

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.,
Petitioner,

v.

DODOTS LICENSING SOLUTIONS LLC,
Patent Owner.

Case IPR2023-00701
Patent 8,510,407 B1

**PETITIONER’S MOTION TO SUBMIT SUPPLEMENTAL
INFORMATION PURSUANT TO 37 C.F.R. § 42.123(a)**

EXHIBITS

SAMSUNG-1001 U.S. Patent No. 8,510,407 to Kembel, et al. (“the ’407 Patent”)

SAMSUNG-1002 Excerpts from the Prosecution History of the ’407 Patent (“the Prosecution History”)

SAMSUNG-1003 Declaration of Dr. Douglas C. Schmidt

SAMSUNG-1004 Curriculum Vitae of Dr. Douglas C. Schmidt

SAMSUNG-1005 U.S. Patent No. 6,278,448 B1 (“Brown”)

SAMSUNG-1006 U.S. Patent No. 6,449,638 B1 (“Wecker”)

SAMSUNG-1007 U.S. Patent No. 5,793,368 (“Beer”)

SAMSUNG-1008 U.S. Patent No. 6,789,263 B1 (“Shimada”)

SAMSUNG-1009 U.S. Patent No. 6,088,340 (“Buchholz”)

SAMSUNG-1010 U.S. Patent No. 6,819,345 B1 (“Jones”)

SAMSUNG-1011 HTML 4 Unleashed (“Darnell”)

SAMSUNG-1012 IPR2019-01279 Final Written Decision

SAMSUNG-1013 U.S. Patent No. 6,342,907 B1 (“Petty”)

SAMSUNG-1014 Lenovo Holding Company, Inc. v. DoDots Licensing Solutions LLC, No. 2021-1247, 2021 WL 5822248 (Dec. 8, 2021).

SAMSUNG-1015 U.S. Patent No. 6,311,058 B1 (“Wecker 2”)

SAMSUNG-1016 U.S. Patent No. 5,737,560 (“Yohanan”)

SAMSUNG-1017 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

SAMSUNG-1018 Declaration of June Ann Munford

SAMSUNG-1019 DoDots Licensing Solutions LLC v. Samsung Electronics Co., Ltd. et al., 6:22-cv-00535, W.D. Tex., filed May 24, 2022

SAMSUNG-1020 U.S. Patent No. 6,094,681 (“Shaffer”)

SAMSUNG-1021 RESERVED

SAMSUNG-1022 U.S. Patent No. 6,185,614 B1 (“Cuomo”)

SAMSUNG-1023 RESERVED

SAMSUNG-1024 Joint Claim Construction Statement, 6:22-cv-00535, W.D. Tex., filed May 15, 2023

SAMSUNG-1025 IPR2019-01279, Paper 40 (CAFC Decision)

SAMSUNG-1026 Email from Board dated November 15, 2023 authorizing
Petitioner to file a Motion to Submit Supplemental Information

I. INTRODUCTION

Pursuant to 37 C.F.R § 42.123(a), and as authorized by the Board on November 15, 2023, Petitioner hereby moves to submit Exhibit 1027 (“Supplemental Declaration of Dr. Douglas C. Schmidt”) as supplemental information.

Petitioner requested authorization to file this motion on November 13, 2023, within one month of the October 23, 2023 date of institution for IPR2023-00701. As explained in more detail below, Exhibit 1027 provides further testimony and clarification from Dr. Schmidt regarding the claim construction standard that he relied upon in providing his opinion concerning the claims challenged in the IPR2023-00701 Petition. For at least that reason, Exhibit 1027 is relevant to a claim for which trial has been instituted. Accordingly, both requirements of 37 C.F.R § 42.123(a) have been met, and this motion should be granted.

II. BACKGROUND

On March 10, 2023, Petitioner filed a Petition for *inter partes* review of claims 1-24 of U.S. Pat. No. 8,510,407 (“the ’407 patent”). On October 23, 2023, the Board instituted trial on these claims, having determined that Petitioner had demonstrated a reasonable likelihood of prevailing with respect to at least one claim. Paper 10 at 48.

On November 7, 2023, pursuant to 37 C.F.R. § 42.64(b)(1), Patent Owner

served Petitioner with objections to evidence, which included assertions that the Declaration of Dr. Douglas C. Schmidt (Exhibit 1003), which had been relied upon in the Petition, used the incorrect claim construction standard when construing the challenged claims.

On November 9, 2023, pursuant to 37 C.F.R. § 42.64(b)(2), and in response to Patent Owner’s objections, Petitioner served Patent Owner with supplemental evidence, namely a supplemental declaration from Dr. Schmidt (“Supplemental Declaration of Dr. Douglas C. Schmidt”; Exhibit 1027). Exhibit 1027 provides concise testimony from Dr. Schmidt concerning his reliance on the *Phillips* standard in the original declaration (Exhibit 1003) and further provides a corrected version of the original declaration, whereby he fixes a typographical error that quoted an earlier version of 37 C.F.R. § 42.100(b).

On November 13, 2023, Petitioner requested authorization from the Board to file a motion to submit the supplemental declaration of Dr. Schmidt as supplemental information in IPR2023-00701. On November 15, 2023, the Board authorized Petitioner to file a motion to submit supplemental information in this proceeding. In accordance with the Board’s authorization, Petitioner hereby moves to submit Exhibit 1027 as supplemental information in IPR2023-00701.

III. ARGUMENT

Under 37 C.F.R. § 42.123(a), a party may file a motion to submit supplemental information in accordance with the following two requirements: (1) “A request for the authorization to file a motion to submit supplemental information is made within one month of the date the trial is instituted”; and (2) “The supplemental information must be relevant to a claim for which the trial has been instituted.”

The instant Motion meets both of these requirements. First, as explained above, Petitioner requested authorization to file this motion within one month of institution. Second, Exhibit 1027 provides further testimony supporting the claim construction relied upon by Dr. Schmidt in the challenges set forth in the IPR2023-00701 Petition and, for at least that reason, Exhibit 1027 is relevant to a claim for which trial has been instituted. Moreover, Exhibit 1027 does not change the grounds of unpatentability authorized in the proceeding, and instead merely confirms the correct claim construction standard that was originally provided with the Petition. *See* Paper 10 at 27 (“[T]he Petition articulates, unequivocally, the correct claim construction standard and goes into some detail in explaining what the *Phillips* standard entails.”); *see also id.* at 28 (“[Dr. Schmidt’s] constructions in the Declaration for these terms are those set forth in the Petition and rely ‘on constructions endorsed by the Federal Circuit under the *Phillips* standard.’”).

Further, because Patent Owner has been in possession of the supplemental information in the form of supplemental evidence since November 9, 2023, which is two months prior to the January 9, 2024 due date of the Patent Owner's response, the Patent Owner has reasonable time to review Exhibit 1027 and is not prejudiced or otherwise burdened by entry of this evidence into the record as supplemental information. Similarly, the entry of Exhibit 1027 now, as supplemental information, would not limit the Board's ability to complete this proceeding in a timely fashion.

Far from being prejudiced or otherwise burdened by entry of this supplemental declaration into the record as supplemental information, Patent Owner stands to benefit in being able to address the testimony provided at an early stage of the proceeding (including in its Patent Owner Response where it has the opportunity to submit evidence). The public would also benefit from the development of a full and complete record on these issues because it allows the Board to have at its disposal all relevant information and fully developed arguments from both parties when rendering a Final Written Decision.

Accordingly, Petitioner respectfully submits that Exhibit 1027 should be submitted into evidence as supplemental information, and requests the same.

IV. CONCLUSION

For the foregoing reasons, Petitioner requests grant of this motion to submit

Exhibit 1027 as supplemental information and entry of the same into evidence.

Respectfully submitted,

Dated November 21, 2023

/Hyun Jin In/

W. Karl Renner, Reg. No. 41,265

Jeremy J. Monaldo, Reg. No. 58,680

Hyun Jin In, Reg. No. 70,014

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Attorneys for Petitioner

CERTIFICATE OF SERVICE

Pursuant to 37 CFR §§ 42.6(e)(4) and 42.205(b), the undersigned certifies that on November 21, 2023, a complete and entire copy of this Petitioner's Motion to Submit Supplemental Information, Appendices and Exhibit 1026 were provided by email to the Patent Owner by serving the correspondence address of record as follows:

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APPENDICES

EXHIBIT 1027

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of:	John Albert Kembel, et al.	
U.S. Patent No.:	8,510,407	Attorney Docket No.: 39843-0149IP1
Issue Date:	August 13, 2013	
Appl. Serial No.:	11/932,553	
Filing Date:	October 31, 2007	
Title:	DISPLAYING TIME-VARYING INTERNET BASED DATA USING APPLICATION MEDIA PACKAGES	

SUPPLEMENTAL DECLARATION OF DR. DOUGLAS C. SCHMIDT

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

1. In my March 9, 2023 Declaration (SAMSUNG-1003) at paragraph 26, I previously stated that “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).” This was a typographical error that quoted an earlier version of 37 C.F.R. § 42.100(b). In the corrected declaration, which I’ve appended herewith, paragraph 26 has been corrected to quote the current language of 37 C.F.R. § 42.100(b), namely to say that “the terms appearing in the patent claims should be interpreted ‘using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 283(b)....’ 37 C.F.R. § 42.100(b).”

2. That is to say, I understand that all claim terms in an IPR should be construed according to the *Phillips* standard, not the broadest reasonable construction standard. I understand the *Phillips* standard to be consistent with the

description of claim interpretation provided in my original declaration at paragraph 26 after the sentence where the typographical error occurred:

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. 8,510,407 as the point in time for claim interpretation purposes. That date was April 26, 1999.

3. The analysis in my Declaration of March 9, 2023 is consistent with the *Phillips* standard and did not rely upon the broadest reasonable construction standard. Specifically, as set forth in paragraphs 28 and 29 of my Declaration of March 9, 2023, I adopted prior claim constructions of “networked information

monitor” and “networked information monitor template” from IPR2019-001279, which I understand were endorsed by the Federal Circuit under the *Phillips* standard.

4. 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: 11/09/2023

By:  _____

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of:	John Albert Kembel, et al.	
U.S. Patent No.:	8,510,407	Attorney Docket No.: 39843-0149IP1
Issue Date:	August 13, 2013	
Appl. Serial No.:	11/932,553	
Filing Date:	October 31, 2007	
Title:	DISPLAYING TIME-VARYING INTERNET BASED DATA USING APPLICATION MEDIA PACKAGES	

CORRECTED VERSION OF SAMSUNG-1003: 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

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 38,000 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

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

Excellence in Teaching from the Vanderbilt University Department of Electrical Engineering.

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 200,000 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

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 herei

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 (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. Additionally, 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 [INSERT]; 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. 8,510,407 (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)
- IPR2019-01279 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)
- U.S. Patent No. 6,094,681 (“Shaffer”) (Exhibit 1020)
- U.S. Patent No. 6,185,614 B1 (“Cuomo”) (Exhibit 1022)

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, in order 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 1-4, 7-11, 13-16, and 19-23 of the '407 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 1-4, 7-16, and 19-24 of the '407 patent are obvious over Brown in view of Wecker.
- Based upon my knowledge and experience and my review of the prior art publications listed above, I believe that claims 5-6 and 17-18 of the '407 patent are obvious over Brown in view of Beer, and/or Brown and Wecker in view of Beer.
- Based upon my knowledge and experience and my review of the prior art publications listed above, I believe that claims 1-24 of the '407 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 '407 PATENT**

20. A person of ordinary skill in the art (“POSITA”) relating to the subject matter of the ’407 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 IPR2019-01279. SAMSUNG-1012, Page 8.

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="DeskMvr" src="http://
www.microsoft.com/ie/images/ulg/ulg_ie40.jpg"
7. resizable="XY"
8. subscribed_url="http://www.microsoft.com/ie/
images/ulg/ulg_ie40.jpg"
9. style="BACKGROUND: transparent; position:abs-
olute; LEFT: 347; TOP: 236; WIDTH: 120; HEIGHT:
82; Z-INDEX: 1006">
10. <IFRAME id=7 MARGINWIDTH=0
MARGINHEIGHT=0 name="DeskMvrW" src=
"http://www.uspto.gov/"
11. resizable="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>

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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 '407 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 “using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 283(b)...” 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. 8,510,407 as the point in time for claim interpretation purposes. That date was April 26, 1999.

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, 11, 13, and 23, 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 ’407 patent. *See, e.g.,* SAMSUNG-1001, 5:21-24 (“As used herein, the term networked information monitor or NIM refers to a **fully configurable frame** with one or more **controls**; the **frame** through which **content is optionally presented**”). Moreover, in IPR2019-01279, Patent Owner explained that “application media package” means “networked information monitor.” SAMSUNG-1012, Page 10-11. Thus, for purposes of this IPR, I have adopted Patent Owner’s construction of networked information monitor, which was adopted in IPR2019-01279. SAMSUNG-1012, Page 10-11; SAMSUNG-1014, *3-4.

“networked information monitor template”

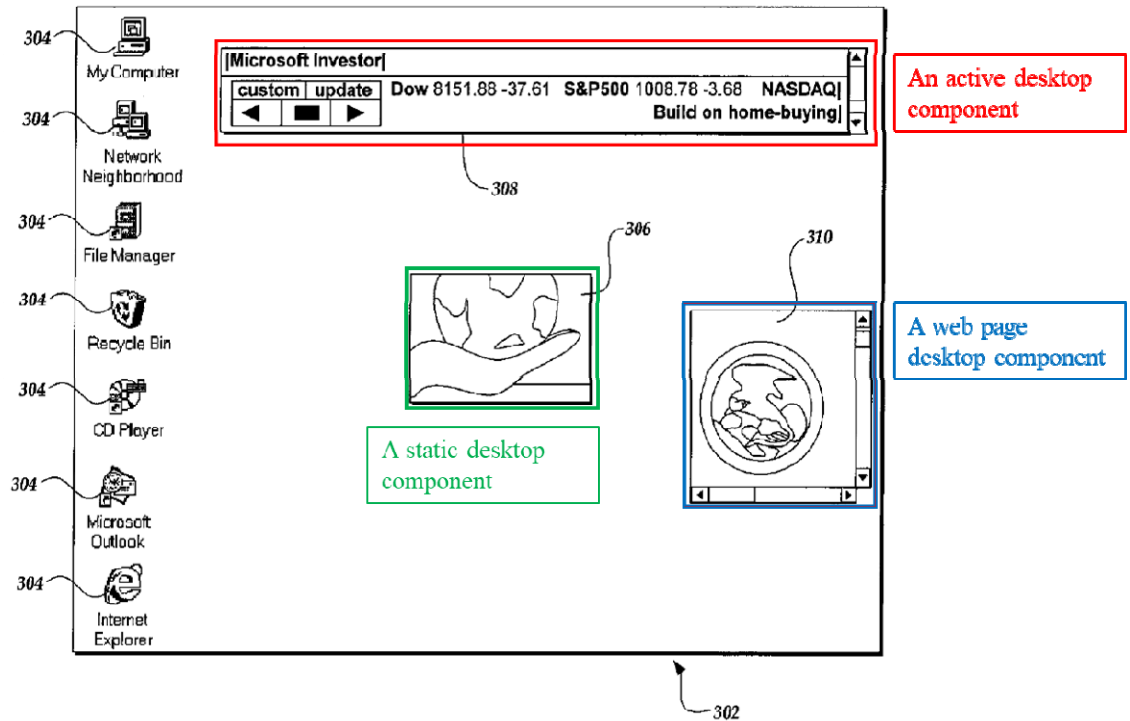
29. I understand that for the purposes of the present proceeding, this term, which appears in claims 1-8, 10-16, and 22-24, should be construed to mean “a data structure that defines the characteristics of a NIM, including the NIM frame, view, and control characteristics, and that excludes executable applications/compiled code.” This definition is consistent with the use of the term in the specification of the ’407 Patent. *See, e.g.,* SAMSUNG-1001, 6:66-67, 7:1-2

(“Each NIM template defines the characteristics of a specific NIM, including fully configurable frame characteristics, viewer and control characteristics, and NIM content references.”). Moreover, the ’407 Patent states, “NIMs allow a developer to provide an application feel without developing custom client applications.” *Id.*, 26:38-40. According to Patent Owner in IPR2019-01279, a networked information monitor template “is not compiled code, and cannot be an executable application or applet.” SAMSUNG-1012, Page 12. 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 13-14; 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)

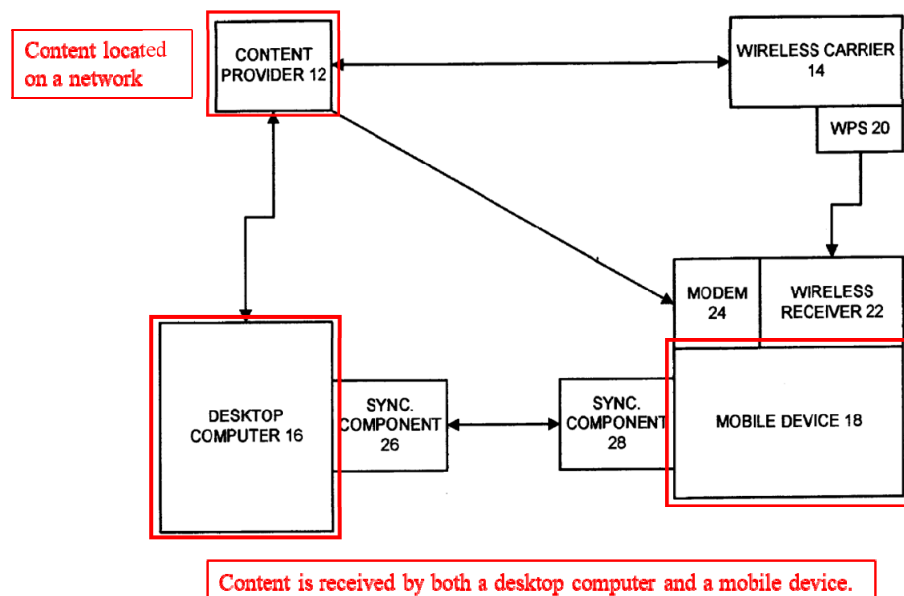
31. As shown in FIG. 3A (above), Brown’s “composite desktop 302 includes one or more desktop components,” where each “desktop component is a distinct geometric region that displays a single piece of Web-based content.” SAMSUNG-1005, 7:21-23. Brown describes that “the component may be selected from a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

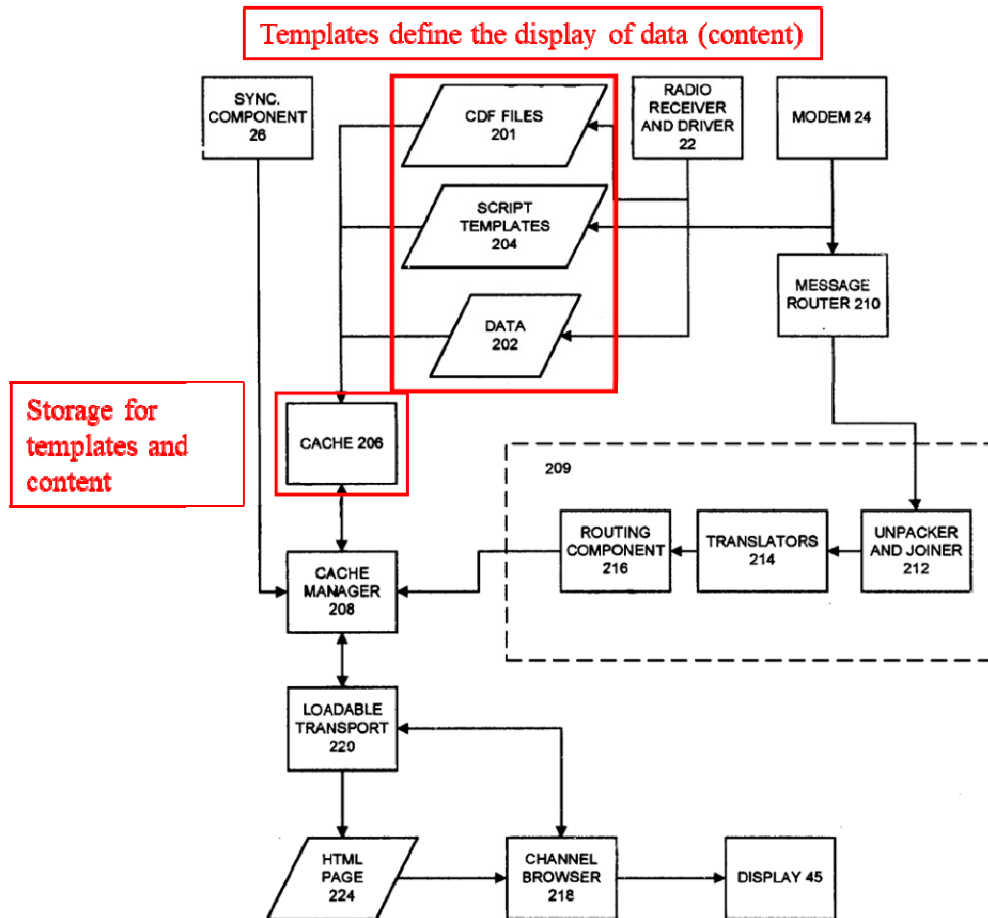
13:4-5. Brown explains that Channel Definition Format (CDF) “files are used to implement ‘subscriptions’ in which information is regularly retrieved and updated within the active desktop component 308,” noting that “[t]he use of CDF files is known to those skilled in the art of Web page construction.” *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, therefore, a POSITA would 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. Additionally, 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, therefore, a POSITA would 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 1-4, 7-11, 13-16, and 19-23, and the Brown-Wecker Combination Renders Claims 1-4, 7-16, 19-24 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 1-4, 7-11, 13-16, and 19-23. 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 configured to store networked information monitor template**") and features of claims 12 and 24. 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.

