

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC and MOTOROLA MOBILITY LLC,
Petitioner,

v.

MULTIFOLD INTERNATIONAL INCORPORATED PTE. LTD.
Patent Owner

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

DECLARATION OF SANJIV SIRPAL

I, Sanjiv Sirpal, declare as follows:

I. INTRODUCTION

1. My name is Sanjiv Sirpal. I am the first named inventor on U.S. Pat. No. 9,158,494 (the “’494 Patent”). I submit this declaration to testify to my personal knowledge and involvement on the Imerj dual screen folding smartphone project at Flextronics (now Flex) from June 2008 through October 2011. I have no financial interest in the outcome of this proceeding, in U.S. Pat. No. 9,158,494 (the “’494 Patent”), or in the outcome of any proceeding involving the ’494 Patent.

2. I understand that claims 1, 2, 4, 6, 9, 10, 12, 13, 14, and 18-20 of the ’494 patent are at issue in this proceeding. I and my coinventor conceived of the challenged claims prior to February 10, 2011 and, with the help of the team of engineers at Flextronics on the Imerj project, reduced the invention to practice such that it worked for its intended purpose prior to February 10, 2011. The intended purpose for the ’494 Patent is minimizing and maximizing between dual display and single display.

3. Alternatively, we reduced the claimed invention to practice no later than February 22, 2011, and were diligent from late January 2011 to February 22, 2011.

4. The Imerj smartphone project had various names such as “Imerj”,

“Conquest”, “Ambush”, and “Android System Services” during development, but I will generally refer to it in this declaration by “Imerj,” which is the name the phone was ultimately identified under, as well as the name of the Flextronics subsidiary (Imerj Design) later created to market it.

5. An example of an Imerj dual screen folding smartphone is shown below:



6. I started as a Senior User Interface Designer at Flextronics in June 2008. I later served as the Director of User Experience at Flextronics (Flex Computing Segment) on the Imerj project. I was one of the original designers on the

Imerj project. I led all user experience design activity and managed design groups delivering a two screen smart phone to launch. That is, I was responsible for development of the design of the user experience for the Imerj smartphone.

II. THE IMERJ PROJECT

7. The Imerj project lasted approximately from 2009 until late 2011. During the 2010-2011 timeframe, at least 100 people were working full time to develop and test the Imerj smartphone, including the claimed functionality of the '494 Patent. I personally managed a team of approximately 7 designers working full time on designing and testing the user experience for the Imerj project during the late 2010 through early 2011 timeframe. Part of this user experience was the gesture experience used to minimize and maximize pages in dual display mode.

8. My team and I were responsible for the design and layout of the user interface for the OS & applications for the IMERJ dual-screen phone. I led and managed the team that introduced the claimed functionality of using touch input to manage, control and display applications across the dual screens of the IMERJ Phone. We had many other teams working to help implement the specifications I and my team provided in a working smartphone, including System Software, Application Software, Hardware, and Quality Assurance teams that were constantly developing and testing prototypes of the Imerj smartphone over the

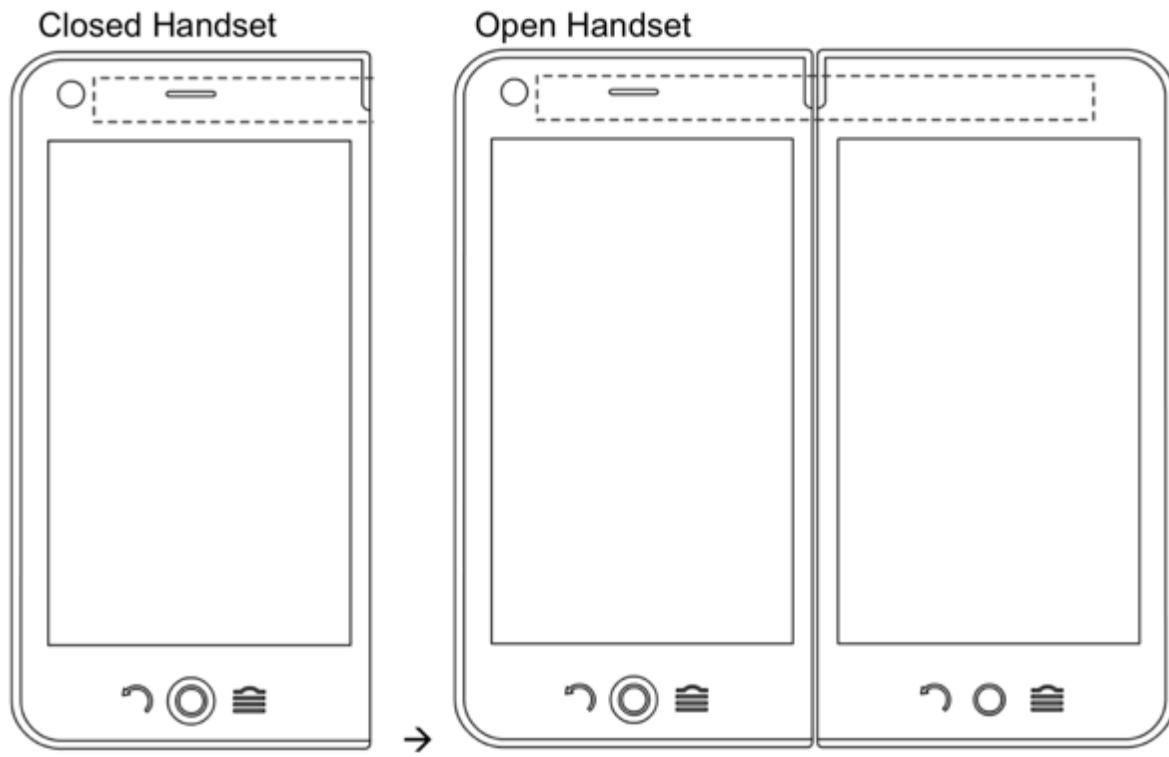
entire course of the project.

III. CONCEPTION OCCURRED NO LATER THAN NOVEMBER 18, 2010

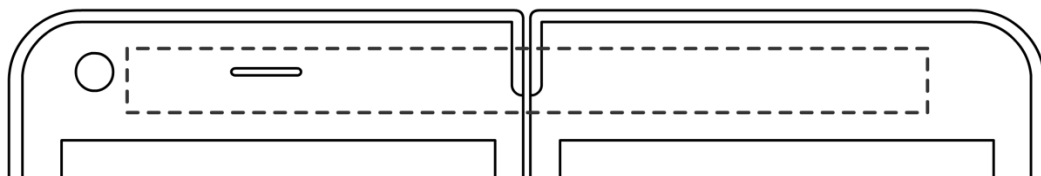
9. I understand conception in the context of an invention to mean the formation in the mind of the inventor, of a definite and permanent idea of the complete and operative invention, as it is hereafter to be applied in practice.

10. Conception of the invention of the challenged claims of the '494 Patent occurred no later than November 18, 2010. By no later than that date, I and my co-inventor had a definite and permanent idea of processes for minimizing and maximizing between dual display and single display.

11. This is confirmed by exhibits discussed herein including Exhibit 2006 [UX Overview], which is a Power Point slide deck I authored on November 18, 2010. *Id.* at 1. This slide deck is titled “UX Foundation Overview” and describes devices being developed by myself and the Imerj team including the Imerj dual-screen smartphone and dual-screen capable applications. Page 15 of Exhibit 2006 shows a handset with the same form factor as the Imerj prototypes shown above:



Id., 15. The dual screen handset includes a capacitive gesture strip across the top of the device shown by the dashed box in the figure above which can be used for gesture input by a user to navigate through applications running on the device:



Id. at 30. The capacitive gesture strip can be “used to track the gestures that are used to” “move,” “maximize” and “minimize.” *Id.* The document discusses that

“Dual screen capable applications will first maximize, and then minimize.” *Id.*, 31.

12. The slide deck further describes WPC operations. “WPC” refers to “Windows Position Control,” which encompasses the gesture functionality on the Imerj phones. *Id.*, 31. The WPC gesture functionality included “Application Shuffling” and explains that applications “can be shuffled by dragging a finger across the gesture region. Applications will ‘move’ along with the users fingers”:

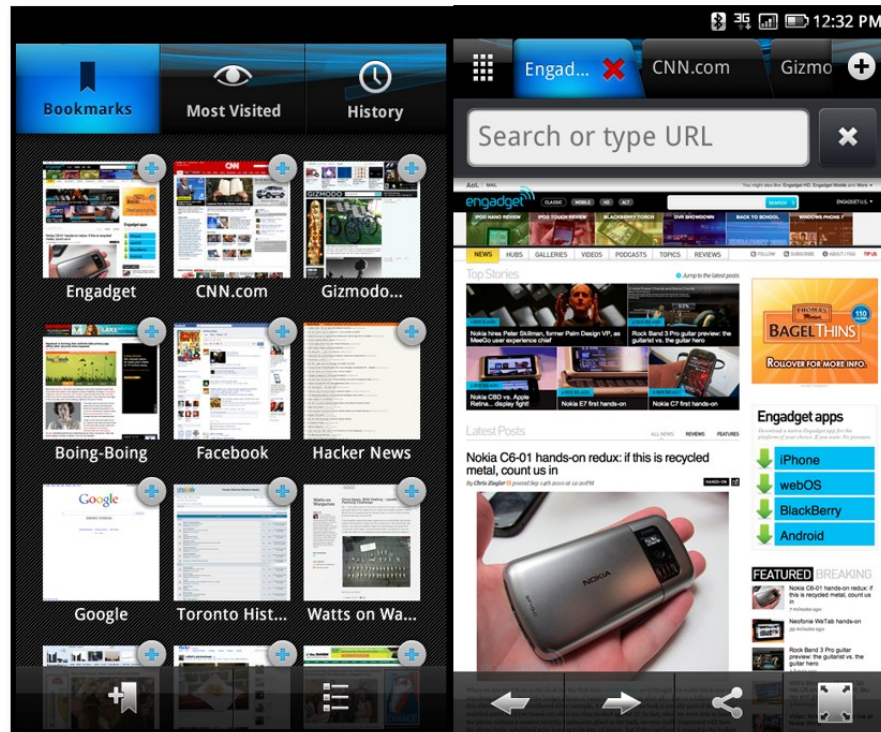


Id., 31.

