

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'S RESPONSE
UNDER 35 USC §§ 316(a)(8)

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I. Background and Qualifications

A. Scope of Work

1. I have been asked by counsel for SurfCast, Inc. (“SurfCast”) to analyze U.S. Patent No. 6,724,403 (“the ’403 patent”; Ex. 1001), issued to inventors Ovid Santoro and Klaus Lagermann, and submit this Declaration in Support of Patent Owner’s Response in the instant proceeding, in rebuttal to the Declaration of David R. Karger Regarding U.S. Patent No. 6,724,403 (Ex. 1003).

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 Curriculum Vitae.

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 proceeding, and I have considered the documents and materials described in Appendix B (attached hereto) in the process of forming my opinions.

4. For the time I expend on this case, I am currently being compensated at a rate of \$300.00/hour. My compensation is not in any way dependent on the outcome of the dispute.

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 LLP

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.**,

22. **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

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

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

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

II. Technical Overview of Patented Technology

A. Patent Overview, '403 Patent

26. The invention claimed in the '403 patent is a graphical user interface, as stated clearly in the Abstract and elsewhere in the document. (Ex. 1001 at, *e.g.*, 4:35; 7:1; and 7:52.) A graphical user interface is not at all the same as a single-purpose application, such as a web browser, video viewer, or performance monitor. Specifically, in the context of the '403 patent, it is a general-purpose means for viewing summary content and providing access to underlying information. A “GUI” (the common acronym) is a platform from which *any* application may be called, something the patent makes clear on a number of occasions. (Ex. 1001 at, *e.g.*, Figure 1; 4:25-26; 4:44-49; 6:39-51; 9:10-11; 9:24-33; 9:61-65; 11:1-3; and 12:53-60.) In this sense, the GUI of the '403 patent is a desktop replacement or

alternative. (Ex. 1001 at, e.g., 10:47-49; 11:20-38.)

B. Rebuttal of Petitioner's Expert

27. With regard to Para. 14 above, a great deal of Dr. Karger's analysis ignores the basic nature of the technology being described in the '403 patent. Rather than duplicate Dr. Karger's presentation of the technical overview of the '403 patent, I will instead address selected points where I believe he is in error, or at least where his presentation is potentially misleading.

28. I disagree with Dr. Karger's assertion that "It was also known that windows could be displayed in a number of widely used operating systems without active areas such as a title bar, a menu bar or scroll bars" (Ex. 1003 at ¶49). I note that Dr. Karger fails to mention any examples of these "widely used operating systems."

29. I disagree with Dr. Karger's assertion that the '403 patent "does not explain how a 'tile' is different from a 'window'" other than having "a 'smaller size' and may omit certain types of active areas" (Ex. 1003 at ¶50). For example, the patent makes clear that tiles are persistent, and selectable to provide access to underlying information of the associated information source, as I discuss in the Claims Construction section below.

30. With respect to Dr. Karger's assertion that "Before October 1999, there were many examples of systems showing icons that would be continually

refreshed with updated information” (Ex. 1003 at ¶72), I disagree with the use of the word “many.” In support of his assertion, Dr. Karger cites an almost-unknown operating system (“Sapphire”), a programming development environment only used internally at Xerox’s research center (Cedar), and a 1993 patent application. The fact that he relies on references (outside of the mainstream) such as these illustrates that his case is not persuasive. In any event, I note that the Board indicates an appreciation of the fact that the tiles of the ’403 patent are not icons.

31. As I discuss in the Claims Construction section below, it is not true (as Dr. Karger states) that “The use of ‘tiles’ as a user interface design principle was well known by October of 1999” (Ex. 1003 at ¶81). In that same paragraph, Dr. Karger equates the tiles of the ’403 patent with systems that “would partition displays into regular arrays of rectangular regions,” but that is not a proper definition of tile, as the Board already appreciates, and as I will explore further below.

32. Dr. Karger is technically correct that various window elements could be omitted from windows, *e.g.* programmatically, in certain graphical environments; however that should not obscure the fact that in the vast majority of cases, window elements (menus, controls, scroll bars, *etc.*) were needed so that people could work in the window. Documents are not typically edited in icons.

33. In paragraphs ¶85 through ¶94, Dr. Karger makes an oft-repeated

error by equating the tiles of the '403 patent with “tiled user interfaces.” These two things are not the same. Therefore, the fact that “tiled user interfaces” were known in October 1999 is irrelevant to the matters at hand. A user interface in which windows are “tiled” (verb) is simply one in which windows are not permitted to overlap (by contrast, for example, with “cascaded”). I agree with Dr. Karger that the ability to arrange elements in a tiled fashion was known at the time. However, a user interface using the “tiles” (noun) of the '403 patent is substantially different in several respects, as reflected by the Patent Owner’s correct and reasonable definition of “tile” as discussed below.

34. Regarding the term “grid,” in ¶97 of the Karger declaration, Dr. Karger declares that “[a] person of ordinary skill would have considered using a grid layout for a user interface to be a well-known design choice in October of 1999,” but I believe that is neither true nor relevant. The '403 describes a grid of *tiles*, as defined in the '403 specification, not just any grid. Therefore, Dr. Karger’s conclusion (Ex. 1003, ¶98) that “partitioning a display or a portion thereof into an array of tiles simply was not novel” is unsubstantiated, given that Dr. Karger does not consider what a tile is, in the context of the '403 patent. Instead he casually uses the term “tile” interchangeably with the term “tiled user interface”, which although sounding very similar is not the same.

