IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of:	John Albert Kembel, et al.	
U.S. Patent No.:	8,020,083	Attorney Docket No.: 39843-0148IP1
Issue Date:	September 13, 2011	
Appl. Serial No.:	11/932,585	
Filing Date:	October 31, 2007	
Title:	SYSTEM AND METHODS FOR CREATING AND AUTHORING INTERNET CONTENT USING APPLICATION MEDIA PACKAGES	

DECLARATION OF DR. DOUGLAS C. SCHMIDT

I, Dr. Douglas C. Schmidt, of Nashville, Tennessee, declare that:

QUALIFICATIONS AND BACKGROUND INFORMATION

1. My qualifications can be found in my Curriculum Vitae, which is submitted with this Declaration as Exhibit 1004 and includes a complete list of my education, patents and publications, employment and research history, and professional activities and awards.

2. I am currently tenured as the Cornelius Vanderbilt Professor of Engineering with the Department of Electrical Engineering and Computer Science at Vanderbilt University in Nashville, TN, where I also serve as the Associate Chair of the Computer Science Department. I have been a full-time university professor since 1994, and I was previously a tenured professor at the University of California, Irvine with the Electrical and Computer Engineering department from 2000 to 2003 and Washington University in St. Louis, MO with the Computer

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Science and Engineering department from 1994 to 2000. In addition, I served as the Chief Technology Officer for the Software Engineering Institute at Carnegie Mellon University from 2010 to 2012.

3. I hold a Doctor of Philosophy (PhD) degree in Computer Science from the University of California (UC) Irvine in Irvine, CA, which I received in 1994. I also earned a Master's Degree in Computer Science from UC Irvine in 1990, as well as a Bachelor's Degree in Sociology in 1986 and Master's Degree in Sociology in 1984 from the College of William and Mary in Williamsburg, VA. Prior to completing my graduate studies at UC Irvine, I worked with the Urban Information Systems ("URBIS") project at UC Irvine's Public Policy Research organization, where I studied end-user computing interactivity with municipal institutions in 40 cities across the United States. I also worked at the International Center for Information Technology ("ICIT") in Washington, D.C. on projects assessing techniques for improving software productivity for enterprise IT systems.

4. I first started programming in 1983 when I was an undergraduate student taking statistics courses at the College of William and Mary in Williamsburg, VA. While I was an undergraduate and graduate student at William and Mary I programmed with the SPSS and SAS statistical packages and worked as a programmer at the National Center for State Courts during the summer of 1986 as I was completing my Master's degree. From 1985 through 1988 I learned

how to program in Pascal, C, C++, Ada, Prolog, and Lisp, both at the College of William and Mary (where I was a graduate student in the Sociology department) and at UC Irvine (where I was a graduate student in the Information and Computer Science department). During this time period I also learned how to program networked software services and applications using platforms, libraries, and protocols available at the time, such as UNIX Sockets and TCP/IP. During the time I was also an avid user of popular networked applications, such as remote login (rlogin and TELNET), email, and file transfer (FTP), which provided distributed services for accessing remote computer resources and collaborating over local area and wide area networks.

5. During the past 30 years, I have conducted and supervised a significant number of research projects involving a wide range of software-related topics including patterns, optimization techniques, and empirical analyses of object-oriented middleware frameworks for distributed real-time embedded systems and mobile cloud computing applications, including applications backed by relational database management systems. I have published over 640 scholarly articles and technical papers, and I am the co-author or editor of 12 books or book-length manuscripts on various topics, including software architecture, network programming, object-oriented frameworks, distributed and real-time systems, open-source middleware platforms, and mobile cloud computing applications. My

work has been cited more than 39,000 times across a comprehensive spectrum of high-impact publications, and my current h-index score is 90, which indicates the significant impact of my publications on scholarly literature in the field of Computer Science.[1] I have also supervised the research of more than 40 PhD and Master's graduate students to date. In addition to conducting and publishing my own research, I have served on the editorial board of numerous journals, including publications by IEEE and the ACM, and I have been a guest editor of numerous special issue journals based on my research expertise.

6. My research has been funded by a variety of organizations, including both federal agencies, such as DARPA, NSF, NASA, NIH, the U.S. Air Force, and the U.S. Navy, as well as leading companies, such as Northrup Grumman, Raytheon, Lockheed- Martin, Boeing, McDonnell-Douglas, General Electric, and Siemens. I have also received other honors and awards, including election to professional organizations, engagements for invited talks and the 2015 Award for Excellence in Teaching from the Vanderbilt University Department of Electrical Engineering.

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[1] The h-index is a popular measure of scholarly productivity. The definition of the index is that a scholar with an index of h has published h papers each of which has been cited in other papers at least h times. Thus, the h-index reflects both the number of publications and the number of citations per publication.

7. In addition to my research experience, I have decades of hands-on programming experience with a variety of different programming languages. I have programmed with object-oriented languages since the mid-1980s, when I began to program with C++. I have programmed with Java and other related object-oriented and functional languages (such as C# and Python) since the mid-1990s and early 2000s. While at the University of California Irvine starting in 1991 I led the development of one of the first C++ object-oriented frameworks for concurrent and networked middleware and applications (ACE) and later starting in 1996 developed one of the first Java object-oriented frameworks for concurrent and networked middleware and applications (Java ACE). Since 1990, I have taught more than 1,000 students in dozens of face-to-face courses on network programming to both undergraduate and graduate students at UC Irvine, Washington University St. Louis, and Vanderbilt University. Since 2013, I have taught mobile cloud computing to more than 400,000 students in Massive Open Online Courses (MOOCs) on the Coursera platform, which have focused on technologies such as mobile app programming with Android and JavaScript and cloud service programming with various web services frameworks, such as Spring and Node.js. Mobile cloud computing applications commonly connect to relational database management systems to provide access to large data repositories.

8. In addition to my regular course offerings, over the past 35 years I have also taught over 600 short-courses and tutorials on numerous subjects, including: object-oriented and functional design patterns and programming techniques; systems programming and network programming for UNIX and Windows; object-oriented and functional programming languages; and, various courses on distributed operating systems, web apps and services, mobile cloud computing, compiler construction, algorithms, and data structures.

9. For the past three decades, I have led the development of ACE, Java ACE, TAO, and CIAO.2 The millions of lines of object-oriented code in these frameworks provide layers of system infrastructure middleware that simplify the development of concurrent and networked software apps and services and often integrate with relational database systems.

10. In addition to my various academic and research engagements, from 2010 to 2014 I served as a member of the United States Air Force Scientific Advisory Board, where I was the Vice Chair of Cyber Situational Awareness, a study for the U.S. Air Force on the network security of mission operations. I also recently served on the Advisory Board for the U.S. Naval Air Systems Command

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[2] *See Obtaining ACE, TAO, CIAO, and DAnCE*, Vanderbilt, http://download.dre.vanderbilt.edu/ (for access to ACE, TAO and CIAO downloads) (attached herein as Exhibit E); *Java ACE*, Vanderbilt, http://www.dre.vanderbilt.edu/JACE/ (for access to Java ACE downloads) (attached herein as Exhibit F).

(NavAir) Future Airborne Capability Environment (FACE) and was recently a co-lead of a task force on "Published Open Interfaces and Standards" for the U.S. Navy's Open Systems Architecture initiative.

11. From 2000 to 2003 I served as a Deputy Office Director and Program Manager at the Defense Advanced Research Projects Agency (DARPA), where I led the national research and development effort on portable open system architecture middleware for distributed real-time and embedded (DRE) systems, which focused on the systematic use of adaptation, supported by redundancy, heterogeneity, and use of computer network security mechanisms, such as access-control, intrusion detection and packet filtering.

12. My work on middleware for DRE systems has transitioned to the Joint Tactical Terminal (JTT) and Joint Tactical Radio System (JTRS) software defined radio programs, manned/unmanned combat air vehicles, the Orbital Express low earth orbit (LEO) satellite telemetry and control framework, the Ground Support System (GSS) for the X33 Single Stage To Orbit (SSTO) Reusable Launch Vehicle, and the USS Ronald Reagan and USS Zumwalt, the USAF upgraded early warning radar system, as well as the Facebook iPhone app and electronic medical imaging systems from Siemens and GE, among many other governmental and commercial applications. During 2001 to 2003, I also co-chaired the Software Design and Productivity (SDP) Coordinating Group of the U.S. government's

multi-agency Networking and Information Technology Research and Development (NITRD) Program, which helped to formulate a national interagency software research agenda.

13. Moreover, over the last two decades I have been retained as an expert consultant more than two dozen times in a variety of computer software-related matters, focusing primarily on topics related to the software and network infrastructure of mobile and cloud computing platforms.

14. In writing this Declaration, I have considered the following: my own knowledge and experience, including my work experience in the fields of computer science and electrical engineering; my experience in teaching those subjects; and my experience in working with others involved in those fields. In addition, I have analyzed the following publications and materials, in addition to other materials I cite in my declaration:

- U.S. Patent No. 8,020,083 (Exhibit 1001), and its accompanying prosecution history (Exhibit 1002)
- U.S. Patent No. 6,278,448 B1 ("Brown") (Exhibit 1005)
- U.S. Patent No. 6,449,638 B1 ("Wecker") (Exhibit 1006)
- U.S. Patent No. 5,793,368 ("Beer") (Exhibit 1007)
- U.S. Patent No. 6,789,263 B1 ("Shimada") (Exhibit 1008)
- U.S. Patent No. 6,088,340 ("Buchholz") (Exhibit 1009)

- U.S. Patent No. 6,819,345 B1 ("Jones") (Exhibit 1010)
- *HTML 4 Unleashed* ("Darnell") (Exhibit 1011)
- IPR2019-01278 Final Written Decision (Exhibit 1012)
- U.S. Patent No. 6,342,907 B1 ("Petty") (Exhibit 1013)
- *Lenovo Holding Company, Inc. v. DoDots Licensing Solutions LLC*, No. 2021-1247, 2021 WL 5822248 (Dec. 8, 2021) (Exhibit 1014)
- U.S. Patent No. 6,311,058 B1 ("Wecker 2") (Exhibit 1015)
- U.S. Patent No. 5,737,560 ("Yohanan") (Exhibit 1016)
- CNET News, "PointCast unveils free news service," https://web.archive.org/web/20110616130215/http://news.cnet.com/PointCast-unveils-free-news-service/2100-1023_3-204658.html, last accessed Feb. 16, 2023 (Exhibit 1017)
- Declaration of June Ann Munford (Exhibit 1018)
- *DoDots Licensing Solutions LLC v. Samsung Electronics Co., Ltd. et al.*, 6:22-cv-00535, W.D. Tex., filed May 24, 2022 (Exhibit 1019)

LEGAL PRINCIPLES

Anticipation

15. I have been informed that a patent claim is invalid as anticipated under 35 U.S.C. § 102 if each and every element of a claim, as properly construed,

is found either explicitly or inherently in a single prior art reference. Under the principles of inherency, if the prior art necessarily functions in accordance with, or includes the claimed limitations, it anticipates.

16. I have been informed that a claim is invalid under 35 U.S.C. § 102(a) if the claimed invention was known or used by others in the U.S., or was patented or published anywhere, before the applicant's invention. I further have been informed that a claim is invalid under 35 U.S.C. § 102(b) if the invention was patented or published anywhere, or was in public use, on sale, or offered for sale in this country, more than one year prior to the filing date of the patent application (critical date). I have been informed that a claim is invalid under 35 U.S.C. § 102(e) if an invention described by that claim was described in a U.S. patent granted on an application for a patent by another that was filed in the U.S. before the date of invention for such a claim.

Obviousness

17. I have been informed that a patent claim is invalid as "obvious" under 35 U.S.C. § 103 in light of one or more prior art references if it would have been obvious to a POSITA, taking into account (1) the scope and content of the prior art, (2) the differences between the prior art and the claims, (3) the level of ordinary skill in the art, and (4) any so called "secondary considerations" of non-obviousness, which include: (i) "long felt need" for the claimed invention, (ii)

commercial success attributable to the claimed invention, (iii) unexpected results of the claimed invention, and (iv) "copying" of the claimed invention by others. For purposes of my analysis above and because I know of no indication from the patent owner or others to the contrary, I have applied a date of April 26, 2000, as the date of invention in my obviousness analyses, although in many cases the same analysis would hold true even at an earlier time than April 26, 2000.

18. I have been informed that a claim can be obvious in light of a single prior art reference or multiple prior art references. To be obvious in light of a single prior art reference or multiple prior art references, there must be a reason to modify the single prior art reference, or combine two or more references, to achieve the claimed invention. This reason may come from a teaching, suggestion, or motivation to combine, or may come from the reference or references themselves, the knowledge or "common sense" of one skilled in the art, or from the nature of the problem to be solved, and may be explicit or implicit from the prior art as a whole. I have been informed 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 also understand it is improper to rely on hindsight in making the obviousness determination.

OVERVIEW OF CONCLUSIONS FORMED

19. This expert Declaration explains the conclusions that I have formed based on my analysis. To summarize those conclusions:

- Based upon my knowledge and experience and my review of the prior art publications listed above, I believe that claims 1-5 and 9-13 of the ’083 patent are obvious over Brown.
- Based upon my knowledge and experience and my review of the prior art publications listed above, I believe that claims 1-16 of the ’083 patent are obvious over Brown in view Wecker.
- Based upon my knowledge and experience and my review of the prior art publications listed above, I believe that claims 1-16 of the ’083 patent are obvious over Shimada in view of Buchholz.

BACKGROUND KNOWLEDGE ONE OF SKILL IN THE ART WOULD HAVE HAD PRIOR TO THE PRIORITY DATE OF THE ’083 PATENT

20. A person of ordinary skill in the art (“POSITA”) relating to the subject matter of the ’083 Patent would have had (1) a bachelor’s degree in computer science, computer engineering, electrical engineering, or a related field, and (2) at least three years of corresponding industry work experience. Additional graduate education could substitute for professional experience, or significant experience in the field could substitute for formal education. This definition is

consistent with the previous definition of a POSITA adopted in IPR2019-01278. SAMSUNG-1012, Page 18.

21. Based on my experiences, I have a good understanding of the capabilities of a POSITA. Indeed, I have taught, participated in organizations, and worked closely with many such persons over the course of my career.

TECHNOLOGY OVERVIEW

A. World Wide Web

22. The World Wide Web, commonly referred to as the "Internet," serves as a repository for various forms of digital content. SAMSUNG-1005, see generally 1:10-18. This content can be present within "Web Pages" hosted by remote computers, known as "servers" or "web servers." Id., see also 2:4-12. Web pages can include various forms of content, including text, image, audio, and video content. Id., 2:20-23. An example, period-correct, web page is provided below. Personal computers, or "clients" can request to view web pages and receive data hosted on server computers via the "Transfer Control Protocol/Internet Protocol" or "TCP/IP." SAMSUNG-1005, 2:13-18; SAMSUNG-1011, 88-92. One example protocol that operates using TCP/IP is the "Hypertext Transfer Protocol" or "HTTP." SAMSUNG-1011, 88-92.

SAMSUNG-1011, 123

B. Uniform Resource Identifiers (URI)

23. To identify the location of a webpage or resource on the internet a unique identifier known as a "Uniform Resource Identifier" or "URI" is used. SAMSUNG-1011, 102-108. One of the most common forms of URI is the "Uniform Resource Locator," or "URL." Id., 103. URLs are used, among other things, to locate webpages or content on the Internet using HTTP and TCP/IP. Id. An example URL syntax is provided below.

```
http://www.foo.com/~bar/file.html
```

SAMSUNG-1011, 103

C. Hyper Text Markup Language (HTML)

24. One format for writing Web pages and documents is the "Hyper Text Markup Language," or "HTML." SAMSUNG-1005, 18-28; SAMSUNG-1011, 70-86. HTML is a "platform independent" markup language, since it is "recognized on all available computing platforms using available software." SAMSUNG-1011, 70. Said another way, HTML does not require anything beyond commonly available browsers and viewers for interpretation ("without having to pay for specific hardware and software with proprietary schemes"). Id. HTML "elements" and "tags" describe how internet content is presented, and can include controls for interacting with content (e.g., an "anchor tag" with a URL). SAMSUNG-1011, 72-86, see also 223-232. An example set of HTML instructions is provided below.

```
6. <IMG id=3 name="DeskMovr" src="http://
   www.microsoft.com/ie/images/ulg/ulg_ie40.jpg"
7. resizeable="XY"
8. subscribed_url="http://www.microsoft.com/ie/
   images/ulg/ulg_ie40.jpg"
9. style="BACKGROUND: transparent; position:abso-
   lute; LEFT: 347; TOP: 236; WIDTH: 120; HEIGHT:
   82; Z-INDEX: 1006">
10. <IFRAME id=7 MARGINWIDTH=0
   MARGINHEIGHT=0 name="DeskMovrW" src=
   "http://www.uspto.gov/"
11. resizeable="XY"
12. subscribed_url="http://www.uspto.gov/"
13. frameborder=0 style="BACKGROUND: transparent;
   position:absolute; LEFT:620; TOP:254; WIDTH:156;
   HEIGHT:150; Z-INDEX:1014"></IFRAME>
```

SAMSUNG-1005, 11:51-67

D. Subscriptions

25. The Internet is known to host various forms of in-demand digital content, so systems have been created that are directed to providing "up-to-date" information on a recurring basis (a "subscription"). SAMSUNG-1005, 13:1-13; SAMSUNG-1006, 3:58-67, 2:1-13; SAMSUNG-1009, 1:13-26. One early example of Internet subscriptions was the "PointCast" system first released to the public in February, 1996. SAMSUNG-1017. PointCast was designed to "display regularly updated news in place of a user's more conventional screensaver" and included categories for "News, Companies, Industries, Weather, Sports, and Lifestyle." Id. As one example of data retrieved through a subscription, a user can be subscribed to receive regular updates of information related to stocks. SAMSUNG-1005, FIG. 3A, SAMSUNG-1006, 10:48-55; SAMSUNG-1009, 1:13-20. One additional example of a subscription service is Microsoft's Channel Definition Format (CDF), which is discussed by both Brown and Wecker. SAMSUNG-1005, 13:1-13; SAMSUNG-1006, 3:3-16.

INTERPRETATIONS OF THE '083 PATENT CLAIMS AT ISSUE

26. I understand that, for purposes of my analysis in this *inter partes* review proceeding, the terms appearing in the patent claims should be interpreted according to their "broadest reasonable construction in light of the specification of the patent in which it appears." 37 C.F.R. § 42.100(b). In that regard, I understand

that the best indicator of claim meaning is its usage in the context of the patent specification as understood by a POSITA. I further understand that the words of the claims should be given their plain meaning unless that meaning is inconsistent with the patent specification or the patent's history of examination before the Patent Office. I also understand that the words of the claims should be interpreted as they would have been interpreted by a POSITA at the time of the invention was made (not today). Because I do not know at what date the invention as claimed was made, I have used the earliest priority date of U.S. Patent No. 8,020,083 as the point in time for claim interpretation purposes. That date was April 26, 2000.

27. I understand that the following terms should be interpreted as follows:

"networked information monitor" ("NIM")

28. I understand that for the purposes of the present proceeding, this term, which appears in claims 1-6 and 9-14, should be construed to mean "a fully configurable frame, with one or more controls, through which content is presented to the user." This definition is consistent with the use of the term in the specification of the '083 patent. *See, e.g.*, SAMSUNG-1001, 5:41-44 ("the term Application Media Package refers to a component which includes a **fully configurable frame** with **one or more controls**; the frame through which **content**

is optionally presented.")[3]; *see also id.*, 8:32-33; 12:12-13. Moreover, in IPR2019-01278, Patent Owner explained that "application media package" means "networked information monitor." SAMSUNG-1012, Page 9. Thus, for purposes of this IPR, I have adopted Patent Owner's construction of networked information monitor, which was adopted in IPR2019-01278. SAMSUNG-1012, Page 10; SAMSUNG-1014, *3-4.

"networked information monitor template"

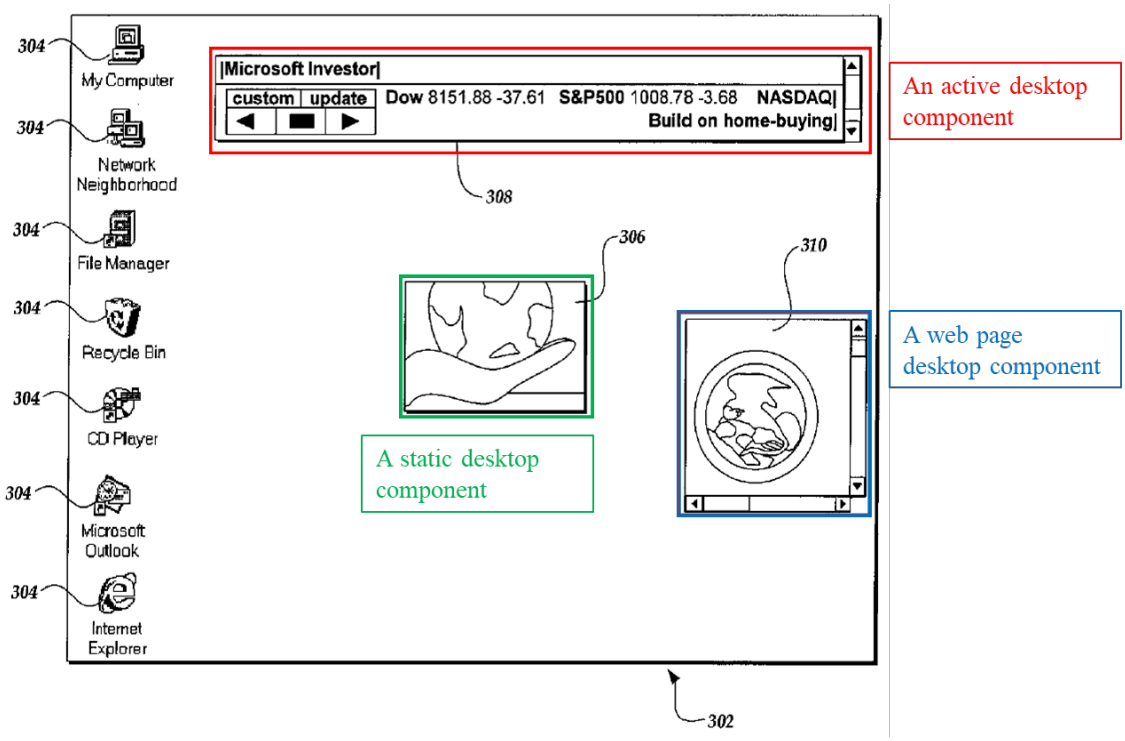
29. I understand that for the purposes of the present proceeding, this term, which appears in claims 1-2, 4-10, and 12-16, should be construed to mean "a data structure that defines the characteristics of a NIM, including the NIM frame, view, and control characteristics, and that excludes executable applications/compiled code." This definition is consistent with the use of the term in the specification of the '083 Patent. *See, e.g.*, SAMSUNG-1001, 7:19-23 ("[e]ach Application Media Package template defines the characteristics of a specific Application Media Package, including fully configurable frame characteristics, viewer and control characteristics, and Application Media Package content references."); *see also id.*, 24:12-14. Moreover, the '083 Patent states, "[u]nlike a downloadable, custom, client-application (e.g., for delivering custom web applications to users' desktops),

an Application Media Package is entirely content. That is, the entirety of a Dot package, referred to as its definition, is in a browser-readable language." *Id.*, 8:53-57. The '083 Patent further states that a Dot definition "is content, rather than compiled code." *Id.*, 14:34-35. According to Patent Owner in IPR2019-01278, a networked information monitor template "is not compiled code, and cannot be an executable application or applet." SAMSUNG-1012, Page 9. Thus, for purposes of this IPR, I have adopted Patent Owner's construction of networked information monitor template, which was adopted in IPR2019-01278. SAMSUNG-1012, Page 13; SAMSUNG-1014, *3-4.

ANALYSIS OF BROWN AND WECKER

Brown

30. Brown describes "a method of creating a composite desktop built from Web content retrieved from one or more Web sites." SAMSUNG-1005, Abstract. Brown's composite desktop includes components, which can be "a static image or an active desktop component providing dynamic content." *Id.*



SAMSUNG-1005, FIG. 3A (annotated)

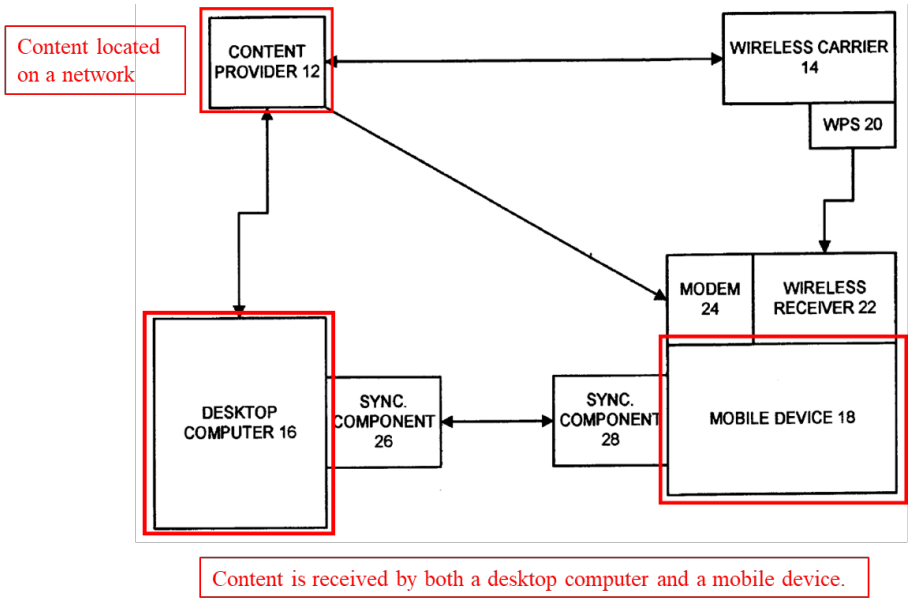
31. As shown in FIG. 3A (above), Brown's "composite desktop 302 includes one or more desktop components," where each "desktop component is a distinct geometric region that displays a single piece of Web-based content." SAMSUNG-1005, 7:21-23. Brown describes that "the component may be selected from a Web page, within which the component is embedded." SAMSUNG-1005, 7:40-41.