13. The presentation also describes the operation of dual screen capable applications, which are applications that are able to display two different views on the two displays of the device, and describes their ability to be maximized and minimized. *Id.*, 31. Examples of such dual screen capable applications are provided including a dual screen capable (e.g., “Portrait Dual Screen” capable)

internet browsing application:

Portrait Dual Screen



FLEX Computing | Design. Build. Ship. Service.

Flextronics Confidential

79

Id., 79. See also *Id.*, 33 (dual screen phone dialer), 45-49 (showing dual screen email app, dual screen phone dialer, and dual screen messaging), 75 (dual screen calendar app), 84 (dual screen camera app). The UX Overview presentation goes into “Deep Dives” on the design of the Calendar (slides 94-104), Messaging (105-112) and Browsing (113-131), illustrating the dual screen functionality envisioned as of November 18, 2010.

14. Many documents prior to November 18, 2010 also support my

recollection that the claimed invention was reduced to practice no later than November 18, 2010.

15. One example is Exhibit 2012 [Window Management – Interaction Design]. Exhibit 2012 is an interaction design specification dated September 10, 2010 created by my design team with my input and evidencing my conception of the invention of the challenged claims. The specification is titled “Windowing Management Interaction Design Specification” and it discusses how different user interactions and inputs should affect the phone displays. *Id.*

16. The specification defines “WPC operations” (or Window Position Control operations) that could be performed by gesture input, including “moving an application to the other screen, maximizing a dual-screen capable application to two screens, or minimizing one to a single-screen”. *Id.* at 4. The specification includes a table listing the following gestures supported by the UX (user experience) design:

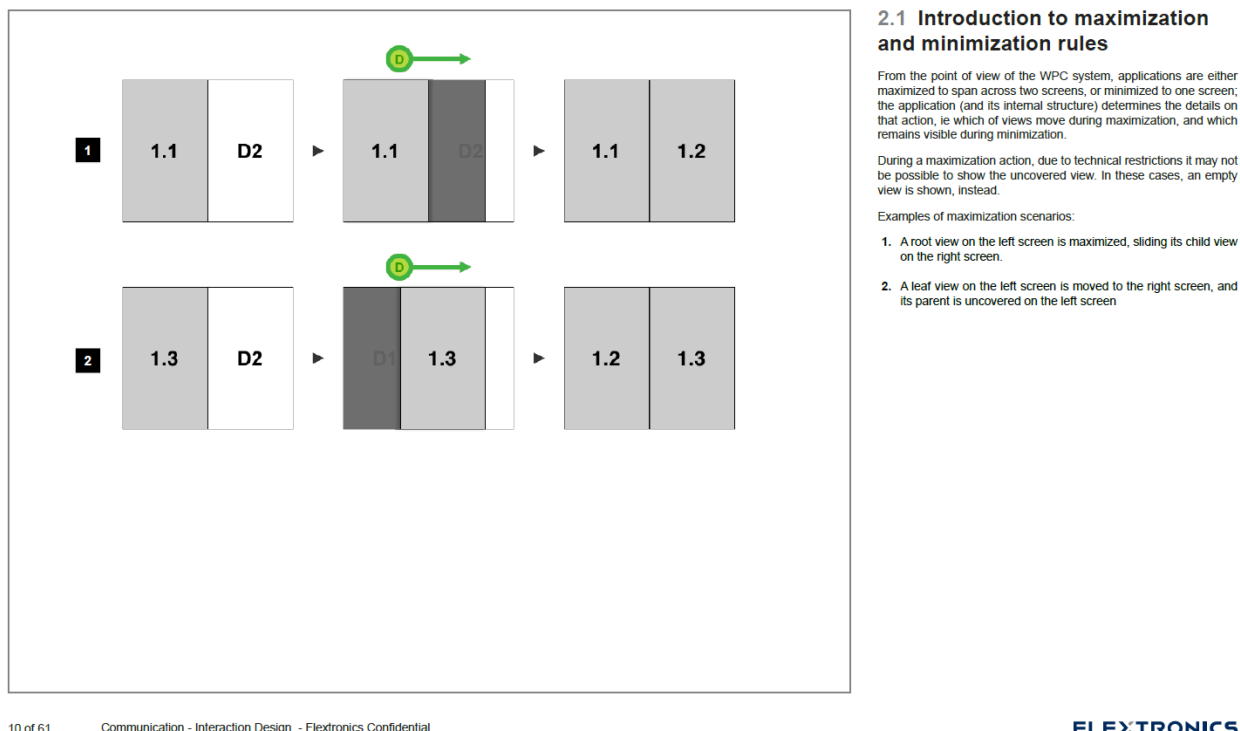
The following off-screen gestures are supported by the WPC:

Tap	<i>Currently not utilized</i>
Long-press	<i>Currently not utilized</i>
Drag	1. Moves applications from one screen to another 2. Maximizes and minimizes dual-screen capable applications
Long-drag	Considered a sequence of continuous drag operations.
Flick	1. Moves applications from one screen to another 2. Minimizes dual-screen applications
Pin & drag	Holds the pinned application in place while moving the other applications in the application stack. The pinned application always remains in view.
Pinch	Displays the Application Manager
Spread	Reveals the Desktop

Id., 8. The specified gestures include the “Drag” gesture which “[m]oves applications from one screen to another” and/or “[m]aximizes and minimizes dual-screen capable applications”, as well as the “Flick” gesture which also “[m]oves applications from one screen to another” and “[m]inimizes dual-screen applications.”

17. Exhibit 2012 [Window Management – Interaction Design] also defines standard rules to be applied in response to receiving gesture input to maximize and minimize dual-screen capable applications. Dual-screen capable applications were applications that were capable of displaying two different views of the same application on two displays. For example, this specification includes the following illustrations of standard maximization and minimization rules for

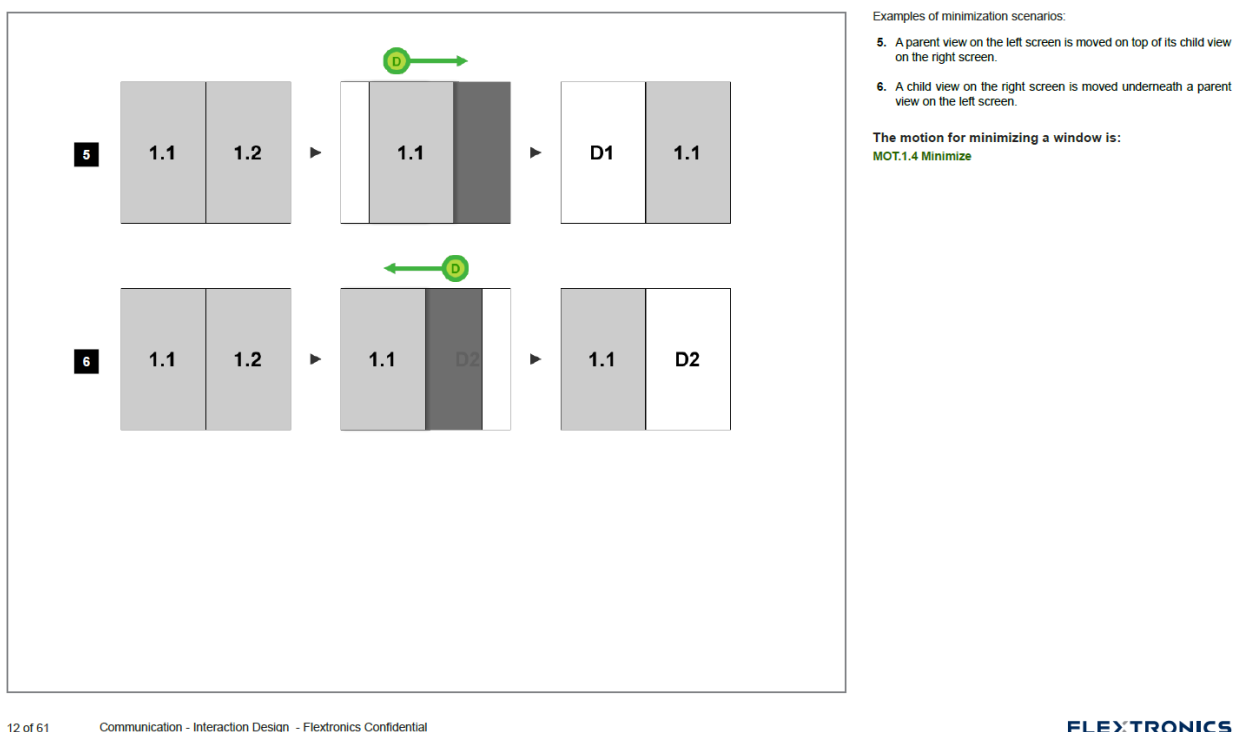
dual-screen capable applications, illustrating how such applications can be maximized in response to a user's gesture input:



Id. at 10.