35. In ¶123 of Ex. 1003, Dr. Karger is incorrect when he asserts that every

programmed computer can “facilitate the organization and management of multiple data sources.” Many computers are not connected to networks; a point-of-sale computer at a retail checkout counter may have only a single data source; and a kiosk computer may only refer to data on its own hard drive.

36. In ¶225 of Ex. 1003, Dr. Karger explains that prioritization was not a new concept in October 1999. The inventors of the '403 patent do not claim that they invented prioritization. I also note that a CPU's scheduling algorithms are not the same as letting a developer or user specify the refresh rate of a tile.

III. Claim Construction

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

37. When interpreting the claim terms of the '403 patent, I have attempted to interpret the claims from the perspective of a person having an ordinary level of skill in the field of computer design and storage technologies. 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 at least ordinary skill in the art of

the '403 patent.

38. My definition of one of ordinary skill in the art is not dramatically different from Dr. Karger's; however his definition (in paragraph 54 of Ex. 1003) does not specify a person having 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 of the '403 patent. Dr. Karger discusses these issues in paragraphs 55 through 58 of his declaration.

39. I disagree with Dr. Karger's characterization of "different or changing icons" as a "well-established user interface concept" (Ex. 1003 at paragraph 57) as he does not establish that "different or changing icons" were in fact "well-established," and my experience at the time of the filing date of the '403 patent is that icons in popular commercial operating systems typically did not change or update over time.

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

B. "Tile" Not the Same as "Tiled"

41. A user interface in which windows are "tiled" (verb) is simply one in which windows are not permitted to overlap. The use of the passive verb "tiled" in this sense was often contrasted with "cascaded," a term indicating an arrangement

whereby windows would overlap somewhat like fanned-out playing cards, so the user could see the “edges” of each window but only the top window’s content would be visible. Dr. Karger presents evidence that a display of non-overlapping windows was not novel in October 1999, and I concur.

42. Having said that, however, the “tile” of the ’403 patent has its own specific characteristics, and a “tile” (noun) is not merely “a window that has been tiled,” as Dr. Karger’s exposition might lead one to believe, especially considering how often he reiterates this false equivalence (see for example ¶¶81, ¶¶85 through ¶¶94, ¶¶97, ¶¶98, ¶¶222, of Ex. 1003).

C. A “Tile” Provides Access to an Assigned Information Source

43. The ’403 patent associates its tile with an underlying information source. For example, a person of skill in the art, looking at Fig. 6, would recognize that the tile defined in the code has a particular target associated with it. For example, the target of the first tile is tile2_target.htm. Additionally, the specification of the ’403 patent, at 9:61-65 and Fig. 5, makes clear that each tile has a target address: “... a target address **504** that is the location at which the file or application program associated with the tile can be found.”

44. I therefore respectfully disagree with the Board’s view of a tile as providing “access to an information source.” The patent clearly indicates that selecting a tile provides access to an information source assigned to the tile, not

just any information source.

D. A “Tile” Is Persistent

45. Another aspect of the ’403 patent’s tile is persistence, and I respectfully disagree with the Board’s decision to read this characteristic out of the definition. There is ample support in the patent specification for concluding that tiles are persistent, i.e., across computing sessions.

46. 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 goes without saying. 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.

47. 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.

48. Given the above, it is consistent with the definition, and understood by one of ordinary skill in the art 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 9:58-66 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 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.”
- e. 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.
- f. Lines 22:22-34 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.”)

g. 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.”

h. Lines 11:46-48 describe a grid of the tiles acting as a repository for passwords and identifiers for subscription service associated with a tile, and lines 13:16-17 describe locking a tile with a password.

49. In addition to the positive evidence listed above, I find nothing in the '403 patent to suggest that tiles would be or could be transitory. Accordingly, a correct construction of tile should include a requirement for persistence.

E. A “Tile” is Not a Window

50. In my opinion, one of ordinary skill in the art at the time of filing of the patent application could not read the '403 patent and conclude that a window could be a tile, in any circumstance.

51. The specification of the '403 patent expressly distinguishes tiles from both windows and from icons (*e.g.* , “In the present art, there is no intermediate between a window or an icon” Ex. 1001 at 3:33-34). The Board has appreciated the distinction of a tile from an icon, but not the distinction of a tile from a window, which is equally important.

52. A tile provides a way of displaying a subset of information related to an application that may be called by selecting the tile. A window, by contrast, is a primary work space that does not need to be selected to work with the data. In fact, the essence of a window, in all the windowed operating systems I have used, seen demonstrated, written about, or read about in the technical literature, is that it has *already* been selected, *e.g.*, from an icon, menu, or other structure.

53. A way of thinking about one difference between a tile and a window is that a tile, is an *entry point* to an application for working with an underlying information source. It has a refreshable preview facility, but it is not, itself, a full-fledged application.

54. The '403 patent supports this analysis, for example in the e-mail scenario given at 9:52-54. The user can only access a workspace sufficiently large “to allow new messages to be selected and read” by selecting the tile.

55. The '403 patent also refers to “locally stored word processing or spread sheet files” (Ex. 1001 at 12:53-54), files which clearly could not be edited

within a grid such as shown in Figure 1.

56. The '403 patent further states that tiles are “typically smaller in size” than a window, so the user can view multiple tiles simultaneously, which again is consistent with the concept of a tile as an entry point to an application, rather than itself a full-fledged application in which data creation and editing could be done.

