

Filed on behalf of SurfCast, Inc.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MICROSOFT CORPORATION
Petitioner

v.

SURFCAST, INC.
Patent Owner

Case IPR2013-00292
Patent 6,724,403

DECLARATION OF GLENN E. WEADOCK
IN SUPPORT OF PATENT OWNER SURFCAST'S
MOTION FOR CONDITIONAL AMENDMENT UNDER 37 CFR § 42.121

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I. Background and Qualifications

A. Scope of Work

1. I have been asked by counsel for Patent Owner, SurfCast, Inc. (“SurfCast”), to support SurfCast’s “Motion For Conditional Amendment” of U.S. Patent no. 6,724,403 (“the ’403 patent”).

2. The opinions provided are my own and are based on my analysis and work in this case and the education, experience, and skills I have acquired and developed throughout my career. Exhibit 2053 contains my CV.

3. In reaching my conclusions and opinions, I have relied upon my experience and training, my testing, and my review of the evidence produced in this case, and I have considered the documents and materials described in Appendix B in the process of forming my opinions.

4. My company is being paid \$300 per hour for my services, plus my direct expenses. I charge for my time and my compensation is not affected by the outcome in this matter.

B. Expertise

5. Details of my professional qualifications and background are set out in my curriculum vitae, a copy of which is provided at Exhibit 2053.

6. I received a B.S. “with distinction” in General Engineering from Stanford University in 1980. In connection with that degree, I took several classes

in computer science.

7. I am currently the President and sole employee of Independent Software, Inc. (“ISI”), based in Lakewood, Colorado. ISI is an information technology consulting firm active since 1982; I have worked full-time at ISI since 1988. ISI has provided a wide variety of services, including technical education, systems integration, network maintenance, Web site design, database design and programming, performance analysis, and multimedia services. ISI’s clients have included many of the country’s largest corporations and government agencies. In recent years, my focus has been on teaching technical seminars through Global Knowledge, and providing consulting in patent cases.

8. I have several years’ experience creating software that presents a user interface. I wrote data acquisition and billing analysis software in the 1981-1985 time period; a royalty calculating and reporting program for an oil and gas company in 1984-1986; database software for a travel magazine and for a credit collection bureau (1987-89). In the 2003-2008 timeframe, I co-developed a Web-based program to provide investor education (“MarketCoach”), designing a browser-based user interface, including menus and windows, with HTML, Flash, and JavaScript. I have also designed and deployed several Web sites for my own companies as well as for clients of ISI.

9. I have written several books dealing with user interfaces as they

pertain to Windows and Web environments, including Intranet Publishing For Dummies (1997), Creating Cool PowerPoint 97 Presentations (1997), Bulletproofing Windows 95 (1997), Bulletproofing Windows 98 (1998), MCSE Windows 98 For Dummies (1999), Look & Learn Dreamweaver 4 (2001), MCSE Windows 2000 Professional (2000), MCSE Windows XP Professional (2001), and (as contributing author) Using Macromedia Studio MX 2004 (2003).

10. I have written and delivered a large number of technical seminars on Windows, starting with Windows 3.0 in 1990 (through Data-Tech Institute) up through today's Windows 8 (through Global Knowledge, the world's largest independent provider of Microsoft training). I have written 26 technical seminars in the IT field since 1988, and I have taught over 300 intensive technical courses. Many of these courses have dealt specifically with configuring, tailoring, and optimizing the user interfaces of the subject operating systems. I continue to teach both instructor-led and Internet-based classes on a contract basis with Global Knowledge. I have also co-authored Microsoft Official Curricula (MOC) classes offered by Microsoft to its customers. I have taught seminars on Web design for Lucent Technologies and Avaya Communications.

11. I have coding experience in various computer languages. I have written Flash applications in JavaScript, database applications in SQL-based and non-SQL-based languages, and engineering applications in Pascal and HP-BASIC.

I have written books on HTML in connection with Dreamweaver and coded a number of websites for my own company as well as for clients.

12. I am not an attorney, but I have experience with the patent system, both as a consultant and expert witness in patent cases, and as an inventor. I hold two US patents.

13. I have considered the '403 patent for the purposes of providing my expert opinion regarding the meaning of certain claim terms and the validity of certain claims of the '403 patent in view of certain prior art. The '403 patent generally relates to a graphical user interface for a computer system. Because of my background, training, and experience, I am qualified as an expert in the technical areas relevant to the '403 patent.

C. Patent Cases in Which I Have Offered Expert Testimony or Consulting

14. Symantec Corporation v. Acronis Inc., Acronis International GMBH, and OOO Acronis, Case No. 3:11-cv-05310 EMC, expert witness and consultant for counterclaimants, hired by Fish & Richardson P.C.

15. LendingTree, LLC v. Zillow, Inc. et al., Case No. 3:10-cv-00439, expert witness and consultant for defendants, hired by Fenwick & West LLP

16. Disney Enterprises, Inc. v. David Kappos, Honorable Under Secretary of Commerce for Intellectual Property and Director of the U.S. Patent and

Trademark Office, Case No. 12-cv-687-LMB/TRJ, expert witness and consultant for defendant, hired by USPTO

17. Augme Technologies, Inc. v. Yahoo! Inc., Case No. 3:09-cv-05386-JCS, expert witness and consultant for defendant, hired by Morrison & Foerster

18. In the Matter of Certain Printing and Imaging Devices and Components Thereof, ITC Investigation No. 337-TA-690, expert witness and consultant for plaintiff, hired by DLA Piper LLP (US)

19. Girafa v. Alexa Internet (2009), expert witness and consultant for defendant, hired by DLA Piper LLP (US)

20. IBM v. Amazon (2007), expert witness and consultant for defendant, hired by Fish & Richardson P.C.

21. Charles E. Hill & Associates v. Amazon.Com Inc., America Online Inc., Barnesandnoble.com Inc., Buy.com Inc., Ebay Inc., Eddie Bauer Inc., The Gap Inc., International Business Machine Corporation, Intimates Brands, Inc., J Crew Group, L L Bean Inc., Lands' End Inc., Limited Brands Inc., Quixtar Inc., Recreation Equipment Inc., Sears Roebuck and Co., Spiegel Inc., and Williams-Sonoma Inc. (2004-2006), expert witness and consultant for defendants, hired by Gray Cary Ware & Freidenrich LLP

22. Comes v. Microsoft (2005), consultant for plaintiff, hired by Zelle, Hofmann, Voelbel, Mason & Gette

23. United States v. Microsoft (5/1998), expert witness and consultant for plaintiff, hired by US Department of Justice

24. United States v. Microsoft (1/1998), contempt hearing, expert witness and consultant for plaintiff, hired by US Department of Justice

II. The Proposed Substitute Claim

25. I understand that in the event that original claim 46 of the '403 patent is found unpatentable, Patent Owner has requested that challenged original claim 46 be canceled and replaced with substitute claim 53. The proposed substitute claim (with markings to show how claim 46 is being amended) is reproduced below:

53 (substitute for claim 46): A system for facilitating the organization and management of multiple data sources, comprising:

a device that includes a processor configured to execute instructions, a memory connected to said processor to store at least one program that includes a graphical user interface, and an input device, wherein said processor executes instructions to:

control simultaneous communication with a plurality of information sources;

arrange a display into a grid ~~an array~~ of tiles that are not permitted to overlap, said grid of tiles being persistent from session to session;

associate a first information source of said plurality of information sources to a first tile of said grid array of tiles and a second information source of said plurality of information sources to a second tile of said grid array of tiles;

retrieve information from said first information source in accordance with a first retrieval rate and retrieve information from said second information source in accordance with a second retrieval rate; and

present information to said first tile in accordance with said first retrieval rate and present information to said second tile in accordance with said second retrieval rate;

wherein the tiles are selectable, and wherein selecting a tile calls an assigned application program to provide access to information, the assigned application program being different from a program that arranges the display into the grid of tiles that are not permitted to overlap;

wherein the assigned application program for the first tile and the assigned application program for the second tile are different application programs selected from among the group consisting of a web browser, a word processing application, an electronic mail application, a chat application, and a streaming video player.

26. I note that the proposed amendments do not enlarge the scope of original claim 46 at least because each of the limitations found in original claim 46 is also present in substitute claim 53. In fact, claim 53 is narrower than claim 46

because it explicitly requires non-overlapping tiles; session-to-session persistency of the grid of tiles; tiles that are selectable to call an assigned program (specifically, one that is different from the program arranging the grid of tiles) to provide access to information; and two called applications that are different and that belong to a group specifying ~~four~~five application types.

27. In my opinion, as explained below, the new language in substitute claim 53 is supported by the specification of the '403 patent.

28. **Grid.** The Patent Owner has expressed support for the grid in its Motion for Conditional Amendment, so I will not repeat that support here except to say that I am in agreement with it.

29. **No overlap.** The Patent Owner has expressed support for the grid in its Motion for Conditional Amendment, so I will not repeat that support here except to say that I am in agreement with it, and that I provided additional grounds for support of this limitation in my declaration in support of the Patent Owner's response.

30. **Persistence.** With respect to the additional limitation "said grid of tiles being persistent from session to session," the specification provides multiple points of support.