32. Brown also describes desktop component instructions, which "include a URL specifying an Internet location where additional HTML code corresponding to the active desktop component 308 resides." SAMSUNG-1005, 13:1-4. In some cases, these HTML instructions include "a URL corresponding to a CDF file." *Id.*,

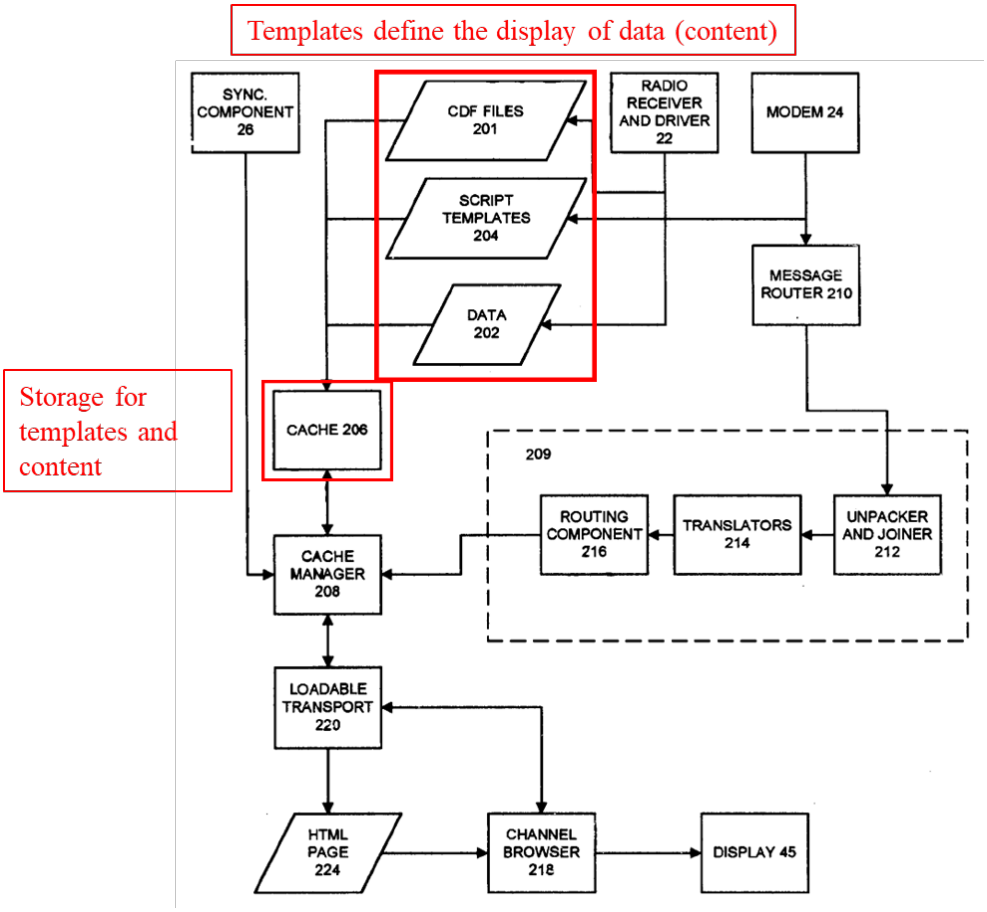
13:4-5. Brown explains that Channel Definition Format (CDF) "files are used to implement 'subscriptions' in which information is regularly retrieved and updated within the active desktop component 308," noting that "[t]he use of CDF files is known to those skilled in the art of Web page construction." *Id.*, 13:5-9.

Wecker

33. Wecker describes "a method for rendering information," the information including "a content structure file, a data file and a script file." SAMSUNG-1006, Abstract. Wecker describes that "the content structure file is read to ascertain which script in the script file is associated with data to be rendered." *Id.* Thereafter, "[t]he data from the data file is retrieved and the associated script file is executed to render the data." *Id.*



SAMSUNG-1006, FIG. 1 (annotated)



SAMSUNG-1006, FIG. 6 (annotated)

34. Wecker describes that "the content is provided in a standard format, such as HTML, JPEG, GIF, WAV, etc." and that "[t]he web content is also preferably described in a content structure file also known commonly as a channel definition format (CDF) file." SAMSUNG-1006, 3:2-6. Wecker further describes that:

> "a single portion of content (such as a web page or a web site) is referred to herein as a mobile channel. A mobile channel is a self describing web site that contains all the information necessary for efficient download of web content to mobile device 18. Three components are provided in a preferable mobile channel. The components include a channel definition

format (CDF) file, a set of script files to render the channel, and a set of data files to be rendered." SAMSUNG-1006, 3:6-14.

Motivation to combine Brown and Wecker

35. I believe that a POSITA would have found it obvious to combine Brown and Wecker (collectively the "Brown-Wecker combination"). Among other things, both Brown and Wecker are generally directed to "accessing and viewing internet content" and further describe the use of Microsoft's channel definition format (CDF) to implement subscriptions to internet content, with Brown explicitly directing the reader toward additional references that discuss CDF. SAMSUNG-1005, Abstract, 13:4-13, 13:39-44; SAMSUNG-1006, Abstract, 3:1-16. Given the similarity of the disclosures, and spurred by Brown's directive, a POSITA would have found it obvious to consider Wecker's disclosure in the context of Brown's system for multiple reasons. For example, a POSITA would have found it obvious to leverage Wecker's disclosure of a cache to store HTML style templates. A POSITA also would have found it obvious that Brown's desktop components could be implemented as mobile channels, such that a user could download desktop components, and their associated HTML instructions, to their composite desktop. SAMSUNG-1005, 7:21-23; SAMSUNG-1006, 3:6-14.

36. I believe a POSITA would have been motivated to combine Brown and Wecker for various reasons, outlined below.

37. First, a POSITA would have recognized that Wecker's mobile channel "script files," also referred to as "templates," are data structures that are similar in objective to the "HTML instructions" that define Brown's "desktop components." SAMSUNG-1005, 12:61-62; SAMSUNG-1006, 3:17-20. Indeed, Wecker describes that "the users of **desktop 16** can preferably subscribe to channels in a standard fashion which provide the user with certain channel content" and that the desktop can "periodically retrieve or receive new and updated script, data and CDF files." SAMSUNG-1005, 3:63-66, 4:3-6. I believe that a POSITA would have recognized or found obvious that the "desktop," as contemplated by Wecker, would have possessed similar features to the "composite desktop" of Brown and that these features of Wecker's desktop could be incorporated into Brown with a reasonably high expectation of success.

38. A POSITA would have been prompted to pursue this combination because doing so is merely the application of known techniques (*e.g.*, rendering content using templates/script files) to a known structure (*e.g.*, Brown's composite desktop) to yield predictable results. Moreover, both Brown and Wecker describe the Windows 95 operating system as a suitable operating system that can implement their techniques. SAMSUNG-1005, 6:26-32; SAMSUNG-1006, 8:15-21. Finally, both Brown and Wecker are assigned to the "Microsoft Corporation" and a POSITA would therefore have reasonably expected their techniques to be

compatible as the assignee would have been motivated by business reasons to provide commonality between their products. SAMSUNG-1005, Cover; SAMSUNG-1006, Cover. In view of the above, I believe that a POSITA would have had a reasonable expectation of success in implementing Wecker's techniques into the disclosure of Brown.

39. Second, a POSITA would have recognized or found obvious that, because Brown's desktop components are retrieved from "remote computers," such components could also be accessed via Wecker's "wireless push server" or "remote computer." SAMSUNG-1005, 4:16-21; SAMSUNG-1006, 3:34-38, 7:55-63. In fact, Wecker describes that a "user typically runs the same types of applications on both the desktop computer and on the mobile device." SAMSUNG-1006, 1:39-44. A POSITA would have recognized or found obvious from this disclosure that the "composite desktop" taught by Brown would have been compatible with certain features of the interfaces running on mobile devices, as contemplated by Wecker. SAMSUNG-1005, 4:13-19. Indeed, Brown describes that its techniques may be practiced in "other computer system configurations, including **hand-held devices**." SAMSUNG-1005, 4:44-49.

40. A POSITA would have been prompted to pursue this combination because doing so is merely the application of known techniques (*e.g.*, rendering content using templates/script files) to a known structure (*e.g.*, Brown's composite

desktop) to yield predictable results. Moreover, Wecker describes that "Windows CE" is a suitable operating system upon which to implement its techniques, and that this operating system is made available by the "Microsoft Corporation" – the assignee of Brown. SAMSUNG-1005, Cover; SAMSUNG-1006, 5:30-32. Finally, both Brown and Wecker are assigned to the "Microsoft Corporation" and a POSITA would therefore have reasonably expected their techniques to be compatible as the assignee would be motivated by business reasons to provide commonality between their products. SAMSUNG-1005, Cover; SAMSUNG-1006, Cover. In view of the above, I believe that a POSITA would have had a reasonable expectation of success in implementing features of Wecker into Brown's composite desktop.

41. Moreover, a POSITA would have been motivated to combine Wecker with Brown to improve data transfer times, increase usability, standardize interfaces across different devices, reduce client-side storage requirements, and/or to capitalize on the growing need to display internet content in a customizable way. Wecker explains that "[b]y separating the script from the data in the web content, web content can be transmitted to mobile device 18 over very low bit rate channels" and that "since an individual file is typically much smaller than the script files, the data can be updated quite frequently, giving the user of mobile device 18 updated web content information, without transmitting new script."

SAMSUNG-1006, 4:53-62. Indeed, Wecker describes a co-pending application (now US Patent – hereafter referred to as "Wecker 2") directed to "delivering data content over a low bit rate transmission channel." SAMSUNG-1006, 3:26-31; SAMSUNG-1015, Cover. Wecker 2 describes that:

> "[t]he bit rate of conventional wireless channels is very low. Thus, the delivery of very large content … is highly impractical. One conventional type of approach to delivering such information is to rewrite the content into a device friendly format, such as HTML." SAMSUNG-1015, 2:3-9.

Wecker 2 also describes, like Brown and Wecker, that "[i]n some prior applications, [a] mobile device is used in conjunction with a desktop computer." SAMSUNG-1005, 4:44-49; SAMSUNG-1006, 1:39-44; SAMSUNG-1015, 1:46-47. Moreover, Brown cites a U.S. Patent (hereafter referred to as "Yohanan") directed to "accessing information on a communications network" that provides motivation to improve the usability of graphical displays that present internet content. SAMSUNG-1005, Cover; SAMSUNG-1016, Cover. Yohanan describes that "[i]ncreased accesses by individual users on a day-to-day basis demands a more efficient method for accessing network locations. What is needed is a convenient method to access network locations without having to open a browser and key-in the desired site's URL." SAMSUNG-1016, 2:18-23.

42. For at least these above reasons, I believe that a POSITA would have been motivated to combine Brown and Wecker and consider their disclosures together.

Brown Renders Obvious Claims 1-5 and 14-16, and the Brown-Wecker Combination Renders Claims 1-16 Obvious

43. Below, I present a first ground based on Brown alone and a second ground based on the combination of Brown and Wecker. In the first ground, I rely only on the disclosure of Brown and explain why Brown's disclosure, when interpreted in view of the general knowledge of a POSITA, renders obvious claims 1-5 and 9-13. In the second ground, I rely on the same disclosure of Brown and explanation of obviousness as presented in the first ground, but additionally turn to Wecker's disclosure for a single feature of claim 1 ("**electronic storage having stored thereon a plurality of networked information monitor templates**") and features of claims 6-8 and 14-16. Although all the features of claim 1 are rendered obvious by Brown alone as I explain below, I am additionally presenting a combination of Brown and Wecker for claim 1 to the extent it may be argued that this single feature of claim 1 is not explicit in Brown. The use of Brown's disclosure and corresponding obviousness arguments are similar for both grounds, so I discuss these grounds together for ease of presentation.

[1pre]: A client device, the client device comprising:

44. To the extent the preamble is limiting, the Brown-Wecker combination renders [1pre] obvious. For example, Brown describes "a computer-based system for controlling the display of elements on a desktop," and a "computer-based method of creating a composite desktop built from Web content," and also that "an operating system user interface shell program executes on a computer, preferably a general purpose personal computer." SAMSUNG-1005, 2:54-57, 4:32-40, Claim 15.

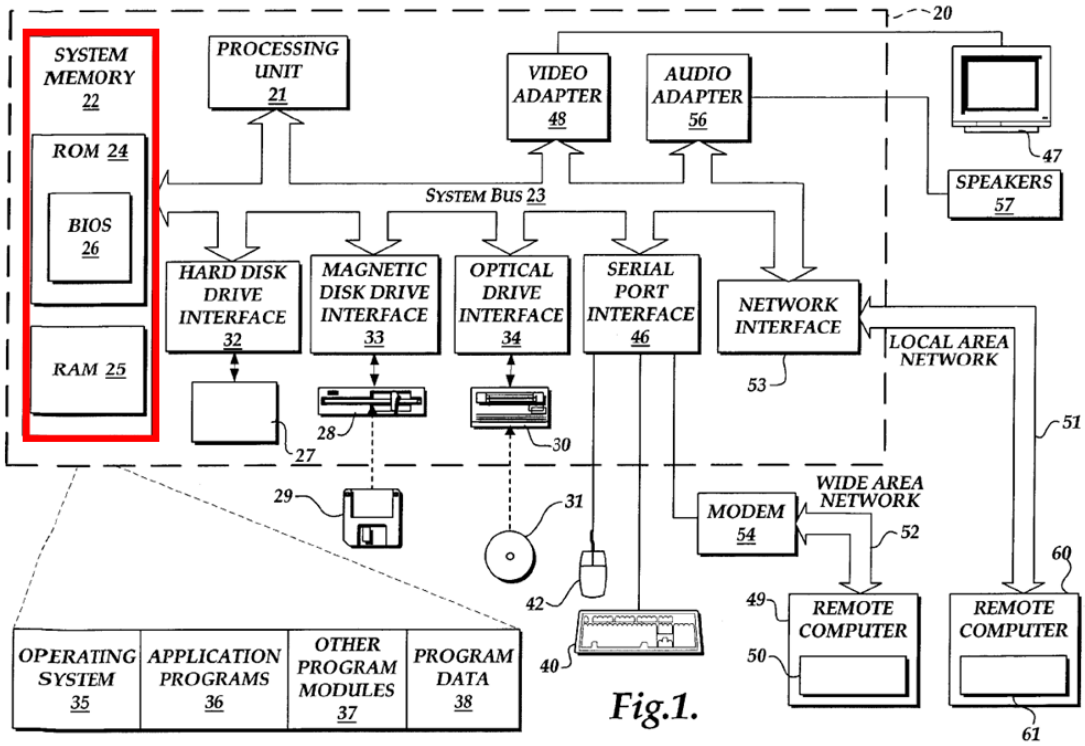
45. A POSITA would have understood or found obvious that "a computer-based system" includes a "client device," as a computer is frequently referred to as a "client." *Id*. Indeed, the '083 Patent refers to a "client computer." SAMSUNG-1001, *see at least* 2:5, 2:29, 5:54, 6:9, 6:66. Moreover, Beer also refers to "client computers." SAMSUNG-1007, 1:44.

[1.1]: electronic storage having stored thereon a plurality of networked information monitor templates defining a plurality of networked information monitors, the plurality of networked information monitor templates comprising a first networked information monitor template defining a first networked information monitor, wherein the first networked information monitor template comprises:

A. *Brown*

46. Brown discloses "a general purpose computing device" that includes a "system memory." SAMSUNG-1005, 4:54-58. A POSITA would have understood or found obvious that Brown's system memory is a form of "electronic storage" because a POSITA would have understood that memory is an example of

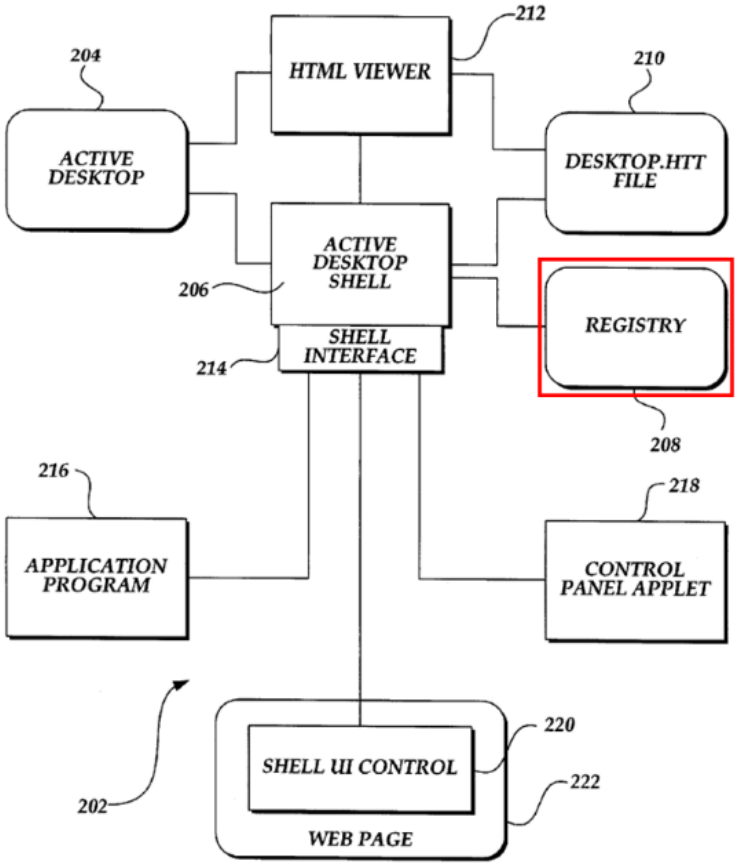
electronic storage. Indeed, the '083 Patent refers to "memory 30" within "computer 20." SAMSUNG 1001, *see at least* 6:30-38. Moreover, both Beer and Petty, two references directed to the display of content using style templates, refer to "memory" as a form of "storage." SAMSUNG-1007, Abstract, 3:54-55, 13:30-32; SAMSUNG-1013, Abstract, 6:7-12, 7:60-61, FIG. 1. An annotated figure is presented below that displays the different forms of electronic storage within Brown's computing device.



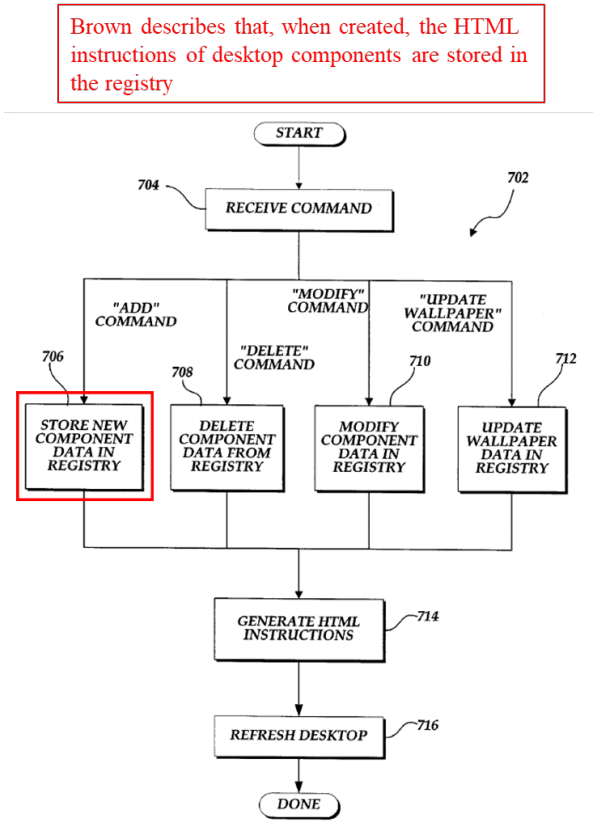
SAMSUNG-1005, FIG. 1 (annotated)

47. Brown's computing device also includes a "registry," which it describes as "a mechanism for storing program data, and preferably includes one or more files on a persistent storage medium and associated code for accessing the

data." SAMSUG-1005, 6:20-26, FIG. 2, FIG. 6. Brown describes that each of the HTML instructions are stored in the registry "in an HTML file, referred to as the desktop.htt file 210." SAMSUNG-1005, 6:35-36, 14:8-9. Annotated figures showing the in-corporation of the registry into Brown's computing device are presented below.



SAMSUNG-1005, FIG. 2 (annotated)



SAMSUNG-1005, FIG. 6 (annotated)

48. A POSITA also would have understood or found obvious that this storage would be capable of storing files, like "templates," because it was well known as of the critical date that HTML files were stored in a form of "electronic storage." For example, Beer describes a system for "allowing a user to retrieve a user interface and a visual style from a **local** or remote **storage unit**, [and] … display the visual stylized user interface." SAMSUNG-1007, 2:9-15. Beer describes "personal computers" running, for example, the "Windows 95 [operating system]" which a POSITA would have recognized or found obvious to be similar to Brown's "**general purpose computing device.**" SAMSUNG-1005, 4:54-58;

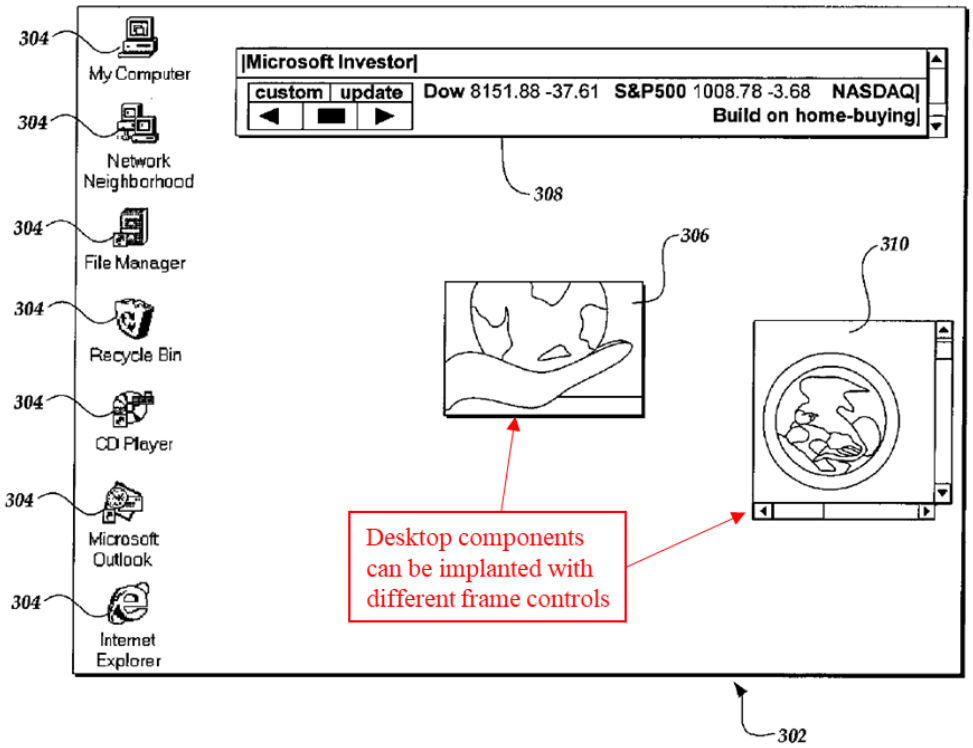
SAMSUNG-1007, 1:15-40. Beer discloses that its computers contain "**at least one data storage system** (including volatile and non-volatile memory and/or storage elements, any of **which may be local** or accessible via a network)" and that HTML styles "can be loaded from a **local storage unit**." SAMSUNG-1007, 3:41-49, 3:54-55, 13:30-32.

49. Brown describes sets of "HTML instructions" that define a "composite desktop" containing a plurality of "desktop components." SAMSUNG-1005, 6:34-36, 7:21-22, 11:1-67, 12:1-67, 13:1-54. Brown explains that a desktop component, examples of which are presented in the annotated version of Fig. 3A (below), is "a distinct geometric region that displays a single piece of Web-based content." *Id*., 7:22-23.

50. A POSITA would have understood or found obvious the "desktop components" of Brown to be "networked information monitors" because desktop components have similar features. Indeed, networked information monitors are "a fully configurable **frame**, with one or more **controls**, through which **content** is presented to the user," and a POSITA would have recognized that a desktop component possesses all these features. SAMSUNG-1001, 5:41-44; Section I.C.1, *above*.

51. For instance, Brown describes that desktop components are "implemented as floating **frames**." SAMSUNG-1005, 12:61-64; *below* [1.3].

Brown also presents examples of desktop components with different frame "**controls**", as annotated in Figure 3A below. SAMSUNG-1005, FIG. 3A. Brown further explains that floating frames "can be positioned anywhere on a screen" and that desktop components, and their frames, can be "positioned at any location on a composite desktop, and can be resized if desired." SAMSUNG-1005, 7:24-26, 12:64-65. The above disclosures render Brown's desktop component frames "**fully configurable**" as this term is used by the '083 Patent (e.g., the user can specify frame characteristics and controls). SAMSUNG-1001, 2:45-59.

