display 2, the phone can be configured to automatically revert to the default AI page 1 after a given period of idle time.” *Majava*, [0038].

A POSITA would have recognized that *Hawkins* and *Majava* are both directed

to similar systems and methods in which a mobile telephone/device has a user interface comprising multiple pages, wherein each page contains one or more shortcut or favorites buttons (to, for example, launch applications), and further wherein the user can customize the order of the pages (i.e., change which page is the first page), in which the user can navigate through the pages. *Forlines* ¶97. A POSITA would have been motivated to incorporate *Majava*'s teachings regarding reverting to the default first page after a period of idle time into *Hawkins* for at least the same reason that *Majava* has such a feature, i.e., to avoid the user accidentally displaying or exposing personal information to anyone who sees the screen 102. *Forlines* ¶98.

In other words, a POSITA would have recognized that, in *Hawkins*' mobile telephone, a user could launch an application using a favorites button, and that the user's personal information could be exposed to others who may see it if the device were to continue to show the application even when the user is no longer actively using the application (e.g., if the user launched an email or a banking application). *Forlines* ¶99. A POSITA would have recognized the advantage of reverting back to the first of the "buttons 701 pages" after a period of idle time, as taught by *Majava*, so as to reduce the likelihood of accidentally exposing the user's personal information to others. *Forlines* ¶99.

The combination would have been obvious to a POSITA because it would

have amounted to applying a known technique (*Majava*'s teaching to revert to a first AI page after a given period of idle time) to a known device (*Hawkins*' mobile telephone with a user interface having multiple pages of favorites buttons from which a user can launch applications) ready for improvement to yield predictable results (the *Hawkins-Majava* combination in which the mobile telephone's user interface is configured to automatically revert to a default/first page after a given period of idle time). *Forlines* ¶100.

The combination would also have been obvious to a POSITA because it would have amounted to applying a known technique (*Majava*'s teaching to revert to a first AI page after a given period of idle time) to similar devices (*Hawkins*' mobile telephone with a user interface having multiple pages of favorites buttons from which a user can launch applications) in the same way (the *Hawkins-Majava* combination in which the mobile telephone's user interface is configured to automatically revert to a default/first page after a given period of idle time). *Id.* ¶101.

A POSITA would also have had a reasonable expectation of success in implementing the combination because *Hawkins*' user interface already includes multiple pages and the ability for the user to rearrange their order. *Hawkins*, 13:54-57. *Majava* discloses automatically reverting to a default AI page 1 after a given period of idle time in a system very similar to *Hawkins*'. *Majava*, [0038]. It would have been well within a POSITA's ability to incorporate *Majava*'s additional known

functionality into *Hawkins*' existing mobile user interface. *Forlines* ¶102.

## 2. Independent Claim 1

- a. **1[Pre] (“A method of setting an idle screen to be displayed in an idle state of a mobile terminal among a plurality of screens usable as the idle screen, the method comprising”)**

To the extent that the preamble is limiting, *Hawkins* in combination with *Majava* teaches this feature.<sup>5</sup> *Forlines* ¶¶103-119.

The '720 Patent explains that an “idle screen is a *starting point* for using various applications provided by mobile communication terminals.” ’720*Pat*, 1:66-67. During prosecution of the '720 Patent's parent application (No. 11/911,277), which shares the same specification, the applicant argued that the specification's description “does not contradict with the common knowledge that the idle screen refers to a screen displayed on the display module when the mobile communication terminal is in an idle mode.” ’277*FH*, at 246 (2011-5-27 Amendment), and 237-49.

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<sup>5</sup> Petitioners use the term “teaches” as including both express teachings or those fairly suggested to a POSITA. *In re Baird*, 16 F.3d 380, 383 (Fed. Cir. 1994); *In re Keller*, 642 F.2d 413, 425 (C.C.P.A., 1981) (“The test for obviousness is ... what the combined teachings of the references would have suggested to those of ordinary skill in the art.” (citations omitted)).

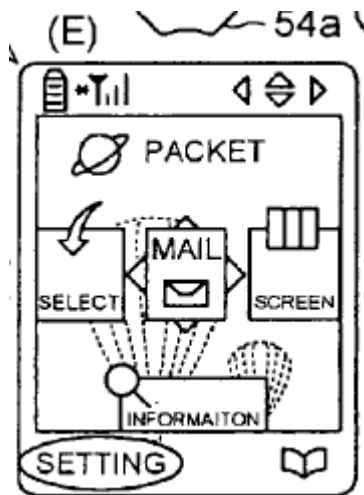
While the specification of the '720 Patent does not use the term “idle state,” a POSITA would have understood this term to encompass a condition in which a device is powered on and displaying a screen, but is not being used for displaying an application program. *Forlines* ¶¶106-114. For example, *Innanen* relates to “mobile cellular telephones,” and “a user interface having a display for displaying a standby screen when the device is in an *idle state*.” *Innanen*, Abstract, [0002].<sup>6</sup> *Innanen* teaches that a mobile device “standby screen” is displayed in a condition “when the device is *switched on* i.e. when the device is ‘active’ and while the device is *not used for a specific application* i.e. while the device is idle.” *Id.*, [0002]. In describing its “user interface,” *Innanen* equates such condition with “displaying a standby screen when the device is in an idle state.” *Id.*, [0007]. Similarly, relevant technical dictionaries at the time defined “idle state” as a “condition in which a device is operating but is not being used.” *Computer Dictionary*, 264.

The prosecution history demonstrates that the Examiner had a similar understanding of these terms. For example, the Examiner took the position that

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<sup>6</sup> Ex-1008 through Ex-1014 are cited in this Petition merely to demonstrate a POSITA’s knowledge or understanding, and/or as evidence that a POSITA would have been motivated to make the combinations in the manner discussed in this Petition. These references are not part of the unpatentability grounds.

figure 3E of *Tanaka* discloses an “idle screen to be displayed in an idle state.” ’720FH, 083-089 (2014-04-03 NFOA); *Tanaka*, Fig. 3. See, e.g., *Arthrex, Inc. v. Smith & Nephew, Inc.*, 935 F.3d 1319, 1330 (Fed. Cir. 2019) (affirming Board’s interpretation of claim term as “confirm[ed]” by “three references cited during prosecution”); *Kumar v. Ovonic Battery Co.*, 351 F.3d 1364, 1368 (Fed. Cir. 2003) (proper to interpret claim “term based on its usage in the prior art that was cited in the patent,” including “because it may indicate ... the meaning of the term to persons skilled in the art”) (internal citation omitted). As shown below, *Tanaka*’s figure 3E depicts a mobile device user interface screen, with icons for launching applications, including a “MAIL” application. *Tanaka*, [0003], Fig. 3.



*Tanaka*, FIG. 3 (excerpted).

*Tanaka* further describes that the “screen shown in part (E) of FIG. 3 is an example of the *first* menu screen,” and presents a claim reciting “an idle screen displayed on the display *after power-on.*” *Tanaka*, [0035], Claim 1. Similarly, in an earlier

rejection, the Examiner took the position that *Wardimon* discloses an “idle screen.” ’720FH, 158-59, 163-65 (2013-11-22 FOA); *Wardimon*, Fig.1. *Wardimon* describes a “first screen” that is “displayed on the mobile device” as the “idle screen,” and explains that an “idle screen typically comprises the graphic or text that appears on mobile device 120’s display when mobile device 120 is in an idle state.” *Wardimon*, [0014], [0029], Fig. 1. Applicant did not dispute the Examiner’s understanding of *Tanaka*’s and *Wardimon*’s teachings as it relates to “idle screen” and “idle state.” ’720FH, 136-46 (2014-02-24 Response), 059-68 (2014-07-02 Response).

PO’s understanding of “idle screen” and “idle state” appears to be consistent with the above. In the parallel litigation initiated by PO against Petitioners, PO contends in its infringement contentions that the meaning of “idle screen” encompasses a smartphone “home screen which includes one or more shortcut icons (which correspond to application programs),” and that “idle state” encompasses when a smartphone is “i.e., not operating a [sic] displaying an application program.” Ex-1010, at 12.