31. First, given that the system of tiles is described in the '403 patent as a "graphical user interface" and as a "desktop replacement" or "alternative",

persistence is clearly understood without the need to make it explicit. One of ordinary skill in the art would not design a graphical user interface in which a computer user would have to re-create each tile, tile configuration, position on the grid, associated information source, etc., at every reboot. The invention of Figure 1 of the '403 patent would have been completely impractical if it needed to be rebuilt from scratch at every restart or every time the operating system crashes.

32. Further, it was so well-known that icons on a desktop were a persistent structure, that if a grid of tiles were capable of constituting a desktop replacement, it would have been clear to one of ordinary skill in the art that such a structure would be persistent.

33. Given the above, it is consistent with the definition, and expected that the concept of persistence appears throughout the specification. For example:

- a. Lines 8:30-34 and 11:50-52 indicate persistence through use of the term "bookmarked" and "bookmarking." Bookmarks are persistent by definition.
- b. Lines 9:61-65 describes tile data structure as having an image "on the file system where the tile image is stored" and "a target address 504 that is the location at which the file or application program associated with the file can be found."
- c. Lines 11:29-31 refer to the tiles and grid as a "dynamic menuing

system", and menus are persistent structures.

- d. Lines 12:66-13:1 state that "The grid itself has an address 1024 that specifies its location within the file system of the device in which the application program runs." This indicates that the grid address is stored in a non-volatile memory such as a hard drive.
- e. Lines 13:8-10 state that "The grid also stores a tile list 1216 containing attributes of each respective tile." This indicates that the attributes of the tile are stored in the non-volatile grid, providing additional support for persistence of the "grid of tiles." Lines 13:10-11 state that "In particular, the address of each tile, its priority and its refresh rate are stored by the grid program," providing additional detail about the particular attributes that are stored in the persistent grid.
- f. Lines 13:16-17 state that "A tile can have a password feature built into it if it is desired to restrict access to the tile's content." Storing a password only makes sense in the context of a persistent structure, such as (for example) a user account.
- g. Lines 15:52-64 describe the metabase structure, "a local store for platform-specific implementations of the descriptions of tiles, grids and other objects... Items in the metabase are 'persistent', that is they

are not saved explicitly but are preserved from session to session."

- h. Lines 17:30-31 disclose a "content store" that caches "content of tiles for the previous session." The only reason to cache the content of tiles for the previous session is the expectation of re-use.
- i. Lines 22:29-34 describe persistence yet again, in a client/server scenario ("[d]etails of a session, as defined by tile content and priorities can be held over from one session to another, both for the purposes of permitting a user to continue with ongoing work and in order to protect against the adverse consequences of abnormal disconnections.")
- j. Finally, lines 23:63-24:2 of the '403 patent state that "As previously described, the system of the present invention uses a metabase to store information about user's current grid and tile configurations. A synchronization procedure allows the metabase to be stored on a server and queried by any device. In this way it is possible to provide consistent grid and tile implementations independent of the device and its location."

34. **Selectable.** The Patent Owner has expressed support for the selectability of tiles in its Motion for Conditional Amendment, so I will not repeat that support here except to say that I am in agreement with it.

35. **Different program.** With respect to the additional limitation of "the assigned application program being different from the program that arranges the display into the grid of tiles that are not permitted to overlap," the specification provides multiple points of support.

36. For example, in 11:23-25, the patent states that "Therefore the application resides over existing applications without replacing any of them; rather, it enables them to be called from the grid itself." I note for clarity that in this excerpt, "the application" is the SurfCast application, i.e., in the language of the substitute claim 53, "the program that arranges the display into the grid of tiles that are not permitted to overlap." Also, in this excerpt, "existing applications" are the applications assigned to the tiles. One of ordinary skill in the art would read this excerpt and understand that each tile in the grid of tiles may call an "existing application" to provide access to information. Because the "existing applications" are disclosed to maintain their identity "without [the SurfCast application] replacing any of them," they are clearly different from the SurfCast application.

37. Additional support for the notion that the grid of tiles calls programs that are different from the SurfCast application is provided in 9:61-65, stating that "The tile data structure 500 comprises two addresses: a tile address 502 that defines the location on the file system where the tile image is stored; and a target address 504 that is the location at which the file or application program associated with the

tile can be found" (emphasis added). If the "application program associated with the tile" were the same as the SurfCast application, this excerpt would read differently.

III. Definition of a Person of Ordinary Skill in the Art

38. When evaluating substitute claim 53 in light of the prior art disclosed herein, I have attempted to do so from the perspective of a person having an ordinary level of skill in the field of computer design and storage technologies. Based on my observations as a consultant, seminar leader, and book author during the 1999 time period, a person of ordinary skill in the art at the time of the alleged invention(s) would have had at least a Bachelor's degree in computer science or software engineering, or a Bachelor's degree in a technical field requiring computer science or software engineering courses, as well as two to four years of experience designing, writing, or implementing software products, at least some of that experience including user interface design as well as network communications. In addition, more experience can offset less education. I am an individual of more than ordinary skill in the art of the '403 patent.

39. My definition is not dramatically different from Dr. Karger's, although I do not believe that a master's degree would be required, given that many software developers I have met over the years do not have master's degrees; however his definition in paragraph 54 does not specify user interface design experience or

network communications experience, both of which I believe would be appropriate for a person of ordinary skill in the art. Dr. Karger discusses these issues in paragraphs 55 through 58.

40. I disagree with Dr. Karger's characterization in paragraph 57 of "different or changing icons" as a "well-established user interface concept" as he does not establish that "different or changing icons" were in fact "well-established," and my experience at the time of the patent filing is that icons in popular commercial operating systems typically did not change.

41. Regarding the understanding that "interface development is a multidisciplinary process," the "multidisciplinary" fields Dr. Karger mentions are incorporated in my definition.

A. State of Graphical User Interfaces at the Time of the '403 Patent

42. The year 1999 was a period of increasing standardization in personal computer applications and user interfaces. In the Microsoft world, Windows 98 and Windows 98 Second Edition maintained a great deal of continuity with Windows 95 in terms of "look and feel." The popularity of Windows had led many major software vendors to build products that adhered to the so-called "WIMP" model: Windows, Icons, Menus, and Pull-downs.

43. In the browser world, many of the differences between Netscape Navigator and Internet Explorer were giving way to more and more similarities.

The two products were slowly becoming more compatible with published standards and features that debuted on one platform became supported on the other (e.g. cookies and SSL). Companies recognized the importance of Web pages looking the same regardless of what browser one was using, and more and more Web sites at the time included programming to accommodate the idiosyncracies of the popular browsers to minimize user inconvenience, for example by testing for browser type and version using client-side JavaScript.

44. Although many companies, including Microsoft and Apple, continued to refine their user interfaces, that process had become more evolutionary than revolutionary. The WIMP paradigm, particularly as presented in Windows 95, had been largely successful and was a powerful market force¹, and any new program that would introduce radical or unfamiliar ways of interacting with the system

¹ See for example Exhibit 1064, Shneiderman, Designing the User Interface, p. 13:

“Standardization refers to common user-interface features across multiple applications. Apple Computers (1987) successfully developed an early standard that was widely applied by thousands of developers, enabling users to learn multiple applications quickly. IBM’s Common User Access (1989, 1991, 1993) specifications came later; and when the Microsoft Windows (1995) interface became standardized, it became a powerful force.”

risked the disaffection of users, who (as I have heard for many years from the thousands of IT tech support professionals who have attended my seminars) prefer staying on the flatter part of the learning curve in the absence of compelling reasons to learn something new and move to its steeper part². We have seen the same thing today with Windows 8, for example, whose radical departure from the old Start menu has generated customer consternation and critical press.

45. This analysis is presented in the context of Microsoft's expert analysis, which at various times suggests that one could "cherry-pick" unusual user interface elements and application program designs in order to cobble together the invention of the '403 patent. There is always a risk of "20/20 hindsight" in such analysis, but I also believe that such analysis should be considered in the context of a software environment in which change for change's sake in user interfaces was not generally well received; consistency and predictability were valued; and innovations in

² *Id.* "As the number of users and software packages increases, the pressures for and benefits of standardization grow. Slight differences among systems not only increase learning times, but also can lead to annoying and dangerous errors. Gross differences among systems require substantial retraining and burden users in many ways... Designers must decide whether the improvements they offer are useful enough to offset the disruption to the users."

graphical user interfaces were evolutionary, at least in the Microsoft world with which I am most familiar. Consider as evidence of this the fact that even the upcoming (at the time) Windows 2000 and Windows XP operating systems maintained nearly all of the core GUI features of Windows 95 and 98: Start menu, taskbar, icons, windows with various navigational controls (scroll bars, minimize and maximize controls, etc.), and application menus following (usually) a well-established pattern.

IV. Opinions Regarding Validity of the Substitute Claim

A. Law of Invalidity

i. ~~1.~~ Anticipation

46. Counsel for SurfCast has informed me that a patent claim is invalid for lack of novelty, or as "anticipated," under 35 U.S.C. section 102, if, among other things, (a) the alleged invention was known or used by others in this country, or patented or described in a printed publication in the United States or a foreign country, before the alleged invention thereof by the patent's applicant(s), or (b) the alleged invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or (c) the alleged invention was described in an application for patent by another person in the United States before the alleged invention by the applicant thereof.

