

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Microsoft Corporation
Petitioner,

v.

Surfcast, Inc.
Patent Owner

Patent No. 6,724,403
Issued: April 20, 2004
Filed: October 30, 2000
Inventors: Ovid Santoro and Klaus Lagermann
Title: SYSTEM AND METHOD FOR SIMULTANEOUS DISPLAY
OF MULTIPLE INFORMATION SOURCES

Inter Partes Review No. IPR2013-00292, IPR2013-00293,
IPR2013-00294, and IPR2013-00295

Reply Declaration of David R. Karger Regarding U.S. Patent No. 6,724,403

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

Dated: March 31, 2014



David R. Karger

Table of Contents

I.	INTRODUCTION	1
A.	Engagement.....	1
B.	Background And Qualifications	1
C.	Compensation And Prior Testimony	1
D.	Information Considered	2
II.	LEGAL STANDARDS FOR PATENTABILITY	3
A.	Anticipation.....	4
B.	Obviousness	5
C.	Written Description.....	10
III.	THE CLAIMS OF THE '403 PATENT ARE NOT PATENTABLE	11
A.	The Board's Claim Interpretations.....	11
1.	“tile”	11
2.	“array of tiles”	13
3.	“partitioning a visual display of the device into an array of tiles” / “arrange a display into an array of tiles”	14
4.	“simultaneously updating information from a second information source . . . in accordance with said second refresh rate” / “control simultaneous communication with a plurality of information sources”	14
5.	“user-defined array size”	15
6.	“assigning said first [second] refresh rate and said second refresh rate in accordance with a first [second] priority value of a first [second] information source associated with said first tile” / “assign said first retrieval rate and said second retrieval rate in accordance with a predetermined priority scheme”	16
7.	“wherein at least one attribute of each tile in said array of tiles is assigned uniformly” / “uniformly assigning at least one attribute of each tile”	16
8.	“wherein each of said tiles occupies a fixed position on said grid”	17
9.	“tile ... has a fixed size that is equal to a unit tile size, or a multiple thereof”	17
B.	Patent Owner's Proposed Claim Interpretations.....	18
1.	“tile”	18
a.	Persistence.....	18
b.	Assigned to a tile.....	19
c.	Windows	20
2.	“partitioning a visual display of the device into an array of tiles” / “arrange a display into an array of tiles”	21

3.	“refresh rate” / “retrieval rate”	23
4.	“user-defined array size”	24
C.	Patent Owner’s Arguments As To Patentability	25
1.	Ground 1: Anticipation By Duhault II	25
2.	Ground 2: Anticipation By Chen	37
3.	Ground 3: Obviousness Over Chen in View of MSIE Kit	44
4.	Ground 4: Anticipation By MSIE Kit	47
a.	Clicking on a Link Within The Item	50
b.	Clicking on a Hot Spot on an Item	55
c.	Dragging/Resizing the Item	56
d.	Using Keyboard Navigation To And Within The Item.	56
5.	Ground 5: Obviousness Over MSIE Kit In View of Brown	61
6.	Ground 6: Anticipation By Duperouzzel	63
7.	Ground 7: Obviousness Over Duperrouzel In View of Brown	68
IV.	PATENT OWNER’S MOTION TO AMEND	69
A.	The Proposed Substitute Claims Are Not Patentable	69
1.	The ‘403 Patent Does Not Include A Written Description of The Proposed Substitute Claims	70
a.	Persistence	70
b.	Calling an Application Program By Selecting a Tile	72
2.	The Proposed Substitute Claims Are Not Patentable Over MSIE Kit	74
a.	Proposed substitute claim 53 Is Anticipated By MSIE Kit	75
i.	A system for facilitating the organization and management of multiple data sources	75
ii.	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	76
iii.	control simultaneous communication with a plurality of information sources	77
iv.	arrange a display into a grid of tiles that are not permitted to overlap, said grid being persistent from session to session	77
i.	associate a first information source of said plurality of information sources to a first tile of said grid of tiles and a second information source of said plurality of information sources to a second tile of said grid of tiles	81
i.	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.....	85
ii.	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	86
iii.	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	87
iv.	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.....	96
b.	Proposed Substitute Claim 54 Is Anticipated By MSIE Kit	97
c.	Proposed Substitute Claim 55 Is Anticipated By MSIE Kit and/or Rendered Obvious By MSIE Kit In View Of Chen	97
d.	Proposed Substitute Claim 56 Is Anticipated By MSIE Kit and/or Rendered Obvious By MSIE Kit In Light Of Chen	100
e.	Proposed Substitute Claim 57 Is Anticipated By MSIE Kit	100
f.	Proposed Substitute Claim 58 Is Anticipated By MSIE Kit	101
g.	Proposed Substitute Claim 59 Is Anticipated By MSIE Kit	103
3.	The Proposed Substitute Claims Are Not Patentable Over Kostas (Ex. 1051)	103
a.	Proposed Substitute Claim 53 Is Anticipated By Kostas.....	104
i.	A system for facilitating the organization and management of multiple data sources.....	104
ii.	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	106
iii.	control simultaneous communication with a plurality of information sources.....	108
iv.	arrange a display into a grid of tiles that are not permitted to overlap, said grid being persistent from session to session	108
v.	associate a first information source of said plurality of information sources to a first tile of said grid of tiles and a second information source of said plurality of information sources to a second tile of said grid of tiles.....	114
vi.	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.....	115
vii.	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	116
viii.	wherein the tiles are selectable, and wherein selecting a tile calls an assigned application program to provide access to information	117
ix.	The assigned application program being different from a program that arranges the display into the grid of tiles that are not permitted to overlap.....	118
x.	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.....	119
b.	Proposed Substitute Claim 54 Is Anticipated By Kostas.....	122
c.	Proposed Substitute Claim 55 Is Anticipated By Kostas.....	123
d.	Proposed Substitute Claim 56 Is Anticipated By Kostas.....	125
e.	Proposed Substitute Claim 57 Is Anticipated By Kostas.....	125
f.	Proposed Substitute Claim 58 Is Anticipated By Kostas.....	126
g.	Proposed Substitute Claim 59 Is Anticipated By Kostas.....	127
4.	The Proposed Substitute Claims Are Not Patentable Over Myers (Ex. 1066)	128
V.	CONCLUSION	133
	ATTACHMENT A	1

TABLE OF APPENDICES

Appendix A:

List of Materials Considered

I. INTRODUCTION

A. Engagement

1. I have been retained by counsel for Microsoft Corporation as an expert witness in the above-captioned proceeding. I am the David Karger who has previously submitted a declaration in these proceedings as Ex. 1003. I have been asked to provide this reply declaration regarding the validity of claims 1-52 of U.S. Patent No. 6,724,403 (“the ’403 patent”)(Ex. 1001) and also regarding issues raised by the Patent Owner’s motion to amend filed in these proceedings. The following is my written report on those topics.

B. Background And Qualifications

2. My background and qualifications are set forth in my previously submitted report, Ex. 1003 (“Karger Initial Declaration”).

3. My Curriculum Vitae, including my publications and patents, has been submitted as Exhibit 1004.

C. Compensation And Prior Testimony

4. I am being compensated at a rate of \$700 per hour for my study and testimony in this matter. I am also being reimbursed for reasonable and customary expenses associated with my work and testimony in this investigation. My compensation is not contingent on the outcome of this matter or the specifics of my testimony.

5. I have never been deposed nor testified in Federal District Court.

D. Information Considered

6. In addition to the information I identified in my first report I have also considered the decision by the Board regarding institution of these proceedings, the submissions of the Patent Owner in these proceedings and the declarations and depositions of Messrs. Bone, Santoro, Lagermann, Dechaene, and Weadock in these proceedings. Exs. 2004-2008, 2063, and 1102-1106. My opinions are based on my years of education, research and experience, as well as my investigation and study of relevant materials. In forming my opinions, I have considered the materials referred to herein, listed in Appendix A of Exhibit 1003 or listed in Appendix A to this report.

7. I may rely upon these materials and/or additional materials to rebut arguments raised by the patentee. Further, I may also consider additional documents and information in forming any necessary opinions — including documents that may not yet have been provided to me.

8. My analysis of the materials produced in this investigation is ongoing and I will continue to review any new material as it is provided. This report represents only those opinions I have formed to date. I reserve the right to revise, supplement, and/or amend my opinions stated herein based on new information and on my continuing analysis of the materials already provided.

II. LEGAL STANDARDS FOR PATENTABILITY

9. In expressing my opinions and considering the subject matter of the claims of the '403 patent, I am relying upon certain basic legal principles that counsel has explained to me.

10. First, I understand that for an invention claimed in a patent to be found patentable, it must be, among other things, new and not obvious in light of what came before it. That which came before is generally referred to as “prior art.”

11. I understand that in this context the burden is on the party asserting unpatentability to prove it by a preponderance of the evidence. I understand that “a preponderance of the evidence” is evidence sufficient to show that a fact is more likely than not.

12. I understand that in this proceeding, the claims must be given their broadest reasonable interpretation consistent with the specification. The claims after being construed in this manner are then to be compared to the information in the prior art.

13. I understand that in this proceeding, the information that may be evaluated is limited to patents and printed publications. My analysis below compares the claims to patents and printed publications that are prior art to the claims. I understand that there are two ways in which prior art may render a patent claim unpatentable. First, the prior art can be shown to “anticipate” the claim.

Second, the prior art can be shown to “render obvious” the claim. My understanding of the two legal standards is set forth below.

A. Anticipation

14. I understand that the following standards govern the determination of whether a patent claim is “anticipated” by the prior art. I have applied these standards in my evaluation of whether the claims asserted in this investigation are anticipated.

15. I understand that, for a patent claim to be “anticipated” by the prior art, each and every requirement of the claim must be found, expressly or inherently, in a single prior art reference as recited in the claim. I understand that claim limitations that are not expressly found in a prior art reference are inherent if the prior art necessarily functions in accordance with, or includes, the claim limitations.

16. I further understand that some claims may include what is referred to as a “negative limitation.” Such a limitation is a claim element that defines the claimed subject matter by what it is not, rather than by what it is. I also understand that negative limitations may be satisfied by silence in the prior art.

17. I understand that it is acceptable to examine evidence outside the prior art reference in determining whether a feature, while not expressly discussed in the reference, is necessarily present within that reference.

B. Obviousness

18. I understand that a claimed invention is not patentable if it would have been obvious to a person of ordinary skill in the field of the invention at the time the invention was made.

19. I understand that the '403 patent was granted from an application (09/702,325) that was filed on October 30, 2000. Ex. 1002. I understand that the '403 patent claims priority to a provisional application (60/162,522) that was filed on October 29, 1999. Ex. 1005. I have used October 29, 1999 as the “date the invention was made” in my analysis.

20. I understand that the obviousness standard is defined in the patent statute (35 U.S.C. § 103(a)) as follows:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. I understand that the following standards govern the determination of whether a claim in a patent is obvious. I have applied these standards in my evaluation of whether claims 1-52 of the '403 patent would have been considered obvious at the time of the invention.

22. I understand that obviousness may be shown by considering more than one item of prior art. I also understand that the relevant inquiry into obviousness requires consideration of four factors (although not necessarily in the following order):

- The scope and content of the prior art;
- The differences between the prior art and the claims at issue;
- The knowledge of a person of ordinary skill in the pertinent art; and
- Whatever objective factors indicating obviousness or non-obviousness may be present in any particular case.

23. In addition, I understand that the obviousness inquiry should not be done in hindsight, but should be done through the eyes of a person of ordinary skill in the relevant art at the time the subject patent was filed (*i.e.*, October 29, 1999).

24. I understand the objective factors indicating obviousness or non-obviousness may include: commercial success of products covered by the patent claims; a long-felt need for the invention; failed attempts by others to make the invention; copying of the invention by others in the field; unexpected results achieved by the invention; praise of the invention by the infringer or others in the field; the taking of licenses under the patent by others; expressions of surprise by experts and those skilled in the art at the making of the invention; and the patentee's approach being contrary to the accepted wisdom of the prior art.

25. I understand that the combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. I understand that when a work is available in one field of endeavor, design incentives and other market forces can prompt variations of that work, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, that variation would have been considered obvious. I understand that for similar reasons, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using that technique to improve the other device would have been obvious unless its actual application yields unexpected results or challenges in implementation.

26. I understand that the obviousness analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, but instead can take account of the “ordinary innovation” that does no more than yield predictable results, which are inferences and creative steps that a person of ordinary skill in the art would employ.

27. I understand that sometimes it will be necessary to look to 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. I understand that all these

issues may be considered to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.

28. I understand that the obviousness analysis cannot be confined by a formalistic conception of the words “teaching, suggestion, and motivation.” I understand that in 2007, the Supreme Court issued its decision in *KSR Int’l Co. v. Teleflex, Inc.* where the Court rejected the previous requirement of a “teaching, suggestion, or motivation to combine” known elements of prior art for purposes of an obviousness analysis as a precondition for finding obviousness. It is my understanding that *KSR* confirms that any motivation that would have been known to a person of skill in the art, including common sense, or derived from the nature of the problem to be solved, is sufficient to explain why references would have been combined.

29. A person of ordinary skill attempting to solve a problem will not be led only to those elements of prior art designed to solve the same problem. I understand that under the *KSR* standard, common sense is important and should be considered. Common sense teaches that familiar items may have obvious uses beyond the particular application being described in a reference, that if something can be done once it is obvious to do it multiple times, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle. As such, the prior art considered can be directed to any need or

problem known in the field of endeavor at the time of the invention and can provide a reason for combining the elements of the prior art in the manner claimed. In other words, the prior art does not need to be directed towards solving the same problem that is addressed in the patent. Further, the individual prior art references themselves need not all be directed towards solving the same problem.

30. I understand that an invention that might be considered an obvious variation on, or modification of, the prior art may nonetheless be considered non-obvious if one or more prior art references discourage or lead away from the line of inquiry disclosed in the reference(s). A reference does not “teach away” from an invention simply because the reference suggests that another embodiment of the invention is optimal or preferred. My understanding of the doctrine of teaching away requires some clear discouragement of that combination in the prior art — such as expressly stated reasons why one should not make the claimed combination or invention.

31. I understand that a person of ordinary skill is also a person of ordinary creativity.

32. I further understand that in many fields, it may be that there is little discussion of obvious techniques or combination, and it often may be the case that market demand, rather than scientific literature or knowledge, will drive design trends. When there is such a design need or market pressure to solve a problem

and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within their technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense. In that instance the fact that a combination was obvious to try might show that it was obvious. The fact that a particular combination of prior art elements was “obvious to try” may indicate that the combination was obvious even if no one attempted the combination. If the combination was obvious to try (regardless of whether it was actually tried) or leads to anticipated success, then it is likely the result of ordinary skill and common sense rather than innovation.

C. Written Description

33. I am informed by counsel that for a claim to be patentable it must be supported by a written description of the claimed invention in the patent specification. I am also informed that in order to have written description support in a patent specification the specification must describe all elements of the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor(s) had possession of the claimed invention as of the filing date of the patent. I am also informed, however, that an inventor may not rely on what is obvious from the specification in order to satisfy the written description requirement.

III. THE CLAIMS OF THE '403 PATENT ARE NOT PATENTABLE

A. The Board's Claim Interpretations

34. I note the Board adopted several claim interpretations that appear to be different from those I applied in my original declaration. In my opinion, none of the claim interpretations I applied is inconsistent with those of the Board because my original analysis would apply equally to the Board's interpretation. Further, the claim interpretations adopted by the Board do not change my opinion that claims 1-52 of the '403 Patent are unpatentable.

1. "tile"

35. The Board has interpreted "tile" to mean "a graphical user interface element whose content may be refreshed and that, when selected, provides access to an information source" and concluded that the Active Desktop Items of MSIE Kit satisfy that interpretation. Institution Decision, Paper No. 19, at 9, 31, 32, and 40. My previously presented analysis fully supports that conclusion, including my discussion of how Active Desktop Items are graphical user interface elements, Ex. 1003, Karger Initial Declaration at ¶¶ 254, 268, 399, 400, and 404, how they can be refreshed, Ex. 1003, Karger Initial Declaration at ¶¶ 250-253, 259-265, and 271-276, and how when selected they provide access to an information source, Ex. 1003, Karger Initial Declaration at ¶ 270.

36. The Board also concluded that the disclosure of Duperrouzel satisfies its interpretation of tile. IPR2013-00292, Paper No. 19 at 34-36 and 41. My previously presented analysis fully supports that conclusion, including my discussion of how Duperrouzel panes are graphical user interface elements, Ex. 1003, Karger Initial Declaration at ¶¶ 418-421, 434, 435, and 458, how they can be refreshed, Ex. 1003, Karger Initial Declaration at ¶¶ 422, 425-428, and 441-448, and how when selected they provide access to an information source, Ex. 1003, Karger Initial Declaration at ¶ 439.

37. The Board also concluded that the disclosure of Duhault II satisfies its interpretation of tile. IPR2013-00292, Paper No. 19, 23-26, and 40. My previously presented analysis fully supports that conclusion, including my discussion of how Duhault II display areas are graphical user interface elements, Ex. 1003, Karger Initial Declaration at ¶¶ 675, 676, and 682, how they can be refreshed, Ex. 1003, Karger Initial Declaration at ¶¶ 673, 674, 677-679, and 684-686, and how when selected they provide access to an information source, Ex. 1003, Karger Initial Declaration at ¶ 683.

38. The Board also concluded that the disclosure of Chen satisfies its interpretation of tile. IPR2013-00292, Paper No. 19, 26-29, and 40. My previously presented analysis fully supports that conclusion, including my discussion of how Chen instruments are graphical user interface elements, Ex.

1003, Karger Initial Declaration at ¶¶ 752, 753, 757, and 758, how they can be refreshed, Ex. 1003, Karger Initial Declaration at ¶¶ 754 and 760-764, and how when selected they provide access to an information source, Ex. 1003, Karger Initial Declaration at ¶ 759.

39. Mr. Weadock states that “windows are not tiles.” Ex. 2004, Weadock Declaration ISO Response at ¶ 86. None of the structures I have identified as satisfying the claimed “tiles” are windows, but instead are graphical user interface elements meeting the Board’s interpretation of that claim term. Nevertheless, I note that Mr. Weadock never identifies any portion of the Board’s claim interpretation that would preclude any window from being a tile.

2. “array of tiles”

40. The Board has interpreted “array of tiles” to mean “an ordered set of two or more tiles” and concluded that the cited prior art satisfies that interpretation. Institution Decision, Paper No. 19, at 11, 23, 25, 26, 29, 31, 32, 34, 36, 40, and 41. My previously presented analysis fully supports that conclusion, at least since each of the prior art structures I identified as satisfying the claimed array constitutes a grid which clearly is an array. Ex. 1003, Karger Initial Declaration at ¶¶ 278, 291, 293, 319, 321, 358, 362, 402, 404, 434, 450, 473, 489, 531, 539, 541, 676, 682, 687, 693, 701, 752, 753, and 782.

3. “partitioning a visual display of the device into an array of tiles” / “arrange a display into an array of tiles”

41. The Board has interpreted “partitioning a visual display of the device into an array of tiles” / “arrange a display into an array of tiles” to mean “dividing a display or window into two or more tiles” and concluded that Petitioner established a reasonable likelihood that the claims are invalid under this interpretation. Institution Decision, Paper No. 19, at 12-13, 23, 25, 26, 29, 31, 32, 34, 36, 40, and 41. My previously presented analysis fully supports that conclusion, at least because the prior art functionality I identified as satisfying this claim language constitutes the presentation of a grid on a display or in a window. Ex. 1003, Karger Initial Declaration at ¶¶ 278, 291, 293, 319, 321, 358, 362, 402, 404, 434, 450, 473, 489, 531, 539, 541, 676, 682, 687, 693, 701, 752, 753, and 782.

4. “simultaneously updating information from a second information source . . . in accordance with said second refresh rate” / “control simultaneous communication with a plurality of information sources”

42. The Board has interpreted “simultaneously updating information from a second information source . . . in accordance with said second refresh rate” / “control simultaneous communication with a plurality of information sources” to mean “performing the repetitive process of updating information presented to the second tile and waiting for the next time at which the update is to occur as set by

the refresh rate assigned to the second tile at the same time or nearly the same time as said updating information from said first information source” and concluded that Petitioner established a reasonable likelihood that the claims are invalid under this interpretation. IPR2013-00292, Paper No. 19, at 15-16, 23, 25, 26, 29, 31, 32, 34, 36, 40, and 41. My previously presented analysis fully supports that conclusion, at least since my proposed interpretation was narrower than the Board’s, so that functionality that satisfies my interpretation necessarily satisfies the Board’s. Ex. 1003, Karger Initial Declaration at ¶¶ 183, 275, 417, 447, 448, 684, 686, and 764.

5. “user-defined array size”

43. The Board has interpreted “user-defined array size” to mean “the number and arrangement of tiles to display, as specified by the user” and concluded that Petitioner established a reasonable likelihood that the claims are invalid under this interpretation. IPR2013-00292, Paper No. 19, at 16-17, 23, 31, 32, 34, 36, 40, and 41. My previously presented analysis fully supports that conclusion. Ex. 1003, Karger Initial Declaration at ¶¶ 278-288, 450, 451, 687, and 765-767.

6. “assigning said first [second] refresh rate and said second refresh rate in accordance with a first [second] priority value of a first [second] information source associated with said first tile” / “assign said first retrieval rate and said second retrieval rate in accordance with a predetermined priority scheme”

44. The Board has interpreted “assigning said first [second] refresh rate and said second refresh rate in accordance with a first [second] priority value of a first [second] information source associated with said first tile” / “assign said first retrieval rate and said second retrieval rate in accordance with a predetermined priority scheme” (Ex. 1003, Karger Initial Declaration at ¶¶ 186-190) to mean “assigning said first [second] refresh rate . . . in accordance with a first [second] priority value of said first [second] tile” and concluded that Petitioner established a reasonable likelihood that the claims are invalid under this interpretation. IPR2013-00292, Paper No. 19, at 17-18, 23, 25, and 40. My previously presented analysis fully supports that conclusion. Ex. 1003, Karger Initial Declaration at ¶¶ 690 and 725.