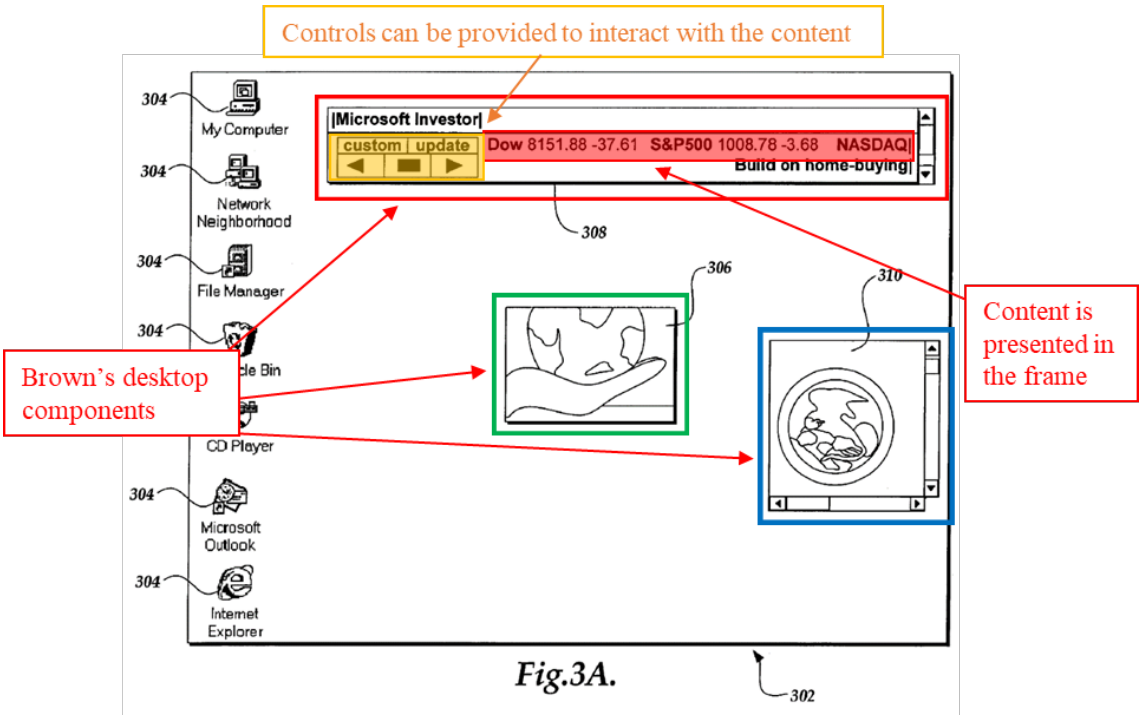


SAMSUNG-1005, FIG. 3A (annotated)

52. Finally, Brown describes that desktop components "[display] a single piece of Web-based **content.**" SAMSUNG-1005, 7:22-23. As described above,

Brown's desktop components are "fully configurable frames," and as a result, the "**content**" is displayed "**through**" the "**fully configurable frame**." SAMSUNG-1001, 2:45-59; SAMSUNG-1005, 7:24-26, 12:64-65, FIG. 3A.

53. Brown's desktop components are therefore "networked information monitors," as properly construed.



SAMSUNG-1005, FIG. 3A (annotated)

54. Moreover, a POSITA would have recognized or found obvious that the "HTML instructions" that define Brown's "desktop components" are a "networked information monitor template" because these HTML instructions have similar features. SAMSUNG-1005, 11:39-67, 12:1-43. Indeed, a networked information monitor template is "a **data structure** that defines the **characteristics**

of a NIM, including the NIM **frame**, **view**, and **control characteristics**, [which] excludes executable **applications/compiled code**," and a POSITA would have recognized or found obvious that a set of Brown's HTML instructions includes all of these features. SAMSUNG-1001, 7:19-23, 8:53-57, 14:34-35; Section I.C.2, *above*. Brown provides a set of HTML instructions as an example, which is reproduced and annotated below. Brown describes that these instructions are "generated from the **data** stored in the registry 208" ("**a data structure**"). SAMSUNG-1005, 14:7-8.

55. Brown describes that "lines 14-17 [in the example code] comprise HTML instructions that **describe the active desktop component 308**," ("**defines the characteristics of [the] NIM"**). SAMSUNG-1005, 12:61-62. Brown includes similar language for the other desktop components of this example set of HTML instructions. *Id*., 12:44-46, 13:14-15.

56. For example, Brown describes that "[f]loating **frames** are designated by the 'IFRAME' tag." SAMSUNG-1005, 12:65-66. Brown's HTML instructions utilize the "IFRAME" HTML tag to **define the frame of the desktop component**, as shown in the annotated figure below. SAMSUNG-1005, 11:56-67, 12:1-10.

57. It can also be seen from the annotated figure that visual features of the desktop component ("**the view**") are defined by the HTML instructions. SAMSUNG-1005, 11:56-67, 12:1-10. For example, the HTML instructions

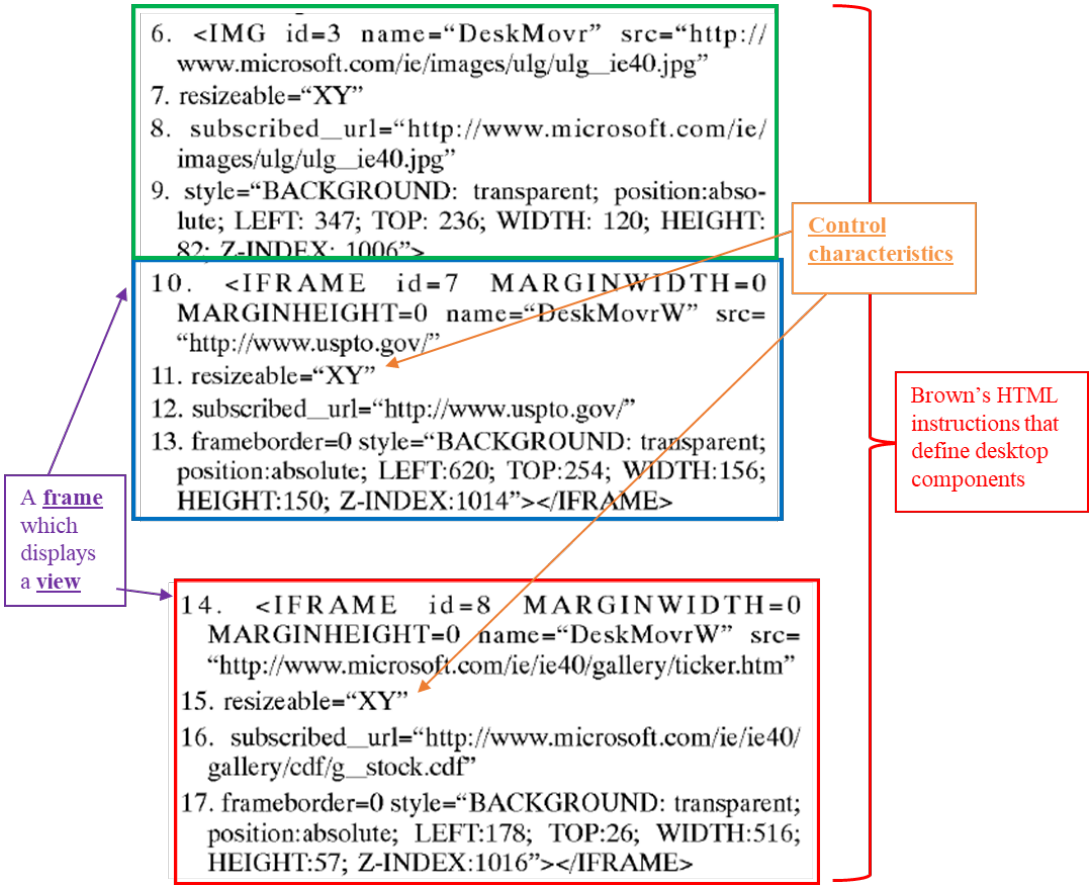
include a "frameborder" tag, as well as a "BACKGROUND" tag, that both define visual features of the desktop component. *Id*.

58. Moreover, Brown's HTML instructions provide the ability to designate a desktop component as "resizable" as presented in the annotated figure below ("**a control characteristic**"). SAMSUNG-1005, 11:56-67, 12:1-10. The resizing of desktop components is enabled by "a windowed component manipulation **control** 326 and a windowless component manipulation **control** 328." SAMSUNG-1005, 7:57-59.

59. Moreover, as it can be seen in the annotated instructions below, Brown's HTML instructions do not contain "**applications**" or "**compiled code**." SAMSUNG-1005, 11:56-67, 12:1-10. Indeed, Brown describes its HTML instructions are stored in "an HTML file, referred to as the desktop.htt file 210," which a POSITA would have understood or found obvious to not include compiled code since HTML is known to be a markup language. *Id.*, 6:36-37. This understanding is established in other references known in the art. *Id*. Indeed, Darnell, an academic reference directed to HTML, describes that HTML is "platform independent" (i.e., not requiring specific hardware or software for interpretation). SAMSUNG-1011, Page 70. Darnell states that one of the advantages of a "platform independent" language is that "persons in different locations can exchange information, collaborate on authoring articles, publish data,

and carry on a robust discourse without … having to pay for specific hardware and software with proprietary schemes." *Id.* A POSITA would have understood the advantages of a platform independent language, like HTML, and would have been motivated to avoid including additional compiled code that would render these advantages moot.

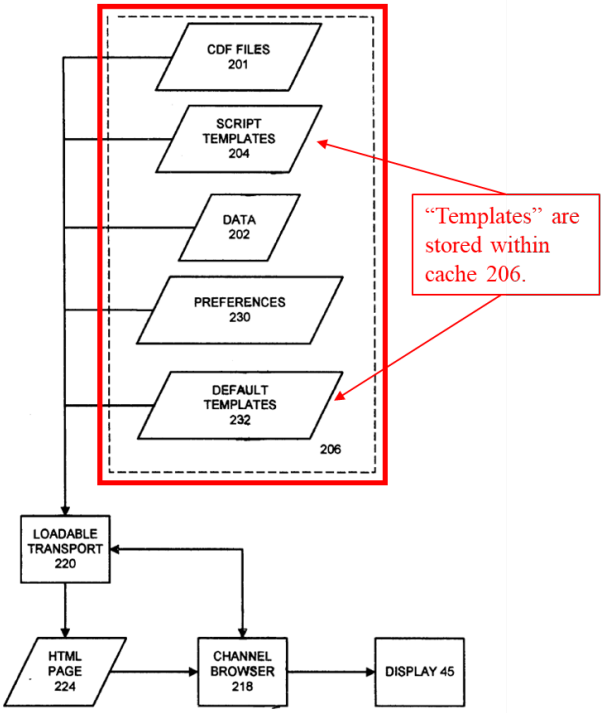
60. With the above disclosures, therefore, Brown's HTML instructions correspond to a "networked information monitor template."



SAMSUNG-1005, 11:56-67, 12:1-10 (annotated)

B. *The Brown-Wecker combination*

61. Wecker also discloses the electronic storage of templates. SAMSUNG-1006, 8:34-39, Claim 1, Claim 13. Wecker discloses a "cache memory" used for holding "script templates" and that these files are "stored by the computer." *Id.* Indeed, Wecker describes that "CDF files 201 as well as **script templates** and data files … [are] **provided to cache memory** 206." SAMSUNG-1006, 8:31-39, FIG. 6, FIG. 7. An annotated figure 7 is reproduced below that shows that script templates included in cache 206.

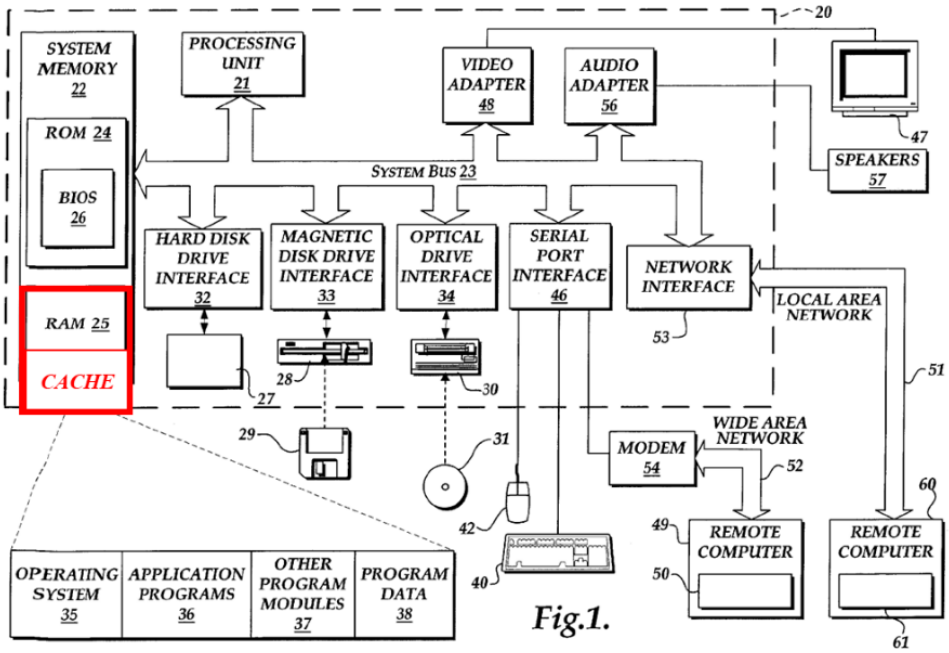


SAMSUNG-1006, FIG. 7 (annotated)

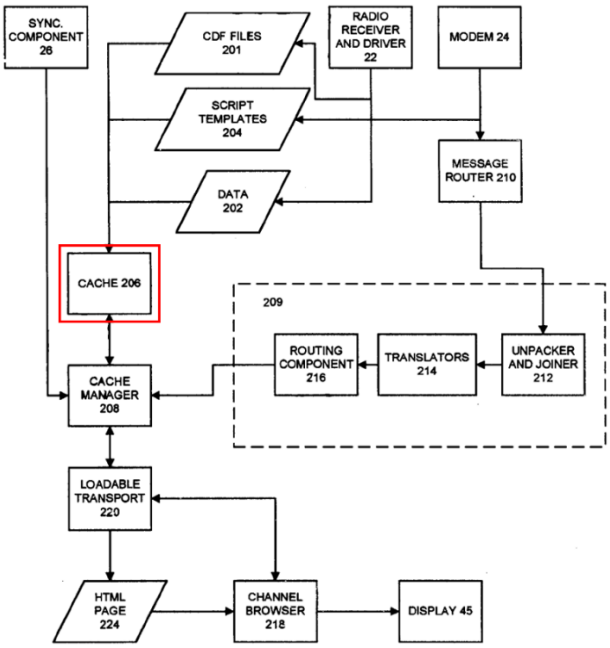
62. A POSITA would have recognized or found obvious from this disclosure that template files could be electronically stored (if this was not already rendered obvious by the disclosure of Brown). A POSITA would have recognized

or found obvious that the cache memory of Wecker is also a form of **"electronic storage,"** and that, in one example implementation of the Brown-Wecker combination, the "cache memory" of Wecker could be incorporated into the "system memory" of Brown to store templates associated with the desktop components. An example illustration of the combination is provided below.

63. All other claim features are rendered obvious as I discuss above. [1.1].A, *above*.



SAMSUNG-1005, FIG. 1 (annotated)



SAMSUNG-1006, FIG. 6 (annotated)

[1.2]: a content reference that comprises a network location at which content for the first networked information monitor is accessible via a TCP/IP protocol;

64. For both grounds, a POSITA would have recognized a CDF subscription to be a form of "content reference" because CDF subscriptions reference a URL, at which, content is available. For example, one of Brown's example desktop components includes "a URL corresponding to a CDF file." SAMSUNG-1005, 13:4-5. Indeed, Wecker also describes that "**web content** is also preferably described in a content structure file also known commonly as a channel definition format (CDF) file." SAMSUNG-1006, 3:3-5.

65. Brown explains that "CDF files are used to implement 'subscriptions' in which **information is regularly retrieved and updated** within the active

desktop component." SAMSUNG-1005, 13:4-7. An annotated example of Brown's "HTML instructions" and "CDF subscription" is provided below.

```
14. <IFRAME id=8 MARGINWIDTH=0
    MARGINHEIGHT=0 name="DeskMovrW" src=
    "http://www.microsoft.com/ie/ie40/gallery/ticker.htm"
15. resizeable="XY"
16. subscribed_url="http://www.microsoft.com/ie/ie40/
    gallery/cdf/g_stock.cdf"
17. frameborder=0 style="BACKGROUND: transparent;
    position:absolute; LEFT:178; TOP:26; WIDTH:516;
    HEIGHT:57; Z-INDEX:1016"></IFRAM
```

A URL corresponding to a CDF file.

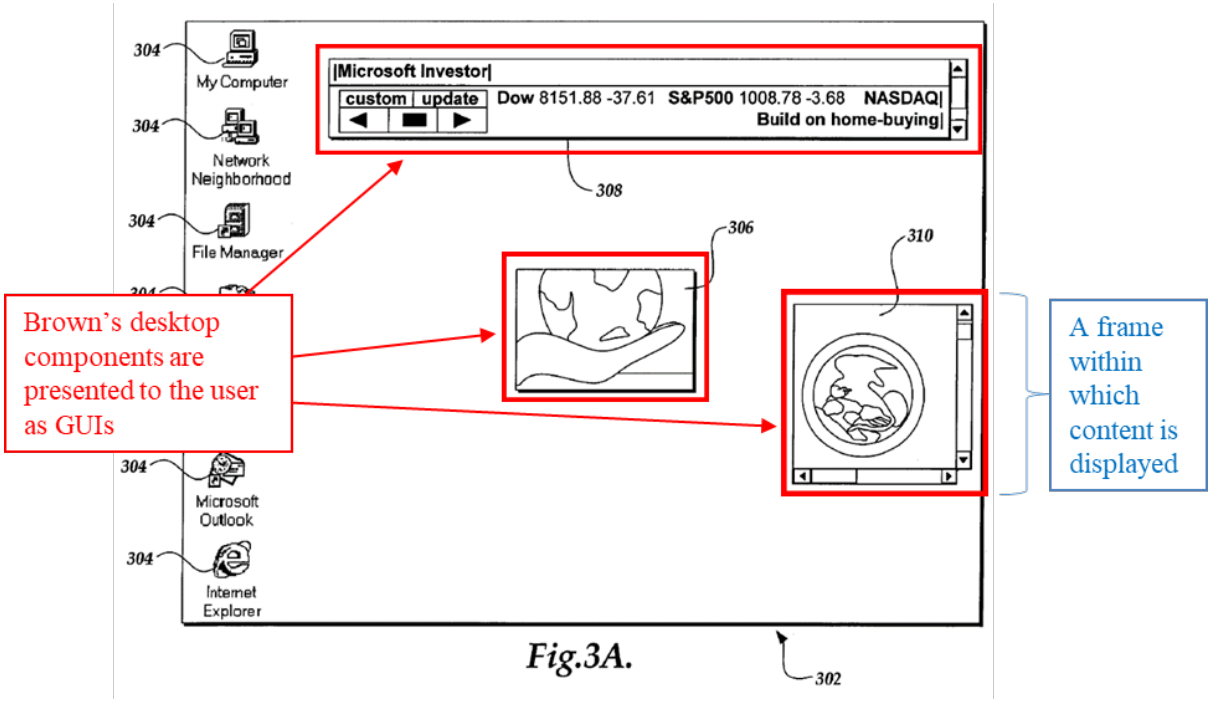
SAMSUNG-1005, 12:1-8 (annotated)

66. A POSITA would have understood or found obvious that a Uniform Resource Locator ("URL") is a "network location" as this is the most common use of a URL. Indeed, Darnell provides support and explains that "uniform (or sometimes *universal*) resource identifiers are strings of characters that **identify the location** of a resource available on the World Wide Web" and that "the most common use of a uniform resource identifier these days is to locate a Web page using a **URL**. URLs are commonly thought of as pointers to a filename in a directory **on a Web server**." SAMSUNG-1011, 103. Moreover, Yohanan describes that "on the Internet, Uniform Resource Locators (URLs) are used to specify sites such as servers within the World Wide Web (WWW; or the "web")." SAMSUNG-1016, 1:42-48.

67. Both Brown and Wecker describe operating over the "internet," which a POSITA would have understood or found obvious to be a form of "TCP/IP protocol." SAMSUNG-1005, 13:1-4; SAMSUNG-1006, 3:1-7. Indeed, Darnell discloses that "HTTP [hypertext transfer protocol] operates **over the Internet**, where communication occurs between computers **via TCP/IP**." SAMSUNG-1011, Page 88.

[1.3]: a definition of a graphical user interface of the first networked information monitor that lacks controls for manually navigating a network, and that includes a frame within which content received from the network location can be displayed, and frame characteristics defining one or more a color, a size, or a position on the electronic display of the frame; and

68. For both grounds, a POSITA would have recognized that the desktop components are presented to the user as "graphical user interfaces" or "GUIs" as these terms are commonly used in the art to describe such visual components. SAMSUNG-1005, FIG. 3A. Example desktop components are presented in the annotated Figure 3A below. Indeed, Brown refers to its composite desktop (and all Windows-based desktops) as a "**GUI** desktop." SAMSUNG-1005, 1:35-38, FIG. 3A. Brown's HTML instructions define the desktop component, so a POSITA would have recognized that they therefore contain "**a definition of a graphical user interface of the first networked information monitor.**"



SAMSUNG-1005, FIG. 3A (annotated)

69. Referencing Brown's FIG. 3A above, it can be seen that desktop components "**[lack] controls for manually navigating a network.**" SAMSUNG-1005, FIG. 3A. To the extent that it may be argued that a desktop component can be created with such controls, the decision to include navigation controls in a desktop component would ultimately be a design decision for a POSITA, and, in networks where data transfer rates are limited or controls are not desired, a POSITA would be motivated to construct desktop components without extraneous features, such as navigation controls, to improve data transfer times or streamline use. Indeed, Shimada provides support and describes that "[w]hen the amount of data transmitted from the server to the client is reduced, the data access time can be reduced particularly when the transmission rate of the network is low."

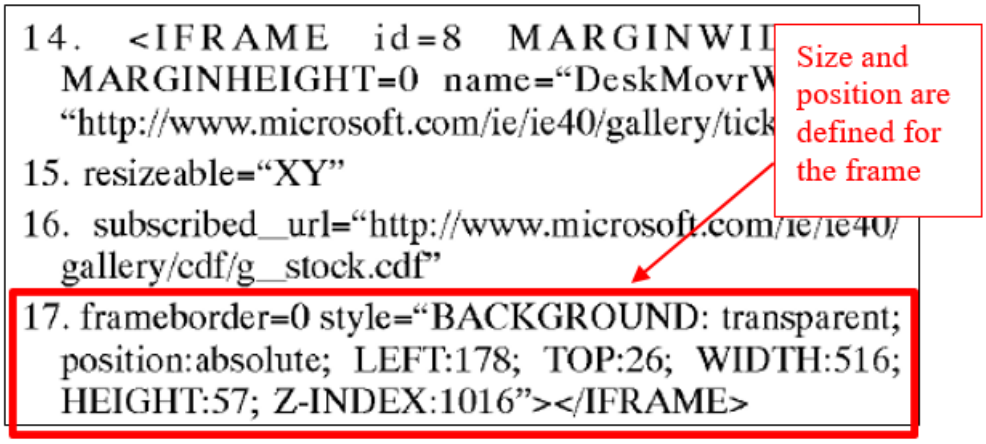
SAMSUNG-1008, 1:45-48. Moreover, Yohanan describes such an implementation lacking controls to specify a network location ("a more efficient method for accessing network locations" using "a convenient method to access network locations without having to open a browser and key-in the desired site's URL)." SAMSUNG-1016, 2:18-23.

70. Brown further describes that desktop components are "implemented as floating **frames**." SAMSUNG-1005, 12:61-64. A POSITA would have understood or found obvious that the "floating frame" of Brown's desktop components to be "**a frame within which content received from the network location can be displayed,**" as desktop components are described by Brown as displaying internet content. [1.2], *above*. Moreover, a POSITA would have understood or found obvious that "frame[s]" are common tools to display internet content. For example, Darnell, Chapter 18, is directed to "Creating Sophisticated Layouts with **Frames and Layers**." SAMSUNG-1011, 337-361. Darnell states:

> With frames, you can separate Web pages into distinct sections. These sections can be any size within the browser window and, if allowed, can be resized. Also, the content in one frame can be independent of other frames if the Web author so desires. It's also possible to have the user's actions in one frame affect the content of other frames. *Id*., 338.

71. A POSITA also would have recognized from the example HTML instructions, reproduced and annotated below, that Brown's HTML instructions include "**frame characteristics**" that define both a "**size**" and a "**position on the**

electronic display of the frame." SAMSUNG-1005, 12:1-10. As displayed in the annotated figure, the "height" and "width" is specified for the desktop component ("**size**"), and the **position** is designated with the "left" and "top" instructions. SAMSUNG-1005, 12:1-10.



SAMSUNG-1005, 12:1-10 (annotated)

[1.4]: instructions configured (i) to cause the first networked information monitor to request content from the network location in the content reference via the TCP/IP protocol, and (ii) to cause the first networked information monitor to generate the graphical user interface of the first networked information monitor with the content received from the network location via the TCP/IP protocol within the frame;

72. For both grounds, a POSITA would have understood or found obvious that Brown's HTML instructions are "instructions" for executing features of the desktop component ("networked information monitor") because features of the desktop component are defined by the HTML instructions. SAMSUNG-1005, 11:39-67, 12:1-43. For example, a POSITA would have understood or found obvious that a "CDF subscription," as used in Brown's desktop components, acts

as "**instructions configured to cause the first networked information monitor to request content from the network location in the content reference via the TCP/IP protocol**" because, as described above, the CDF subscription requests content from an internet network location defined by a URL. SAMSUNG-1005, 11:39-67, 12:1-43, 13:1-13; [1.2], *above*.