57. I believe that, based on the above, a person of ordinary skill in the art would have understood that a tile is an *entry point* to a window, in the same sense that an icon or a menu (such as the Windows “Start” menu) is an entry point to a window (see Figure 1 below), and therefore cannot also be the *same* as a window.

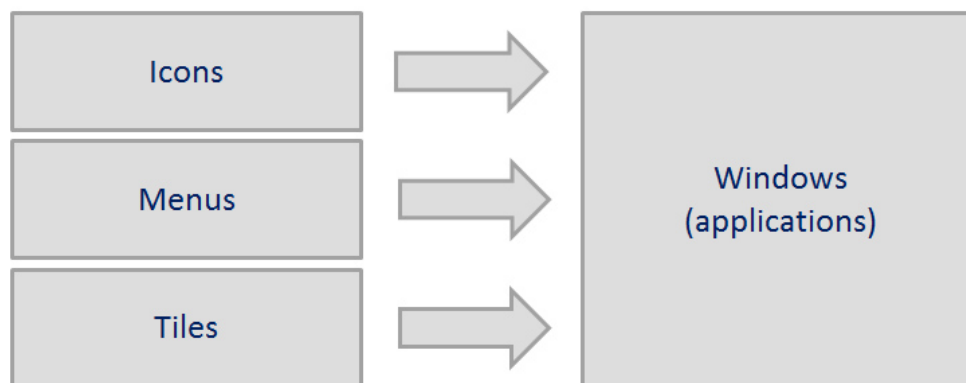


Figure 1. Graphical User Interface elements

F. Refresh Rate/Retrieval Rate

58. The Board has found that “refresh rate” and “retrieval rate” are limited to recurring time intervals. I respectfully disagree, for it is clearly possible for a “refresh rate” or a “retrieval rate” to be based on other criteria than recurring

time intervals; in fact, the '403 patent itself discloses such a rate, and other examples of non-time-based rates were well known to a person of skill in the art at the time.

59. The disclosure of a non-time-based rate occurs in the '403 patent in column 12 beginning at line 50: “In a preferred embodiment, according to priorities that may be applied to individual tiles on a tile by tile basis if desired, the grid manages the refresh rate of each tile in the grid. For example, for locally stored word processing or spreadsheet files, the user might configure the tiles to refresh only when the underlying data is written to the local hard drive.” A user of a word processing or spreadsheet program might save his or her work at random times not dictated by a recurring time interval. The relevant rate here would be, for example, to refresh at the rate of “once per file save operation.”

60. Dr. Karger’s attempt to shoehorn this scenario into the category of “recurring time interval” in his deposition (Ex. 2003 at 91:5-13) presumes elements not specified in the '403 patent (*e.g.*, a drive polling technique) and ignores the possibility of an event-driven model for detecting a file write operation, rather than a polling-driven model. Even if one grants Dr. Karger’s additional assumptions, the end result is still a “refresh rate” that is aperiodic, even if the rate of *checking* (polling) the hard drive is recurring and regular.

61. Non-time-based rates are well known in the field of information

technology. For example:

- a. A “bit error rate” is defined as “The rate of errors to the total number of bits being sent in a data transmission from one location to another.”¹
- b. A “cache hit rate” is the percentage of data requests in which the requested data is delivered from a cache (*e.g.* a browser cache) *vs.* from the original location (*e.g.* a Web server or proxy server).²³
- c. In network communications using TCP/IP, the “retransmission rate” is the number of packets that had to be resent (*e.g.*, due to not being

¹ The New IEEE Standard Dictionary of Electrical and Electronics Terms, 5th edition, Gediminas P. Kurpis, 1993, p. 112.

² For example: “The degree of locality in Web requests is rather low... Cache hit rates seem to reflect this. While the hit rate for documents at one Web server might be as high as 85 percent (Kwan, McGrath, and Reed 1995a, 1995b), proxy servers show rates from 10 to 50 percent (Glassman 1994; O’Callaghan 1995; Wessels 1995).” Web Server Technology, Nancy Yeager and Robert E. McGrath, Morgan Kaufmann Publishers, 1996, p. 208.

³ “How can we measure the effectiveness of our caches? One such measurement is called the cache hit ratio. This is the percentage of requests that are satisfied as cache hits.” Web Caching, Duane Wessels, O’Reilly, 2001, p. 37.

received in a timely manner) per total number of packets sent.⁴ As with the bit error rate and cache hit rate, the retransmission rate is typically expressed as a percentage.

G. Partitioning

62. In preparing this declaration, I gave some thought to whether I have ever encountered mention of the word “partition” in a context that would permit overlap of the spaces that are partitioned.

63. When I was unable to do so in the broad usage of the word, *e.g.*, to partition a country, a hotel ballroom, I considered the narrower field of information technology.

- a. When one partitions a hard drive, *e.g.* into multiple logical drive letters (C:, D:, and so on), there is no overlap between the partitions.
- b. When an operating system partitions a file, *e.g.* into blocks or clusters, there is no overlap.
- c. When one partitions a domain into organizational units, *e.g.*, in

⁴ “We define the retransmission rate $N/R=\eta$, where N is the number of TCP data-carrying segments in a single trace, and R the number of retransmitted segments amongst the N.” *A Comparative Study of Aggregate TCP Retransmission Rates*, K. Pentikousis, H. Badr and A. Andrade, International Journal of Computers and Applications, Vol. 32 No. 4, October 2010, pp. 1-7.

Microsoft's Active Directory enterprise networking model, there is no overlap.