7. “wherein at least one attribute of each tile in said array of tiles is assigned uniformly” / “uniformly assigning at least one attribute of each tile”

45. The Board has interpreted “wherein at least one attribute of each tile in said array of tiles is assigned uniformly” / “uniformly assigning at least one attribute of each tile” to mean “assigning the same value of an attribute to each tile in the array” and concluded that Petitioner established a reasonable likelihood that

the claims are invalid under this interpretation. IPR2013-00292, Paper No. 19, at 18-19, 23, 26, 29, and 40. My previously presented analysis fully supports that conclusion. Ex. 1003, Karger Initial Declaration at ¶¶ 695, 696, 733, 734, 747, 748, 779, 780, 842, 843, 857, and 858.

8. “wherein each of said tiles occupies a fixed position on said grid”

46. The Board has interpreted “wherein each of said tiles occupies a fixed position on said grid” to mean “each tile occupies a particular cell or a particular plurality of cells of said grid” and concluded that Petitioner established a reasonable likelihood that the claims are invalid under this interpretation. IPR2013-00292, Paper No. 19, at 19-20, 23, 25, 31, 32, 34, 36, 40, and 41. My previously presented analysis fully supports that conclusion. Ex. 1003, Karger Initial Declaration at ¶¶ 321, 486, 487, 698, 699, and 782.

9. “tile ... has a fixed size that is equal to a unit tile size, or a multiple thereof”

47. The Board has interpreted “tile ... has a fixed size that is equal to a unit tile size, or a multiple thereof” to mean “a single tile has a size that may occupy more than one row and/or column in an array of rows and columns” and concluded that Petitioner established a reasonable likelihood that the claims are invalid under this interpretation. IPR2013-00292, Paper No. 19, at 20, 23, 25, 34,

36, 40, and 41. My previously presented analysis fully supports that conclusion.

Ex. 1003, Karger Initial Declaration at ¶¶ 488-490, 700, 701, and 783.

B. Patent Owner's Proposed Claim Interpretations

1. "tile"

48. I understand Patent Owner asks the Board to modify its interpretation of "tile," based on the opinion of Mr. Weadock (Ex. 2004, Weadock Declaration ISO Response), to read as follows, with the underlined portions indicating the requested changes: "a graphical user interface element whose content may be refreshed, that is persistent, and that, when selected, provides access to an information source assigned to the tile." Resp. at 3. Patent Owner also asserts that it disagrees with the Board's earlier ruling that, under the broadest reasonable interpretation, a "tile" could be a "window," though Patent Owner never identifies any portion of its proposed modified construction that would distinguish windows. *Id.* at 5-6.

a. *Persistence*

49. I note that "tiles" were known in the prior art and that none of the prior art examples I have been able to identify state that they must be persistent. *See, e.g.*, Exs. 1020, US 5,321,750, and 1040, US 5,812,123. I also note that Mr. Weadock's 1997 book "Intranet Publishing for Dummies" defines "tile" to mean "[a] small graphic that a browser can use as a web page background by repeating it to fill the page space." Exs. 1088, Excerpts of *Weadock*, Intranet Publishing for Reply Declaration Of David Karger
Regarding U.S. Patent No. 6,724,403

Petitioner Microsoft – Ex. 1110

Dummies, and 1092, *Weadock*, Intranet Publishing for Dummies at 340. I note the definition does not require persistence.

b. *Assigned to a tile*

50. I note also that none of the claims of the '403 Patent require that an information source be "assigned" to a tile; they each say that an information source is "associated" with a tile. In my view one of ordinary skill in the art would believe that the concept of an "assignment" is a different and much narrower concept than a mere "association." While any assignment would qualify as a form of association, not every association would qualify as an assignment. For example, I am associated with the Massachusetts Institute of Technology, where I teach. I have not been assigned to MIT in any normal sense of the word.

51. In any event, as I explain below, in each of the primary prior art references I have analyzed in these proceedings the information source to which access is provided by selecting a graphical user interface element is assigned to that element. Specifically, there is no question that the viewing areas of Duhault II and the instruments of Chen are graphical user interface elements. Also, there is no question that the sources of the videos in the viewing areas of Duhault II and the data streams in the instruments of Chen are assigned to those viewing areas and instruments, respectively. Similarly, as explained below, Active Desktop Items provide the user access to the web page displayed in the Item, and also that web

page is assigned to that Item. Ex. 1007, MSIE Kit at 176, 177, 179, 180. Indeed, I note that MSIE Kit discloses that a user can explicitly specify the depth level for webcrawls and downloads, up to three levels deep, which would expressly assign to the Item web pages three levels deep on a given site. Ex. 1007, MSIE Kit at 197. The source of web page displayed in each pane of Duperrouzel is also assigned to that pane. Ex. 1011 at 11:1-65.

c. *Windows*

52. I also understand Patent Owner has asked the Board to reverse its conclusion that a window cannot be a “tile.” I see nothing in the Board’s interpretation, or in the modified interpretation proposed by Patent Owner, that would distinguish prior art windows generally. Windows in 1999 were certainly “graphical user interface element[s] whose content may be refreshed.” *See, e.g.*, Ex. 1067, Myers, A Taxonomy of Window manager User Interfaces, 1988, at 71-73 and 77. Further, at least some prior art windows were persistent, such as those displayed with the X Windows session manager. *See, e.g.*, Ex. 1099, LaStrange, “swm: An X Window Manager Shell” (1990) at Abstract (“swm also provides primitive session management. It can save a user’s current window layout and restart those clients when X is restarted. swm can restart clients regardless of what toolkit they were built on or what remote host (if any) they were running on. All relevant client information is restored, including window position and size, icon

position, and the state of the client.”). Windows in 1999 could also be selected, and when selected provided access to an information source, such as a file or webpage, assigned to the window.

2. “partitioning a visual display of the device into an array of tiles” / “arrange a display into an array of tiles”

53. I understand Patent Owner asks the Board to alter its construction of the “partitioning” language to exclude overlapping configurations. In my opinion, the word “partitioning” does not require a non-overlapping configuration. Indeed, the ‘403 Patent describes several embodiments that permit tiles to overlap, including when a tile is enlarged to cover the entire screen or a large portion of it. Ex. 1001 at 9:43-56.

54. Further, the prior art included examples of overlapping partitions. *See, e.g.*, Ex. 1090, GDDM V3R2 Base Application Programming Guide; Ex. 1091, U.S. 5,974,567; Ex. 1093, U.S. 5,577,935; Ex. 1094, U.S. 7,949,687. For example, in 1996 IBM released version 3 of its GDDM family of graphical user interface programs (Ex. 1090), GDDM included window-like structures, called partitions, that could be use to display applications on a computer screen. The GDDM manual expressly states “[y]ou can overlap partitions.” Ex. 1090, GDDM V3R2 Base Application Programming Guide at 465.

55. Similarly, several prior art patents provide examples of overlapping partitions in the hard drive area. *See, e.g.*, Ex. 1091, U.S. 5,974,567; Ex. 1094, U.S. 7,949,687.

56. Thus, at least by 1999 the concept of overlapping partitions was known in the computer arts and one of ordinary skill in the art would have understood the word “partitioning” to encompass overlapping.

57. It is also my opinion that Patent Owner’s proposed modification would not alter the outcome of these proceedings at least because all of the principal prior art relied on by the Board discloses a grid of non-overlapping tiles. MSIE Kit discloses that by default the system will lay out “Active Desktop items on a 3 x 2 grid” and that “[a]s more items are added to the desktop they will start to overlap each other,” Ex. 1007, MSIE Kit at 183, indicating that there will be no overlap until after the first six Items are displayed. Moreover, and alternatively, the user can move Active Desktop Items into any configuration desired, such as a non-overlapping configuration. Ex. 1007, MSIE Kit at 175. Duhault II discloses non-overlapping tiles in Figure 1-4. Ex. 1014, Duhault II at FIGs. 1-4. Chen discloses non-overlapping tiles in Figures 12c-e. Ex. 1015, Chen at FIGs. 12c-e. Duperrouzel discloses non-overlapping tiles in Figures 2-6 and 8-14. Ex. 1011, Duperrouzel at FIGs. 2-6 and 8-14.

58. I note Patent Owner does not request that “partitioning” be interpreted to require a configuration in which the tiles are not *permitted* to overlap, which would be different from tiles that simply do not overlap. IPR2013-00292, Paper No. 27, Patent Owner Response (“Resp.”) at 15-16. However, as demonstrated below, MSIE Kit also discloses an embodiment in which the Active Desktop Items would be displayed in a 3 x 2 non-overlapping grid that the user could not modify. Ex. 1007, MSIE Kit at 183 and 601. MSIE Kit therefore also discloses a grid of tiles that are not permitted to overlap.

3. “refresh rate” / “retrieval rate”

59. I understand Patent Owner again asks the Board to interpret “refresh rate” and “retrieval rate” to mean “criteria for updating.” I note that such a re-interpretation would have no effect on the outcome of these proceedings. The interpretation adopted by the Board and applied in my initial report would qualify as “criteria for updating.”

60. I also observe that on cross-examination Inventor Lagermann agreed with my reading of the ‘403 Patent’s disclosures relating to refresh and retrieval rates. Specifically, Mr. Lagermann conceded on cross-examination that a tile such as the one described at column 12:53-56 of the ’403 Patent would still have a refresh rate, albeit one set to zero. Ex. 1104, Lagermann Tr. at 49:22-50:12. I note that Mr. Lagermann provided this testimony with respect to Figure 1 of Ex. 2048.

I also note that Figure 1 of that exhibit is identical to Figure 13 of the ‘403 Patent and that Mr. Lagermann testified Ex. 2048 was prepared to help draft the provisional patent application underlying the ‘403 Patent. Ex. 2006 at ¶ 30. Mr. Lagermann’s testimony thus confirms the Board’s interpretation, since that testimony confirms all of the tiles of the ‘403 Patent are assigned a refresh rate, using the ordinary sense of the word “rate.”

61. Patent Owner’s proposed interpretation – criteria for updating – is wholly circular, because it merely requires an update whenever some criteria in the system requires an update. Patent Owner’s proposal would therefore read the word “rate” out of all 52 claims.

4. “user-defined array size”

62. I also understand Patent Owner asks the Board to alter the interpretation of “user-defined array size,” construed by the Board to mean “the number and arrangement of tiles to display, as specified by the user,” to include the notion of “tile positions.” The phrase of “tile position” does not appear in the passage from the ‘403 Patent relied on by the Board for its construction, as does “number” and “arrangement.” *See* Ex. 1001, US 6,724,403 at 11:9-12 (“By using the native attributes of a tile, a user may specify a presentation of the grid, consisting of its dimensions, (*i.e.*, the number of tiles to display and their arrangement), and the programs or files to be associated with each tile.”).

C. Patent Owner's Arguments As To Patentability

1. Ground 1: Anticipation By Duhault II

63. As the Board originally concluded, Petitioner established a reasonable likelihood that it will prevail in showing that Duhault II anticipates claims 1-13, 17-28, 30-33, 35-37, 39-43, and 46-50. *See* Institution Decision, Paper 19 at 40; *see also* Ex. 1003, Karger Initial Declaration at ¶¶ 671-749. Mr. Weadock asserts that Duhault II does not render the claims unpatentable because Duhault II is not a graphical user interface (or GUI). Ex. 2004, Weadock Declaration ISO Response at ¶ 91. A GUI, however, is not a requirement of claims 1-45 and Patent Owner has not asked that the Board make it one. *See* Institution Decision, Paper 19 at 9-23. In any event, Duhault II does have a GUI, which is merely a type of user interface that presents a graphical “face” to a user, rather than a text-based one. *See, e.g.,* Ex. 1063, Readings in Human-Computer Interaction: Toward the Year 2000, at 1, 49-70, and 114; Ex. 1092, *Weadock*, Intranet Publishing for Dummies, at 332. Duhault II discloses such an interface in Figure 1-4. Ex. 1014, Duhault II at FIGs. 1-4, 3:1-6, and 8:1-5. Moreover, as the Board correctly noted, “Duhault II’s video images are graphical user interface elements.” *See* Institution Decision, Paper 19 at 25; *see also* Ex. 1014, Duhault II at FIG. 1, 2:16-31; 3:1-9.

64. Mr. Weadock also asserts that Duhault II does not render the claims unpatentable because Duhault II does not disclose a desktop alternative, though he

does not clearly define what he means by a “desktop alternative.” Ex. 2004, Weadock Declaration ISO Response at ¶ 91. A desktop alternative, however, is not a requirement of the claims and Patent Owner has not asked that the Board make it one. *See* Institution Decision, Paper 19 at 9-23.

65. Mr. Weadock also asserts that Duhault II does not render the claims unpatentable because the display areas of Duhault II are windows and not tiles, and because they supposedly are not “selectable to provide access to underlying information.” Ex. 2004, Weadock Declaration ISO Response at ¶ 92. A structure that is “selectable to provide access to underlying information,” however, is not a requirement of the claims and Patent Owner has not asked that the Board make it one in its Response. *See* Institution Decision, Paper 19 at 9; Resp. at 3. Moreover, windows are, in fact, “selectable to provide access to underlying information.”

66. In any event, the display areas of Duhault II are “selectable to provide access to underlying information.” They also satisfy the Board’s language of “when selected, provides access to an information source.” *See* Institution Decision, Paper 19 at 9. Specifically, by clicking on (*i.e.*, one method of selecting) one of the display areas the user is provided full motion video assigned to that area. Full motion video would be a type of access to the underlying information source, which is the video stream associated with that display area.

67. I note, moreover, that while Mr. Weadock addresses his own “selectability” language, he does not provide any analysis of the “when selected, provides access to an information source” language of the Board’s “tile” interpretation as it applies to Duhault II. *See* Ex. 2004, Weadock Declaration ISO Response at ¶¶ 90-100. Because Mr. Weadock’s analysis does not subscribe to the Board’s interpretation, he failed to establish that Duhault’s display areas are not tiles, as required by the claims.

68. I note that Patent Owner appears to misunderstand the Board’s interpretation of “tile.” Specifically, Patent Owner is clearly interpreting the phrase “when selected, provide access to an information source” to require that the provision of access to the information source must commence at the time the tile is selected. Resp. at 5-6, 37-38, and 57.

69. However, while I agree that the Board’s interpretation would *cover* such functionality, I do not agree that the Board’s interpretation is *limited* to such functionality for several reasons. First, the word “when” has several different meanings. It can mean “at the time that,” Ex. 1101, The American Heritage Dictionary, Second College Edition (1985) at 3, but it can also mean “during the time at which” or “while,” *see id.* Without some indication from the Board suggesting the Board was adopting only one of these very common meanings, I believe that the interpretation must be read to embrace both (*i.e.*, would cover

either). In other words, I believe the Board’s interpretation, “when selected, provide access to an information source,” would require either (i) the provision of access to the information source **at the time that** the tile is selected, or (ii) the provision of access to the information source **during the time that** (*i.e.*, while) the tile is selected.

70. Second, the Board’s institution decision strongly suggests this is the correct approach, since the Board employed both senses of “when” in its analysis. For example, portions of the Board’s analysis used “when” in the sense of “at the time that.” *See* Institution Decision, Paper 19 at 35 (concluding that maximizing a tile **at the time that** a user clicks on a maximize control satisfies the Board’s interpretation). Other portions of the Board’s analysis used “when” in the sense of “during the time at which” or “while.” *See id.* at 28 (concluding that making available the option to begin recording **while** an instrument is selected satisfies the Board’s interpretation).

71. Third, SurfCast’s reading is inconsistent with the ‘403 Patent itself. It is clear the inventors of the ‘403 Patent believed the notion of “live tiles” – *i.e.*, tiles that would refresh periodically – were a central aspect of their scheme. Ex. 1001, US 6,724,403 at 4:44-52; 9:25-33. Such tiles are described as providing the user real-time or near real time access to the underlying information source. Ex.

1001, US 6,724,403 at 9:32-33. For example, with respect to the tiles depicted in Figure 4, the '403 patent, at 9:1-15, states:

Tile 402 displays a picture or graphic such as may be stored in a bit-map, JPEG, TIFF or GIF file, or on a world-wide web page. The content of tile 402 is typically a miniaturized representation of a graphic or still-frame from a datastream. Tile 404 displays a portion of a text document or text of a world-wide web page. In this sense the tile functions as a transparent panel placed on top of a document, thus permitting a portion of the document to be displayed. ... Tile 408 has been configured to link to an electronic mail program. An alarm setting associated with tile 408 has been configured so that the tile displays an envelope and the message "New Mail!" when an unread message has been received by the mail program.

Note that each of the tiles described in the quote above provides at least some access to its associated information source *even without being selected*. Tile 402 provides access to an associated information source, such as an associated world-wide web page, by displaying "a graphic or still-frame from a datastream" from that page. Tile 404 provides access to the underlying document by displaying a portion of the underlying document. Tile 408 provides access to an associated electronic mail program by displaying the message "New Mail!" when an unread message has been received by that electronic mail program. Indeed, the ability of the disclosed tiles to display real-time or near real-time information from an associated information source without input from the user, such as a selection, is touted by the '403 Patent as a supposed advantage over the prior art. *Compare Ex.*

1001, US 6,724,403 at 2:4-8 (“Similarly, the user's access to such data is not in real-time or even near real-time because each time the user wants to view the information, he must request it from its source and wait for the source to transmit it to him.”) *with* Ex. 1001, US 6,724,403 at 8:35-37 (“A tile is different from an icon because it provides a real-time or near-real time view of the underlying information in that it contains continually refreshed content.”).

72. I note that, while in each of the above examples the access provided to the associated information source may not be “complete” in the sense that the user can do anything it wants with the information source, nothing in the Board’s interpretation requires that kind of “complete” access. The Board’s interpretation says only “providing access.”

73. I note, moreover, that the word “access” in its ordinary sense can mean the “ability to obtain or make use of.” Ex. 1085, Merriam Webster’s Collegiate Dictionary, 10th Ed. (1995) at 6. The Board has identified various types of “less-than-complete” access it believes satisfies its interpretation and which are consistent with the ordinary meaning of “access.” *See* Institution Decision, Paper 19 at 28 (concluding that making available the option to begin recording while an instrument is selected satisfies the Board’s interpretation and also concluding that making available the option to end recording while an instrument is selected satisfies the Board’s interpretation); at 32 (concluding that making available the

ability to move a tile or click on a link within a tile constitutes providing to the assigned information source); at 35 (concluding that maximizing a tile at the time that a user clicks on a maximize control satisfies the Board’s interpretation).

74. Fourth, I understand the Board to have adopted the broadest reasonable interpretation consistent with the specification. *See* Institution Decision, paper 19 at 9. The Patent Owner’s reading of the Board’s interpretation is narrower than the ordinary meaning of the common English words the Board used and it excludes a number of example tiles described in the ‘403 patent. My reading embraces the full scope of the Board’s words and the example tiles described in the patent. It seems more likely that the Board intended the broader interpretation.

75. I note Mr. Weadock suggested that this functionality does not satisfy “selectable to provide access to underlying information” because the underlying video stream is being displayed in slow motion before the tile is selected. Ex. 2004, Weadock Declaration ISO Response at ¶ 92. That opinion is incorrect for at least three reasons. First, nothing in this proposed claim interpretation requires that there be no access to the information source prior to selection. Nor does the proposed claim interpretation, or the interpretation adopted by the Board, require “complete access;” any access would qualify. Full motion video is a type of access

that is different from slow motion video, so the tiles of Duhault II are “selectable to provide access to underlying information.”

76. Second, Mr. Weadock’s theory would exclude the tiles disclosed in the ‘403 Patent, which are described as being “live” in the sense that they provide the user a view – and sometimes a limited view – of information from the associated information source even before they are selected. *See, e.g.*, Ex. 1001, US 6,724,403 at 9:32-33.

77. Third, Mr. Santoro has confirmed that, in his view, the tiles of the ‘403 Patent provided access to the underlying information before being selected. Ex. 1103, Santoro Tr. at 46:12-19 (“Q. I’m trying to get to what you mean by the word access in the context of the ‘403 patent, and so my question is: Before clicking on it in that context, do I have access to the underlying information, in your view? A. Well, yes. I mean it depends what one means by access, but sure. You have a view of it. That’s potentially access.”).

78. I note also that Mr. Weadock conceded on cross-examination that the tiles of the ‘403 Patent provided access to an associated information source even before they were selected. Ex. 1106, Weadock Tr. 26:16-27:16.

79. Mr. Weadock also asserts that Duhault II does not render the claims unpatentable because the display areas of Duhault II are not persistent. Ex. 2004,

Weadock Declaration ISO Response at ¶ 93. Persistence, however, is not a requirement of the claims. Institution Order, Paper 19 at 9.

80. I understand Patent Owner also asserts that Duhault II does not render the claims unpatentable because the display areas of Duhault II are not individually assigned refresh rates. Resp. at 36. *Individually* assigned refresh rates, however, are not a requirement of the claims and Patent Owner has not asked that the Board make it one. Institution Order, Paper 19 at 9. Even if one were to conclude otherwise, at least claims 22-52 of the '403 Patent include no requirement that a refresh rate be *assigned* to a tile at all, and claims 22-30, 32-41, 44-48 and 51-52 include no requirement for an assignment of a refresh rate to anything. Nor has Patent Owner asked the Board to interpret those claims to include such requirements.

81. I observe that claims 22-41, 44-48 and 51-52 do not require the assignment of a retrieval rate. Similarly, claims 43 and 50 require that a rate be assigned automatically but do not specify to what the rate must be assigned.