73. A POSITA would also have understood or found obvious that Brown's "HTML instructions," including a CDF subscription, includes instructions to "**cause the first networked information monitor to generate the graphical user interface of the first networked information monitor with the content received from the network location via the TCP/IP protocol within the frame**" because CDF subscriptions are subscriptions in which "information is regularly retrieved and **updated** within the active desktop component." SAMSUNG-1005, 13:6-7. A POSITA would have further understood or found obvious that "updating" the desktop component would require "**[generating a] graphical user interface**" and that this would be done "**within the frame**" of the desktop component.

```
14.  <IFRAME  id=8  MARGINWIDTH=0
     MARGINHEIGHT=0  name="DeskMovrW"  src=
     "http://www.microsoft.com/ie/ie40/gallery/ticker.htm"
15. resizeable="XY"
16.  subscribed_url="http://www.microsoft.com/ie/ie40/
     gallery/cdf/g_stock.cdf"
17. frameborder=0 style="BACKGROUND: transparent;
     position:absolute;  LEFT:178;  TOP:26;  WIDTH:516;
     HEIGHT:57; Z-INDEX:1016"></IFRAME>
```

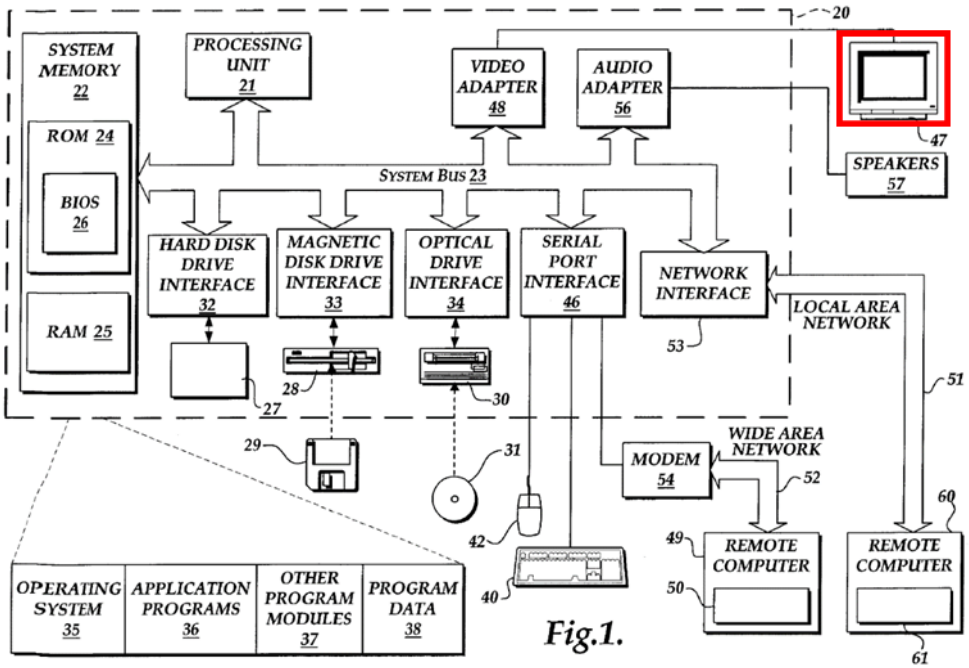
Instructions to generate the GUI to display the content within a frame.

Instructions requesting content from the network location.

SAMSUNG-1005, 12:1-8 (annotated)

[1.5]: an electronic display; and

74. As annotated below in Figure 1, Brown's "computer-based system" includes an electronic display, which Brown refers to as a "monitor." SAMSUNG-1005, 5:38-39. For both grounds, a POSITA would have recognized or found obvious from this disclosure that a display would be used to present content to a viewer. Moreover, Beer describes that computing systems include a "display device." SAMSUNG-1007, 3:19.



SAMSUNG-1005, FIG. 1 (annotated)

[1.6]: one or more processors configured to access the first networked information monitor template, and to execute the first networked information monitor template such that the graphical user interface of the first networked information monitor is presented to a user on the electronic display having content received from the content reference therein.

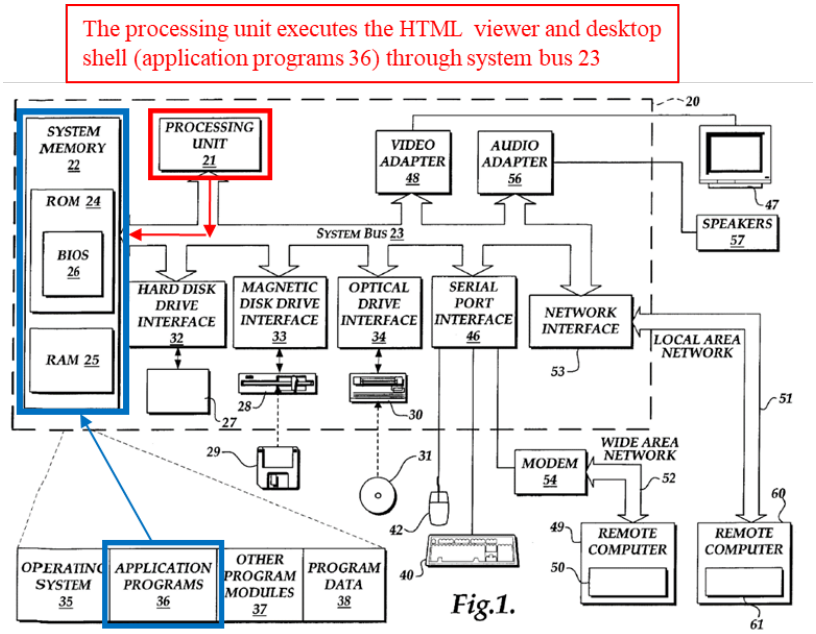
75. Brown discloses an "HTML viewer" and "composite desktop shell" that "execute" the HTML instructions and "present" the GUI that corresponds to the desktop component. SAMSUNG-1005, 6:26-40. For both grounds, a POSITA would have understood or found obvious that both the "HTML viewer" and "composite desktop shell" are run by "**one or more processors**" because processors were known in the art to execute such programs. Indeed, Petty describes a system for "defin[ing] platform independent user interface panels" with a "computer system 100 [that] comprises a processor 110 connected to a main

memory 120" and that "[p]rocessor 110 **executes program instructions stored in main memory** 120." SAMSUNG-1013, Abstract, 5:58-59, 7:58-59. Moreover, Yohanan also describes that processors are capable of executing program instructions. SAMSUNG-1016, 5:1-10. Yohanan states:

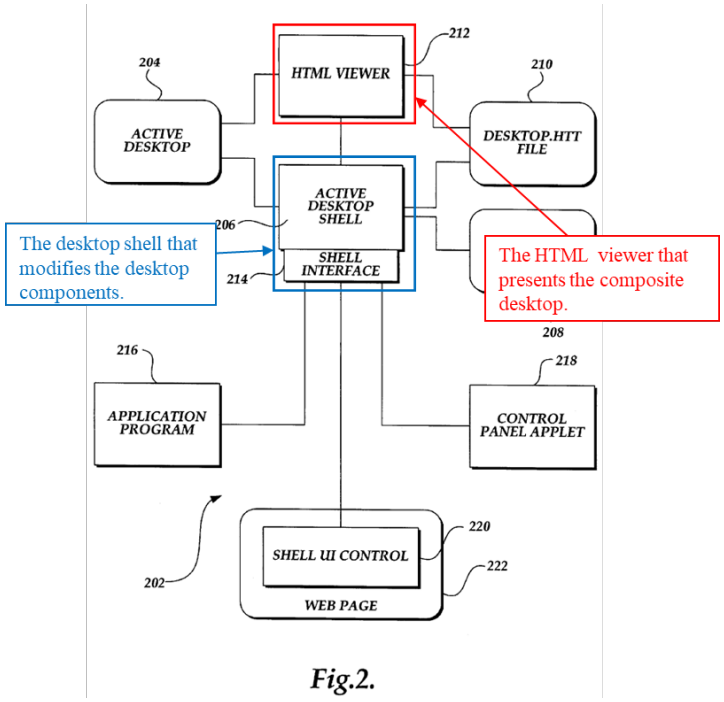
> Computer programs (also called computer control logic) are stored in main memory and/or secondary memory 110. Computer programs can also be received via communications interface 124. Such computer programs, when executed, enable the computer system 100 to perform the features of the present invention as discussed herein. In particular, the computer programs, when executed, **enable the processor 104 to perform the features of the present invention.** *Id.*

76. Brown discloses that the "HTML viewer 212 reads the desktop.htt file 210 ("[accesses] the first networked information monitor template"), interprets the instructions, and generates a composite desktop display ("[**executes] the first networked information monitor template such that the graphical user interface of the first networked information monitor is presented to a user on the electronic display having content received from the content reference therein")**." SAMSUNG-1005, 6:39-41; [1.3], [1.4], *above*. Moreover, Brown also explains that "the composite desktop shell 206 adds, deletes and modifies registry 208 data pertaining to the composite desktop 204." SAMSUNG-1005, 6:30-32. To perform these functions, the desktop shell would "access" the HTML instructions. Presented below are annotated copies of Brown's Figure 1 and 2,

where the terms "active desktop" and "composite desktop" are used interchangeably.



SAMSUNG-1005, FIG. 1 (annotated)



SAMSUNG-1005, FIG. 2 (annotated)

[2]: The client device of claim 1, wherein the first networked information monitor template further comprises control characteristics that define one or more controls that are usable by the user to interact with or control the first networked information monitor.

77. For both grounds, a POSITA would have recognized or found obvious that desktop components contain multiple features that "**define one or more controls that are usable by the user to interact with or control the first networked information monitor.**"

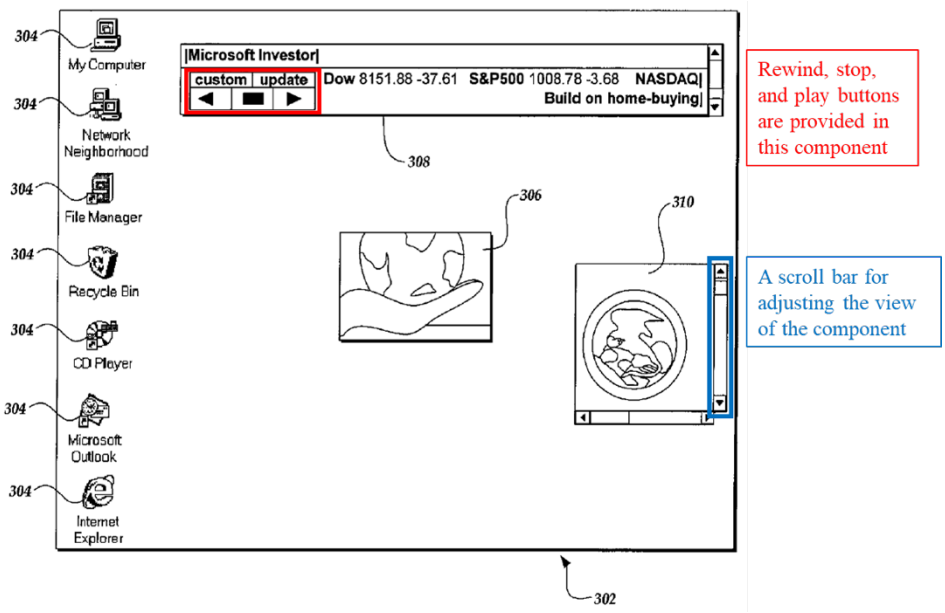
78. First, Brown discloses that its HTML instructions can also include a "windowed component manipulation control 326 and a windowless component manipulation control 328." which allow the user to "move and resize desktop components. SAMSUNG-1005, 7:59-61. An example of a resizable desktop component is presented below in the annotated HTML instructions.

```
14. <IFRAME id=8 MARGINWIDTH=0
    MARGINHEIGHT=0 name="DeskMovrW" src=
    "http://www.microsoft.com/ie/ie40/gallery/ticker.htm"
15. resizeable="XY"
16. subscribed_url="http://www.microsoft.com/ie/ie40/
    gallery/cdf/g_stock.cdf"
17. frameborder=0 style="BACKGROUND: transparent;
    position:absolute; LEFT:178; TOP:26; WIDTH:516;
    HEIGHT:57; Z-INDEX:1016"></IFRAME>
```

Control characteristics within the HTML instructions

SAMSUNG-1005, 12:1-8 (annotated)

79. Second, Brown's Figure 3A (annotated below) depicts multiple forms of controls within desktop components. SAMSUNG-1005, FIG. 3A. As noted in the annotated figure, Brown's desktop components can be outfitted with scroll bars. *Id.*, *see also* 9:13-27.



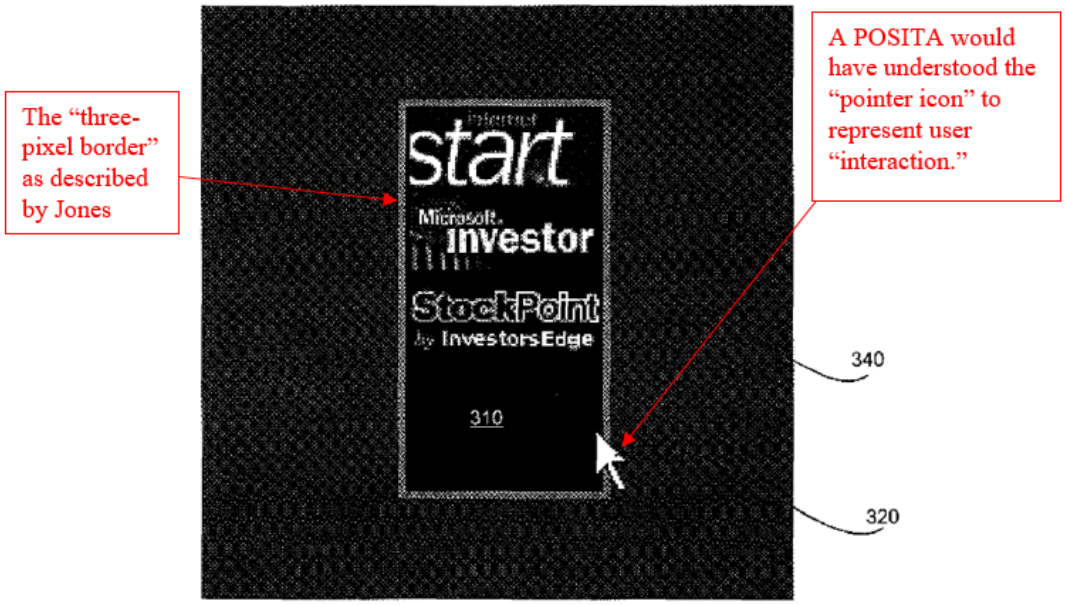
SAMSUNG-1005, FIG. 3A (annotated)

```
typedef struct_tagCOMPONENT
        {
         DWORD dwSize;       //Size of this structure
         DWORD dwID;       //Reserved: Set it always to zero.
         int iComponentType; //One of COMP_TYPB_*
         BOOL fChecked;       // Is this component enabled?
         BOOL fDirty;       // Had the component been modified and
        not yet saved to disk?
         BOOL fNoScroll;       // Is the component scrollable?
         COMPPOS cpPos;       // Width, height etc.,
         WCHAR wszFriendlyName[MAX_PATH];       // Friendly
        name of component.
        WCHAR wszSource[INTERNET_MAX_URL_
        LENGTH]; //URL of the component.
        WCHAR wszSubscribedURL[INTERNET_MAX_URL_
        LENGTH]; //Subscribed URL
        }
```

Scroll bars can be implemented for desktop components.

SAMSUNG-1005, 9:13-27 (annotated)

80. Third, Brown additionally directs the reader to "Jones," a co-pending application directed to "managing position and size for a desktop component." SAMSUNG-1005, 13:39-44; SAMSUNG-1010, Cover. Indeed, Jones discloses multiple methods of interacting with a desktop component, and states that "FIG. 4 depicts the desktop component 310 in a third state in which pointer 320 is in close proximity to, or actually intersecting, an edge of the desktop component. In this situation, a thick border 340 is displayed. In a present embodiment, a three-pixel border is used so that **the user may more easily interact** with the border, such as for **resizing the desktop element**." SAMSUNG-1010, 5:1-7, FIG. 4. A POSITA would have understood or found obvious that "mov[ing]" and "resizing" desktop components is a form of "interaction" as a user would need to direct the system to perform either. SAMSUNG-1005, 13:22-36.

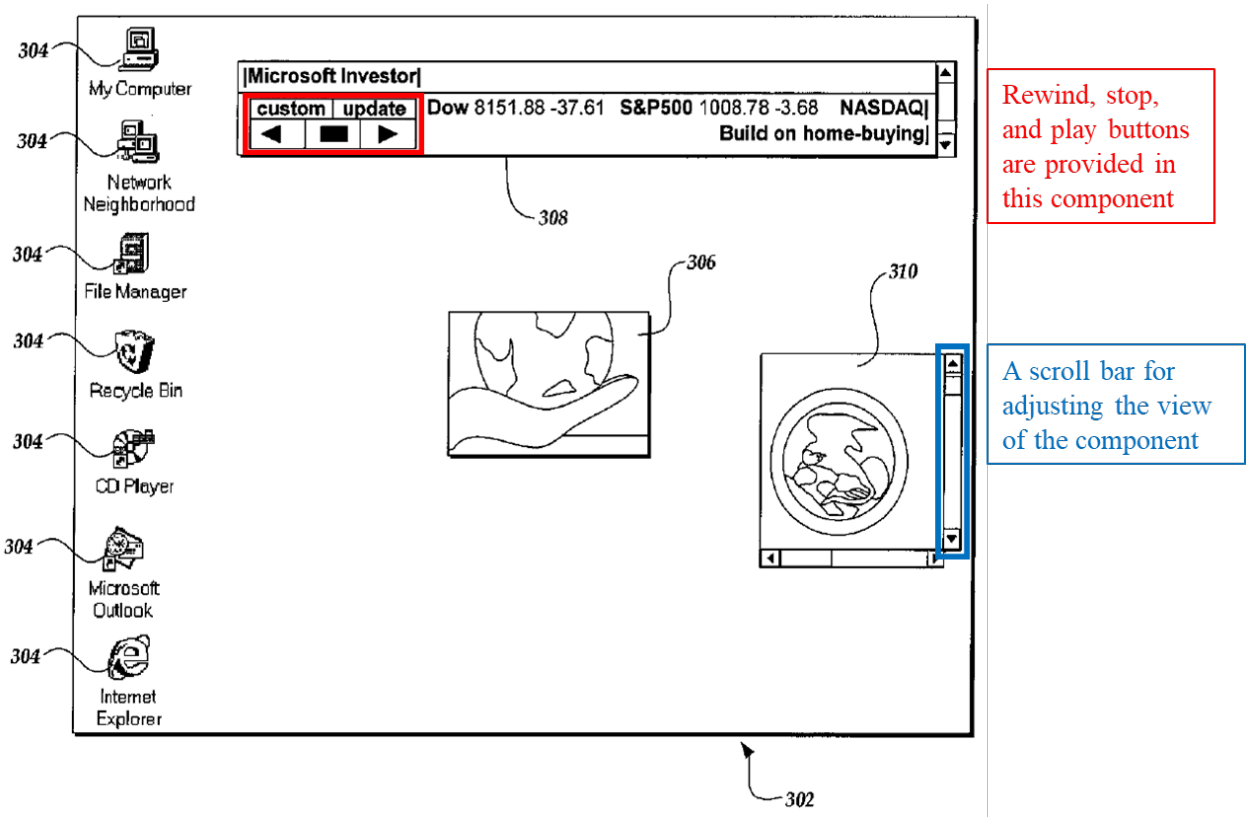


SAMSUNG-1010, FIG. 4 (annotated)

[3]: The client device of claim 2, wherein the control characteristics define visual representations of the controls that are included in the graphical user interface of the first networked information monitor.

81. *See* [2] (incorporated here). For both grounds, a POSITA would have recognized or found obvious that the "**control characteristics define visual representations of the controls**."

82. As presented above in the annotated Figure 3A, Brown provides "**visual representations**" of the desktop component controls. SAMSUNG-1005, FIG. 3A.



SAMSUNG-1005, FIG. 3A (annotated)

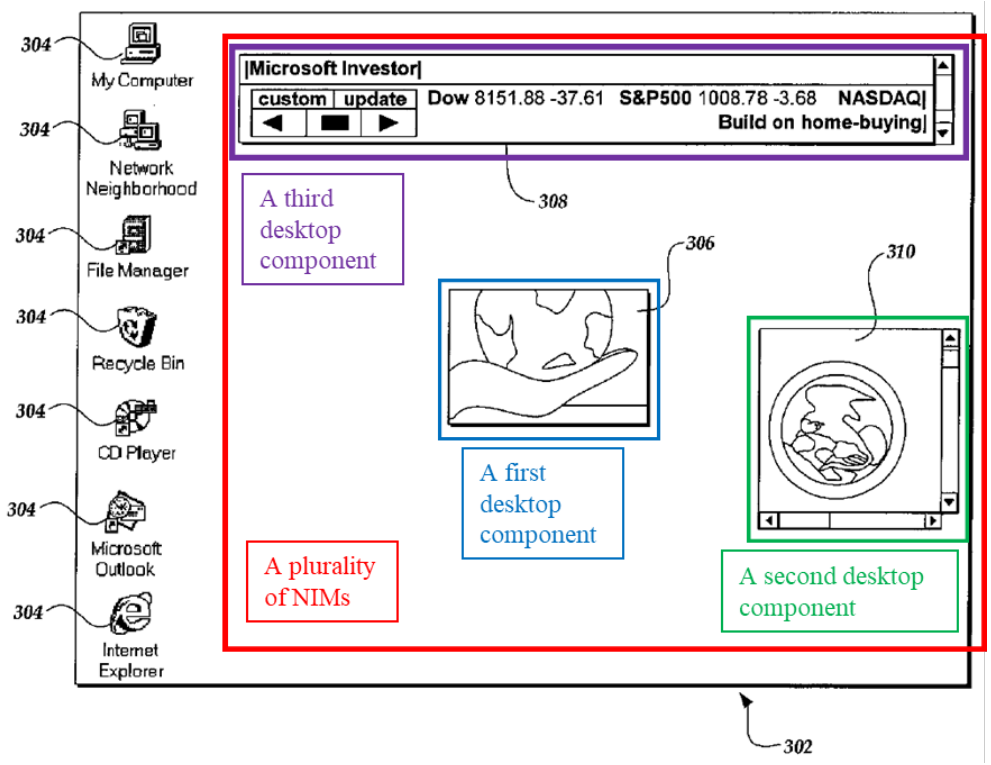
83. Moreover, the decision to implement visual representations for controls would have been obvious for a POSITA as it was well known in the art that controls could be visually manifested to encourage user interaction. Indeed, Darnell describes many different examples of visual GUI controls, to include: menus, toolbars, dialog boxes, data entry fields, buttons, icons, resizable windows, and animations. SAMSUNG-1011, 443.

[4.1]: The client device of claim 1, wherein the plurality of networked information monitor templates further comprises a second networked information monitor template defining a second networked information monitor, wherein the second networked information monitor template comprises:

A. *Brown*

84. *See* [1.1] (incorporated here). A POSITA would have recognized from reviewing the figures of Brown that the "composite desktop" is comprised of "one **or more** components," which includes additional sets of "HTML instructions" that define the desktop "components." SAMSUNG-1005, 4:13-19, FIG. 3A.

85. A POSITA would also have understood or found obvious that multiple frames displaying content could be presented to the user simultaneously. For example, Darnell describes that "the content in one frame can be independent of other frames." SAMSUNG-1011, 338.



SAMSUNG-1005, FIG. 3A (annotated)

```
6. <IMG id=3 name="DeskMovr" src="http://
   www.microsoft.com/ie/images/ulg/ulg_ie40.jpg"
7. resizeable="XY"
8. subscribed_url="http://www.microsoft.com/ie/
   images/ulg/ulg_ie40.jpg"
9. style="BACKGROUND: transparent; position:abso-
   lute; LEFT: 347; TOP: 236; WIDTH: 120; HEIGHT:
   82; Z-INDEX: 1006">
10. <IFRAME id=7 MARGINWIDTH=0
   MARGINHEIGHT=0 name="DeskMovrW" src=
   "http://www.uspto.gov/"
11. resizeable="XY"
12. subscribed_url="http://www.uspto.gov/"
13. frameborder=0 style="BACKGROUND: transparent;
   position:absolute; LEFT:620; TOP:254; WIDTH:156;
   HEIGHT:150; Z-INDEX:1014"></IFRAME>
```

A "first" and "second" set of HTML instructions

SAMSUNG-1005, 11:56-67 (annotated)

B. *The Brown-Wecker combination*

86. All claim features are rendered obvious as I discuss above. [4.1].A, *above*.

87. Moreover, Wecker refers to "script **files**" that define "**templates**." SAMSUNG-1006, 3:17-20. A POSITA would have found this disclosure to disclose or render obvious a "second networked information monitor template," and that the Brown-Wecker combination would also allow for a plurality of "components" or "templates" because a POSITA would have recognized the need to display multiple pieces of internet content simultaneously.

[4.2]: a second content reference that comprises a second network location, which is different from the network location in the content reference of the first networked information monitor template, at which content for the second networked information monitor is accessible via the TCP/IP protocol; and

88. *See* [1.2] (incorporated here). More specifically, Brown renders obvious multiple (e.g., first and second) content references and network locations because Brown discloses multiple desktop components, each with content reference and associated network location. FIG. 3A. A POSITA would have understood or found obvious that a second networked information monitor template would possess these features for the same reasons as discussed in [1.2] for the first template. A POSITA also would have understood or found obvious that, to provide content distinct from the first template, the second template would need

to reference a "**second network location, which is different from the network location in the content reference of the first networked information monitor template.**"

[4.3]: a definition of a graphical user interface of the second networked information monitor that lacks controls for manually navigating a network, and that includes a second frame within which content received from the second network location can be displayed; and

89. *See* [1.3] (incorporated here). More specifically, Brown renders obvious multiple (e.g., first and second) frames because Brown discloses multiple desktop components, each with content reference and associated network location. FIG. 3A. A POSITA would have understood or found obvious that a second networked information monitor template would possess these features for the same reasons as discussed in [1.3] for the first template.

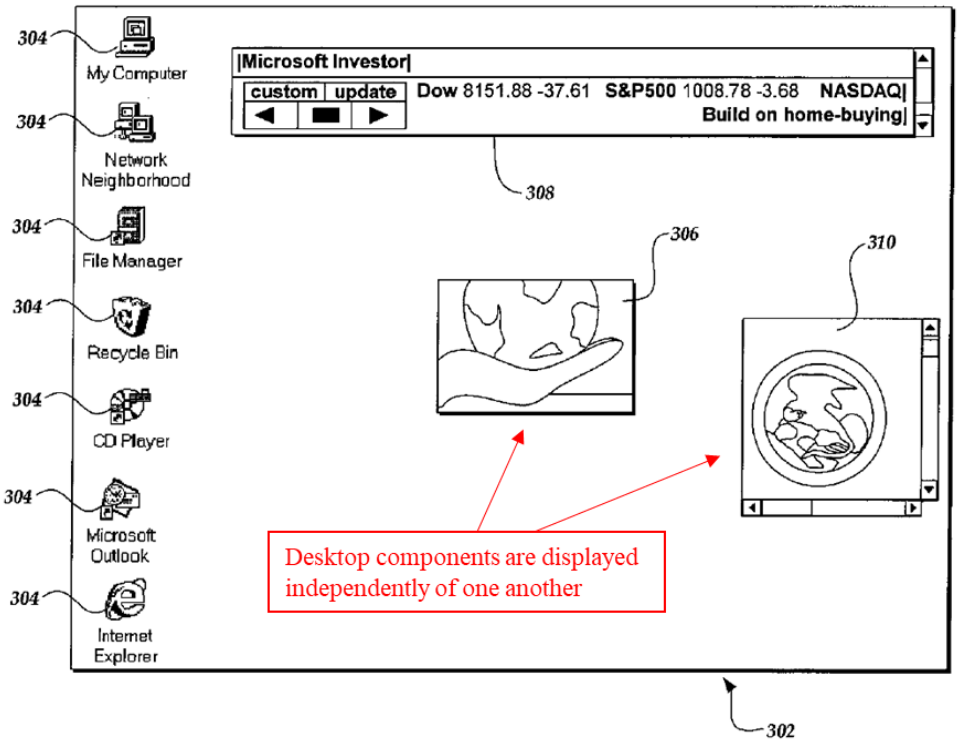
[4.4]: instructions configured (i) to cause the second networked information monitor to request content from the second network location in the second content reference via the TCP/IP protocol, and (ii) to cause the second networked information monitor to generate the graphical user interface of the second networked information monitor with the content received from the second network location via the TCP/IP protocol within the frame.