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47. Counsel for SurfCast has also informed me that references or items that fall into one or more of these categories are called "prior art," and that in order to anticipate a patent claim pursuant to 35 U.S.C. §102, a reference must contain all of the elements and limitations described in the claim either expressly or inherently. As such, counsel for SurfCast has informed me that in deciding whether or not a single item of prior art anticipates a patent claim, one should consider what is expressly stated or present in the item of prior art, and what is inherently present.

48. I understand that, to establish inherency, the missing characteristic must be necessarily present in the single reference, and that it would be so recognized by persons of ordinary skill in the art. I also understand that the missing descriptive material cannot merely be probably or possibly present. It is my understanding that one of ordinary skill in the art may not have recognized the inherent characteristics or functioning of the prior art at the time. I further understand that obviousness is not inherent anticipation, and that it is insufficient that a missing limitation is so similar to a limitation actually disclosed in the reference that one of ordinary skill in the art would see the substitution as obvious. I also understand that, if it is necessary to reach beyond the boundaries of a single reference to provide missing disclosure of the claimed invention, the proper ground is not anticipation, but obviousness.

49. I understand that invalidity based on anticipation requires that the reference enable the subject matter of the reference and therefore the patented invention without undue experimentation. I also understand that the proper test of a publication as prior art is whether one skilled in the art to which the invention pertains could take the description in the printed publication and combine it with his own knowledge of the particular art and from this combination be put in possession of the invention on which a patent is sought.

ii. ~~2.~~ Obviousness

50. I understand that a patent claim is invalid because it lacks novelty or is "obvious" under 35 U.S.C. § 103 if the claimed subject matter would have been obvious to a person of ordinary skill in the art at the time the application for patent was filed, based upon one or more prior art references. I understand that an obviousness analysis should take into account (1) the scope and content of the prior art; (2) the differences between the claims and the prior art; (3) the level of ordinary skill in the pertinent art; and (4) secondary considerations, if any, of obviousness (such as unexpected results, commercial success, long-felt but unsolved needs, failure of others, copy by others, licensing, and skepticism of experts).

51. I understand that a conclusion of obviousness may be based upon a combination of prior art references. However, I also understand that a patent

composed of several elements may not be proved obvious merely by demonstrating that each of its elements was independently known in the art. I further understand that there must be an appropriate articulation of a reason to combine the elements from the prior art in the manner claimed, and obviousness cannot be based on a hindsight combination of components selected from the prior art using the patent claims as a roadmap.

52. I understand that the following exemplary rationales may lead to a conclusion of obviousness: the combination of prior art elements according to known methods to yield predictable results; the substitution of one known element for another to obtain predictable results; the use of known techniques to improve similar devices in the same way; and some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference teachings to arrive at the claimed invention. However, a claim is not obvious if the improvement is more than the predictable use of prior art elements according to their established functions. Similarly, a claim is not obvious if the application of a known technique is beyond the level of ordinary skill in the art. Furthermore, when the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is not obvious.

53. I further understand that, to determine obviousness, the courts look to the interrelated teachings of multiple patents, the effects of demands known to the

design community or present in the marketplace, and the background knowledge possessed by a person having ordinary skill in the art.

54. I understand that a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. I also understand that if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render a claim prima facie obvious. I further understand that, when considering a disclosure or reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom.

55. I understand that, to establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.

B. Opinions on Invalidity

56. The references cited by Microsoft and relied on by the Board are, in my view, not invalidating of the substitute claim 53, at least because the prior art describes windows, not the tiles of the '403 patent.

57. The bulk of the prior art describes a specific application (sometimes a highly specialized one, at that) rather than a graphical user interface that can function as a general-purpose desktop replacement, as described in the '403 patent.

58. Windows are not tiles, yet a great deal of Dr. Karger's analysis hinges on the determination that windows can be tiles. Once one recognizes that windows cannot be tiles, a great deal of Dr. Karger's analysis becomes moot, as it focuses on prior art that discloses windows (which were not novel at the time) rather than tiles (which were).

59. Dr. Karger spends a fair amount of time in his analysis sifting the academic literature for examples of products that disclose some of the elements of the tiles in the '403 patent. It is almost always possible to cherry-pick particular systems with features one would like to aggregate in an effort to argue that an invention would have been obvious or "well known." (For example, Dr. Karger refers in Ex. 1003 ¶ 223 to xbiff, xperformon, and xclock as "tiles" but points to no citations to indicate that anyone else ever did so, or elaborate on their features.) However, as a general point, the presence of a particular feature (such as a changeable icon) in a particular system was not "well known" if it only ever appeared in an article or a book or a product that a relatively small population used. The fact that Dr. Karger goes so far afield as to tell the story of what his X windowing system would look like when the window manager crashed (Ex. 1003 at ¶ 224) is indicative of the lengths he is required to go to justify his belief that tiles were well-known at the filing date of the '403 patent.

60. The fact that Dr. Karger was unable, in a nearly 300-page declaration,

to cite a single reference disclosing a graphical user interface that used the tiles of the '403 patent attests to the novelty of the invention. The only one of the references brought forth by the Petitioner in this proceeding to disclose a desktop alternative is the "X" or Ultrix reference discussed in the next paragraph. Furthermore, if a desktop alternative graphical user interface using the tiles of the '403 were obvious, Dr. Karger has not pointed to a single example.

61. Dr. Karger does point to one operating system with a GUI, specifically, "X" or "X windows," and the Ultrix system (see later in this declaration for details). However, as Dr. Karger explains, this system did not distinguish between icons and windows; everything was a window, and an "icon" could be nothing other than a miniature version of a window. This clearly does not disclose the invention of the '403 patent, in part because of the details provided later, but at a high level because the '403, both originally and as amended here, presents a tile as something unique and distinct from a window. The utility of a highly miniaturized window is close to zero, in terms of conveying information: it is so small as to be illegible, with no consideration given to any unique features permitting the "tile" to present a subset of the underlying information. Indeed, even knowing which program is assigned to a highly miniaturized window could be challenging in this scenario. The '403 patent, and the substitute amendment 53 presented here, present a much more user-friendly and usable GUI, one in which a

"tile" (through attributes that distinguish it from a window) conveys both the nature of the underlying information source, and a refreshable subset or summary of that information source, in a clear and consistent fashion. Therefore, in my opinion, Dr. Karger's citing of X and Ultrix serves to underscore the novelty of the '403 patent, especially as amended here, rather than to refute it.

62. I note that requirements for amending a claim during an Inter Partes Review is to establish why substitute claim 53 is patentably distinct from (1) the prior art relied on in the grounds that are the subject of this trial; and (2) from the prior art "in general" pursuant to 37 C.F.R. § 42.20(c) as that regulation has been interpreted by the Board. Accordingly, the following analysis is provided to meet these requirements.

C. Opinions Regarding Duhault II

63. I am informed by counsel for SurfCast that Duhault II is not prior art to the '403 patent, given the Patent Owner's demonstration of prior conception and diligence. Nevertheless, I have been asked to review Duhault II, and I do not believe it anticipates the invention of the '403 even when considered without regard to Duhault II's date or status as prior art.

64. Duhault II is a video viewer with provisions for multiple windows. As opposed to the '403 patent's system of tiles, one could not launch a word processor or an email program via Duhault II. Indeed, the only data that could be accessed in

Duhault II is video and audio data. Furthermore, that data can only be viewed, not edited or copied or otherwise manipulated. Because Duhault II is a special-purpose application, and only a viewer application at that, rather than a GUI or a desktop alternative, Duhault II cannot anticipate the invention of the '403 patent.

65. Nothing in Duhault II indicates persistence ("said grid of tiles being persistent from session to session" in the amended claim language). Duhault II does not disclose how particular video or audio streams are selected initially, nor does it disclose any suggestion that user settings or selections persist across computing sessions.

66. Regarding the presenting of information with a first retrieval rate and a second retrieval rate, I disagree with Dr. Karger's statement (in Ex. 1003 ¶ 684) that "Here, both a first refresh rate and a second refresh rate are assigned because multiple channels will be periodically sampled and displayed simultaneously." This is a non sequitur. It is conceivable that multiple channels that are "periodically sampled and displayed simultaneously" could be sampled and displayed at random intervals not corresponding to any refresh rate. It is also conceivable (and, given my own experience with video capture cards, perhaps likely) that a periodic sampling and displaying will have no predetermined rate, but will depend on the hardware capabilities of the card, the number of channels involved, the internal bandwidth of the data channels, and other limiting factors. (Duhault discusses

bandwidth limits at 4:18-21.)

67. Dr. Karger's assertion at deposition (Ex. 2003, 175:12-17) that the secondary displays have an assigned refresh rate because they will be refreshed at some "particular number...which will be determined by the capabilities of the tuner" is actually evidence that there is no assigned refresh rate for secondary displays. Stating that because the rate will be some number, that it is therefore an assigned number, makes no sense. Furthermore, any momentary rate that is dependent on "the capabilities of the tuner" could change from moment to moment, for example based on the complexity of the video signals, and is therefore clearly not a "rate" as set forth in the '403.