- d. When one partitions a database across multiple files, *e.g.*, in MySQL, one creates rules that allocate different tables to different files in a deterministic manner; there is no overlap.⁵

64. I even checked the index section of several books that I wrote for examples of “partition” and in no case was any overlap permitted. For example, the glossary I wrote for “MCSE Windows 2000 Network Infrastructure For Dummies” includes a definition of “partition” as “A portion of a Windows 2000 basic disk set aside as a separate and distinct logical device.” A “separate and distinct” logical device means that there is no overlap between it and the remainder of the drive.

65. I have been unable identify a single example, in the field of Information Technology or outside of it, in which “partitioning” leaves open the possibility of overlap of the partitioned segments. Therefore, in my opinion, even if one could identify isolated instances where “portioning” was used in a sense that could include overlapping, the meaning of “partitioning” excludes the possibility of overlap to a person of ordinary skill in the art, and no explicit disclaimer of

⁵ See for example the online article “Overview of Partitioning in My SQL,” at <http://dev.mysql.com/doc/refman/5.1/en/partitioning-overview.html>, Oracle, 1997, 2014.

overlap is necessary.

H. User-Defined Array Size

66. The Board's construction of "user-defined array size" is "the number and arrangement of tiles to display, as specified by the user." In my opinion, "arrangement" includes the positioning of tiles within the array, based on the plain and ordinary meaning of "arrangement" (*e.g.*, a flower arrangement, which involves both flower choice and positioning). I therefore agree with the Patent Owner's wording that makes the positioning aspect explicit, *i.e.*, "the number and arrangement of tile positions in the array as specified by the user." The Patent Owner's wording is not necessarily at odds with the Board's wording, but it is somewhat clearer.

I. Array of Tiles

67. I agree with the Board in rejecting Dr. Karger's assertion that "the phrase 'array of tiles' encompasses any arrangement on a display of two or more tiles" (Ex. 1003 at ¶144). Dr. Karger's wording reads out the word "array," and "array" implies some sort of regular ordering.

IV. Opinions Regarding Validity of the '403 Patent

A. Legal Basis for Opinion

68. I understand that the claims under review in the IPR are claims 1-52

of the '403 patent (collectively “the claims under review”). I also understand that the parties proposed certain terms for construction and that the Board’s Decision construed these terms.

69. It is my understanding that, in an *inter partes* review, claim terms in an unexpired patent are interpreted according to their broadest reasonable construction in light of the specification of the patent in which they appear. It is also my understanding that under a broadest reasonable interpretation, words of the claim must be given their plain meaning, unless such meaning is inconsistent with the specification, such as where the inventor acted as his or her own lexicographer, used terms without an established plain and ordinary meaning in the art, or redefined a well-known term of art. It is the use of the words in the context of the written description and customarily by those skilled in the relevant art that accurately reflects both the ‘ordinary’ and the ‘customary’ meaning of the terms in the claims. I understand that the plain meaning to one of skill in the art is considered at the time of the invention (*i.e.*, the date the earliest supporting priority application was filed, namely October 29, 1999).

70. I further understand that, if there is no plain and ordinary meaning of a claim term, then the construction of the claim term should be derived from the specification. I also understand that the specification plays a crucial role in claim construction, and that the claims must be read in view of the specification of which

they are a part. I also understand that the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess, and that in such cases the lexicography governs. I further understand that the prosecution history of the patent should also be considered, and that it provides evidence of how the U.S. Patent and Trademark Office and the inventor understood the patent.

71. I further understand that the claim language is to be viewed from the perspective of a person of ordinary skill in the art at the time of invention. A person of ordinary skill in the relevant art of the '403 patent at that time would have had a Bachelor's degree or equivalent experience in engineering or computer science with at least three years of experience working in computer graphics, computer communications, and/or computer interfaces. When analyzing the '403 patent, the disputed claim language, and the prior art, I apply this standard to reach my conclusions, and any reference to a "person of ordinary skill in the art" below refers to a person of ordinary skill in the relevant art of the '403 patent at the time of the invention. I understand that Microsoft and Dr. Karger have proposed a slightly different level of ordinary skill in the art: "a Masters degree in software engineering or computer science (or equivalent experience working in industry) and several years of experience designing, writing or implementing software products, either at the application or operating system level." (Karger Dec. at ¶54)

To the extent there are differences between the parties' proposed levels of ordinary skill, SurfCast's better captures the type of skill one of ordinary skill in the art would have with regard to the claimed graphical user interface. Therefore, when analyzing the disputed claim language, I apply SurfCast's standard to reach my conclusions. However, applying Microsoft's proposed standard would not change my opinions.

72. I understand that claims 1, 22, and 46 of the '403 patent are independent claims. These claims are read separately to determine their scope. Claims 2-21, 23-45, and 47-52 of the '403 patent, however, are dependent claims. A dependent claim can be based on the elements of an independent claim and one or more dependent claims, and to determine its scope, it must be read together with the claim(s) from which it depends.

73. I have been informed that, in the context of the *inter partes* review, the party asserting invalidity of a patent must prove invalidity by a preponderance of the evidence. I have been informed that a "preponderance of the evidence" is evidence sufficient to show that a fact is more likely than not.

B. Anticipation

74. Counsel for SurfCast has informed me that a patent claim is invalid for lack of novelty, or as "anticipated," under 35 U.S.C. § 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 (e) 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.

75. 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.

76. 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.

77. 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.

C. Obviousness

78. 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).

79. 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.

80. 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.

81. 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.