Thus, a POSITA would have understood “idle screen” as used in the claim to encompass a screen comprising a starting point for using various applications, and “idle state” to encompass a condition in which a device is powered on and displaying a screen, but is not being used for displaying an application program. *Forlines* ¶¶104-114.

For the reasons discussed in §VIII.A.1, *Hawkins* teaches a user interface for a mobile telephone that can be used in a method for setting a screen as a starting point for using various applications on the telephone, which is consistent with the manner in which the '720 patent uses the term “idle screen” in the phrase “setting an idle screen to be displayed.” *Forlines* ¶115. A POSITA would have also understood that *Hawkins*' user interface teaches “screens” as that term is used in the preamble, because *Hawkins* refers to its user interface, with elements such as a “soft button,” as a “screen” or “screen shot.” *See, e.g., id.*, 3:5-9 (describing “selecting and activating an item on a screen or menu”), 6:26-49, Fig. 2 (referring to “screen shot 200, as may be displayed on screen 102”), 7:6-27, Fig. 3 (referring to “screen shot 300, as may be displayed on screen 102”); *Forlines* ¶116. As discussed in §V.A, *Hawkins* also uses “screen” to refer to the physical display component of its mobile telephone. *See, e.g., id.*, 5:36-38 (“Device 100 includes screen 102, which may be a liquid crystal display (LCD) or other type of display for presenting output to the user.”).

The *Hawkins-Majava* combination also teaches a method wherein the idle screen is “displayed in an idle state of a mobile terminal.” *Forlines* ¶¶117-118. For example, for the reasons discussed in §VIII.A.1, a POSITA would have found it obvious to configure the *Hawkins-Majava* combination so that, after a given period of idle time, the mobile telephone's user interface automatically reverts back to the

“button 701 page” that is designated as the first page. Because the first “button 701 page” would be displayed after a given period of idle time, a POSITA would have understood that the page is being displayed while the device is powered on and displaying a screen, but is not being used for displaying an application program, which is consistent with a POSITA’s understanding of an “idle state.” *Forlines* ¶117.

*Hawkins* also teaches “icons 203 for accessing additional banks of favorites buttons 701,” which are also referred to as “button 701 pages.” *Id.*, 13:25-28, 13:54-57. The “five banks” are indicated by “icons 203” numbered 1, 2, 3, 4, and 5. *Id.* The user can rearrange “button 701 pages” into any order. *Id.*, 13:47-53. Thus, a POSITA also would have understood that *Hawkins*’ five pages of buttons teach “a plurality of screens usable as the idle screen,” because the user may rearrange the pages such that any one of them may be designated as the first page. *Hawkins*, 13:54-57; *Forlines* ¶118.

Accordingly, the *Hawkins-Majava* combination teaches setting a first page of favorites buttons of a mobile telephone, wherein the buttons correspond to applications on the mobile telephone and launch the applications when selected (“setting an idle screen”), as the page of buttons that is displayed after a given period of idle time (“to be displayed in an idle state of a mobile terminal”), wherein the first page is selected from among five pages of favorites buttons, any of which can be

designated as the first page (“among a plurality of screens usable as the idle screen”).

*Forlines* ¶119.

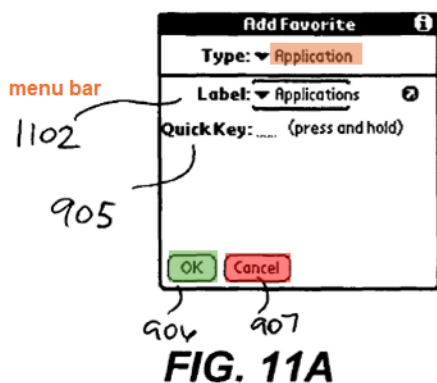
- b. **1[a] (“selecting application programs from application programs installed in the mobile terminal, based on a selection from a user, wherein each of the selected application programs is allocated to one of the screens so that the screens present shortcut icons of the application programs allocated thereto”)**

*Hawkins* in combination with *Majava* teaches this feature. *Forlines* ¶¶120-26.

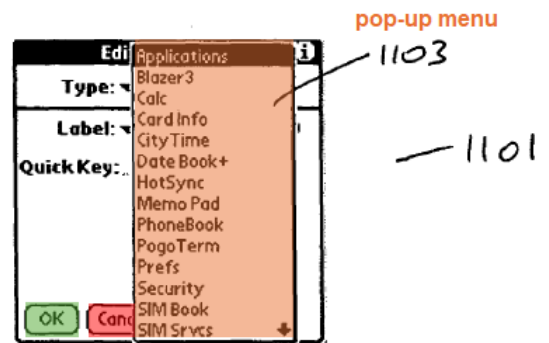
*Hawkins* discloses that the “favorites buttons” on its pages are “user-assignable” for a variety of functions, including “launching applications.” *Hawkins*, 12:64-13:18, 13:25-37 (the “user can assign each button” for, *inter alia*, “[l]aunching an application”). The user can also “assign and/or configure the text, icons, and keyboard shortcuts” for each button. *Id.*, 13:18-24. Thus, a POSITA would have understood that *Hawkins*’ favorites buttons disclose “shortcut icons.” *Forlines* ¶¶121-122. This is consistent with the ’720 Patent, which explains that “[w]hen the user selects a specific icon on the shortcut icon screen, a corresponding application is driven.” ’720Pat, 4:49-51; *Forlines* ¶122.

To create the buttons for launching applications, *Hawkins* further teaches an “‘Edit Favorites Button’ from an onscreen menu,” which presents a “dialog box” to the user “for performing button 701 configuration and/or editing.” *Hawkins*, 13:47-53, Figs. 11A-11B. For example, figures 11A and 11B show a “menu bar 1102” and

“pop-up menu 1103” with “available applications” on the device, which “can be assigned” to the favorites buttons. *Id.*, 16:51-17:2. The “user can select from the applications shown in the menu,” and hit an “OK button,” which “accepts the user’s entries and configures button 701 accordingly.” *Id.* The “user is returned to the favorites” page screen, which shows “the newly-added or edited button.” *Id.* A POSITA would have understood that the applications shown in the menu 1103 from which the user could select were installed on the mobile terminal because, if they were not, a user would not have been able to select them. *Forlines* ¶¶123-124.



**FIG. 11A**



**FIG. 11B**

*Hawkins*, FIGs. 11A and 11B (annotated).

*Hawkins* further discloses that the “user can rearrange buttons ... from one location to another,” and can “rearrange” “button 701 pages.” *Id.*, 13:47-53. A POSITA would have understood this disclosure to encompass the user’s ability to associate a favorite button on any of *Hawkins*’ screens with a particular application, and that *Hawkins*’ multiple screens can be arranged in any order. *Forlines* ¶125.

Accordingly, the *Majava-Hawkins* combination teaches a method whereby a user selects (“... based on a selection from a user ...”) applications from those installed on the mobile telephone (“selecting application programs from application programs installed in the mobile terminal”), so that favorites buttons associated with those application programs are created and assigned to one of several pages displaying favorites buttons (“wherein each of the selected application programs is allocated to one of the screens”) so that the favorites buttons can be used to launch their respective application programs (“so that the screens present shortcut icons of the application programs allocated thereto”). *Forlines* ¶126.

- c. **1[b] (“displaying, in the idle state, one of the screens as the idle screen on a display unit of the mobile terminal, wherein the displayed idle screen presents the shortcut icons corresponding to the application programs allocated thereto”)**

*Hawkins* in combination with *Majava* teaches this feature. *Forlines* ¶¶127-30.

For the reasons discussed in §VIII.A.2.a, the *Hawkins-Majava* combination teaches “an idle screen to be displayed in an idle state of a mobile terminal.” *Forlines* ¶128.

For the reasons discussed in §VIII.A.2.b, the *Hawkins-Majava* combination teaches that “each of the selected application programs is allocated to one of the screens so that the screens present shortcut icons of the application programs allocated thereto.” *Forlines* ¶129.

Accordingly, the *Hawkins-Majava* combination teaches displaying on a mobile telephone's display unit the first page of favorites buttons after a given period of idle time has passed (“displaying, in the idle state, one of the screens as the idle screen on a display unit of the mobile terminal”), which includes favorites buttons for launching each respective associated application (“wherein the displayed idle screen presents the shortcut icons corresponding to the application programs allocated thereto”). *Forlines* ¶130.