68. In Dr. Karger's deposition, he admits that he is "guessing we would see such a line of software in the sense that the software would ask the tuner how fast it can change its channels and it would then tell the tuner to change channels that quickly" (Ex. 2003, 175:18-176:7). My understanding is that a reference cannot be deemed invalidating based on how an expert "guesses" it would work. When asked if there was any disclosure of his "guess" in Duhault II, Dr. Karger replied that "It's - that is how I would assume that - that is the natural way I would assume this would be implemented, given my limited knowledge of the APIs for tuners" (Ex. 2003, 176:8-13).

69. I further point out that not only is Dr. Karger's scenario above

admittedly "guesswork" and "assumption," and therefore not valid in this proceeding, it is not the only way that Duhault II could manage the updating of non-selected tuner displays. A tuner working to update non-selected displays could simply work as fast as it could, e.g. writing data to the screen by updating specific pixels³, or by calling graphics functions provided by the operating system⁴, or by an event-driven model whereby the application in Duhault II "listens" for video updates - I have written software that does all these things - and in none of these scenarios is there any requirement for the software to, in Dr. Karger's words, "ask the tuner how fast it can change its channels and it would then tell the tuner to change channels that quickly." Display updates are not inherently synchronous or asynchronous and there is no generic requirement that a window displaying data

³ See for example Ex. 2059, [http://msdn.microsoft.com/en-us/library/dd145078\(v=vs.85\).aspx](http://msdn.microsoft.com/en-us/library/dd145078(v=vs.85).aspx), which explains that software and firmware can programmatically set the color of a display pixel whenever it wants.

⁴ See for example Ex. 2055, Windows 98 Resource Kit Beta Release, Microsoft Press, 1998, p.468: "DirectDraw®, a 2-D graphics interface, supports accelerated animation techniques by providing direct access to bitmaps in off-screen display memory as well as extremely fast access to the blitting and buffer-flipping capabilities of a computer's video adapter."

needs to be given a consistent refresh rate in order to function (except of course at the hardware level of the physical display, e.g. 60Hz).

70. Additionally, I disagree with Dr. Karger's statement that a tile that is not updating at all has a refresh rate of zero (Ex. 2003, 174:4-8). Saying that a tile that is not refreshing has an associated refresh rate is effectively reading the word "refresh" out of "refresh rate."

71. I also disagree with Dr. Karger's statement (in Ex. 1003, ¶ 697) that a refresh rate can be "automatically set by the relevant standards, e.g., 30 frames-per-second...". Although a program can set a rate that conforms with a standard, a standard cannot set a rate. In any event, Dr. Karger presents no evidence that Duhault II discloses setting a rate that conforms with a standard.

72. The language of substitute claim 53 specifies that a tile is selectable to call an assigned application program to provide access to information. However, selecting a window in Duhault II does not call an assigned application program to provide access to information, as Dr. Karger states (in Ex. 1003, ¶ 683); because it provides the same information the user is already viewing at a higher resolution ("full motion video").

73. Furthermore, the windows in Duhault II are not selectable to call "an assigned application program...different from a program that arranges the display..." because selecting a window in Duhault II does not call a different

program from Duhault II.

74. Additionally, Duhault II does not meet the last "wherein" clause of claim 53, requiring the assigned application programs for the first and second tiles to be different and selected from among the group consisting of a web browser, a word processing application, an electronic mail application, a chat application, and a streaming video player.

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75. Thus, while relevant to the newly added features of substitute claim 53, it is my opinion that claim 53 is patentably distinct from Duhault II for at least the above reasons.

D. Opinions Regarding Chen

76. In its Motion to Amend, the Patent Owner has identified the Chen patent (Ex. 1015) as prior art relevant to the proposed amendments included in substitute claim 53. Chen is a monitoring application with provisions for multiple windows.

77. The language of claim 53 specifies that a selected tile calls an assigned application program to provide access to information. However, selecting a window in Chen does not provide access to information, as Dr. Karger seems to admit (in Ex. 1003, ¶ 759), stating that "If it is found that a tile must be 'selectable to provide access to underlying information of the associated information source' as I understand Patent Owner has asserted, Chen shows that instruments may be

selected." This is a distinctly unpersuasive statement; petitioner's expert is basically saying "If it is found that a tile must be A, B, and C, then Chen discloses A." Dr. Karger does not say that Chen shows that its windows are "selectable... to provide access to information." He says merely that Chen shows that its windows are "selectable." My opinion is the same wherever Dr. Karger makes the same argument, e.g. in Ex. 1003, ¶ 810.

78. The submenu items that become available when an instrument of Chen is selected have nothing to do with providing "access to information." They have to do with recording a data stream. Furthermore, selecting an option on a submenu of a window is not the same as selecting a tile itself.

79. Furthermore, the windows in Chen are not selectable to call "an assigned application program...different from a program that arranges the display..." because selecting a window in Chen does not call a different program from Chen.

80. Additionally, Chen does not meet the last "wherein" clause of claim 53, requiring the assigned application programs for the first and second tiles to be different and selected from among the group consisting of a web browser, a word processing application, an electronic mail application, a chat application, and a streaming video player.

81. Thus, while relevant to the newly added features of substitute claim

53, it is my opinion that claim 53 is patentably distinct from the Motorola Envoy for at least the above reasons.

E. Opinions Regarding Chen and MSIE Kit

82. Dr. Karger's statement in ¶ 789 that Chen and MSIE Kit are "analogous art directed towards solving the same problem" is not a viable position in my opinion.

83. I cannot imagine, and Dr. Karger does not explain, what functionality a browser would bring to Chen that does not already exist in Chen. The core abilities of Web browsers - to present hyperlinked pages, to display HTML documents - would have had no usefulness in the invention of Chen.

84. On the other hand, given the reliability issues that were common among browsers at the time, which were still immature technology in many ways (Active Desktop was notorious for crashing), I can imagine reasons for a person of skill in the art to keep Web browser technology - and, specifically, Active Desktop technology - far away from the mission-critical invention of Chen.

85. Chen and MSIE Kit are very different art. Chen describes a robust, full-featured, multi-layered invention for use by information system professionals needing to monitor the performance of remote systems in real time. MSIE Kit describes an ability to display limited-functionality browser windows on a consumer desktop. The target user communities for these two inventions are very

different. The technical requirements for them are also very different (for example, the indefinite updating scenarios of Active Desktop would not have been suitable for the invention of Chen).

86. If the fact that two references both deal with displaying information from various information sources that are periodically updated over a network is adequate motivation to combine them, as Dr. Karger states in ¶ 789, then it would also be obvious to combine any smartphone patent with any nuclear reactor patent.

87. As I have explained above, neither MSIE Kit nor Chen disclose the tiles of the '403, and so their combination likewise does not disclose the tiles of the '403.

88. Additionally, as also explained above, neither MSIE Kit nor Chen disclose a desktop alternative with the capability of calling a full variety of application programs via a graphical user interface, and so their combination likewise does not disclose the invention of the '403.

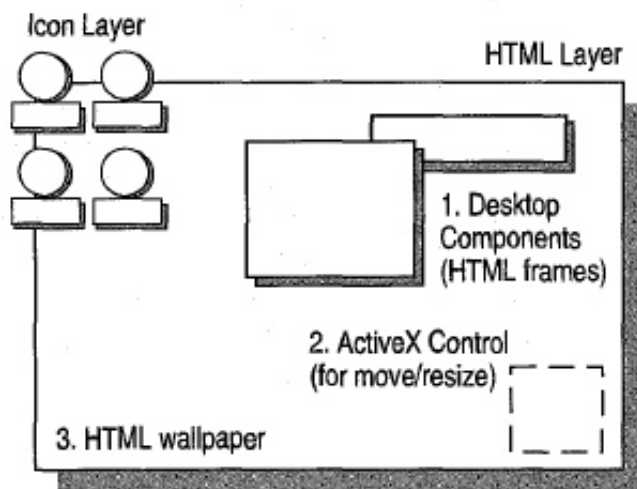
F. Opinions Regarding MSIE Kit

89. In its Motion to Amend, the Patent Owner has identified the MSIE Kit (Ex. 1007) as prior art relevant to the proposed amendments included in substitute claim 53.

90. Active Desktop items as described in MSIE Kit do not disclose the "grid of tiles that are not permitted to overlap" as required by substitute claim 53

because Active Desktop items can overlap, not only with other Active Desktop items but also with traditional icons, which reside in a layer superimposed over the Active Desktop item layer. See, for example, the following figure from MSIE Kit (Ex. 1007), p. 176:

Figure 1. Active Desktop items overlap.



91. Dr. Karger is incorrect when he states (Ex. 1003 at ¶ 289) that "MSIE Kit explains that desktop items placed on an Active Desktop will be non-overlapping...". Not only is this statement belied by the figure shown above, it is contradicted by the very citation he supplies for support, p. 183 of MSIE Kit, which clearly states that "As more items are added to the desktop, they will start to overlap each other." Dr. Karger repeats this error in Ex. 1003 ¶ 293, invalidating his conclusion in Ex. 1003 ¶ 294.