82. 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.

83. 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.

D. Opinions on Invalidity Generally

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

85. 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.

86. With regard to item b. of Para. 59 above, 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).

87. 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. 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 ¶223 to xbiff, xperformon, and xclock on some unnamed operating system 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 to justify his belief that tiles were well-known at the filing date of the ’403 patent.

88. 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. Not one of the references brought forth by the Petitioner in this proceeding discloses a desktop alternative. 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.

89. The following sections will focus on the references for which the Board instituted this inter partes review and explain why they neither anticipate nor render obvious the claims of the ’403 patent.

E. Opinions Regarding Duhault II

90. I am informed by counsel for SurfCast that Duhault II does not qualify as prior art. Nevertheless, I have reviewed Duhault II at the request of counsel for SurfCast and do not believe it anticipates the invention of the ’403 patent even when considered without regard to date.

91. Duhault II does not describe a GUI, or a desktop alternative; rather, it describes a video viewer with provisions for multiple panes. As opposed to the '403 patent's system of tiles, one could not launch a word processor or an email program via the interface of 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.

92. Despite Dr. Karger's characterization in ¶675, Duhault II uses windows, not the tiles of the '403 patent. For example, a tile is selectable to provide access to underlying information. However, selecting a window in Duhault II does not provide access to underlying information, as Dr. Karger states in ¶683; it presents the same information the user is already viewing, but at a higher level of fidelity ("full motion video").

93. For another reason, I see nothing in Duhault II to indicate persistence, which I have argued above is a defining characteristic of the '403 patent's tiles. 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. While the lack of any such persistence may be

reasonable in the context of a specific application, it would not be reasonable in the context of a desktop-replacement graphical user interface.

94. 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 II discusses bandwidth limits at 4:18-21.)

95. 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 patent.

96. 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).

97. 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 pixels⁶, or by calling graphics functions provided by the operating

⁶ See for example [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.

system⁷, 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 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.*, 60 Hz).

98. 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.”

99. 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-

⁷ See for example 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.”.

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.

100. I disagree with Dr. Karger’s statement (in Ex. 1003, ¶700) that Duhault II discloses a unit tile size. Arguing, as he does, that “[i]t is implicit in the figure that the different channels are intended to tile the available display space, and hence, the unit tile size will depend on the number of tiles” does not really make sense, because it reads out any concept of a unit tile size to say that it can be any value depending on the size of the available display space and the number of channels. Furthermore, Duhault II does not disclose that tiles can be configured so that one is a multiple of the size of another.

DE. Opinions Regarding Chen

101. Chen is a monitoring application with provisions for multiple windows. It is a special-purpose application, rather than a graphical user interface that can function as a desktop replacement. Furthermore, it uses windows, not the tiles of the ’403.

102. Chen is not a GUI, nor a desktop alternative; rather, it is a performance monitoring application with provisions for multiple windows. As opposed to the ’403 patent’s system of tiles, one could not launch a word processor or an e-mail program via Chen. Indeed, the only data that could be accessed in

Chen is performance statistics of remote computers. Because Chen is a special-purpose application, rather than a GUI or a desktop alternative, Chen cannot anticipate the invention of the '403 patent.

103. Despite Dr. Karger's characterization (in Ex. 1003, ¶758), Chen uses windows, not the tiles of the '403 patent. For example, a tile is selectable to provide access to underlying information. However, selecting a window in Chen does not provide access to underlying information. Dr. Karger states (in Ex. 1003, ¶759) 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 underlying information of the associated information source." He says merely that Chen shows that its windows are "selectable." That hardly meets the definition of tile. So, the conclusion that Chen's windows are "selectable" is irrelevant to an invalidity analysis. My opinion is the same wherever Dr. Karger makes the same argument, e.g. in Ex. 1003, ¶810.

104. The submenu items that become available when an instrument of Chen is selected have nothing to do with "providing access to underlying

information of the associated information source.” 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.

105. The “instruments” of Chen are full-capability windows (see, for example, Chen 29:17-25), not the tiles of the ’403 patent, and not entry points that call an application.

106. With regard to dependent claim 2, I disagree with Dr. Karger’s statement (in Ex. 1003, ¶767) that Chen shows “wherein said partitioning includes partitioning said array of tiles in accordance with a user-defined array size.” Merely pointing out that the height of the instruments of Chen is derived from the total height of the “skeleton” and the number of objects selected, and asserting that it would have been “obvious” to specify a similarly derived width, is insufficient to demonstrate the disclosure of a user-defined array size. For example, Dr. Karger does not show how a derived height and an “obvious” derived width of Chen’s instruments defines an array size. One could argue that the formulaic calculation of instrument height described at 26:65-27:6 actually teaches away from a user-defined array size, given that Chen is disclosing an automatic calculation. The fact that Chen shows arrays of different sizes in Figures 12c and 12d also does not demonstrate disclosure of a *user-defined* array size.

107. With regard to dependent claim 3, the assertion of Dr. Karger that, in

his opinion, “each tile having a uniform size and shape is perfectly sensible” (¶452) does not demonstrate disclosure by Chen of “uniform size and shape.”

GE. Opinions Regarding Chen and MSIE Kit

108. Dr. Karger proposes combining Chen and MSIE Kit for purposes of rendering claims 15, 16, 29, 44, 45, and 52 obvious. However, Dr. Karger’s statement (in Ex. 1003, ¶789) and elsewhere that Chen and MSIE Kit are “analogous art directed towards solving the same problem” is not a viable position in my opinion.