**d. 1[c] (“displaying, in response to an idle screen switch request, a next one of the screens on the display unit according to an order of the screens”)**

*Hawkins* in combination with *Majava* teaches this feature. *Forlines* ¶¶131-36.

For the reasons discussed in §VIII.A.2.a, the *Hawkins-Majava* combination teaches “an idle screen,” and “a plurality of screens usable as the idle screen.” *Forlines* ¶132.

*Hawkins* further discloses the user being able to switch among its multiple “button 701 pages.” *Forlines* ¶¶133-134. More particularly, *Hawkins* discloses that the user interface “includes icons 203 for accessing additional banks of favorites buttons 701.” *Hawkins*, 13:25-28. *Hawkins* discloses that the user can navigate among the “banks” or “pages” in multiple ways, including by “using the up/down/left/right controls on [a] five-way button,” by “using a stylus, finger, or other object,” if “screen 102 is touch-sensitive,” or by using a “keyboard” or other

buttons. *Id.*, 13:60-65, 5:39-55. For example, *Hawkins* discloses that if “any of the right-side buttons 701 has focus, and the user hits the right button, the next bank is displayed.” *Id.*, 14:3-43. *Hawkins* further discloses that if “any of the left-side buttons 701 has focus, and the user hits the left button, the previous bank is displayed.” *Id.*

Because *Hawkins* describes its example interface as having five pages of buttons numbered 1 through 5 (*id.*, 13:25-28, Fig. 7), a POSITA would have understood that *Hawkins* discloses navigating between the “next” and “previous” pages in numerical order. *Forlines* ¶135. For instance, when page 1 is displayed, navigating to the “next” page causes the screen to switch from displaying page 1 to the next page in numerical order—page 2. *Forlines* ¶135. And when page 2 is displayed, navigating to the “previous” page causes the screen to switch from displaying page 2 to the previous page in numerical order—page 1. *Forlines* ¶135.

Accordingly, the *Hawkins-Majava* combination teaches in response to the user pressing a button, display, or keyboard to go to a next or previous page (“... in response to an idle screen switch request ...”), navigating from the currently displayed favorites page to the next or previous favorites page, in numerical order of the available pages (“displaying ... a next one of the screens on the display unit according to an order of the screens”). *Forlines* ¶136.

e. **1[d] (“setting a currently displayed screen as the idle screen to be displayed in the idle state”)**

*Hawkins* in combination with *Majava* teaches this feature. *Forlines* ¶¶137-42.

*Hawkins* discloses the user being able to “rearrang[e] ... button 701 pages.”

*Hawkins*, 13:54-57 (“a user can ... select[] a command for rearranging or configuring button 701 pages”). Thus, a POSITA would have understood *Hawkins* to teach that the user can rearrange the multiple pages displaying favorites buttons so that any one of them would be the first page, the second page, and so forth. *Forlines* ¶138. For example, a POSITA would have understood *Hawkins*’ disclosure to encompass rearranging *Hawkins*’ pages such that page 3 from among “button 701 pages” 203 (see Fig. 7) becomes designated as the new page 1, with the former page 1 designated elsewhere. *Forlines* ¶138. And, *Hawkins* teaches the user may freely navigate between the favorites pages, including between its example of five pages numbered 1 through 5, with the result that the screen currently displays any page selected by the user. *Hawkins*, 13:25-28, 13:58-14:42, Fig. 7. Further, it would have been obvious to a POSITA to select *Hawkins*’ command for designating a desired page as the new first page while the screen currently displays that desired page (e.g., selecting the command to select page 3 as the new page 1, while page 3 is being displayed), because the user could more easily and accurately select the correct

desired page when the user can actually see the page. *Forlines* ¶¶139-140 (discussing *Wardimon*).

Moreover, for the reasons discussed in §VIII.A.1 and §VIII.A.2.a, in the *Hawkins-Majava* combination, when page 3 is selected as the new page 1, then it would be the new page 1 displayed after a given period of idle time and, therefore, it would be the new page 1 that is displayed in the idle state. *Forlines* ¶141.

Accordingly, the *Hawkins-Majava* combination teaches that the user may navigate to any of the favorites pages (“... a currently displayed screen ...”), and teaches a command to allow the user to rearrange and set any of the pages (e.g., currently displayed page 3) as the first page (“setting a currently displayed screen as the idle screen to be displayed in the idle state”). *Forlines* ¶142.

- f. **1[e] (“wherein the idle screen is displayed on the display unit with indicators corresponding to the screens, and”)**

*Hawkins* in combination with *Majava* teaches this feature. *Forlines* ¶¶143-45.

*Hawkins* discloses that the “display 700” shown in figure 7 “also includes **icons 203 for accessing additional banks** of **favorites buttons 701**.” *Hawkins*, 13:25-28, Fig. 7. As shown below in an annotated version of figure 7, when the first favorites page is displayed, the black highlighted “**1**” icon is displayed, and icons numbered two through five corresponding to the other four of the “**five banks of favorites buttons**” are also displayed. *Id.*; *Forlines* ¶144.

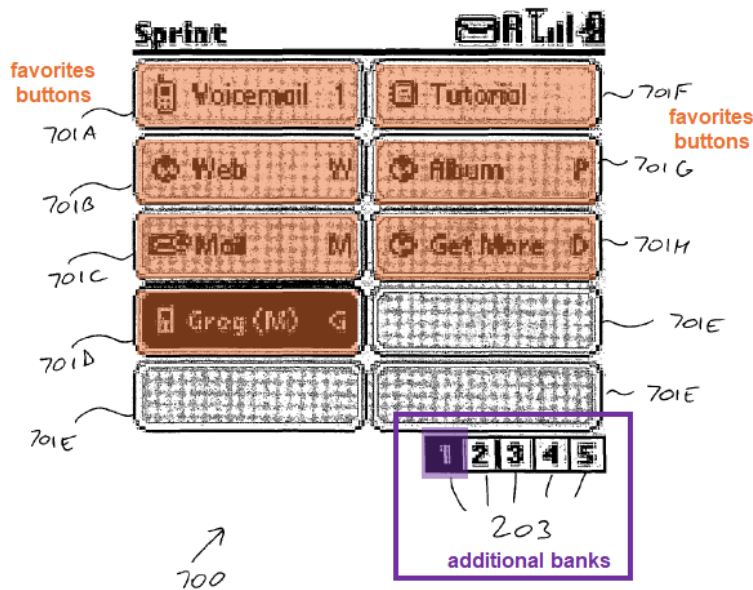


FIG. 7

Hawkins, FIG. 7 (annotated).

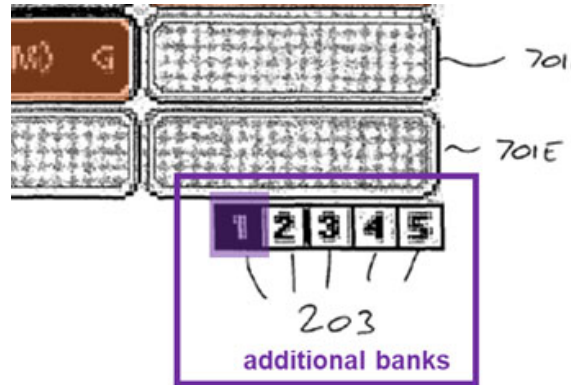
Accordingly, the *Hawkins-Majava* combination teaches displaying the first page of favorites buttons (“wherein the idle screen is displayed on the display unit”) and also displaying icons numbered one through five, which correspond to the page displayed and the other four pages of favorites buttons (“with indicators corresponding to the screens”). *Forlines* ¶145.

- g. **1[f]** (“an indicator corresponding to the screen, which is set as the idle screen, is displayed distinguishably from the rest of the indicators.”)

*Hawkins* in combination with *Majava* teaches this feature. *Forlines* ¶¶146-48.

As shown in figure 7, *Hawkins* discloses that the icon for the page designated as number one (i.e., the “idle screen”) is displayed both with a number (“1”) that distinguishes it from the other icons (“2” through “5”), and with a darker

highlighting that is distinguished from the other icons (a black highlighted box for 1, compared to white highlighted boxes for 2-5). *Hawkins*, Fig. 7; *Forlines* ¶147.