82. I also observe that Inventor Lagermann testified that one way to update the tiles of the '403 Patent would be to use a single tuner in a “round robin” fashion, just as the Board and I have concluded is disclosed in Duhault II. Ex. 1104, Lagermann Tr. at 40:10-41:7.

83. As for Mr. Weadock's opinion in paragraphs 94-97, I disagree. First, Mr. Weadock unfairly mischaracterizes my deposition testimony. I did not testify I was guessing about the disclosure of Duhault II. I was answering a hypothetical question from counsel, asking about whether "a line of software [] says set the refresh rate equal to" a particular number in a hypothetical system, and said I was guessing about how one would implement that hypothetical. *See* Ex. 1084, Karger Tr. at 175:18-176:7.

84. My conclusions as to Duhault II, on the other hand, are based on the disclosure of Duhault II and not guesswork. For example, claims 1-21 require that two tiles on the display be updated in accordance with an assigned refresh rate and claims 22-52 require that two tiles of the display be updated in accordance with a retrieval rate. Ex. 1001, US 6,724,403 at 24:14-28:9. As I explained earlier, Duhault II discloses that a selected tile will be "periodically refreshed" by a first tuner and all unselected tiles will be "periodically updated" by a second tuner. Ex. 1003, Karger Initial Declaration at ¶¶ 678, 679, and 684; Ex. 1014, Duhault II at Figure 5, Figure 8, Figure 10, 1:29-32, 3:9-29, 4:66 – 5:2, 5:41-45, 5:48-51, 6:15-18, 6:29-34. Thus, regardless of the specifics of each individual tuner, the selected tile will be updated "in accordance with" a first refresh rate (or first retrieval rate) – *i.e.*, the rate associated with the first tuner. Similarly, regardless of the specifics of each individual tuner, the unselected tiles will be updated "in accordance with" a

second refresh rate (or second retrieval rate) – *i.e.*, the rate associated with the second tuner. Ex. 1003, Karger Initial Declaration at ¶¶ 678, 679, and 684-686. Exactly what rate is associated with the individual tuners or how those rates are translated to the updating of the tiles is, so long as the tiles are updated in accordance with the relevant rate, irrelevant because the claims do not specify any particular rate (*i.e.*, the claims do not specify a particular number).

85. Mr. Weadock’s speculation that the details of a “video capture card” or other implementation details may affect the display of information in Duhault II is just that – speculation. Duhault II does not disclose Mr. Weadock’s hypothetical implementation. Instead, Duhault discloses that when one tile “is selected, it can be refreshed in thumbnail form at a full-motion-video rate, while the other images would either remain stale, or be updated at a lower rate.” Ex. 1014, Duhault II at 4:63-66; *see also* ABSTRACT. That is a clear disclosure of updating the tiles on the screen in accordance with their associated refresh/retrieval rates.

86. Mr. Weadock’s characterization of my testimony at page 174:4-8 of my deposition transcript (which he cited at paragraph 98 of his declaration, Ex. 2004, Weadock Declaration ISO Response) is again incorrect. As the next few lines of testimony clarify, the testimony at lines 4-8 on that page related to Duhault I, not Duhault II. *See* Ex. 2003 at 174:11-13. I understand the Board declined to institute on Duhault I, so the cited testimony is irrelevant. In any event, I note that

Mr. Lagermann, the inventor of the '403 patent, agreed with me by testifying that the refresh rate can be zero. Ex. 1104, Lagermann Tr. at 48:14-50:12; 78:17-81:7.

87. Similarly, Mr. Weadock's objection to whether a standard can set a refresh rate, Ex. 2004, Weadock Declaration ISO Response at ¶ 99, is just nitpicking. It is obvious that I was referring to standard-compliant tuners designed to have rates compliant with the standard.

88. Similarly, Mr. Weadock's treatment of the "unit tile size" language of claim 13 is again based on a claim interpretation the Board has not adopted and Patent Owner has not requested. Nothing in the phrase "unit tile size," when given its broadest reasonable interpretation consistent with the '403 Patent, prohibits the unit tile size being based on the display area, as Mr. Weadock suggests. Ex. 2004, Weadock Declaration ISO Response at ¶ 100. Indeed, one of ordinary skill in the art would view that as a reasonable design choice, since otherwise some tiles might be displayed or might be partially displayed.

89. Finally, I note that Patent Owner cites no evidence in its treatment of the anticipation by Duahult II of claims 4, 10, 31, 42 and 49, *see* Resp. at 39, and Mr. Weadock does not separately address the applicability of Duhault II to those claims. *See* Ex. 2004, Weadock Declaration ISO Response at ¶¶ 90-100.

90. In sum, Mr. Weadock does not provide any analysis applying the Board's claim interpretations to the anticipation by Duhault II of the claims of

Ground 1. *See* Ex. 2004, Weadock Declaration ISO Response at ¶¶ 90-100.

Accordingly, Mr. Weadock has advanced no argument that could result, under the Board's claim interpretations, in any of the claims at issue in Ground 1 being found patentable. *See supra* ¶¶ 63-89.

2. Ground 2: Anticipation By Chen

91. As the Board originally concluded, Petitioner established a reasonable likelihood that it will prevail in showing that Chen anticipates claims 1, 9-11, 22, 41-43, 46, and 48-50. *See* Institution Decision, Paper 19 at 40; *see also* Ex. 1003, Karger Initial Declaration at ¶¶ 750-861. Patent Owner incorrectly alleges that Chen does not disclose the elements in the '403 patent "arranged as in the claim" because "the disclosures of Chen that the Board relies upon must be pieced together from disparate parts of the reference." Resp. at 40. The parts of Chen that the Board relies on are not "disparate parts of the reference," but parts of Chen disclosing sub-systems of a single embodiment. *See, e.g.*, Ex. 1015, Chen at FIG. 22 and 6:49-51. For example, FIG. 22 of Chen discloses a system including a local host 208 (which includes a performance tool 90) that can communicate with the remote hosts 218 via the network 200. *See id.*

92. However, even if one were to conclude otherwise, the portions of Chen that the Board relies on, *e.g.*, "Network Send/Receive Interface" (starting at column 12 of Ex. 1015, Chen), "Implementation of Recording Subsystem"

(starting at column 13 of Ex. 1015, Chen), and “Data Display Subsystem Implementation” (starting at column 23 of Ex. 1015, Chen), discloses how each of the components of the performance tool 90 operates. As such, combining the portions of Chen that the Patent Owner alleges to be “disparate parts” would be apparent to one of ordinary skill in the art.

93. Mr. Weadock asserts that Chen does not render the claims unpatentable because Chen is not a graphical user interface (or GUI). Ex. 2004, Weadock Declaration ISO Response at ¶¶ 101, 102. A GUI, however, is not a requirement of claims 1-45 and Patent Owner has not asked that the Board make it one. *See* Institution Decision, Paper 19 at 9-23. In any event, Chen does have a GUI, which is merely a type of user interface that allows users to interact with electronic devices through, for example, graphical icons, windows or other visual indicators, as opposed to a text-based interface. *See, e.g.*, Ex. 1092, *Weadock*, Intranet Publishing for Dummies at 332; Ex. 1063, Human-Computer Interaction: Toward the Year 2000 at 1, 49-70, and 114. Chen discloses such an interface. *See, e.g.*, Ex. 1015, Chen at 23:5-13, FIGs. 12c-e, FIG. 11. Moreover, as the Board correctly noted, Chen’s instruments are elements of a graphical user interface 80. *See* Institution Decision, Paper 19 at 27.

94. Mr. Weadock also asserts that Chen does not render the claims unpatentable because Chen does not disclose a desktop alternative, though he does

not clearly define what he means by a “desktop alternative.” Ex. 2004, Weadock Declaration ISO Response at ¶ 102. A desktop alternative, however, is not a requirement of the claims and Patent Owner has not asked that the Board make it one. *See* Institution Decision, Paper 19 at 9-23.

95. Mr. Weadock also asserts that Chen does not render the claims unpatentable because the instruments of Chen are windows and not tiles because they supposedly are not “selectable to provide access to underlying information.” Ex. 2004, Weadock Declaration ISO Response at ¶¶ 103-04. A structure that is “selectable to provide access to underlying information,” however, is not a requirement of the claims under the Board’s interpretation and Patent Owner has not asked that the Board make it one in its Response. *See* Institution Decision, Paper 19 at 9; Resp. at 3.

96. I note, moreover, that while Mr. Weadock addresses his own “selectability” language, he does not provide any analysis of the “when selected, provides access to an information source” language of the Board’s “tile” interpretation as it applies to Chen. *See* Ex. 2004, Weadock Declaration ISO Response at ¶¶ 101-107. Because Mr. Weadock’s analysis does not subscribe to the Board’s interpretation, he failed to establish that Chen’s instruments are not tiles, as required by the claims.

97. In any event, the instruments of Chen are “selectable to provide access to underlying information.” They also satisfy the Board’s interpretation of “when selected, providing access to an information source.” As the Board noted, Chen clearly discloses that its instruments are selectable, Institution Decision, Paper 19 at 28, and also that the selection provides the user the ability to record information from the underlying information source assigned to that instrument, *id.* Chen’s instruments are therefore “selectable to provide access to underlying information,” since the ability to record data from an information source is clearly a form of access.

98. Moreover, I note that Chen also satisfies the “selectable to provide access to underlying information” language and also the “when selected, provides access to an information source” language in the disclosure found at column 88:13-46. That passage describes how a selected instrument in Chen may be put into a “marking mode” which permits the user to add marks to the data stream received from the information source assigned to that instrument. The process requires a user to begin recording an instrument in the normal way, which would comprise selecting that instrument. Ex. 1015, Chen at 88:16-18. The process then requires the user to select a control called a “Marking On button.” *Id.* at 88:19-21.

According to Chen, “[t]his puts the selected instruments in a marking mode, in which mouse-clicks on the instrument are interpreted as requests to insert marker

tokens.” *Id.* at 88:21-24. The ability to insert marker tokens is yet another form of access.

99. Mr. Weadock also asserts that Chen’s instruments are windows and therefore not tiles of the ‘403 Patent. Ex. 2004, Weadock Declaration ISO Response at ¶ 105. There is nothing in the Board’s interpretation, or those proposed by Patent Owner, that would exclude prior art windows. Institution Decision, Paper 19 at 11. In any event, Mr. Weadock misreads the passage of Chen he cites. In column 29:17-25, Chen states “[c]onsoles, like instruments, are rectangular areas on a graphical display. They are created in top-level windows” Thus, Chen does not say that instruments are windows. He says they are rectangular areas on the display “created in” windows, thereby apparently distinguishing instruments from windows.

100. Patent Owner also asserts that the instruments of Chen are not “persistent.” Resp. at 42. Persistence, however, is not a requirement of the claims. Institution Order, Paper 19 at 9. Moreover, the only evidence Patent Owner cites for this conclusion is paragraph 102 of Mr. Weadock’s declaration, which says absolutely nothing about “persistence.” *Compare* Resp. at 42 *with* Ex. 2004 at ¶ 102.

101. In any event, Patent Owner’s argument that Chen does not disclose persistence is at most based a narrow reading of “persistence.” Since the claims

are to be given their broadest reasonable interpretation, even if the Board were to modify its interpretation of tile and require “persistence,” the instruments of Chen are persistent because Chen shows configuration files that store the array of tiles. *See, e.g.*, Ex. 1015, Chen at 7:14-37; 7:67-8:1; 8:26-63; 34:3-22; *see also* Ex. 1003, Karger Initial Declaration at ¶ 784. Moreover, the user can “completely specify the appearance and contents of a graphical performance ‘console’” using information “stored in an ASCII configuration file 110.” *See, e.g.*, Ex. 1015, at 8:26-42. “When the user is finished viewing the console, it can be ‘closed’ or ‘erased.’ Closing a console leaves the console available in the configuration file 110 for later activation and viewing.” *See, e.g.*, Ex. 1015, at 8:50-53. The fact that such a closed console can be reopened means that it is persistent.

102. As to claim 2, the Board has interpreted “user-defined array size” to mean “the number and arrangement of tiles to display, as specified by the user.” Institution Order, Paper 19 at 16. Mr. Weadock apparently does not contest that a user in Chen can specify the number of instruments to be displayed. Ex. 1015, Chen at 26:65-27:6. Nor does he dispute that in Chen the arrangement of the instruments is dependent on the number of instruments to be displayed. *See* Ex. 2004, Weadock Declaration ISO Response at ¶ 106; Ex. 1106, Weadock Tr. at 67:17-25. But the Board puts no limitations on how the arrangement must be specified by the user and the Patent Owner has not requested the Board do so. In

the scheme of Chen, the number of instruments the user would like displayed specifies the arrangement. Ex. 1015, Chen at 26:65-27:6; Ex. 1106, Weadock Tr. at 67:17-25. That satisfies the Board's claim construction.

103. I note also that in paragraph 765 of my initial report, I opined that Chen anticipated claim 2. Ex. 1003, Karger Initial Declaration at ¶ 765. The obviousness opinion set forth in paragraph 766 of my report and referred to by Mr. Weadock is an alternative analysis. Ex. 1003, Karger Initial Declaration at ¶ 766.

104. As to claim 3, Mr. Weadock does not contest my anticipation analysis set forth in paragraph 768 of my initial report; instead he summarily takes issue with my alternative obviousness analysis in paragraph 769. Compare Ex. 1003, Karger Initial Declaration at ¶¶ 768-69 with Ex. 2004, Weadock Declaration ISO Response at ¶ 107. Mr. Weadock therefore does not contest that Chen explicitly satisfies the requirements set forth in claim 3 by anticipation.

105. I observe that in his declaration Mr. Weadock appears to have contested my conclusion that Chen anticipates claim 2, though he seems to have conceded that argument on cross-examination. *See* Ex. 1106, Weadock Tr. at 67:17-25. Mr. Weadock also appears to contest my alternative obviousness analysis with respect to claim 3, *see* above, but since he does not contest my anticipation analysis of that claim the obviousness issue becomes moot. I note, however, that Ground 2 instituted by the Board concluded that claims 1, 9-11, 22,

41-43, 46, and 48-50 are anticipated by Chen. Institution Decision, Paper 19 at 40. Claims 2 and 3 are therefore not at issue in Ground 2.

106. In sum, Mr. Weadock does not provide any analysis applying the Board's claim interpretations to the anticipation by Chen of the claims of Ground 2. *See* Ex. 2004, Weadock Declaration ISO Response at ¶¶ 101-107. Accordingly, Mr. Weadock has advanced no argument that could result, under the Board's claim interpretations, in any of the claims at issue in Ground 2 being found patentable. *See supra* ¶¶ 91-105.

3. Ground 3: Obviousness Over Chen in View of MSIE Kit

107. Mr. Weadock also addresses the obvious combination of Chen and MSIE Kit, which the Board adopted in Ground 3 to conclude that claim 29 of the '403 Patent would have been obvious. *See* Ex. 2004, Weadock Declaration ISO Response at ¶¶ 108-113. My original opinion as to claim 29 was that it would have been obvious to combine Chen and MSIE Kit so as to include the password functionality of MSIE Kit with the instruments of Chen. *See* Ex. 1003, Karger Initial Declaration at ¶¶ 822-828. Mr. Weadock never discusses the password functionality of Active Desktop, as described in MSIE Kit, or why one would or would not combine it with Chen, instead stating "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." Weadock at ¶ 109. The

answer, of course, is the password functionality of Active Desktop, which does not exist in Chen.

108. Mr. Weadock thus ignores the specific functionality of MSIE Kit I identified and also ignores my opinion that to add such password functionality to the instruments of Chen would have been an obvious design choice and routine modification. *See* Ex. 1003, Karger Initial Declaration at ¶ 823.

109. Mr. Weadock's other arguments are irrelevant. His unsupported assertion that browser technology "at the time" was unreliable is irrelevant, because no one has suggested incorporating a browser into Chen. Ex. 2004, Weadock Declaration ISO Response at ¶ 110. My analysis suggested it would have been obvious to store and retrieve instrument information on a second device, Ex. 1003, Karger Initial Declaration at ¶¶ 784-99; 845-46 and 861, and also that it would have been obvious to use password functionality such as described in MSIE Kit with the instruments of Chen, *id.* at ¶ 822-28. Mr. Weadock does not contest those arguments.

110. Further, his identification of differences between Chen and Active Desktop is also irrelevant. Both systems provide a graphical user interface and underlying technology that present regularly updated information from a variety of information sources, as does the '403 Patent. Ex. 1003, Karger Initial Declaration at ¶ 824. I am informed that the Supreme Court has stated that "[u]nder the correct

[obviousness] analysis, **any need or problem** known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 420 (2007) (emphasis added). Since these prior art references both disclose a graphical user interface and underlying technology that present regularly updated information from a variety of information sources, the same need addressed by the ‘403 Patent, *see* Ex. 1001, US 6,724,403 at 1:11-12, there is sufficient reason to combine for purposes of obviousness under the Supreme Court’s analysis.

111. Further, I note that passwords are specifically designed to address the need for data security, which was widely recognized in the computer arts by 1999, facts that Mr. Weadock conceded on cross-examination. Ex. 1106, Weadock Tr. at 119:23-120:14. That need provides an additional reason to combine the passwords of MSIE Kit with the instruments of Chen.

112. The fact that Active Desktop and the scheme of Chen are designed for somewhat different commercial environments does not take the combination outside of obviousness. I am informed that the Supreme Court has stated that “[c]ommon sense teaches, however, that familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle.” *KSR*, 550 U.S. at 420-21. Such a person could easily take the password functionality of

Active Desktop and add it the instruments of Chen, since passwords used with computer systems were a well-known technique by 1999. Ex. 1106, Weadock Tr. at 120:4-7.

113. I am also informed that the Supreme Court has stated “if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.” *KSR*, 550 U.S. at 417-18. Adding a password to the instruments of Chen would have been well within the average level of skill in the art in 1999, since passwords had been used with computer user interfaces for decades, and one of ordinary skill in the art would have understood that their use with Chen would have improved the security of Chen.

4. Ground 4: Anticipation By MSIE Kit

114. As the Board originally concluded, Petitioner established a reasonable likelihood that it will prevail in showing that MSIE Kit anticipates claims 1-3, 5-8, 11, 12, 14-16, 19, 21, 22, 27, 30, 32, 34, 37-40, 43-47, and 50-52. *See* Institution Decision, Paper 19 at 40; *see also* Ex. 1003, Karger Initial Declaration at ¶¶ 241-413. Mr. Weadock asserts that MSIE Kit does not render the claims unpatentable because MSIE Kit is not a graphical user interface (or GUI). Ex. 2004, Weadock Declaration ISO Response at ¶ 115. A GUI, however, is not a requirement of

claims 1-45 and Patent Owner has not asked that the Board make it one. *See* Institution Decision, Paper 19 at 9-23. In any event, MSIE Kit does have a GUI. Ex. 1007, MSIE Kit at xv, xxiv, xxvii, 174, 333, 342, and 343. Moreover, as the Board correctly noted, “MSIE Kit’s Active Desktop items are graphical user interface elements.” *See* Institution Decision, Paper 19 at 32; *see also* Ex. 1007, MSIE Kit at 174, 176, 177, 180, 183.

115. Mr. Weadock also asserts that MSIE Kit does not render the claims unpatentable because MSIE Kit does not disclose a desktop alternative. Ex. 2004, Weadock Declaration ISO Response at ¶ 115-17. A desktop alternative, however, is not a requirement of the claims and Patent Owner has not asked that the Board make it one. *See* Institution Decision, Paper 19 at 9-23.

116. Mr. Weadock also asserts that MSIE Kit has no capability for presenting a word processor or spreadsheet file, or for calling an application program. Ex. 2004, Weadock Declaration ISO Response at ¶ 115-18. Such functionality is not a requirement of the claims. Even if such functionality were to be required by the claims, MSIE Kit does disclose such functionality. Ex. 1007, MSIE Kit at 128, 137, 177, 183, 288, 301, 323, 342, 369, 561, 591, 740, 751, 795, and 797.

117. Mr. Weadock also asserts that MSIE Kit does not render the claims unpatentable because the Active Desktop Items of MSIE Kit supposedly have “no

capability to be selected to provide access to the information source,” which he equates to “selectable to provide such access.” Ex. 2004, Weadock Declaration ISO Response at ¶¶ 119-20. But the ability “to be selected to provide access to the information source,” and a structure which is “selectable to provide such access,” however, are not requirements of the claims and Patent Owner has not asked that the Board make them requirements in its Response. *See* Institution Decision, Paper 19 at 9; Resp. at 3.

118. I note, moreover, that while Mr. Weadock addresses his own “selectability” language, he does not provide any analysis of the “when selected, provides access to an information source” language of the Board’s “tile” interpretation as it applies to MSIE Kit. *See* Ex. 2004, Weadock Declaration ISO Response at ¶¶ 114-126. Because Mr. Weadock’s analysis does not subscribe to the Board’s interpretation, he failed to establish that MSIE Kit’s Active Desktop Items are not tiles, as required by the claims.

119. In any event, the Active Desktop Items of MSIE Kit would satisfy the “selectable to provide such access” language, as well as the Board’s “when selected, provides access to an information source” language in at least four alternative ways – (a) clicking on a link within the Item; (b) clicking on a hot spot defined on the Item; (c) dragging/resizing the Item; or (d) using keyboard

navigation to and within the Item. I treat each of these selection mechanisms separately below.

a. *Clicking on a Link Within The Item*

120. MSIE Kit explains that clicking on a link within an Active Desktop Item “by default” opens a new browser window displaying the linked page. Ex. 1007, MSIE Kit at 183. Clicking on a link within an Active Desktop Item in such a configuration satisfies both the “selectable to provide access” language, as well as the Board’s “when selected, provides access to an information source” language for several reasons.