109. I cannot imagine, and Dr. Karger does not explain, in any of these claims, what functionality Active Desktop 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.

110. On the other hand, given the reliability issues that were common among browsers at the time, which were still immature technology in many ways (it was well known among Windows professionals that Active Desktop on Windows 95 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.

111. 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 indeterminate updating scenarios⁸ of Active Desktop would not have been suitable for the invention of Chen). The fact that two references both deal with displaying information from various information sources that are periodically updated over a network is not in itself an adequate motivation to combine them, as Dr. Karger states (in Ex. 1003, ¶789).

112. As I have explained above, and also elaborate upon below, neither MSIE Kit nor Chen disclose the tiles of the '403 patent, and so their combination likewise does not disclose the tiles of the '403 patent.

113. 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

⁸ See for example Ex. 1007 page 223: "It's also helpful to randomize the time that subscribers update the channel, to prevent all subscribers from updating at the same time. The following sample schedule would cause the channel to be updated every day at a random time between 2 A.M. and 6 A.M."

likewise does not disclose the invention of the '403 patent.

FH. Opinions Regarding MSIE Kit

114. The MSIE Kit reference describes (in some ways inaccurately) a technology that Microsoft called “Active Desktop.” I used Active Desktop when teaching and writing books about Windows 95 and Windows 98; it was also a focus in *United States v. Microsoft* where I served as a consultant and expert witness. I also built an Active Desktop system on a contemporaneous PC running Windows 95 in my own office to refresh my understanding. Although Active Desktop did not, in fact, implement a grid functionality in practice, and Active Desktop items would in fact overlap (as MSIE Kit itself illustrates, at Ex. 1007, p. 176), I understand from counsel for SurfCast that I should consider the MSIE Kit document on its own merits. I should however clarify an inaccuracy in Dr. Karger’s declaration when he states that “MSIE Kit shows that when a desktop item is added to the Active Desktop, Internet Explorer places the desktop item onto a location within a grid region” (Ex. 1003 at ¶258). The reference may *state* this, but it does not *show* it, *e.g.* in a screen shot, because MSIE Kit is in error in this regard. Dr. Karger makes a variety of other errors in his analysis of MSIE Kit, as will be seen below. In any event, Active Desktop, even as it is inaccurately described in MSIE Kit, is not anticipatory of the '403 patent.

115. Active Desktop is not a GUI, nor a desktop alternative; rather, it is a

facility for storing automatically-updatable browser viewers in a layer on the desktop, above the wallpaper and underneath traditional icons. As opposed to the '403 patent's system of tiles, one could not launch a word processor or an e-mail program via Active Desktop. Indeed, unless an Active Desktop "item" contains a hyperlink, one cannot launch anything at all via an Active Desktop item. Because Active Desktop "items" are merely browser areas⁹, and a browser is an application (a browser instance) rather than a GUI or a desktop alternative, Active Desktop cannot anticipate the invention of the '403 patent.

116. Dr. Karger's assertion (in Ex. 1003, ¶322) that "MSIE Kit shows that when an Active Desktop interface is used, it replaces the user's desktop management software ..." is not true. Active Desktop is just another layer; the rest of the desktop (Start button, taskbar, icons, wallpaper) are still present.

117. Furthermore, Active Desktop would have no capability of presenting a word processor file or a spreadsheet file, either for previewing or for editing, because AD items are presented by an application (a browser) that only understands Web-compatible data types. (See, *e.g.*, petitioner's Exhibit 1007, p. 176: "You can easily place any ActiveX control, Java applet, graphic, or HTML

9 See *e.g.* MSIE Kit, p. 175: "Active Desktop items are hosted in an instance of the Web browser control" and also p. 176 as quoted in Karger ¶245, "Active Desktop items and Active Desktop wallpaper are essentially Web sites ...".

document on your desktop and leave it at that.”) There are far more data types in the world than can be displayed by a Web browser, even today; the disparity was dramatically greater in October 1999. .

118. In light of the previous paragraph, Dr. Karger’s statement (in Ex. 1003, ¶267) that “MSIE Kit shows that Internet Explorer can use any graphic, audio, video, web site, Java applet, ActiveX [sic], HTML file as the information source for a desktop item” is incorrect. Not only does MSIE Kit not show this, it is not true. To provide one small example, focusing only on graphics files for a moment, as a Web browser, IE4 was natively capable of displaying GIF, JPG, and certain PNG files, but it was *not* natively capable of displaying CGM, DXF, FLI/FLC, GEM, HPGL, PCL, PCX, PIC, PICT, PS, TGA, TIFF, WMF, or WPG, although these graphics file formats were known at the time¹⁰. I also disagree with Dr. Karger everywhere he repeats this error (e.g. Ex. 1003 at ¶356).

119. Active Desktop items also are not “tiles” in the sense of the ’403 patent. For example, any given Active Desktop item has no capability to be selected to provide access to the information source associated with that item. Recalling the discussion of “tile” in the Claims Construction portion of this

¹⁰ See for example Graphics File Formats, 2nd Edition, David C. Kay and John R. Levine, Windcrest/McGraw-Hill, 1995.

declaration, a tile itself must be selectable to provide such access. 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 an information source associated with an Active Desktop item in such a way that selecting the *item* provides access to a *source of information* that is *associated with the item*. Selecting something that may or may not exist *inside* an AD item is not the same as selecting an AD item.