90. *See* [1.4] (incorporated here). More specifically, Brown renders obvious multiple (e.g., first and second) sets of instructions because Brown discloses multiple desktop components, each with content reference and associated network location. FIG. 3A. A POSITA would have understood or found obvious

that a second networked information monitor template would possess these features for the same reasons as discussed in [1.4] for the first template.

[5]: The client device of claim 4, wherein the one or more processors are further configured to execute the second networked information monitor template such that the graphical user interface of the second networked information monitor is presented to the user on the electronic display separately and discretely from the user interface of the first networked information monitor, and having content therein received from the second content reference.

91. *See* [1.6] and [4.1] (incorporated here). For both grounds, a POSITA would have recognized in reviewing Brown's figures that the "components" are displayed "separately and discretely" from each other. Indeed, as further illustrated below, Brown describes its "desktop components" as "**distinct** geometric region[s]" (**presented to the user on the electronic display separately and discretely from the user interface of the first networked information monitor).** SAMSUNG-1005, 7:21-23, FIG. 3A.

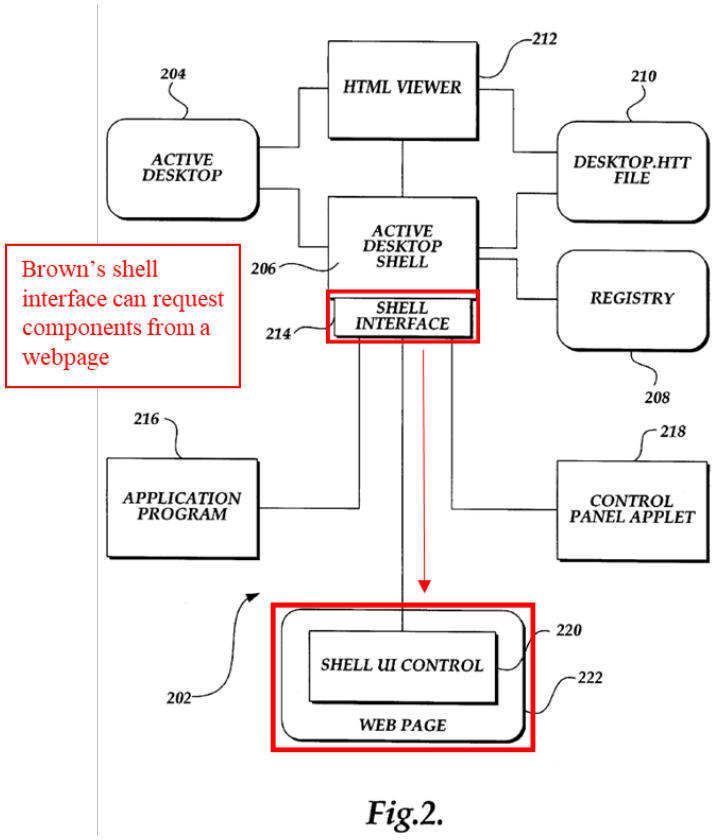


SAMSUNG-1005, FIG. 3A (annotated)

[6]: The client device of claim 1, wherein the one or more processors are further configured to transmit a request to a server for a further networked monitor template responsive to reception of a user request for a further networked information monitor defined by the further networked information monitor template.

92. Wecker discloses that the "desktop computer 16, through the transport, can **periodically retrieve** or receive new and updated **script, data and CDF files** either for further transmission to mobile device 18 or simply for rendering the data." ("**transmit a request to a server for a further networked monitor template")** SAMSUNG-1006, 4:3-6. A POSITA would have understood or found obvious that "**one or more processors**" would have retrieved the script and CDF files after a "**user request**," as desktop computers include processors that execute

similar program functions. *Id.*, *above* [1.6]. In incorporating Wecker into Brown, a POSITA would have recognized that the multiple programs within Brown, for example, the HTML viewer or desktop shell, could execute these functions as directed by the processor. Indeed, Brown's desktop shell, operated by the processing unit (*see e.g., above* [1.6]), includes a "shell interface 214, in order to add [a] corresponding component to the composite desktop," the component being selected "on [a] Web page." SAMSUNG-1005, 7:3-7. An annotated figure showing the interaction of the shell interface is presented below.

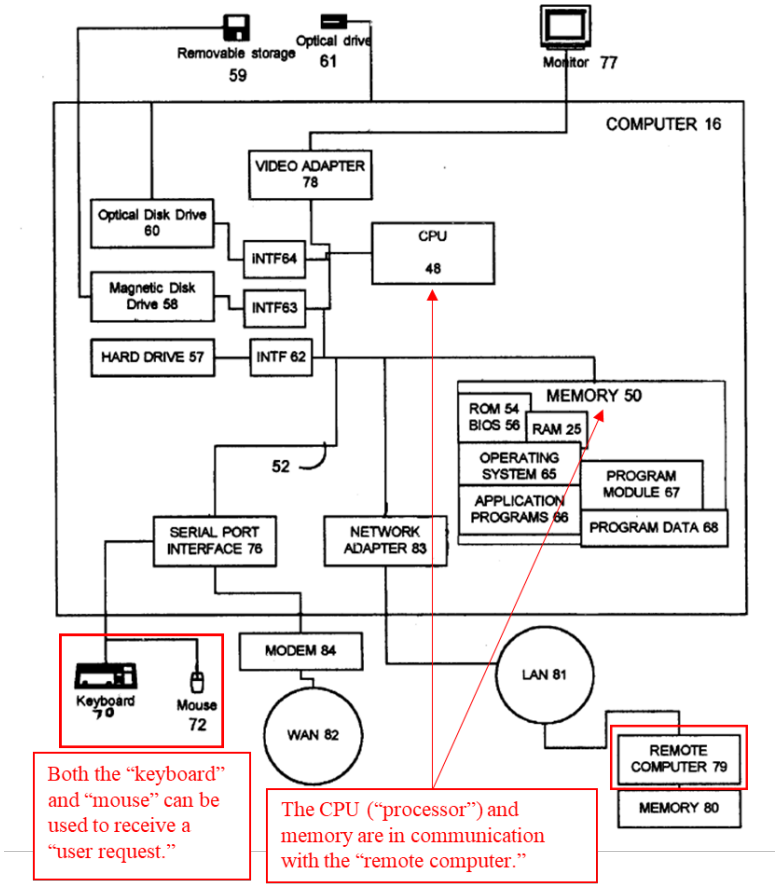


SAMSUNG-1005, FIG. 2 (annotated)

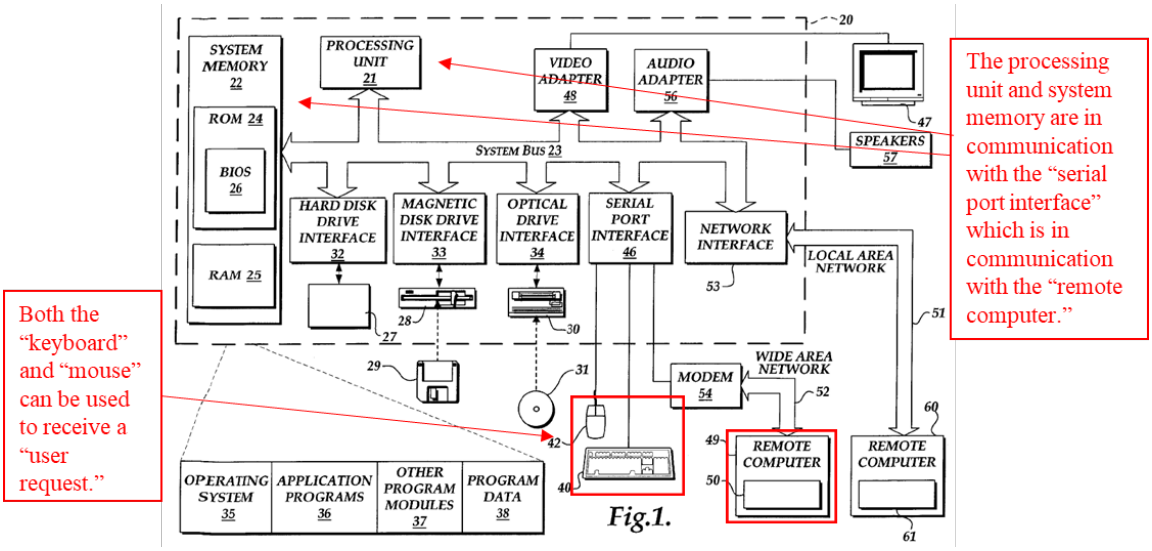
93. Wecker also discloses that "**users of desktop 16** can preferably **subscribe** to channels **("reception of a user request")** in a standard fashion which provide the user with **certain channel content** which can be browsed off-line or on-line." SAMSUNG-1006, 3:63-66. In keeping with this disclosure, Wecker describes that its "desktop" may be in communication with a "remote computer," which can be a "**server**." SAMSUNG-1006, 7:55-63, FIG. 5; Section I.A.3, *above*.

94. The Brown-Wecker combination would be implemented such that the "subscriptions" as described by Wecker could be implemented for the "HTML instructions" of Brown. Indeed, Brown already describes subscriptions (also with relation to CDF). SAMSUNG-1005, 13:5-9. Allowing Brown-Wecker's subscriptions to also receive style-related "templates" (as discussed in Wecker) would provide similar benefits as discussed in Wecker, such that the combination could "retrieve or receive new and updated script." SAMSUNG-1006, 4:4-5.

95. A POSITA would also have understood or found obvious that processors and programs could request style-based templates from external servers as this was well known in the art. For example, Beer describes a "PGUI resident on the client [that] retrieves [a] corresponding user interface definition from a storage device, **preferably on a server**." SAMSUNG-1007, 14:3-5. Beer's user interface definitions, or "UILs" are "preferably a text file, in a format similar to various text-markup languages, **such as HTML**." *Id*., 3:43-44.



SAMSUNG-1006, FIG. 5 (annotated)



SAMSUNG-1005, FIG. 2 (annotated)

[7]: The client device of claim 6, wherein the electronic storage is configured to electronically store the received further networked information monitor template, responsive to reception of the further networked information monitor template from the server.

96. *See* [1.1] (incorporated here). A POSITA would have understood or found obvious that a template could be stored for the same reasons as discussed in [1.1]. A POSITA also would have understood or found obvious that, after being received over the network, a "template" would be capable of being stored in the storage of the Brown-Wecker device ("**store the received further networked information monitor template**") because Wecker provides such features for storing a received template. Indeed, Wecker describes a "cache manager" that "receives the CDF files 201, script templates 204 and data files 202, and provides them to cache memory 206." SAMSUNG-1006, 8:47-49.

97. Wecker additionally provides motivation for a POSITA to store a requested template and discloses that "scripting files typically need updating much less frequently than the data files, [which] provides the user with the ability to view the web content on the desktop (off-line)." A POSITA would have understood or found obvious that "[viewing] the web content … **off-line**" would require the "script" to be saved to the device. SAMSUNG-1006, 7:7-11.

[8]: The client device of claim 7, wherein the one or more processors are further configured to execute the further networked information monitor template.

98. *See* [1.6] and [7] (incorporated here). A POSITA would have understood or found obvious that "**execut[ing]**" the further networked information monitor template would result in similar operations as discussed in [1.6]. Wecker describes that "in response to the user requesting to view information provided via the chosen channel, loadable transport 220 requests cache manager 208 to **retrieve the corresponding web content information** (in the form of **script templates** and data files) from cache 206." SAMSUNG-1006, 9:30-34. A POSITA would have understood or found obvious that "**one or more processors**" in the Brown-Wecker combination would then execute the requested template using the HTML viewer or desktop shell, as discussed above. *Above* [1.6]. An example of the Brown-Wecker combination is presented as annotated copy of Brown's Figure 2 below.

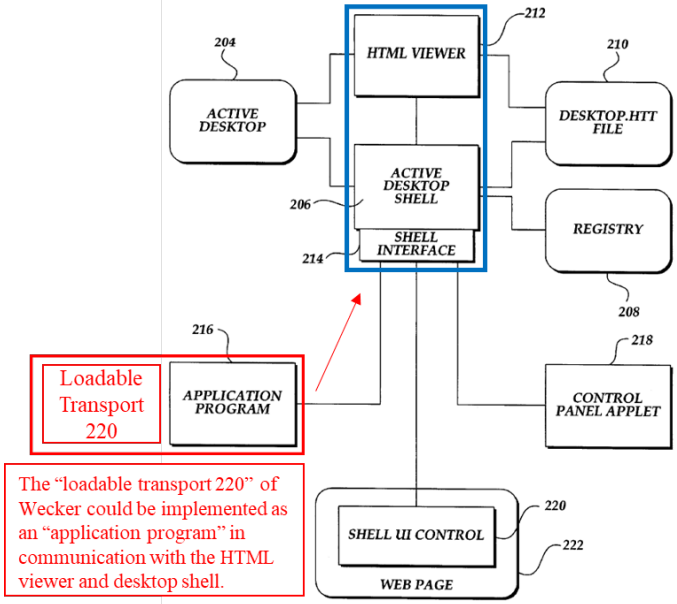


Fig.2.

SAMSUNG-1005, FIG. 2 (annotated)

99. A POSITA would also have understood or found obvious that a processor would "execute" the received template as this was well known in the art. For example, Beer describes that "[the] PGUI **retrieves a defined visual style** object (user defined or a default style), **and renders the appearance of each part of the user interface** in accordance with the defined visual style." SAMSUNG-1007, 14:9-12.

[9.pre]: A computer-implemented method of presenting Internet content to a user, the method being implemented in a client device comprising a electronic storage, an electronic display, and one or more processors, the method comprising:

100. To the extent the preamble is limiting, for both grounds, a POSITA would have recognized that the Brown-Wecker combination is also a "**computer-implemented method of presenting Internet content to a user**" because Brown describes "a computer-based method of displaying information on a graphical user interface composite desktop displayed on a computer monitor" SAMSUNG-1005, Claim 19. A POSITA would have recognized that a "computer" and "desktop" are examples of a "**client device**" as these terms are used interchangeably in the art.

101. As discussed above, Brown's "computer" includes "**electronic storage, an electronic display, and one or more processors**"). *See* [1.1], [1.5], [1.6], *above*.

[9.1]: storing to the electronic storage a plurality of networked information monitor templates defining a plurality of networked information monitors, the plurality of networked information monitor templates

comprising a first networked information monitor template defining a first networked information monitor, wherein the first networked information monitor template comprises:

102. *See* [1.1] (incorporated here). Given that both grounds render obvious "the electronic storage having stored thereon a plurality of networked information monitor templates" a POSITA would have also found obvious the method of "**storing to the electronic storage a plurality of networked information monitor templates**" as this is nothing more than the implementation of the above system.

[9.2]: a content reference that comprises a network location at which content for the first networked information monitor is accessible via a TCP/IP protocol; and

103. *See* [1.2] (incorporated here). I believe that [9.2] is obvious for the reasons discussed above in [1.2].

[9.3]: a definition of a graphical user interface of the first networked information monitor that lacks controls for manually navigating a network, and that includes a frame within which content received from the network location can be displayed, and frame characteristics defining one or more a color, a size, or a position on the electronic display of the frame; and

104. *See* [1.3] (incorporated here). I believe that [9.3] is obvious for the reasons discussed above in [1.3].

[9.4]: instructions configured (i) to cause the first networked information monitor to request content from the network location in the content reference via the TCP/IP protocol, and (ii) to cause the first networked information monitor to generate the graphical user interface of the first networked information monitor with the content received from the network location via the TCP/IP protocol within the frame;

105. *See* [1.4] (incorporated here). I believe that [9.4] is obvious for the reasons discussed above in [1.4].

[9.5]: accessing the first networked information monitor template in the electronic storage; and

106. *See* [1.6] (incorporated here). Given that both grounds render obvious "one or more processors configured to access the first networked information monitor template" a POSITA would have also found obvious the method of "**accessing the first networked information monitor template in the electronic storage**" as this is nothing more than the implementation of the above system.

[9.6]: executing the first networked information monitor template on the one or more processors such that the graphical user interface of the first networked information monitor is presented to the user on the electronic display having therein content received from the content reference.

107. *See* [1.6] (incorporated here). Given that both grounds render obvious "one or more processors configured to … execute the first networked information monitor template such that the graphical user interface of the first networked information monitor is presented to a user on the electronic display having content received from the content reference therein" a POSITA would have also found obvious the method of "**executing the first networked information monitor template on the one or more processors**" as this is nothing more than the implementation of the above system.

[10]: The method of claim 9, wherein the first networked information monitor template further comprises control characteristics that define one or

more controls that are usable by the user to interact with or control the first networked information monitor.

108. *See* [2] (incorporated here). I believe that [10] is obvious for the reasons discussed above in [2].

[11]: The method of claim 10, wherein the control characteristics define visual representations of the controls that are included in the graphical user interface of the first networked information monitor.

109. *See* [3] (incorporated here). I believe that [11] is obvious for the reasons discussed above in [3].

[12.1]: The method of claim 9, wherein the plurality of networked information monitor templates further comprises a second networked information monitor template defining a second networked information monitor, wherein the second networked information monitor template comprises:

110. *See* [4.1] (incorporated here). I believe that [12.1] is obvious for the reasons discussed above in [4.1].

[12.2]: a second content reference that comprises a second network location, which is different from the network location in the content reference of the first networked information monitor template, at which content for the second networked information monitor is accessible via the TCP/IP protocol; and

111. *See* [4.2] (incorporated here). I believe that [12.2] is obvious for the reasons discussed above in [4.2].

[12.3]: a definition of a graphical user interface of the second networked information monitor that lacks controls for manually navigating a network, and that includes a second frame within which content received from the second network location can be displayed; and

112. *See* [4.3] (incorporated here). I believe that [12.3] is obvious for the reasons discussed above in [4.3].

[12.4]: instructions configured (i) to cause the second networked information monitor to request content from the second network location in the second content reference via the TCP/IP protocol, and (ii) to cause the second networked information monitor to generate the graphical user interface of the second networked information monitor with the content received from the second network location via the TCP/IP protocol within the frame.

113. *See* [4.4] (incorporated here). I believe that [12.4] is obvious for the reasons discussed above in [4.4].

[13]: The method of claim 12, further comprising executing the second networked information monitor template on the one or more processors such that the graphical user interface of the second networked information monitor is presented to the user on the electronic display separately and discretely from the user interface of the first networked information monitor, and having content therein received from the second content reference.

114. *See* [5] and [9.6] (incorporated here). I believe that [13] is obvious for the reasons discussed above in [5] and [9.6].

[14]: The method of claim 9, further comprising transmitting a request to a server for a further networked information monitor template responsive to reception of a user request for a further networked information monitor defined by the further networked information monitor template.

115. *See* [6] (incorporated here). Given that the Brown-Wecker combination renders obvious "one or more processors are further configured to transmit a request to a server for a further networked information monitor template" a POSITA would have also found obvious the method of "**transmitting**

a request to a server for a further networked information monitor" as this is nothing more than the implementation of the above system.

[15]: The method of claim 14, further comprising, responsive to reception of the further networked information monitor template from the server, storing the received further networked information monitor template to the electronic storage.

116. *See* [7] (incorporated here). Given that the Brown-Wecker combination renders obvious that the "the electronic storage is configured to electronically store the received further networked information monitor template" a POSITA would have also found obvious the method where "**responsive to reception of the further networked information monitor template from the server, storing the received further networked information monitor template to the electronic storage**" as this is nothing more than the implementation of the above system.

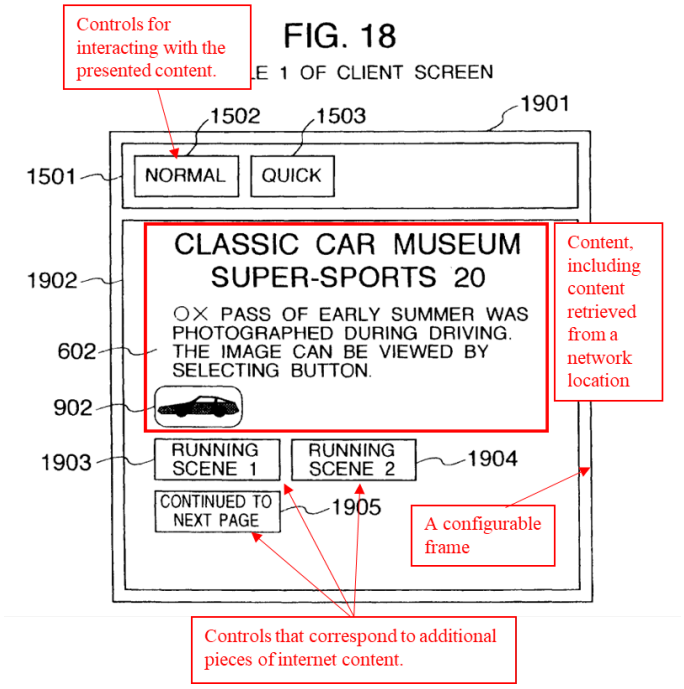
[16]: The method of claim 15, further comprising executing the further networked information monitor template on the one or more processors.

117. *See* [8] (incorporated here). Given that the Brown-Wecker combination renders obvious that "the one or more processors are further configured to execute the further networked information monitor template" a POSITA would have also found obvious the method of "**executing the further networked information monitor template on the one or more processors**" as this is nothing more than the implementation of the above system.

ANALYSIS OF SHIMADA AND BUCHHOLZ

Shimada

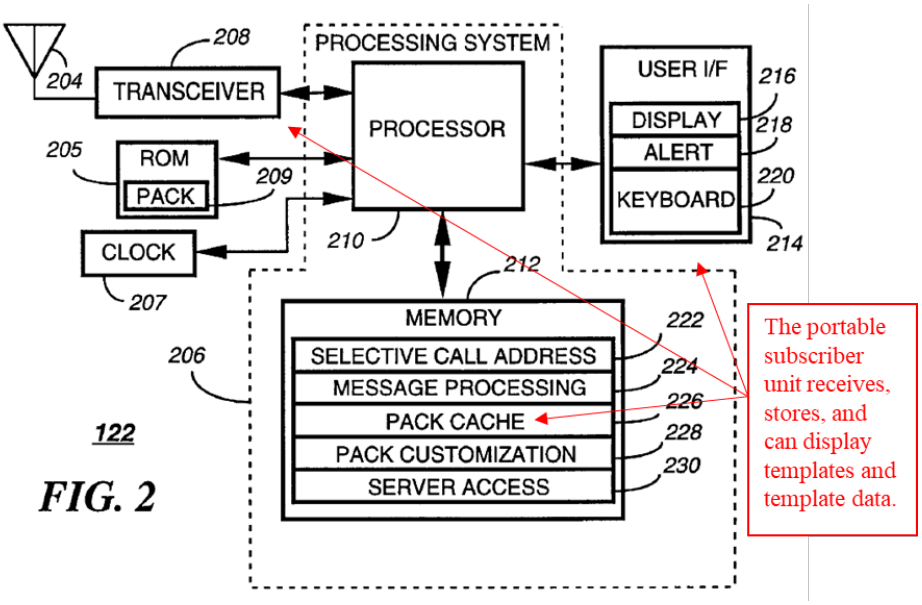
118. Shimada describes "a data conversion apparatus included an information input device" and "a convertor for executing the data in accordance with a predetermined rule." SAMSUNG-1008, Abstract. Shimada further describes that "when the kind of the data is screen configuration data describing configuration of the screen output of an information processing unit, the predetermined rule adds a display area of the screen configuration and converts it to a screen configuration data capable of displaying a plurality of screen configurations on the same screen." *Id*. Annotated figure 18 below provides an example of a screen according to Shimada.



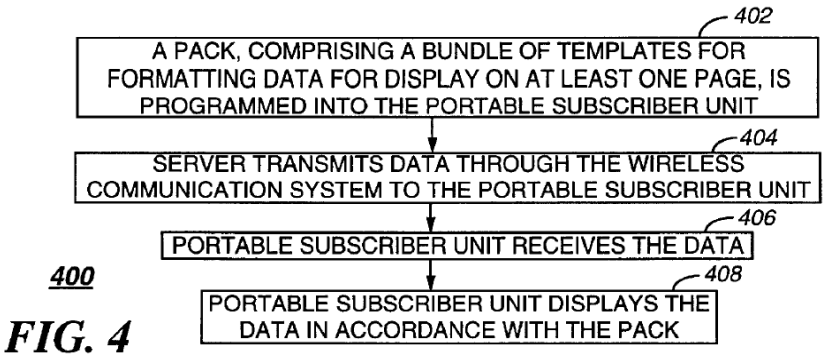
SAMSUNG-1008, FIG. 18 (annotated)

Buchholz

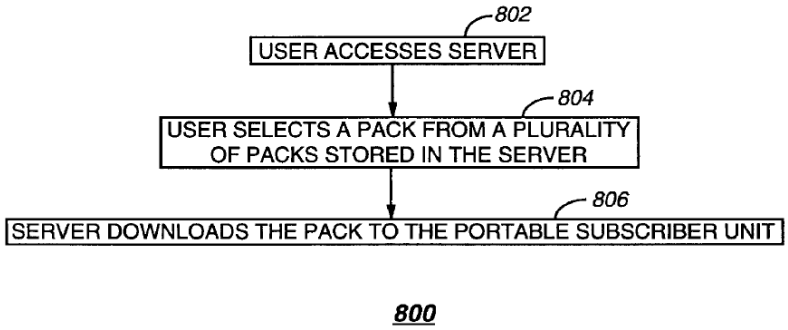
119. Buchholz describes "a method in a wireless communication system for controlling a display of template data by a portable subscriber unit." SAMSUNG-1009, 1:57-59. Buchholz further explains that this method "comprises the steps of programming a pack into the portable subscriber unit, the pack comprising a bundle of templates for formatting the template data for display on at least one page and transmitting the template data from a server in the wireless communication system. The method further comprises the steps of receiving the template data by the portable subscriber unit and displaying the template data in accordance with the pack." SAMSUNG-1009, 1:60-67. Annotated figure 2 provides an example of a portable subscriber unit according to Buchholz. Figure 4 outlines a process for transmitting data to a portable subscriber unit and displaying the data in accordance with a pack. Figure 8 outlines transmitting a pack to a portable subscriber unit.