[1.pre]: A client computing device configured to access content over a network, the client computing device comprising:

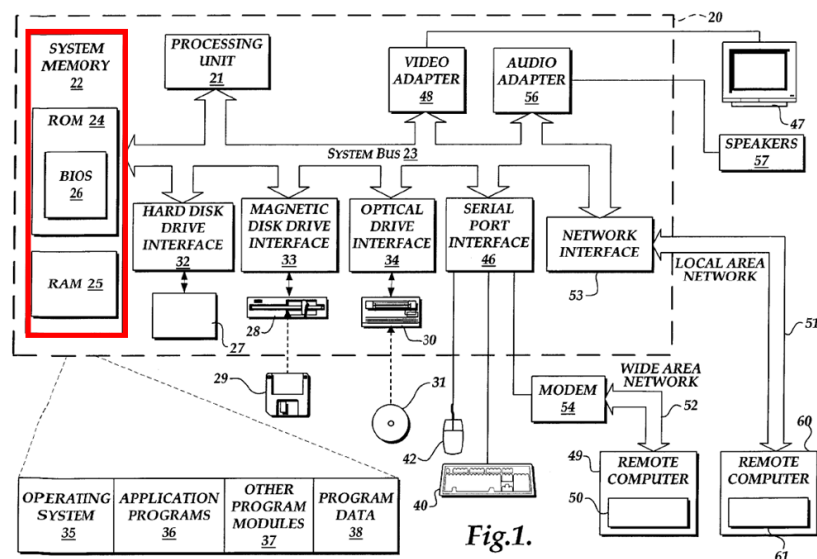
44. To the extent the preamble is limiting, Grounds 1A and 1B render [1.pre] obvious. For example, Brown describes “a computer-based system for controlling the display of elements on a desktop,” and a “computer-based method of creating a composite desktop built from Web content,” and also that “an operating 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 computing device**,” as a computer is frequently referred to as a “client.” *Id.* Indeed, the ’407 Patent refers to a “client computer.” SAMSUNG-1001, *see at least* 1:56, 2:11, 6:30, 7:25, 34:37. A POSITA also would have understood that Brown’s “Web content” is “**content over a network**.” SAMSUNG-1005, 2:54-57. Indeed, the ’407 Patent refers to its content as “Web content.” SAMSUNG-1001, *see at least* 1:58, 4:64, 5:63, 20:63.

[1.1]: electronic storage configured to store networked information monitor template associated with a networked information monitor, the networked information monitor template having therein a definition of a viewer graphical user interface having a frame within which time varying content in a web browser-readable language may be presented on a display associated with the client computing device, wherein the frame of the viewer graphical user interface lacks controls for enabling a user to specify a network location at which content for the networked information monitor is available; and

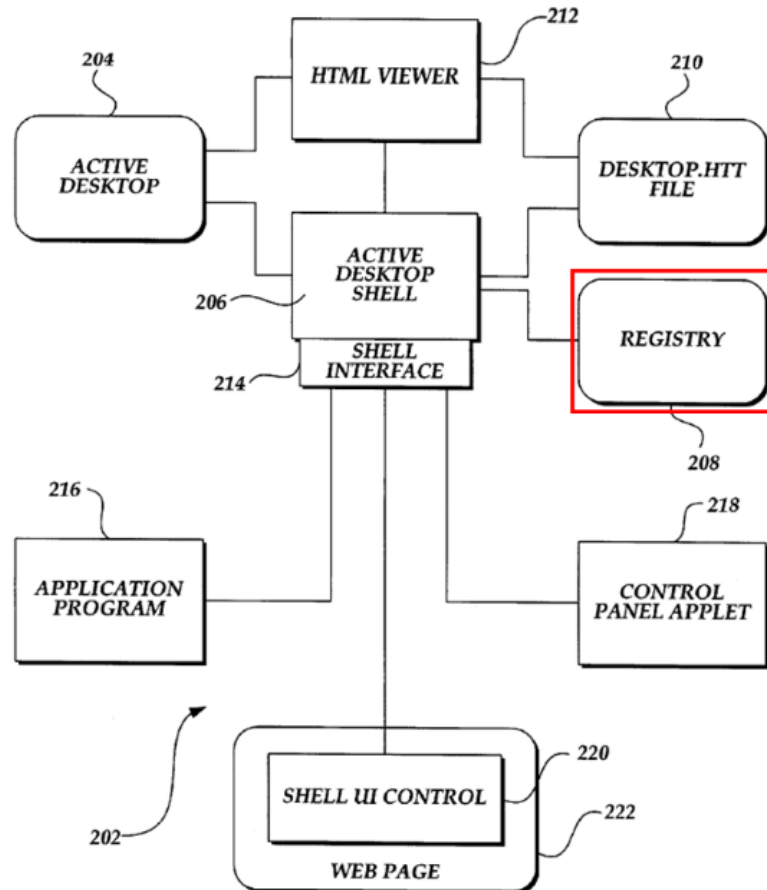
A. Brown

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 ’407 Patent refers to “memory 30” within “computer 20.” SAMSUNG 1001, *see at least* 5:45-47, 5:55-59. Additionally, 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.



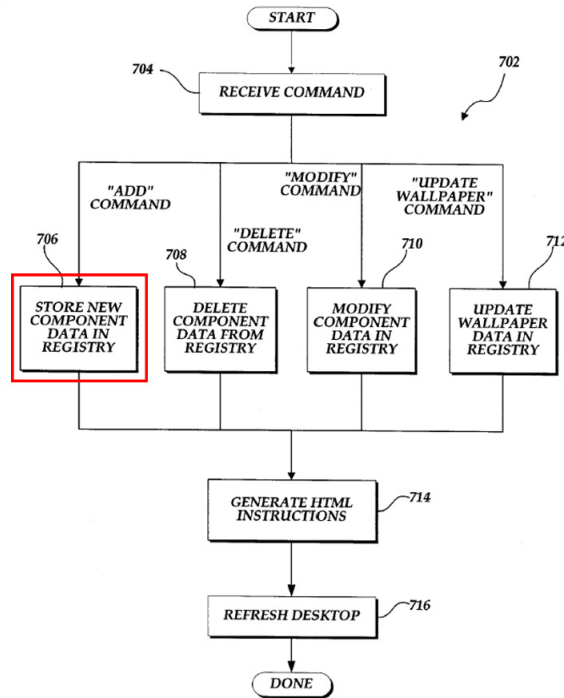
SAMSUNG-1005, FIG. 1 (annotated)

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 registry in Brown's computing device are presented below.



SAMSUNG-1005, FIG. 2 (annotated)

Brown describes that, when created, the HTML instructions of desktop components are stored in the registry



SAMSUNG-1005, FIG. 6 (annotated)

48. A POSITA also would have understood or found obvious that these various forms of storage would be capable of storing files, like “templates,” (“**configured to store**”) because it was well known as of the critical date that HTML files could be 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. For example, 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.

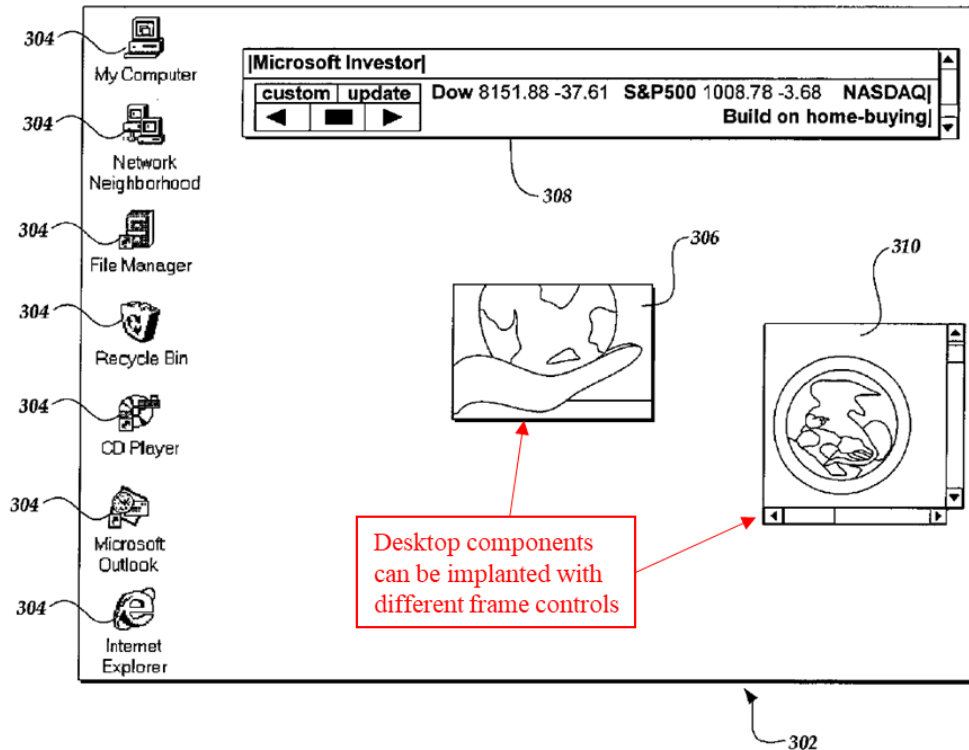
50. A POSITA would have understood or found obvious the “desktop components” of Brown to be “networked information monitors” because desktop components have similar features. Indeed, networked information monitors are “a fully configurable **frame**, with one or more **controls**, through which **content**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

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

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. Brown presents examples of desktop components with different frame “**controls**”, as annotated in Figure 3A below. SAMSUNG-1005, FIG. 3A. The above disclosures render Brown’s desktop component frames “**fully configurable**” as this term is used by the ’407 Patent (e.g., “details defining the NIM, such as the look-and-feel”). SAMSUNG-1001, 30:41-42.

52. 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:

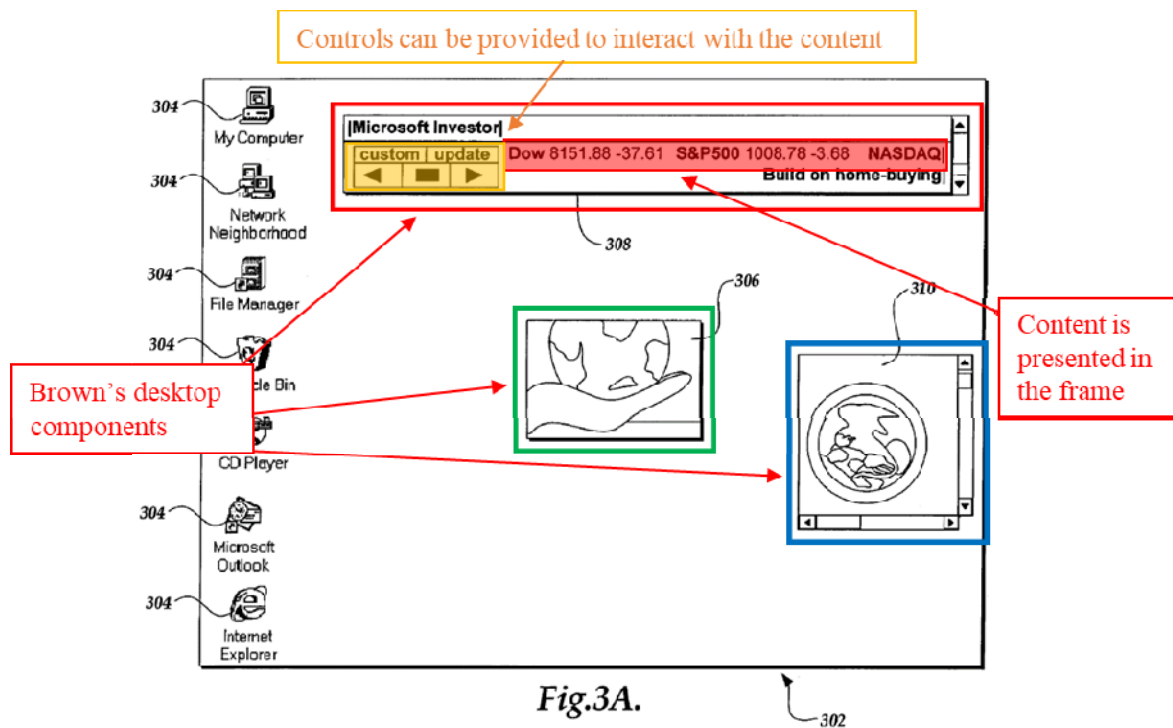
With frames, you can separate Web pages into distinct sections. These sections can be any size within the browser window and, if allowed, can be resized. Also, the content in one frame can be independent of other frames if the Web author so desires. It's also possible to have the user's actions in one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



SAMSUNG-1005, FIG. 3A (annotated)

53. 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.

54. Therefore, Brown’s desktop components are “networked information monitors,” as properly construed.



SAMSUNG-1005, FIG. 3A (annotated)

55. 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. 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.

56. 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.

57. 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.

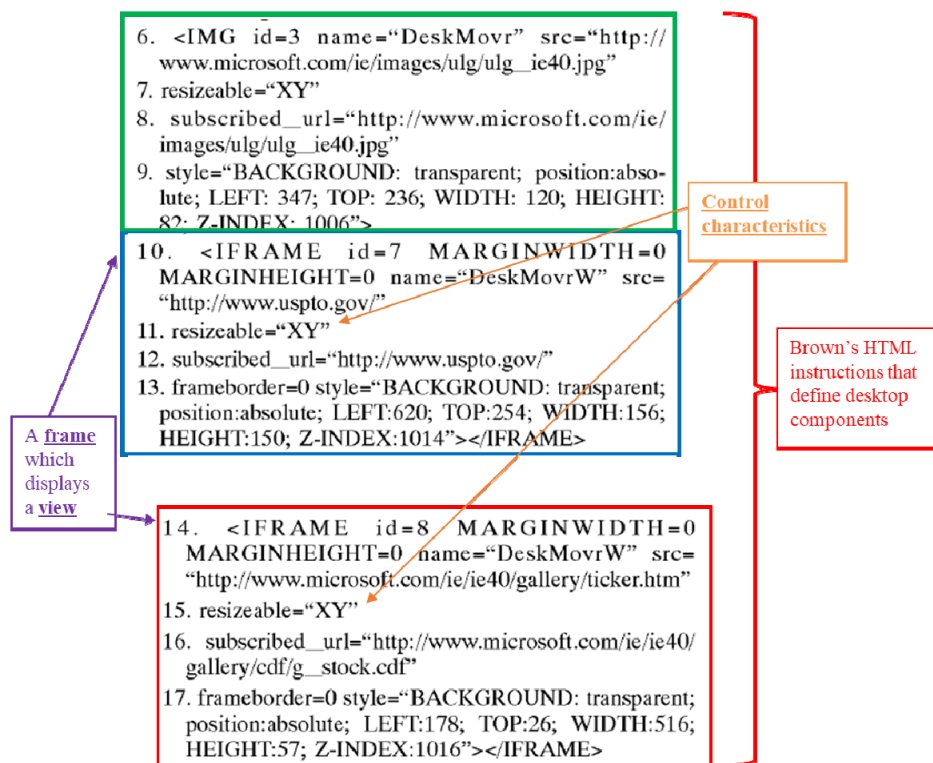
58. It can also be seen from the annotated figure that visual features of the desktop component (“**the view**”) are defined by the HTML instructions. SAMSUNG-1005, 11:56-67, 12:1-10. For example, the HTML instructions include a “frameborder” tag, as well as a “BACKGROUND” tag, that both define visual features of the desktop component. *Id.*

59. 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.

60. 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.

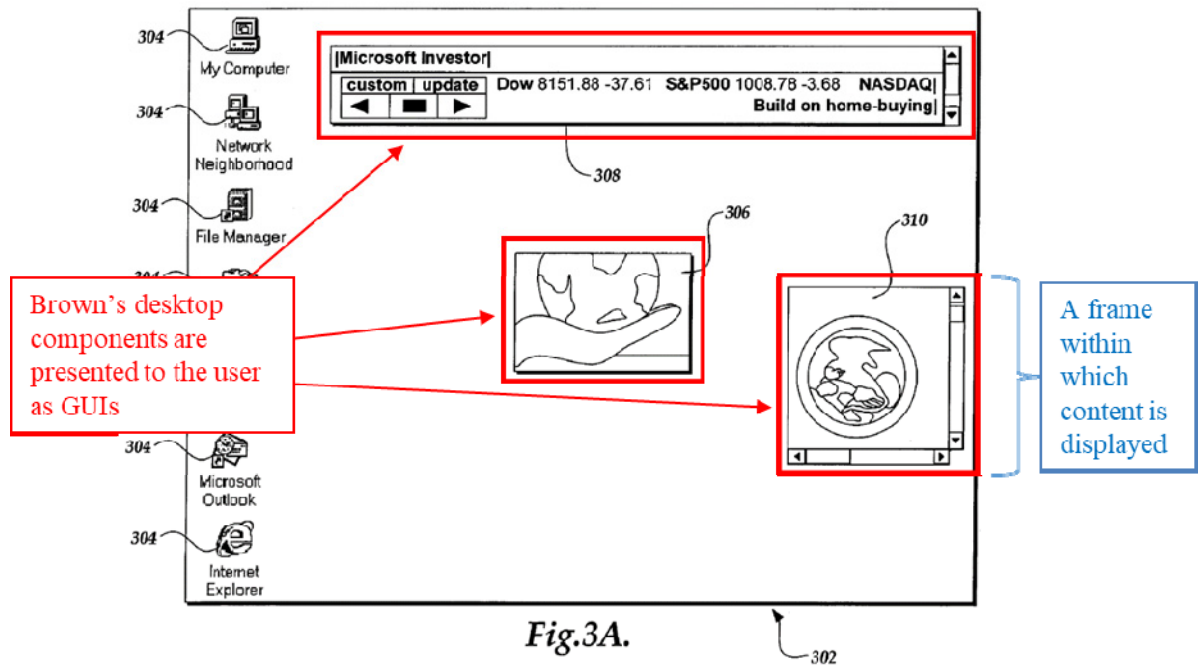
61. Therefore, with the above disclosures, Brown's HTML instructions correspond to a "networked information monitor template."