92. The language of substitute claim 53 specifies that a tile is selectable to "call an assigned application program to provide access to information." Any

given Active Desktop item has no capability to be selected to call an assigned application program to provide access to information. Perhaps an Active Desktop item contains a hyperlink; perhaps it contains ten, or zero. It might contain one hyperlink at a smaller size, and five hyperlinks when resized to occupy a larger screen area. But no concept is disclosed in MSIE Kit of selecting an Active Desktop item itself. Selecting something that may or may not exist inside an AD item is not the same as selecting an AD item.

93. Therefore, I disagree with Dr. Karger when he states (in Ex. 1003, ¶ 270) that "when the user clicked on the desktop item, it could launch a web browser to retrieve the full and current content of the information source linked to the desktop item." Clicking on the desktop item does nothing unless a link is contained within that item; My disagreement extends to every paragraph in which Dr. Karger repeats this error (e.g., Ex. 1003 at ¶¶ 310, 364, and 405.)

94. Furthermore, the Active Desktop items in MSIE Kit are not selectable to call "an assigned application program...different from a program that arranges the display..." for two reasons: first, one cannot select an Active Desktop item to call any sort of program, as just explained, and second, because even selecting a link within an Active Desktop item (which is not the same as selecting the Active Desktop item) does not call a different program from MSIE, but merely opens another instance of MSIE.

95. Additionally, MSIE Kit does not meet the last "wherein" clause of claim 53, requiring the assigned application programs for the first and second tiles to be different and selected from among the group consisting of a web browser, a word processing application, an electronic mail application, a chat application, and a streaming video player.

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96. Another example of a factual error in Dr. Karger's treatment of MSIE Kit appears in ¶ 278 where Dr. Karger states that "MSIE Kit shows that a user's desktop will be partitioned in accordance with a user-defined array size." Not only is there no disclosure of a partitioned desktop, which must be non-overlapping because that is what "partitioned" means, there is no evidence on the cited pages of MSIE Kit of a "user-defined array size."

97. Thus, while relevant to the newly added features of substitute claim 53, it is my opinion that claim 53 is patentably distinct from MSIE Kit for at least the above reasons.

G. Opinions Regarding Brown

98. In its Motion to Amend, the Patent Owner has identified Brown (Ex. 1030) as prior art relevant to the proposed amendments included in substitute claim 53.

99. I note that the Petitioner cites Brown as a secondary reference for combinations with Duhault I, Chen, MSIE Kit and Duperrouzel with respect to one

or more of claims 17, 20, 25, 28 and 38.

100. In the co-pending district court litigation, however, Microsoft alleges anticipation of many claims of the '403 patent based on Brown.

101. While I disagree with the Petitioner's contentions, I note that the Brown is one example of the state of the art existing at the time the underlying applications for the '403 patent were filed.

102. The Brown patent discloses a composite desktop 302 comprising one or more desktop components. According to Brown, a "desktop component is a distinct geometric region that displays a single piece of Web-based content. Desktop components can be positioned at any location on a composite desktop." Ex. 1030 at 7:21-26. There are three types of desktop components, a static desktop component 306, an active desktop component 308, and a web page desktop component 310. Ex. 1030 at 7:27-30.

103. It is my opinion that the static desktop component 306 is not a "tile" because it is merely a static image - i.e., it is not "selectable" as required by substitute claim 53. See, e.g., Ex. 1030 at 7:31-36. Because the static desktop component 306 is not selectable, it cannot satisfy any element of the "wherein" clauses of claim 53.

104. It is also my opinion that the active desktop component 308 is not a "tile" because it is not "selectable" as required by substitute claim 53. The active

desktop component 308 is illustrated as floating frames that are not selectable by a user. See, e.g., Ex. 1030 at 7:37-41; 12:61-13:13; Fig. 3A. Because the active desktop component 308 is not selectable, it cannot satisfy any element of the "wherein" clauses of claim 53.

105. It is also my opinion that the web page desktop components 310 are not "tiles" because the component 310 itself is not selectable - rather, only a link within the component 310 is selectable. Ex. 1030 at 11:22-28. My comments from MSIE Kit, above, on this subject are equally applicable here.

106. Moreover, Brown does not disclose arranging its desktop into "a grid of tiles that are not permitted to overlap, said grid of tiles being persistent from session to session" as is also required by claim 53. The desktop 302 is not partitioned or arranged into a grid of any kind, let alone a grid of tiles. My comments from MSIE Kit, above, on this subject are equally applicable here.

107. Thus, while relevant to the newly added features of substitute claim 53, it is my opinion that claim 53 is patentably distinct from Brown for at least the above reasons.

H. Opinions Regarding MSIE Kit and Brown

108. No combination of MSIE Kit and Brown, each treated separately elsewhere in this declaration, cures the deficiencies in either of those references with respect to substitute claim 53.

I. Opinions Regarding Duperrouzel

109. In its Motion to Amend, the Patent Owner has identified the Duperrouzel patent (Ex. 1011) as prior art relevant to the proposed amendments included in substitute claim 53. Duperrouzel is a browser with multiple windows.

110. Duperrouzel does not disclose persistence ("said grid of tiles being persistent from session to session" in the amended claim language). Although Duperrouzel provides the opportunity for selected aspects of the display (e.g. the number of display panes, discussed at Ex. 1011, at 13:22-27) to be persisted across computing sessions, I see no disclosure in Duperrouzel of saving a specific configuration of display areas across computing sessions.

111. For example, although Duperrouzel discloses "...a checkbox for navigating to sites last viewed on startup" (Ex. 1011, at 13:22-23), it is not disclosed that the particular association of sites and their respective display panes is maintained across sessions. For example, if the user successively visits four sites in the lower-left display area, those four sites would be the "sites last viewed on startup." If those four sites were then used to populate the four browser windows on the next restart, then three of the four windows would show content different from what those windows showed immediately prior to restart.

112. For another example, the "home control" discussed in Duperrouzel (Ex. 1011, at 12:20-38) whereby a user may create a "Default Home Sites" list of

Web addresses, is not disclosed as a list of home sites that necessarily are loaded by the Duperrouzel system at startup. Duperrouzel discloses that the home sites would be invoked "...when a user selects the home control 229 of the individual display pane 212a..." (ibid.). And even if the home sites were invoked automatically at startup, which is not disclosed by Duperrouzel, that feature would work against persistence, in that the last sites viewed in each pane by the user would not be preserved. As with the "sites last viewed" capability, there is no disclosure here of any persistence of a specific configuration of display areas across computing sessions.

113. The language of substitute claim 53 specifies that a tile is selectable. to "call an assigned application program to provide access to information." Duperrouzel windows have no capability to be selected to call an assigned application program to provide access to information. Perhaps a Duperrouzel window displays a page that contains a hyperlink; perhaps it contains ten, or zero. It might contain one hyperlink at a smaller size, and five hyperlinks when resized to occupy a larger screen area. But no concept is disclosed in Duperrouzel of selecting the window calls an assigned application program to provide access to a source of information. Selecting something that may or may not exist inside a browser window is not the same as selecting a browser window. I therefore disagree with Dr. Karger's statements (in Ex. 1003, ¶ 438).

114. Dr. Karger's analysis of Duperrouzel does not align with his analysis of MSIE Kit, which also discloses browser display areas. Here, he does not repeat his assertion (in Ex. 1003, ¶ 270) that selecting a link inside a browser display area constitutes selecting a tile in the sense of the '403 patent. However, his basis in Duperrouzel for satisfying the "selectable" requirement makes even less sense than his argument for "selectable" in MSIE Kit. In Ex. 1003, ¶¶ 437 and 439, Dr. Karger points out that users can maximize a particular display pane, as evidence of being "selectable." It was well-known and commonplace at the time for a window to be maximizable by activating a maximize control. If anything, such evidence contributes to a characterization of Duperrouzel's "panes" as "windows" and not as the tiles of the '403 patent.

115. Furthermore, maximizing a window does not call an assigned application program to provide access to information that is associated with the window. Note the scroll bars in the Duperrouzel "panes" in each of Figures 2 through 14 (Ex. 1011). As was commonplace at the time, and still is today, a browser window that does not display a complete Web page may be scrolled to display whatever part of the Web page the user wishes to see. Scrolling a browser window or maximizing a browser window does not provide access to information that was not previously accessed. It merely allows the user to see more or less of the same information that the browser is presenting from the Web page.

116. Furthermore, the windows in Duperrouzel are not selectable to call "an assigned application program...different from a program that arranges the display..." for two reasons: first, one cannot select a Duperrouzel window to call any sort of program, as just explained, and second, because even selecting a link within a Duperrouzel window (which is not the same as selecting the window) does not call a different program from Duperrouzel, but merely opens another instance of the browser.

117. Additionally, Duperrouzel does not meet the last "wherein" clause of claim 53, requiring the assigned application programs for the first and second tiles to be different and selected from among the group consisting of a web browser, a word processing application, an electronic mail application, a chat application, and a streaming video player.