18. The figure above illustrates, for example “1”, an initial state with one display showing view “1.1” of a dual-screen capable application on a left display and a desktop “D2” on a right display. *Id.* In response to a user executing a drag gesture input to maximize the application (drag gesture input shown as “D” in the green circle), the application is maximized such that the left side displays the “1.1” view of the application and the right side displays a second view of the same application labeled “1.2”. *Id.* In this example, “1.2” is a child of “1.1”. *Id.* at 6.

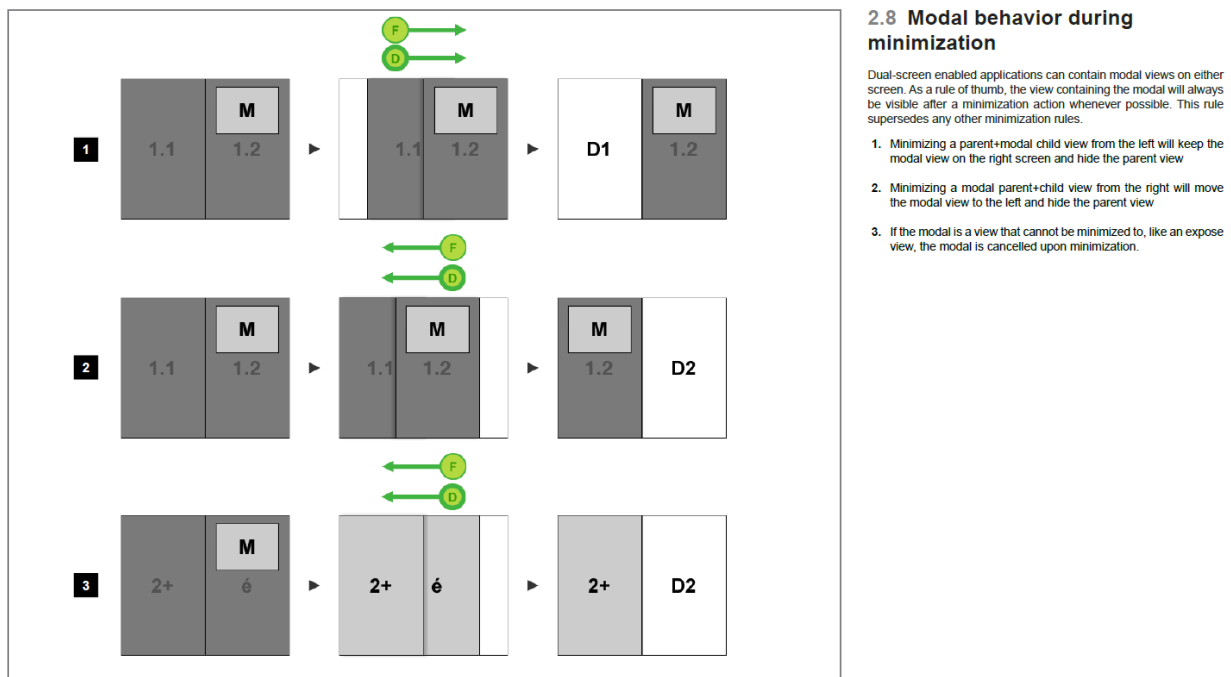
19. This specification provides additional standard rules for maximizing and minimizing dual-screen capable applications across two displays in response to gesture inputs. *Id.* at 9-19. For example, standard minimization rules are provided which illustrate how a dual-screen capable application that is being displayed on two displays can be minimized in response to gesture input:



Id. at 12. In the two examples illustrated above (examples “5” and “6”), a dual-screen capable application, displaying a parent view “1.1” on the left side and a child view “1.2” on the right side, is minimized, based on gesture input, to show only the parent view “1.1” on either the right side (as shown in example “5”) or the left side (as shown in example “6”) based on the direction

of the drag gesture input (show in green in each example). *Id.* Under these standard minimization rules, dual-screen capable applications minimize in a way that results in the parent view (e.g., “1.1”) remaining displayed while the child view (e.g., “1.2”) is no longer displayed.

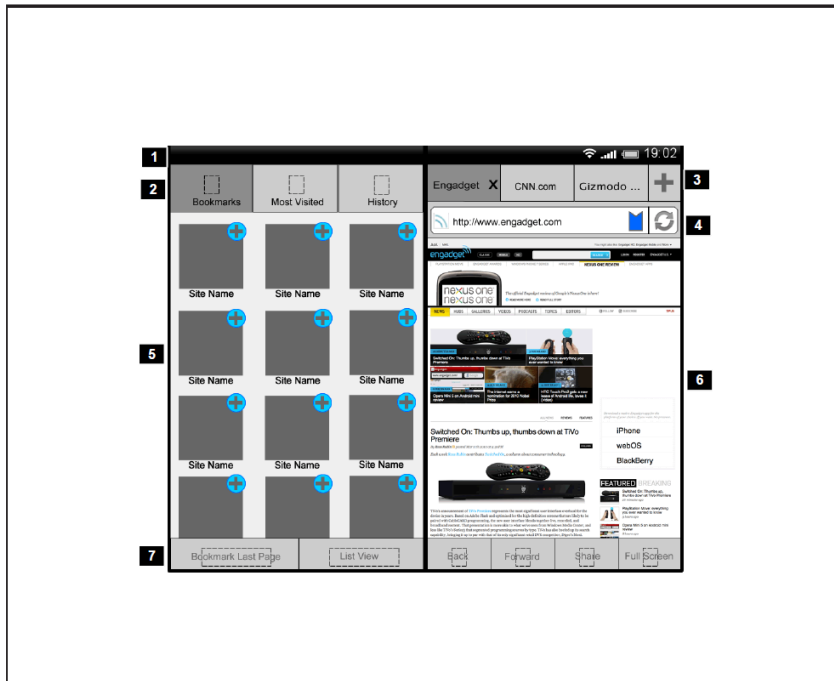
20. This specification provides additional minimization rules for certain cases where the child remains displayed upon minimization. For example, when a dual-screen capable application is being minimized in response to gesture input, the child view (e.g., “1.2”) remains displayed and the parent view (e.g., “1.1”) is not displayed when the child includes a modal (“M”), as shown in example “2” below:



Id. at 20; see also Exhibit 2006 [UX Overview], 53.

21. In addition to the modal rules discussed above, some dual-screen capable applications had additional maximization/minimization rules. The Imerj project's dual-screen capable internet browser (or "Browser") was one such application. Exhibit 2013 [Browser – Interaction Design] demonstrates this functionality was conceived no later than November 18, 2020.

22. Exhibit 2013 [Browser – Interaction Design] is a UX design specification created by co-inventor Mo Selim and revised by me and dated October 6, 2010. 2013 [Browser – Interaction Design], 1-2. This specification defines the operation of the Browser, including its support for "Portrait Dual" (or "Portrait Dual Screen", or "Dual Portrait", or "PD") mode which is a mode where the Browser displays two views on two displays as shown below:



3.1 Browser Default View

The Default view in Portrait Dual displays the Control Page on the Left (with Bookmark tab selected) and the Web Browser view on the right. This is the view that is always seen when the application is maximized in Portrait Mode.

Both sections behave as they do in single screen (see "2.1 Browser Default View" on page 9 and "2.10 Control Panel - Bookmark Tab" on page 22).

B.PD.1.20a_Default

1. Notification Bar
2. Control Panel Tab Bar
3. Browser Tab Bar (Control Panel Button not shown in PD)
4. Address Bar
5. Bookmark Thumbnail View
6. Browser Canvas
7. Action Bar

Id., 34. This specification explains that “The Default view in Portrait Dual displays the Control Page on the Left (with Bookmark tab selected) and the Web Browser view on the right. This is the view that is always seen when the application is maximized in Portrait Mode.” *Id.*, 34.

23. In addition, the Browser specification specifies that the “Web Browser” view remains visible on minimization gestures, unless there is a modal on the “Control Page” on the left:

3.11 Minimizing Portrait Dual

When using the browser is minimized from Dual Screen to Single Screen the following criteria is used to asses which screen remains in view

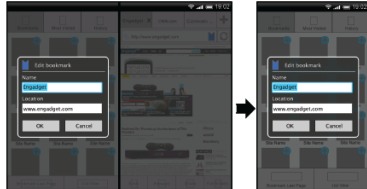
Priority 1 - Screen with a Modal (Inline or Full Screen)

Priority 2 - The Web Browser

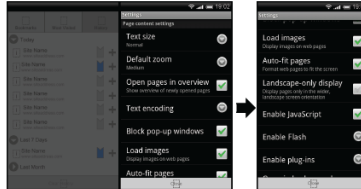
Example 1)



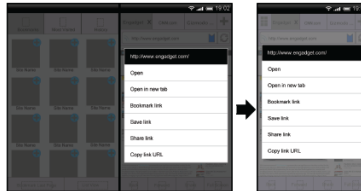
Example 2)



Example 3)



Example 4)



Example 5)



Id., 44.

24. I was responsible not only for developing and maintaining the specifications discussed above, but also for ensuring that the product being developed met the requirements laid out in the specifications.

IV. REDUCTION TO PRACTICE

25. As explained below, minimization and maximization between portrait dual display and portrait single display was reduced to practice on both EV-1 and EV-2 prototypes prior to February 10, 2011. Alternately, this feature was reduced to practice on EV-2 prototypes no later than February 22, 2011, with constant diligence during the 12 days between February 10 and February

22, 2011.