121. First, one of ordinary skill in the art would understand that in order for a user to activate a link displayed within a user interface element, such as an Active Desktop Item, that user interface element must first have been selected. Otherwise, the system would not understand that the user’s action (*i.e.*, the click) was an indication to activate that particular link. Indeed, if the correct user interface element is not selected the software will not correctly respond to the user input. Thus, one of ordinary skill in the art would understand the disclosure of MSIE Kit that clicking on a link within an Active Desktop Item opens up the web page pointed to by the clicked link to mean that the Item was necessarily “selected,” either by the click on the link itself or beforehand. Put another way, clicking on the link within the Active Desktop Item would not open up a new web

page unless the Item was selected, so the disclosure that a new web page is opened necessarily means the Item was selected. *See* Ex. 1007, MSIE Kit at 740 (noting that the default setting is for a single click to select an item).

122. MSIE Kit also explains that Internet Explorer 4 can be configured to employ “single-click mode” in which simply moving the cursor over an Active Desktop Item selects the Item. Ex. 1007, MSIE Kit at 740. Thus, while the system is in this mode, a user who moves the mouse cursor over an Active Desktop Item and then clicks a link within the Item would first be selecting the Item (by moving the mouse cursor over the Item) and then the link (by clicking). That functionality satisfies both the “selectable to provide access” language, as well as the Board’s “when selected, provides access to an information source” language.

123. I note, moreover, that nothing in the Board’s or Patent Owner’s claim interpretation precludes the possibility that a single click would both select the Item and access information from the associated information source.

124. Second, clicking on such a link also demonstrates selecting the Item itself because in doing so the user is indicating a desire for access to the information displayed in or referenced in the Item. Indeed, MSIE Kit states that Active Desktop Items are intended to display summary information and that clicking on a link or hot spot within the Item is way for the user to obtain more detailed information. Ex. 1007, MSIE Kit at 177 (“Desktop items are typically

designed to provide summary information in small amount of screen space. Therefore information in desktop items often includes hyperlinks or hot spots so users can click designated area to open browser window and obtain the details they want.”).

125. MSIE Kit also explains that an Active Desktop Item can be configured so that clicking on a link within the Item displays the linked page *within the Item itself*, so-called “in-place hyperlinking.” Ex. 1007, MSIE Kit at 137. In this configuration clicking a link displayed within the Item satisfies both the “selectable to provide such access” language, as well as the Board’s “when selected, provides access to an information source” language because the click indicates a desire to see the linked page displayed within that same Item. The linked page would itself qualify as an information source assigned to the Active Desktop Item. *See supra* ¶ 51.

126. I note that Mr. Weadock appears to be applying an unnaturally narrow reading of “information source” by implicitly assuming that two different web pages are necessarily two different information sources. Ex. 2004, Weadock Declaration ISO Response at ¶ 120. I disagree. The Board did not interpret “information source,” but the ‘403 Patent makes clear that the inventors intended that term to be used broadly. *See* Ex. 1001, US 6,724,403 at 6:52-55 (“Within the scope of the present invention, an information source may comprise any analog

signal, source of digital data or a datastream, including, but not limited to, video, audio, text and graphics.”)(emphasis added). An information source could therefore encompass, for example, not just a single web page but a particular *website*. Under that view, one information source that could be assigned to an Active Desktop Item could be a website such as, for example, www.microsoft.com. In this example the top level page associated with that specific domain name could be displayed in the Active Desktop Item. Clicking on a link on that page which pointed to another page on that site – such as www.microsoft.com/activedesktop – could open a browser window to the identified webpage or (in the case of in-place hyperlinking) open the linked page in the same Item. Thus, the information initially displayed in the Active Desktop Item (the front page of www.microsoft.com) and the information displayed in the browser window or later displayed in the Item (the page at www.microsoft.com/activedesktop) come from the same information source – www.microsoft.com – which was assigned to the Active Desktop Item.

127. I also note that MSIE Kit discloses that a user can explicitly specify the depth level for webcrawls and downloads, up to three levels deep, which would expressly assign to the Item web pages three levels deep on a given site. Ex. 1007, MSIE Kit at 197.

128. Moreover, one skilled in the art would know that a common use for links in an HTML document is to link to different portions of the same document. Ex. 1097 at 18 and 135 (disclosing “fragment identifiers”). Thus, even if one were to accept that an information source must be limited to a single web page, links on that web page could refer to other locations on that same page and thus be accessing the same information source assigned to that Item.

129. Further, even if one accepted Mr. Weadock’s narrow interpretation of “information source” in either of the configurations discussed above clicking on a link within an Active Desktop Item would still satisfy both the Board’s and Patent Owner’s “selectability” language. For example, upon a user clicking a link in an Active Desktop Item information from the originally displayed page is accessed because the URL pointing to the linked web page is itself from the originally displayed page, and that URL must be accessed in order to determine which page to fetch and display next.

130. I note that the ‘403 patent also discloses the ability to click on a link in a displayed web page. For example, the tiles of Figure 1 include at least two tiles (designated 40 and 70) that display hyperlinks. Ex. 1001, US 6,724,403 at Fig. 1. The ‘403 Patent states that “[w]hen a tile is selected, whether by mouse click or otherwise, the tile instantly provides the user with access to the underlying information, whether that data be ... [an] HTML file on the Internet, or a television

signal.” Ex. 1001, US 6,724,403 at 9:25-32. Thus, the ‘403 Patent confirms that the functionality included in Active Desktop of clicking on a link with an Active Desktop Item is the same as functionality envisioned by the inventors as providing access to an information source when a tile is selected, or by that selection.

b. *Clicking on a Hot Spot on an Item*

131. Clicking on a “hot spot” defined on an Active Desktop Item also qualifies as one way to select an Active Desktop Item because in doing so the user is clearly indicating a desire for access to the information displayed in or referenced by the Item. Ex. 1007, MSIE Kit at 177, 184, 213, 400, 420. I note that configuring the Item for “in-place hyperlinking” would also cause the page linked to the hot spot to display within the Item, Ex. 1007, MSIE Kit at 136, so my comments above with respect to that functionality apply here as well.

132. I note, moreover, that one of ordinary skill in the art would have known how to create a hot spot and that it could be defined anywhere on an Active Desktop Item, including across the entire Item. Ex. 1095, U.S. Patent No. 6,616,701 at 1:27-33; Ex. 1096, U.S. Patent No. 7,139,970 at 1:39-58; *see also* Ex. 1097, The HTML 4.0 standard (specifying hot spots (also called “image maps”), available at <http://www.w3.org/TR/1998/REC-html40-19980424/html40.pdf> (April 24, 1998)) at 162-168; Ex. 1098, Scott Isaacs, Inside Dynamic HTML at pp. 229-237.

133. I also note that the hot spot functionality of Active Desktop is nearly identical to the functionality described with respect to Figure 6 of the '403 Patent. For example, Figure 6 of the '403 Patent expressly discloses one embodiment in which selection of different portions of the tile can result in different functionality. Ex. 1001, US 6,724,403 at 10:30-32 and FIG. 6. Indeed, Mr. Lagermann confirmed this functionality on cross-examination. Ex. 1104, Lagermann Tr. 56:10-58:17.

c. *Dragging/Resizing the Item*

134. Clicking on and dragging or resizing an Active Desktop Item also qualifies as one way to select the Item to obtain access to an associated information source because in doing so the user is indicating a desire to manipulate that Item, for example, so that it can be unobscured by some other user interface element or made larger so as to display more information from the information source, and therefore provide greater access to the information displayed therein. Ex. 1007, MSIE Kit at 175, 224.

d. *Using Keyboard Navigation To And Within The Item.*

135. An Active Desktop Item can also be selected using keyboard navigation by manipulating the TAB and SHIFT+TAB keys on the keyboard, as MSIE Kit explains:

“Press TAB and SHIFT+TAB to move forward and backward respectively between the Start button the Quick Launch toolbar the taskbar desktop icons **and items** and the desktop Channel bar. **A 1-pixel-wide border appears around items so you can see what is selected.**”

Ex. 1007, MSIE Kit at 561 (emphasis added).

136. MSIE Kit explains that by using these buttons the selection rotates among the various structures on the screen, eventually selecting Active Desktop Items. Ex. 1007, MSIE Kit at 561-562. MSIE Kit also explains that once an Active Desktop Item is selected in this manner a user can “[u]se TAB to move forward **through the hyperlinks in that item** and on to the other items on the desktop. You can press ENTER to activate a hyperlink.” Ex. 1007, MSIE Kit at 562 (emphasis added). Pressing ENTER to activate a hyperlink can only be meaningful in the context of that link and Item having been previously selected by the use of TAB. Otherwise, it would not be clear which link to activate with the ENTER key. This functionality also satisfies the “selectable to provide access” language, as well as the Board’s “when selected, provides access to an information source” language.

137. Mr. Weadock seems to believe that the page pointed to by a link or hot spot in an Active Desktop Item would not be assigned or associated with that Active Desktop Item, and therefore this functionality would not satisfy the Patent Owner’s interpretation. Ex. 1106, Weadock Tr. at 126:18-130:2. Mr. Weadock is

incorrect for several reasons. First, the ability to, for example, TAB through the links displayed in an Active Desktop Item and to select one by pressing ENTER is clearly access to the page displayed in that Item. Second, the linked page is associated with the Active Desktop Item because its link is displayed in the Item and because its URL is included in the HTML file the Item is displaying. The linked page may also be assigned to the Item by webcrawl. See, for example, MSIE Kit at 197, which discloses that the user can explicitly specify the depth level for webcrawls and downloads, up to three levels deep. *See also supra* ¶ 51.

138. I also note the Board’s interpretation of “tile” requires no “assignment” of an information source to the tile (though such an interpretation would be satisfied anyway), and the Patent Owner’s proposed modified interpretation does not limit how an information source may be “assigned” to a tile. Any type of assignment qualifies.

139. I also note that Mr. Weadock’s opinion in paragraph 121 is incorrect. Just because an Active Desktop Item may share an attribute with an icon does not mean the Item cannot be a tile. Ex. 2004, Weadock Declaration ISO Response at ¶ 121.

140. I also disagree with Mr. Weadock’s assertion that because Active Desktop Items can overlap they cannot be tiles or that MSIE Kit fails to disclose non-overlapping Items. Ex. 2004, Weadock Declaration ISO Response at ¶¶ 122-

23. The Board has never interpreted the claimed “tiles” to exclude structures that can overlap and Patent Owner has never asked that the claimed “tiles” be interpreted to exclude such structures. *See* Resp. at 2-12. Mr. Weadock confirmed this point on cross-examination. Ex. 1106, Weadock Tr. at 131:20-132:8. Similarly, that Active Desktop Item may overlap or be overlapped by other structures on the screen is irrelevant to the claims, since neither the claims nor the proposed claim interpretations preclude that functionality. For example, while Patent Owner has asserted that the “partitioning” language of the claims should be interpreted to require dividing the display into a non-overlapping configuration of tiles, Resp. at 12-18, the Board has not adopted that interpretation and the proposed interpretation would not in any event *preclude* the ability to overlap; it would merely require the display of a non-overlapping configuration to satisfy the claim.

141. MSIE Kit discloses that by default Active Desktop Items will be initially displayed in a 3 x 2 grid, after which the display of additional Items would begin to overlap. Ex. 1007, MSIE Kit at 183. MSIE Kit thus discloses both non-overlapping (the display of up to the first six Items in a 3 x 2 grid) and overlapping (the display of seven or more Items) configurations.

142. Moreover, MSIE Kit also discloses that a user can move Items, Ex. 1007, MSIE Kit at 176, 183; Ex. 1106, Weadock Tr. at 132:20 – 133:3, which is an alternative disclosure of both non-overlapping and overlapping configurations.

143. Finally, Mr. Weadock has clearly misread my analysis of claims 3 and 30. As I stated in paragraph 293 of my initial report, Active Desktop Items can be given a uniform size by a developer setting that size in a CDF file. Page 186 of MSIE Kit, which I cite in paragraph 293 of my initial report, discloses an example of this functionality in which the size of the Item is set to 80 pixels by 200 pixels. *See* Ex. 1007, MSIE Kit at 186. Moreover, MSIE Kit notes that a user can resize Active Desktop Items. Ex. 1007, MSIE Kit at 176, 183. Thus, MSIE Kit discloses that Active Desktop Items can be made the same size or different sizes. That disclosure satisfies the requirement of claims 3 and 30 that the tiles have a uniform size, since “same” or “different” represent a small set of readily identifiable possibilities. To the extent one might disagree with that conclusion, however, I note that page 180 of MSIE Kit explains how one can create a new Active Desktop Item by simply assigning the URL of the information source to the Active Desktop Item, *i.e.*, without specifying the size of the Item. Ex. 1007, MSIE Kit at 180. This demonstrates that there must be a default size and shape that can be used whenever a new Active Desktop Item is created without the user manually specifying the size.

144. Similarly, because a user can choose how many Active Desktop Item to display and where on the desktop they are displayed, Ex. 1007, MSIE Kit at 176, 183, it discloses partitioning the array in accordance with a user-defined array size,

as required by claim 2. Ex. 1003, Karger Initial Declaration at ¶¶ 278-281; Ex. 1007, MSIE Kit at 176, 183.

145. In sum, Mr. Weadock does not provide any analysis applying the Board's claim interpretations to the anticipation by MSIE Kit of the claims of Ground 4. *See* Ex. 2004, Weadock Declaration ISO Response at ¶¶ 114-126. Accordingly, Mr. Weadock has advanced no argument that could result, under the Board's claim interpretations, in any of the claims at issue in Ground 4 being found patentable. *See supra* ¶¶ 114-144.

5. Ground 5: Obviousness Over MSIE Kit In View of Brown

146. Mr. Weadock also misreads my analysis of the combination of MSIE Kit and Brown. Brown itself expressly suggests using Active Desktop Items on a mobile phone or PDA in its statement that Brown's invention may be used on "hand-held devices." Brown's invention is Active Desktop, including Active Desktop Items (which Brown explicitly discloses, *see, e.g.*, Ex. 1030, Brown at Fig. 6, 8:37-44), as the specification makes clear. An alternative reason to combine is therefore simply that both references are directed to the same system. Moreover, MSIE Kit and Brown address the same problem – the display of information from various sources that are periodically updated over a network.

147. That Mr. Weadock or others might want scroll bars or other window decorations in a commercial embodiment, Ex. 2004, Weadock Declaration ISO

Response at ¶ 129, is irrelevant because those structures that don't have anything to do with the claims. In any event, Brown suggests not using them, Ex. 1030, Brown at Fig. 3A, and my understanding is that obviousness does not require a showing that all potential customers be happy with the combination, just that a person of ordinary skill in the art would have found the combination obvious. I note moreover, that my initial report discussed several prior art references directed to screen phones, which references demonstrate that a person of ordinary skill in the art in 1999 would have known that phones with relatively large screens were available and indeed that the industry was moving in that direction. Ex. 1003, Karger Initial Declaration at ¶¶ 880 and 881.

148. Mr. Weadock's statement that incorporating overlapping Desktop Items on the screen of a phone, Ex. 2004, Weadock Declaration ISO Response at ¶ 128, would be counter-intuitive is also irrelevant, since MSIE Kit discloses that Active Desktop Items can be displayed in a non-overlapping configuration also, Ex. 1007, MSIE Kit at 183 .

149. Finally, Mr. Weadock suggests that "hand-held devices" could have included devices other than a mobile phone, a PDA and a pager. However, the only additional device he mentions is essentially a PDA, Ex. 2004, Weadock Declaration ISO Response at ¶ 128, and in any event that one additional device would not change the fact that in 1999 there was a very small readily identifiable

collection of devices that would have been considered “hand-held devices,” and that collection included mobile phones and PDAs.

150. In sum, neither Mr. Weadock nor Patent Owner advances any argument as to Ground 5 beyond their assertion that MSIE Kit (which discloses Active Desktop Items) may not be combined with Brown (which also discloses Active Desktop Items). *See* Ex. 2004, Weadock Declaration ISO Response at ¶¶ 127-131; *see supra* ¶¶ 146-149.

6. Ground 6: Anticipation By Duperrouzel

151. As the Board originally concluded, Petitioner established a reasonable likelihood that it will prevail in showing that Duperrouzel anticipates claims 1-3, 5-8, 12-14, 19, 21, 22, 27, 30, 32, 34, 37-40, 46, and 47. *See* Institution Decision, Paper 19 at 41; *see also* Ex. 1003, Karger Initial Declaration at ¶¶ 414-594. Mr. Weadock asserts that Duperrouzel does not render the claims unpatentable because Duperrouzel is not a graphical user interface (or GUI). Ex. 2004, Weadock Declaration ISO Response at ¶ 133. A GUI, however, is not a requirement of claims 1-45 and Patent Owner has not asked that the Board make it one. *See* Institution Decision, Paper 19 at 9-23. In any event, Duperrouzel does have a GUI. Ex. 1011, Duperrouzel at 2:4-11, 5:1-2, 5:12-20, 6:46-54, 12:45-47 and FIG. 2. Moreover, as the Board correctly noted, “Duperrouzel’s display panes are

graphical user interface elements.” *See* Institution Decision, Paper 19 at 35; *see also* Ex. 1011, Duperrouzel at Abstract and FIG. 2.

152. Mr. Weadock also asserts that Duperrouzel does not render the claims unpatentable because Duperrouzel does not disclose a desktop alternative. Ex. 2004, Weadock Declaration ISO Response at ¶¶ 133-34. Mr. Weadock also asserts that Duperrouzel has no capability for presenting a word processor or spreadsheet file, or for calling an application program. Ex. 2004, Weadock Declaration ISO Response at ¶ 134. Such functionality is not a requirement of the claims. *See* Institution Decision, Paper 19 at 9-23. I also note that Patent Owner has not asserted such functionality is a requirement of the claims, however defined.

153. In any event, as I explained above, *see supra* ¶¶ 115-116, Microsoft’s ActiveX technology permitted web browsers to launch helper applications that would provide access to word processor or spreadsheet files, *see supra* ¶ 116, so the system of Duperrouzel could operate as a desktop replacement.

154. Mr. Weadock also asserts that Duperrouzel does not render the claims unpatentable because the panes of Duperrouzel are really windows because they supposedly have “no capability to be selected to provide access to the information source.” Ex. 2004, Weadock Declaration ISO Response at ¶ 136. That is not a requirement of the claims and Patent Owner has not asked that the Board make it

one. *See* Institution Decision, Paper 19 at 9-23. Further, prior art windows were selectable to provide access to an information source.

155. I note, moreover, that while Mr. Weadock addresses his own “selectability” language, he does not provide any analysis of the “when selected, provides access to an information source” language of the Board’s “tile” interpretation as it applies to Duperrouzel. *See* Ex. 2004, Weadock Declaration ISO Response at ¶¶ 132-144. Because Mr. Weadock’s analysis does not subscribe to the Board’s interpretation, he failed to establish that Duperrouzel’s panes are not tiles, as required by the claims.

156. In any event, the panes of Duperrouzel would satisfy both Mr. Weadock’s “selected to provide access to the information source” language and do satisfy the Board’s “when selected, provides access to an information source” language through its maximization functionality. Institution Decision, Paper 19 at 9. Maximizing a pane is one way to select it in order to provide access to the information not accessible when the pane is in a non-maximized format, since maximizing the pane provides the ability to read and make use of more information from the information source. Ex. 1086, Microsoft Computer Dictionary, 4th Ed. (1999) at 12. I note that the ‘403 Patent also describes providing access to an information source by expanding the tile upon selection. Ex. 1001, US 6,724,403 at 9:43-47 (“In a preferred embodiment, double-clicking a tile causes that tile to

occupy a substantial fraction of the whole display area. In this embodiment, double clicking tile 402 or 412 causes the image to be expanded to fit the whole display area.”).

157. Further, I note that Duperrouzel alternatively satisfies both Mr. Weadock’s “capability to be selected to provide access to the information source” language and the Board’s “when selected, provides access to an information source” language through its refresh functionality. Specifically, Duperrouzel discloses that a user can click on a refresh control associated with a specific pane (each pane has its own, *see* Ex. 1011, Duperrouzel at Figure 2) to cause the pane to refresh the webpage displayed in the pane. Ex. 1011, Duperrouzel at 5:65-67. This functionality is also found in the ‘403 Patent as an example of providing access to an information source when selected. Ex. 1001, US 6,724,403 at 9:25-36 (“When a tile is selected, whether by mouse click or otherwise, the tile instantly provides the user with access to the underlying information ... In a preferred embodiment a selection operation is associated with a tile. For example, clicking on a tile will cause it to immediately refresh its contents.”).

158. I also note that Mr. Weadock repeats his view that one cannot provide access to an information source that was previously accessed. Ex. 2004, Weadock Declaration ISO Response at ¶ 138. As explained above, that is inconsistent with the ‘403 Patent’s disclosure of “live” tiles – which provide some limited form of

access to an associated information source even before the tile has been selected. Mr. Weadock's view is also inconsistent with the testimony of Inventor Santoro, quoted above, Ex. 1103, Santoro Tr. at 44:22-46:19, and with his own cross-examination testimony, Ex. 1106, Weadock Tr. at 27:9-16.

159. Mr. Weadock's paragraph 141 simply cites to aspects of a pane that are irrelevant to the Board's claim interpretation or to any interpretation advanced by Patent Owner, so the statements there are irrelevant.

160. Mr. Weadock also asserts that Duperrouzel does not render the claims unpatentable because the panes of Duperrouzel are not persistent. Ex. 2004, Weadock Declaration ISO Response at ¶¶ 142-44. Persistence, however, is not a requirement of the claims. Institution Order, Paper 19 at 9.

161. Moreover, Mr. Weadock's arguments that Duperrouzel does not disclose persistence are based on his own narrow reading of "persistence." Since the claims are to be given their broadest reasonable interpretation, even if the Board were to modify its interpretation of tile and require "persistence," the disclosure of a checkbox for navigating to sites last viewed in Duperrouzel would satisfy that requirement because it represents a form of persistence in that an indication of the last sites viewed are not save explicitly but preserved from session to session. *See* Institution Decision, Paper 19 at 35; Ex. 1011, Duperrouzel at 13:21-22. In particular, in order to display the sites last viewed in a later session

the system of Duperrouzel necessarily must store information identifying those sites.