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

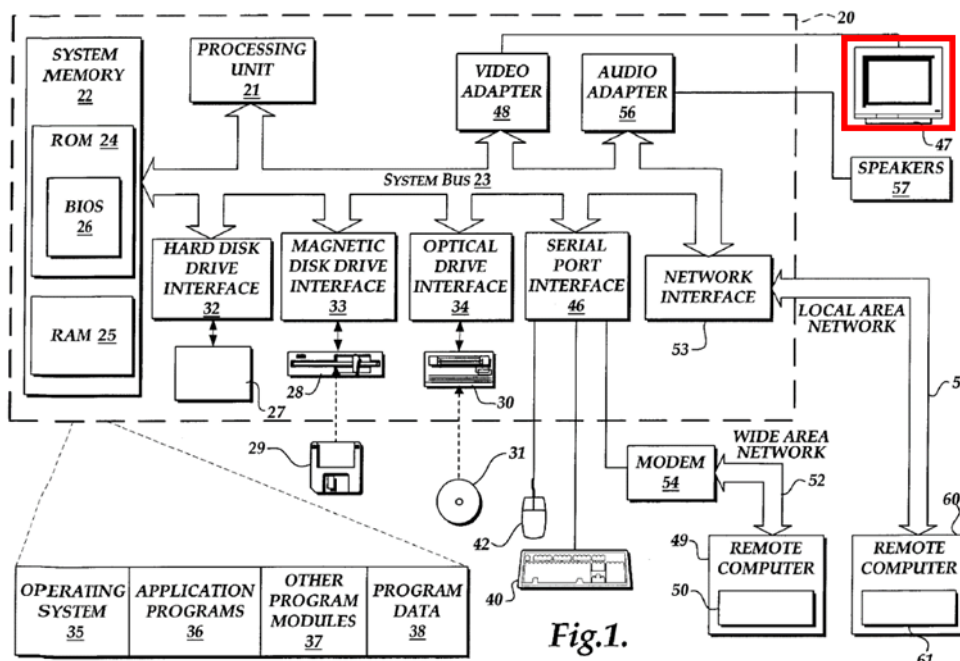
62. A POSITA would have recognized that the desktop components are presented to the user as "graphical user interfaces" or "GUIs" as these terms are commonly used in the art to describe such visual components. SAMSUNG-1005, FIG. 3A. Example desktop components are presented in the annotated Figure 3A below. Indeed, Brown refers to its composite desktop (and all Windows-based desktops) as a "GUI desktop." SAMSUNG-1005, 1:35-38, FIG. 3A. Further, Petty also refers to Microsoft Windows (and other operating systems) as providing a "graphical user interface (GUI)." SAMSUNG-1013, 1:38-49. Because Brown's

HTML instructions define the desktop component, a POSITA would have recognized that, therefore, they contain “a definition of a graphical user interface.”



SAMSUNG-1005, FIG. 3A (annotated)

63. Brown further describes that desktop components are “implemented as floating **frames**.” SAMSUNG-1005, 12:61-64. As annotated below in Figure 1, Brown’s “computer-based system” also includes an electronic display, which Brown refers to as a “monitor.” SAMSUNG-1005, 5:38-39. A POSITA would have recognized or found obvious from this disclosure that a display would be used to present content to a viewer.

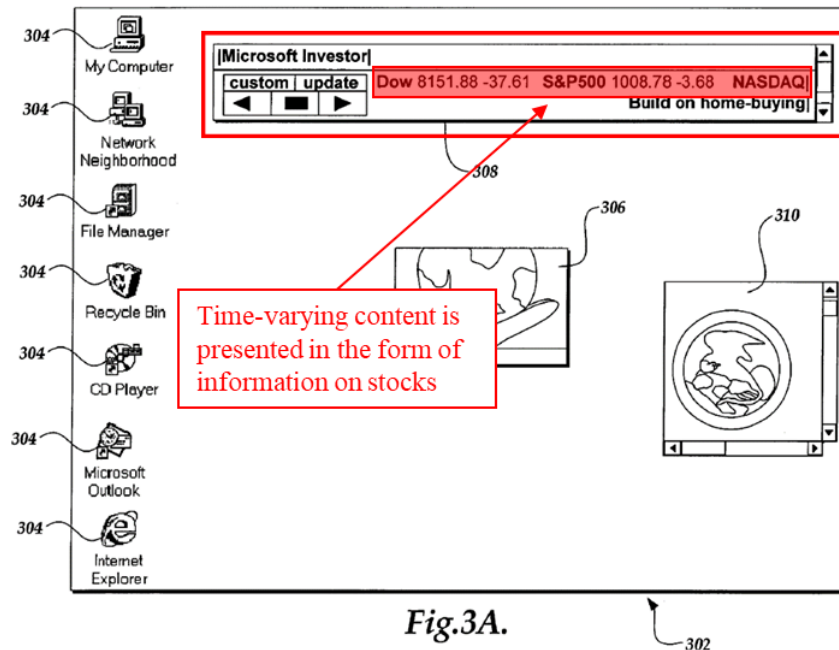


SAMSUNG-1005, FIG. 1 (annotated)

64. A POSITA would have understood or found obvious that the “floating frame” of Brown’s desktop components displayed on the “monitor” in the “computer based system to be **“a frame within which [content] is presented on a display associated with the client computing device,”** as desktop components are described by Brown as displaying internet content. [1.pre], *above*.

65. Brown describes that the GUI desktop can “provide entry points to Internet resources” that can **“change over time to reflect the changing nature of the resource.”** SAMSUNG-1005, 1:24-34. Additionally, Brown describes that Internet resources can be “HTML-based Web pages” or “documents.” *Id.*, 2:13-36. Brown describes that these HTML documents can be “text, graphics, **audio clips, and video clips,** as well as metadata or commands providing formatting

information.” *Id.*, 2:20-22. As an example of content that can change over time, Brown presents a desktop component directed to stock information, presented in the annotated figure below.



SAMSUNG-1005, FIG. 3A (annotated)

66. Brown also describes that Web pages or documents presented in desktop components “[function] similarly to the corresponding Web page **viewed in a browser window.**” SAMSUNG-1005, 11:20-28. A POSITA also would have recognized that HTML is an example of a “web-browser readable language,” as HTML is one of the most common examples of such a language. Indeed, Darnell describes an HTML “standard” for web-browsers. SAMSUNG-1011, Page 112 (“the W3 Consortium (W3C) sets the **HTML standards for the World Wide**

Web (W3). Any browser that wants to survive must conform to the standards set by the W3C”).

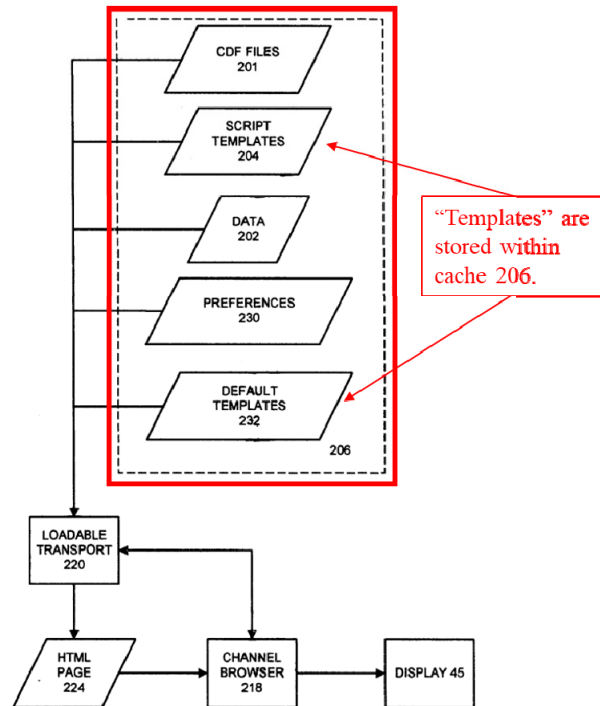
67. In view of the above disclosures, a POSITA would have understood or found obvious that Brown’s content is **“time varying content in a web browser-readable language.”** Indeed, the ’407 Patent frequently refers to HTML as “standard web content” or “a NIM’s content.” SAMSUNG-1001, 4:63-64, 21:50-53, 34:48-49, 37:13. A POSITA would have also understood or found obvious that web pages, as described by Brown, would include **“time-varying content”** as the Internet was known to host such content. Indeed, Shaffer describes “messages received by [a] computer [that] include **web page updates** received by a router associated with a web server on the **World Wide Web of the Internet.”** SAMSUNG-1020, 36-59. A “web page update,” according to Shaffer, can include “scheduled updates of stock prices (**‘time-varying content’**).” *Id.*

68. Referencing Brown’s FIG. 3A above, it can be seen that the **“frame”** of the desktop components **“lacks controls for enabling a user to specify a network location at which content for the networked information monitor is available.”** 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. Additionally, 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.

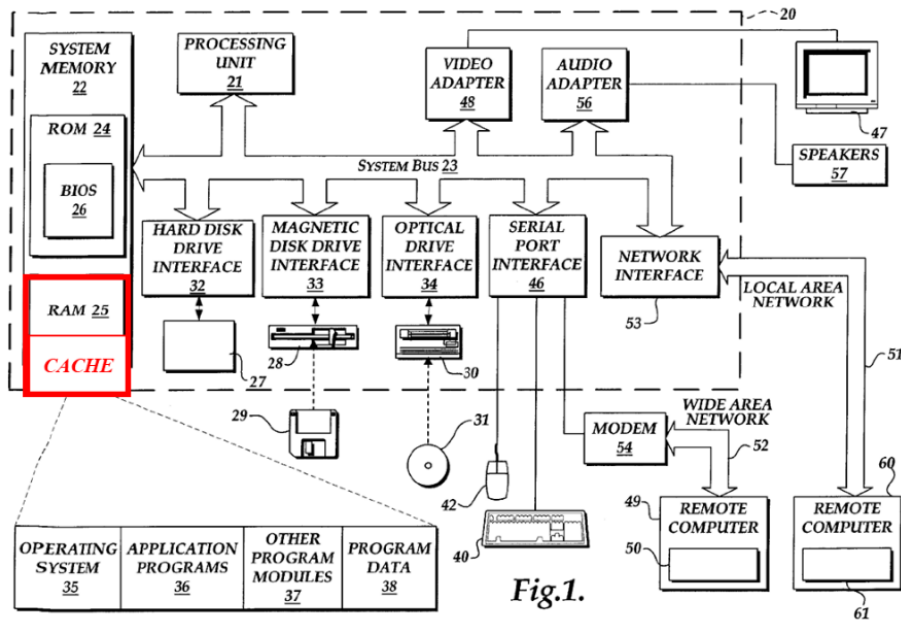
B. *The Brown-Wecker combination*

69. 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.

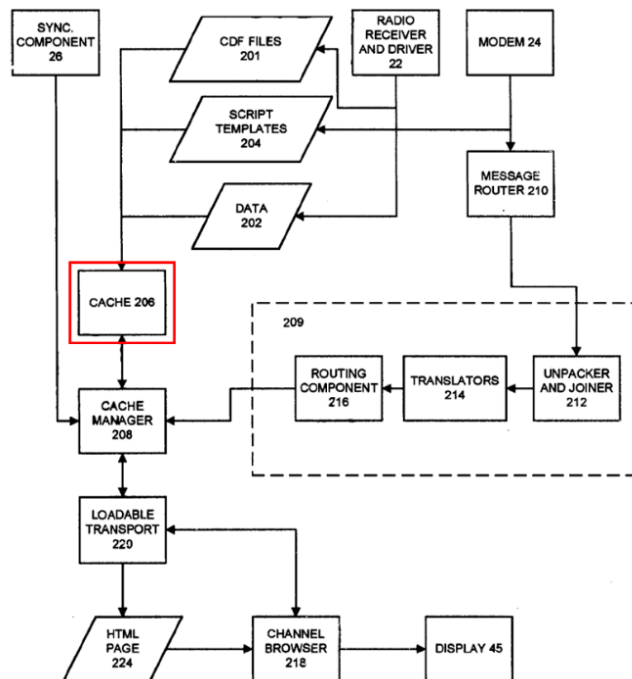


SAMSUNG-1006, FIG. 7 (annotated)

70. 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.



SAMSUNG-1005, FIG. 1 (annotated)



SAMSUNG-1006, FIG. 6 (annotated)

71. Wecker also describes “**updat[ing] time-critical information**, such as stock market values during peak network hours” (“**time-varying content**”). SAMSUNG-1006, 10:48-51.

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

[1.2]: one or more processors configured to execute one or more computer program modules, the one or more computer program modules being configured to access the networked information monitor defined by the networked information monitor template, wherein accessing the networked information monitor defined by the networked information monitor template results in:

73. Brown discloses an “HTML viewer” and “composite desktop shell” (“**one or more program modules**”) that access and execute the HTML instructions that define the desktop components. 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 “**executed**” by “**one or more processors**” because processors were known in the art to execute such programs. Indeed, Petty is one such reference that 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

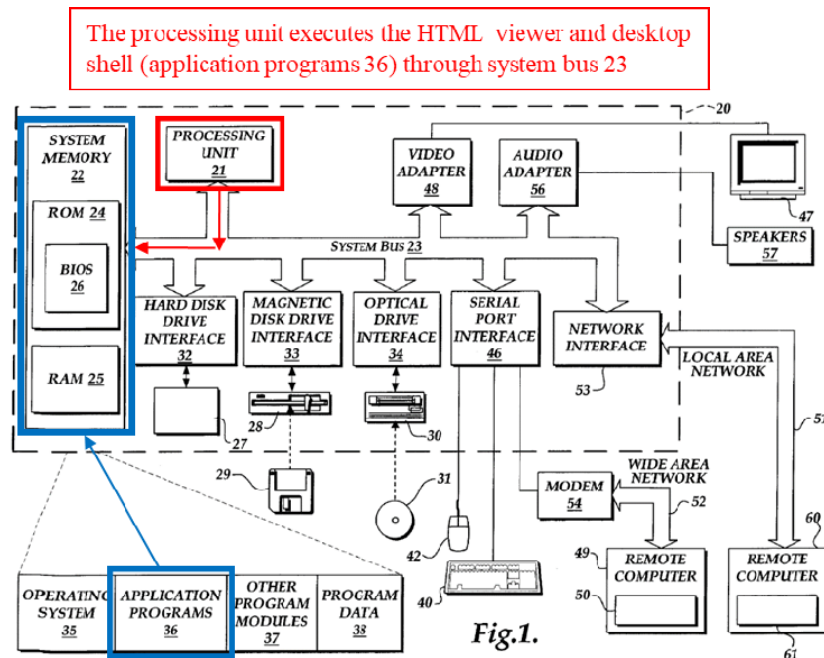
capable of executing program instructions. SAMSUNG-1016, 5:1-10. Yohanan states:

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.*

74. Brown discloses that the “HTML viewer 212 **reads** the desktop.htm file 210 (“**access the networked information monitor defined by the networked information monitor template**”), interprets the instructions, and generates a composite desktop display.” SAMSUNG-1005, 6:39-41. Additionally, 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. In order to perform these functions, the desktop shell would “**access**” the HTML instructions that define the desktop components.

75. Moreover, it was well known in the art that “**program modules**” could be “**configured**” to access style-based files (“**NIM**” / “**NIM template**”). Indeed, Beer is one such example that describes the use of a “Programmable Graphical User Interface” or “PGUI” that “[o]n launching an application on a client ... retrieves (“**access**”) the corresponding **user interface definition** from a storage device, preferably on a server.” SAMSUNG-1007, Abstract, 14:1-22.

Beer describes that the PGUI also “retrieves (“access”) 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.” *Id.* 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)

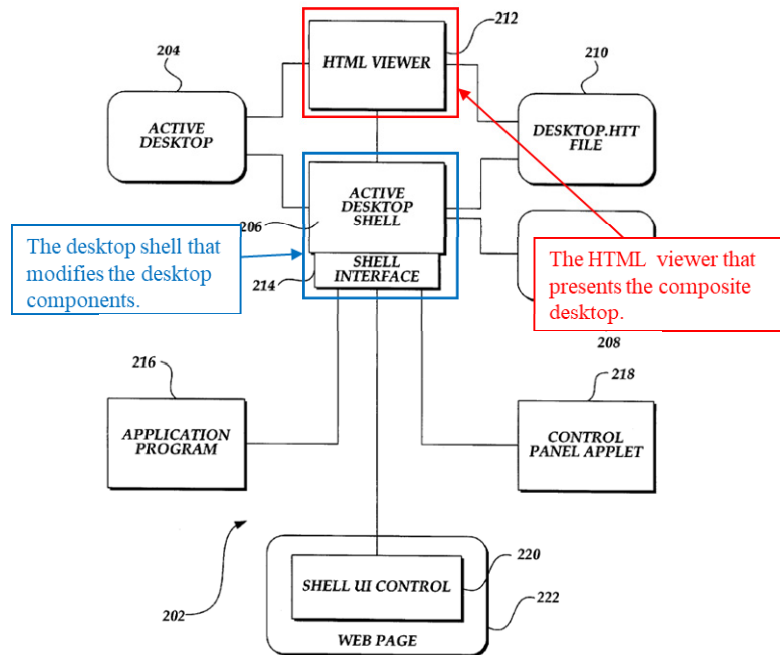


Fig.2.

SAMSUNG-1005, FIG. 2 (annotated)

[1.3]: transmission, over a network to a web server at a network location, of a content request for content to be displayed within the frame of the viewer graphical user interface defined by the networked information monitor template:

A. Brown

76. Brown describes that its client device can download content from the Internet. SAMSUNG-1005, 2:4-12; SAMSUNG-1006, 3:8-16, 4:3-13. Indeed, Brown describes that “[a] ‘client’ computer connected to the Internet can download (“transmission ... of a content request”) digital information from ‘server’ computers connected to the Internet (‘web server[s]’).” SAMSUNG-1005, 2:4-8.