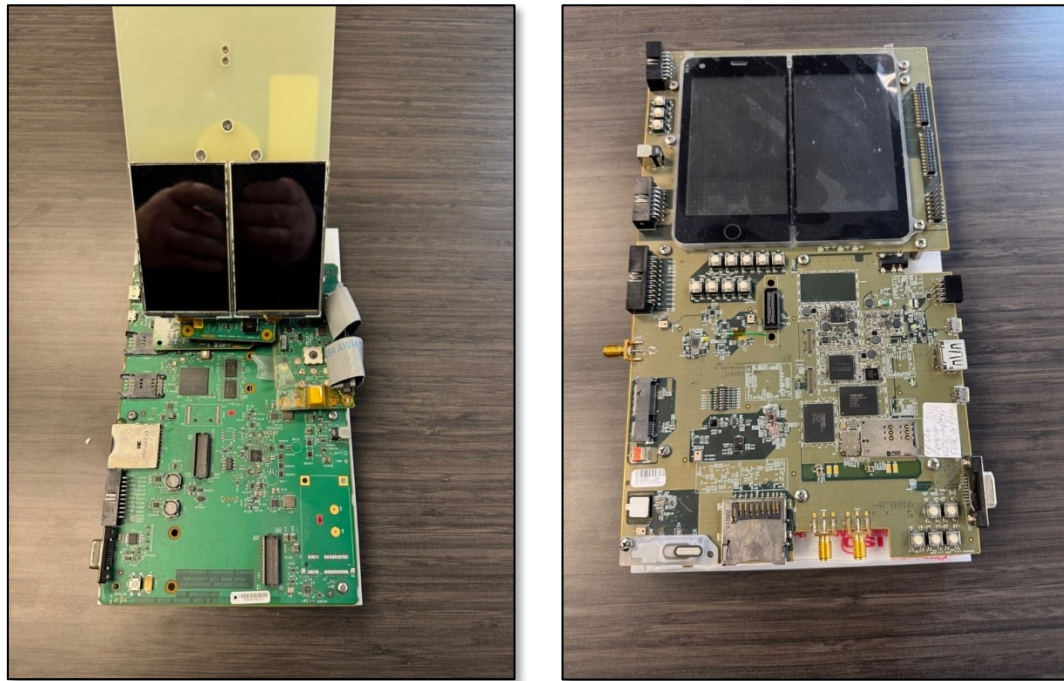
26. The Imerj project was continuously active from late 2009 up to late 2011. During this timeframe, work on the project was continuously performed on Imerj by dozens of engineers across many groups. Working prototypes with display inputs that performed the functionality claimed in the '494 Patent were being tested and developed no later than December 2010.

27. Software development on the Imerj project has already started no later than early 2010. Early Imerj prototypes known as “dev kits” (or development kits) were developed so that we could run the Imerj software being developed and demonstrate its functionality. The early dev kits used a single screen with software that imitated dual screens wired to a bread board with early versions of the other system components. A photo of an early Imerj dev kit is shown below:



Exhibit 2014.

28. Later versions of the dev kits used two separate screens wired to a bread board. A photo of one of the later dual screen Imerj dev kits is shown below:



Exhibits 2015 and 2016.

29. We were able to demonstrate the basic software functionality on the dev kits, including touch input and swiping/gesture functionality. Thus, by no later than fall of 2010, the basic ability to move windows using gestures was reduced to practice.

30. In October and November 2010, we had moved beyond the dev kits and manufactured prototype smartphones. These prototypes were referred to as “EV-1” prototypes. “EV” stands for “Engineering Verification.” Exhibit 2010 [Imerj – Hisense – Overview] at 27. The purpose of EV-1 was to develop a hardware prototype that meets basic design goals and performs its core

functionality. *Id.*, 28. The design team and I received several EV-1 prototypes for testing with Imerj software.

31. A photo of an EV-1 Imerj smartphone from fall 2010 is shown below. The gesture strip runs across the top of the two screens:



Exhibit 2017.

32. I recall that EV-1 prototypes were being tested and that the gesture inputs were functional before February 10, 2011. The EV-1 prototypes were functional for their intended purpose at least before January 20, 2011.

33. After conception of the claimed invention, Flex contracted with a third-party software development company, Thundersoft, that I and my team at Flex worked with to develop the browser application for the Imerj smartphone.

Thundersoft created and then delivered a version of such software to Flex. By January 2011, Flex had received the Browser software from Thundersoft and my team and I began testing the Browser software. We (UX, QA, SW teams) tested the Browser software running on Imerj prototypes sufficiently to determine that it worked for its intended purpose of minimizing and maximizing between dual display and single display. Exhibit 2011 [Browser UX Issues] is an Excel spread sheet used by my team to log issues discovered during testing of the Browser software on one or more Imerj prototypes including EV-1, and was last modified on January 20, 2011, by a member of my team, as discussed below. Exhibit 2011 includes some issues but none that indicate that the claimed minimization / maximization gesture functionality was not working for its intended purpose. Any such issues with that functionality would be significant, and it was my practice to have my team (or members of the QA Team) identify and log those types of significant issues in a document like Exhibit 2011 when testing the Browser software. Accordingly, the lack of any such issues in Exhibit 2011 [Browser UX Issues] confirms to me that the Browser software was running on an Imerj prototype EV-1 which we tested sufficiently to determine, on or before January 20, 2011, that it worked for its intended purpose of minimizing and maximizing between dual display and single display.

34. Thus, by no later than February 9, 2011, the claimed invention of the '494 patent was actually reduced to practice as Browser software running on an Imerj EV-1 prototype folding dual-screen smartphone, as confirmed by testing logs created on January 20, 2011. Exhibit 2011 [Browser UX Issues].

35. I have also reviewed Exhibit 2033, which I understand to be a January 13, 2011 Microsoft Projects Project Plan created by Ron Cassar. Rows 44 through 98 are part of "WPC" and rows 49 through 70 specifically apply to "Gestures." *Id.* Every Gesture feature is listed as "100%" complete. *Id.* At row 55, the Project Plan indicates "Minimize Dual Display Application Transition Controller" is "100%" complete with a finish date of "11/26/2010." Exhibit 2033. row 56, the Project Plan indicates "Minimize Dual Display Application Transition Controller" is "100%" complete with a finish date of "11/26/2010." Exhibit 2033. At row 66, the Project Plan indicates "Integration With Parent / Child infrastructure" is "100%" complete with a finish date of "11/22/2010." November 2010 would have been using EV-1 prototypes. This Project Plan further confirms to me that the relevant features—and core gesture functionality in general—had been tested and determined to be functional for its intended purpose on EV-1 well before February 9, 2011.

36. After EV-1, the Imerj project moved on to EV-2. The EV-2

prototypes maintained the existing touch input functionality of the EV-1 prototypes. A photo of an EV-2 smartphone is shown below. The gesture strip runs across the top of the two screens:



Exhibit 2018.

37. EV-2 prototypes were manufactured and provided to Imerj teams in January 2011. No later than February 9, 2011, EV-2 prototypes had been adequately tested to ensure they functioned for their intended purpose.

38. I have reviewed Exhibit 2037, a January 25, 2011 email from Rod Schrock to various recipients including myself titled “EV2-Whole Lotta Use Case Refinement Needed.” In the email, Rod Schrock (the manager of the Imerj

project) states “The EV2 units are now relatively functional smartphones.” *Id.* Rod Schrock highlights several glitches in folding and unfolding and rotation, but goes on to state “It’s kind of cool to be turning to the refined user experience stage of our design.” *Id.* The fact that the EV-2 units were relatively functional smartphones and the project is moving towards refining the user experience confirms my recollection that by January 25, 2011, the EV-2 prototypes were fully functional for their intended purpose. Further, had minimization and maximization of dual screen apps on EV-2 prototypes not been functional at this point in the project, I would have expected that issue to be prominent in this email. The fact that it is not there indicates the EV-2 units are operational for their intended purpose.

39. Alternately, no later than February 22, 2011, the EV-2 prototypes were functional for their intended purpose. As of mid February 2011, I was leading a team dedicated to user experience testing of daily EV-2 software builds on EV-2 prototypes. Exhibit 2007 [Tiger Teams UX Polish] is a February 18, 2011 presentation titled “Tiger Teams UX Polish.” Exhibit 2007 [Tiger Teams UX Polish].

40. I led the “Tiger Teams” and their purpose was to “polish” the user experience. “Polishing” is testing performed to refine functionality and address

corner case issues after core functionality has been established on a product. At this point in a project, the basic gesture functionality of dual screen apps was already present and had already been tested to the point that testing can move to refining the user experience. The Tiger Team members were essentially treating the EV-2 prototypes and ordinary phones like end users would and documenting user experience issues that would arise. *Id.*, 2 (“everyone can play the role of a USER.”). The Tiger Team testing was being performed on “daily EV2 build[s],” so it was testing the EV-2 prototypes on a daily basis. *Id.*, 5.

41. There was continuous diligence and testing the EV-2 prototypes from late January 2011 through February 22, 2011. As shown at page 4 of Exhibit 2007 [Tiger Teams UX Polish], approximately 40 engineers drawn from our software development, design and QA teams were spread across eight Tiger Teams to identify issues on a daily basis with the daily EV-2 builds. Exhibit 2007 [Tiger Teams UX Polish], 4.