**FIG. 7**

*Hawkins*, FIG. 7 (annotated and excerpted).

Accordingly, the *Hawkins-Majava* combination teaches that the first page of favorites buttons has an icon “1” (“an indicator corresponding to the screen, which is set as the idle screen”) that is a distinguishable number and color, compared to the icons for the other four pages (“is displayed distinguishably from the rest of the indicators”). *Forlines* ¶148.

- 3. Claim 2 (“The method as claimed in claim 1, wherein the selecting comprises displaying, on the display unit, the shortcut icons of the application programs.”)**

*Hawkins* in combination with *Majava* teaches this claim. *Forlines* ¶¶149-153.

*Hawkins* discloses that a user can configure a favorites button “as an application button.” *Hawkins*, 16:51-17:2. The user selects an application “from the applications shown in [a] menu,” hits the “OK button,” and the device “accepts the

user's entries and configures button 701 accordingly." *Id.* The "user is returned to the favorites" page screen, which displays "the newly-added or edited button." *Id.* A POSITA would have understood that the added/edited button is displayed on screen 102. *Id.*, 5:36-39; *Forlines* ¶¶150-51. *Hawkins* also discloses that the "user can rearrange buttons" for applications already shown on the screen "from one location to another." *Id.*, 13:54-57. A POSITA would have understood "one location to another" to refer to from one favorites page to another favorites page. *Forlines* ¶152.

Accordingly, the *Hawkins-Majava* combination teaches displaying on the mobile telephone's screen the favorites icons that can be selected to launch the associated applications ("wherein the selecting comprises displaying, on the display unit, the shortcut icons of the application programs"). *Forlines* ¶153.

**4. Claim 3 ("The method as claimed in claim 1, wherein the idle screen switch request is inputted from a key button positioned on the mobile phone.")**

*Hawkins* in combination with *Majava* teaches this claim. *Forlines* ¶¶154-56.

*Hawkins* discloses that the user navigates between the "pages" or "banks" of "buttons" by using, for example, "the up/down/left/right controls on five-way button 104" on the device, as shown in figure 1. *Hawkins*, 13:58-65, Fig. 1. For example, "[i]f the bottom-right button 701 has focus" on the first page, "and the user hits the down button, the next bank is displayed." *Id.*, 14:3-48; *Forlines* ¶155.

Accordingly, the *Hawkins-Majava* combination teaches navigating from the first page of favorites buttons to other pages of favorites buttons, using a key button on the mobile telephone (“wherein the idle screen switch request is inputted from a key button positioned on the mobile phone”). *Forlines* ¶156.

**5. Claim 4 (“The method as claimed in claim 1, wherein the idle screen switch request is a leftward or rightward movement request.”)**

*Hawkins* in combination with *Majava* teaches this claim. *Forlines* ¶¶157-59.

*Hawkins* discloses that the user navigates between the “pages” or “banks” of “buttons” by using, for example, “the up/down/left/right controls on five-way button 104” on the device, as shown in figure 1. *Hawkins*, 13:58-65, Fig. 1. For example, “[i]f any of the right-side buttons 701 has focus” on the first page, “and the user hits the right button, the next bank is displayed.” *Id.*, 14:3-48. Similarly, “[i]f any of the left-side buttons 701 has focus, and the user hits the left button, the previous bank is displayed.” *Id.* As shown in figure 7, there are five pages identified by icons numbered one through five. *Id.*, 13:25-28, Fig. 7. Thus, a POSITA would have understood that hitting the right button switches the favorites page to one of the pages with a higher number (to the right of the currently displayed page), and hitting the left button switches the favorites page to one of the pages with a lower number (to the left of the currently displayed page). *Forlines* ¶158.

Accordingly, the *Hawkins-Majava* combination teaches navigating to a page to the right of the current page by hitting the right button, and navigating to a page to the left of the current page by hitting the left button (“wherein the idle screen switch request is a leftward or rightward movement request”). *Forlines* ¶159.

**6. Claim 5 (“The method as claimed in claim 1, wherein the idle screen switch request indicates whether the screens are switched either in an ascending or in a descending order.”)**

*Hawkins* in combination with *Majava* teaches this claim. *Forlines* ¶¶160-62.

*Hawkins* discloses that, as shown in figure 7, there are five “pages” or “banks” of favorites buttons, identified by icons numbered 1 through 5. *Id.*, 13:25-28, Fig. 7. As discussed in §§VIII.A.2.d and VIII.A.5, hitting the right button switches the favorites page to one of the pages with a higher number (to the right of the current page), and hitting the left button switches the favorites page to one of the pages with a lower number (to the left of the current page). *Hawkins* also discloses that the user can switch pages by “tapping on [the screen] with a stylus or finger,” and the display includes icons numbered 1 through 5 that correspond to the five pages of favorites buttons. *Id.*, 13:25-28, 14:49-50. Thus, a POSITA would have understood that navigating between the numbered pages indicates whether the switch is in an ascending or descending numerical order. *Forlines* ¶161.

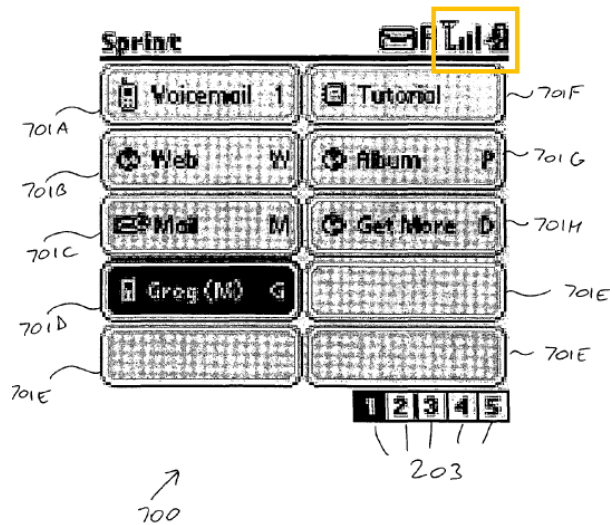
Accordingly, the *Hawkins-Majava* combination teaches navigating between pages numbered 1 through 5, in either ascending or descending numerical order.

(“wherein the idle screen switch request indicates whether the screens are switched either in an ascending or in a descending order”). *Forlines* ¶162.

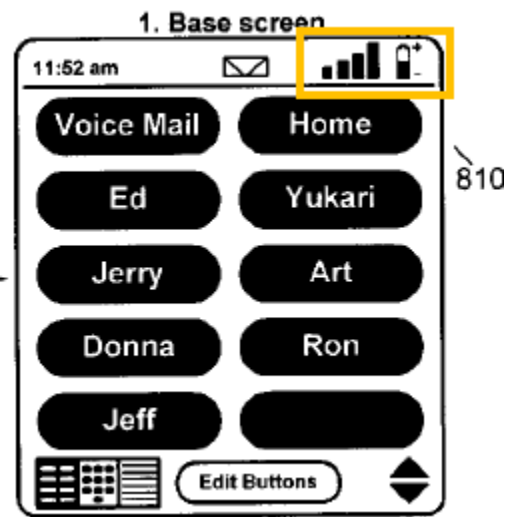
**7. Claim 6 (“The method as claimed in claim 1, wherein the screens display an operating condition of the mobile terminal in common, and the displayed operating condition comprises power utilization and radio wave reception strength.”)**

*Hawkins* alone or in combination with *Majava* teaches this claim. *Forlines* ¶¶163-172.

*Hawkins*’ figure 7 depicts the first of the five banks of “button 701 pages” as also displaying icons depicting a battery, and an antenna next to series of bars. *E.g.*, *Hawkins*, Fig. 7. A POSITA would have understood that the battery icon indicates the charge level for the device’s battery power source, and that the antenna/bars icon indicates the strength of the cellular (or similar) radio signal for the network to which the device is connected. *Forlines* ¶164. For example, *Hawkins* cites an earlier patent from the same named inventor (*Hawkins*, at p.2 (citing U.S. Patent No. 6,516,202 to Hawkins et al.)), which discloses a similar mobile telephone user interface, and explains that “the top” of the screen displays “a signal strength indicator, and a battery strength indicator” (Ex-1013, 2:47-54, 7:12-17, 7:28-31, Fig. 8A).