77. A POSITA would have understood or found obvious that this transmission would occur “**over a network to a web server at a network location**” because Brown describes the use of “uniform resource locators” or “URLs” which are known to correspond to such network locations. SAMSUNG-1005, 3:24-33, 11:43-67, 12:1-43. 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. For example, one of Brown’s example desktop components includes “a URL corresponding to a CDF file.” SAMSUNG-1005, 12:1-8, FIG. 3A. An annotated example of this desktop component is provided below.

```
14. <IFRAME id=8 MARGINWIDTH=0
    MARGINHEIGHT=0 name="DeskMovrW" src=
    "http://www.microsoft.com/ie/ie40/gallery/ticker.htm"
15. resizable="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
```

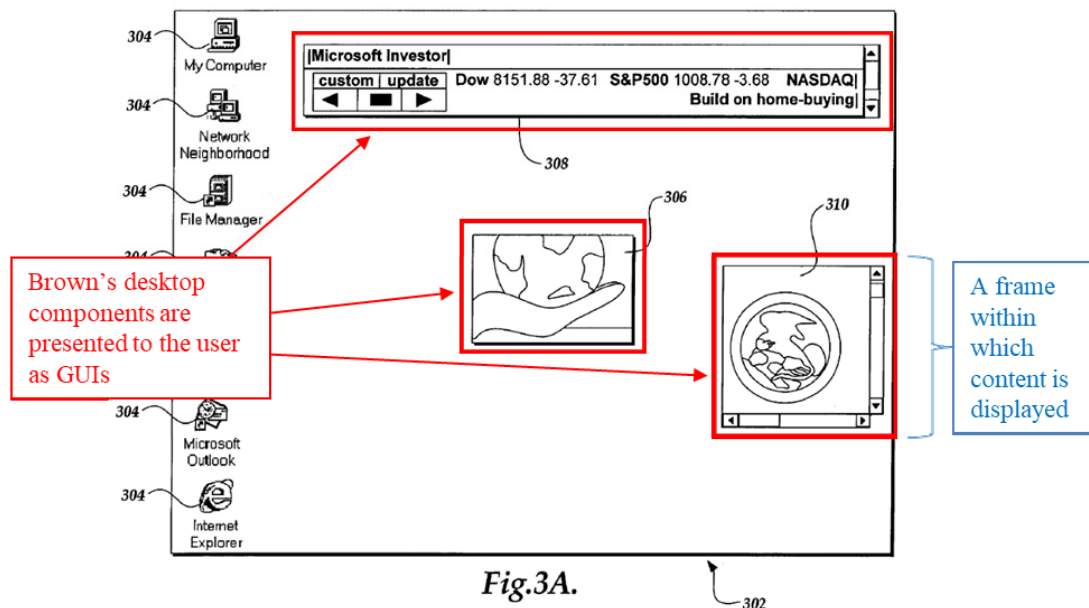
A URL corresponding to a CDF file.

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

78. A POSITA would have understood or found obvious that a Uniform Resource Locator (“URL”) to be 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.

79. Brown and Wecker both describe that requested content is displayed to the user (“**displayed within the frame of the viewer graphical user interface defined by the networked information monitor template.**”) SAMSUNG-1005, Abstract, 4:13-21, 7:21-24. Brown describes that “desktop components ... **[display] a single piece of Web-based content.**” SAMSUNG-1005, 7:21-24. Example desktop components are provided below in the annotated figure.



SAMSUNG-1005, FIG. 3A (annotated)

B. *The Brown-Wecker combination*

80. Wecker also describes that desktop computers can “**periodically retrieve or receive** new and updated script, data and CDF files” (“**transmission, over a network to a web server at a network location, of a content request**”). SAMSUNG-1006, 4:3-13. Like Brown, Wecker’s portable subscriber units also display content to the user, and Wecker describes that received “script, data and CDF files” can be used to “[**render**] the data” (“**displayed within the frame of the viewer graphical user interface defined by the networked information monitor template.**”) SAMSUNG-1006, 4:3-13.

81. All claim features are rendered obvious as I discuss above. [1.3].A, *above*.

[1.4]: reception, over the network from the web server at the network location, of content transmitted from the web server in response to the content request, the content being time-varying:

82. *See* [1.3] (incorporated here). For both grounds, a POSITA would have understood or found obvious that, once requested from the web server (“**over the network from the web server at the network location**”), the client would receive the content included in the request (“**in response to the content request**”). Indeed, Brown describes that CDF subscriptions “are used to implement “subscriptions” in which information is regularly (“**time-varying**”) retrieved

(“**reception ... of content transmitted from the web server**”) and updated.” SAMSUNG-1005, 12:1-8, 13:4-13.

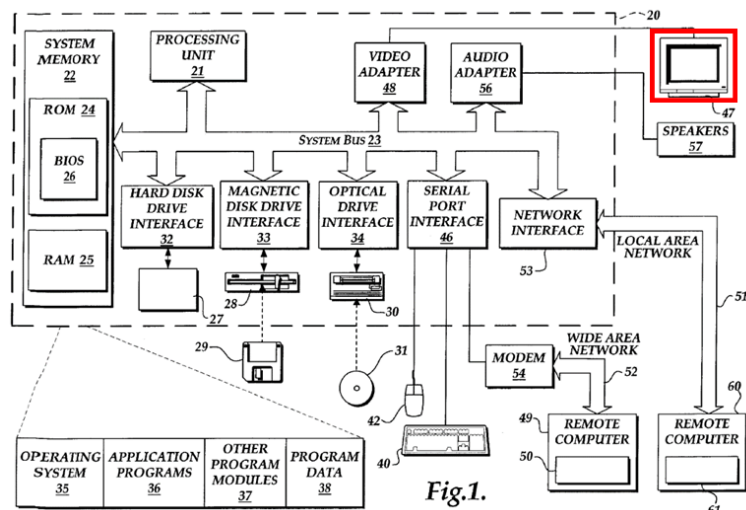
83. Requesting and reception of content, for example in “real-time,” would have been obvious to a POSITA as this function was well known in the art. Indeed, Brown describes that “[client] application software executing on client computers typically accept commands from a user and **obtain[s] data and services by sending requests** to server applications running on server computers connected to the Internet.” SAMSUNG-1005, 2:8-12. Brown further explains that “HTML documents can contain embedded software components containing program code that perform a wide variety of operations, such as ... updating (‘sending requests’ and ‘obtain[ing]’) the displayed data (‘**time-varying content**’).” *Id.*, 2:36-41.

84. Moreover, Beer describes a well-known method for “retrieve[ing] a user interface and a visual style from a local or remote storage unit, [and] rapidly display[ing] the visual stylized user interface.” SAMSUNG-1007, Abstract. Beer describes the use of a “Programmable Graphical User Interface” or “PGUI” that “renders the appearance of each part of the user interface in accordance with any newly selected visual style, and redisplay[s] the changed user interface for **response to events** and for **display of content**.” *Id.*, Abstract, 14:1-22. Beer describes that remote storage units can be “a UIL server via a protocol such as ... the World Wide Web (WWW) HTTP protocol (‘**a web server**’).” *Id.*, 3:50-54.

[1.5]: presentation, on the display, of the viewer graphical user interface defined by the networked information monitor template outside of and separate from any graphical user interface of any other application; and

85. See [1.3] (incorporated here) regarding a “viewer graphical user interface defined by the networked information monitor template.”

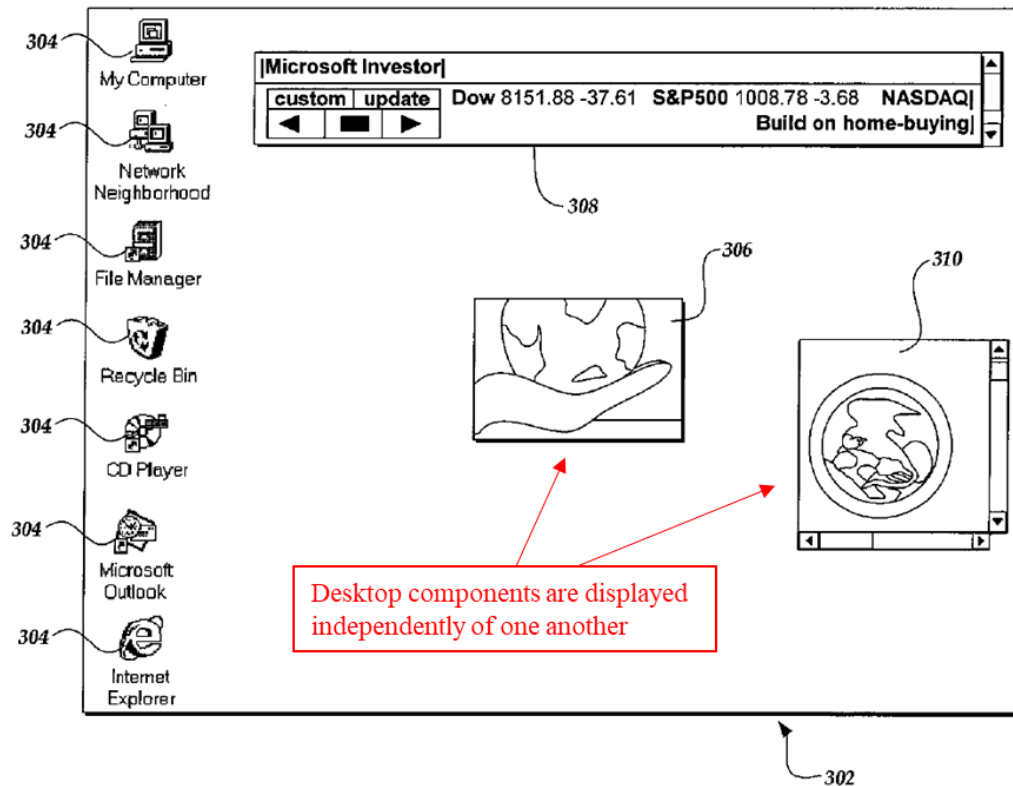
86. As annotated below in Figure 1, Brown’s “computer-based system” includes an electronic “display”, which Brown refers to as a “monitor.” SAMSUNG-1005, 5:38-39. For both grounds, a POSITA would have recognized or found obvious from this disclosure that a display would be used to present content to a viewer (“presentation on a display”).



SAMSUNG-1005, FIG. 1 (annotated)

87. A POSITA would have recognized or found obvious in reviewing Brown’s figures that the components are displayed “outside of and separate from any graphical user interface of any other application.” Indeed, as further illustrated below, Brown describes its “desktop components” as “distinct

geometric region[s]” (“**outside of and separate**”). SAMSUNG-1005, 7:21-23, FIG. 3A.



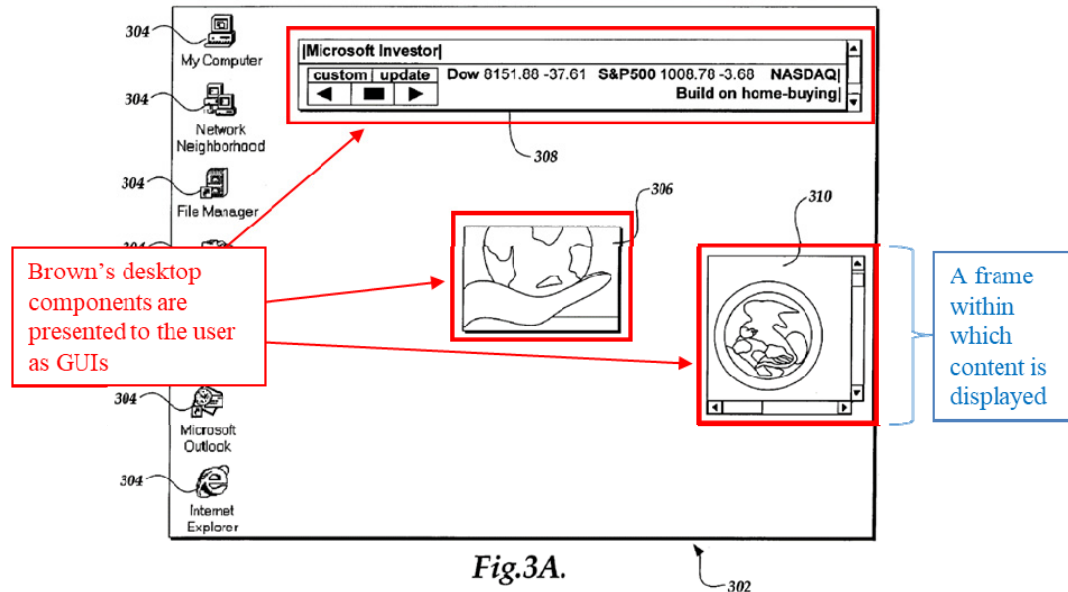
SAMSUNG-1005, FIG. 3A (annotated)

[1.6]: presentation, on the display within the frame of the viewer graphical user interface defined by the networked information monitor, of the time-varying content received from the web server.

88. See [1.3] and [1.4] (incorporated here). For both grounds, a POSITA would have recognized or found obvious from reviewing Brown’s figures, for example, the annotated Figure 3A reproduced below, that Brown’s “**time-varying content**” is “[presented] on the display within the frame of the viewer

graphical user interface defined by the networked information monitor.”

SAMSUNG-1005, *see at least* FIG. 3A.



SAMSUNG-1005, FIG. 3A (annotated)

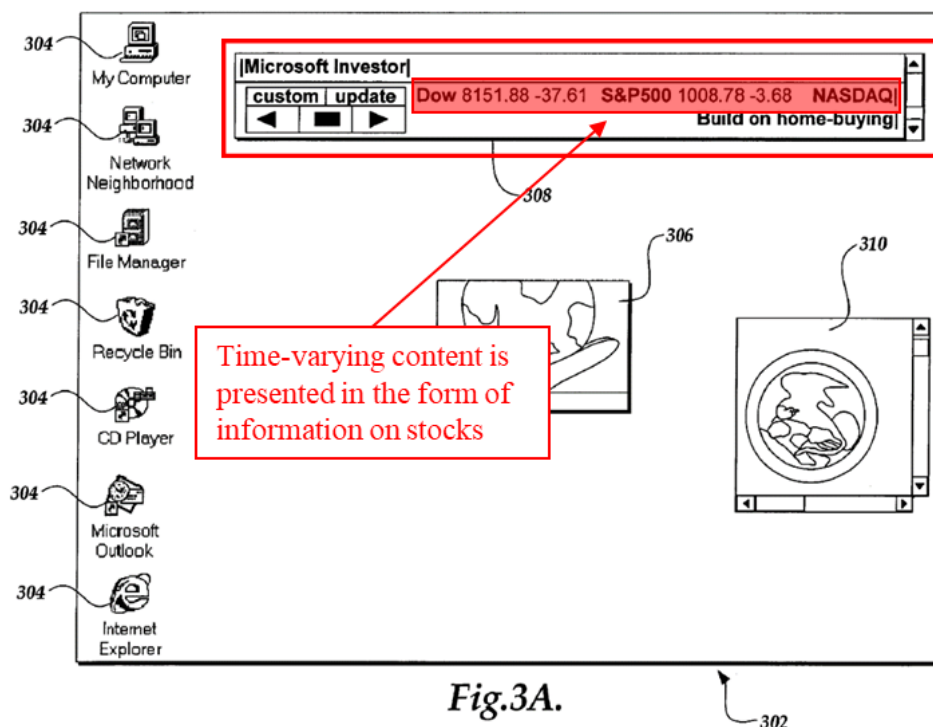
[2]: The method of claim 1, further comprising, responsive to reception of one or more elements included in the received time-varying content, modifying a feature of said viewer graphical user interface defined by the networked information monitor template in accordance with a modification corresponding to the received one or more elements.

A. Brown

89. See [1.1] (incorporated here). Brown describes the use of CDF, and that “CDF files are used to implement “subscriptions” in which information (‘time-varying content’) is regularly retrieved (‘reception of one or more elements’) and updated (‘modifying a feature’) within the active desktop component (‘viewer graphical user interface’).” SAMSUNG-1005, 13:1-13.

90. For example, Brown presents a desktop component directed to stock information, presented in the annotated figure below, where the stock value changes over time and is regularly updated in the GUI (**‘modifying a feature of said viewer graphical user interface ... in accordance with a modification corresponding to the received one or more elements’**). SAMSUNG-1005, FIG. 3A.

91. A POSITA would have understood or found obvious that time-varying content would drive regular (e.g., continual) modification of the GUI presenting such content, as the timeliness of some information (such as stock prices) is critical. For example, Wecker provides support for and describes **“updat[ing] time-critical information**, such as stock market values during peak network hours.” SAMSUNG-1006, 10:48-51. A POSITA would have understood or found obvious from this disclosure that “time-critical information” (**“one or more elements included in the received time-varying content”**) would drive regular (e.g., continual) **“modification”** to the **“GUI”**, in order to provide the viewer with the most current information.



SAMSUNG-1005, FIG. 3A (annotated)

92. Moreover, a POSITA would have recognized or found obvious that Brown obviates this limitation in multiple ways. For example, as described in Darnell, Dynamic HTML (or dHTML, as it is referred to by the '407 Patent) can be used to “create and display more interactive Web pages **within the .htm or .html file itself**, avoiding the complexity of requiring **additional plug-in applications**, add-on controls, and multiple Web server requests.” SAMSUNG-1001, *see* 4:61-67, SAMSUNG-1011, 413-431. Darnell describes “events” embedded directly into HTML “tags” that fire on “[the] user's mouse and keyboard actions, **as well as the current state of the active Web page.**” SAMSUNG-1011,

415. Brown describes the use of dHTML, and additionally references a Microsoft publication directed to “Dynamic HTML.” SAMSUNG-1005, 13:8-13.

93. One example use of dHTML cited by Darnell includes a web page directed to a fictional baseball league, the web page including “**dynamic table interaction to sort current league standings** by team name, wins, losses, batting averages, and earned run averages.” *Id.*, 417. A POSITA would have recognized or found obvious that “**reception of one or more elements included in the received time-varying content** (‘current league standings’)” would in some cases drive “events” that “[**modify**] a feature of said viewer graphical user interface defined by the networked information monitor template (‘dynamic table interaction’).” This “dynamic ... interaction” contemplated by Darnell can also be applied to other GUI features, for instance, scroll bars, buttons, and other content and controls.

94. Indeed, Darnell describes “[c]reating [d]ynamic [d]ata-[a]ware [p]ages” that allow a dHTML to “access a data source anywhere on the Web with a Web browser³, deliver it locally to the requesting client, and then **interactively present it to an audience without any additional network traffic.**”

³ As discussed above, a “Web browser,” as this term is used by Darnell, would not be required to access the “data source” in all instances. *See* [1.1], *above*.

SAMSUNG-1011, 424. Darnell lists representative examples of this interaction, which include “[a]utomatically generating table rows from data records, [d]ynamically expanding tables, [i]nteractively filtering and sorting table contents, [b]inding HTML elements to a specific record,” and “[d]ata-binding form fields.” *Id.*

B. The Brown-Wecker combination

95. Like Brown, Wecker similarly describes the use of CDF. SAMSUNG-1006, 3:1-16.

96. All claim features are rendered obvious as discussed above. [2].A, *above*.

[3]: The client computing device of claim 2, wherein said modification corresponding to the received one or more elements comprises a modification to an image defined by the networked information monitor template as forming a part of said viewer graphical user interface.