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118. Thus, while relevant to the newly added features of substitute claim 53, it is my opinion that claim 53 is patentably distinct from Duperrouzel for at least the above reasons.

J. Opinions Regarding Duperrouzel and Brown

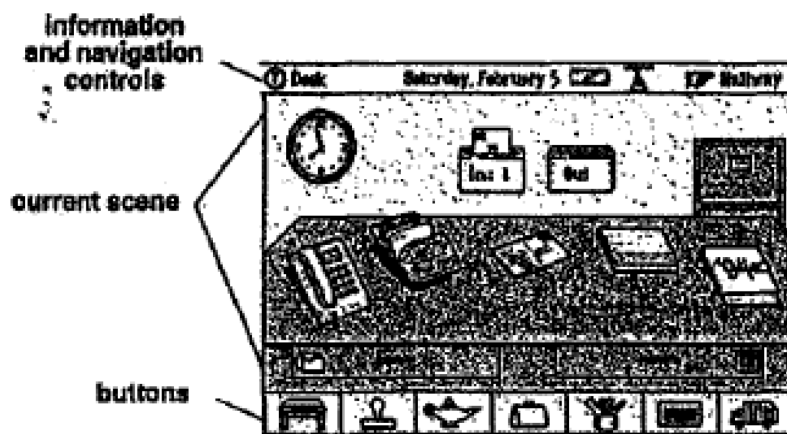
119. No combination of Duperrouzel and Brown, each treated separately elsewhere in this declaration, cures the deficiencies in either of those references with respect to substitute claim 53.

K. Opinions Regarding Motorola Envoy

120. In its Motion to Amend, the Patent Owner has identified the Motorola Envoy (Ex. 1061) as prior art relevant to the proposed amendments included in substitute claim 53.

121. I note that the Motorola Envoy described in Ex. 1061 is identified in the Karger Declaration as only teaching that "a screen phone is a mobile phone." Ex. 1003, ¶¶ 880-881.

122. In the co-pending district court litigation, however, Microsoft alleges anticipation of many claims of the '403 patent based on the Motorola Envoy described in a user manual that is different than the manual set forth in Ex. 1061. Based on that different user manual, Microsoft vaguely refers to the items on the Envoy screen (reproduced below from Ex. 1061, p. 13) as being "an array of tiles, wherein each tile is associated with an information source in said plurality of information sources":



123. In the district court litigation, Microsoft implies that the illustrated

battery icon is a “tile” and that the in and out boxes are “tiles” that are “selectable.”

124. While I disagree with Microsoft's contentions, I note that the Envoy as described in Ex. 1061 is one example of the state of the "smartphone" art existing at the time the underlying applications for the '403 patent were filed.

125. According to Ex. 1061, "[t]he number on the Out box indicates how many messages you are sending," Ex. 1061, p. 24, while "[t]he number on the In box indicates how many messages you have received." Ex. 1061, p. 28.

126. It is my opinion that the in and out boxes are not "tiles" within the '403 patent for at least the following reasons. The in and out boxes are not assigned individual refresh rates. There is no disclosure in Ex. 1061 stating when the number of received messages is displayed next to the in box or when the number of messages being sent is displayed next to the out box.

127. Likewise, the in and out boxes do not “call two different application programs selected from among the group consisting of a web browser, a word processing application, an electronic mail application, a chat application, and a streaming video player ~~and a streaming audio player~~,” as is also required by claim 53. In fact, Ex. 1061 does not disclose a web browser, word processing application, a chat application, or a streaming video player ~~or streaming audio player~~.

128. I note that the battery icon is not selectable, but even if it were, it

would not provide access to any more information than it already shows (i.e., power level).

129. Thus, while relevant to the newly added features of substitute claim 53, it is my opinion that claim 53 is patentably distinct from the Motorola Envoy for at least the above reasons.

L. Opinions Regarding Duhault I

130. In its Motion to Amend, the Patent Owner has identified Duhault I (Exhibit 1013) as prior art relevant to the proposed amendments included in substitute claim 53. Duhault I is a special-purpose video viewer with provisions for multiple windows.

131. Nothing in Duhault I indicates persistence ("said grid of tiles being persistent from session to session" in the substitute claim 53). Duhault I does not disclose how particular video or audio streams are selected initially, nor does it disclose any suggestion that user settings or selections persist across computing sessions.

132. The language of substitute claim 53 specifies that a tile is selectable to call an assigned application program to provide access to information. However, selecting a window in Duhault I does not call an assigned application program to provide access to information; it continues using the same application program to present the same information the user is already viewing, but at a higher resolution.

133. Furthermore, the windows in Duhault I are not selectable to call "an assigned application program...different from a program that arranges the display..." because selecting a window in Duhault I does not call a different program from Duhault I.

134. Additionally, Duhault I does not meet the last "wherein" clause of claim 53, requiring the assigned application programs for the first and second tiles to be different and selected from among the group consisting of a web browser, a word processing application, an electronic mail application, a chat application, and a streaming video player.

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135. Thus, while relevant to the newly added features of substitute claim 53, it is my opinion that claim 53 is patentably distinct from Duhault I for at least the above reasons.

M. Opinions Regarding Farber

136. In its Motion to Amend, the Patent Owner has identified Farber (Ex. 1016) as prior art relevant to the proposed amendments included in substitute claim 53.

137. In two of its petitions, the Petitioner collectively alleged that Farber anticipates claims 1, 17, 20, 22, 25 and 28 of the '403 patent. IPR2013-00292 at 38-41; IPR2013-00293 at 44-46.

138. I note that the Board did not institute inter partes review of any

ground based on Farber.

139. While I disagree with the Petitioner's contentions, I note that Farber is one example of the state of the art existing at the time the underlying applications for the '403 patent were filed.

140. Farber describes a screen-saver, for use on a display such as a computer monitor or a television, and in which float a series of "screen areas", each of which shows content from an information source. Ex. 1016 at 6:48-50, and FIG. 4. In Farber, the screen saver activates after a preset amount of time of computer inactivity, and connects via a "service node" to one or more remote sources of information. Ex. 1016 at FIG. 1. According to Farber, the information in the floating screen areas is "up-to-date" since it was recently obtained from the service node. Ex. 1016 at 6:56-60.

141. It is my opinion that "screen areas" disclosed by Farber are not "tiles" within the '403 patent at least because they are not selectable by a user. Because the screen areas are implemented as part of a screen saver function, the screen saver terminates upon any mouse or key board movement by the user. The termination of the screen saver removes the screen areas from the display.

142. Thus, the screen areas cannot be tiles that "are selectable ... wherein selecting a tile calls an assigned application program to provide access to information, the assigned application program being different from a program that

arranges the display into the grid of tiles that are not permitted to overlap" as required by substitute claim 53 because any mouse/keyboard movement or attempt to select one of the screen areas removes the screen areas from the display. As such, an application program cannot be called.

143. Moreover, first and second screen areas cannot be first and second tiles because they cannot call two "different application programs selected from among the group consisting of a web browser, a word processing application, an electronic mail application, a chat application, and a streaming video player."

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144. Thus, while relevant to the newly added features of substitute claim 53, it is my opinion that claim 53 is patentably distinct from Farber for at least the above reasons.

N. Opinions Regarding X Windows

145. In Ex. 1003, at ¶¶ 76, 224, Dr. Karger discusses the Ultrix Window Manager for the X windows system as described in Ex. 1067 ("X Windows"). I also understand Dr. Karger discussed the X windows system at his deposition (Ex. 2003 at 32:14-35:11).

146. The X Windows system does not anticipate substitute claim 53 because it does not disclose or suggest "wherein the tiles are selectable, and wherein selecting a tile calls an assigned application program to provide access to information." In X Windows, "there was no difference between icons and

windows; icons were simply small windows." Ex. 1003, ¶ 224. Dr. Karger's characterization is consistent with Fig. 3 of Ex. 1067 at 5, which illustrates what appear to be several small windows above the label "X," as well as the discussion of X Windows in Ex. 1067 at 11.

147. Because there is no distinction between an icon and a window, selecting one of the miniaturized window icons as shown in Fig. 3 of Ex. 1067 does not call an assigned application program but rather simply enlarges the miniaturized window in which the application program is running, similar to a maximize operation as discussed with respect to the Duperrouzel reference.

148. X Windows also does not disclose "arrange a display into a grid of tiles that are not permitted to overlap" as recited in substitute claim 53. To the contrary, Ex. 1067 at 7 discloses that the X Windows system allows windows to overlap. Thus, while relevant to the newly added features of substitute claim 53, it is my opinion that claim 53 is patentably distinct from the X Windows system for at least the above reasons.

O. Opinions Regarding Nadan

149. In its Motion to Amend, the Patent Owner has identified U.S. Patent no. 5,321,750 to Nadan (Ex. 1020) as prior art relevant to the proposed amendments included in substitute claim 53.

150. I note that the Petitioner cites Nadan as representative of a "tiled"

interface. Ex. 1003, ¶ 85.

151. In the co-pending district court litigation, however, Microsoft alleges anticipation of many claims of the '403 patent based on Nadan.

152. While I disagree with the Petitioner's contentions, I note that Nadan is one example of the state of the art existing at the time the underlying applications for the '403 patent were filed.