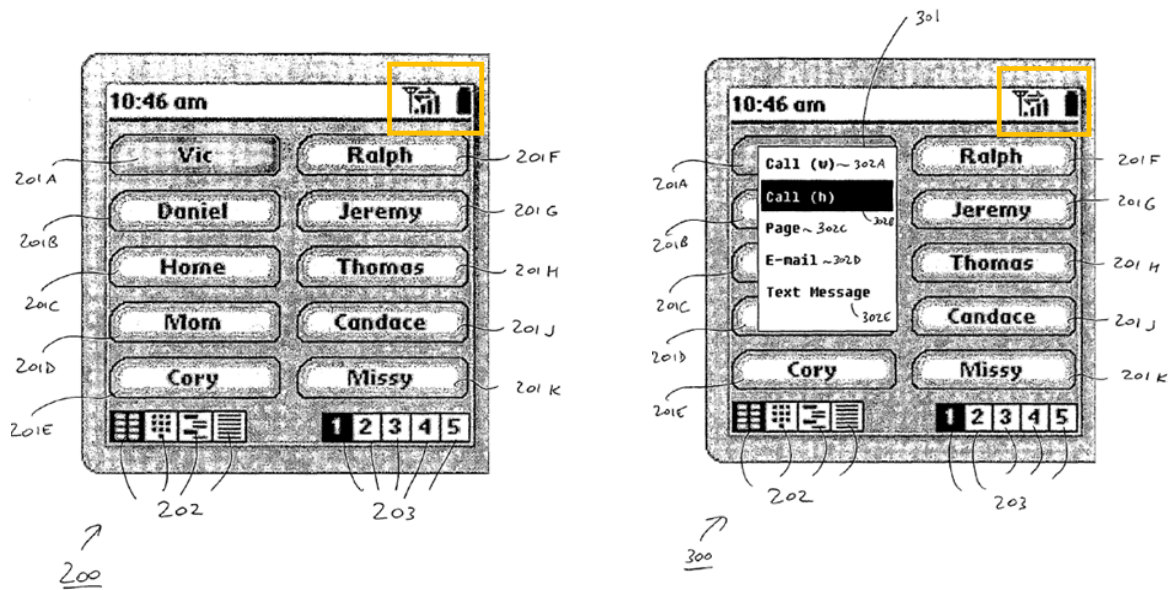
Hawkins, FIG. 7 (annotated).



Hawkins '202 Patent, FIG. 8A  
(excerpted and annotated).

The use of such battery and antenna/bars icons to indicate those conditions for mobile telephone was well-known as of the time of the alleged invention of the '720 patent, as exemplified by *Hawkins* and the *Hawkins '202 Patent* (Ex-1013). *Id.*; *Forlines* ¶164.

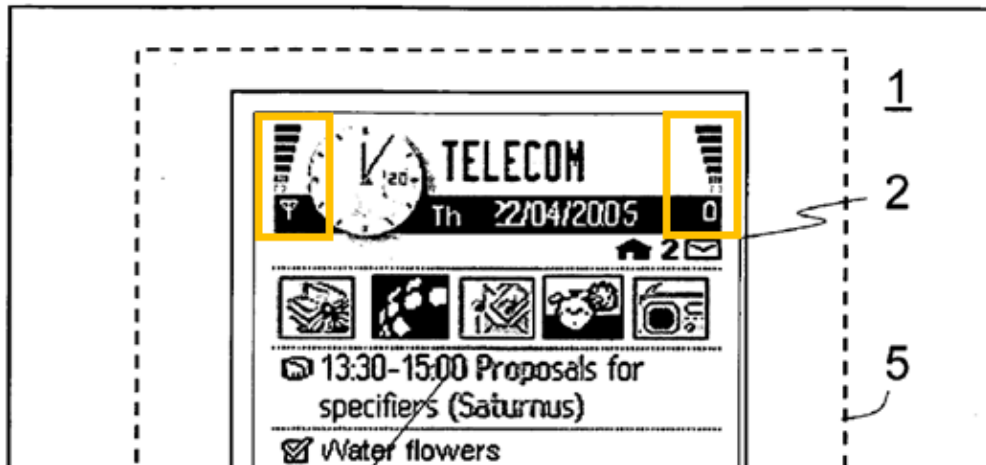
While *Hawkins* does not explicitly show each of pages 2 through 5 of the bank of “button 701 pages,” a POSITA would have understood that *Hawkins*’ disclosure is not limited to displaying the battery and the antenna/bars icons only on the first of the “button 701 pages.” *Forlines* ¶165. Indeed, in addition to figure 7, *Hawkins* depicts the same icons on, for example, screen shot 200 of speed dial favorite buttons (*Hawkins*, 6:26-37, Fig. 2), and screen shot 300 of a context sensitive menu 301 for selecting options related to a button (*id.*, 7:6-13, Fig. 3).



Hawkins, FIGs. 2-3 (annotated).

Similar to *Hawkins*, *Majava* discloses a mobile device user interface with “five different displays,” which are called “active idle” pages numbered “AI page 1 to 5.” *Majava*, [0028]-[0032], Fig. 2. *Majava* also teaches that the pages show “indications of remaining battery charge and present signal strength,” and that “most essential operational information such as battery and field indications *are advantageous to present on all pages.*”<sup>7</sup> *Id.*, [0025], [0034], Fig. 1.

<sup>7</sup> A POSITA would have understood “field” strength and “signal” strength to have equivalent meanings. *Forlines* ¶166.



*Majava*, FIG. 1 (excerpted and annotated).

Accordingly, a POSITA would have understood this aspect of *Majava* to teach that all of its AI pages display icons indicating remaining battery charge and present signal strength. *Forlines* ¶¶166-167.

It would have been obvious to a POSITA to incorporate *Majava*'s teachings into *Hawkins* such that *Hawkins* maintained the battery and antenna/bars icons on the display screen when each of the favorites pages is shown on the display screen similar to the manner in which they are shown in figure 7. *Forlines* ¶¶168-171. A POSITA would have found it obvious to implement *Majava*'s teachings in *Hawkins* to gain the benefit of keeping the user informed of the current battery and signal strength status no matter which favorites page was currently displayed. *Id.* ¶168.

The combination would have been obvious to a POSITA because it would have amounted to applying a known technique (*Majava*'s status indicator icons shown on every screen) to a known device (*Hawkins*' mobile user interface having

multiple “button 701 pages”) ready for improvement to yield predictable results (the *Hawkins-Majava* combination displaying the battery and antenna/bars icons on every “button 701 page”). *Id.* ¶169. The combination would further have been obvious to a POSITA because it would have amounted to applying a known technique (*Majava*’s status indicator icons shown on every screen) to similar devices (*Hawkins*’ mobile user interface which also displays the battery and antenna/bars icons on a “button 701 page”) in the same way (the *Hawkins-Majava* combination displaying the battery and antenna/bars icons on every “button 701 page”). *Id.* ¶170.

A POSITA would also have had a reasonable expectation of success in implementing this combination because *Hawkins*’ user interface already displays the battery and antenna/bars icons on multiple user interface screens, including the first of the “button 701 pages.” *Forlines* ¶171. Extending this exiting feature to the additional “button 701 pages” 2 through 5—as taught by *Majava*—would have been well within a POSITA’s skill because it would have amounted to adding additional known functionality to *Hawkins*’ existing mobile user interface. *Id.* ¶171.