42. These teams met for “daily review of the findings” and to “assign owners” to resolve the issues. The daily responsibilities included “discovery” (i.e., identifying user experience issues), “Prioritize” (i.e., assigning the more serious issues to a “Top Ten” list of outstanding issues), “Triage and Assignments” (i.e., assigning the issues to engineers to resolve) and “Fix” (i.e.,

resolving the issues). *Id.*, 5.

43. One of the teams meeting every day was the WPC team, which was responsible for testing gesture issues such as “Drag, Flick, Long Drag” and “Expand/Collapse.” *Id.*, 3. Thus, the WPC team was meeting on a daily basis to test for issues relating to minimizing and maximizing between portrait dual display and portrait single display.

44. Exhibit 2008 [Feb22_TigerTeamToronto] is a document I created dated February 22, 2011. Exhibit 2008 details some of the issues that were identified and assigned from January 26, 2011 to February 22, 2011. *Id.* This document is broken down into “Top Ten” issues that had been identified across 5 of the 8 Tiger Teams. *Id.* Importantly, this document does not represent all issues identified by testers but only the more important issues. Each Team has one slide showing a graph of how many Top Ten issues had been identified followed by a slide providing some details of the Top Ten issues for each group. *Id.*

45. The WPC group shows 5 open Top Ten issues as of February 22, 2011. *Id.*, 4. None of these issues indicates that minimization and maximization between portrait dual display and portrait single display do not function. Maximization and minimization were important core features for the Imerj

smartphone dual display applications. If these features were not functional during polishing, I would have expected them to be featured prominently at the top of the Top Ten list. The fact that they are not indicates they function for their intended purpose.

46. Some of these, such as SSA-1569 and SSA-1402, show minor gesture issues. *Id.*, 4. Specifically, SSA-1569 states “WPC gestures on capacitive strip still work in lock screen for dual screen applications.” *Id.* This appears to be a corner case where gestures are functional when the screen is locked. This confirms my recollection that the gesture functionality in EV-2 prototypes was functional for its intended purpose no later than February 22, 2011.

47. Similarly, the line for SSA-1402 states “WPC maximization and scrolling graphics performance is very choppy on K35.” *Id.*, 4. This indicates that maximization on the then-new K35 kernel is choppy but fully functional. Moreover, it indicates that on previous kernels, maximization was not choppy. Again, this confirms my recollection that maximization and minimization were fully functional on EV-2 prototypes no later than February 22, 2011.

48. After EV-2, full time work continued on the Imerj project over the spring and summer of 2011. Exhibit 2010 [Imerj – Hisense – Overview] at 29. By the fall of 2011, the Imerj dual screen folding smartphones were production

ready. *Id.*

V. FUNCTIONALITY OF THE IMERJ DUAL SCREEN FOLDING SMARTPHONE PROTOTYPES

49. As discussed above, the gesture functionality performing minimization and maximization of portrait dual display and portrait single display was fully implemented on both EV-1 and EV-2 prototypes.

50. I understand that the claims of the '494 Patent at issue in this proceeding are claims 1, 2, 4, 6, 9, 10, 12-14 and 18-20. The text of those claims is reproduced below:

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

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

presenting a second page of the first application on a second display of the device, wherein the second page is a primary page, wherein the first and second pages present different content and are distinct pages, and wherein the auxiliary page is a child of the primary page;

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

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

2. The method of claim 1, wherein the first input from the user is received in a gesture capture region of the device, and wherein the gesture capture region is included as part of at least one of the first and second displays of the device.

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

6. The method of claim 1, wherein the device is oriented such that the first and second displays are presented in a dual portrait format, and wherein the first input includes a gesture that is input from a side of the device corresponding the first display towards a side of the device corresponding to the second display.

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

10. The method of claim 1, further comprising:

after receiving the first input, receiving a second input from the user, wherein the second input includes an input to maximize the first application to both of the first and second displays of the device,

wherein the first page of the first application is presented on the first display of the device and the second page is displayed on the second display of the device

12. The method of claim 10, further comprising:

after receiving the first and second inputs, receiving a third input from the user dismissing the first page of the application,

wherein one of a first page of a second application or a desktop is presented by the first display of the device;

after receiving the third input, receiving a fourth input from the user to maximize the first application to the first and second displays of the device,

wherein the second display of the device presents the second page of the first application, and

wherein the first display of the device presents the first page of the first application.

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

14. A device, comprising:

a first display, including:

a touch display, wherein the touch display is located within a first area of the first display;

a gesture capture region, wherein the gesture capture region is located within a second area of the first display;

a second display, including:

a second touch display, wherein the second touch display is located within a first area of the second display;

a second gesture capture region, wherein the second gesture capture region is located within a second area of the second display memory;

a processor in communication with the first display, second display, and memory;

application programming stored in the memory and executed by the processor, wherein the application programming is operable to:

present a first page of a first application in a first portion of the first display;

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

receive input entered by a user in the gesture capture region;

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

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

instructions to display a first page of a first application on a first display portion of the device;

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

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

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

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

51. The EV-1 and EV-2 prototypes both operated for the intended purpose by performing the functionality specified in the claims.

52. I understand claim 1 to include a device with two displays where two different pages of the same application (a primary page and an auxiliary page that is a child of the primary page) are shown on the two displays and a user input minimizes the auxiliary page on one display but the primary page remains open on the other display. This functionality was performed by Imerj prototypes before the critical date.

53. EV-1 and EV-2 both had this functionality. For example, the EV-1

and EV-2 prototypes both permitted two pages from an application (e.g., an internet browsing application (“Browser”) with a website viewer page and a page with bookmarks and other controls) to be open on two different screens at the same time. The EV-1 and EV-2 prototypes allows a user input to minimize the auxiliary page (e.g., the bookmarks and other controls) while the primary page (e.g., the website viewer page) remains open on one of the two screens. Moreover, the website viewer page could be moved between the two screens on the EV-1 and EV-2 prototypes. Exhibit 2006 [UX Overview], 15, 30, 31, 34-36, 45-49, 53, 79, 118, 119, 129; Exhibit 2012 [Window Management – Interaction Design], 8-23; Exhibit 2013 [Browser – Interaction Design], 33, 34, 44. Also, EV-1 and EV-2 both implemented WPC specification Exhibit 2012 [Window Management – Interaction Design] which provides, at page 16, examples “1” and “2” that each include a first page “1.2” of a first application shown in a first display and a second page “1.1” of the first application shown in a second display. Exhibit 2012, 16. The first page “1.1” is a primary/parent page and the second page “1.2” is a child of the first page “1.1”. Exhibit 2012, 6 (“1.1 is the parent of 1.2”). In each example on page 16, an input is received (“D” or “F”) to minimize the application and in response to the input only the second page “1.1” is displayed. Exhibit 2012, 16. In example “1” the second page “1.1” is

displayed by the first display, and in example “2” the second page “1.1” is displayed by the second display. *Id.*

54. Other applications such as the email, phone dialer, camera, and photo galleries also had similar auxiliary/primary relationships with the same minimization functionality. I understand claim 9 to include that the first application is a web browser, and the primary page is a content page that includes web content. EV-1 and EV-2 both had this functionality and had a web browser that was dual screen capable with a primary page that is a content page that includes web content. *Supra*, ¶¶13, 21-23, 33, 34, 53, 74, 80, 82; Exhibit 2013 [Browser – Interaction Design], 34 (figure showing child control page on left and primary page that is content page on the right side, with the primary content page including web content shown at “Browser Canvas” (identified as “6” in the figure)).

55. I understand claim 2 to include that the first input is received in a “gesture capture region” of the device. The Imerj EV-1 and EV-2 had a gesture capture bar running across the top of both screens. The user could minimize a page by performing a swipe gesture for the screen to be minimized in the direction of the screen that is not minimized. For example, swiping on the gesture capture bar for the first screen toward the second screen would minimize

the page displayed on the first screen. The gesture capture bar is included as part of at least one of the screens. *Supra*, ¶11; Exhibit 2006 [UX Overview], 15, 30, 31, 34-36, 45-49, 53, 79, 118, 119, 129; Exhibit 2012 [Window Management – Interaction Design], 8-23; Exhibit 2013 [Browser – Interaction Design], 33, 34, 44.

56. I understand claim 4 to include that a second application is displayed on the display where the child application had just been minimized. The Imerj EV-1 and EV-2 prototypes could display a second application on a screen after a child page of the first application had been minimized. For example, when the bookmarks and other controls page is minimized, the screen may show the phone dialer app or an email inbox if those windows are already up. Exhibit 2006 [UX Overview], 15, 30, 31, 34-36, 45-49, 53, 79, 118, 119, 129; Exhibit 2012 [Window Management – Interaction Design], 8-23; Exhibit 2013 [Browser – Interaction Design], 33, 34, 44. Also, EV-1 and EV-2 both implemented WPC specification Exhibit 2012 [Window Management – Interaction Design] which provides, at page 16, example “2” which was discussed above with respect to claim 1. Exhibit 2012, 16. In this example “2”, after the input “D” or “F” a desktop “D2” is presented by the first display. *Id.* When there is another application in the stack, a first page of that application

will be displayed instead of desktop “D2” by the first display in example “2” as discussed above. *Id.*