162. In sum, Mr. Weadock does not provide any analysis applying the Board's claim interpretations interpretation to the anticipation by Duperrouzel of the claims of Ground 6. *See* Ex. 2004, Weadock Declaration ISO Response at ¶¶ 132-144. Accordingly, Mr. Weadock has advanced no argument that could result, under the Board's claim interpretations, in any of the claims at issue in Ground 6 being found patentable. *See supra* ¶¶ 151-161.

7. Ground 7: Obviousness Over Duperrouzel In View of Brown

163. As to the obvious combination of Duperrouzel and Brown, Brown itself expressly suggests using Active Desktop on a mobile phone or PDA in its statement that Brown's invention may be used on "hand-held devices." Duperrouzel specifically identifies Active Desktop as being suitable for implementing its schemes. *See, e.g.*, Ex. 1011, Duperrouzel at 11:38-65. Brown's invention is Active Desktop, including Active Desktop Items (which Brown explicitly discloses, *see, e.g.*, Ex. 1030, Brown at Fig. 6, 8:37-44), as the specification makes clear. Moreover, Duperrouzel and Brown address the same problem – the display of information from various sources that are periodically updated over a network. That Mr. Weadock or others might want scroll bars or other window decorations, that don't have anything to do with the claims, is

irrelevant. Brown suggests not using them, Ex. 1030, Brown at Fig. 3A, and obviousness does not require a showing that all potential customers be happy with the combination, just that a person of ordinary skill in the art would have found the combination obvious.

164. Finally, Mr. Weadock suggests that “hand-held devices” could have included devices other than a mobile phone, a PDA and a pager. However, the only additional device he mentions is essentially a PDA, Ex. 2004, Weadock Declaration ISO Response at ¶ 128, and in any event does not change the fact that in 1999 there was a very small readily identifiable collection of devices that would have been considered “hand-held devices” that included mobile phones and PDAs.

165. In sum, neither Mr. Weadock nor Patent Owner advance any argument as to Ground 7 beyond their assertion that Duperrouzel (which expressly discloses an embodiment of his invention using Active Desktop, Ex. 1011, Duperrouzel at 11:38-65) may not be combined with Brown (which discloses Active Desktop). *See* Ex. 2004, Weadock Declaration ISO Response at ¶ 145; *see supra* ¶¶ 163-164.

IV. PATENT OWNER’S MOTION TO AMEND

A. The Proposed Substitute Claims Are Not Patentable

166. I have been asked to compare the Patent Owner’s proposed substitute claims 53 through 59 to the disclosure of the ‘403 Patent and also to several prior

art references, and to opine on whether I believe those claims are patentable. I believe they are not, for several reasons.

1. The ‘403 Patent Does Not Include A Written Description of The Proposed Substitute Claims

167. As noted above, I am informed by counsel that for a claim to have written description support in a patent specification it must describe all elements of the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor(s) had possession of the claimed invention as of the filing date of the patent. I am also informed that an inventor may not rely on what is obvious from the specification in order to satisfy the written description requirement.

a. *Persistence*

168. The ‘403 Patent uses the word “persistent” only once: “[i]tems in the metabase are ‘persistent,’ that is they are not saved explicitly but are preserved from session to session.” Ex. 1001, US 6,724,403 at 15:63-64. Importantly, the paragraph from which this passage comes never says that a grid of tiles arranged on a display is persistent, as recited in the proposed substitute claims. Rather, the patent states that “platform specific implementations of the descriptions of tiles, grids and other objects” are stored in a database called a “metabase” and that “[i]tems in the metabase are ‘persistent’, that is they are not saved explicitly but are preserved from session to session”:

The metabase 1506, FIG. 17, is a local store for platform specific implementations of the descriptions of tiles, grids and other objects. Tiles, grids and content are created, saved and restored via the metabase. The metabase contains tile type and content type registries such as tile registry 1732, and a local database of grids and content such as content store 1734 and grid store 1736. Unknown tile and content types can be obtained from remote servers. Tile types are abstracted so that if a grid contains a particular type of tile, for example an e-mail tile, the metabase provides whatever is appropriate for the device the application is running on. Items in the metabase are "persistent", that is they are not saved explicitly but are preserved from session to session.

Ex 1001, US 6,724,403 at 15:52-64. Accordingly, while the '403 Patent uses the word "grid" at times to refer to a presentation on a display, it also uses the term to refer to data structure stored in memory, yet its only use of "persistence" when discussing grids refers to the data structure stored in memory and not the presentation on the display.

169. That information stored in a database may be persistent from session to session is not the same as structures depicted on a display being persistent from session to session. Moreover, just because some or all of the information used to display a grid of tiles might be persistently stored in a database does not mean that the grid of tiles is persistently displayed.

170. I note also that Patent Owner relies on a statement that information about the grid is stored in a "file system of the system's main memory." Motion to Amend at 5. However, one skilled in the art would recognize that the term "main

memory” refers to non-persistent memory. *See, e.g.*, Ex. 1107, EP 1,161,716 at ¶ [0022] (“The main memory 22 is typically random access memory (RAM)”); Ex. 1108, US 3,760,364 at 4:40-44.

171. Nothing else in the ‘403 Patent states that the grid of tiles arranged on the display are persistent from session to session.

172. I have reviewed the passages of the specification identified by Mr. Weadock as relevant to whether the “persistence” language of the proposed substitute claims is supported by the specification, Ex. 2063, Weadock Declaration ISO Motion at ¶¶ 30-33, and note that none of those passages disclose arranging a grid of tiles on the display that are persistent from session to session. In my view, the ‘403 Patent does not provide written description support for the “persistent” display language of the proposed substitute claims.

**b. *Calling an Application Program By
Selecting a Tile***

173. Proposed substitute claims 53 through 59 also include the requirement of “*wherein selecting a tile calls an assigned application program to provide access to information.*” Motion to Amend at 2, 5.

174. I note that neither Patent Owner nor Mr. Weadock provide a proposed interpretation for this language. Motion to Amend at 1-7; Ex. 2063, Weadock Declaration ISO Motion at ¶¶ 25-37. I also note Mr. Weadock provides no

analysis of whether the ‘403 patent includes any support for this claim language.

Ex. 2063, Weadock Declaration ISO Motion at ¶ 34.

175. As support for this claim language Patent Owner cites (Motion to Amend at 5) the following three sentences from the patent application that issued as the ‘403 Patent.

“Each tile is associated with a data stream or application program and allows a choice of displayed images. In particular, different tiles can be associated with different contents.”

Ex. 1002 at p. 21, lines 26-27 (and found in the ‘403 Patent at 10:55-56).

“Each tile is separately associated with a source of information, for example, an application program, datastream or file, any one of which may be another grid object.”

Ex. 1002 at p. 22, lines 1-2 (also found in the ‘403 Patent at 11:1-3).

“Therefore the application resides over existing applications without replacing any of them; rather it enables them to be called from the grid itself.”

Ex. 1002 at p. 22, lines 15-16 (also found in the ‘403 Patent at 11:23-24)

176. None of these passages say anything about calling an application program **by** selecting a tile.

177. Patent Owner also cites two additional passages from its provisional application. Motion to Amend at 5, citing Ex. 2066.

“The present invention provides a simple, easy to use graphical interface that facilitates the organization and management of multiple data sources corresponding to a user's needs and interests.”

Ex. 2066, 8:24-27 (found in similar form in the ‘403 Patent at 4:34-37).

“By using the native attributes of a tile, a user may specify a presentation of the grid, consisting of its dimensions, (i.e., the number of tiles to display and their arrangement), and the programs or files to be associated with each tile.”

Ex. 2066, 17:23-25 (found in the ‘403 Patent at 11:9-12).

178. Neither of these passages describes calling an application program at all, let alone **by** selecting a tile. In my view, the cited passages do not provide written description support for “wherein selecting a tile calls an assigned application program to provide access to information.”

179. I therefore conclude that the ‘403 Patent does not describe the proposed substitute claims in sufficient detail that one skilled in the art can reasonably conclude that the inventors had possession of the claimed inventions as of the filing date of the patent.

2. The Proposed Substitute Claims Are Not Patentable Over MSIE Kit

180. As I explained in my initial report, MSIE Kit was publicly available before October 22, 1998 and is therefore prior art under at least §§ 102(a) and 102(b). *See* Ex. 1003, Karger Initial Declaration at ¶¶ 241-42; Ex. 1006, Declaration by Utah State Library. The Microsoft Internet Explorer Resource Kit (“MSIE Kit”) describes features of Microsoft’s Internet Explorer 4, including Microsoft’s Active Desktop technology. *See* Ex. 1003, Karger Initial Declaration

at ¶ 243. I overviewed some of MSIE Kit’s Active Desktop functionality in my earlier declaration. *See* Ex. 1003, Karger Initial Declaration at ¶¶ 243-265.

- a. *Proposed substitute claim 53 Is Anticipated
By MSIE Kit*
 - i. *A system for facilitating the
organization and management of
multiple data sources*

181. MSIE Kit describes the Active Desktop user interface available to computers running Windows and Internet Explorer 4. *See, e.g.*, Ex. 1007, MSIE Kit at 174. MSIE Kit provides:

“[Internet Explorer 4] provides True Web Integration with the Windows Desktop Update, a set of features that integrate the Internet into every aspect of personal computing—the desktop, file folders, the network, even the Start menu.”

Ex. 1007, MSIE Kit at 143. This disclosure of MSIE Kit is discussing how the Active Desktop of Internet Explorer 4 is a graphical user interface for desktop functionality that can replace the existing desktop graphical user interface of the computer that Internet Explorer is being installed on.

182. MSIE Kit shows how Active Desktop incorporates up-to-date information from various information sources into the new desktop environment:

To add to the navigational benefits provided by the Web integration in Internet Explorer 4, the flexibility of the Active Desktop interface allows intranet administrators to use push and smart-pull technologies to make information and resources directly accessible from users’ desktops and to

customize that information for specific user groups. The active Desktop turns users' desktops into dynamic, personalized, live Web 'bulletin boards' that regularly update with the latest content, for quick access online or off.

Ex. 1007, MSIE Kit at 413.

183. MSIE Kit thus discloses the preamble of proposed substitute claim 53, which requires a “*system for facilitating the organization and management of multiple data sources.*”

- ii. *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*

184. MSIE Kit also explains that Active Desktop typically is deployed on a personal computer running the Windows operating system and Internet Explorer 4. *See, e.g.,* Ex. 1007, MSIE Kit at xv, 4, 174. MSIE Kit also specifies the processor, memory, hard drive, and input device capabilities required to perform the described operations including executing the graphical user interface of Internet Explorer 4. *See, e.g.,* Ex. 1007, MSIE Kit at 4.

185. MSIE Kit therefore discloses 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,*” as recited in proposed substitute claim 53.

iii. control simultaneous communication with a plurality of information sources

186. MSIE Kit shows that a computer running Internet Explorer can communicate with multiple information sources simultaneously. *See, e.g.*, Ex. 1007, MSIE Kit at xxx, 175-176, 229-232. MSIE Kit shows that Internet Explorer will simultaneously display multiple Desktop Items linked to respective information sources, updating each at its assigned retrieval rate. *See, e.g.*, Ex. 1007, MSIE Kit at xxx, 177, 183. The updates for two or more Desktop Items, by this design, can occur at the same time. In addition, two or more Desktop Items, such as those defined by a CDF, can be assigned the same refresh value, which will be applied when those Desktop Items are added to the Active Desktop.

187. MSIE Kit thus describes executing instructions to “*control simultaneous communication with a plurality of information sources*,” as recited in proposed substitute claim 53.

iv. arrange a display into a grid of tiles that are not permitted to overlap, said grid being persistent from session to session

188. I have explained in my original report why the Active Desktop Items described in MSIE Kit satisfy the Board’s construction of “tile,” and I incorporate that analysis here. Ex. 1003, Karger Initial Declaration at ¶¶ 243-274, 355-358, 401-404. I have also expounded on that conclusion above, explaining how Active

Desktop Items satisfy the Board’s “when selected, provides access to an information sources” and also how they would satisfy the Patent Owner’s interpretation of “tile,” including its view on the selectability of the Items. *See* above at ¶¶ 117-139. I note again, however, MSIE Kit discloses that by default the system will lay out “Active Desktop items on a 3 x 2 grid” and that “[a]s more items are added to the desktop they will start to overlap each other,” and therefore discloses a non-overlapping grid when the first six Items are displayed. Ex. 1007, MSIE Kit at 183.

189. Accordingly, Active Desktop Items as described in MSIE Kit are “*tiles*” as that term is used in the ’403 patent. Further, since MSIE Kit discloses displaying such Items by default in a grid, it thus discloses executing instructions to “*arrange a display into a grid of tiles.*”

190. MSIE Kit also provides that

You can control, or lock down, features and functions in these areas. For example, you can use the Color and Fonts options to specify browser colors and fonts that users cannot change. More important, you can prevent users from adding or deleting channels that you have preset, **or from rearranging** or adding **Active Desktop items**.

Ex. 1007, MSIE Kit at 601 (emphasis added).

191. In this passage, MSIE Kit discloses that administrators can prevent users from rearranging Desktop Items, including locking down the “default”

Active Desktop layout of a “3 by 2 grid” of Desktop Items. This functionality of

Active Desktop is also referenced on pages 181, 601, 649, 686, 782, and 795 of Ex. 1007, MSIE Kit. *See also* Ex. 1089, *Weadock*, Windows 98 Registry for Dummies at 191 (“Prohibit changes to the Active Desktop”). Therefore, MSIE Kit discloses a grid of tiles in which the tiles “*are not permitted to overlap.*” *See* Ex. 1007, MSIE Kit at 153, 181, 601, 649, 686, 782, 795.

192. To the extent one might disagree with that conclusion, however, I believe it would have been obvious to include in MSIE Kit tiles that were not permitted to overlap by employing the feature of MSIE Kit that prevents users from rearranging Items with the default grid display in order to ensure that users do not cause one Item to obscure another. Such functionality was known in the prior art, *see, e.g., infra* ¶¶ 281-283 (citing Ex. 1051, Kostas at 14), Ex. 1014, Duhault II at Figures 1-4, and it was well within the skill of a person of ordinary skill in the art to implement such functionality. Moreover the prior art would have provided motivation for incorporating the teachings of Kostas and Duhault regarding not permitting overlap, by explaining the advantages of such an approach. *See, e.g.,* Ex. 1067, A Taxonomy of Window Manager User Interfaces at 67, 71-73; Ex. 1071, A Comparison of Tiled and Overlapping Windows at 102; Ex. 1073, Constraint-Based Tiled Windows at 35-36.

193. MSIE Kit also provides that Active Desktop Items are persistent:

The Active Desktop is the part of the Windows shell that keeps track of Active Desktop objects. The **persistent**

information about installed Desktop Items is located in the registry at
HKEY_CURRENT_USER\Software\Microsoft\Internet Explorer\Desktop

Ex. 1007, MSIE Kit at 175 (emphasis added). Here MSIE Kit is explaining that Active Desktop persistently stores information about Desktop Items in the computer's registry from session to session.

194. MSIE Kit also provides:

If a network is used, profiles can roam. This means the user's copy of User.dat is stored on a central server and downloaded to any workstation the user logs on to. This way, users can see the same environment no matter what workstation they use.

Ex. 1007, MSIE Kit at 50.

195. MSIE Kit describes here that information about Desktop Items can also be stored on a central server. Additionally, this passage of MSIE Kit confirms that information about Active Desktop is stored across multiple sessions. With this functionality, a user will see the same grid layout of Desktop Items on the display from session to session regardless of which computer that user uses to access his or her Active Desktop environment. This discloses the persistent display of a grid of tiles, as well as the persistent storage of such a grid of tiles.

196. MSIE Kit therefore discloses "*said grid of tiles are persistent from session to session.*"

197. Accordingly, MSIE Kit discloses “*arrange a display into a grid of tiles that are not permitted to overlap, said grid of tiles being persistent from session to session.*”

- i. *associate a first information source of said plurality of information sources to a first tile of said grid of tiles and a second information source of said plurality of information sources to a second tile of said grid of tiles*

198. Each Desktop Item added to the Active Desktop is associated with an information source, and multiple Desktop Items can be associated with different information sources. *See, e.g.*, Ex. 1007, MSIE Kit at xxx, 180. For example, Ex. 1007, MSIE Kit explains at 176:

Active Desktop items and Active Desktop wallpaper are, essentially Web sites that appear directly in borderless frames on users’ desktops. Once a Web site is placed on the Active Desktop, the site’s content is cached on the computer’s hard disk, so it’s always available for offline viewing. The user can then choose to “subscribe” to the Web site, and the Active Desktop item or wallpaper will be automatically updated at regularly scheduled times, so the content will always be up-to-date.

199. MSIE Kit shows that Active Desktop can use as an information source for a Desktop Item any data type that Internet Explorer can retrieve and display, including any graphic, audio, video, web site, Java applet, ActiveX or HTML file. *See, e.g.*, Ex. 1007, MSIE Kit at xxx, 174, 177, 180, 183, and 419-20.

200. Desktop Items may be associated with information sources that reside on local storage (e.g., on the hard drive of the computer), on local network storage, or at a public site on the Internet. This is because Internet Explorer can retrieve and display files stored locally, on a local network server or accessible over the Internet. *See, e.g.*, Ex. 1007, MSIE Kit at xvi, 97, 143-145.

201. MSIE Kit shows two general ways to associate a Desktop Item with an information source.

202. First, it shows that a user can associate an information source with a Desktop Item using a URL when the Desktop Item is added to the Active Desktop. *See, e.g.*, Ex. 1007, MSIE Kit at 180.

► **To add an Active Desktop item**

1. Right-click the Active Desktop to display the shortcut menu, and then click **Properties**.
2. Click the **Web** tab; then click **New**.



3. Enter the URL or path to the item, or click **Browse** to navigate to the file's location on your local or network drive.
4. Click **OK** to add the item to your desktop.

Alternatively, you can add a desktop item by subscribing to an Active Channel that specifies a desktop component. For more information, see Chapter 16, "Managed Webcasting."

203. Thus, MSIE Kit shows that an end user can create Active Desktop items by selecting any Internet URL. *See, e.g., Ex. 1007, MSIE Kit at 180.*

204. Alternatively, MSIE Kit also explains that content providers can create Internet-Explorer-specific information sources by authoring a CDF file which can then be used to create an Active Desktop item that is added to the Active Desktop. *See, e.g., Ex. 1007, MSIE Kit at 188; see also Ex. 1007, MSIE Kit at 176, 184, 186.* A CDF file is a file created to enable Internet Explorer to

retrieve information from a specified information source on a defined schedule. As

MSIE Kit explains:

Similar to basic Webcasting managed Webcasting also works through a subscription process, except users subscribe to publisher-specified Active Channels[™], which deliver a defined range of Web content. This might be thought of as a “programmed pull.” Users can check for updates on specific types of content and can accept a publisher’s predefined update schedule or specify a custom schedule. When channel content changes, Internet Explorer notifies the user of changes- and can be set to download just the requested content for viewing offline.

Active Channels allow Web-site authors to optimize, personalize and more fully control how a site is Webcast, and adding a Channel Definition Format (CDF) file is the only step required to convert any existing Web site into an Active Channel. Using CDF, it’s easy to design Active Channels, Active Desktop[™] items, or channel screen savers for your intranet to efficiently deliver business information to users desktops.

Ex. 1007, MSIE Kit at 188.

205. The CDF file is then provided to an end user who can use it to add an Active Desktop item for that CDF to the end user’s display. *See, e.g.*, Ex. 1007, MSIE Kit at 223-224; *see also* Ex. 1007, MSIE Kit at 229-233.

206. MSIE Kit thus shows that each Desktop Item is associated with a particular information source, and that typically more than one Desktop Item is added to the Active Desktop by a user. *See, e.g.*, Ex. 1007, MSIE Kit at 174, 176, 180, 183.

207. Therefore, MSIE Kit discloses executing instructions to “*associate a first information source of said plurality of information sources to a first tile of said grid of tiles and a second information source of said plurality of information sources to a second tile of said grid of tiles,*” as recited in proposed substitute claim 53.

- i. *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*

208. MSIE Kit explains that Active Desktop uses Internet Explorer to retrieve and display information. *See, e.g.*, Ex. 1007, MSIE Kit at 143-145, 174. This means that a Desktop Item in Active Desktop can use as an information source any type of graphic, audio, video, web site, Java applet, ActiveX, or HTML file that Internet Explorer can handle. *See, e.g.*, Ex. 1007, MSIE Kit at xxx, 174, 180, 419-20, 177 and 183.

209. MSIE Kit shows that Desktop Items will retrieve and display updated information on a defined periodic basis, and that each Desktop Item will be individually configured. *See, e.g.*, Ex. 1007, MSIE Kit at 177, 183.

210. Therefore, MSIE Kit discloses executing instructions to “*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,” as recited in proposed substitute claim 53.

- ii. *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*

211. MSIE Kit shows that desktop items will retrieve and present updated information on a defined basis, including through definition of a retrieval rate by the user. *See, e.g.,* Ex. 1007, MSIE Kit at 175-177, 180, 183, 188, 223, 235-238. MSIE Kit thus shows retrieving “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.”

212. MSIE Kit also shows that retrieved information will be displayed on the Active Desktop location of a desktop item after it has been retrieved. *See* MSIE Kit at 174, 176, 180, 183. MSIE Kit thus shows *presenting* “*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.*”

- iii. 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

213. As demonstrated above, Active Desktop Items are selectable in several ways, including by clicking on a link or hot spot or using keyboard navigation. *See supra* at ¶¶ 117-139.