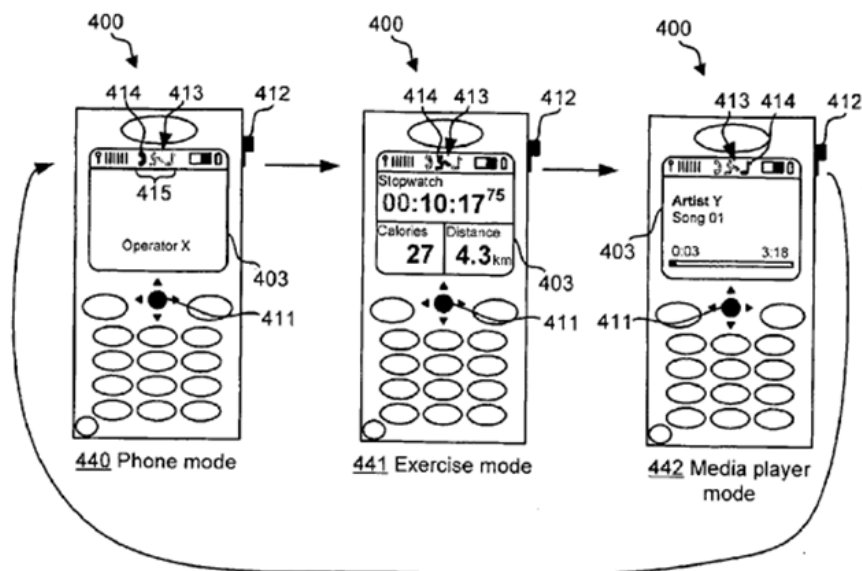
Accordingly, the *Hawkins-Majava* combination teaches displaying icons indicating both the device’s battery level, and the strength of a cellular (or similar) radio signal (“... displayed operating condition comprises power utilization and radio wave reception strength”), where those icons remain displayed when each page of favorites buttons is displayed (“wherein the screens display an operating condition

of the mobile terminal in common ...”). *Forlines* ¶172.

**8. Claim 7 (“The method as claimed in claim 1, wherein the order of the screens is usable in a circular manner.”)**

*Hawkins* in combination with *Majava* teaches this claim. *Forlines* ¶¶173-79.

While the specification of the ’720 Patent does not use the term “circular manner,” it explains that the screens may be “circulated.” ’720Pat, 7:32-38; *Forlines* ¶174. During prosecution, the Examiner argued that *Nurmela* discloses “wherein the order of the screens is usable in a circular manner.” ’720FH, 095-97 (2014-04-03 NFOA); *Nurmela*, Fig. 4, [0053]. *See, e.g., Arthrex, Inc.*, 935 F.3d at 1330; *Kumar*, 351 F.3d at 1368. *Nurmela* describes a mobile device that shows three different screens corresponding to different “modes,” including a “phone mode,” an “exercise mode,” and a “media player mode,” that can be “switched serially.” *Nurmela*, [0053]. *Nurmela* discloses that when the user is in the last “media player mode” and activates the “mode switch button,” the device “loops back” to the first “phone mode,” as shown by the return arrow in figure 4. *Id.*, [0053], Fig. 4.



*Nurmela*, FIG. 4.

Applicant did not dispute the Examiner’s understanding of *Nurmela*’s teaching as it relates to “wherein the order of the screens is usable in a circular manner.” *’720FH*, 059-068 (2014-07-02 Response). Thus, a POSITA would have understood that “the order of the screens is usable in a circular manner” as used in the claim encompasses navigating a series of screens serially in a loop, such that moving forwards past the last screen returns the user to the first screen, and moving backwards from the first screen takes the user to the last screen. *Forlines* ¶¶175-177.

*Hawkins* teaches that “[i]f the top-left button 701 has focus” and “bank #1 was already being displayed,” then “the last bank” is displayed when “the user hits the up button.” *Hawkins*, 14:5-11. Similarly, “[i]f the bottom-right button 701 has focus” and the “last bank containing an assigned button was already being displayed,” then

“the first bank” is displayed when “the user hits the down button.” *Id.*, 14:19-25; *Forlines* ¶178.

Accordingly, the *Hawkins-Majava* combination teaches favorites pages that are displayed serially in a loop when navigated, such that moving forward from the last page returns the display to the first page, and moving backward from the first page displays the last page (“wherein the order of the screens is usable in a circular manner”). *Forlines* ¶179.

## 9. Independent Claim 8

- a. **8[Pre] (“A mobile terminal for setting an idle screen to be displayed in an idle state among a plurality of screens usable as the idle screen, the mobile terminal comprising:”)**

To the extent that the preamble is limiting, *Hawkins* in combination with *Majava* teaches this feature. *Forlines* ¶¶180-183.

For the reasons discussed in §VIII.A.2.a, the *Hawkins-Majava* combination teaches “setting an idle screen to be displayed in an idle state among a plurality of screens usable as the idle screen.”

*Hawkins* also teaches that the “user interface” depicted in figure 7 “may be implemented on any communication device,” including “mobile telephones, personal digital assistances (PDAs) ... and the like.” *Hawkins*, 3:35-44, 13:10-12; *Forlines* ¶182.

Accordingly, the *Hawkins-Majava* combination teaches a mobile telephone (“mobile terminal”) for setting a first page of favorites buttons, wherein the buttons correspond to applications on the mobile telephone and launch the applications when selected (“setting an idle screen”), as the page of buttons that is displayed after a given period of idle time (“to be displayed in an idle state”), wherein the first page is selected from among five pages of favorites buttons, any of which can be designated as the first page (“among a plurality of screens usable as the idle screen”). *Forlines* ¶183.

**b. 8[a] (“a user interface configured to be operable by a user”)**

*Hawkins* in combination with *Majava* teaches this feature. *Forlines* ¶¶184-86.

*Hawkins* discloses that in “FIG. 7, there is shown a user interface display 700 including favorites buttons 701A through 701H,” which are operable by a user including via “pressing button[s] 701.” *Hawkins*, 13:10-24, 13:40-53; *Forlines* ¶185.

Accordingly, the *Hawkins-Majava* combination teaches a user interface with favorites buttons that are pressed by the user (“a user interface configured to be operable by a user”). *Forlines* ¶186.

**c. 8[b] (“a display unit”)**

*Hawkins* in combination with *Majava* teaches this feature. *Forlines* ¶¶187-89.

*Hawkins* discloses that its device “includes screen 102, which may be a liquid

crystal display (LCD) or other type of display for presenting output to the user.”  
*Hawkins*, 5:36-39; *Forlines* ¶188.

Accordingly, the *Hawkins-Majava* combination teaches a display screen (“a display unit”). *Forlines* ¶189.

**d. 8[c] (“a control unit configured to:”)**

*Hawkins* in combination with *Majava* teaches this feature. *Forlines* ¶¶190-92.

*Hawkins* discloses that its device includes a “general-purpose computer selectively activated or reconfigured by a computer program,” which is configured for “performing the operations herein.” *Hawkins*, 18:43-55. A POSITA would have understood *Hawkins*’ computer, running a computer program, to teach a control unit, because those are the components configured to run the user interface software and control its operations and functionalities, as is standard in the art for computer-implemented functionalities. *Forlines* ¶191(discussing *Wardimon*).

Accordingly, the *Hawkins-Majava* combination teaches “a control unit configured to” perform the steps recited in limitations 8[d]-8[i] for the reasons that are stated in the next section. *Forlines* ¶192.

**e. 8[d]-8[i]**

*Hawkins* in combination with *Majava* teaches limitations 8[d]-8[i] for the same reasons discussed in §§VIII.A.2.b-VIII.A.2.g, according to the table below.  
*Forlines* ¶193.

Element	Section
8[d]	VIII.A.2.b
8[e]	VIII.A.2.c
8[f]	VIII.A.2.d
8[g]	VIII.A.2.e
8[h]	VIII.A.2.f
8[i]	VIII.A.2.g

- 10. Claim 9 (“The mobile terminal as claimed in claim 8, wherein the idle screen switch request is a leftward or rightward movement request.”)**

*Hawkins* in combination with *Majava* teaches this claim for the same reasons discussed in §VIII.A.5 (claim 4). *Forlines* ¶194.

- 11. Claim 10 (“The mobile terminal as claimed in claim 8, wherein the idle screen switch request indicates whether the screens are switched either in an ascending or in a descending order.”)**

*Hawkins* in combination with *Majava* teaches this claim for the same reasons discussed in §VIII.A.6 (claim 5). *Forlines* ¶195.