A. Brown

97. *See* [2] (incorporated here). Brown describes that HTML documents (“one or more elements included in the received time-varying content”) can contain “graphics ... and video clips” (both forms of “**images**”). SAMSUNG-1005, 2:20-21. A POSITA would have understood or found obvious that these images could change over time as they are referenced by URL, which reference network locations describing time-varying content. SAMSUNG-1005, 11:51-59, 12:44-50, FIG. 3A.

98. This feature is also within the capability of dHTML, as described above. *See [2], above.*

B. The Brown-Wecker combination

99. Wecker also describes that **images** can be contained within a CDF subscription. SAMSUNG-1006, 16:25-67. An annotated example of a “stocks” script file according to Wecker is provided below.

```
<ITEM HREF="http://www.market.com/Stocks.mcs"
  ID="Stock_S"
  <USAGE VALUE="None"
</ITEM>
...
<CHANNEL ID = "Stock_C" >
  <TITLE VALUE="Market"/>
  <ITEM HREF="http://www.market.com/stocks.mcd"
  ID="Stock_D">
    <USAGE VALTE="MobileChannel"/>
    <ITEMSCRIPT VALUE="Stock_S"/>
    <ITEMFORMAT VALUE="Title,Date,
    IMG;
    Name, Low, High, Close"/>
  </ITEM>
</CHANNEL>
```

The IMG tag is used to indicate data that represents an image

Picture=

SAMSUNG-1006, 16:44-60 (annotated)

100. Wecker describes that “IMG indicates the field that represents an **image**, such as JPG or GIF.” SAMSUNG-1006, 16:64-65. Since this IMG tag is contained within the script corresponding to the subscription, a POSITA would have understood or found obvious that the image defined by the IMG tag could be updated in a similar fashion to the other content defined by the script (“**modifying**

a feature of said viewer graphical user interface ... in accordance with a modification corresponding to the received one or more elements”).

[4]: The client computing device of claim 2, wherein the correspondence between the modification and the received one or more elements is defined by the networked information monitor template.

101. See [2] (incorporated here). For both grounds, a POSITA would have understood or found obvious that, because the CDF subscription is contained within the HTML instructions, the “**modification**” and “**received one or more elements**” are “**defined by the network information monitor template.**” SAMSUNG-1005, 6:34-36, 7:21-22, 11:1-67, 12:1-67, 13:1-54; [1.1], [2], *above*. An annotated set of HTML instructions containing a 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. resizable="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
```

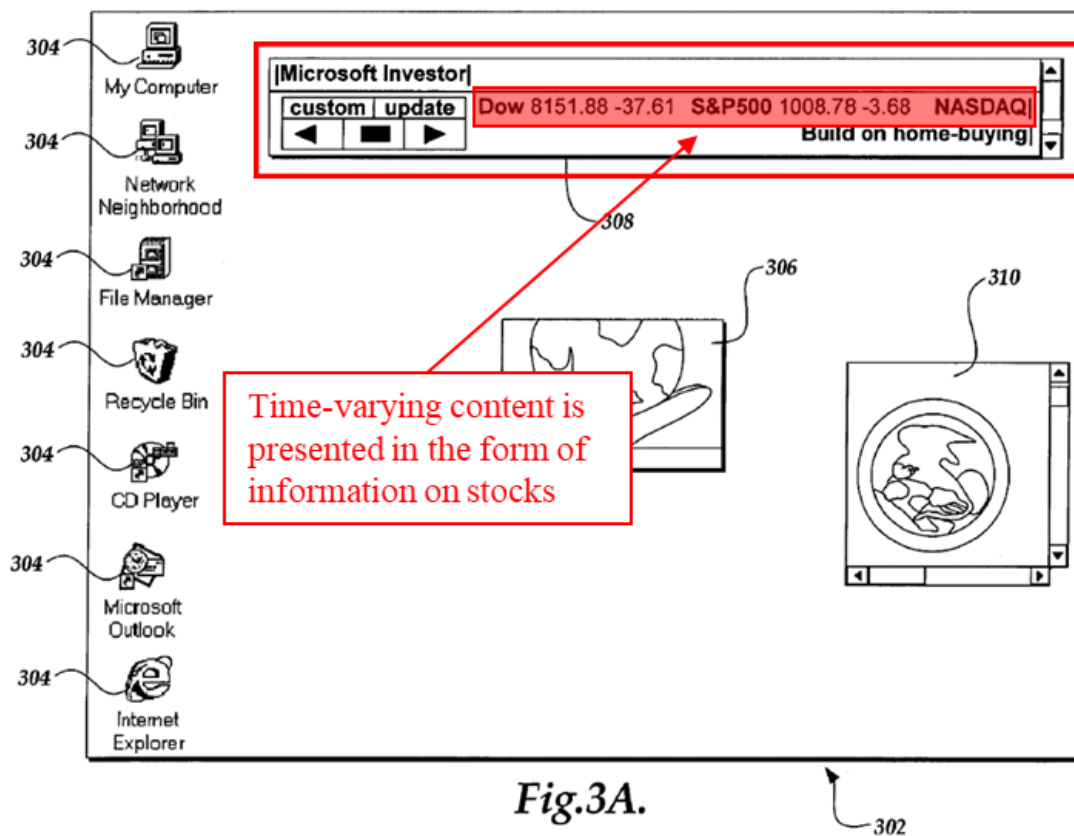
A URL corresponding
to a CDF file.

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

102. This feature is also within the capability of dHTML, as described above. See [2], *above*.

[7]: The client computing device of claim 2, wherein the one or more computer program modules and the networked information monitor template are configured such that modifying the feature of the viewer graphical user interface comprises modifying text of the viewer graphical user interface in a manner defined by the networked information monitor template.

103. See [2] (incorporated here). For both grounds, a POSITA would have recognized or found obvious that, as evident from the annotated figure below, the time-varying (“**modifying**”) stock information in the desktop component (“**a feature of the graphical user interface**”) is presented to the user as “**text.**” SAMSUNG-1005, FIG. 3A. This feature is also within the capability of dHTML, as described above. See [2], *above*.



SAMSUNG-1005, FIG. 3A (annotated)

[8]: The client computing device of claim 1, wherein the networked information monitor template includes a markup language file.

104. *See* [1.1] (incorporated here). Brown describes “**HTML** instructions.” SAMSUNG-1005, 6:34-36, 7:21-22, 11:1-67, 12:1-67, 13:1-54. For both grounds, a POSITA would have understood, or found obvious, that HTML is a “markup language file.” [1.1], *above*.

[9]: The client computing device of claim 1, wherein one or more computer program modules are configured such that the time-varying content is received from the web server over the network according to the TCP/IP protocol.

105. *See* [1.2] and [1.3] (incorporated here). Brown and Wecker both describe accessing content over the “Internet.” SAMSUNG-1005, 13:1-4; SAMSUNG-1006, 3:1-7. For both grounds, a POSITA would have understood, or found obvious, to be a “**TCP/IP protocol.**” [1.3], *above*. Indeed, Darnell discloses that “HTTP [hypertext transfer protocol] operates **over the Internet**, where communication occurs between computers **via TCP/IP.**” SAMSUNG-1011, Page 88.

106. As discussed above, a POSITA would have understood or found obvious that this function would be executed by “**one or more computer program modules.**” SAMSUNG-1005, 6:26-40; SAMSUNG-1013, Abstract, 5:58-59, 7:58-59; [1.2], *above*.

[10]: The client computing device of claim 1, wherein the network location corresponds to a uniform resource locator included in the networked information monitor template.

107. See [1.3] (incorporated here). Brown describes a desktop component (presented below) with “a URL corresponding to a CDF file.” SAMSUNG-1006, 3:3-5, 12:1-8; [1.3], *above*. For both grounds, a POSITA would have understood or found obvious that this URL corresponds to a “**network location**.” [1.3], *above*.

```
14. <IFRAME id=8 MARGINWIDTH=0  
    MARGINHEIGHT=0 name="DeskMovrW" src=  
    "http://www.microsoft.com/ie/ie40/gallery/ticker.htm"
```