57. I understand claim 6 to include the device is in dual portrait mode and the first input is a gesture from the side of a first display moving toward the second display. This is essentially the swiping gesture described above to minimize a page. To minimize an application window (e.g., email, web browser, etc.), the user swipes the gesture capture bar on the display that is to be minimized and moves the swipe toward a second screen. EV-1 and EV-2 prototypes had this functionality. Exhibit 2006 [UX Overview], 15, 30, 31, 34-36, 45-49, 53, 79, 118, 119, 129; Exhibit 2012 [Window Management – Interaction Design], 8-23; Exhibit 2013 [Browser – Interaction Design], 33, 34, 44. Also, EV-1 and EV-2 both implemented WPC specification Exhibit 2012 [Window Management – Interaction Design] which provides, at page 16, example “2” which was discussed above with respect to claim 1. Exhibit 2012, 16. In this example “2”, the device is oriented in a dual portrait format and the first input (“D” or “F”) includes a gesture input from the side of the device corresponding to the first display (the side where “1.2” is initially shown) towards a side of the device corresponding to the second display (the side where “1.1” is initially shown). *Id.*

58. I understand claim 10 to include a second input that maximizes an application to both displays. In this context, maximizing means maximizing both pages of the application so that the first page (the child or auxiliary page) is presented on the first display and the second page (the parent or primary page) is present on the second display. That is, restoring the child or auxiliary page to its original open position. Imerj EV-1 and EV-2 prototypes had this functionality. Exhibit 2006 [UX Overview], 15, 30, 31, 34-36, 45-49, 53, 79, 118, 119, 129; Exhibit 2012 [Window Management – Interaction Design], 8-23; Exhibit 2013 [Browser – Interaction Design], 33, 34, 44. Also, EV-1 and EV-2 both implemented WPC specification Exhibit 2012 [Window Management – Interaction Design] which provides, at page 16, examples “1” and “2” discussed above with respect to claim 1. Exhibit 2012, 16. The minimized states at the end of examples “1” and “2” on page 16 match the starting states of examples “2” and “1” on page 13, respectively. *Id.*, 13, 16. The second input of claim 10 is met by the “D” input of examples “2” and “1” on page 13 which each result in the first page “1.2” of the first application being shown on the first display and the second page “1.1” being shown on the second display (i.e., restoring the child or auxiliary page to its original open/displayed position), as recited in claim 10. *Id.*, 13.

59. By starting a swipe on the gesture capture bar for the first display and moving the swipe away from the second display, the EV-1 and EV-2 prototypes could restore (i.e., maximize) the child or auxiliary page such that the auxiliary page (e.g., a bookmarks and other controls page) is maximized on the first display and the parent or primary page (e.g., a webpage viewer) is maximized on the second display. Exhibit 2006 [UX Overview], 15, 30, 31, 34-36, 45-49, 53, 79, 118, 119, 129; Exhibit 2012 [Window Management – Interaction Design], 8-23; Exhibit 2013 [Browser – Interaction Design], 33, 34, 44.

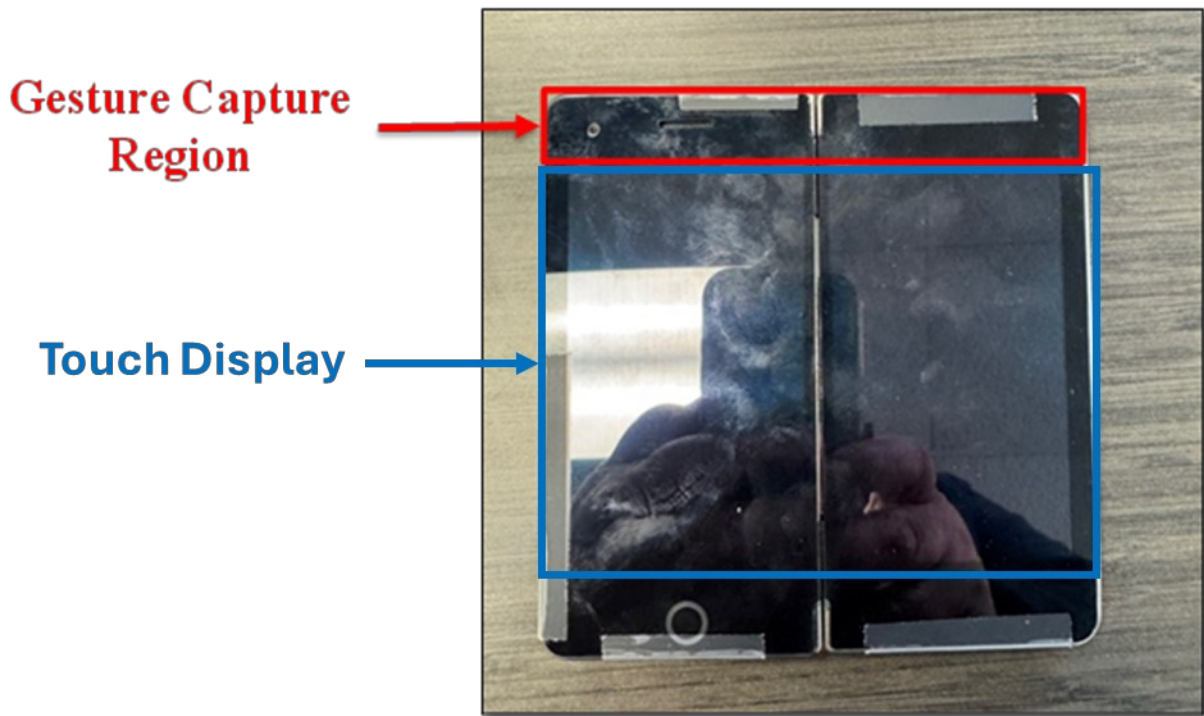
60. I understand claim 12 to include a third input from the user dismissing the first page, with either a desktop or first page of a second application being displayed on the first display. EV-1 and EV-2 prototypes had this functionality. It was accomplished by swiping from the first screen toward the second screen to minimize the first page of an application. Once the first page (e.g., the bookmarks and other controls page) is minimized, the first display will show either a second application (e.g., a phone dialer, email inbox, etc.) if one is open, or a desktop if no applications are open on the first display. Exhibit 2006 [UX Overview], 15, 30, 31, 34-36, 45-49, 53, 79, 118, 119, 129; Exhibit 2012 [Window Management – Interaction Design], 8-23; Exhibit 2013 [Browser

– Interaction Design], 33, 34, 44. Also, EV-1 and EV-2 both implemented WPC specification Exhibit 2012 [Window Management – Interaction Design] which provides, at page 13, examples “1” and “2” discussed above with respect to claims 1 and 10. Exhibit 2012, 13. The ending/maximized states at the end of examples “1” and “2” on page 13 are the same, with first page “1.2” on the first display and second page “1.1” on the second display. *Id.*, 13. The third input of claim 12 is met by the “D” or “F” input of example “2” on page 16, which results in the first page “1.2” being dismissed (no longer displayed on the first display) and in its place a desktop “D2” is shown by the first display. *Id.*, 16. The fourth input of claim 12 is met by the input “D” of example “1” on page 13 which results in the first application being maximized to its initial state: the second display presents the second page “1.1” of the first application and the first display presents the first page “1.2” of the first application. *Id.*, 13.

61. I understand claim 13 to include that the first display is the left display and the second display is the right display in dual portrait mode. Both the EV-1 and EV-2 prototypes each could operate in dual screen portrait mode with its first display being the left display and its second display being the right display and the Browser application was a dual-screen capable application that operated in dual screen portrait mode on the left/right displays as provided in

the claim. *Supra*, ¶13, 21-23; Exhibit 2006 [UX Overview], 15, 30, 31, 34-36, 45-49, 53, 79, 118, 119, 129; Exhibit 2012 [Window Management – Interaction Design], 8-23; Exhibit 2013 [Browser – Interaction Design], 33, 34, 44.

62. I understand claim 14 to include a device with two displays, with each display having a touch display and gesture capture region. The EV-1 and EV-2 prototypes had these components. Each display had a gesture capture region along the top of the display and a touch display encompassing most of the display below the gesture capture region. *Supra*, ¶11, 12. EV-1 and EV-2 prototypes had two displays, with each display having a touch display and gesture capture region. Exhibit 2017 [EV-1 photo], Exhibit 2018 [EV-2 photo]. Each display had a gesture capture region along the top of the display and a touch display encompassing most of the display below the gesture capture region. The photo below is an EV-2 prototype with the gesture capture region annotated in red and the touch display region annotated in blue:



63. I understand claim 14 to also include a processor and memory. The EV-1 and EV-2 prototypes both had processors and memories, as well as programming stored in the memory that allowed for touch and gesture inputs.

64. Claim 14 also includes the first display shows a child page of an application and the second display shows a parent page of the same application. This is similar to claim 1 and was present on the EV-1 and EV-2 prototypes for the reasons discussed above.

65. Claim 14 also includes user input in the gesture capture region. This functionality is similar to functionality in claims 1 and 2 and was present on the EV-1 and EV-2 prototypes as discussed above.