SAMSUNG-1009, FIG. 2 (annotated)



SAMSUNG-1009, FIG. 4



SAMSUNG-1009, FIG. 8

Motivation to combine Shimada and Buchholz

120. A POSITA would have found it obvious to combine Shimada and Buchholz (collectively the "Shimada-Buchholz combination"). Among other things, both references are directed to "accessing and viewing internet content" and are further specifically directed to the desire to "reducing data transfer times." SAMSUNG-1008, Abstract, 1:34-55; SAMSUNG-1009, Abstract, 1:49-54.

121. I believe that a POSITA would have combined Shimada and Buchholz for various reasons, outlined below.

122. First, a POSITA would have recognized that both Shimada and Buchholz complement each other's ability to mitigate long download times in networks with "small network transmission capacity," as described by Shimada. SAMSUNG-1008, 1:40-44. Indeed, Buchholz also contemplates such networks, for example, "wireless communication systems" that can experience "excessive latency" when requesting and displaying web pages. SAMSUNG-1009, 1:26-37. A POSITA would have recognized that the techniques of these references were complementary, and each would enhance the abilities of the other.

123. Second, a POSITA would have recognized that the "screen configuration data" of Shimada and the "templates" of Buchholz are both implemented in HTML. SAMSUNG-1008, 6:59-62; SAMSUNG-1009, 5:9-13. A POSITA would have had a reasonable chance of success in implementing the

"screen configuration data" of Shimada into the "subscriber units" of Buchholz since this would require little to no modification of both systems and would merely involve the application of a known technique to yield predictable results.

124. Moreover, a POSITA would have been motivated to combine Shimada and Buchholz to improve data transfer times, increase usability, reduce client-side storage requirements, and/or other relevant business or technical reasons. With these motivations, a POSITA would have found it obvious to consider the disclosures of Shimada and Buchholz together.

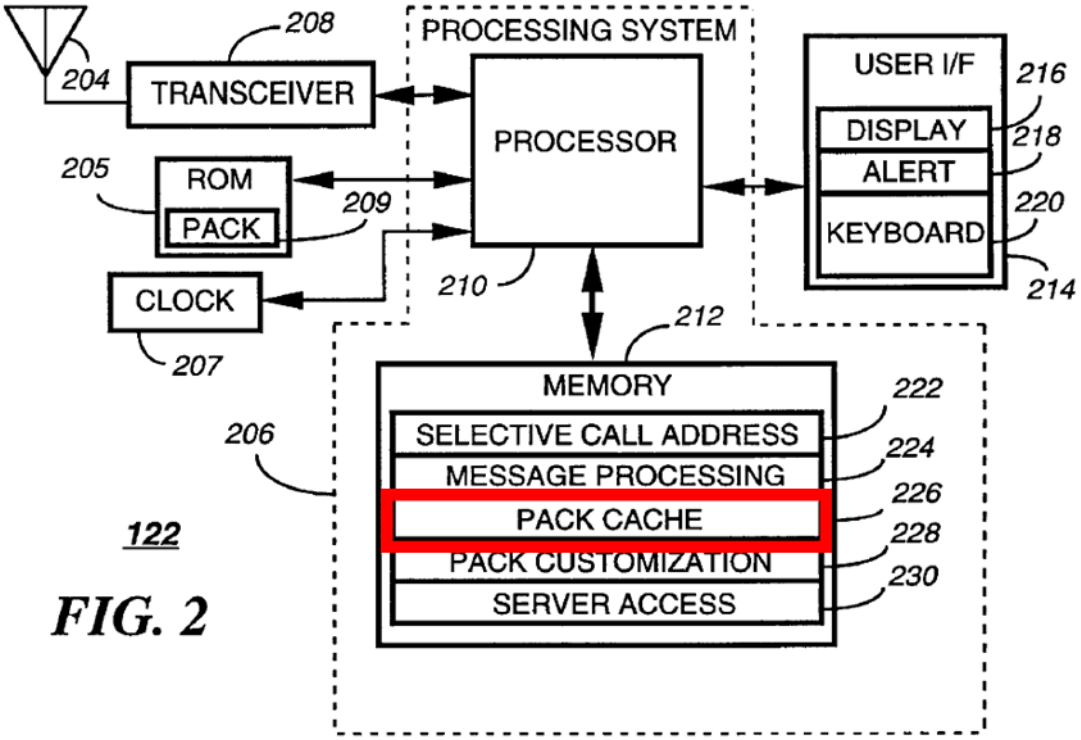
The Shimada-Buchholz Combination Renders Claims 1-16 Obvious

[1pre]: A client device, the client device comprising:

125. To the extent the preamble is limiting, the Shimada-Buchholz combination renders [1pre] obvious. For example, Shimada describes "a system … [comprising] a server 101, networks 102 and 104, a screen configuration expanding device 103 and a client 105." SAMSUNG-1008, 5:48-51. A POSITA would have understood or found obvious that "a client" is a form of "**client device**" as the addition of "device" does not create any limitation.

[1.1]: electronic storage having stored thereon a plurality of networked in-formation monitor templates defining a plurality of networked information monitors, the plurality of networked information monitor templates comprising a first networked information monitor template defining a first networked information monitor, wherein the first net-worked information monitor template comprises:

126. Buchholz discloses a "memory 212" that comprises "a pack cache 226 for **storing a pack** utilized by the portable subscriber unit 122." SAMSUNG-1009, 4:23-25. Buchholz describes that a pack "comprises a **bundle of templates** for formatting template data for display on at least one page" and that a template is "a pattern utilized by the processing system 206 and the user interface 214 to lay out the presentation of information to the user." SAMSUNG-1009, 5:4-9. An example portable subscriber unit is provided below.



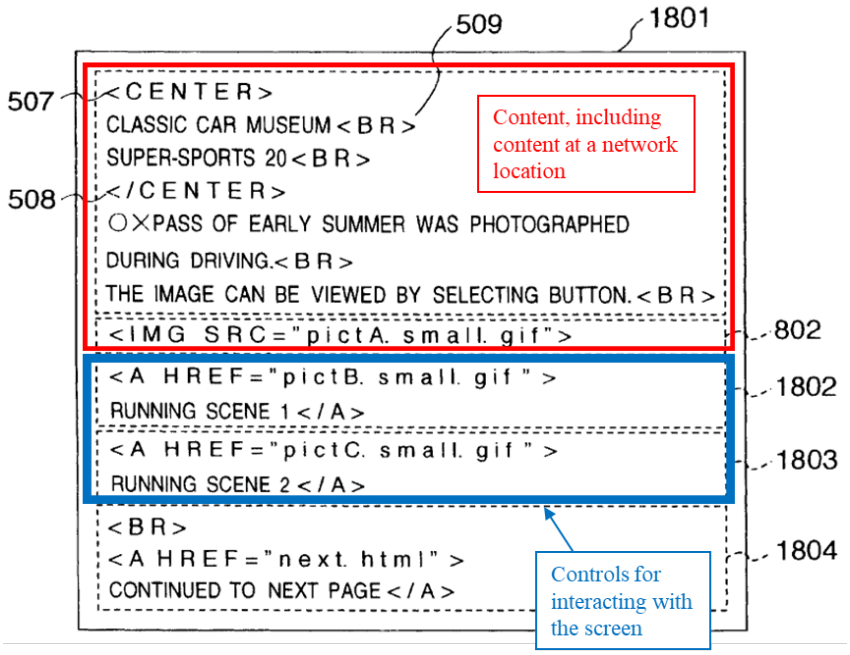
SAMSUNG-1009, FIG. 2 (annotated)

127. A POSITA would have recognized or found obvious that the "pack cache" and "memory" of Buchholz's portable subscriber units to be a form of "**electronic storage having stored thereon a plurality of networked in-**

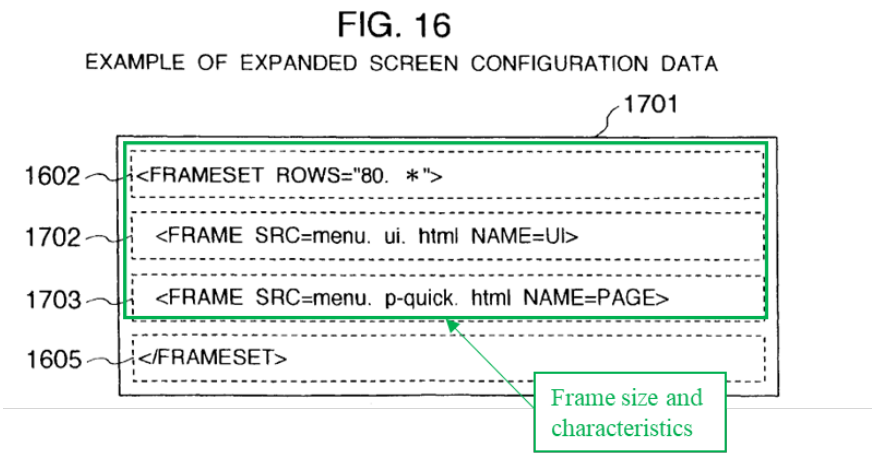
formation monitor templates" as the terms "memory" and "electronic storage" are used interchangeably in the art. Indeed, the '083 Patent frequently refers to "memory 30" within "computer 20." SAMSUNG 1001, *see at least* 6:30-38. As discussed above, a POSITA also would have recognized or found obvious that the screen configuration data of Shimada to be a "template," as this term is used by Buchholz, as screen configuration data is also an HTML data structure that defines the presentation of content. *See* Section I.B.3, *above*. Annotated figures depicting screen configuration data and the associated screen are provided below.

FIG. 17

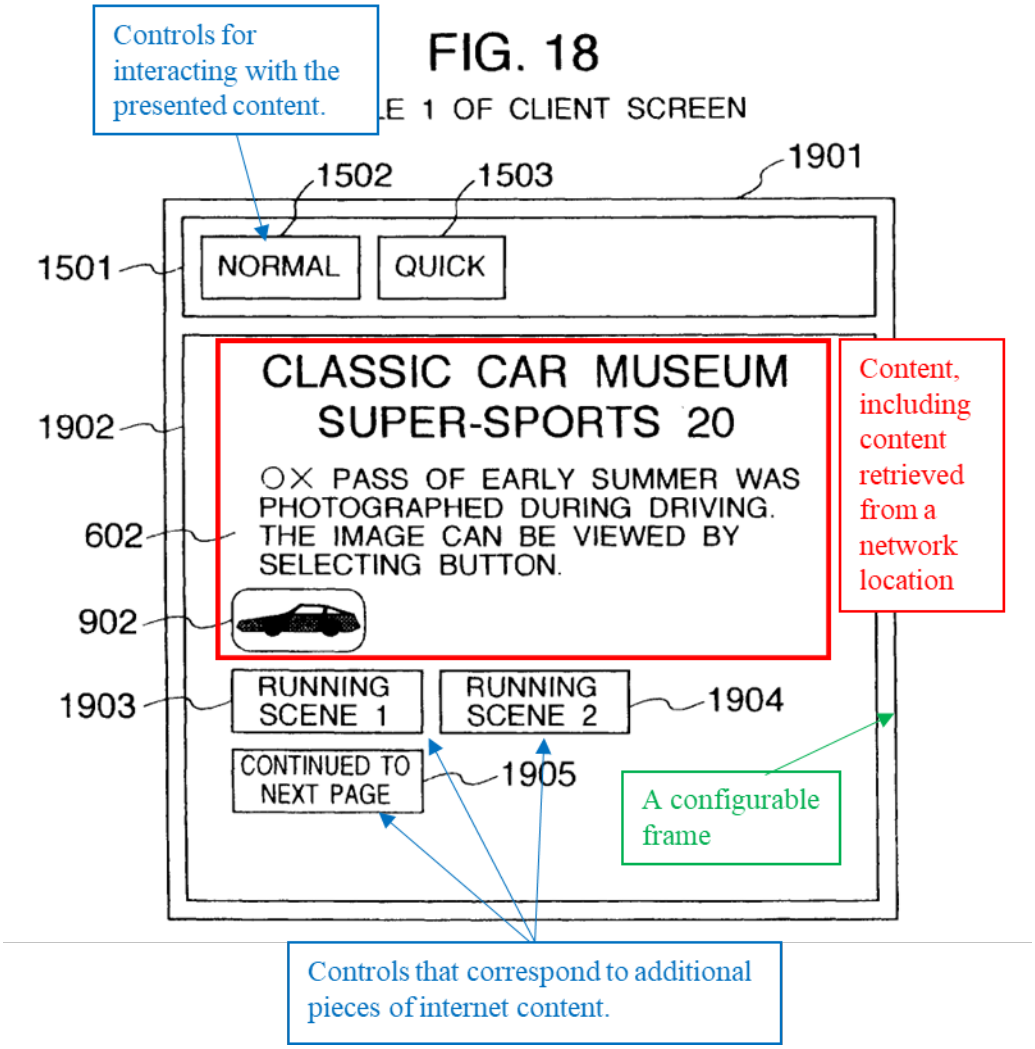
EXAMPLE OF CONVERTED SCREEN CONFIGURATION DATA (QUICK MODE)



SAMSUNG-1008, FIG. 17 (annotated)



SAMSUNG-1008, FIG. 16 (annotated)



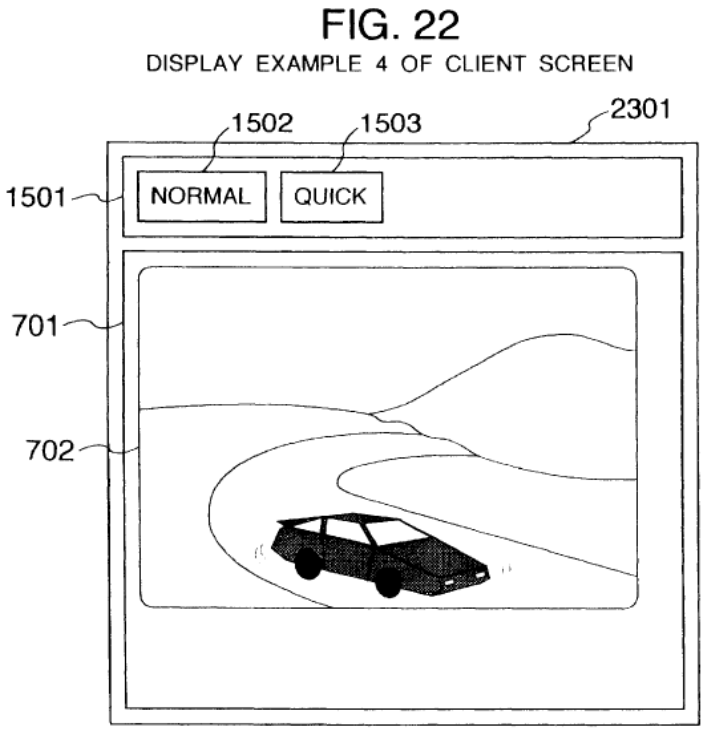
SAMSUNG-1008, FIG. 18 (annotated)

128. A POSITA would have understood or found obvious that the "screens" of Shimada correspond to the claimed "networked information monitors" in view of their similar features. Indeed, networked information monitors are "a **fully configurable frame**, with one or more **controls**, through which **content** is presented to the user," and a POSITA would have recognized or found obvious that Shimada's screens possess all of these features. SAMSUNG-1001, 5:41-44; Section I.C.1, *above*.

129. For example, Shimada's screens present multiple anchor tags that allow the user to download additional content, as well as controls that allow the user to interact with displayed content ("**one or more controls**"). SAMSUNG-1008, 6:39-51, FIG. 18. Shimada describes "[<A HREF="pictB.gif">]0 and [</A>] in the description 504 are referred to as 'anchor tags', and the portion encompassed by these tags becomes **a button on the screen** of the client 105. When the user clicks this button, the client 105 transmits the transfer request of the data designated by [HREF=" "] in the anchor tag to the server." *Id*. Shimada also describes that "**control can be made** so that when the client 105 first gains access to the data or when the **user selects the QUICK button**, all the static images transferred to the client 105 are reduced, and when the **user selects the NORMAL button**, the static image data are not reduced in the same way." *Id*., 13:12-18. A

POSITA would have recognized or found obvious that these buttons are "**one or more controls**" as describing a feature as a button implies user control.

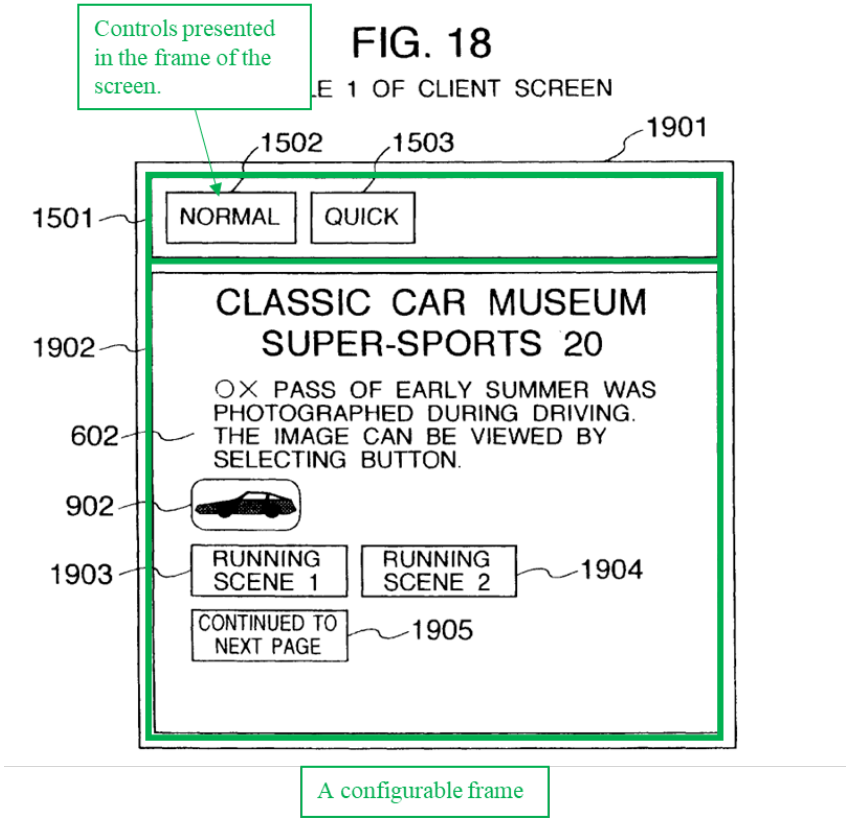
130. A POSITA also would have recognized or found obvious that the text and images (.gifs) presented to the user within the frame of the screen are "**content … presented to the user,**" since .gifs are a common form of image file. SAMSUNG-1008, FIG. 18. Moreover, a POSITA would have recognized or found obvious that the content locations referenced by the anchor tags correspond to additional content locations, as the addresses of these network locations also correspond to .gif files. *Id*. Indeed, Shimada describes "[w]hen the user clicks this button, the client 105 transmits the transfer request of the data designated by [HREF= " "] in the anchor tag to the server. [pictB.gif] is the address representing the **static image 702**." *Id*., 6:42-45, FIG. 7, FIG. 10, FIG. 19, FIG. 22. An example of this additional content is provided below as component 702.



SAMSUNG-1008, FIG. 22

131. Finally, a POSITA would have recognized or found obvious that this content is presented to a user as a "**fully configurable frame**" from reviewing, at least, Figure 18 of Shimada which presents the content referenced by screen configuration data in a "**frame**." SAMSUNG-1008, FIG. 18. Moreover, the size of this frame can be defined ("dividing the screen display") and controls can be specified to control the frame. SAMSUNG-1008, 7:21-22, 8:65-67, FIG. 15, FIG. 16, FIG. 18; *see* [2] *below*. The above disclosures render Shimada's screens "**fully configurable**" as this term is used by the '083 Patent (i.e., the user can specify frame characteristics and controls). SAMSUNG-1001, 2:45-59. An annotated

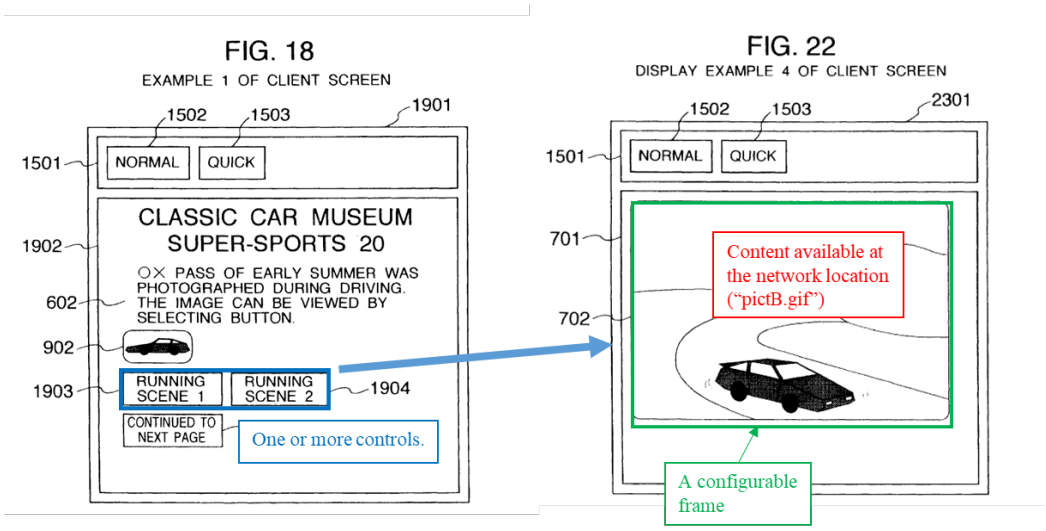
figure is presented below which shows the frame of Shimada's screen, along with the associated controls.



SAMSUNG-1008, FIG. 18 (annotated)

132. Alternatively, I believe a POSITA would have further recognized or found obvious that multiple features within Shimada's screen configuration data can also correspond to the NIMs as claimed. For example, Shimada's anchor tags, like Shimada's screens, also possess all the features of a NIM ("a **fully configurable frame**, with one or more **controls**, through which **content** is presented to the user" Shimada describes that an anchor tag "becomes a **button** on the screen of the client." SAMSUNG-1008, 6:41-42, FIG. 18. A POSITA would

have understood or found obvious that this button is "**one or more controls**" as a "button" implies user such control. A POSITA also would have recognized or found obvious that the .gif image referenced by the ancho tag, visible in the annotated Figure 22 below, is "**content … presented to the user**" as .gifs are a common form of image file. SAMSUNG-1008, FIG. 22. A POSITA also would have recognized or found obvious that this content is presented in "**a fully configurable frame**" as Shimada presents many options for the display of the content referenced by the anchor tag. SAMSUNG-1008, *see at least* FIG. 7, FIG. 10, FIG. 19, FIG. 22, FIG. 25.



SAMSUNG-1008, FIGS. 18 and 22 (annotated)

133. I therefore believe both Shimada's screens and anchor tags correspond to "networked information monitors."

134. A POSITA would also have recognized or found obvious that the "screen configuration data" that defines Shimada's screens and anchor tags is a

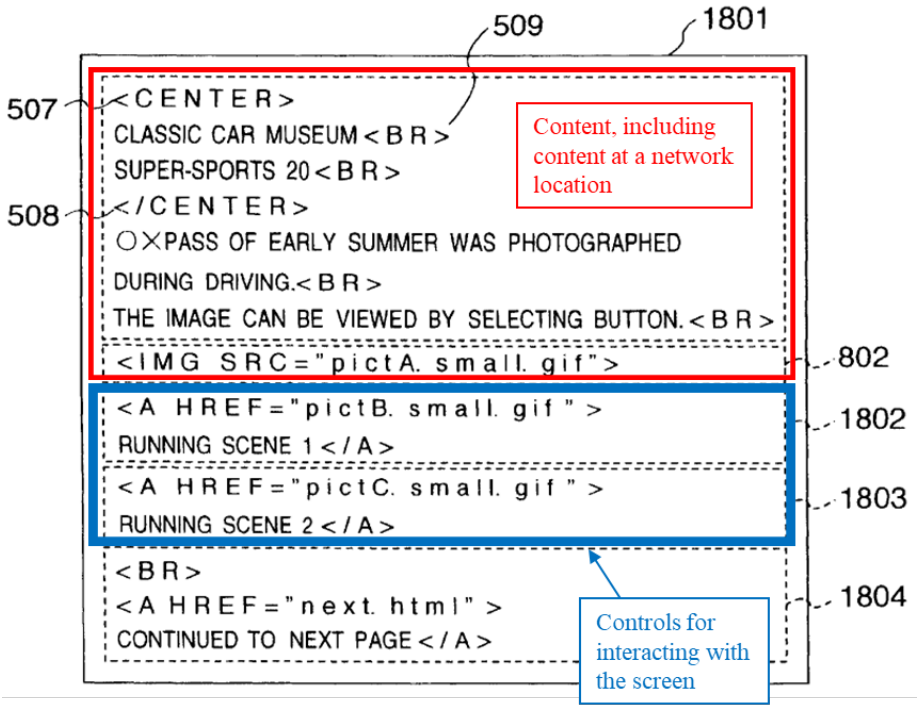
"networked information monitor template" because screen configuration data has similar features. SAMSUNG-1008, 6:7-51. An annotated example of screen configuration data is provided below. Indeed, because networked information monitor templates are "a data structure that defines the **characteristics of a NIM**, including the NIM **frame**, **view**, and **control characteristics**, [which] excludes executable **applications/compiled code**," a POSITA would have recognized or found obvious that a set of Shimada's screen configuration data possesses all of these features. SAMSUNG-1001, 7:19-23, 8:53-57, 14:34-35; Section I.C.2, *above*. As seen in the annotated Figure 17 below, Shimada's screen configuration data contains multiple pieces of content and buttons ("**defines the characteristics of a NIM, including the NIM frame, view, and control characteristics"**). SAMSUNG-1008, FIG. 17. Moreover, as can be seen from the annotated Figures 16 and 17 below, screen configuration data also specifies the content frame ("**NIM frame [and] view"**). SAMSUNG-1008, FIG. 16, FIG. 17. Shimada's screen configuration data therefore correspond to a "networked information monitor template."