214. MSIE Kit therefore discloses “*wherein the tile are selectable.*”

215. Active Desktop also allows users to interact with content displayed in a Desktop Item such that when a user selects a Desktop Item, an application will be called to provide access to the information source linked to the Desktop Item. For example, MSIE Kit explains how Active Desktop can call a web browser when a user selects the Desktop Item by clicking a link or hot spot within the Item:

Desktop items are typically designed to provide summary information in a small amount of screen space. Therefore, information in Desktop Items often includes hyperlinks or hot spots, so users can click a designated area to open a browser window and obtain the details they want.

Ex. 1007, MSIE Kit at 177; *see also id.* at 183.

216. MSIE Kit also explains how, by using the TAB and SHIFT+TAB keys, a user can select an Item and then activate a link within the Item to call a browser application. *See supra* at ¶ 135 (quoting Ex. 1007, MSIE Kit at 561).

Internet Explorer 4

217. MSIE kit discloses that the web browser that is called when an Active Desktop Item is selected can be Internet Explorer 4, *e.g.*, when Internet Explorer is the default browser or the only browser. *See* MSIE Kit at 5. When the system is configured to call Internet Explorer 4 as the web browser called when an Item is selected, Internet Explorer 4 is assigned to that Item. *See supra* at ¶ 51.

Netscape Navigator

218. MSIE Kit discusses how a Netscape web browser may be used as the web browser when Active Desktop is installed, by explaining that “Internet Explorer may coexist with any Netscape Browser.” MSIE Kit at 5; *see also* MSIE Kit at 591. When the system is configured to call a Netscape Browser as the web browser called when an Item is selected (setting Netscape as the default browser), the Netscape Browser is assigned to that Item. *See supra* at ¶ 51.

Microsoft Chat 2.0 Chat Application

219. MSIE Kit also discusses other applications that persons of ordinary skill in the art would have understood could be called by Internet Explorer 4 by configuring Internet Explorer 4 to use those applications as “helper applications” for links placed in Desktop Items. One example is the Microsoft Chat 2.0 chat application, which MSIE Kit discusses on page 795:

Microsoft Chat 2.0

Get online and communicate with others, using Microsoft Chat. This new kind of chat program lets you decide how to

display your message—choose text only or a combination of text and graphical features.

220. Other examples of applications disclosed by MSIE Kit that persons of ordinary skill would have understood as being potential helper applications launched by Internet Explorer 4 are the streaming video applications, VDOLive and RealPlayer:

The VDOLive Player takes advantage of streaming technology to deliver high audio and video quality over limited bandwidth.

...

You can use RealPlayer to play different media types, including animation, audio, video, 3-D images, MIDI, presentations, and text.

Ex. 1007, MSIE Kit at 797.

221. MSIE Kit thus discloses that the VDOLive Player, RealPlayer, and Microsoft Chat 2.0 applications would be “assigned” as helper application programs to access information. MSIE Kit also shows the Outlook Express electronic mail application was an “application program being different from” the portion of Active Desktop that arranges the display into the grid of tiles, and also different from Active Desktop generally.

222. In any event, if one were to disagree with the above, in my view it would have been obvious to employ helper applications with Active Desktop by 1999 since both were well known technologies used with Internet applications and

websites. To use them both together would have been simply using old elements in the same way that had been used in the past to achieve entirely expected results. Such uses would have been well within the capability of a person of ordinary skill in the art. Moreover, there would have been reason to use these technologies together, so as to obtain the benefit of whatever files were available on the target website.

223. MSIE Kit also describes several other specific examples of stand alone applications that Internet Explorer 4 could launch depending on which web page was selected:

NetShow Streaming Video Player

224. First, MSIE Kit describes how the Netshow streaming video player can be launched by Internet Explorer 4 through an ActiveX control:

The NetShow Player comprises a stand-alone player and an ActiveX control that can be embedded in Web pages or in applications that support embedded controls. The stand-alone player can be used even if no browser is installed. NetShow Player can be run independently of the user's browser by launching it in a helper application that runs on top of the page. The advantage of playing content in the external player is that it can be launched by means of a small redirector in an e-mail message, launched from a shortcut to a location on a corporate network or played in the background while the user surfs to other pages on the Web.

Ex. 1007, MSIE Kit at 288 (emphasis added); *see also* Ex. 1007, MSIE Kit at 301, 323.

225. MSIE Kit thus discloses that the Netshow streaming video application would be “assigned” to a Desktop Item as an application program to access information by adding the ActiveX control to the web page displayed in the Desktop Item.

Netmeeting Chat Application

226. MSIE Kit also discloses that Internet Explorer 4 can launch the Netmeeting chat application by an ActiveX control and as a completely standalone application:

The NetMeeting platform enables developers to incorporate NetMeeting features such as chat and whiteboard, in their applications and Web pages.

Ex. 1007, MSIE Kit at 342.

With the ActiveX control, organizations can easily integrate the NetMeeting conferencing capabilities into their intranet Web pages. Web site creators can take advantage of established protocols for conferencing over the Internet and corporate intranet. They can create a Web page with NetMeeting Conferencing support using JavaScript-compatible languages (JScript) or VBScript. Then people can join a conference from the web page.

Ex. 1007, MSIE Kit at 369.

227. Thus a person of ordinary skill reading this disclosure would understand that, in the MSIE Kit scheme, when someone selected an appropriately configured ActiveX control, Internet Explorer would call the Netmeeting application.

228. MSIE Kit thus discloses that the NetMeeting chat application would be “assigned” to a Desktop Item as an application program to access information by adding the ActiveX control to the web page displayed in the Desktop Item.

Outlook Express Electronic Mail Application

229. MSIE Kit also discloses that Internet Explorer 4 can launch the Outlook Express mail application:

Specifies that Outlook Express is used as the mail client for mailto: URLs.... Specifies that Outlook Express is used as the news client for Usenet news: URLs.

Ex. 1007, MSIE Kit at 128; *see also* Ex. 1007, MSIE Kit at 751.

230. In the above passage, MSIE Kit explains that Outlook Express can be associated with “mailto: URLs,” which persons of ordinary skill in the art would understand to be links in pages that specify an email address. *See, e.g.*, Ex. 1100, U.S. Patent No. 5,982,445 at 3:12-16 (“MAILTO indicates an Internet Mail Protocol. If a user targets a mail type URL, the browser will open a window to allow the user to create a mail message to be delivered to the indicated e-mail address.”). Thus a person of ordinary skill reading this disclosure would understand that, in the MSIE Kit scheme, when someone selected a mailto link in a Desktop Item, and thus selected the Desktop Item, Internet Explorer 4 would call the Outlook Express application and create a draft email addressed to the email address specified in the link in the Item.

231. MSIE Kit thus discloses that the Outlook Express electronic mail application would be “assigned” to a Desktop Item as an application program to access information by adding a “mailto” link to the miniature web page displayed in the Desktop Item.

232. MSIE Kit therefore discloses “*wherein the tiles are selectable, and wherein selecting a tile calls an assigned application program to provide access to information.*”

233. MSIE Kit describes the software architecture of the Active Desktop:

“When Windows Desktop Update is selected to be installed, Internet Explorer 4 replaces Explorer.exe and Shell32.dll during the installation process. These two files, along with Shdocvw.dll, make the Active Desktop and Web View functional.

Shell32.dll is needed to implement the updated layering model of the desktop and to fix some issues with the bounding outline in Active Desktop mode. Explorer.exe has been updated to be an OLE host for Shdocvw.dll. With this update, Internet Explorer can display HTML components on the desktop or provide full HTML support while a user is viewing local and network resources with either Internet Explorer or Windows Explorer.”

Ex. 1007, MSIE Kit at 145.

234. Here, MSIE Kit is explaining that the Active Desktop is implemented with a combination of the Shdocvw.dll and Shell32.dll software libraries.

However, MSIE Kit also explains that other components that, different from Shdocvw and Shell32.dll, provide substantial components of the web browser:

Although Shdocvw.dll provides navigation, Favorites, and History functionality, it cannot open, interpret, or render HTML pages. For that functionality, Showdoc.dll calls on the following components, each of which is needed to create a rich, Internet experience.

- Mshtml.dll renders HTML pages.
- Urlmon.dll provides HTTP connectivity by processing URLs.
- Wininet.dll provides the Internet connection.
- Java VM runs Java applets.

Ex. 1007, MSIE Kit at 137.

235. A person of ordinary skill in the art would understand these disclosures as showing that the Active Desktop gridding functionality is a different set of software instructions from those that are called when the web browser is launched when a Desktop Item is selected.

236. Internet Explorer 4 is a program that is “different from” the program that implements the grid functionality of Active Desktop, or indeed from Active Desktop generally, because they are not the same. While there may be some overlap and they may even share certain instructions, it is clear that each employs different functionality and therefore different instructions. For example, Desktop Items appear in borderless frames, *see, e.g.*, Ex. 1007, MSIE Kit at 176, and do not have the toolbars, address bar, navigation buttons (back, stop, refresh, etc.) of a web browser, *see, e.g.*, Ex. 1007, MSIE Kit at 113 (image). I therefore conclude

that Internet Explorer 4 is a program that is “different from” the program that implements the grid functionality of Active Desktop.

237. I also note that this conclusion is supported by the testimony of Mr. Lagermann, who testified in parallel litigation that Active Desktop is a portion of the Windows operating system, Ex. 1109, Lagermann Tr. (6/27/13) at 52:23 – 54:4, and of Mr. Weadock, who testified in a different case that Internet Explorer is not part of the Windows operating system, Ex. 2063, Weadock Declaration ISO Motion ¶ 192.

238. Further, Netscape browsers were software programs developed by Netscape Communications, a software company that was wholly separate from Microsoft. *See, e.g.*, Ex. 1007, MSIE Kit at 431. Netscape browsers are described as program with which Active Desktop can “coexist,” and so are different programs from the program that implements the grid functionality of Active Desktop.

239. Moreover, Microsoft Chat 2.0, VDOLive, RealPlayer, Netshow, Netmeeting and Outlook Express are all programs that are different from the program that implements the grid functionality of Active Desktop, since each of them provides substantially different functionality.

240. MSIE Kit therefore discloses “*the assigned application program being different from a program that arranges the display into the grid of tiles that are not permitted to overlap.*”

241. Accordingly, MSIE Kit discloses “*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.*”

- iv. *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*

242. The application programs described above that may be called when an Active Desktop Item is selected include web browsers (Internet Explorer 4 and Netscape Navigator), an electronic mail application (Outlook Express) chat applications (NetMeeting and Microsoft Chat 2.0) and a streaming video application (NetShow).

243. MSIE Kit therefore discloses “*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.”

244. MSIE Kit therefore anticipates, or at least renders obvious, proposed substitute claim 53.

**b. *Proposed Substitute Claim 54 Is Anticipated
By MSIE Kit***

245. Proposed substitute claim 54 reads as follows: “*The system of claim 53 [[46]] wherein said grid ~~array~~ comprises more than one row and more than one column.*”

246. MSIE Kit explains that, by default, Desktop Items are presented in 3 x 2 grid in an Active Desktop. *See, e.g.*, Ex. 1007, MSIE Kit at 183 (“By default, Internet Explorer lays out new Active Desktop items on a 3 by 2 grid.”). Therefore, MSIE Kit discloses a scheme meeting the limitations of proposed substitute claim 54, “wherein said grid comprises more than one row and more than one column.”

**c. *Proposed Substitute Claim 55 Is Anticipated
By MSIE Kit and/or Rendered Obvious By
MSIE Kit In View Of Chen***

247. Proposed substitute claim 55 reads as follows: “*The system of claim 53 [[46]] wherein said processor additionally executes instructions for uniformly assigning at least one attribute of each tile in said grid ~~array~~ of tiles.*”

248. Page 180 of MSIE Kit explains how one can create a new Active Desktop Item by simply assigning the URL of the information source to the Active Desktop Item, *i.e.*, without specifying the retrieval rate for the Item. Ex. 1007, MSIE Kit at 180. This means that there must be a default retrieval rate that is used whenever a new Active Desktop Item is created without the user specifying the retrieval rate. Because MSIE Kit (*e.g.*, at page 201) discloses how to create or edit a “*custom schedule*,” this indicates that there must be a default schedule. Ex. 1007, MSIE Kit at 200 and 201. This means that this default, and therefore uniform, retrieval rate is used for all Active Desktop Items unless the user manually sets a “*custom schedule*” for Items. MSIE Kit also discloses that Active Desktop Items are laid out in a 3 by 2 grid, by default. Ex. 1007, MSIE Kit at 183. As such, MSIE Kit discloses a grid of Active Desktop Items each having uniform attributes such as a retrieval rate. Ex. 1007, MSIE Kit at 180, 183, 200, 201.

249. Therefore, MSIE Kit discloses a scheme meeting the limitations of proposed substitute claim 55, “*wherein said processor additionally executes instructions for uniformly assigning at least one attribute of each tile in said grid array of tiles.*”

250. I note also that Chen discloses providing a default retrieval rate for tiles. *See, e.g.*, Ex. 1015, Chen at 24:3-12. If the end-user does not act to override the default retrieval rate, the default retrieval rate will be for all instruments. *Id.*

Chen thus shows “execut[ing] instructions for uniformly assigning at least one attribute of each tile in said grid of tiles.” *See, e.g.*, Ex. 1015, Chen at 24:3-12, 65:21-27 and 66:45-49.

251. A person of ordinary skill in the art would have been motivated to combine Chen’s default retrieval rates with MSIE Kit because Chen and MSIE Kit are analogous art directed towards solving the same problem. Both Chen and MSIE Kit show schemes to display tiles linked to various information sources which are periodically updated over a network, and one of ordinary skill in the art would have considered the combination of Chen and MSIE Kit obvious.

252. Moreover, Active Desktop discloses the use of a uniform retrieval rate in a manner that would have no adverse bandwidth considerations. Ex. 1007, MSIE Kit at 201. For example, MSIE Kit discloses daily, weekly, and monthly retrieval rates can be specified. *Id.* For news (*e.g.*, CNN and ABC News), the natural choice would be daily. A user setting all items’ retrieval rate to be daily would be setting a uniform rate. Moreover, MSIE Kit permitted Active Desktop Items to have uniform retrieval rates while still retrieving information at different times of the day. Ex. 1007, MSIE Kit at 201-202. Accordingly, two active Desktop items assigned to CNN and ABC News, respectively, could both retrieve information at the same rate (*e.g.*, once a day), without any adverse bandwidth

considerations, by having the update schedule for each item staggered (e.g., by one hour).

253. Therefore, MSIE Kit in view of Chen discloses a scheme meeting the limitations of proposed substitute claim 55, “*wherein said processor additionally executes instructions for uniformly assigning at least one attribute of each tile in said grid ~~array~~ of tiles.*”

**d. *Proposed Substitute Claim 56 Is Anticipated
By MSIE Kit and/or Rendered Obvious By
MSIE Kit In Light Of Chen***

254. Proposed substitute claim 56 reads as follows: “*The system of claim 55 [[48]] wherein said attribute is a retrieval rate.*”

255. For the reasons stated above, MSIE Kit discloses a scheme meeting the limitations of proposed substitute claim 56, “wherein said attribute is a retrieval rate.” *See supra* ¶¶ 248-249.

256. Additionally, for the reasons stated above, MSIE Kit in view of Chen discloses a scheme meeting the limitations of proposed substitute claim 56, and “wherein said attribute is a retrieval rate.” *See supra* ¶¶ 250-253.

**e. *Proposed Substitute Claim 57 Is Anticipated
By MSIE Kit***

257. Proposed substitute claim 57 reads as follows: “*The system of claim 53 [[46]] wherein said first retrieval rate is assigned automatically.*”

258. MSIE Kit shows that content publishers may define a retrieval rate for a Desktop Item using a CDF file. *See, e.g.*, Ex. 1007, MSIE Kit at 188, 223. This will cause the Desktop Item to be given that retrieval rate without any additional user input when the Desktop Item associated with the CDF is added to the Active Desktop. The retrieval rate of the Desktop Item, from the user’s perspective, is thus automatically set. Also, MSIE Kit explains that a publisher may allow or not allow changes to attributes of a Desktop Item set in a CDF file. *See, e.g.*, Ex. 1007, MSIE Kit at 181.

259. Further, as explained in above in Paragraph 248, MSIE Kit discloses that a default retrieval rate can be automatically assigned to Active Desktop Items.

260. Therefore, MSIE Kit discloses a scheme meeting the limitations of proposed substitute claim 57, “*wherein said first retrieval rate is assigned automatically.*”

**f. *Proposed Substitute Claim 58 Is Anticipated
By MSIE Kit***

261. Proposed substitute claim 58 reads as follows: “*The system of claim 53 [[46]] wherein said processor additionally executes instructions for storing said grid array of tiles on a second device.*”

262. MSIE Kit shows that Internet Explorer settings for a user are stored in a “user profile” (*e.g.*, the user.dat file). It also explains that “[i]f a network is used, profiles can roam. This means the user’s copy of User.dat is stored on central

server and downloaded to any workstation the user logs on to. This way, users can see the same environment no matter what workstation they use. It also allows administrators central control over individual user settings.” Ex. 1007, MSIE at 50.

263. A user’s Active Desktop configuration – including a users’ array of Desktop Items and settings applicable to those items – was stored within the user’s Internet Explorer user profile, which could reside locally on computer’s hard drive, or on a network server in a roaming profile environment. *See, e.g.*, Ex. 1007, MSIE Kit at 50, 52, 174. This is reflected in the descriptions in MSIE Kit. For example, on page 52, MSIE Kit shows Active Desktop elements being stored in the root structure of a profile (“Channels”), and observes that “If the Active Desktop is part of the corporate installation, this can be left on” (*i.e.*, the user’s desktop and document folder profile settings can be retained in the profile.). *See* Ex. 1007, MSIE Kit at 52.

264. Therefore, MSIE Kit discloses a scheme meeting the limitations of proposed substitute claim 58, “*wherein said processor additionally executes instructions for storing said grid array of tiles on a second device.*”

**g. *Proposed Substitute Claim 59 Is Anticipated
By MSIE Kit***

265. Proposed substitute claim 59 reads as follows: “*The system of claim 53 [[46]] wherein said processor additionally executes instructions for retrieving said grid ~~array~~ of tiles from a second device.*”

266. MSIE Kit shows that a user can retrieve a roaming profile containing the user’s Internet Explorer profile from a network server. *See, e.g.,* MSIE Kit at 50, 52. Internet Explorer uses roaming profiles to store a users’ configuration of Desktop Items and the retrieved content for a Desktop Item. *Id.* When users log on, Internet Explorer retrieves the stored tile content and configuration from the network server. *See, e.g., id.*

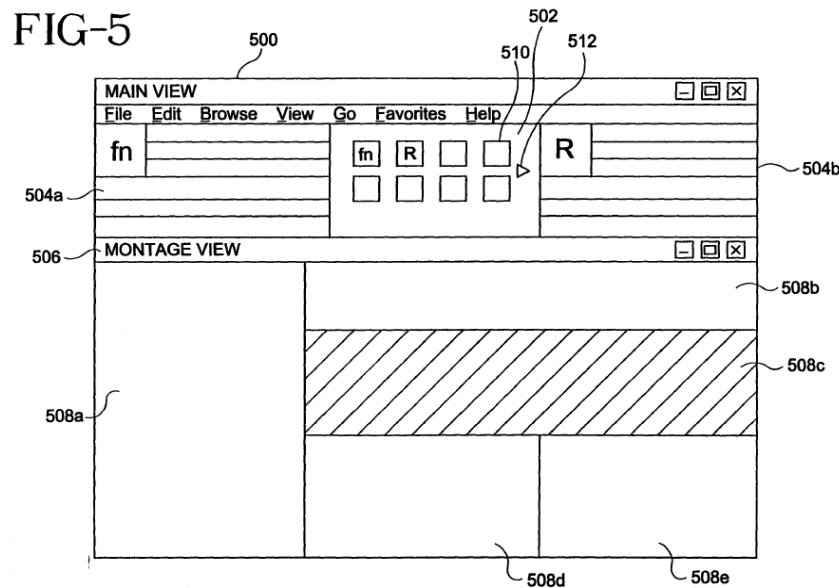
267. Therefore, MSIE Kit discloses a scheme meeting the limitations of proposed substitute claim 59, “*wherein said processor additionally executes instructions for retrieving said grid ~~array~~ of tiles from a second device.*”

**3. The Proposed Substitute Claims Are Not Patentable Over
Kostes (Ex. 1051)**

268. WO 99/26127, Ex. 1051 (“Kostes”) is a World Intellectual Property Office patent application that was published on May 27, 1999. I understand Kostes is prior art to the proposed substitute claims at least under § 102(a).

269. Kostes describes a scheme whereby a screen is divided into rectangular regions called panes or subwindows. In the Kostes scheme these

regions do not overlap, as shown in Figure 5 of Kostas below. *See also* Ex. 1051, Kostas at 13-14.



270. Each rectangular region can display content from a different information source, Ex. 1051, Kostas at 13, and each such information from such information source refreshes at a specified interval. *See, e.g.*, Ex. 1051, Kostas at 16, 20.

a. *Proposed Substitute Claim 53 Is Anticipated By Kostas*

i. *A system for facilitating the organization and management of multiple data sources*

271. Kostas discloses a system that allows the display of information from multiple data sources. Indeed, the title of Kostas “System and Method for Displaying Multiple Sources of Data in Near Real-Time,” and its abstract describes its scheme as follows: “A display system receives data from one or more data

sources, via a server, and displays the data from one or more of sources, selected by a user.” *See* Ex. 1051, Kostas at title; *id.* at Abstract; *see also id.* at 5; *id.* at 1 (Field of the Invention discussion).

272. In its background section, Kostas discusses other systems and asserts that there is a need for a system that more efficiently displays information from multiple sources by allowing users to divide the screen into as desired by the user:

Commercial displays are inefficient because of the presence of unnecessary icons and toolbars, which waste critical screen ‘real estate’, and because the multiple windows, if available, overlap or underlap each other. Those displays are also less effective than could be desired, because they do not provide the functionality required by the user to process the data simply and quickly. For example, none of the current displays allow a user to create easily and quickly a subwindow of desired dimension, and then run an application in that subwindow using data dragged and dropped into the window from a selected channel.