- 12. Claim 11 (“The mobile terminal as claimed in claim 8, wherein the display unit is further configured to display at least one icon for indicating an operating condition of the mobile terminal and said at least one icon remains displayed even with the idle screen switch request, wherein the operating condition comprises at least one of power utilization, radio wave reception strength and time.”)**

*Hawkins* in combination with *Majava* teaches this claim. *Forlines* ¶¶196-200.

Claim 11 is similar to claim 6. The relevant language of each is reproduced below with similar concepts in the same color. *Forlines* ¶197.

Claim 11	Claim 6
<p>... wherein the display unit is further configured to display at least one icon for indicating an operating condition of the mobile terminal and said at least one icon remains displayed even with the idle screen switch request, wherein the operating condition comprises at least one of power utilization, radio wave reception strength and time.</p>	<p>... wherein the screens display an operating condition of the mobile terminal in common, and the displayed operating condition comprises power utilization and radio wave reception strength.</p>

While claim 11 also recites “time” as one of the operating conditions that can be displayed (whereas this is not recited in claim 6), claim 11 also recites “display[ing] *at least one icon* for indicating an operating condition of the mobile device” and that “the operating condition comprises *at least one of* power utilization, radio wave reception strength and time.” Thus, a POSITA would have understood that claim 11 requires that only one icon be displayed and that the icon can be any one of power

utilization, radio wave reception *or* time. *Forlines* ¶198.

For the reasons discussed in §VIII.A.7 (claim 6), the *Hawkins-Majava* combination teaches displaying icons indicating the device's battery level and the strength of a cellular (or similar) radio signal, where those icons remain displayed when each page of favorites buttons is displayed. *Forlines* ¶199. Moreover, as discussed in §VIII.A.2.a, in the *Hawkins-Majava* combination the user interface displays are displayed on the mobile telephone's screen 102. *Id.* ¶199.

Accordingly, the *Hawkins-Majava* combination teaches a screen (“display unit”) that is configured to display battery and antenna/bars icons for indicating the charge level of the device's battery power source and the strength of the cellular (or similar) radio signal for the network, respectively (is further configured to display at least one icon for indicating an operating condition of the mobile terminal ... wherein the operating condition comprises at least one of power utilization, radio wave reception strength ...”), where those icons remain displayed when each page of favorites buttons is displayed (“and said at least one icon remains displayed even with the idle screen switch request”). *Forlines* ¶200.

**13. Claim 12 (“The mobile terminal as claimed in claim 8, wherein the order of the screens is usable in a circular manner.”)**

*Hawkins* in combination with *Majava* teaches this claim for the same reasons discussed in §VIII.A.8 (claim 7). *Forlines* ¶201.

**14. Independent Claim 13**

- a. **13[Pre] (“A non-transitory computer-readable recording medium for storing a program for setting an idle screen to be displayed in an idle state of a mobile terminal among a plurality of screens usable as the idle screen, wherein the program, when executed by the mobile terminal, instructs the mobile terminal to perform:”)**

To the extent that the preamble is limiting, *Hawkins* in combination with *Majava* teaches this feature. *Forlines* ¶¶202-205.

For the reasons discussed in §VIII.A.2.a, the *Hawkins-Majava* combination teaches “setting an idle screen to be displayed in an idle state of a mobile terminal among a plurality of screens usable as the idle screen.” *Forlines* ¶203.

*Hawkins* further teaches that its “user interface,” e.g., as in figure 7, “may be implemented on any communication device,” and that such device runs “a computer program” that “perform[s] the operations,” and which “may be stored in a computer readable storage medium,” including “any type of media suitable for storing electronic instructions.” *Hawkins*, 3:35-44, 13:10-12, 18:43-55; *Forlines* ¶204.

Accordingly, the *Hawkins-Majava* combination teaches a program stored in a mobile telephone’s computer readable storage medium, and executed by that mobile telephone, to perform the operations of (“[a] non-transitory computer-readable recording medium for storing a program ... wherein the program, when executed by the mobile terminal, instructs the mobile terminal to perform”) setting

a first page of favorites button, wherein the buttons correspond to applications on the mobile telephone and launch the applications when selected (“... setting an idle screen”), as the page of buttons that is displayed after a given period of idle time (“to be displayed in an idle state of a mobile terminal”), wherein the first page is selected from among five pages of favorites buttons, any of which can be designated as the first page (“among a plurality of screens usable as the idle screen ...”). *Forlines* ¶205.

**b. 13[a]-13[f]**

*Hawkins* alone or in combination with *Majava* teaches limitations 13[a]-13[f] for the same reasons discussed in §§VIII.A.2.b-VIII.A.2.g, according to the table below. *Forlines* ¶206.

Element	Section
13[a]	VIII.A.2.b
13[b]	VIII.A.2.c
13[c]	VIII.A.2.d
13[d]	VIII.A.2.e
13[e]	VIII.A.2.f
13[f]	VIII.A.2.g

15. **Claim 14 (“The non-transitory computer-readable recording medium as claimed in claim 13, wherein the idle screen switch request is a leftward or rightward movement**

request.”)

*Hawkins* in combination with *Majava* teaches this claim for the same reasons discussed in §VIII.A.5 (claim 4). *Forlines* ¶207.

16. **Claim 15 (“The non-transitory computer-readable recording medium as claimed in claim 13, wherein the screens display an operating condition of the mobile terminal in common, and the displayed operating condition comprises at least one of power utilization, radio wave reception strength and time.”)**

*Hawkins* in combination with *Majava* teaches this claim. *Forlines* ¶¶208-212.

Claim 15 is similar to claim 6. The relevant language of each is reproduced below with similar concepts in the same color. *Forlines* ¶209.

Claim 15	Claim 6
... wherein screens display an operating condition of the mobile terminal in common, and the displayed operating condition comprises at least one of power utilization, radio wave reception strength and time.	... wherein the screens display an operating condition of the mobile terminal in common, and the displayed operating condition comprises power utilization and radio wave reception strength.

While claim 15 also recites “time” as one of the operating conditions that can be displayed (whereas this is not recited in claim 6), claim 15 also recites “the displayed operating condition comprises *at least one of* power utilization, radio wave reception

strength and time.” Thus, a POSITA would have understood that claim 15 requires that only one icon be displayed and that the icon can be any one of power utilization, radio wave reception *or* time. *Forlines* ¶210.

For the reasons discussed in §VIII.A.7 (claim 6), the *Hawkins-Majava* combination teaches displaying icons indicating the device’s battery level and the strength of a cellular (or similar) radio signal, where those icons remain displayed when each page of favorites buttons is displayed. *Forlines* ¶211.

Accordingly, the *Hawkins-Majava* combination teaches displaying icons indicating both the device’s battery level, and the strength of a cellular (or similar) radio signal (“... displayed operating condition comprises at least one of power utilization, radio wave reception strength ...”), where those icons remain displayed when each page of favorites buttons is displayed (“wherein the screens display an operating condition of the mobile terminal in common ...”). *Forlines* ¶212.

**17. Claim 16 (“The non-transitory computer-readable recording medium as claimed in claim 13, wherein the order of the screens is usable in a circular manner.”)**

*Hawkins* in combination with *Majava* teaches this claim for the same reasons discussed in §VIII.A.8 (claim 7). *Forlines* ¶213.

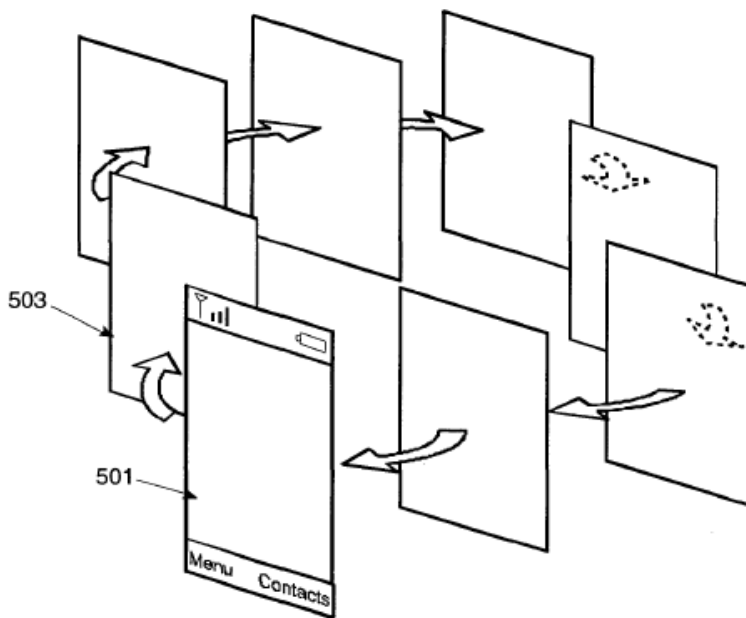
**B. Ground 2: *Hawkins* In Combination With *Majava* and *Nielsen* Renders Obvious Claims 7, 12, and 16**

**1. Claim 7 (“The method as claimed in claim 1, wherein the order of the screens is usable in a circular manner.”)**

For the reasons discussed in §VIII.A.8, the *Hawkins-Majava* combination teaches this claim. *Forlines* ¶214.