```
15. resizable="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
```

A URL corresponding
to a CDF file.

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

[11]: The client computing device of claim 10, wherein the one or more computer program modules are further configured such that accessing the networked information monitor defined by the networked information monitor template results in transmission of the content request to the uniform resource locator included in the networked information monitor template, and the content request being transmitted according to the TCP/IP protocol over the network.

108. See [1.2], [1.3], and [9] (incorporated here). As discussed above, for both grounds, a POSITA would have understood or found obvious that this function is executed by “**one or more computer program modules**.”

SAMSUNG-1005, 6:26-40; SAMSUNG-1013, Abstract, 5:58-59, 7:58-59; [1.2], *above*. A POSITA also would have understood or found obvious that this content request is transmitted “**according to the TCP/IP protocol over the network.**” SAMSUNG-1005, 13:1-4; SAMSUNG-1006, 3:1-7; SAMSUNG-1011, Page 88; [1.3], [9], *above*.

[12.1]: The client computing device of claim 1, wherein the one or more computer program modules are further configured: to transmit, over the network to a networked information monitor server, a request for the networked information monitor template:

109. *See* [1.2] and [1.3] (incorporated here). As discussed above, a POSITA would have understood or found obvious that transmitting requests to a server could be executed by the “**one or more computer program modules**” of Brown. SAMSUNG-1005, 6:26-40; SAMSUNG-1007, Abstract, 14:1-22; SAMSUNG-1013, Abstract, 5:58-59, 7:58-59; [1.2], *above*.

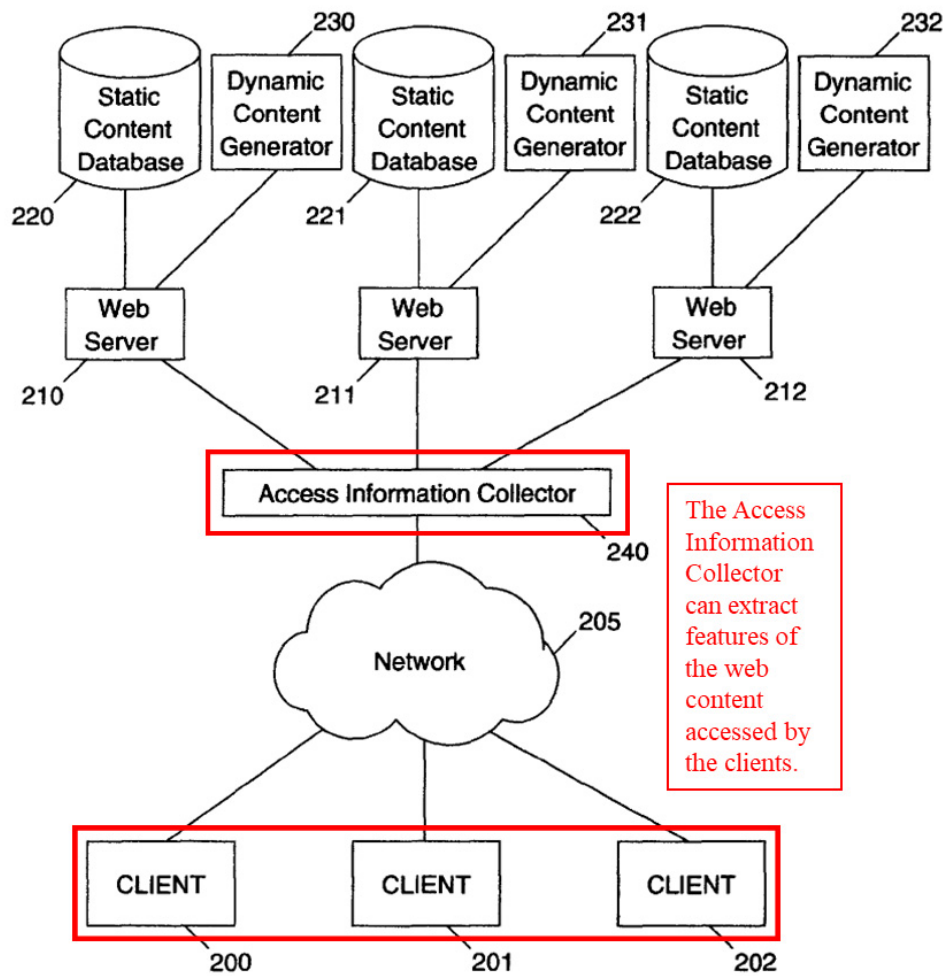
110. Wecker describes a channel as “a self describing web site that contains **all the information necessary for efficient download** of web content to mobile device” and that this information includes “a set of **script files** to render the channel.” SAMSUNG-1006, 3:8-16. As discussed above, a POSITA would have recognized that script files are style-focused data structures that are similar in objective to Brown’s HTML instructions, and that HTML files could be downloaded in a similar manner.

111. Indeed, both Wecker and Brown describe that HTML files could be downloaded to a client. SAMSUNG-1005, *see at least* 2:13-29; SAMSUNG-1006, *see at least* 10:25-56. In view of the above, a POSITA would have recognized or found obvious that HTML instructions could be requested from a “**networked information monitor [NIM] server**” as both Brown and Wecker have been demonstrated to be capable of communicating “**over a network**” to a “**web server.**” [1.3], *above*.

112. 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.

113. While the specification of the ’407 Patent describes other various exemplary functions the “[**NIM**] **server**” can execute, these functions are not incorporated into the language of the claim. SAMSUNG-1001, 38:31-38, 39:26-32, 40:17-26, 41:5-8. Further, the ’407 Patent does not provide an explicit definition of the term “**NIM server.**” *Id.* As a result, “**NIM server**” should not be construed to claim any of these additional functions.

114. To the extent it may be argued that the “**NIM server**,” as claimed, is entitled to the features of, for example, “track[ing] continuous, long-term NIM use information about each user” as described in the ’407 Patent, this feature was well known in the art as of the Critical Date. SAMSUNG-1001, *see at least* 38:31-38. For example, Cuomo describes one such system for “collecting **profile information** about users accessing dynamically generated content from one or more servers.” SAMSUNG-1022, Abstract. Cuomo describes an “Access Information Collector” that can be “embedded in the Web servers.” *Id.*, 4:13-20, FIG. 2. Cuomo explains that the Access Information Center can, in response to a user retrieving a document from a Web server, extract “the requested URI, the time of the request, the identity of the requesting client, and the content of the retrieved document.” SAMSUNG-1022, 6:1-10, FIG. 4. Annotated figures of Cuomo are provided below.



SAMSUNG-1022, FIG. 2 (annotated)

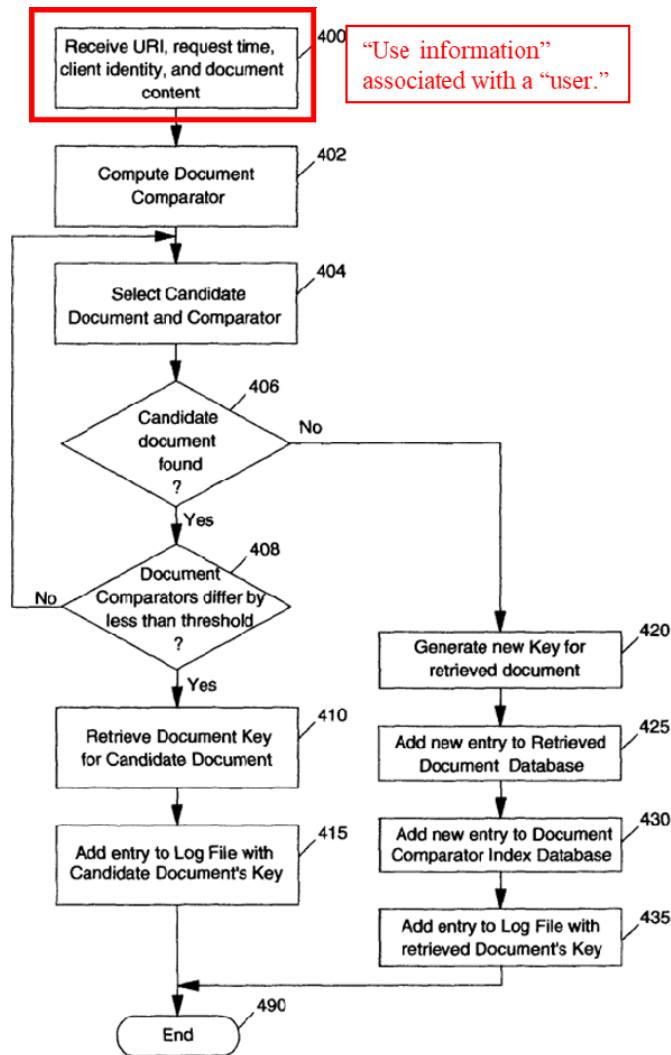


FIG. 4

SAMSUNG-1022, FIG. 4 (annotated)

[12.2]: to receive, from the networked information monitor server over the network, the networked information monitor template; and

115. See [1.2], [1.4], and [12.2] (incorporated here). As discussed above, a POSITA would have understood or found obvious that this function is executed by “one or more computer program modules.” SAMSUNG-1005, 6:26-40; SAMSUNG-1013, Abstract, 5:58-59, 7:58-59; [1.2], *above*.

116. A POSITA also would have understood or found obvious that, once the request was transmitted, the client would “**receive**” the requested data as this was well known in the art.

[12.3]: to store the networked information monitor template to the electronic storage.

117. *See* [1.1] and [1.2] (incorporated here). As discussed above, a POSITA would have understood or found obvious that this function is executed by “**one or more computer program modules.**” SAMSUNG-1005, 6:26-40; SAMSUNG-1013, Abstract, 5:58-59, 7:58-59; [1.2], *above*.

118. 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 networked information monitor template to the electronic storage**”) 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.

119. 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.

[13.pre]: A computer-implemented method of accessing content over a network on a client computing device, the client computing device having electronic storage and one or more processors configured to execute one or more computer program modules, the client method comprising:

120. To the extent the preamble is limiting, both grounds render [13.pre] obvious. For grounds, a POSITA would have recognized that Brown and the Brown-Wecker combination are also a **“computer-implemented method of accessing content over a network on a client computing device”** because Brown describes “a computer-based method of displaying information on a graphical user interface composite desktop displayed on a computer monitor,” the information being “Web content retrieved from one or more Web sites.” SAMSUNG-1005, Abstract, Claim 19. A POSITA would have recognized that a “computer” and “desktop” are examples of a **“client computing device”** as these terms are used interchangeably in the art.

121. As discussed above, Brown’s “computer” includes **“electronic storage and one or more processors configured to execute one or more computer program modules”**). *See* [1.1], [1.2], *above*.

[13.1]: storing, to the electronic storage, a networked information monitor template associated with a networked information monitor, the networked information monitor template having therein a definition of a

viewer graphical user interface having a frame within which time-varying content in a web browser-readable language may be presented on a display associated with the client computing device, wherein the frame of the viewer graphical user interface lacks controls for enabling a user to specify a network location at which content for the networked information monitor is available;

122. *See* [1.1] (incorporated here). Given that both grounds render obvious “electronic storage configured to store networked information monitor template associated with a networked information monitor,” a POSITA would have also found obvious the method of “**storing, to the electronic storage, a networked information monitor template associated with a networked information monitor**” as this is nothing more than the implementation of the above system.

[13.2]: accessing the networked information monitor defined by the networked information monitor template, wherein accessing the networked information monitor defined by the networked information monitor template results in:

123. *See* [1.2] (incorporated here). I believe that [13.2] is obvious for the reasons discussed above in [1.2].

[13.3]: transmission, over a network to a web server at a network location, of a content request for content to be displayed in the viewer graphical user interface defined by the networked information monitor template;

124. *See* [1.3] (incorporated here). I believe that [13.3] is obvious for the reasons discussed above in [1.3].

[13.4]: reception, over the network from the web server at the network location, of content transmitted from the web server in response to the content request, the content being time-varying:

125. *See* [1.4] (incorporated here). I believe that [13.4] is obvious for the reasons discussed above in [1.4].

[13.5]: presentation, on the display, of the viewer graphical user interface defined by the application media package template outside of and separate from any graphical user interface of any other application; and

126. *See* [1.5] (incorporated here). I believe that [13.5] is obvious for the reasons discussed above in [1.5].

[13.6]: presentation, on the display within the frame of the viewer graphical user interface defined by the networked information monitor, of the time-varying content received from the web server.

127. *See* [1.6] (incorporated here). I believe that [13.6] is obvious for the reasons discussed above in [1.6].

[14]: The method of claim 13, responsive to reception of one or more elements included in the received time-varying content, modifying a feature of said viewer graphical user interface defined by the networked information monitor template in accordance with a modification corresponding to the received one or more elements.

128. *See* [2] (incorporated here). I believe that [14] is obvious for the reasons discussed above in [2].

[15]: The method of claim 14, wherein said modification corresponding to the received one or more elements comprises a modification to an image defined by the networked information monitor template as forming a part of said viewer graphical user interface.

129. *See* [3] (incorporated here). I believe that [15] is obvious for the reasons discussed above in [3].

[16]: The method of claim 14, wherein the correspondence between the modification and the received one or more elements is defined by the networked information monitor template.

130. *See* [4] (incorporated here). I believe that [16] is obvious for the reasons discussed above in [4].

[19]: The method of claim 14, wherein modifying the feature of the viewer graphical user interface comprises modifying text of the viewer graphical user interface in a manner defined by the networked information monitor template.

131. *See* [7] (incorporated here). I believe that [19] is obvious for the reasons discussed above in [7].