135. Moreover, as it can be seen in the annotated instructions below, Shimada's HTML screen configuration data does not contain "**applications**" or "**compiled code**." SAMSUNG-1008, 6:59-62, FIG. 16, FIG. 17. A POSITA would have understood or found obvious to not include compiled code in the

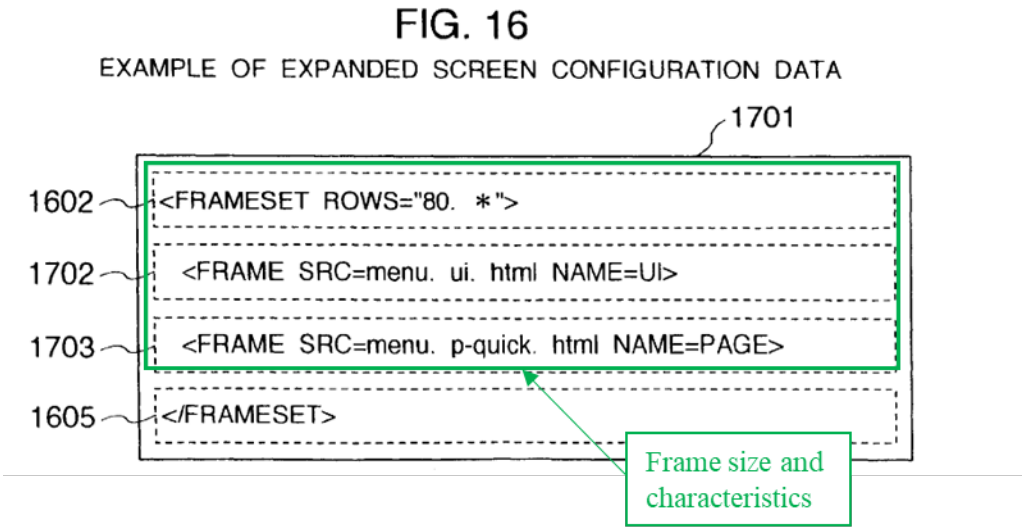
screen configuration data since HTML is known to be a markup language. *Id.*, 6:36-37. Indeed, Darnell describes that HTML is "platform independent" (i.e. not requiring specific hardware or software for interpretation). SAMSUNG-1011, Page 70. Darnell states that one of the advantages of a "platform independent" language is that "persons in different locations can exchange information, collaborate on authoring articles, publish data, and carry on a robust discourse without … having to pay for specific hardware and software with proprietary schemes." *Id.* A POSITA would have understood the advantages of a platform independent language, like HTML, and would have been motivated to avoid including additional compiled code that would render these advantages moot.

FIG. 17

EXAMPLE OF CONVERTED SCREEN CONFIGURATION DATA (QUICK MODE)



SAMSUNG-1008, FIG. 17 (annotated)

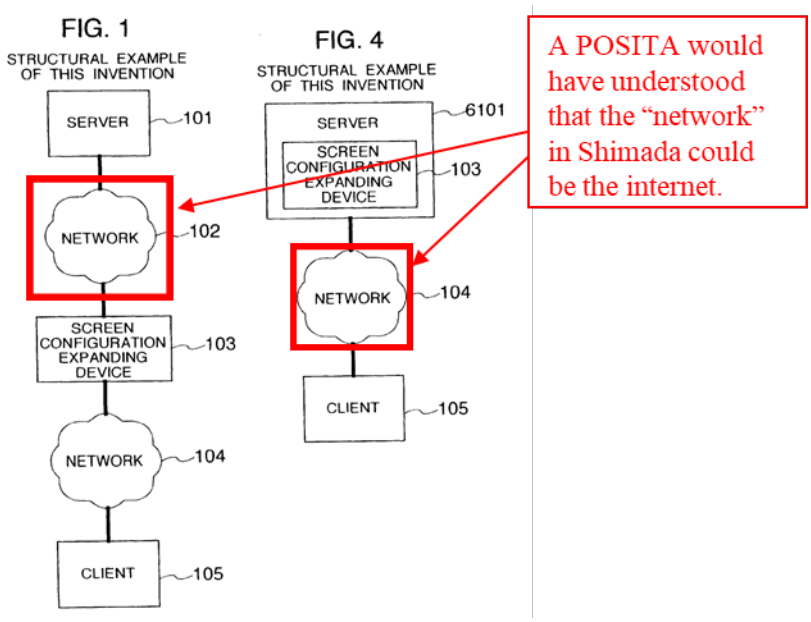


SAMSUNG-1008, FIG. 16 (annotated)

[1.2]: a content reference that comprises a network location at which content for the first networked information monitor is accessible via a TCP/IP protocol;

136. Shimada discloses that screen configuration information is received from a server and describes that "the addition of a new screen display area to the screen configuration information which is **received from the server** 101 and contains **data to be displayed** and information on the configuration of the screen for displaying this data." SAMSUNG-1008, 5:52-65. Shimada also discloses that the server is connected to the client via a "network." *Id*. A POSITA would have understood or found obvious that the network could be the internet, which is the most common example of a "**TCP/IP protocol**". Indeed, Shimada states that "such a multimedia network system has spread in **world wide networks** and access to world-wide information can be acquired by making access to the **servers**

in the world." SAMSUNG-1008, 1:34-36. Moreover, Darnell discloses that "HTTP [hypertext transfer protocol] operates **over the Internet**, where communication occurs between computers **via TCP/IP**." SAMSUNG-1011, Page 88. Two examples of Shimada's system are provided below.



SAMSUNG-1008, FIG. 1 and FIG. 4 (annotated)

137. A POSITA would also have recognized or found obvious that both Shimada's IMG and anchor tags include a URL that "**comprises a network location at which content … is accessible**" because Shimada describes these tags as including an "address representing a static image" which is obtained from a "server." SAMSUNG-1008, 6:30-5134.

138. Buchholz also describes that "server 124 comprises a conventional communication interface 304 for communicating with the portable subscriber unit 122 through the Internet." SAMSUNG-1009, 4:34-36.

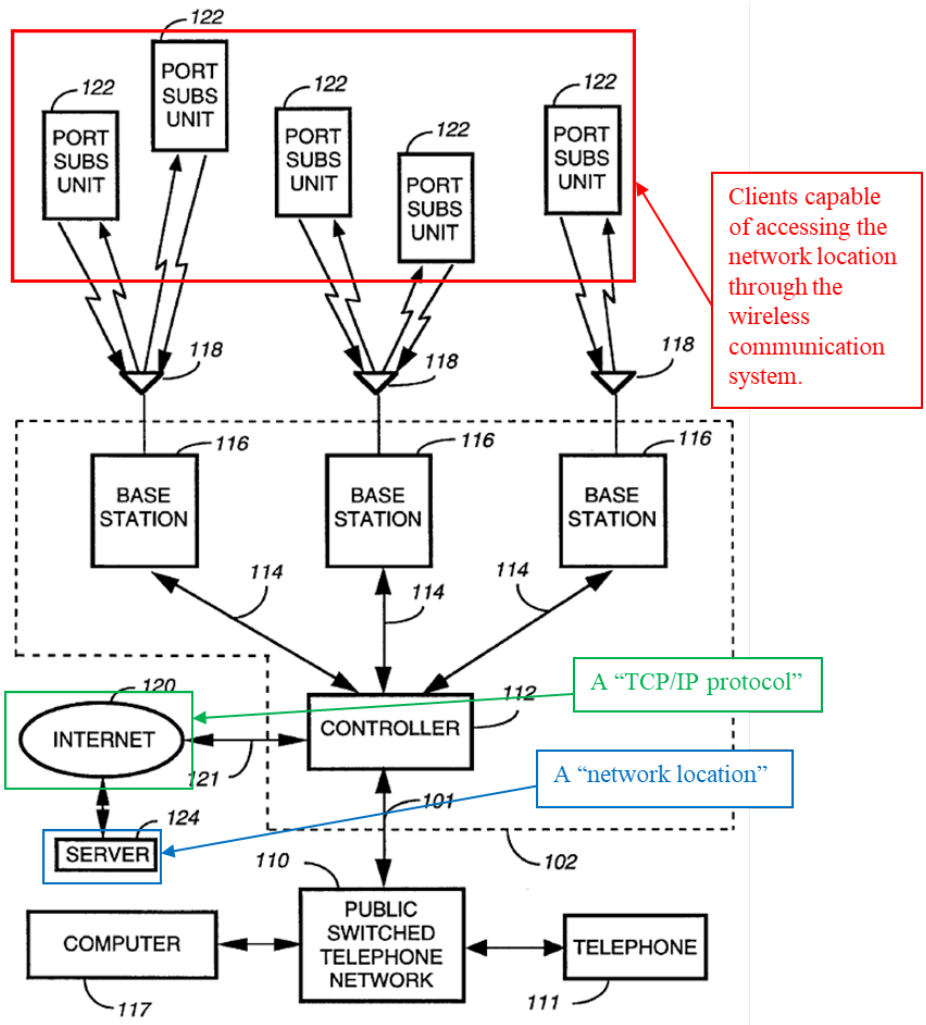


FIG. 1

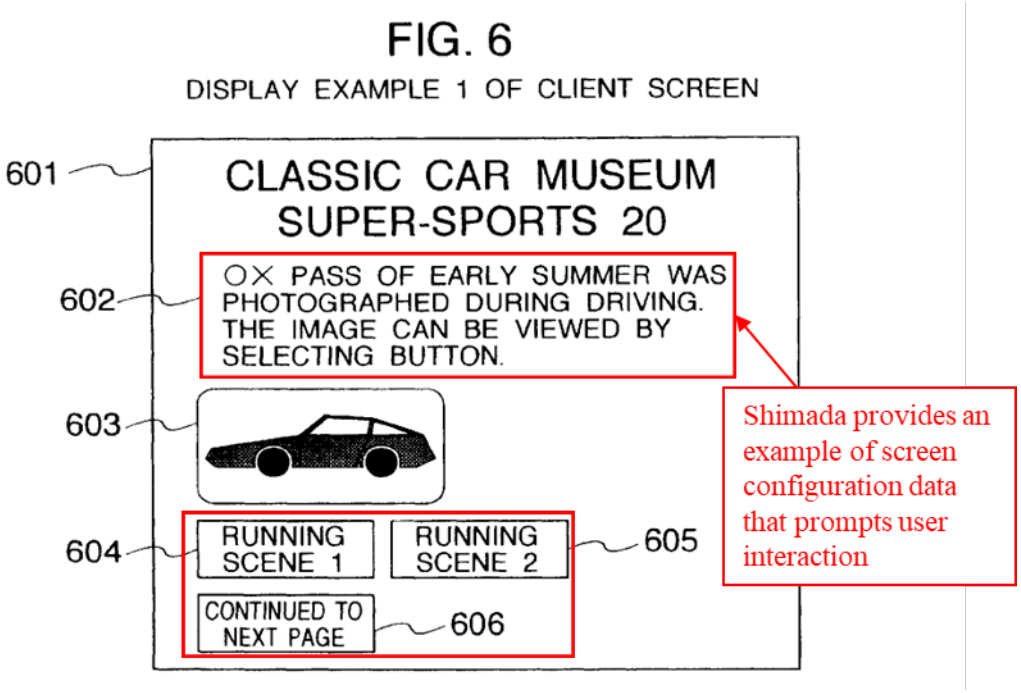
SAMSUNG-1009, FIG. 1 (annotated)

[1.3]: a definition of a graphical user interface of the first networked information monitor that lacks controls for manually navigating a network, and that includes a frame within which content received from the network location can be displayed, and frame characteristics defining one or more a color, a size, or a position on the electronic display of the frame; and

139. A POSITA would have recognized that Shimada's screens are "**a definition of a graphical user interface**" or, "GUIs," as the screens both present content and allow user interaction. Indeed, Shimada describes that the "expansion of the screen configuration in this embodiment means the addition of an interface, which accomplishes interactive communication between a user at the client 105 and the client screen, to the screen configuration information of the server 101." SAMSUNG-1008, 5:66-67, 6:1-3, FIG. 6, FIG. 7. In further support, the examples of screen configuration data presented in Shimada provide controls to the user. *See* [2] and [3], *below*.

140. As indicated in FIG. 6, Shimada's screen configuration data "**lacks controls for manually navigating a network**." SAMSUNG-1008, *see at least* FIG. 6, FIG. 7, FIG. 17, FIG. 22. To the extent that it may be argued that screen configuration data can be created with such controls, the decision to include navigation controls in a desktop component would ultimately be a design decision for a POSITA, and, in networks where data transfer rates are limited or controls are not desired, a POSITA would be motivated to construct desktop components without extraneous features, such as navigation controls, to improve data transfer times or streamline use. Indeed, Shimada describes that "[w]hen the amount of data transmitted from the server to the client is reduced, the data access time can be reduced particularly when the transmission rate of the network is low."

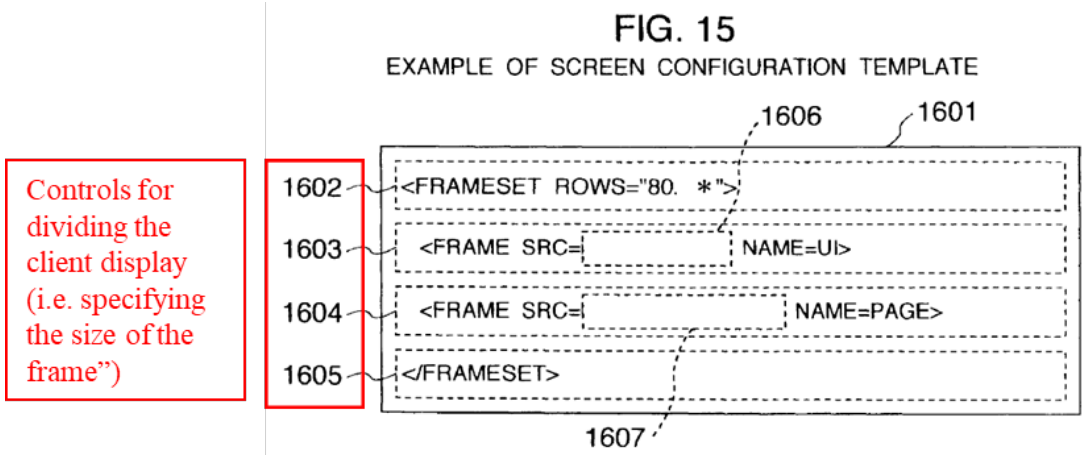
SAMSUNG-1008, 1:45-48. Moreover, Yohanan describes such an implementation lacking controls to specify a network location ("a more efficient method for accessing network locations" using "a convenient method to access network locations without having to open a browser and key-in the desired site's URL)." SAMSUNG-1016, 2:18-23.



SAMSUNG-1008, FIG. 6 (annotated)

141. Shimada's screen configuration data also defines a "**size**" of the frame within which content is presented ("**includes a frame within which content received from the network location can be displayed**"). SAMSUNG-1008, FIG. 15. Shimada states that "in FIG. 16 (*sic* FIG. 15), reference numerals 1602, 1603 and 1604 denote description for **dividing the screen display of the client 105**."

SAMSUNG-1008, 8:65-67, FIG. 15, FIG. 16. Provided below is FIG. 15 of Shimada which includes the cited components.



SAMSUNG-1008, FIG. 15 (annotated)

142. Buchholz also elaborates on the disclosure of frame characteristics and states that "a template can, for example, define **where**, and in what **size** and **color**, the corresponding template data is to be displayed." SAMSUNG-1008, 5:11-13.

143. A POSITA would have recognized or found obvious from the above disclosure that Shimada's anchor tags also define "**a graphical user interface**" that "**lacks controls for manually navigating a network**" as the content from the anchor tag is presented in a frame that lacks such controls. The "**size**" of this "**frame**" can be determined by the user (a "**frame characteristic")**. *Above* [1.1].

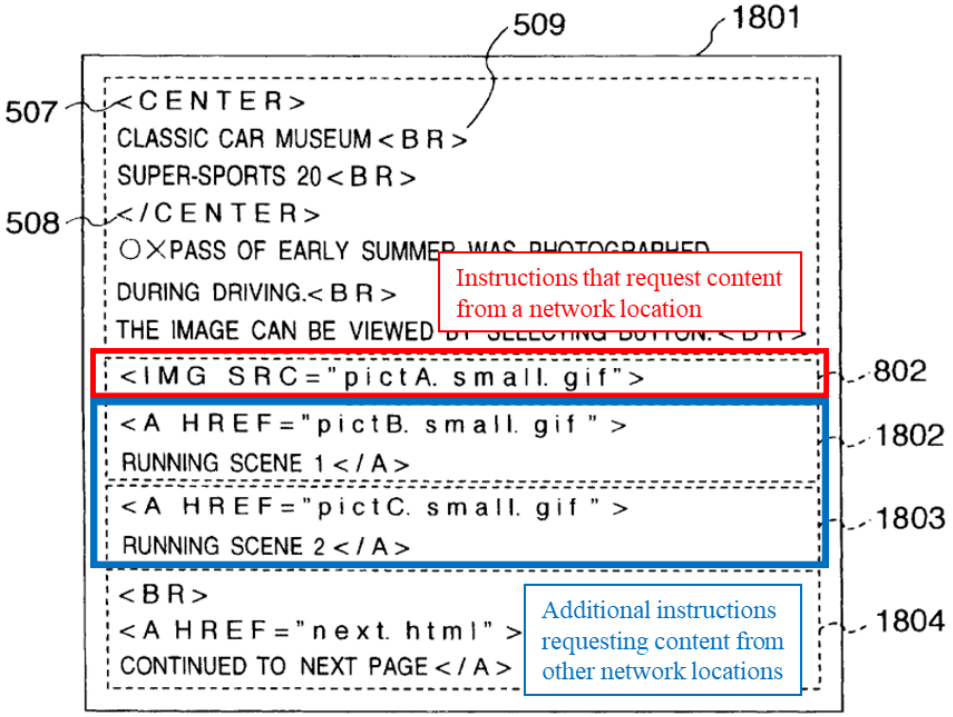
[1.4]: instructions configured (i) to cause the first networked information monitor to request content from the network location in the content reference via the TCP/IP protocol, and (ii) to cause the first networked information monitor to generate the graphical user interface of the

first networked information monitor with the content received from the network location via the TCP/IP protocol within the frame;

144. Shimada's screen configuration data includes "instructions" in the form of a URL that "**[requests] content from the network location … via the TCP/IP protocol**." Indeed, Shimada describes that "[<IMG SRC="pict A, gif">] in the description 503 is a tag referred to as 'imaging.' Here, this tag describes that the data designated by [SRC= " "] is buried at this portion in the text. [pictA.gif] designated here is the address representing a static image. The client 105 **requests the server 101 to transfer this pict A.gif**, receives this data from the server 101 and **displays it on the screen** in succession to the text 602, so that the static image 603 is finally **displayed on the screen of the client 105** as shown in FIG. 6." SAMSUNG-1008, 6:30-51, FIG. 17, FIG. 18, FIG. 22. Shimada's anchor tags include similar instructions for requesting content referenced by the anchor tag. *Id*.

FIG. 17

EXAMPLE OF CONVERTED SCREEN CONFIGURATION DATA (QUICK MODE)



SAMSUNG-1008, FIG. 17 (annotated)

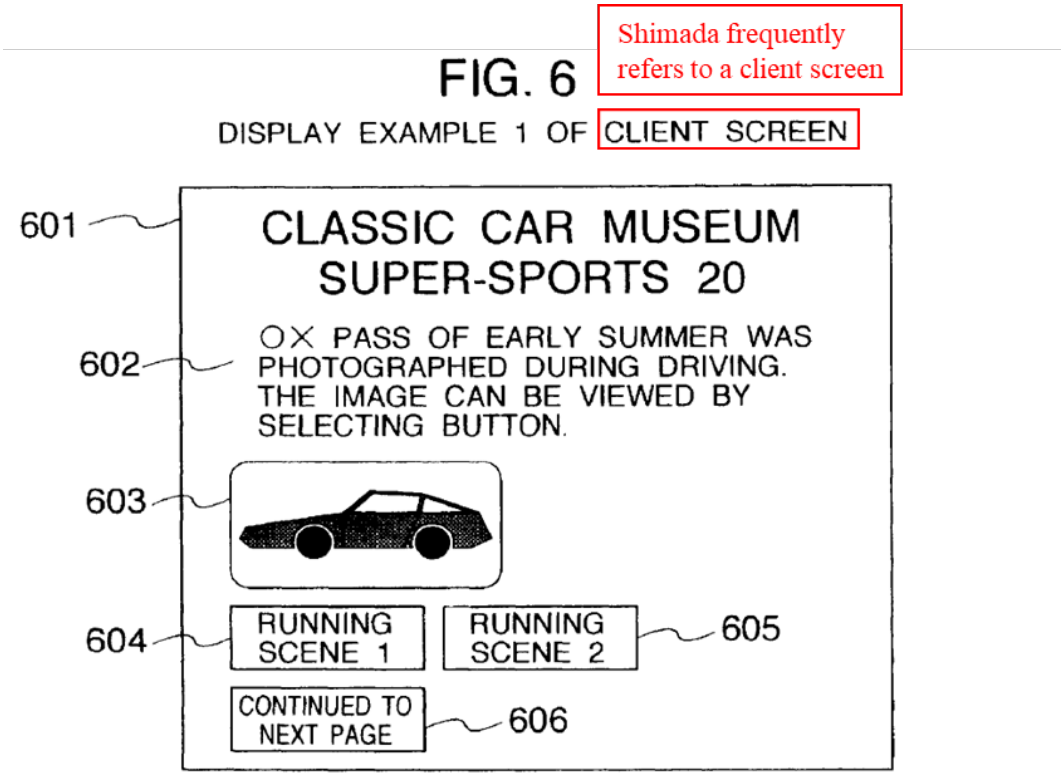
145. A POSITA also would have understood or found obvious from the above disclosure that the "instructions" for requesting the content in Shimada also cause the client to "**generate the graphical user interface of the first networked information monitor with the content received from the network location via the TCP/IP protocol**" because the tags that request content also define the presentation of the content on the screen.

146. Alternatively, a POSITA also would have understood or found obvious that Shimada's anchor tags serve as "instructions" to both "**request content from the network location**" and "**generate the graphical user interface**

of the first networked information monitor" as selecting the anchor tag results in the execution of both of these tasks. SAMSUNG-1008, 6:39-51, *see at least* FIG. 22.

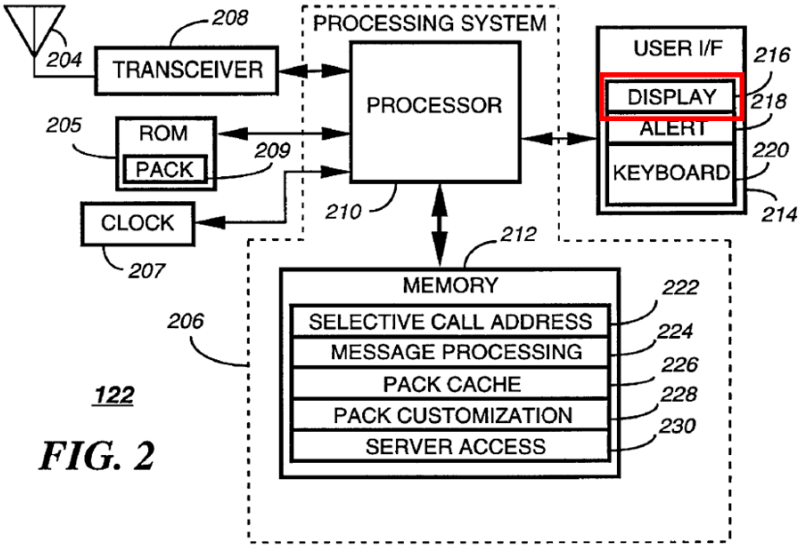
[1.5]: an electronic display; and

147. Shimada frequently refers to a "client screen display," which a POSITA would have understood or found obvious to be "**an electronic display**." SAMSUNG-1008, *see at least* 6:4-9, FIG. 6, FIG. 7, FIG. 17, FIG. 18. An example of Shimada's client display is provided below.



SAMSUNG-1008, FIG. 6 (annotated)

148. Buchholz also describes such features and discloses that portable subscriber devices include a "conventional display 216." SAMSUNG-1009, 4:1-2. An example portable subscriber device is provided below.



SAMSUNG-1009, FIG. 2 (annotated)

[1.6]: one or more processors configured to access the first networked information monitor template, and to execute the first networked information monitor template such that the graphical user interface of the first networked information monitor is presented to a user on the electronic display having content received from the content reference therein.

149. Shimada discloses that "processing" occurs on the client side of its system and states that the "information **processing** unit on the service requesting side is referred to as a 'client.'" SAMSUNG-1008, 1:26-28, FIG. 6, FIG. 7. A POSITA would have understood or found obvious from this disclosure that a "processor" would execute the basic functions of the screen configuration data, to

include "accessing" and "executing" the screen configuration data, as these are basic functions that can be executed by a generic processor.