However, to the extent that PO argues and the Board finds that the *Hawkins-Majava* combination does not teach “wherein the order of the screens is usable in a ***circular manner***,” this claim is taught by *Hawkins-Majava* in combination with *Nielsen*. *Forlines* ¶¶215-222.

*Nielsen* discloses a mobile user interface with a series of “glance module” screens that are “serially accessible,” such that, as shown in figure 5, there is “one that is initially displayed,” and the user may switch to others “until the desired glance module is presented,” that is, “the display would serially cycle through each installed glance module.” *Nielsen*, [0030], Fig. 5.



*Nielsen*, FIG. 5.

For the reasons discussed in §VIII.A.8, a POSITA would have understood that “the order of the screens is usable in a circular manner” as used in the claim encompasses navigating a series of screens serially in a loop, such that moving forwards past the last screen returns the user to the first screen, and moving backwards from the first screen takes the user to the last screen. Accordingly, a POSITA would have understood *Nielsen* to teach screens that are “usable in a circular manner.” *Forlines* ¶¶216-217.

A POSITA would have been motivated to incorporate *Nielsen*’s teachings regarding circularly navigating through a series of displayed screens into *Hawkins-Majava*. *Forlines* ¶218. *Nielsen* teaches allowing the user to navigate directly back to the first page when viewing the fifth page (if desired), without have to navigate back through the intervening fourth, third, and second pages to get there. *Nielsen*, [0030], Fig. 5; *Forlines* ¶218. Similarly, *Nielsen* allows the user to navigate directly from the first page to the fifth page (if desired), without have to navigate forward through the intervening second, third, and fourth pages to get there. *Id.* A POSITA would have recognized that incorporating this teaching from *Nielsen* into *Hawkins-Majava* would have furthered *Hawkins*’ stated goal of implementing a user interface that “provides easy access” to “buttons” associated with desired “features” of “communication devices” (*Hawkins*, 2:38-48), and would have allowed the user to navigate between screens faster and more efficiently. *Forlines* ¶218.

The combination would have been obvious to a POSITA because it would have amounted to applying a known technique (*Nielsen's* technique for serially cycling through displayed screens in a loop) to a known device (*Hawkins-Majava's* mobile telephone having a user interface with a series of screens that can be navigated) ready for improvement to yield predictable results (the mobile telephone of the *Hawkins-Majava-Nielsen* combination having a user interface with a series of screens that can be navigated serially in a loop). *Id.* ¶219. The combination would further have been obvious to a POSITA because it would have amounted to applying a known technique (*Nielsen's* technique for serially cycling through displayed screens in a loop) to similar devices (*Hawkins-Majava's* mobile telephone having a user interface with a series of screens that can be navigated) in the same way (the mobile telephone of the *Hawkins-Majava-Nielsen* combination having a user interface with a series of screens that can be navigated serially in a loop). *Id.* ¶220.

A POSITA would also have had a reasonable expectation of success in implementing this combination because the *Hawkins-Majava* combination's user interface already includes a series of screens that can be navigated in backwards and forwards directions. *E.g., Hawkins*, 13:58-14:50. Implementing *Nielsen's* teaching to "serially cycle" through displayed screens in *Hawkins* would have amounted to adding additional known functionality to a pre-existing mobile user interface that already included multi-directional screen navigation, which would have been within

the capabilities of a POSITA. *Id.* ¶221.

Accordingly, the *Hawkins-Majava-Nielsen* combination teaches serially cycling through displayed favorites pages, such that moving forward from the last page returns the display to the first page, and moving backward from the first page displays the last page (“wherein the order of the screens is usable in a circular manner”). *Forlines* ¶222.

**2. Claim 12 (“The mobile terminal as claimed in claim 8, wherein the order of the screens is usable in a circular manner.”)**

The *Hawkins-Majava-Nielsen* combination teaches this claim for the same reasons discussed in §VIII.B.1. *Forlines* ¶223.

**3. Claim 16 (“The non-transitory computer-readable recording medium as claimed in claim 13, wherein the order of the screens is usable in a circular manner.”)**

The *Hawkins-Majava-Nielsen* combination teaches this claim for the same reasons discussed in §VIII.B.1. *Forlines* ¶224.

## **IX. SECONDARY CONSIDERATIONS**

There is no evidence in the ’720 Patent’s prosecution history or elsewhere supporting any secondary considerations arguments, or evidence of nexus of such alleged evidence to the Challenged Claims. *See generally* ’720FH. To the extent PO asserts the existence of any secondary considerations in its responses, Petitioners reserve the right to address any such evidence.

**X. THE DISCRETIONARY FACTORS FAVOR INSTITUTING TRIAL**

**A. 35 U.S.C. §325(d)**

None of the references presented in the grounds herein were previously considered by the Office. Accordingly, the Board should not exercise its discretion under §325(d) to deny institution.

**B. 35 U.S.C. §314(a)**

Consistent with the Board's guidance provided during the Boardside Chat conducted on April 17, 2025, Petitioners do not substantively address discretionary denial under §314 in the Petition, but reserve the right to oppose any brief on discretionary denial filed by PO.

**XI. MANDATORY NOTICES UNDER 37 C.F.R. §42.8**

**A. Real Parties-In-Interest**

Petitioners identify themselves as the real parties-in-interest.

**B. Related Matters**

To the best of Petitioners' knowledge, the '720 Patent has only been involved in the following district court litigation: *Hermes IP Management LLC v. Samsung Electronics Co., Ltd. et al.*, No. 2:24-CV-00540-JRG (E.D. Tex.) (the "Litigation").

To the best of Petitioners' knowledge, the '720 Patent has not been challenged in any other *inter partes* review or post-grant review prior to this proceeding.

**C. Lead and Backup Counsel**

<b>Lead Counsel</b>	<b>Back-Up Counsel</b>
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**D. Service Information**

Please address all correspondence to lead and back-up counsel at the addresses shown above. Petitioners consent to electronic service by e-mail at the following addresses:

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**E. Power of Attorney**

A power of attorney is filed herewith according to 37 C.F.R. §42.10(b).

**XII. FEES**

Petitioners concurrently electronically submits the required fees for this Petition. The Board is authorized to charge Arnold & Porter Kaye Scholer LLP's deposit account, No. 50-2387, for any fee deficiency.

Dated: April 22, 2025

/Ali R. Sharifahmadian/  
Ali R. Sharifahmadian (Reg. No. 48,202)  
Counsel for Petitioners

**CERTIFICATE OF WORD COUNT**

Under the provisions of 37 C.F.R. § 42.24(d), the undersigned hereby certifies that the Microsoft Office word count including all footnotes for the foregoing Petition, excluding the table of contents, table of authorities, certificate of word count, appendix and certificate of service, totals 12,042 words, which is less than the 14,000 words allowed.

Dated: April 22, 2025

/Ali R. Sharifahmadian/  
Ali R. Sharifahmadian (Reg. No. 48,202)  
Counsel for Petitioners

**CERTIFICATE OF SERVICE**

I certify that on April 22, 2025, I caused a true and correct copy of the foregoing Petition for *Inter Partes* Review of U.S. Patent No. 8,855,720 and supporting exhibits to be served via overnight delivery on the Patent Owner at the following correspondence address of record as listed on Patent Center:

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