[20]: The method of claim 13, wherein the networked information monitor template includes a markup language file, and wherein storing the networked information monitor template comprises storing the markup language file.

132. *See* [1.1], [12.4], and [8] (incorporated here). I believe that [20] is obvious for the reasons discussed above in [1.1], [12.4], and [8].

[21]: The method of claim 13, wherein the time-varying content is received from the web server over the network according to the TCP/IP protocol.

133. *See* [9] (incorporated here). I believe that [21] is obvious for the reasons discussed above in [9].

[22]: The method of claim 13, wherein the network location corresponds to a uniform resource locator included in the networked information monitor template.

134. *See* [10] (incorporated here). I believe that [22] is obvious for the reasons discussed above in [10].

[23]: The method of claim 22, wherein accessing the networked information monitor defined by the networked information monitor template results in transmission of the content request to the uniform resource locator included in the networked information monitor template, and the content request being transmitted according to the TCP/IP protocol over the network.

135. *See* [11] (incorporated here). I believe that [23] is obvious for the reasons discussed above in [11].

[24.1]: The method of claim 13, further comprising: prior to storing the networked information monitor template to the electronic storage, transmitting, over the network to a networked information monitor server, a request for the networked information monitor template; and

136. *See* [1.1], [12.4], and [13.1] (incorporated here) regarding “**storing the networked information monitor template to the electronic storage.**” *See* [1.3], [12.2], and [13.3] (incorporated here) regarding “**transmitting, over the network ... a request for the networked information monitor template.**” I believe that [24.1] is obvious for the reasons discussed above in [1.1], [1.3], [12.2], [12.4], [13.1], and [13.3].

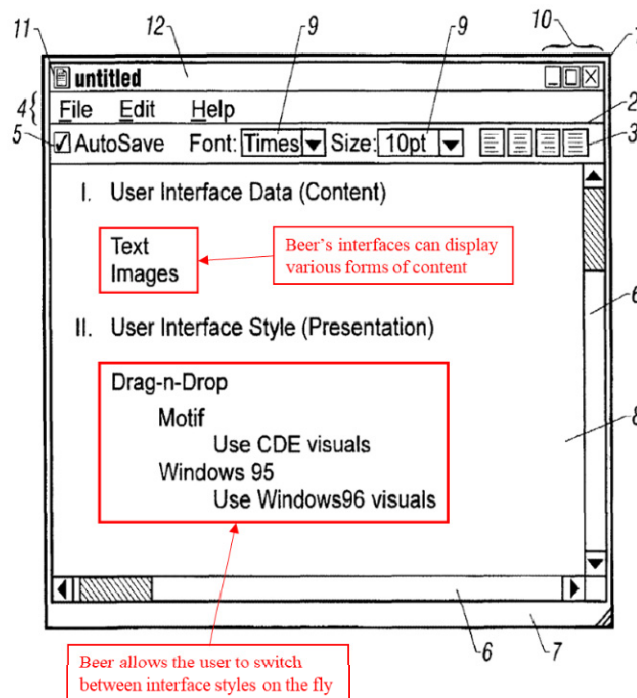
[24.2]: receiving, from the networked information monitor server over the network, the networked information monitor template.

137. *See* [1.4], [12.3], and [13.4] (incorporated here). I believe that [20] is obvious for the reasons discussed above in [1.4], [12.3], and [13.4].

ANALYSIS OF BROWN AND BEER AND/OR BROWN, WECKER, AND BEER

Beer

138. Beer describes “[a] method and system for allowing a user to retrieve a user interface and a visual style from a local or remote storage unit, rapidly display the visual stylized user interface, and dynamically switch between visual styles.” SAMSUNG-1007, Abstract. Beer describes the use of a “Programmable Graphical User Interface” or “PGUI” that “renders the appearance of each part of the user interface in accordance with any newly selected visual style, and redisplay the changed user interface for response to events and for display of content.” *Id.*, Abstract, 14:1-22. An annotated interface according to Beer is provided below.



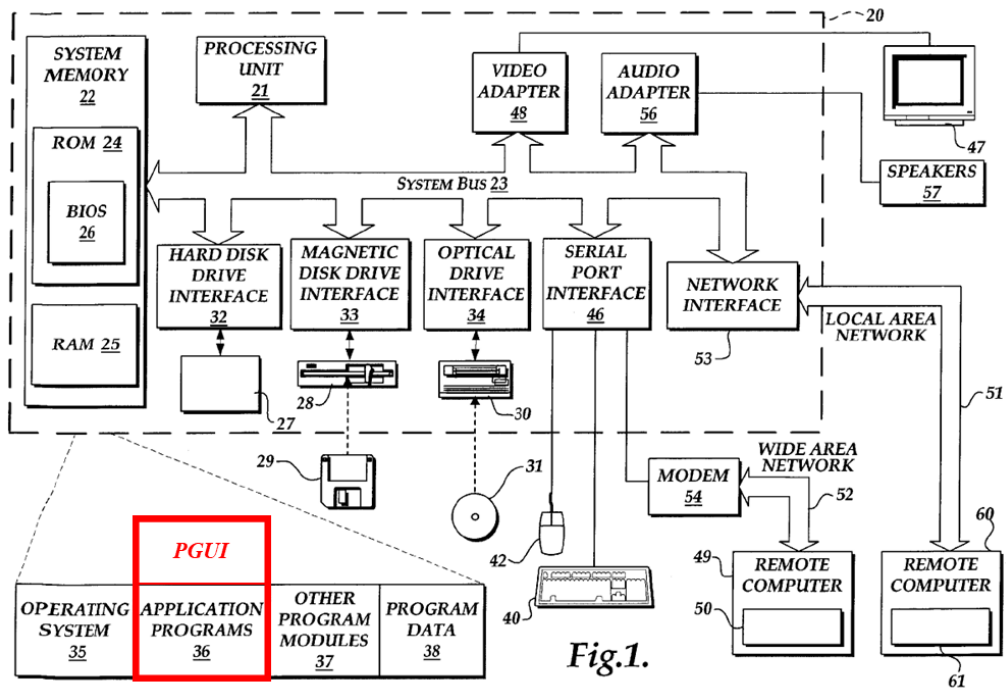
SAMSUNG-1007, FIG. 1 (annotated)

139. Beer refers to its templates as “text-based User Interface Language (UIL).” SAMSUNG-1007, see at least 2:29-30. Beer describes that these UILs are

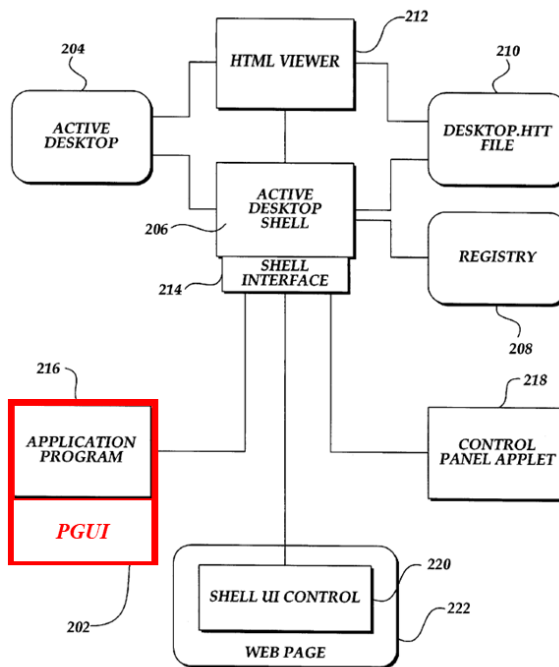
“preferably a text file, in a format similar to various text-markup languages, such as HTML (Hyper Text Markup Language). *Id.*, 3:41-45. Beer describes that “[t]he PGUI parses the user interface definition and creates each part of the application user interface in accordance with the defined attributes” and further that “[t]he PGUI displays the user interface rendered in the specified style for response to events and for display of content.” *Id.*, 14:3-22.

Motivation to combine Brown and Beer

140. A POSITA would have found it obvious to combine Brown and Beer (collectively the “Brown-Beer combination”). Among other things, both Brown and Beer are generally directed to “accessing and viewing internet content.” SAMSUNG-1005, Abstract; SAMSUNG-1007, Abstract, 3:50-55, 13:65-67, 14:1-22. Brown and Beer also describe that content can be displayed in a GUI defined by a style template (Brown, HTML instructions; Beer, User Interface Language). SAMSUNG-1005, 6:34-36, 7:21-22, 11:1-67, 12:1-67, 13:1-54; SAMSUNG-1007, 3:41-45. Annotated figures of the Brown-Beer combination are presented below.



SAMSUNG-1005, FIG. 1 (annotated)



SAMSUNG-1005, FIG. 2 (annotated)

141. A POSITA would have been motivated to combine Brown and Beer for various reasons.

142. First, a POSITA would have recognized that Beer's "User Interface Language" also referred to as "UILs," are data structures corresponding to the "HTML templates" that define Brown's "desktop components," and as a result, the additional capability of Beer could be incorporated without substantially modifying Brown's system. SAMSUNG-1005, 12:61-62; SAMSUNG-1007, 3:41-45. Indeed, Beer describes that "UIL user interface description is preferably a text file, in a format similar to various text-markup languages, such as HTML (Hyper Text Markup Language)." SAMSUNG-1007, 3:42-45.

143. Second, a POSITA would have understood or found obvious that the same content may be displayed in multiple styles across operating systems. Indeed, Brown describes that "those skilled in the art will appreciate that the invention may be practiced with **other computer system configurations.**" SAMSUNG-1005, 4:44-49. Beer provides such an example of "other computer system configurations" and describes that operating systems can include "UNIX" and "Macintosh System 7," in addition to the "Windows 95" operating system already described by Brown and Wecker. SAMSUNG-1005, 6:26-32; SAMSUNG-1006, 8:15-21; SAMSUNG-1007, 3:28-33. Beer further states that its method "allows a user to select from a variety of different visual styles for a user interface" and that,

as an example, a “user can have a Windows95 style for applications running under the UNIX operating system.” SAMSUNG-1007, 3:16-33. A POSITA would have recognized or found obvious that there would be business advantages in allowing a user to specify a style in such a way, given that there were many competing products on the market at the time of the Critical Date. In view of the above, a POSITA would have had a reasonable expectation of success in implementing Beer’s PGUI into the disclosure of Brown.

144. Moreover, a POSITA would have been motivated to modify the Brown-Wecker combination in view of Beer for similar reasons, and the subsequent analysis for the Brown-Beer combination would be extended similarly to the combination of Brown-Wecker-Beer.

Brown and Beer and/or Brown, Wecker, and Beer Renders Obvious Claims 5-6 and 17-18

[5]: The client computing device of claim 2, wherein the one or more computer program modules and the networked information monitor template are configured such that modifying the feature of the viewer graphical user interface comprises adjusting a size of the frame of the viewer graphical user interface.

145. *See* [2] (incorporated here). Beer describes that “[t]he PGUI displays the user interface rendered in the specified style for response to events (**‘responsive to reception’**) and for display of content (**‘one or more elements included in the received time-varying content’**).” SAMSUNG-1007, 14:3-22.

Beer also describes that an example “response” to an “event” can be “**redraw[ing]** the user interface (‘**adjusting a size of the frame**’).” SAMSUNG-1007, 13:22-24.

146. To the extent that Patent Owner argues that the “events” in Beer are limited to user interaction, in incorporating Beer into Brown, a POSITA would have recognized or found obvious that “events” would be present in the time-varying content of Brown’s CDF subscriptions.

147. For example, Brown describes a CDF subscription displaying information related to stocks. SAMSUNG-1005, 12:1-8, FIG 3.A. A POSITA would have recognized or found obvious that certain time-critical information would need to be accompanied by a notification to the user. Indeed, Shaffer is an example of such a system that describes “providing remote notification of a locally detected event [that] includes receiving data and analyzing the content of the data.” SAMSUNG-1020, Abstract. An example notification according to Shaffer is reproduced below with context.

“In a preferred embodiment, the messages received by the computer include **web page updates** received by a router associated with **a web server on the World Wide Web of the Internet**. For example, the computer may be subscribed to a push service provider which provides **scheduled updates of stock prices**. The data filter is configured to search the content of updates and to **detect a predetermined event in the web page updates**, such as a drop in stock X below a certain price, for example \$50 per share. ... If the data filter detects this event, the data filter **activates the event indicator** associated with the computer, triggering a local notification alert (e.g., **an icon appears on a computer screen**).” *Id.*, 2:38-59.

148. A POSITA would have recognized or found obvious that a common method for “alerting” a user to time-critical information would be to automatically resize the interface through which such information is presented (similar to the “icon” as described in Shaffer), and that the PGUI of Beer could implement such an effect.

149. This feature is also within the capability of dHTML, as described above. *See [2], above.*

[6]: The client computing device of claim 2, wherein the one or more computer program modules and the networked information monitor template are configured such that modifying the feature of the viewer graphical user interface comprises changing a color of a frame border or background of the viewer graphical user interface.

150. *See [2] and [5] (incorporated here).* Beer describes that “[t]he PGUI displays the user interface rendered in the specified style **for response to events** (**‘responsive to reception’**) and for display of content (**‘one or more elements included in the received time-varying content’**).” SAMSUNG-1007, 14:3-22. Beer also describes that “visual styles use different **colors** (shown as shades in the figures), border widths, widget spacing, widget widths, text alignment, and shadowing or **bordering techniques** (**‘color of a frame border’**).” SAMSUNG-1007, 8:55-57.

151. A POSITA would have recognized or found obvious that a common method for “alerting” a user to time-critical information would be to change the

color of the interface border, or interface background, through which such information is presented, and that the PGUI of Beer could implement such an effect.