66. Claim 14 also includes minimizing an application in one of the displays, presenting the second page of the application (i.e., the child page) in one of the displays, and discontinuing the presentation of the first page of the application (i.e., the parent page). This is similar to the functionality described in claim 1 and was present in EV-1 and EV-2 prototypes for the reasons discussed above, with the difference being that the child remains displayed and the parent is no longer displayed, which would occur on the Imerj prototypes when, for example, a modal is active on the child page when the minimization is performed. Exhibit 2006 [UX Overview], 53; Exhibit 2012 [Window Management – Interaction Design], 20; Exhibit 2013 [Browser – Interaction Design], 44. Also, EV-1 and EV-2 both implemented WPC specification Exhibit 2012 [Window Management – Interaction Design] which provides, at page 21, examples “2A” and “2B” that provide this functionality of claim 14. Exhibit 2012, 21. Each of these examples begin with the same state: a first page “1.2” of a first application shown in a first display (left side) and a second page “1.3” of the first application shown in a second display (right side), the two pages being distinct pages showing different content. *Id.* The second page “1.3” is a child of the first page “1.2”. Exhibit 2012, 6. In each of these examples (“2A” and “2B”) on page 21, an input is received (“D”) to minimize the application

and in response to the input only the second page “1.3” is displayed, and the first page “1.2” is no longer displayed. Exhibit 2012, 21. In example “2A” the second page “1.3” is displayed by the second display, and in example “2B” the second page “1.3” is displayed by the first display. *Id.*

67. I understand Claim 18 to include functionality similar to claims 1 and 14 and which was present on the EV-1 and EV-2 prototypes as discussed above. That is, where the first display shows a child page of an application and the second display shows a parent page of the application, and a first input from the user minimizes the first page (i.e., the parent) but leaves the second page (i.e., the child). As discussed above, minimizing a first page on a first display was accomplished in EV-1 and EV-2 prototypes by a gesture starting in the first screen and swiping toward the second screen. Also, EV-1 and EV-2 both implemented WPC specification Exhibit 2012 [Window Management – Interaction Design] which provides, at page 21, examples “2A” and “2B” that provide this functionality of claim 18. Exhibit 2012, 21. Each of these examples begin with the same state: a first page “1.2” of a first application shown in a first display portion (left side) and a second page “1.3” of the first application shown in a second display portion (right side), the two pages being distinct pages showing different content. *Id.* The second page “1.3” is a child of the first page

“1.2”. Exhibit 2012, 6. In each if these examples (“2A” and “2B”) on page 21, an input is received (“D”) to minimize the application and in response to the input only the second page “1.3” is displayed, and the first page “1.2” is no longer displayed. Exhibit 2012, 21. In example “2A” the second page “1.3” is displayed by the second display, and in example “2B” the second page “1.3” is displayed by the first display. *Id.* The second page “1.3” is therefore displayed on one of the first display portion (example “2B” on page 21) and the second display portion (example “2A” on page 21), as recited in claim 18. *Id.*

68. I understand Claim 19 to include the device to have multiple displays and, in response to the first input or another user input, essentially switching the second page of an application (i.e., the child) from a second display to a first display. EV-1 and EV-2 prototypes had this functionality. EV-1 and EV-2 prototypes each had multiple displays and this functionality (switching the second page of an application (i.e., the child) from a second display to a first display) was accomplished in EV-1 and EV-2 prototypes by swiping on the gesture capture region from the second display toward the first display. EV-1 and EV-2 both implemented WPC specification Exhibit 2012 [Window Management – Interaction Design] which provides, at page 21, examples “2A” and “2B” that provide the functionality of claim 18 discussed

above. Exhibit 2012, 21. At the end of example “2B” the second page “1.3” is displayed on the first display in response to the first input, which meets “in response to one of the first input and the second input” recited in claim 19 where it is in response to the first input. *Id.* At the end of example “2A” on page 21 the second page “1.3” is displayed on the second display, which matches the initial state of example “3” on page 15. *Id.*, 15, 21. The second input of claim 19 is met by the “F” input of example “3” on page 15 because, in response to that “F” input the second page “1.3” is displayed on the second display, as recited in claim 19. *Id.*, 15.

69. I understand Claim 20 to include a user input maximizing the first application across both screens. In this context, maximizing means that the first page (i.e., the parent) is displayed on the first display and the second page (i.e., the child) is displayed on the second display. This was accomplished in EV-1 and EV-2 prototypes by swiping the gesture region to maximize the application to both displays. Exhibit 2006 [UX Overview], 15, 30, 31, 34-36, 45-49, 53, 79, 118, 119, 129; Exhibit 2012 [Window Management – Interaction Design], 8-23; Exhibit 2013 [Browser – Interaction Design], 33, 34, 44. EV-1 and EV-2 both implemented WPC specification Exhibit 2012 [Window Management – Interaction Design] which provides example “2B” on page 21 and example “3”

on page 15 which provide the functionality of claim 19, as discussed above. The end states of example “2B” on page 21 and example “3” on page 15 are the same: the second page “1.3” is displayed on the first display. *Id.*, 15, 21. The “input received to maximize the first application” of claim 20 is met by “D” input of example “1” on page 21. *Id.*, 21. Example “1” on page 21 starts where claim 19 left off: second page “1.3” displayed by the first display and in response to input “D” of example “1” on page 21 the first page “1.2” of the first application is displayed on the first display (left side) and the second page “1.3” of the application is displayed on the second display (right side), as recited by claim 20.

70. Accordingly, the Imerj EV-1 prototypes had the functionality described in claims 1, 2, 4, 6, 9, 10, 12-14 and 18-20 no later than January 2011. This is confirmed by testing records such as Exhibit 2011 [Browser UX Issues] which confirms that the Browser application was tested on an Imerj EV-1 prototype on or before January 20, 2011, and no issues were identified with the claimed minimization/maximization functionality described above. The Imerj EV-2 prototypes also had the functionality described in claims 1, 2, 4, 6, 9, 10, 12-14 and 18-20 no later than January 2011.

71. Exhibit 2006 [UX Overview] in this proceeding is a PowerPoint

slide deck that I created titled “UX Foundation Overview”. I have reviewed this document. This document is in my files that I have kept from the time I was working at Flex. The creation date of the document is reflected on the first page. On the first page it is dated November 18, 2010. *Id.*, 1. It was my practice to place the actual date on documents and to not change the date. This is the type of ordinary business document that was created during the Imerj project.

72. Exhibit 2012 [Window Management – Interaction Design] in this proceeding is a UX specification titled “Windowing Management, Interaction Design Specification”. I have reviewed this document. This document is in my files that I have kept from the time I was working at Flex. The creation date of the document is reflected on the first page. *Id.*, 1. On the first page it is dated September 10, 2010. *Id.* On the first page the version of this specification is version “0.4”. *Id.* On the first page the document states “Created by Martin Gimpl”. *Id.* Martin Gimpl worked for me and was part of my design team at Flex. Exhibit 2007 [Tiger Teams KickOff], 4. For specification documents like this one, it was my practice and my team’s practice to place the actual date on documents and to not change the date without also changing the version number (and creator if different than the prior version). This is the type of ordinary business document that was created during the Imerj project.

73. Exhibit 2013 [Browser – Interaction Design] in this proceeding is a UX specification titled “Browser, Interaction Design Specification”. I have reviewed this document. This document is in my files that I have kept from the time I was working at Flex. The creation date of the document is reflected on the first page. *Id.*, 1. On the first page it is dated October 6, 2010. *Id.* On the first page the version of this specification is version “0.4”. *Id.* On the first page the document states “Created by Mo Selim”. *Id.* Mo Selim is listed as a co-inventor on the face of the ‘494 patent; and he worked for me and was part of my design team at Flex. Exhibit 2007 [Tiger Teams KickOff], 4. For specification documents like this one, it was my practice and my team’s practice to place the actual date on documents and to not change the date without also changing the version number (and creator if different than the prior version). This is the type of ordinary business document that was created during the Imerj project.

74. Exhibit 2011 [Browser UX Issues] in this proceeding is an Excel spreadsheet listing issues identified while testing the internet browsing application (“Browser”) for the Imerj project. I have reviewed this document. This document is in my files that I have kept from the time I was working at Flex. The creation date of the document is reflected in the metadata of the document. The metadata indicates that it was created by Lucilla Madamba on

December 9, 2010, and that it was last modified on January 20, 2011. Exhibit 2021 [Browser UX Issues – MetaData]. Lucilla Madamba worked for me and was part of my design team at Flex. Exhibit 2007 [Tiger Teams KickOff], 4. It was my practice not to modify the metadata of files. This is the type of ordinary business document that was created during the Imerj project. The document discloses issues detected while testing the Browser application on an Imerj prototype. Row 11 of the document confirms my recollection that testing of the Browser application was being performed on an EV-1 prototype in the December 2010 to January 2011 timeframe. Exhibit 2011 [Browser UX Issues]. Row 11 identifies an issue with the “Bookmarks Tab”. *Id.* The issues listed in the document do not relate to the core functionality of minimizing and maximizing between portrait dual display and portrait single display within the Browser app. Had there been issues with this core functionality, it was my practice to have my team (or members of the QA Team) list any such issues in a document like Exhibit 2011 [Browser UX Issues]. Exhibit 2011 [Browser UX Issues] confirms my recollection that, before the critical date, we tested a prototype that worked for its intended purpose that consisted of minimizing and maximizing between dual display and single display.

75. Exhibit 2007 [Tiger Teams KickOff] in this proceeding is a

PowerPoint slide deck that I created titled “Tiger Teams UX Polish.” I have reviewed this document. This document is in my files that I have kept from the time I was working at Flex. The creation date of the document is reflected on the first page. *Id.*, 1. On the first page it is dated February 18, 2011. *Id.* It was my practice to place the actual date on documents and to not change the date. This is the type of ordinary business document that was created during the Imerj project. The document discloses several teams dedicated to testing daily EV-2 builds. *Id.*, 5.

76. The first page states “Tiger Teams UX Polish.” Exhibit 2007 [Tiger Teams KickOff], 1. UX refers to the user experience. *Id.*, 2. “Polish” refers to refining the functionality of the product. The word “polish” is a word that we use to indicate that the product was already working for its intended purpose. Polishing is done when product development is fairly mature and the product has been tested sufficiently to establish it works for its intended purpose. Polishing is done, for example, for purposes of debugging, fixing minor issues and making sure operation by the user is smooth and reliable. This corroborates my recollection that at the EV-2 stage, the gesture functionality of the Imerj phone was already functional and that the EV2-prototypes had been tested sufficiently to establish they worked for their intended purpose, including

minimizing and maximizing between dual display and single display.