153. Nadan discloses providing different types of news feeds to a display partitioned into different types of "tiles." Ex. 1020 at . Nadan defines its "tiles" as "portions of pages or records". Ex. 1020 at 4:39-43. The "tiles" include a graphic tile 250-G for displaying graphics, an alphamosaic tile 250-A for displaying text, a panning tile 250-P (e.g., stock ticker); a scrolling tile (vertically moving news information), and a video tile 250-V. Ex. 1020 at 16:1-52. None of these "tiles", however, are "selectable" by a user.

154. Thus, it is my opinion that the "tiles" disclosed by Nadan are not "tiles" within the meaning of substitute claim 53 because they are merely mechanisms for displaying information and are not "selectable, ... wherein selecting a tile calls an assigned application program to provide access to information, the assigned application program being different from a program that arranges the display into the grid of tiles that are not permitted to overlap." Moreover, Nadan fails to disclose that "the assigned application program for the

first tile and the assigned application program for the second tile are different application programs selected from among the group consisting of a web browser, a word processing application, an electronic mail application, a chat application, and a streaming video player."

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155. Thus, while relevant to the newly added features of substitute claim 53, it is my opinion that claim 53 is patentably distinct from Nadan for at least the above reasons.

P. Opinions Regarding Nawaz

156. In its Motion to Amend, the Patent Owner has identified U.S. Patent no. 5,959,621 to Nawaz (Ex. 1018) as prior art relevant to the proposed amendments included in substitute claim 53.

157. I note that the Petitioner cites Nawaz as representative of a "stock trading station." Ex. 1003, ¶ 68.

158. In the co-pending district court litigation, however, Microsoft alleges anticipation of many claims of the '403 patent based on Nawaz.

159. While I disagree with the Petitioner's contentions, I note that Nawaz is one example of the state of the art existing at the time the underlying applications for the '403 patent were filed.

160. Nawaz places a viewer 140 within a desktop's 102 environment along with windows 106, 108, and icons 120, 122, 124. The viewer 140 comprises a

ticker display pane 142 and a source identifier 144. The ticker display pane 142 scrolls data items 150, 152, 154, 156 that are associated with the information source identified by the source identifier 144. Ex. 1018 at 8:14-23. "As the last data item from the current content provider moves off the left end of the ticker display pane, data items from the next content provider begin to move onto the ticker display pane from the right end, and the source identifier 144 is updated accordingly. When the last data item from the last content provider is displayed, data items from the first content provider are redisplayed and the cycle repeats." Ex. 1018 at 8:58-65. According to Nawaz, hyperlinks within the data items may be selected to retrieve "documents" (i.e., web pages) from the content provider. Ex. 1018 at 9:20-36.

161. It is my opinion that the scrolling data items do not correspond to "a grid of tiles that are not permitted to overlap, said grid of tiles being persistent from session to session" because the data items scroll off the viewer 140 and are replaced by different data items entering the viewer 140.

162. It is also my opinion that the data items are not "tiles" because the items themselves are not selectable - rather, only a link within the item is selectable. Ex. 1018 at 9:20-36. As discussed above in connection with MSIE Kit, selecting something that may or may not exist inside an item is not the same as selecting an item. Thus, Nawaz's items do not call "an assigned application

program to provide access to information" as required by substitute claim 53.

163. Moreover, the hyperlinks within the data items appear to only retrieve web content. As such, Nawaz fails to disclose calling an "assigned application program for the first tile and the assigned application program for the second tile [that] are different application programs selected from among the group consisting of a web browser, a word processing application, an electronic mail application, a chat application, and a streaming video player."

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164. Thus, while relevant to the newly added features of substitute claim 53, it is my opinion that claim 53 is patentably distinct from Nawaz for at least the above reasons.

Q. Opinions Regarding WO 99/26127 (Ex. 1051)

165. In its Motion to Amend, the Patent Owner has identified PCT application WO 99/26127 (Ex. 1051) as prior art relevant to the proposed amendments included in substitute claim 53.

166. In the co-pending district court litigation, Microsoft alleges anticipation of many claims of the '403 patent based on WO 99/26127.

167. While I disagree with the Petitioner's contentions, I note that WO 99/26127 is one example of the state of the art existing at the time the underlying applications for the '403 patent were filed.

168. WO 99/26127 discloses a main view window 500 and a montage view

506. The main view window 500 contains, among other things, netchannel panes 504a, 504b separated by a virtual button area 510. Ex. 1051 at 11-13. Only two panes 504a, 504b can be displayed even though there may be more netchannels that can be selected using buttons in area 510. Ex. 1051 at 11. The netchannels are associated with a data source and the panes 504a, 504b show headlines, etc. from the data source. A user can click on a news headline in the panels 504a, 504b to display "the full text of the article" in the montage view 506. Ex. 1051 at 13.

169. The montage view 506 is only used to display data from the netchannels (i.e., when links in the panes 504a, 504b are selected) or running applications. Ex. 1051 at 13. The panes/subwindows in the montage view 506 are not "selectable" by the user.

170. It is my opinion that "panes/subwindows" disclosed by WO 99/26127 are not "tiles" according to claim 53 at least because they themselves are not selectable - rather, only a link within the panes are selectable. Ex. 1051 at 13. As discussed above in connection with MSIE Kit, selecting something that may or may not exist inside an item is not the same as selecting an item. Thus, the panes/subwindows of WO 99/26127 do not "call an assigned application program to provide access to information" when selected as required by substitute claim 53.

171. Thus, the panes/subwindows cannot be tiles that are "selectable, ... wherein selecting a tile calls an assigned application program to provide access to

information, the assigned application program being different from a program that arranges the display into the grid of tiles that are not permitted to overlap" as required by substitute claim 53.

172. Moreover, first and second panes/subwindows cannot be first and second tiles because they cannot call two different "different application programs selected from among the group consisting of a web browser, a word processing application, an electronic mail application, a chat application, and a streaming video player."

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173. Thus, while relevant to the newly added features of substitute claim 53, it is my opinion that claim 53 is patentably distinct from WO 99/26127 for at least the above reasons.

R. Opinions Regarding Hassett (Ex. 1017)

174. In its Motion to Amend, the Patent Owner has identified U.S. Patent no. 6,807,558 to Hassett (Ex. 1017) as prior art relevant to the proposed amendments included in substitute claim 53.

175. I note that the Petitioner cites Hassett as representative of a "stock trading station." Ex. 1003, ¶ 68.

176. In the co-pending district court litigation, however, Microsoft alleged anticipation of many claims of the '403 patent based on Hassett.

177. While I disagree with the Petitioner's contentions, I note that Hassett

is one example of the state of the art existing at the time the underlying applications for the '403 patent were filed.

178. Hassett displays news story headlines 230a-230c or advertisement images 232 as part of a screensaver function. Every 30 seconds different headlines and a related advertisement are displayed as part of the screen saver. Thus, the headlines 230a-230c and advertisement images 232 are deleted and then replaced by different headlines 230a-230c and advertisement images 232 every 30 seconds. Ex. 1017 at 13:1-24. According to Hassett, it is preferred that the headlines 230a-230c and advertisement images 232 continuously move around the screen. Ex. 1017 at 11:31-42. The headlines can be clicked to review the text of the article. Advertisements can be clicked to bring the user to a web page associated with the advertiser. Ex. 1-17 at 7:17-33.

179. It is my opinion that the moving headlines 230a-230c and advertisement images 232 do not correspond to "a grid of tiles that are not permitted to overlap, said grid of tiles being persistent from session to session" because the headlines 230a-230c and advertisement images 232 are replaced by different headlines 230a-230c and advertisement images 232 every 30 seconds. Ex. 1017 at 13:1-24.

180. It is also my opinion that the headlines 230-230c are not "tiles" because they are not selectable - rather, only a hyperlink within the headline item is

selectable. As discussed above in connection with MSIE Kit, selecting something that may or may not exist inside an item is not the same as selecting an item. Thus, the headlines of Hassett do not “call an assigned application program to provide access to information” when selected as required by substitute claim 53

181. Moreover, the headlines 230a-230c and advertisement images 232 appear to only retrieve web content. As such, Hassett must also fail to disclose calling an "assigned application program for the first tile and the assigned application program for the second tile [that] are different application programs selected from among the group consisting of a web browser, a word processing application, an electronic mail application, a chat application, and a streaming video player."

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182. Thus, while relevant to the newly added features of substitute claim 53, it is my opinion that claim 53 is patentably distinct from Hassett for at least the above reasons.

S. Opinions Regarding Nokia 9110 (Ex. 1060)

183. In its Motion to Amend, the Patent Owner has identified the Nokia 9110 (Ex. 1060) as prior art relevant to the proposed amendments included in substitute claim 53.

184. I note that the Nokia 9110 described in Ex. 1060 is identified in the Karger Declaration as only teaching that "a screen phone is a mobile phone." Ex.