For the foregoing reasons, there is a need for a display system that avoids these problems, by making efficient use of screen space, and that permits a user to subdivide screen space into subwindows as the user sees fit, and allows the user to run applications in those subwindows, even where the applications selected by the user are not all from a single suite of applications.

Ex. 1051, Kostas at 4-5.

273. The above passage also shows that in the Kostas scheme, the data sources include other applications that the user may already have on his computer.

Kostas also states: “Since there are no overlapping windows or obscured screens, this view offers an attractive alternative to traditional windowing environments.”

See Ex. 1051, Kostas at 13-14. In other words, Kostas discloses a replacement graphical environment for organizing information from different applications, and is an alternative to other computing environments such as, for example, the desktop metaphor.

274. Therefore, Kostas discloses the preamble of SurfCast's proposed substitute claim 53, "*A system for facilitating the organization and management of multiple data sources.*"

- ii. *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*

275. Kostas explains that its scheme is implemented by software "executed by the client computer." See Ex. 1051, Kostas at 11. Persons of ordinary skill in the art would understand that execution of software on a computer is performed by a processor, and would understand that this software must be stored in memory that is connected to the processor. Kostas discusses that its scheme is implemented in software at page 8 and 28:

[W]hen existing netchannels (described below) need to be updated, or new netchannels become available and need to be added, the push server can push the new binary code required to accomplish these tasks directly to the client computer.

Ex. 1051, Kostas at 8.

Upon startup, a well-known directory containing channel binary files is scanned. In the preferred implementation, all channels are implemented as JavaBeans and stored in Java Archive (JAR) files. The main code reads each JAR file in this special directory and discovers any channels that are contained within the JARs.

Ex. 1051, Kostas at 28.

This invention is in the field of computer system displays. In particular, the present invention relates to a system and method for displaying, in near real-time, data published from various computer systems and networks, such as the Internet.

Ex. 1051, Kostas at 1.

276. Kostas also explains “a user might click on an interesting news headline in a netchannel.” *See* Ex. 1051, Kostas at 13. Here, Kostas discloses to one of ordinary skill in the art that its scheme includes a device, such as a mouse, to select display items. Such a device is an “input device” because it allows the user to provide input to the computer. As explained above, Kostas discloses displaying information in a grid of non-overlapping “panes,” which one of ordinary skill in the art would understand to be a graphical user interface.

277. Therefore, Kostas discloses 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,*” as recited in proposed substitute claim 53.

iii. control simultaneous communication with a plurality of information sources

278. Kostas provides:

A display system receives data from one or more data sources, via a server, and displays the data from one or more of the sources, selected by a user. The user can have multiple sources active at once, and can preferably display data from at least two of the active sources simultaneously.

Ex. 1051, Kostas at Abstract and page 5 (emphasis added).

279. The above passage discloses that Kostas can receive data from multiple sources at the same time. *See also* Ex. 1051, Kostas at 2, 3, 5, 11-12.

Kostas explains that to accomplish this “requires a computer application that can obtain and display voluminous data from various data sources quickly and efficiently.” Ex. 1051, Kostas at 2.

280. Therefore, Kostas discloses executing instructions to “*control simultaneous communication with a plurality of information sources*,” as recited in proposed substitute claim 53.

iv. arrange a display into a grid of tiles that are not permitted to overlap, said grid being persistent from session to session

281. Kostas describes an aspect of its graphical user interface as one in which the user can subdivide the screen into contiguous rectangular regions that it calls “panes” or “subwindows”:

Another objective is to provide a display which permits the user to create efficient subwindows, or ‘panes’, quickly and easily, in which the user may drag and drop data from a selected data channel or run a desired application therein.”

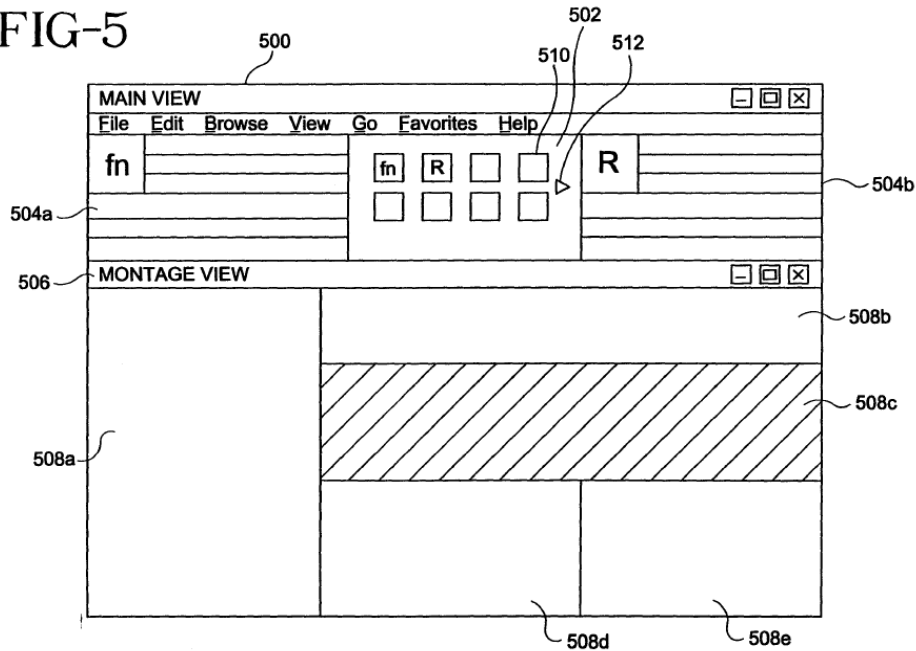
Kostes at 5.

Although netchannels are suitable for line-oriented information, some information and applications require screen-oriented information. For this, the present invention provides the montage view 506. Rather than floating each stand-alone application in its own window, the montage view contains a two-dimensional segmentable workspace in which applications can be placed. Users can subdivide this portion of the screen into rectangular segments 5081- 508e, or ‘panes,’ of sizes appropriate to their particular needs. Panes can be resized by dragging their edges, and applications running in neighboring panes are resized accordingly.

Ex. 1051, Kostes at page 13; *see also id.* at 11.

282. Kostes illustrates that its subdivision of a user’s screen into rectangular panes creates a “grid” of rectangular areas divided into both the Main View area and the Montage View area:

FIG-5



Ex. 1051, Kostas at Figure 5.

283. Kostas discloses that these rectangular regions are not allowed to overlap:

Since there are no overlapping windows or obscured screens, this view offers an attractive alternative to traditional windowing environments. Moreover, as shown, valuable screen space within the montage view is not wasted with the traditional title bars and sizing controls of application windows, or because of underlapping windows.

Ex. 1051, Kostas at 14.

284. Moreover, persons of ordinary skill in the art understood that overlapping windowing required additional functionality not required for non-overlapping windowing. For example, Brad Myers 1988 paper, A Taxonomy of Window Manager User Interfaces explains that “Obviously, a window manager that supports covered windows can also allow them to be side by side, but not vice

versa.” Ex. 1067, *Myers*, A Taxonomy of Window Manager User Interfaces at 67.

“Covered windows” is another term for overlapping windows. *See id.*

285. Proposed substitute claim 53’s limitation, “tiles that are not permitted to overlap,” is a negative limitation because it requires the absence of functionality rather than the presence of functionality. Kotes has no discussion of functionality to allow its rectangular regions to overlap. I understand that a negative claim limitation is satisfied by silence in a prior art reference. Kotes’s silence on this functionality therefore alternatively satisfies the negative limitation “tiles that are not permitted to overlap.”

286. The rectangular regions of Kotes are “tiles.” First, each rectangular region is a graphical user interface element because it is a portion of the screen dedicated to displaying information from a particular information source. Ex. 1051, Kotes at 5, 6, 11, 13, 14. Each rectangular region may be refreshed. Ex. 1051, Kotes at 20, *see also id.* at 16, 21-23. Each rectangular region may also be selected. Ex. 1051, Kotes at 13, 15, 28, 31. When selected, the rectangular region provides access to an information source assigned to that pane. For example, Kotes explains that “a user might click on an interesting news headline in a netchannel and view the full text of the article in a browser.” Ex. 1051, Kotes at 13. Kotes also explains that a Java-based web browser can run in a montage view pane, and users may click on links within the browser. Ex. 1051, Kotes at 28.

Kostes also explains that montage view panes may also hold, for example, Java-based applications that permit users to interact with email or select displayed information. Ex. 1051, Kostes at 31. One of ordinary skill in the art would understand that in order to interact with email a user must have selected the graphical user interface element (*i.e.*, the pane of Kostes) that displays the email.

287. Kostes also explains that the montage view panes “can be resized by dragging their edges, and applications running in neighboring panes are resized accordingly.” Ex. 1051, Kostes at 13.

288. The panes of Kostes are therefore “tiles” according to the ‘403 patent.

289. Kostes also explains the arrangement of panes is preserved from session to session:

Furthermore, if the user wishes, particular arrangement of panes, and the particular selection of applications running in them, can be stored. During any subsequent use of the display system of the invention, the user can scroll through the stored montages. In this way, identical application layouts can be preserved from one session to the next.

Ex. 1051, Kostes at 13 (emphasis added).

290. Kostes explains how this persistence is implemented using “serialization”:

The invention utilizes the concept of ‘serialization’ to preserve application state and provide continuity from one session to the next. All user-specific information, including preferences, filters, alert criteria, and settings, are ‘serialized’ at the end of each application execution. The serialization process involves

taking a ‘snapshot’ of current memory and saving it to an arbitrary output stream. This output stream may be a local disk file, or a socket connection to a push server.

By storing this complete snapshot of memory, all user preferences and configuration information is easily stored and restored. Individual channel developers need not be concerned with storage of user settings since the container automatically handles this operation. Moreover, since complete state information can be serialized to a push server over a network connection, the same configuration a user enjoys on his desktop computer by day can be accessed from home on his laptop.

Ex. 1051, Kostas at page 25; *see also id.* at 26 (explaining that the JavaBeans specification supports automatic serialization of components).

291. Kostas also explains that information about users’ panes can be stored on servers to allow users to have the same environment regardless of the computer they use:

The push server also supports server-side storage and retrieval of user preferences. This means that a user’s profile can be referred to the server, and the data for that user customized accordingly, regardless of what computer the user employs to connect to the network. Users can log in while travelling or at home and utilize an identical desktop of applications and netchannels. The push server also can be used to manage server-based alerts. A user-specified alert (such as a stock price warning) may also be stored on the push server, which in turn will cause the dispatching of a page or an e-mail message if the conditions of the user-specified alert are met.

Ex. 1051, Kostas at pages 8-9.

292. Therefore, to the extent the ‘403 Patent discloses “persistent from session to session,” Kostas also discloses tiles are “persistent from session to session,” as recited in proposed substitute claim 53.

293. Therefore, Kostas discloses instructions to “*arrange a display into a grid of tiles that are not permitted to overlap, said grid being persistent from session to session,*” as recited in proposed substitute claim 53.

- v. associate a first information source of said plurality of information sources to a first tile of said grid of tiles and a second information source of said plurality of information sources to a second tile of said grid of tiles

294. Kostas explains that each rectangular portion of its screen is associated with a particular netchannel or application.

The main view contains a ‘channel selector’ 502, and panels 5041, 504b for viewing ‘netchannels’, which each display continuously updated information from specific data sources. In the preferred embodiment, two netchannels can be displayed simultaneously, but the invention is not limited to this number.

Ex. 1051, Kostas at pages 11-12.

Users can subdivide this portion of the screen into rectangular segments 5081- 508e, or ‘panes,’ of sizes appropriate to their particular needs. Panes can be resized by dragging their edges, and applications running in neighboring panes are resized accordingly. Each pane of the montage can contain a different application; applications can be added to and removed from the montage dynamically.

Ex. 1051, Kostas at page 13; *see also* Kostas at 11-12.

295. Therefore, Kostas discloses instructions to “*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,*” as recited in proposed substitute claim 53.

- vi. *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*

296. Kostas explains that either push or pull techniques can be used to refresh information from data sources:

The process by which a piece of information is retrieved and ultimately displayed to the user is different depending on whether the netchannel in question is a ‘pull’ or ‘push’ channel. Both processes are described below.

Ex. 1051, Kostas at 21.

Regardless of how data is obtained (via push or pull methods), the subsequent processing is identical.

Ex. 1051, Kostas at 23.

297. Kostas that when information is retrieved using the “pull” technique, information is requested from the data source on a regular basis:

Pull-type channels request Model Services to retrieve a web resource on a regular basis, ranging from every few minutes for rapidly changing data such as stock quotes, to only once every few hours for less dynamic data. Often this interval is user-configurable.

Ex. 1051, Kostas at page 20; *see also id.* at 16 (discussing retrieval of information at a “specified interval”).

298. The above passage also discloses that each source has its own retrieval rate which may be configured by the user.

299. Kostas details the implementation of this regular retrieval of information. *See* Ex. 1051, Kostas at 21-22. The interval between the regular retrievals of information indicates the “retrieval rate.”

300. Therefore, Kostas discloses instructions to “*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,*” as recited in proposed substitute claim 53.

vii. *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*

301. Kostas explains that “[a]s the updates are received, the widget adds the new data to its information display and shows the data onscreen.” Kostas at page 23.

302. Kostas thus discloses a scheme to “*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*” as recited in proposed substitute claim 53.

viii. wherein the tiles are selectable, and wherein selecting a tile calls an assigned application program to provide access to information

303. Kostas explains that its panes permit a user to click on a link within a pane or interact with an application program within a pane. Ex. 1051, Kostas at 13, 20, 28, 31. The panes of Kostas are therefore selectable.

304. Kostas also discloses that users can call various applications – including a web browser and an email application – by way of the rectangular panes of the Kostas display. Ex. 1051, Kostas at 13, 28-31. Indeed, Kostas expressly points out that his scheme could call a browser and an email program. *Id.*

305. In any event, to the extent one could conclude otherwise, it would have been obvious to use selection of the Kostas panes to call an application program, since that functionality was known in the prior art and used with, for example, prior art icons, *see supra* ¶¶ 340, and ActiveX controls, *see infra* ¶¶ 213-239. Implementing that functionality would have been within the level of ordinary skill and there would have been a motivation to employ that functionality in order to make use of the Kostas system more convenient.

306. Kostas thus discloses a scheme “*wherein the tiles are selectable, and wherein selecting a tile calls an assigned application program to provide access to information*” as recited in proposed substitute claim 53.

- ix. The assigned application program being different from a program that arranges the display into the grid of tiles that are not permitted to overlap

307. Kostas discloses that there is a “display application” responsible for generating its display of rectangular regions: “The client then calls the display application, which generates the main view of the display and the montage view.”

Ex. 1051, Kostas at 14. Kostas separately provides that “Preferably, the client software applications are implemented as Java applications rather than Java applets.” Ex. 1051, Kostas at 27. Kostas further explains that the montage view, which persons of ordinary skill would understand as being a part of the display application, manages these other applications:

The montage view makes it easy for the user to manage two or more applications running concurrently, and provides an attractive and effective alternative to conventional windowing environments. This is attributable to the fact that montage applications are displayed in the montage in easily configured, neatly organized areas, called ‘panes’, rather than in the conventional overlapping, often obscured windows.

Ex. 1051, Kostas at page 11.

As described above, the present invention preferably supports the use of several applications. All of these applications can be hosted in the montage view. Such applications are also preferably developed with Sun’s JavaTM programming language and as JavaBeans.

Ex. 1051, Kostas at 30.

308. This demonstrates that in the Kostas scheme, the application responsible for dividing the screen into rectangular regions (panes and

subwindows) is different from the applications that can be called from those rectangular regions. Therefore, Kostas discloses a scheme “*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 recited in proposed substitute claim 53.

- x. 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

309. Kostas discloses different applications, providing that “[p]referably, the client software applications are implemented as Java applications rather than Java applets,” Ex. 1051, Kostas at 27, that “various applications can if desired be run simultaneously in respective panes, regardless of whether those applications are part of a predefined suite of applications, or not,” Ex. 1051, Kostas at 6, “and that “The montage view 506 makes is easy to manage numerous applications running concurrently,” Ex. 1051, Kostas at 13. Kostas further discusses its support for multiple applications:

The montage view makes it easy for the user to manage two or more applications running concurrently, and provides an attractive and effective alternative to conventional windowing environments.

Ex. 1051, Kostas at page 11 (emphasis added).

As described above, the present invention preferably supports the use of several applications.

Ex. 1051, Kostas at 30 (emphasis added).

310. Kostas also discloses that “Each pane of the montage can contain a different application....” Ex. 1051, Kostas at 13.

311. Therefore, Kostas discloses a scheme “wherein the assigned application program for the first tile and the assigned application program for the second tile are different application programs,” as recited in proposed substitute claim 53.

312. Kostas discloses that a web browser may be called when a rectangular region is selected:

Further, a user might click on an interesting news headline in a netchannel and view the full text of the article in a browser.

Ex. 1051, Kostas at 13.

A ‘Model Services’ component abstracts many of the common functions required by channels. For example, Model Services contains code that retrieves data from web pages....

Additional functions provided by Model Services are subscribing and unsubscribing to ‘push’ topics and/or events; launching a web browser to display an HTML document; notifying the container that the channel is ‘on alert’ and should be displayed; and sending a message to a user’s beeper.

Ex. 1051, Kostas at 20.

JavaTM has the capability to launch an instance of any application, including a web browser, but cannot independently send the platform-specific request to load a

webpage in the browser. In this specific example of launching a web browser, another alternative is provided. A JavaTM-based web browser application is preferably provided as part of the display system of the invention. This browser runs in the montage view and can optionally display pages when users click on netchannel links.

Ex. 1051, Kostas at 28.

313. Kostas discloses that a email application may be called when a rectangular region is selected:

A third application is a “unified inbox.” Traditionally, users are required to use separate applications for e-mail, voicemail, and faxing. The unified inbox wraps all three types of incoming messaging into a single interface. Users can read e-mail, listen to voicemail, and view faxes all from the same unified inbox application.

Ex. 1051, Kostas at 31.

314. I note also that Kostas explains that “JavaTM has the capability to launch an instance of any application,” Ex. 1051, Kostas at 28, and that “[o]ther, smaller utility applications, such as financial calculators and graphing utilities, may also be invoked within the montage view.” Ex. 1051, Kostas at 31. This would have motivated persons of ordinary skill in the art to add various other applications to the Kostas scheme. Thus, to the extent one would conclude that Kostas does not satisfy this claim element explicitly, I believe it also would have been obvious to modify the Kostas scheme to call each of the types of applications recited in proposed substitute claim 53.

315. Therefore, Kostas discloses a scheme “*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,*” as recited in proposed substitute claim 53.

316. Accordingly, proposed claim 53 is anticipated by Kostas, or at least rendered obvious.

**b. *Proposed Substitute Claim 54 Is Anticipated
By Kostas***

317. Proposed substitute claim 54 reads as follows: “*The system of claim 53 [[46]] wherein said grid ~~array~~ comprises more than one row and more than one column.*”

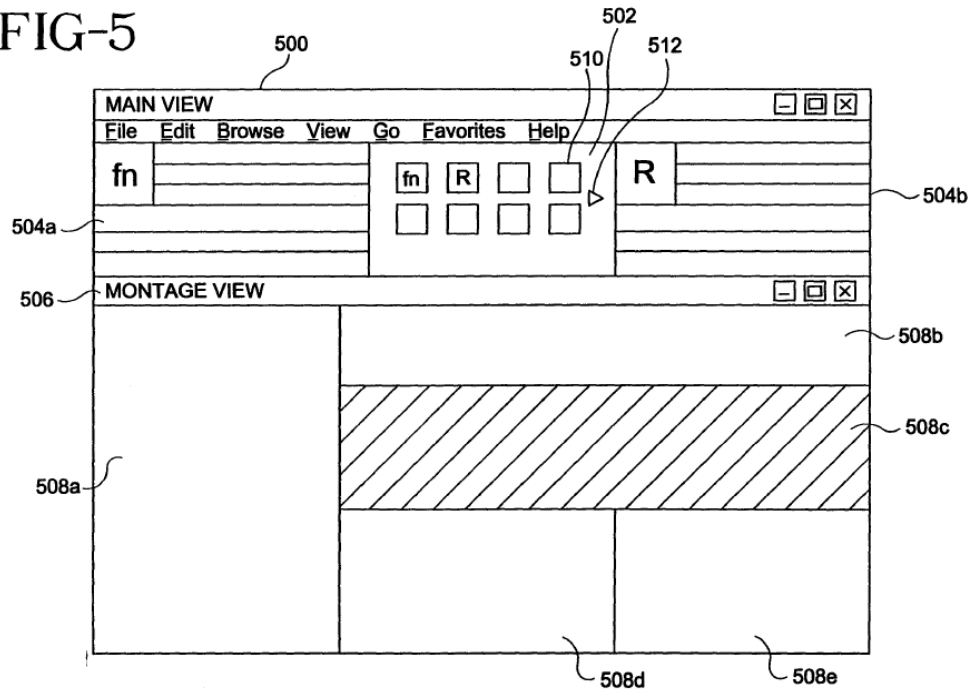
318. Kostas discloses that its scheme divides a screen into multiple rectangular regions:

Users can subdivide this portion of the screen into rectangular segments 5081- 508e, or ‘panes,’ of sizes appropriate to their particular needs.

Ex. 1051, Kostas at page 13.