77. I understand Exhibit 2008 [Tiger Team Toronto] in this proceeding is a PowerPoint slide deck titled Feb22_TigerTeamToronto. I have reviewed this document. This document is in my files that I have kept from the time I was working at Flex. The metadata for this document indicates that it was last modified on February 22, 2011 and that I was the last person to modify this document. Exhibit 2009 [Tiger Team Toronto – MetaData]. The file name of this document is “Feb22_TigerTeamToronoto.ppt”. It was my practice to use accurate dates on documents and to not change the date. It was also my practice to not modify the metadata of files. This is the type of ordinary business document that was created during the Imerj project. This document shows testing taking place on the Imerj phones during late January 2011 into February 2011. It refers to some of the same testing teams discussed at pages 3 and 4 of Exhibit 2007 [Tiger Teams KickOff]—for example, “Rotation & Orientation” and “WPC.” Thus, the document shows testing done on EV-2 prototypes to polish the user experience.

78. Page 4 of Exhibit 2008 [Tiger Team Toronto] is titled “WPC - Top Ten.” “WPC” refers to the window positioning control system, which was an area of functionality that dealt with gesture and motion control. The summaries

of the issues indicate they are refinements to existing functionality and corner cases. For example, “WPC gestures on capacitive strip still work in lock screen for dual screen applications” and “WPC Maximization and Scrolling graphics performance is very choppy on K35” indicate that gesture and maximization functionality already existed but needed refinement in certain corner cases. This is consistent with my recollection that gesture functionality was implemented in both EV-1 and EV-2 prototypes. This document was intended to capture critical issues (e.g., “WPC – Top Ten”), and if any of the core functionality related to minimizing and maximizing between portrait dual display and portrait single display did not work, then it was our practice to include any issues with such functionality in a document like Exhibit 2008 [Tiger Team Toronto]. This document does not include any issues with this core functionality. Had there been issues with this core functionality, it was my practice to have my team list any such issues in a document like Exhibit 2008 [Tiger Team Toronto]. This confirms my recollection that, before the critical date, we tested a prototype that worked for its intended purpose that consisted of minimizing and maximizing between dual display and single display.

79. Exhibits 2023 and 2024 are excerpts of a demo video prepared on January 4, 2011 demonstrating functionality of the Imerj SmartPad. EXS2023,

2024. These excerpts demonstrate minimization and maximization functionality on the SmartPad in dual portrait display mode. *Id.* I have reviewed Exhibits 2023 and 2024. Exhibits 2023 and 2024 are true and accurate excerpts (clips) of the original demo video that is in my files that I have kept from the time I was working at Flex. The metadata for the original demo video indicates that it was created on January 4, 2011. Exhibit 2025. It is my practice to not modify metadata. I emailed a video containing clips from the original demo video to Imerj team member Nivedita Ojha on January 5, 2011. Exhibit 2024. I was present when the original demo video was recorded. This is confirmed because I can hear my voice on the original recording. To record the demo, an Imerj EV-1 prototype was plugged into the back of the SmartPad and the EV-1 contained the processor and programming that was responsible for the operation of the gesture functionality on the SmartPad. Since the SmartPad was capable of performing minimization and maximization between portrait dual display and portrait single display, it must have already been capable of doing the same on an EV-1. I recall that the smartphone gesture functionality was implemented and functional before the SmartPad gesture functionality. Further, the gesture functionality for dual display applications was functionally the same for the SmartPad and smartphones.

80. Exhibits 2023 and 2024 show an EV-1 device running in docked mode within an Imerj SmartPad. The Imerj SmartPad was a device that had a touch screen with a gesture bar and a slot into which an Imerj dual screen smartphone could be inserted. Once inserted into the slot, the SmartPad would allow the user to operate the Imerj smartphone through the SmartPad's touch screen and gesture bar. When inserted or "docked" into the SmartPad, the Imerj smartphone (e.g., EV-1) would output the user interface on the SmartPad's touch screen and receive touch and gesture input from the SmartPad's touch screen and gesture bar. When docked, the EV-1 could operate through the SmartPad in a mode that was virtually identical to the dual portrait mode on the dual screen smartphone. When operating in this mode, and as shown in the clips, the left half of the screen (where the bookmarks / control page is shown) is the first display of claim 1 and the right half of the screen (where the browser content page is shown) is the second display of claim 1. Exhibit 2023, 2024. Exhibit 2023 demonstrates a browser dual portrait mode app with a child (bookmarks) page shown on the first display (left side) and a primary page (browser content page) displayed by the second display (right side), and the child (bookmarks) page being minimized (no longer shown) in response to a user performing gesture region input to minimize the browser app to one of the

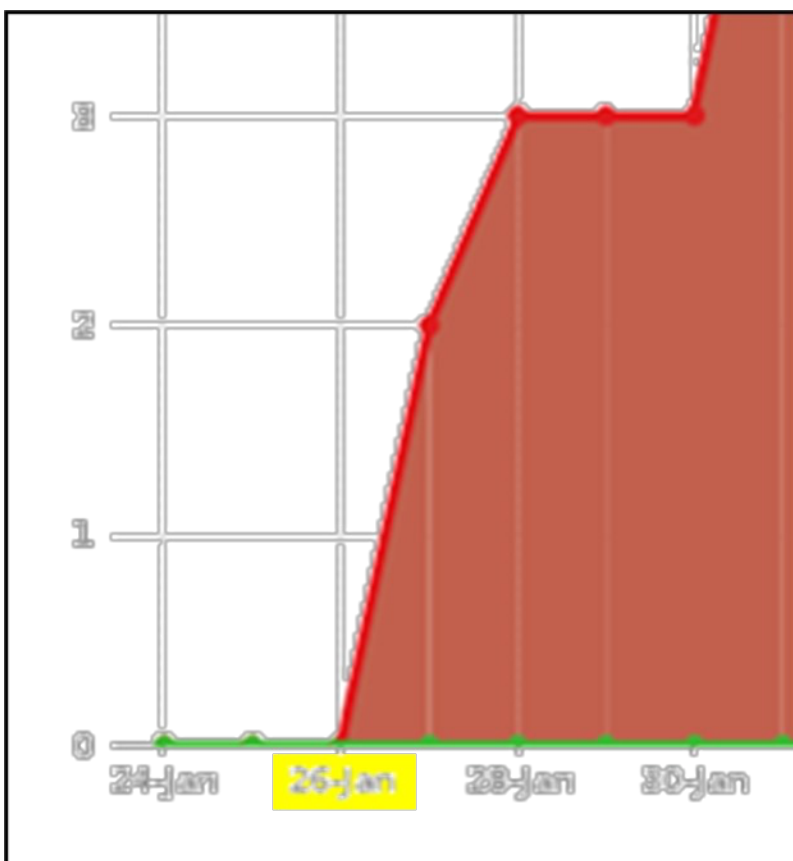
displays. This is an actual reduction to practice of at least claims 1, 2, 6, 9, and 13, along with sufficient testing (shown in the clip) to determine that the invention worked for its intended purpose. Exhibit 2023. Exhibit 2024 demonstrates the same browser app receiving a user input to maximize the browser app to both displays. Exhibit 2024. This is an actual reduction to practice of at least claim 10, along with sufficient testing (shown in the clip) to determine that the invention worked for its intended purpose. Exhibit 2024.

81. Because the EV-1 prototype was capable of performing minimization and maximization between portrait dual display and portrait single display on a Smartpad, the EV-1 must have already been capable of performing the same functions on the EV-1 displays. I recall the smartphone gesture functionality was implemented and functional before the Smartpad gesture functionality.

82. I recall that EX2037 (Rod Schrock's January 25, 2011 email) triggered a new phase of the Imerj project. Before that email, the project was geared toward establishing core functionality on the EV-1 and EV-2 prototypes (including making sure dual screen apps such as browser, email, photo gallery, etc. were operational.) EX2037. After this email, the project turned "to the refined user experience stage of [the] design" to ensure the experience is

“smooth and intuitive for the user.” EX2037.

83. The project turning point evidenced in EX2037 is reflected in the user experience polish testing performed by the Tiger Team. As shown in the excerpt from EX2008 [Feb22_TigerTeamsToronto] below, polish testing began the very next day on January 26, 2011:



Id., 1 (excerpted and annotated) (showing that the Tiger team began identifying Top Ten issues on January 26, 2011); 5 (same), 7 (same). Thus, as of January 25, 2011, the EV-2 prototypes had been tested sufficiently to show they worked

for their intended purpose of minimizing and maximizing between dual display and single display.

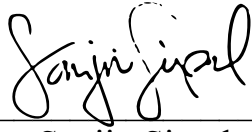
VI. CONCLUSION

84. In signing this declaration, I recognize that the declaration will be filed as evidence in a contested proceeding before the Patent Trial and Appeal Board of the United States Patent and Trademark Office. I also recognize that I may be subject to cross-examination in the proceeding and that cross-examination will take place within the United States. If cross-examination is required of me, I will appear for cross-examination within the United States during the time allotted for cross-examination.

85. I reserve the right to supplement my testimony in the future to account for new information as it becomes available to me.

86. I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Executed on this 28th day of February, 2025, in Oakville, Ontario.

A handwritten signature in black ink, appearing to read "Sanjiv Sirpal", is written over a horizontal line.

Sanjiv Sirpal