120. Therefore, I must 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.” First, clicking on the desktop item does nothing unless a link is contained within that item; second, if a link exists, clicking it does not take the user to the “information source linked to the desktop item” but could instead take the user somewhere completely different. My disagreement extends to every paragraph in which Dr. Karger repeats this error (*e.g.*, Ex. 1003 at ¶310, ¶364, and ¶405.)

121. I also note that although the Board states that “[u]sers may select an item in order to move it on the desktop...” (Decision, p. 32), this capability also applies to icons, which the Board recognizes are not tiles. So the ability to be

selected in order to be moved on a desktop is not indicative of an Active Desktop item being a tile.

122. Active Desktop items are also not the same as the “tiles” of the ’403 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, p. 176:

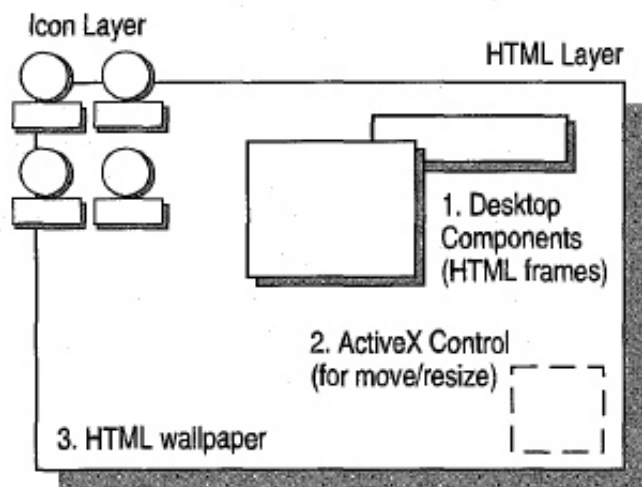


Figure 2. Active Desktop items overlap in MSIE Kit.

123. Furthermore, 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 (Ex. 1007), 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.

124. This is not the only factual error in Dr. Karger’s analysis of MSIE Kit.¹¹¹² Because of the number and significance of errors in Dr. Karger’s analysis, I do not share the Board’s view that “...the explanations are supported by the declaration of Dr. David R. Karger.” (Decision, p. 31.)

125. I also disagree with the various locations in his declaration where Dr. Karger implicitly equates Active Desktop items with the tiles of the ’403 (see, e.g., Ex. 1003 at ¶317 and ¶363).

126. With respect to dependent claims 3 and 30, MSIE Kit simply does not disclose tiles “of a uniform size and shape.” Despite the incorrect assertions of Dr.

¹¹ For another example, see Ex. 1003, ¶292, where Dr. Karger states that “MSIE Kit also suggests that desktop items will be given a maximum size of 200 x 200 pixels when used on a 640 x 480 display area.” The cited page of MSIE Kit contradicts this statement and notes unambiguously that “Internet Explorer does not itself enforce any restrictions on the size of an Active Desktop item.”

¹² Another example of a factual error in Dr. Karger’s treatment of MSIE Kit appears in Ex. 1003, ¶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.”

Karger on this point, (for example in Ex. 1003 at ¶292 and ¶293), there is no disclosure in MSIE Kit of tiles having a uniform size or shape. Dr. Karger admitted these errors in deposition, and admitted that the “maximum tile size of 200 x 200 pixels” to which he refers in Ex. 1003, ¶292 is nothing more than a suggestion for developers working at a particular screen size. MSIE Kit itself states unambiguously that “Internet Explorer does not itself enforce any restrictions on the size of an Active Desktop item.”

¶I. Opinions Regarding MSIE Kit and Brown

127. The combination of MSIE Kit (Ex. 1007) and Brown (Ex. 1030) does not resolve the issues that I have raised regarding MSIE Kit not being anticipatory.

128. Additionally, in my opinion it would not be obvious to combine Brown with MSIE Kit. Brown discloses the use of its scheme on hand-held devices, which is a broad category including relatively large hand-held devices, such as (for example) the Intel Web Tablet¹³ (1999). Dr. Karger’s assertion (in Ex. 1003, ¶345) that the only types of hand-held devices in October 1999 were mobile phones, Personal Digital Assistants, and two-way pagers is therefore incorrect. While hand-held devices as a category would include a PDA or mobile phone, in

¹³ “Before Apple’s iPad, there was the Intel IPAD,” by Shara Tibken, CNET News, 12/5/2013.

the scenario of a PDA or mobile phone the viewable area is generally smaller than on a computer that would normally run Active Desktop, increasing the value of display simplicity and clarity. Dr. Karger appears to share my view in this respect (Ex. 1003, ¶331). In my opinion, incorporating the overlapping windows of Active Desktop on a small-screen device such as a mobile phone would have been counter-intuitive.

129. Furthermore, browser-based display areas (as disclosed by Active Desktop items) are often not space-efficient; today, many organizations offer special mobile-only versions of their Web sites to address this issue. It is often necessary to use scroll bars to view Web pages even on a PC with a full-size display. Dr. Karger has not shown why one of ordinary skill in the art would be motivated to implement Active Desktop on a mobile phone or PDA. In fact, the figure 3A of Brown that Dr. Karger reproduces on p. 107 of his declaration (Ex. 1003) shows two out of three desktop items having scrollbars – structures that a person of ordinary skill in the art would be inclined to avoid on a small-size display such as a mobile phone.

130. Dr. Karger mischaracterizes the cited excerpt from Brown in Karger ¶344. Dr. Karger states that “Brown explains that the Active Desktop scheme can be implemented on hand-held devices.” However, the cited excerpt states that “...the *invention* may be practiced with other computer system configurations ...”