319. Kostas illustrates that there can be multiple rectangular regions both vertically and horizontally:

FIG-5



320. Therefore, Kostas discloses a scheme meeting the limitations of proposed substitute claim 54, “*wherein said grid comprises more than one row and more than one column.*”

c. Proposed Substitute Claim 55 Is Anticipated By Kostas

321. Proposed substitute claim 55 reads as follows: “*The system of claim 53 [[46]] wherein said processor additionally executes instructions for uniformly assigning at least one attribute of each tile in said grid ~~array~~ of tiles.*”

322. Kostas discloses an object oriented scheme whereby common attributes of the channels to be placed in its rectangular regions are defined. Kostas calls this base set of common attributes a “model class.” Channels can inherit attributes from its Model classes:

The preferred embodiment utilizes a predefined object framework including Model, View, and Channel classes. According to the principles of object orientation, concrete implementations of channels (i.e., individual objects of the class channel) ‘inherit’ from these predefined objects and implement channel-specific behavior where appropriate.

Ex. 1051, Kostas at 15-16.

This ‘Model-View’ architecture allows the same information to be viewed in numerous ways, and enables a single source of data to feed multiple different views.

Ex. 1051, Kostas at page 16.

By segregating the data itself (the model) from its visual representations (the view), information can be presented in various forms depending on the user’s preferences or needs. As will be appreciated from the following description, a single model may feed several views simultaneously.

Ex. 1051, Kostas at page 15.

323. Persons of ordinary skill in the art would understand this to disclose that what is inherited includes attributes from the parent class and that the value of the parent attribute would be inherited by all children and therefore be assigned uniformly.

324. For example, one of the attributes of Model is the retrieval rate:

The first component of a channel is the Model class. Each channel utilizes at least one model. The model contains code for physically retrieving data of a particular kind from a particular source. Preferably, provision is made for both ‘push’ and ‘pull’ data retrieval. A particular model may, for example, be one that parses information from a given web site on the Internet, or a site on a corporate intranet, at a specified

interval, or may be one that responds to dynamic events generated by a push engine.

Ex. 1051, Kostas at 16.

Pull-type channels request Model Services to retrieve a web resource on a regular basis, ranging from every few minutes for rapidly changing data such as stock quotes, to only once every few hours for less dynamic data.

Ex. 1051, Kostas at page 20.

325. Thus, there is a default retrieval rate for panes inheriting from the same Model class, and therefore, Kostas discloses a scheme meeting the limitations, “*wherein said processor additionally executes instructions for uniformly assigning at least one attribute of each tile in said grid array of tiles,*” as recited by proposed substitute claim 55.

**d. Proposed Substitute Claim 56 Is Anticipated
By Kostas**

326. Proposed substitute claim 56 reads as follows: “*The system of claim 55 [[48]] wherein said attribute is a retrieval rate.*”

327. For the reasons states above with respect to the default retrieval rate of Kostas and proposed substitute claim 56, Kostas discloses a scheme meeting the limitation of “*wherein said attribute is a retrieval rate.*”

**e. Proposed Substitute Claim 57 Is Anticipated
By Kostas**

328. Proposed substitute claim 57 reads as follows: “*The system of claim 53 [[46]] wherein said first retrieval rate is assigned automatically.*”

329. As explained above with respect to the default retrieval rate of Kostas and proposed substitute claim 55, Kostas discloses the automatic assignment of a default retrieval rate and therefore discloses a scheme meeting the limitation of “*wherein said first retrieval rate is assigned automatically,*” as recited by proposed substitute claim 57.

**f. *Proposed Substitute Claim 58 Is Anticipated
By Kostas***

330. Proposed substitute claim 58 reads as follows: “*The system of claim 53 [[46]] wherein said processor additionally executes instructions for storing said grid array of tiles on a second device.*”

331. As I explained above with respect to the “persistent from session to session” limitation, Kostas discloses that information about the rectangular regions that the Kostas scheme divides screen into, including the arrangement of the regions, can be stored. The arrangement of the Kostas’s rectangular regions is “grid of tiles.” Kostas also explains that this storage may be on a server:

The push server also supports server-side storage and retrieval of user preferences. This means that a user’s profile can be referred to the server, and the data for that user customized accordingly, regardless of what computer the user employs to connect to the network. Users can log in while travelling or at home and utilize an identical desktop of applications and netchannels.

Kostas at pages 8 (emphasis added).

332. Persons of ordinary skill in the art would understand that a server is a computer that is a different device from the device that divides its screen into regions. Kostas, therefore, discloses a scheme meeting the limitation of “*wherein said processor additionally executes instructions for storing said grid array of tiles on a second device,*” as recited by proposed substitute claim 58.

**g. *Proposed Substitute Claim 59 Is Anticipated
By Kostas***

333. Proposed substitute claim 59 reads as follows: “*The system of claim 53 [[46]] wherein said processor additionally executes instructions for retrieving said grid array of tiles from a second device.*”

334. As I explained above with respect to proposed substitute claim 58, Kostas discloses that its arrangement of rectangular regions can be stored on a server. Kostas also discloses that this arrangement can be retrieved from that server:

The push server also supports server-side storage and retrieval of user preferences. This means that a user’s profile can be referred to the server, and the data for that user customized accordingly, regardless of what computer the user employs to connect to the network. Users can log in while travelling or at home and utilize an identical desktop of applications and netchannels.

Kostas at pages 8 (emphasis added).

The arrangement of Kostas’s rectangular regions is a “grid of tiles.”

Therefore, Kostas discloses a scheme meeting the limitation of “*wherein said*

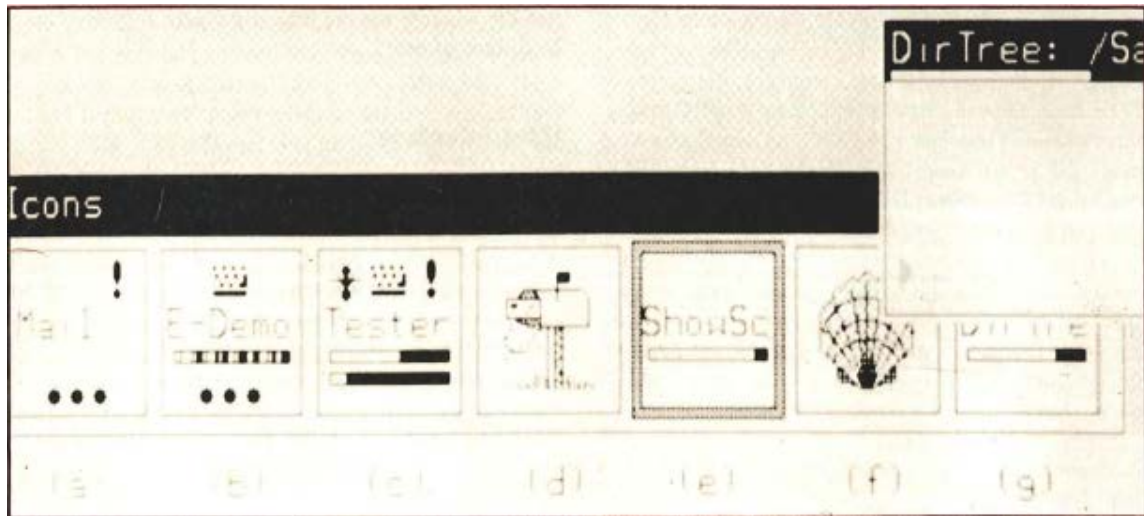
processor additionally executes instructions for retrieving said grid of tiles from a second device,” as recited by proposed substitute claim 59.

4. The Proposed Substitute Claims Are Not Patentable Over Myers (Ex. 1066)

335. Brad A. Myers, The User Interface for Sapphire, Ex.1066 (“Myers”) is an article published in December 1984 in the periodical, IEEE Computer Graphics and Applications. Because Myers was published more than a year before the earliest claimed filing date of the ‘403 patent, I understand it to be prior art to the proposed substitute claims under at least under §§ 102(a) and 102(b). I discussed Myers in my earlier declaration concerning the validity of the ‘403 patent. *See* Ex. 1003, Karger Initial Declaration at ¶¶ 73, 74, 95.

336. As I explained in my earlier declaration, Myers describes a scheme in using a rectangular grid of dynamically refreshed icons that are continually updated by an associated application program to provide refreshed information from the applications assigned to them. *See* Ex. 1003, Karger Initial Declaration ¶¶ 73, 74; Ex. 1066, Myers at 16-18. The dynamic icons were implemented by a windows manager called “Sapphire” and ran on a PERQ workstation, having a processor, memory and input device and a graphical user interface. Ex. 1066, Myers at 13-15. Myers therefore discloses both the *preamble* and the “*a device ...*” element of proposed substitute claim 53.

337. Sapphire could include multiple dynamic icons, each associated with and in communication with an assign application program simultaneously. As can be seen from Figure 5 of Myers, the dynamic icons of Myers are arranged in a grid:



Ex. 1066, Myers at 17.

338. Myers includes no discussion indicating that his dynamic icons are permitted to overlap each other. Because the “not permitted to overlap” element of the proposed substitute claim is a negative limitation, and I understand that a negative limitation is satisfied by silence in the prior art, Myers satisfies that limitation. I note in the figure above the structure on top of the grid of dynamic icons is an entirely different window, not an icon.

339. Myers notes that each icon is kept up to date by an assigned application program, Ex. 1066, Myers at 17-18, so a person of ordinary skill in the art viewing the figure above would understand that the dynamically refreshed icon to the far left would present continually refreshed information from an associated

mail application, and the one second from the left would present continually refreshed information from a word processing program.

340. As Mr. Weadock admits, it was well known that icons can be persistent, Ex. 2004, Weadock Declaration ISO Response ¶ 47, and that they call an application when selected, Ex. 2004, Weadock Declaration ISO Response ¶ 57 (discussing tiles as being like icons in that they are “entry points” to windows). Thus persons of skill in the art reading Myers would have understood that clicking (selecting) each of the Myers’ dynamically refreshed icons would have brought up a window corresponding to the application that the dynamically refreshed icon was associated with.

341. To the extent one could conclude that the dynamic icons of Myers are not persistent, it would have been obvious to modify Myers in order to make them so, since persistent user interface elements were well known by 1999, such as those described in MSIE Kit. Moreover, making the icons of Myers persistent would have been well within the level of skill in the art and would have merely united old elements (user interface elements and persistence) with no change in their respective functions to yield predictable results.

342. Myers therefore discloses the “*arrange a display ...*” element and the “*associate a first information source ...*” element of the proposed substitute claims.

343. Myers explains that his dynamic icons are kept up to date by their assigned application programs, which discloses that information from those programs is both retrieved and presented. Myers does not explain exactly how the dynamic icons are updated. However, by 1999 it would have been obvious to update the dynamic icons of Myers using a retrieval rate scheme, such as disclosed in MSIE Kit. *See supra* ¶¶ 208-212. For example, a person of ordinary skill in the art would recognize that the email applications in Myers are polling for new emails and therefore operating in accordance with a retrieval rate. Such a scheme could be extended to other applications. Further, both Myers and MSIE Kit's Active Desktop Items are concerned with the problem of providing to a user updated information from multiple information sources simultaneously, as is the '403 Patent. Ex. 1066, Myers at 17 ("As was explained above, users will often multitask to increase their efficiency. However, people easily lose track of what they are doing and need aids to help plan, monitor, and control the various tasks operating at the same time. Therefore, the icons in Sapphire present six pieces of information about the process being run, as well as two pieces of information about the status of the window (see Figure 4)."), *supra* ¶ 187 (discussing how MSIE Kit provides access to multiple information sources), Ex. 1001, US 6,724,403 at 4:24-31. Moreover, it would have been well within the level of average skill in the art by 1999 to implement such a combination. I further note that Active Desktop

Items and the dynamic icons of Myers are very similar approaches to this problem: they both employ rectangular graphical elements that “live” on the desktop and are associated with a particular information source. A person of ordinary skill would have naturally considered the two schemes together when faced with the question of how to design a system that provided a user updated information from multiple information sources simultaneously. In my opinion, it would therefore have been obvious to include the retrieval rate scheme of MSIE Kit with the scheme of Myers, which would have rendered the “*retrieve information ...*” and “*present information ...*” elements of the proposed substitute claims obvious.

344. As noted above, in Myers a dynamic icon can be selected by clicking on the icon, which calls an assigned application program, such as the email program and the word processing program depicted in Figure 5 of Myers. Ex. 1066, Myers at 17. These programs are different from the window manager program that creates the grid of dynamic icons in Myers, called Sapphire. Sapphire is principally a window manager, not an email program or a word processor. Myers therefore discloses the first “*wherein...*” clause of the proposed substitute claim 53.

345. The email programs and the word processor program of Myers are clearly different programs because they perform different functions. Myers

therefore discloses the second “*wherein ...*” clause of proposed substitute claim 53, and renders that claim obvious when considered in view of MSIE Kit.

346. As demonstrated in my original report and above, *infra* ¶¶ 245-267, MSIE Kit discloses all the other elements of proposed substitute claims 54 through 59, and the combination of the relevant aspects of MSIE Kit and Myers would have been obvious for the same reasons I provide above. Accordingly, in my opinion, proposed substitute claims 54 through 59 are obvious over Myers when considered in view of MSIE Kit.

V. CONCLUSION

347. For the reasons set forth above and in my initial declaration, it is my opinion that claims 1-52 of the '403 patent and proposed substitute claims 53-59 were not patentable as of the filing date of the '403 patent.

ATTACHMENT A

LIST OF MATERIALS CONSIDERED

Exhibit #	Description
1001	U.S. Patent 6,724,403
1002	File History of U.S. Patent 6,724,403
1003	Declaration of David R. Karger
1004	Curriculum Vitae of David R. Karger
1005	U.S. Provisional Application 60/162,522
1006	Declaration by Utah State Library (5/1/2013)
1007	Utah State University Library copy of Microsoft Internet Explorer Resource Kit (“MSIE Kit”) (Microsoft Press 1998) (Exhibit 1 to Declaration by Associate Dean for Public Services of Utah State University Library)
1008	Excerpts of North Carolina State University copy of Microsoft Internet Explorer Resource Kit (Microsoft Press 1998)
1009	Excerpts of Library of Congress copy of Microsoft Internet Explorer Resource Kit (Microsoft Press 1998)
1010	Excerpts of Harvard copy of Microsoft Internet Explorer Resource Kit (Microsoft Press 1998)
1011	U.S. Patent 6,832,355
1012	File History of U.S. Patent 6,832,355
1013	U.S. Patent 6,118,493
1014	U.S. Patent 6,456,334
1015	U.S. Patent 5,432,932
1016	U.S. Patent 5,819,284
1017	U.S. Patent 6,807,558
1018	U.S. Patent 5,959,621
1019	U.S. Patent 5,479,602
1020	U.S. Patent 5,321,750
1021	U.S. Patent 5,712,995
1022	U.S. Patent 5,473,745
1023	U.S. Patent 5,140,678
1024	U.S. Patent 6,104,700
1025	U.S. Patent 5,721,951
1026	U.S. Patent 5,321,808
1027	U.S. Patent 5,550,968
1028	U.S. Patent 4,905,171
1029	U.S. Patent 5,901,228
1030	U.S. Patent 6,278,448
1031	U.S. Patent 5,848,356
1032	U.S. Patent 6,430,405

Exhibit #	Description
1033	U.S. Patent 6,047,197
1034	U.S. Patent 6,418,309
1035	U.S. Patent 5,635,980
1036	U.S. Patent 6,061,576
1037	U.S. Patent 5,371,847
1038	U.S. Patent 5,764,972
1039	U.S. Patent 6,363,445
1040	U.S. Patent 5,812,123
1041	U.S. Patent 6,411,275
1042	U.S. Patent 4,831,556
1043	U.S. Patent 5,757,371
1044	U.S. Patent 5,831,664
1045	U.S. Patent 5,838,326
1046	U.S. Patent 5,929,854
1047	U.S. Patent 6,160,553
1048	U.S. Patent 6,166,738
1049	U.S. Patent 6,188,405
1050	EP 0651544
1051	PCT Application WO9926127
1052	Surfcast's Responses to Microsoft's First Set of Interrogatories (includes SurfCast's Infringement Contentions (Exhibits A and B) (2/14/2013)
1053	SurfCast Proposed Claim Construction (4/12/2013)
1054	SurfCast Rebuttal Proposed Claim Construction (4/26/2013)
1055	Microsoft's Initial Proposed Terms and Constructions (4/12/2013)
1056	SurfCast's Amended Complaint from 2:12-CV-00333-DBH [19]
1057	Amended Scheduling Order, Maine District Court, Case No. 2:12-CV-333-DBH [41]
1058	Excerpts of Dictionary of Computer and Internet Terms (Sixth Ed., 1998)
1059	Excerpts of Microsoft Computer Dictionary (Fourth Ed., 1999)
1060	Nokia 9110 User Guide ("Nokia 9110")
1061	Motorola Envoy Wireless Communicator User's Guide ("Motorola Envoy")
1062	Simon User's Manual ("Simon")
1063	Readings in Human-Computer Interaction: Toward the Year 2000 (1995 2d ed.)
1064	Schneiderman, B., Designing the User Interface (3d ed. 1998)

Exhibit #	Description
1065	Cerani, Delivering Push, 1998
1066	Myers, B.A., "The User Interface for Sapphire," CG&A, Vol. 4, No. 12, Dec. 1984, pp.13-23
1067	Myers, B.A., A Taxonomy of Window Manager User Interfaces, CG&A, Sep. 1988, pp. 65-84
1068	<i>Teitelman</i> , A Tour Through Cedar (1984)
1069	OpenStep User Interface Guidelines (1996)
1070	Lane, J.C., <i>et al.</i> , User Interfaces for a Complex Robotic Task: A Comparison of Tiled vs. Overlapped Windows (January 1997)
1071	Bly, <i>et al.</i> , A Comparison of Tiled and Overlapping Windows Proc. SIGCHI, Human Factors in Computing Systems, ACM, New York, 1986, pp. 101-106
1072	<i>Inside Dynamic HTML</i> (Microsoft Press 1997)
1073	E. S. Cohen, E. T. Smith, and L. A. Iverson, "Constraint-Based Tiled Windows," Proc. 1 st Int'l Conf. on Computer Workstations, CS Press, Los Alamitos, Calif., Nov. 1984, pp. 2-11.
1074	M. Gancarz, "Uwm: A User Interface for X Windows," Conf. Proc. Summer Tech. Conf., Usenix, Denver, Jan. 1986, pp/429-440.
1075	Matthews, M. S., <i>et al.</i> , FrontPage 2000: The Complete Reference (1999) (Excerpts of pages referenced in prosecution history)
1076	Ross, J., ABCs of Internet Explorer 4 (1997) (Excerpts of pages referenced in prosecution history)
1077	McFedries, P., The Complete Idiot's Guide to Windows 95 (Mar. 1997, 2d Ed.) (Excerpts of pages referenced in prosecution history)
1078	http://www.w3.org/submission/1997/5/(4/11/97)
1079	http://www.w3.org/TR/NOTE-Submission-HDML(5/9/97)
1080	http://www.we.org/TR/NOTE-Submission-HDML-FAQ.html(4/11/97)
1081	http://www.ncns.com/news/2/uwplanet.html(5/7/97)
1082	Microsoft's 2nd Supplemental Responses to SurfCast's First Set of Interrogatories (Confidential) (4/8/2013)
1084	Deposition Transcript of Dr. David Karger (signed), dated January 14, 2014
1085	Excerpts of Merriam Webster's Collegiate Dictionary, 10 th Ed. (1995) for the term "access"
1086	Excerpts of Microsoft Computer Dictionary, 4 th Ed. (1999) for the term "access"
1087	Excerpts of Merriam Webster's Collegiate Dictionary, 10 th Ed.

Exhibit #	Description
	(1995) for the term “periodic”
1088	Excerpts of <i>Glenn E. Weadock</i> , Intranet Publishing for Dummies (1997)
1089	<i>Glenn E. Weadock</i> , Windows 98 Registry for Dummies (1998)
1090	GDDM, Base Application Programming Guide, Version 3, Release 2 (September 1996).
1091	U.S. Patent 5,974,567
1092	<i>Glenn E. Weadock</i> , Intranet Publishing for Dummies (1997) – Full version of Ex. 1088
1093	U.S. Patent 5,577,935
1094	U.S. Patent 7,949,687
1095	U.S. Patent 6,616,701
1096	U.S. Patent 7,139,970
1097	HTML 4.0 Specification (April 24, 1998)
1098	<i>Scott Isaacs</i> , Inside Dynamic HTML (1997)
1099	<i>Thomas E. LaStrange</i> , “swm: An X Window Manager Shell” (1990)
1100	U.S. Patent 5,982,445
1101	Excerpts of The American Heritage Dictionary, Second College Edition (1985) for the term “when”
1102	Deposition Transcript of Richard Bone, dated February 19, 2014
1103	Deposition Transcript of Ovid Santoro, dated February 27, 2014
1104	Deposition Transcript of Klaus Lagermann, dated March 6, 2014
1105	Deposition Transcript of Tom Dechaene, dated March 11, 2014
1106	Deposition Transcript of Glenn Weadock, dated March 12, 2014
1107	EP 1,161,716B
1108	U.S. Patent 3,760,364
1109	Redacted Deposition Transcript of Klaus Lagermann, dated June 27, 2013 (from Maine)
	SurfCast’s Preliminary Response to Microsoft’s petitions for IPR
	Patent Owner’s Response
	Patent Owner’s Motion for Conditional Amendment
	Decision, Institution of <i>Inter Partes</i> Review, 11/19/2013
2004 (and exhibits cited therein)	Declaration of Glenn E. Weadock in support of Patent Owner’s Response and exhibits cited therein
2063 (and exhibits)	Declaration of Glenn E. Weadock in support of Patent Owner’s Motion for Conditional Amendment and exhibits cited therein

Exhibit #	Description
cited therein)	
2005 (and exhibits cited therein)	Declaration of Ovid Santoro and exhibits cited therein
2006 (and exhibits cited therein)	Declaration of Klaus Lagermann and exhibits cited therein
2007 (and exhibits cited therein)	Declaration of Tom Dechaene and exhibits cited therein
2008 (and exhibits cited therein)	Declaration of Richard Bone and exhibits cited therein