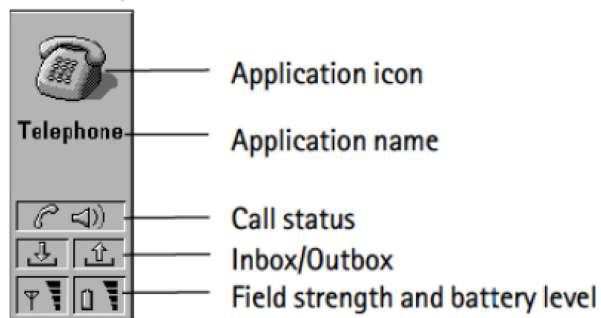
1003, ¶¶ 880-881.

185. In the co-pending district court litigation, however, Microsoft alleges anticipation of many claims of the '403 patent based on the Nokia 9110 described in a user manual that is different than the manual set forth in Ex. 1060. Based on that different user manual, Microsoft vaguely refers to the items on the Nokia 9110 screen (reproduced below from Ex. 1060, pp. 22, 37) as being "an array of tiles, wherein each tile is associated with an information source in said plurality of information sources":

Indicators

The application icon and the application name in the indicator area show the application you are in at the moment.

The icons that appear on the Call status and Inbox/Outbox indicator rows change according to the application and current situation. The battery level and field strength indicators are the same as shown on the phone display when the phone is on.



Received communication note

When you open the cover of the communicator and have missed calls, received faxes, short messages or mail, or there are unsent documents in the Document outbox, a note will be shown, see figure 4. The note can be dismissed by pressing **Cancel**.

To read the received documents or to check who has made the missed calls, select the corresponding item on the list and press **View**.

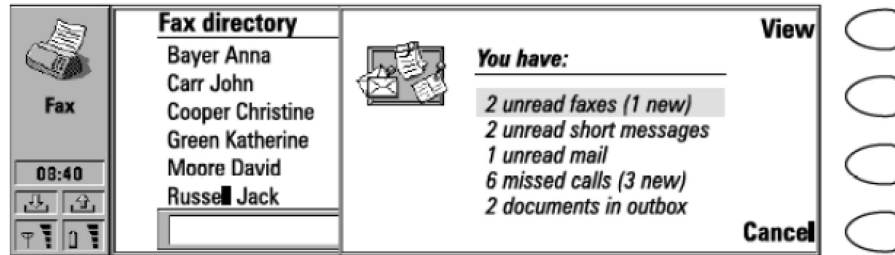


Figure 4

186. While I disagree with Microsoft's contentions, I note that the Nokia 9110 as described in Ex. 1060 is one example of the state of the "smartphone" art existing at the time the underlying applications for the '403 patent were filed.

187. The "indicators" disclosed by the Nokia 9110 manual are not selectable. They merely display the status of a call, field strength or battery and whether there is information in an inbox or outbox. I note that the inbox and outbox indicators do not update to display the number of items in each box. Ex. 1060, pp. 22-24. As shown above, physical buttons (e.g., "view" button in Figure 4) are required to select the contents of the inbox. Ex. 1060, p. 37. Physical buttons are also required to select the contents of the outbox. Ex. 1060, p. 36.

188. Accordingly, it is my opinion that the indicators disclosed by the Nokia 9110 cannot be tiles that are "selectable, ... wherein selecting a tile calls an assigned application program to provide access to information, the assigned

application program being different from a program that arranges the display into the grid of tiles that are not permitted to overlap" as required by substitute claim 53 because the indicators cannot be selected at all.

189. Moreover, first and second indicators cannot be first and second tiles because they cannot call two ~~different~~ "different application programs selected from among the group consisting of a web browser, a word processing application, an electronic mail application, a chat application, and a streaming video player."

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190. Thus, while relevant to the newly added features of substitute claim 53, it is my opinion that claim 53 is patentably distinct from Nokia 9110 for at least the above reasons.

T. Opinions Regarding Obviousness

191. When considering the likelihood of obviousness combinations, it is important to recognize that the four primary references that Microsoft alleges to anticipate the original claim 46, *i.e.*, MSIE Kit, Duperrouzel, Chen, and Duhault II, all relate to special purpose application programs, systems, or devices that do not include any means to call other, different application programs. As the benefits of the '403 patent are relevant to a different class of software, namely, Graphical User Interfaces (as stated in the Abstract of the patent), it would not in general be likely that a person of ordinary skill in the art would be motivated to combine references focused on application software with references focused on GUIs, operating

systems, and desktop alternatives.

192. Microsoft might take the position, as it did in the antitrust proceeding in which I participated as an expert witness, that browser software (*e.g.* Active Desktop, as disclosed in the MSIE Kit reference) is somehow not an application but is really part of the operating system. I testified then, based on interviews with various executives of major corporations, as well as on my own experience teaching, consulting, and writing, that organizations commonly viewed browsers as applications rather than as part of the operating system. I maintain that view today, and in fact today it is more commonplace than ever that computer users choose their Web browser independently from their operating system. It is very common, in my experience, for Windows users to run (for example) Firefox or Chrome instead of Internet Explorer.

193. So, there is a fundamental distinction between operating systems and applications. Operating systems have GUIs, and whether one is using a Mac or a PC, it is generally expected that applications will adhere to the rules of the operating system's GUI. As I wrote earlier in this declaration, and as is supported by the author which Dr. Karger repeatedly quotes, standardization and consistency are important forces in the design of user interfaces, and market forces provided (and still provide) a strong incentive for software developers to honor established standards unless substantial benefits would accrue to doing otherwise.

194. Another question arises when one considers obviousness combinations: would it have made sense for the inventors of applications (such as Duhault II, Chen, etc.) to add the facility of the '403, as described in the substituted claim 53, to their applications? I believe that such modifications would not occur to a person of ordinary skill in the art, for the simple reason that it was well known in the art that applications do specific things – they are, to oversimplify somewhat, “where the work gets done” – and GUIs provide a platform from which to call, or invoke, applications. Adding a grid of tiles capable of being selected to call assigned applications that are different would not have added useful functionality or utility to inventions such as Duhault II and Chen. The application needed to display a browser window, or a performance-statistics window, is already running; it would not be necessary to call a different program, nor would it comport with the generally agreed principle that operating systems provide the launching platform and applications are where the work gets done. I furthermore see no suggestion in any of the primary references put forth by Microsoft that an operating-system-like capability to call additional, different application programs would be useful in the context of the inventions described by those references.

195. Modifying the other relevant prior art to arrive at the system of claim 53 would also not be obvious. The one example of a PC operating system that Dr. Karger puts forth is Ultrix (“X Windows”) and I have already discussed why it

does not disclose the substitute claim 53, but rather provides an argument for why the grid of tiles as described in that claim would provide a novel utility over a facility (such as Ultrix) that makes no distinction between an icon and a window. The Envoy's specific use of a pictorial representation of a desk various realistic looking desk/office components such as telephones and in and out boxes are contrary to the other relevant art's use of windows, scrolling and/or floating headlines to display information to the user. Thus, one of ordinary skill in the art would not be motivated to incorporate this or any feature of the Envoy into the special purpose application programs, systems or devices in the relevant prior art, or *vice versa*. The screen saver (Hassett, Farber) and stock trading station (Nawaz) art, as well as Nadan, WO 99/26127 and Nokia are so specific and different from the other relevant prior art that one of ordinary skill in the art would not be motivated to incorporate any feature from these references into other special purpose applications/systems.

196. Finally, even if one -could cherry-pick specific features of the various references considered above to arrive at the particular features found in substitute claim 53, there were powerful market forces that would have discouraged one of ordinary skill in the art from doing so. In particular, the movement in the art toward standardization and the powerful market forces driving that movement would have led one of ordinary skill in the art in a direction away from the

invention of substitute claim 53 for the reasons discussed above in ¶¶ 43-46.

197. I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Glenn E. Weadock

~~January-February 24~~6, 2014

Appendix A. References and Information Considered

Patents

~~198.1)~~ U.S. Patent 6,724,403 (and its Prosecution History and related applications, including references cited therein)

Depositions

~~199.2)~~ David R. Karger, and all associated exhibits

Publications and Resources

~~200.3)~~ “A comparative study of aggregate TCP retransmission rates,”
Kostas Pentikousis, Hussein Badr and Asha Andrade, International
Journal of Computers and Applications, Vol. 32 No. 4, October 2010

~~201.4)~~ Graphics File Formats, 2nd Edition, David C. Kay and John R.
Levine, Windcrest/McGraw-Hill, 1995

~~202.5)~~ Microsoft Windows 98 Resource Kit Beta Release, Microsoft
Press, 1998

~~203.6)~~ “SetPixel function,” at Microsoft Developer Network website,
[http://msdn.microsoft.com/en-
us/library/dd145078\(v=vs.85\).aspx](http://msdn.microsoft.com/en-us/library/dd145078(v=vs.85).aspx)

~~204.7)~~ The New IEEE Standard Dictionary of Electrical and
Electronics Terms, Fifth Edition, Gediminas P. Kurpis, Institute of
Electrical and Electronics Engineers, 1993

~~205.8)~~ Web Caching, Duane Wessels, O'Reilly, 2001

~~206.9)~~ Web Server Technology, Nancy J. Yeager and Robert E.

McGrath, Morgan Kaufmann Publishers, Inc., 1996

~~207.10)~~ All other references discussed herein.