(emphasis added). The invention of Brown is not Active Desktop.

131. Dr. Karger states (in Ex. 1003, ¶345) that “Brown therefore provides a specific suggestion to implement the Active Desktop scheme on a mobile phone.” I disagree. Dr. Karger does not point to any such “specific suggestion.” Dr. Karger repeats this error (in Ex. 1003 ¶346).

JH. Opinions Regarding Duperrouzel

132. Duperrouzel (Ex. 1011) is a browser with multiple windows. It is an application, rather than a graphical user interface. Furthermore, it uses windows, not the tiles of the ’403 patent.

133. Duperrouzel is not a GUI, nor a desktop alternative; rather, it is a browser with multiple windows. As opposed to the ’403 patent’s system of tiles, one could not launch a word processor or an e-mail program via a Duperrouzel window. Indeed, unless a pane of Duperrouzel’s display contains a hyperlink, one cannot launch anything at all via a Duperrouzel window. Because Duperrouzel windows are merely browser areas¹⁴, and a browser is an application (a browser instance) rather than a GUI or a desktop alternative, Duperrouzel cannot anticipate the invention of the ’403 patent.

¹⁴ “A display system displays web pages from web sites located on data communications networks such as the Internet network.” (Duperrouzel, abstract)

134. Furthermore, Duperrouzel would have no capability of presenting a word processor file or a spreadsheet file, either for previewing or for editing, because its windows are presented by an application (a browser) that only understands Web-compatible data types. There are far more data types in the world than can be displayed by a Web browser, even today; the disparity was dramatically greater in October 1999. A browser, even a multi-paned browser such as in Duperrouzel, cannot convey the wide-ranging applicability of the '403 patent's grid of tiles.

135. In light of the previous paragraph, Dr. Karger's statement (in Ex. 1003, ¶423) that "[t]he 'plurality' of information sources referred to in Duperrouzel can be different 'web sites' that provide many different types of information including 'text, graphics, video, sound, and any other format of electronic data'" is incorrect. It was not possible in 1999 for a web browser to display "any other format of electronic data" nor is that possible even today. Dr. Karger repeats this error (in Ex. 1003, ¶432), and I disagree with it there also.

136. Duperrouzel windows also are not "tiles" in the sense of the '403 patent. For example, any given window item has no capability to be selected to provide access to the information source associated with that item. Recalling the discussion of "tile" in the Claims Construction portion of this declaration, a tile itself must be selectable to provide such access. 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 an information source associated with a Duperrouzel window in such a way that selecting the *window* provides access to a *source of information* that is *associated with the window*. 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).

137. 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.

138. Furthermore, maximizing a window does not provide access to

underlying information. 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 an information source 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.

139. The source of information in a non-maximized window is the Web page; the source of information in a scrolled window is the Web page; and the source of information in a maximized window is the Web page.

140. Therefore, maximizing a window has no effect on providing anything that was not already provided. To grant Dr. Karger’s logic would read out the entire concept of providing access to an underlying information source, because it would equate that with the well-known activity of maximizing a window, which is simply a special case of resizing a window and clearly not what the ’403 patent discloses.

141. Additionally, Duperrouzel’s “display areas” are not “tiles” of the ’403 patent. Inspection of Figures 2 through 14 (Ex. 1011) reveals that Duperrouzel’s display areas have nearly all of the attributes of any tiled (using the verb, in the

sense of the known method of partitioning a display, not the noun describing the '403 patent's tiles) display of multiple browser windows: each is an active browser instance, with navigational controls, an address bar, minimize and maximize controls, and scroll bars. A person of ordinary skill in the art would look at these figures and conclude that Duperrouzel discloses a browser displaying typical windows, tiled in a typical way, plus an additional overarching menu bar at the top of the display conveying the novel aspects of the Duperrouzel invention.

142. More specifically, Duperrouzel does not disclose the persistence embodied in the Patent Owner's definition of "tile." 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.

143. 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.

144. 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.

IK. Opinions Regarding Duperrouzel and Brown

145. My opinions regarding the combination of Duperrouzel and Brown fall along similar lines to my opinions regarding the combination of MSIE Kit and Brown (see earlier section in this report).

146. 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

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

Depositions

- 2) David R. Karger, and all associated exhibits

Publications and Resources

- 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
- 4) Graphics File Formats, 2nd Edition, David C. Kay and John R. Levine, Windcrest/McGraw-Hill, 1995
- 5) Microsoft Windows 98 Resource Kit Beta Release, Microsoft Press, 1998
- 6) “Overview of Partitioning in MySQL,” at <http://dev.mysql.com/doc/refman/5.1/en/partitioning-overview.html>, Oracle, 1997, 2014.
- 7) “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)

- 8) The New IEEE Standard Dictionary of Electrical and Electronics Terms, Fifth Edition, Gediminas P. Kurpis, Institute of Electrical and Electronics Engineers, 1993
- 9) Web Caching, Duane Wessels, O'Reilly, 2001
- 10) Web Server Technology, Nancy J. Yeager and Robert E. McGrath, Morgan Kaufmann Publishers, Inc., 1996

Other Documents

- 11) Microsoft's four petitions for IPR of the '403 patent and exhibits cited therein, including the declaration of Dr. Karger and the prior art cited therein
- 12) Decision, Institution of *Inter Partes* Review, 11/19/2013
- 13) SurfCast's Preliminary Response to Microsoft's petitions for IPR