150. Consistent with this disclosure, Buchholz describes that its portable subscriber units contain a "processing system 206" ("**one or more processors**") which comprises a "conventional processor 210 and a conventional memory 212," where the memory 212 further comprises "a server access element 230 for programming the processing system 206 to allow a user to **access the server 124** ("**access the first networked information monitor template**") for creating, modifying ("**execute the first networked information monitor template**"), and **downloading** a pack." SAMSUNG-1009, 4:14-31, FIG. 2.

151. Moreover, Buchholz describes a template ("**networked information monitor template**") as "a pattern utilized by **the processing system 206** and the user interface 214 to **lay out the presentation of information to the user**." SAMSUNG-1009, 5:7-9. From this disclosure, it would be obvious to a POSITA that the processing system "**execute[s] the first networked information monitor template such that the graphical user interface … is presented to a user on the electronic display having content received from the content reference therein**" as Buchholz describes that templates are for "**presentation of information to the user.**" SAMSUNG-1009, 5:7-9.

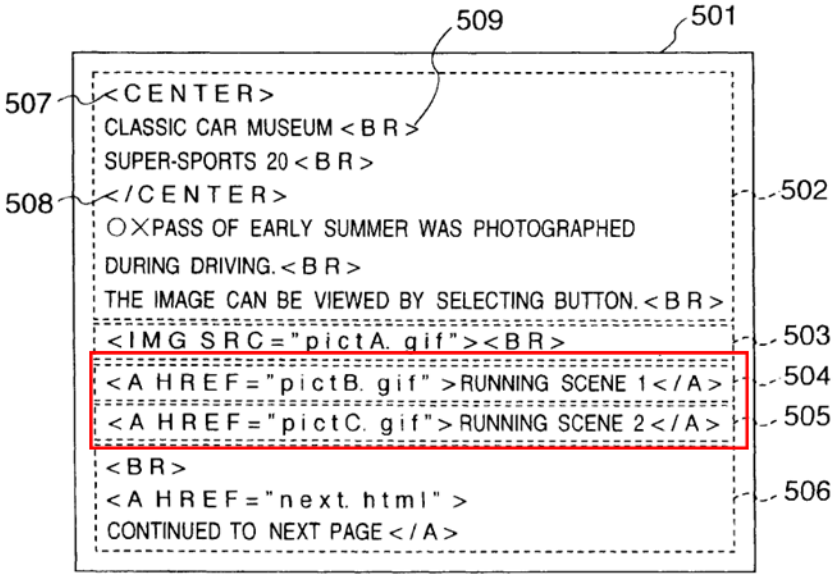
[2]: The client device of claim 1, wherein the first networked information monitor template further comprises control characteristics that

define one or more controls that are usable by the user to interact with or control the first networked information monitor.

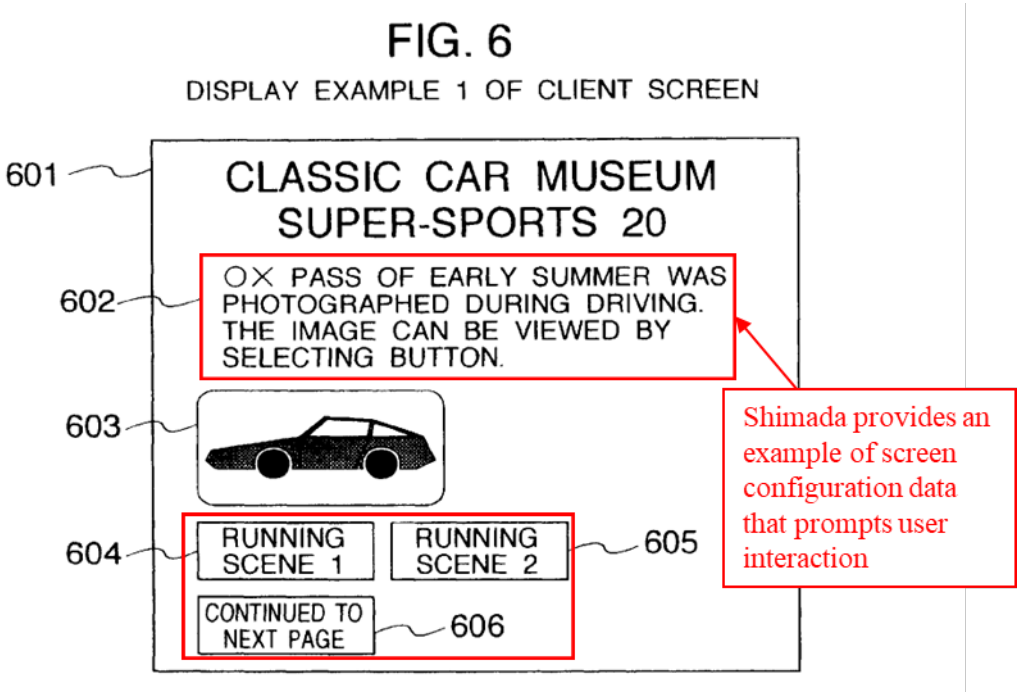
152. Shimada discloses that "text partitioned by [<] and [>] in the screen configuration data is referred to as a 'tag.' This tag is used for putting an **effect to the text**, or for representing burying of the data other than the text such as a static image, or for describing burying of the button which can be **operated by the user of the client 105**" ("**control characteristics that define one or more controls that are usable by the user**"). SAMSUNG-1008, 6:14-22, FIG. 5 (below), FIG. 6 (below).

FIG. 5

EXAMPLE OF SCREEN CONFIGURATION DATA



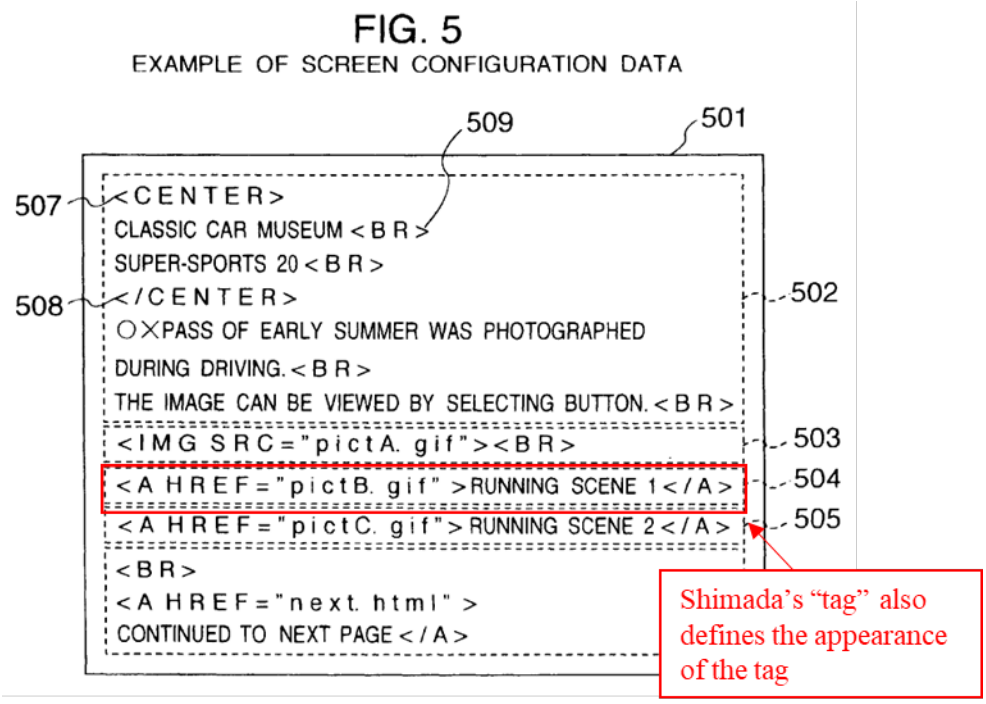
SAMSUNG-1008, FIG. 5 (annotated)



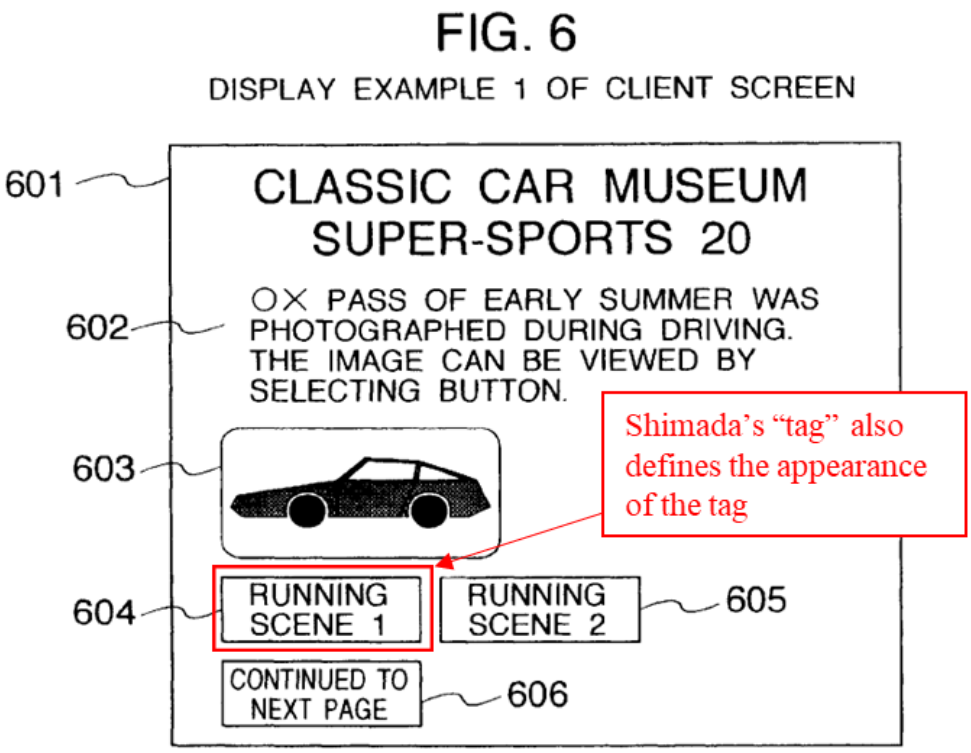
SAMSUNG-1008, FIG. 6 (annotated)

[3]: The client device of claim 2, wherein the control characteristics define visual representations of the controls that are included in the graphical user interface of the first networked information monitor.

153. *See* [2] (incorporated here). A POSITA would have understood or found obvious that the anchor tags disclosed by Shimada allow for visual customization ("**visual representations of the controls**"). Indeed, the anchor tags of Shimada define the appearance of the controls in the "screen configuration data." SAMSUNG-1008, FIG. 5 (below), FIG. 6 (below).



SAMSUNG-1008, FIG. 5 (annotated)



SAMSUNG-1008, FIG. 6 (annotated)

[4.1]: The client device of claim 1, wherein the plurality of networked information monitor templates further comprises a second networked information monitor template defining a second networked information monitor, wherein the second networked information monitor template comprises:

154. *See* [1.1] (incorporated here). A POSITA would have recognized or found obvious that multiple instances of "screen configuration data" or "templates" could be downloaded to the device of the Shimada-Buchholz combination, as it would be known that a user would want the flexibility to request multiple pieces of content (each requiring a template). Indeed, Buchholz discloses that the template "pack" comprises "**a bundle of templates** ("**a second networked information monitor template**") for formatting the template data for display on at least one page." SAMSUNG-1009, 2:26-27.

[4.2]: a second content reference that comprises a second network location, which is different from the network location in the content reference of the first networked information monitor template, at which content for the second networked information monitor is accessible via the TCP/IP protocol; and

155. *See* [1.2] (incorporated here). A POSITA would have understood or found obvious that a second networked information monitor template would possess these features for the same reasons as discussed in [1.2] for the first template. A POSITA also would have understood or found obvious that, to provide content distinct from the first template, the second template would need to reference a "**second network location, which is different from the network**

location in the content reference of the first networked information monitor template."

[4.3]: a definition of a graphical user interface of the second networked information monitor that lacks controls for manually navigating a network, and that includes a second frame within which content received from the second network location can be displayed; and

156. *See* [1.3] (incorporated here). A POSITA would have understood or found obvious that a second networked information monitor template would possess these features for the same reasons as discussed in [1.3] for the first template.

[4.4]: instructions configured (i) to cause the second networked information monitor to request content from the second network location in the second content reference via the TCP/IP protocol, and (ii) to cause the second networked information monitor to generate the graphical user interface of the second networked information monitor with the content received from the second network location via the TCP/IP protocol within the frame.

157. *See* [1.4] (incorporated here). A POSITA would have understood or found obvious that a second networked information monitor template would possess these features for the same reasons as discussed in [1.4] for the first template.

[5]: The client device of claim 4, wherein the one or more processors are further configured to execute the second networked information monitor template such that the graphical user interface of the second networked information monitor is presented to the user on the electronic display separately and discretely from the user interface of the first networked information monitor, and having content therein received from the second content reference.

158. *See* [1.6] and [4.1] (incorporated here). A POSITA would have understood or found obvious that multiple instances of "screen configuration data" or "templates" could be displayed simultaneously in the Shimada-Buchholz combination, as it was well known in the art that multiple GUIs, or "frames", could be displayed on a user display. SAMSUNG-1011, 338. For example, the Microsoft Windows operating system, one of the most common operating systems as of the critical date, possessed such capability. SAMSUNG-1011, 115, 338. Indeed, Buchholz discloses that the template pack comprises "a bundle of templates for formatting the template data for display on **at least one page.**" SAMSUNG-1009, 2:26-27.

[6]: The client device of claim 1, wherein the one or more processors are further configured to transmit a request to a server for a further networked monitor template responsive to reception of a user request for a further networked information monitor defined by the further networked information monitor template.

159. Buchholz discloses a process for downloading a pack of templates, and discloses that the process "begins with the user accessing 802 the server 124 ("**transmit a request to a server"**) to choose a pack. The user then **selects 804 a pack** ("**reception of a user request for a further networked information monitor defined by the further networked information monitor template**") from a plurality of packs stored in the mass medium 314 of the server 124. The server 124 then **downloads 806 the pack to the portable subscriber unit 122**."

SAMSUNG-1009, 6:48-52, FIG. 8 (below). A POSITA would have understood or found obvious that the "process" disclosed in Buchholz would be executed by a "processor" as this is a basic function capable of being executed by a processor. Indeed, Buchholz discloses "a **server access element 230** for programming **the processing system 206** ("**one or more processors**") to allow a user to access the server 124 for creating, modifying, and downloading a pack." SAMSUNG-1009, 4:29-31, FIG. 2 (below).

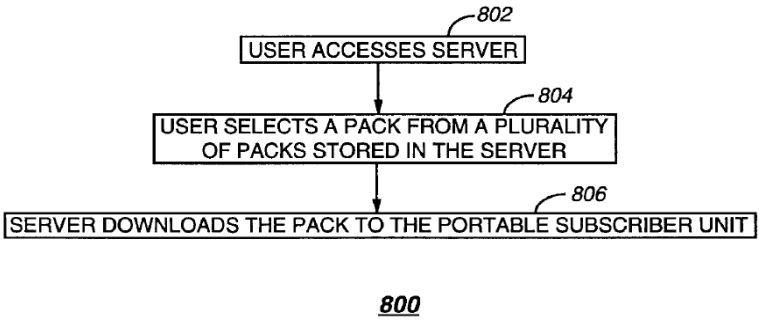
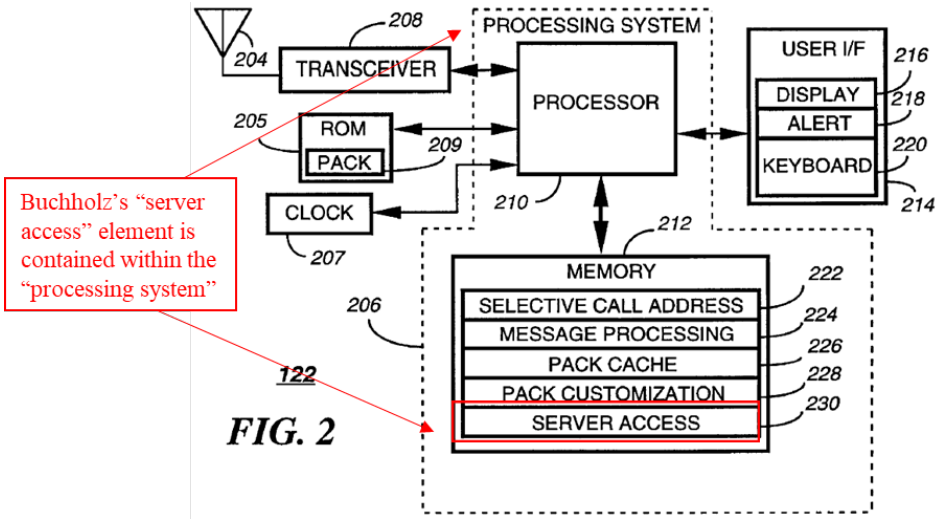


FIG. 8

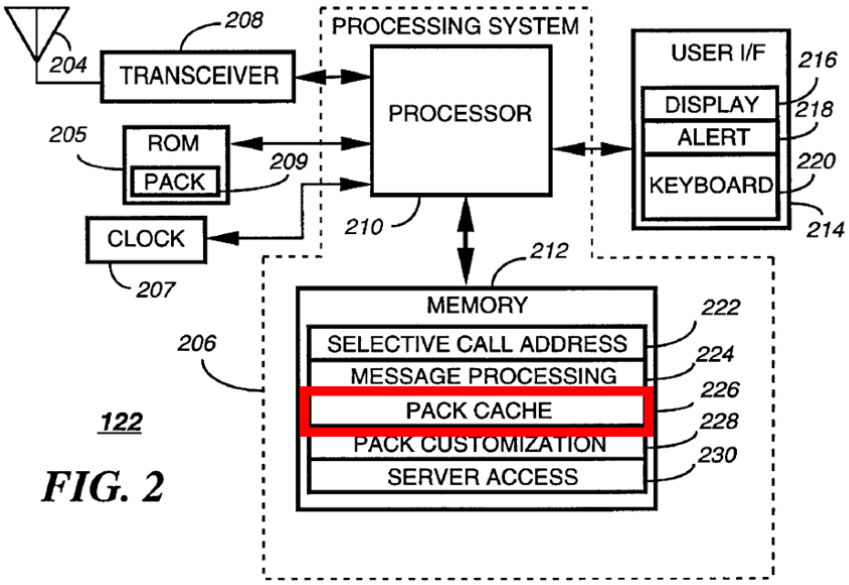
SAMSUNG-1009, FIG. 8



SAMSUNG-1009, FIG. 2 (annotated)

[7]: The client device of claim 6, wherein the electronic storage is configured to electronically store the received further networked information monitor template, responsive to reception of the further networked information monitor template from the server.

160. *See* [1.1] and [6] (incorporated here). A POSITA would have understood or found obvious that a pack downloaded ("**reception of the further networked information monitor template from the server**") from the server would be stored in the memory of the "subscriber unit" as this would enable the portable subscriber unit to utilize the received templates when away from the network. Indeed, Buchholz discloses that "memory 212 further comprises a pack cache 226 for storing a pack utilized by the portable subscriber unit 122" ("**electronic storage … configured to electronically store the received further networked information monitor template**") SAMSUNG-1009, 4:23-24, FIG. 8 (below).



SAMSUNG-1009, FIG. 2 (annotated)

[8]: The client device of claim 7, wherein the one or more processors are further configured to execute the further networked information monitor template.

161. *See* [1.6] (incorporated here). I believe that [8] is obvious for the reasons discussed above in [1.6]. A POSITA would have understood or found obvious that "**execut[ing]**" the further networked information monitor template would result in similar operations as discussed in [1.6].

[9.pre]: A computer-implemented method of presenting Internet content to a user, the method being implemented in a client device comprising a electronic storage, an electronic display, and one or more processors, the method comprising:

162. To the extent the preamble is limiting, a POSITA would have recognized or found obvious that the Shimada-Buchholz combination is also a "**computer-implemented method of presenting Internet content to a user, the method being implemented in a client device**" because Shimada describes "a data transmission method of a network system having a data relay apparatus connected to a **client device** through a first network and to a server device through a second network." SAMSUNG-1008, Claim 14.

163. As discussed above, the Shimada-Buchholz "client device" includes "**electronic storage, an electronic display, and one or more processors**"). *See* [1.1], [1.5], [1.6], *above*.

[9.1]: storing to the electronic storage a plurality of networked information monitor templates defining a plurality of networked information monitors, the plurality of networked information monitor templates

comprising a first networked information monitor template defining a first networked information monitor, wherein the first networked information monitor template comprises:

164. *See* [1.1] (incorporated here). Given that the Shimada-Buchholz combination renders obvious "electronic storage having stored thereon a plurality of networked information monitor templates" a POSITA would have also found obvious the method of "**storing to the electronic storage a plurality of networked information monitor templates**" as this is nothing more than the implementation of the above system.

[9.2]: a content reference that comprises a network location at which content for the first networked information monitor is accessible via a TCP/IP protocol; and

165. *See* [1.2] (incorporated here). I believe that [9.2] is obvious for the reasons discussed above in [1.2].

[9.3]: a definition of a graphical user interface of the first networked information monitor that lacks controls for manually navigating a network, and that includes a frame within which content received from the network location can be displayed, and frame characteristics defining one or more a color, a size, or a position on the electronic display of the frame; and

166. *See* [1.3] (incorporated here). I believe that [9.3] is obvious for the reasons discussed above in [1.3].

[9.4]: instructions configured (i) to cause the first networked information monitor to request content from the network location in the content reference via the TCP/IP protocol, and (ii) to cause the first networked information monitor to generate the graphical user interface of the first networked information monitor with the content received from the network location via the TCP/IP protocol within the frame;

167. *See* [1.4] (incorporated here). I believe that [9.4] is obvious for the reasons discussed above in [1.4].

[9.5]: accessing the first networked information monitor template in the electronic storage; and

168. *See* [1.6] (incorporated here). Given that the Shimada-Buchholz combination renders obvious "one or more processors configured to access the first networked information monitor template" a POSITA would have also found obvious the method of "**accessing the first networked information monitor template in the electronic storage**" as this is nothing more than the implementation of the above system.

[9.6]: executing the first networked information monitor template on the one or more processors such that the graphical user interface of the first networked information monitor is presented to the user on the electronic display having therein content received from the content reference.

169. *See* [1.6] (incorporated here). Given that the Shimada-Buchholz combination renders obvious "one or more processors configured to … execute the first networked information monitor template such that the graphical user interface of the first networked information monitor is presented to a user on the electronic display having content received from the content reference therein" a POSITA would have also found obvious the method of "**executing the first networked information monitor template on the one or more processors**" as this is nothing more than the implementation of the above system.

[10]: The method of claim 9, wherein the first networked information monitor template further comprises control characteristics that define one or more controls that are usable by the user to interact with or control the first networked information monitor.

170. *See* [2] (incorporated here). I believe that [10] is obvious for the reasons discussed above in [2].

[11]: The method of claim 10, wherein the control characteristics define visual representations of the controls that are included in the graphical user interface of the first networked information monitor.

171. *See* [3] (incorporated here). I believe that [11] is obvious for the reasons discussed above in [3].

[12.1]: The method of claim 9, wherein the plurality of networked information monitor templates further comprises a second networked information monitor template defining a second networked information monitor, wherein the second networked information monitor template comprises:

172. *See* [4.1] (incorporated here). I believe that [12.1] is obvious for the reasons discussed above in [4.1].

[12.2]: a second content reference that comprises a second network location, which is different from the network location in the content reference of the first networked information monitor template, at which content for the second networked information monitor is accessible via the TCP/IP protocol; and

173. *See* [4.2] (incorporated here). I believe that [12.2] is obvious for the reasons discussed above in [4.2].

[12.3]: a definition of a graphical user interface of the second networked information monitor that lacks controls for manually navigating a network, and that includes a second frame within which content received from the second network location can be displayed; and

174. *See* [4.3] (incorporated here). I believe that [12.3] is obvious for the reasons discussed above in [4.3].

[12.4]: instructions configured (i) to cause the second networked information monitor to request content from the second network location in the second content reference via the TCP/IP protocol, and (ii) to cause the second networked information monitor to generate the graphical user interface of the second networked information monitor with the content received from the second network location via the TCP/IP protocol within the frame.

175. *See* [4.4] (incorporated here). I believe that [12.4] is obvious for the reasons discussed above in [4.4].

[13]: The method of claim 12, further comprising executing the second networked information monitor template on the one or more processors such that the graphical user interface of the second networked information monitor is presented to the user on the electronic display separately and discretely from the user interface of the first networked information monitor, and having content therein received from the second content reference.

176. *See* [5] and [9.6] (incorporated here). I believe that [13] is obvious for the reasons discussed above in [5] and [9.6].

[14]: The method of claim 9, further comprising transmitting a request to a server for a further networked information monitor template responsive to reception of a user request for a further networked information monitor defined by the further networked information monitor template.

177. *See* [6] (incorporated here). Given that the Shimada-Buchholz combination renders obvious "one or more processors are further configured to transmit a request to a server for a further networked information monitor template" a POSITA would have also found obvious the method of "**transmitting**

a request to a server for a further networked information monitor" as this is nothing more than the implementation of the above system.

[15]: The method of claim 14, further comprising, responsive to reception of the further networked information monitor template from the server, storing the received further networked information monitor template to the electronic storage.

178. *See* [7] (incorporated here). Given that the Shimada-Buchholz combination renders obvious that the "the electronic storage is configured to electronically store the received further networked information monitor template" a POSITA would have also found obvious the method where "**responsive to reception of the further networked information monitor template from the server, storing the received further networked information monitor template to the electronic storage**" as this is nothing more than the implementation of the above system.

[16]: The method of claim 15, further comprising executing the further networked information monitor template on the one or more processors.

179. See [8] (incorporated here). Given that the Shimada-Buchholz combination renders obvious that "the one or more processors are further configured to execute the further networked information monitor template" a POSITA would have also found obvious the method of "executing the further networked information monitor template on the one or more processors" as this is nothing more than the implementation of the above system.

ADDITIONAL REMARKS

180. I currently hold the opinions set expressed in this declaration. My analysis may continue, however, and I may acquire additional information and/or attain supplemental insights that may result in added observations and opinions.

181. I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true. Moreover, 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: 02/22/2023 By: Douglas C. Schmidt