152. This feature is also within the capability of dHTML, as described above. *See [2], above.*

[17]: The method of claim 14, wherein modifying the feature of the viewer graphical user interface comprises adjusting a size of the frame of the viewer graphical user interface.

153. *See [5] (incorporated here).* I believe that [17] is obvious for the reasons discussed above in [5].

[18]: The method of claim 14, wherein modifying the feature of the viewer graphical user interface comprises changing a color of a frame border or background of the viewer graphical user interface.

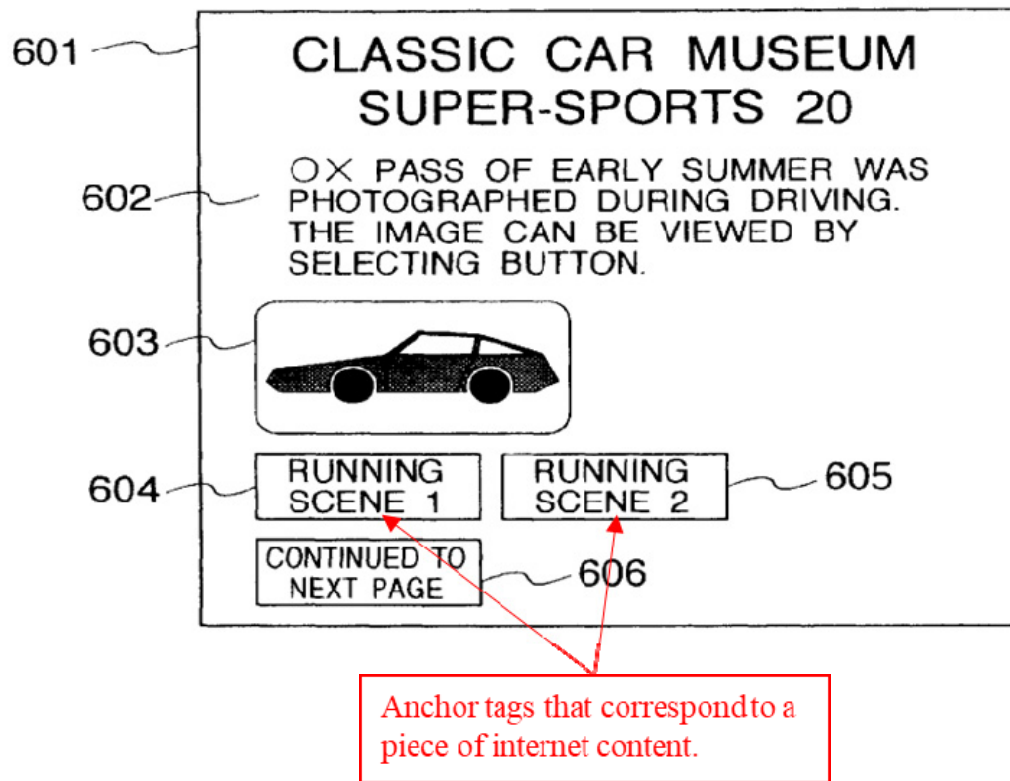
154. *See [6] (incorporated here).* I believe that [18] is obvious for the reasons discussed above in [6].

ANALYSIS OF SHIMADA AND BUCHHOLZ

Shimada

155. 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. 6 (annotated)

Buchholz

156. 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.

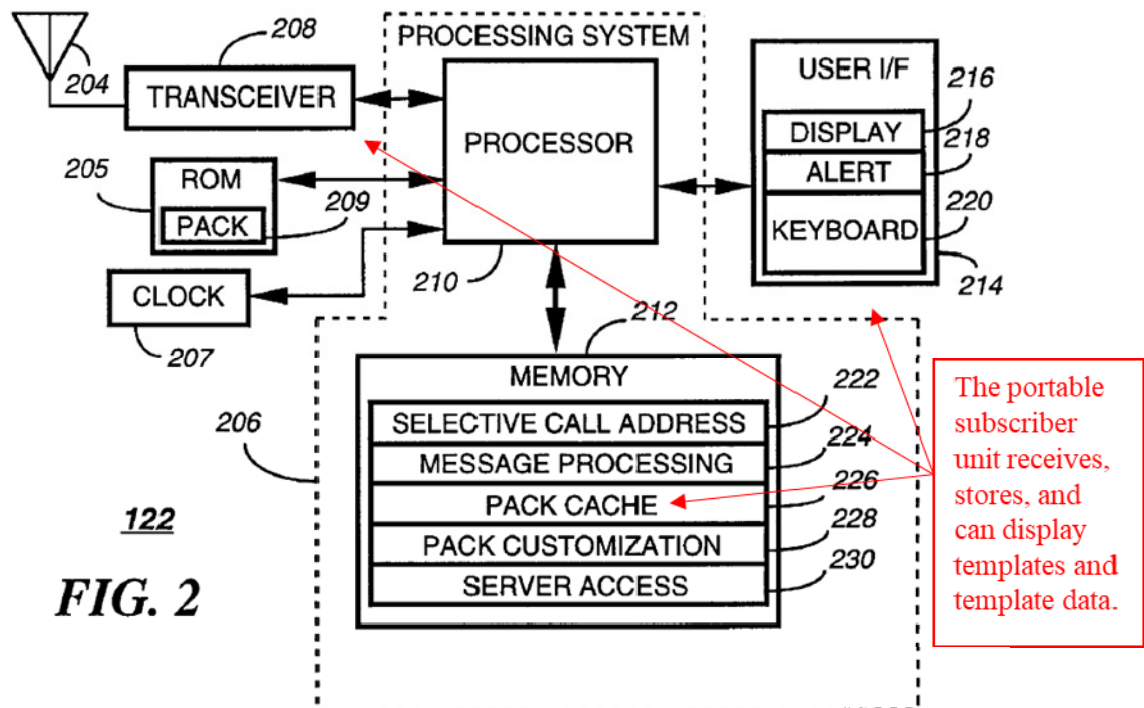
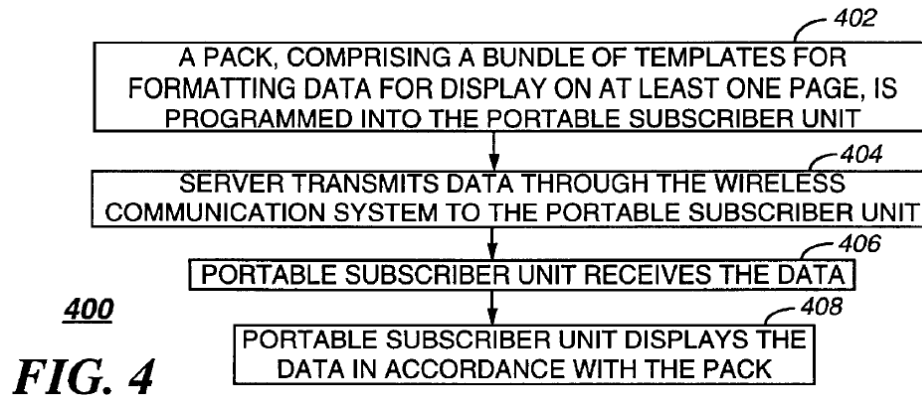
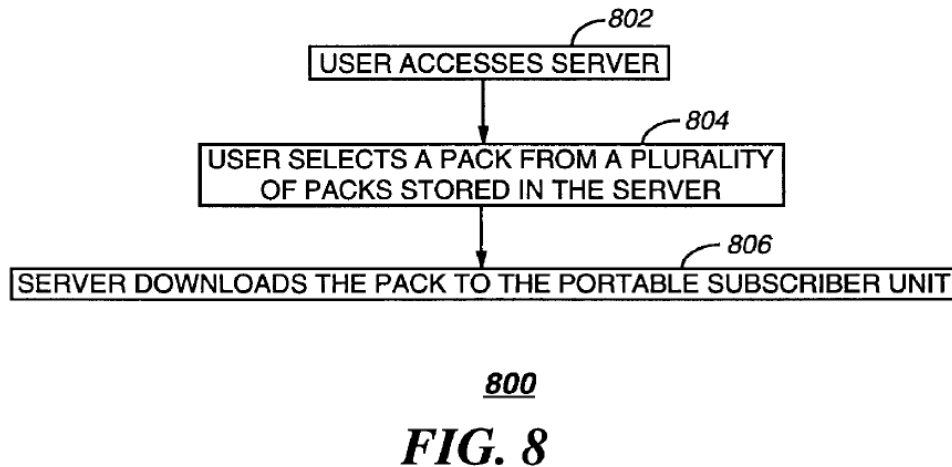


FIG. 2

SAMSUNG-1009, FIG. 2 (annotated)



SAMSUNG-1009, FIG. 4



SAMSUNG-1009, FIG. 8

Motivation to combine Shimada and Buchholz

157. 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.

158. A POSITA would have combined Shimada and Buchholz for various reasons.

159. 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. Thus, a POSITA would have recognized that the techniques of these references were complementary, and each would enhance the abilities of the other.

160. 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. Thus, 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.

161. 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.

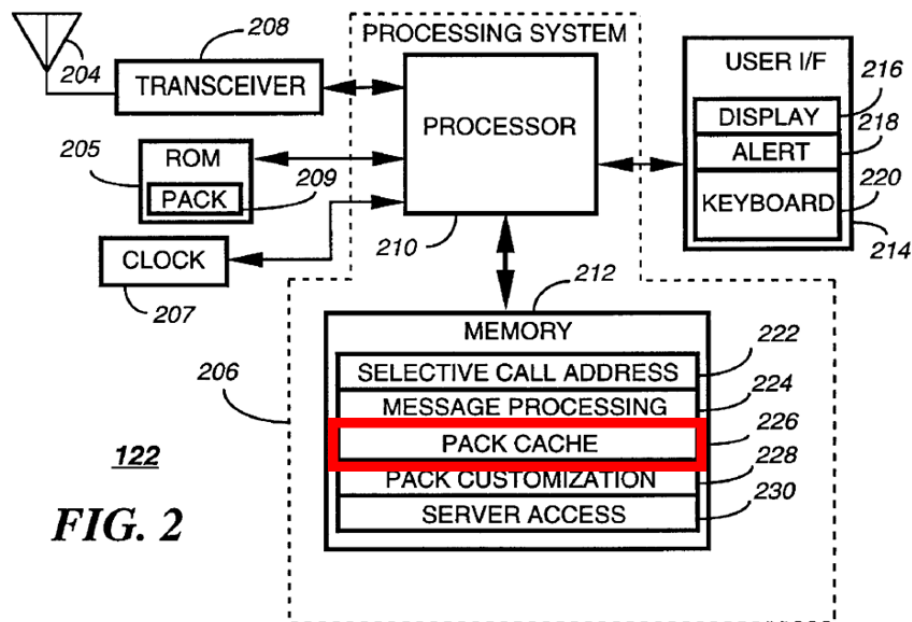
Shimada and Buchholz Renders Obvious Claims 1-24

[1.pre]: A client computing device configured to access content over a network, the client computing device comprising:

162. To the extent the preamble is limiting, the Shimada-Buchholz combination renders [1.pre] 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. A POSITA also would have understood or found obvious that because Shimada describes “**world wide networks** and access to **world-wide information**” that the techniques of Shimada could be used to “**access content over a network.**” SAMSUNG-1008, 1:34-36.

[1.1]: electronic storage configured to store networked information monitor template associated with a networked information monitor, the networked information monitor template having therein a definition of a viewer graphical user interface having a frame within which time varying content in a web browser-readable language may be presented on a display associated with the client computing device, wherein the frame of the viewer graphical user interface lacks controls for enabling a user to specify a network location at which content for the networked information monitor is available; and

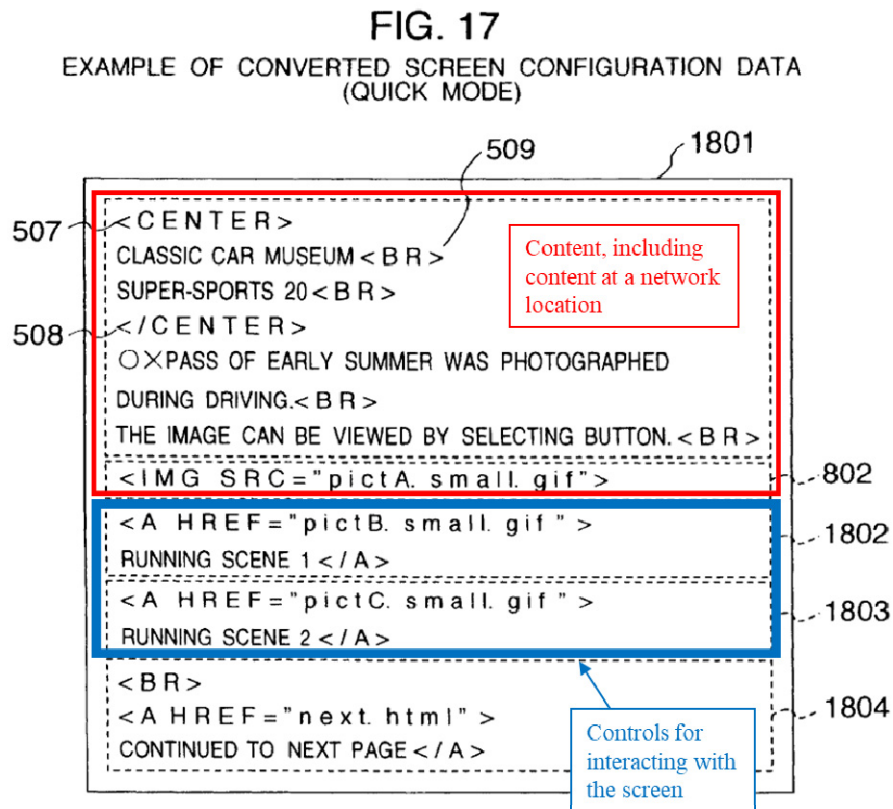
163. Buchholz discloses a “memory 212” that comprises “a pack cache 226 for **storing a pack** utilized by the portable subscriber unit 122.” SAMSUNG-1009, 4:23-25. Buchholz describes that a pack “comprises a **bundle of templates** for formatting template data for display on at least one page” and that 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)

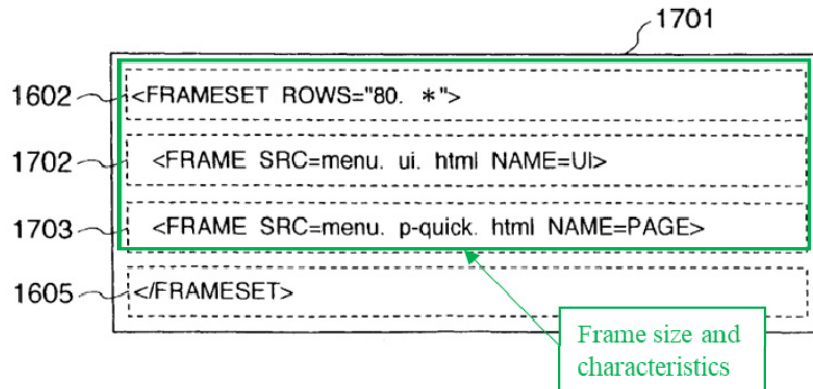
164. A POSITA would have recognized or found obvious that the “pack cache” and “memory” of Buchholz’s portable subscriber units to be a form of “**electronic storage configured to store [a] networked information monitor template**” as the terms “memory” and “electronic storage” are used

interchangeably in the art. Indeed, the '407 Patent frequently refers to “memory 30” within “computer 20.” SAMSUNG 1001, *see at least* 5:45-47, 5:55-59. 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. Annotated figures depicting screen configuration data and the associated screen are provided below.

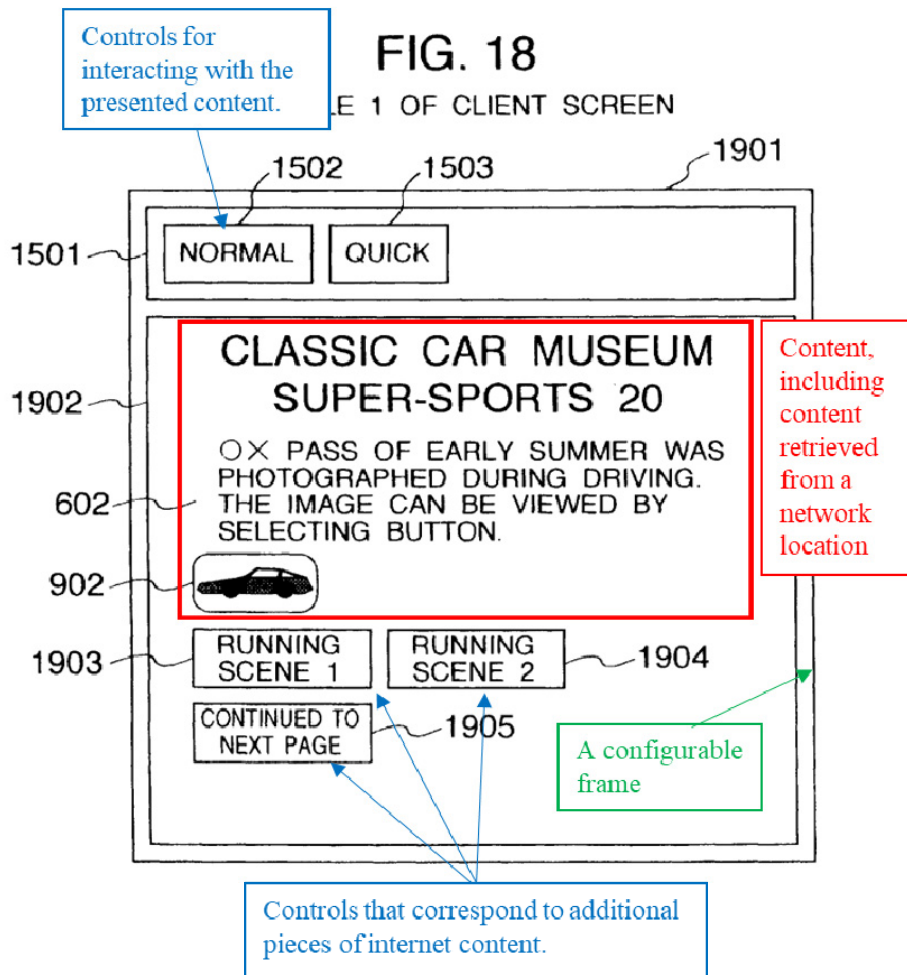


SAMSUNG-1008, FIG. 17 (annotated)

FIG. 16
EXAMPLE OF EXPANDED SCREEN CONFIGURATION DATA



SAMSUNG-1008, FIG. 16 (annotated)

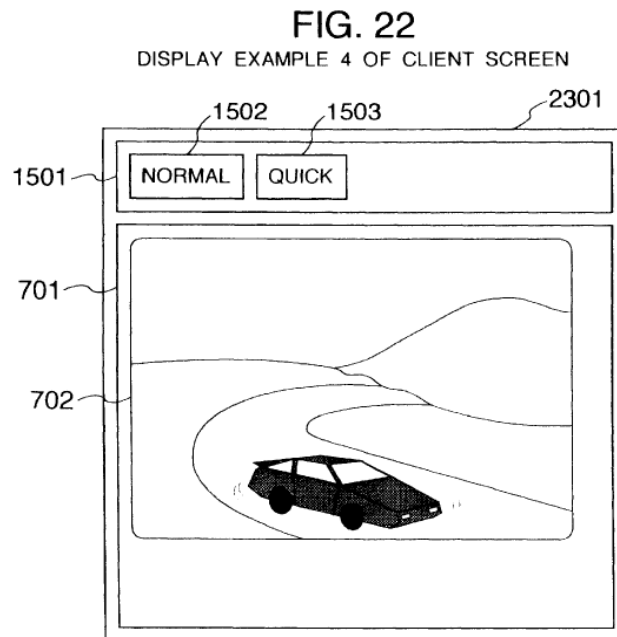


SAMSUNG-1008, FIG. 18 (annotated)

165. 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.

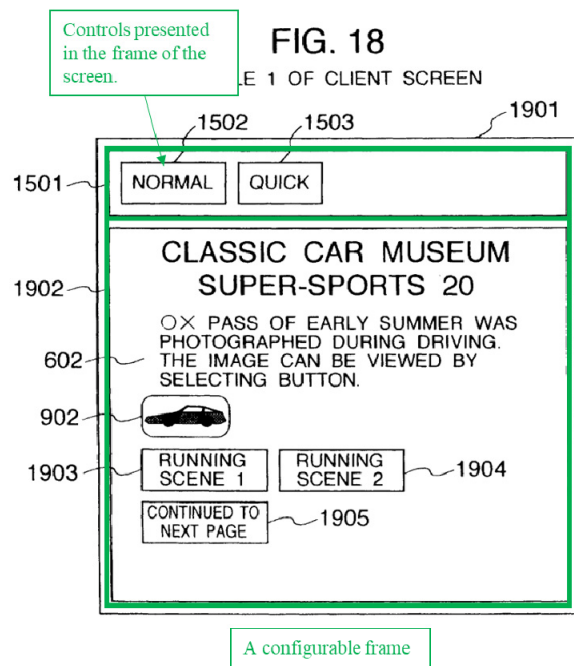
166. For example, Shimada’s screens present multiple anchor tags that allow the user to download additional content, as well as controls that allow the user to interact with displayed content (“**one or more controls**”). SAMSUNG-1008, 6:39-51, FIG. 18. Shimada describes “[]0 and [] in the description 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.

167. 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,”** as .gifs are a common form of image file. SAMSUNG-1008, FIG. 18. Additionally, 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.



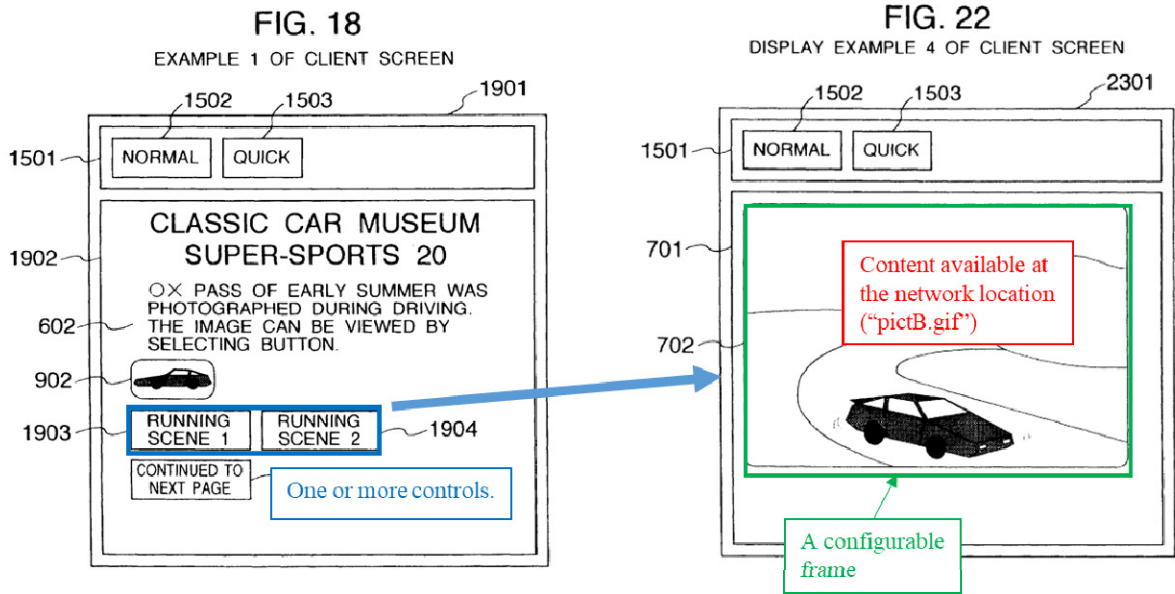
SAMSUNG-1008, FIG. 22

168. 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. Additionally, 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 ’407 Patent (i.e. “details defining the NIM, such as the look-and-feel”). SAMSUNG-1001, 30:41-42. An annotated figure is presented below which shows the frame of Shimada’s screen, along with the associated controls.



SAMSUNG-1008, FIG. 18 (annotated)

169. Alternatively, 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 of the features of a NIM ("a **fully configurable frame**, with one or more **controls**, through which **content** is presented to the user." *Id.* 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 anchor 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)

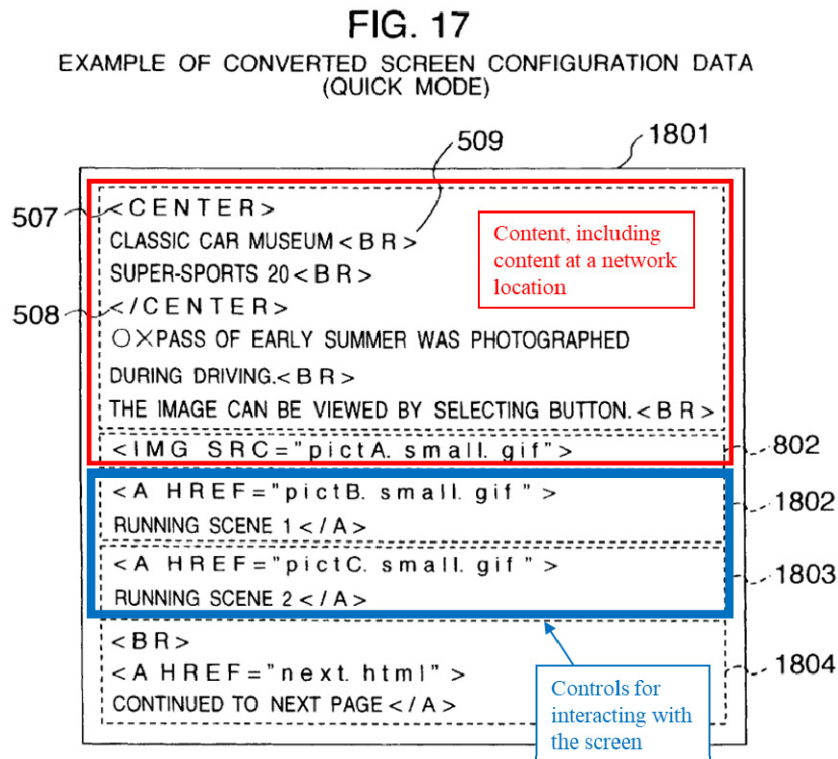
170. Therefore both Shimada's screens and anchor tags correspond to "networked information monitors."

171. Additionally, a POSITA would 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

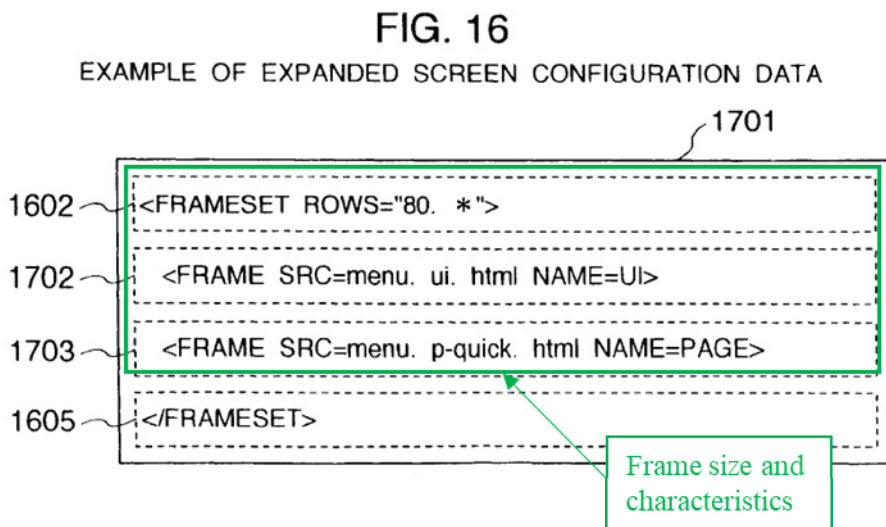
these features. SAMSUNG-1001, 7:19-23, 8:53-57, 14:34-35. As seen in the annotated Figure 17 below, Shimada's screen configuration data contains multiple pieces of content and buttons ("**defines the characteristics of a NIM, including the NIM frame, view, and control characteristics**"). SAMSUNG-1008, FIG. 17. Additionally, 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. Therefore, Shimada's screen configuration data corresponds to a "networked information monitor template."

172. Additionally, 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.



SAMSUNG-1008, FIG. 17 (annotated)



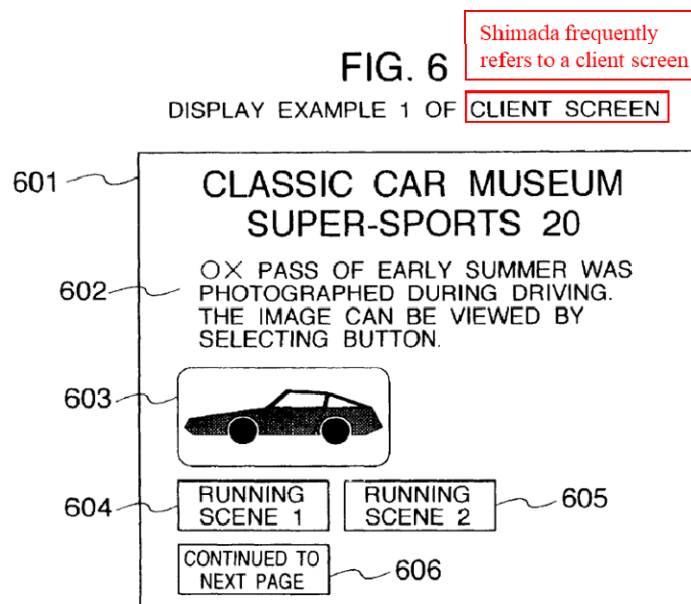
SAMSUNG-1008, FIG. 16 (annotated)

173. 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*.

174. Buchholz describes subscriptions for "[i]nformation services" with "**up-to-date information** on stocks, sports, news, and the like." SAMSUNG-1009, 1:13-19. A POSITA would have recognized or found obvious that, in order for information to be "up-to-date," it would need to be "**time-varying**." For example, taking Buchholz's example of "stocks," a POSITA would have understood or found obvious that the timeliness of this information would be critical. *Id.* Indeed, both Wecker and Shaffer corroborate this point by disclosing that stock information is "**time-critical**" and that users may prefer to "subscribe to a push service ... which transmits **scheduled updates** of prices of selected stocks." SAMSUNG-1006, 10:46-51; SAMSUNG-1020, 4:17-20.

175. A POSITA would have understood or found obvious that the Shimada-Buchholz combination would have been capable of displaying “**content in a web browser-readable language**” because both Shimada and Buchholz describe the use of HTML, with Shimada additionally describing the use of GIFs. SAMSUNG-1008, 6:56-62, FIG. 16, FIG. 17; SAMSUNG-1009, 5:9-13. Indeed, the ’407 Patent describes both HTML, images, and GIFs as “standard web content” and “machine readable information.” SAMSUNG-1001, 4:61-66, 17:1-5, 21:50-53.

176. Shimada frequently refers to a “client screen **display**,” which a POSITA would have understood or found obvious to be “**a display associated with the client computing device**” in which content is “**presented.**” 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)

177. 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.

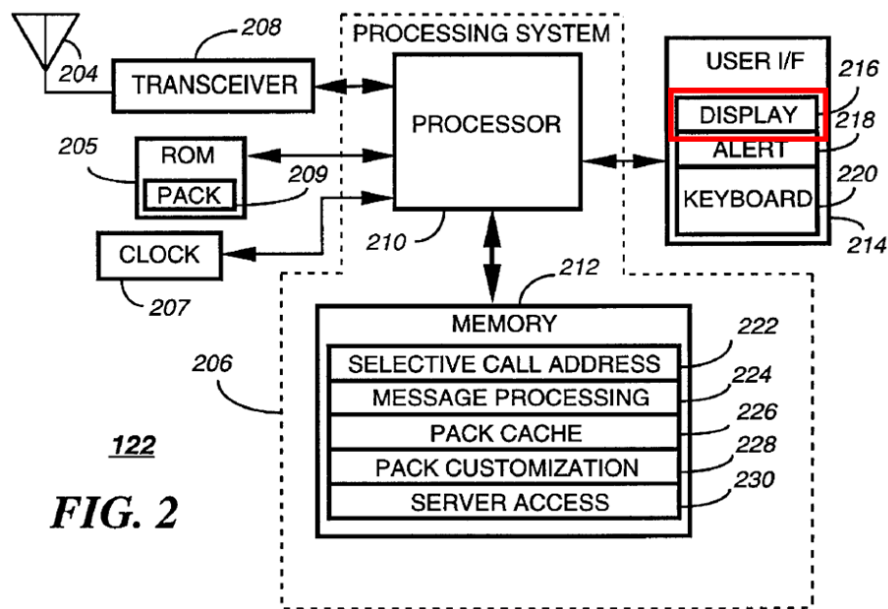
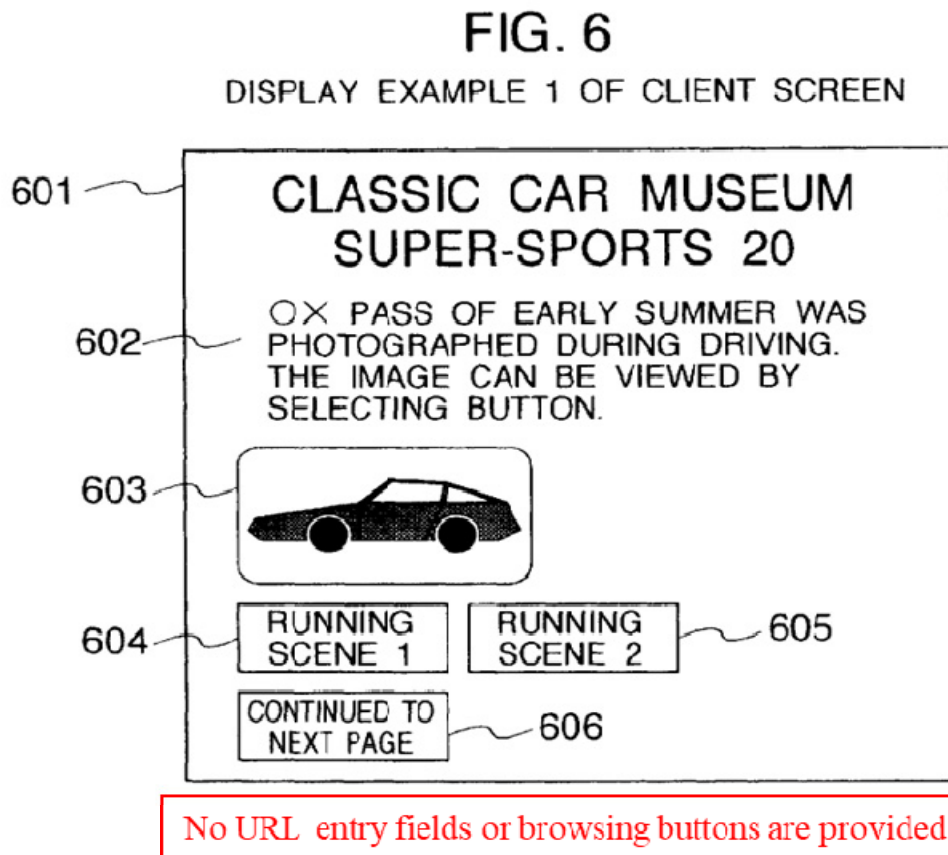


FIG. 2

SAMSUNG-1009, FIG. 2 (annotated)

178. As indicated in FIG. 6, the “**frame of the viewer graphical user interface**” of Shimada’s screen configuration data “**lacks controls for enabling a user to specify a network location at which content for the networked information monitor is available.**” SAMSUNG-1008, *see at least* FIG. 6, FIG. 7, FIG. 17, FIG. 22. To the extent that Patent Owner argues 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. Additionally, 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)

[1.2]: one or more processors configured to execute one or more computer program modules, the one or more computer program modules being configured to access the networked information monitor defined by the networked information monitor template, wherein accessing the networked information monitor defined by the networked information monitor template results in:

179. 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. 1, FIG. 4, 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**” the screen configuration data, as these are basic functions that can be executed by a generic processor.

180. 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** (**‘one or more computer program modules’**) for programming (**‘configured to execute’**) the processing system 206 to allow a user to “**access**” the server 124 for creating, modifying, and downloading **a pack** (**‘access the networked information monitor defined by the networked information monitor template’**).” SAMSUNG-1009, 4:14-31, FIG. 2.

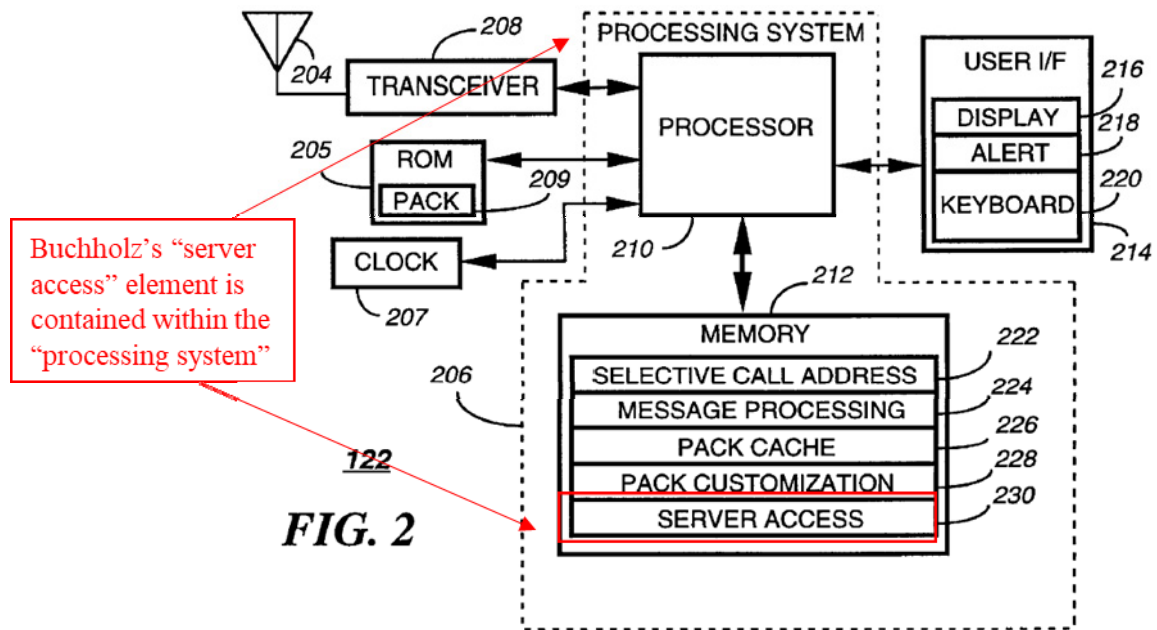


FIG. 2

SAMSUNG-1009, FIG. 2 (annotated)

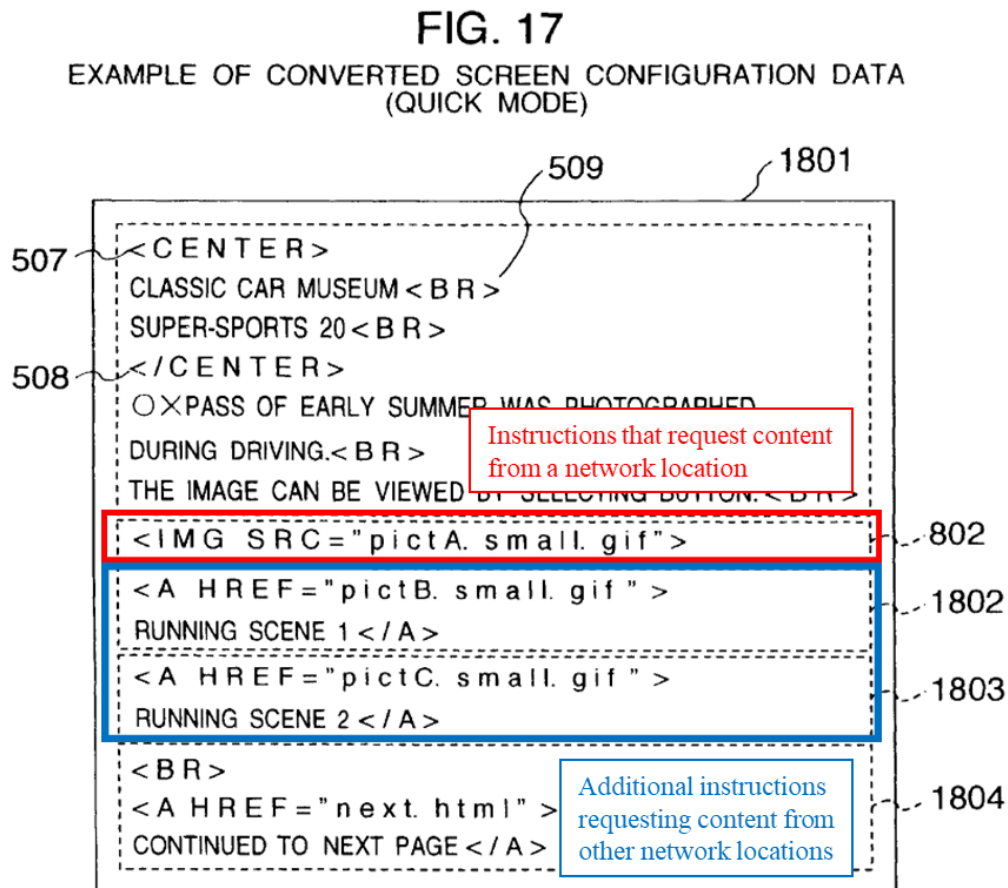
[1.3]: transmission, over a network to a web server at a network location, of a content request for content to be displayed within the frame of the viewer graphical user interface defined by the networked information monitor template:

181. A POSITA would have recognized or found obvious in implementing the Shimada-Buchholz combination that when the client accesses the screen configuration data it would result in the client requesting the data described by the screen configuration data. Indeed, Shimada describes that screen configuration data includes instructions in the form of a URL that requests content “**over a network to a web server at a network location.**” SAMSUNG-1008, 6:30-51, FIG. 6, FIG. 17, FIG. 18, FIG. 22. Indeed, Shimada describes:

“[] 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.

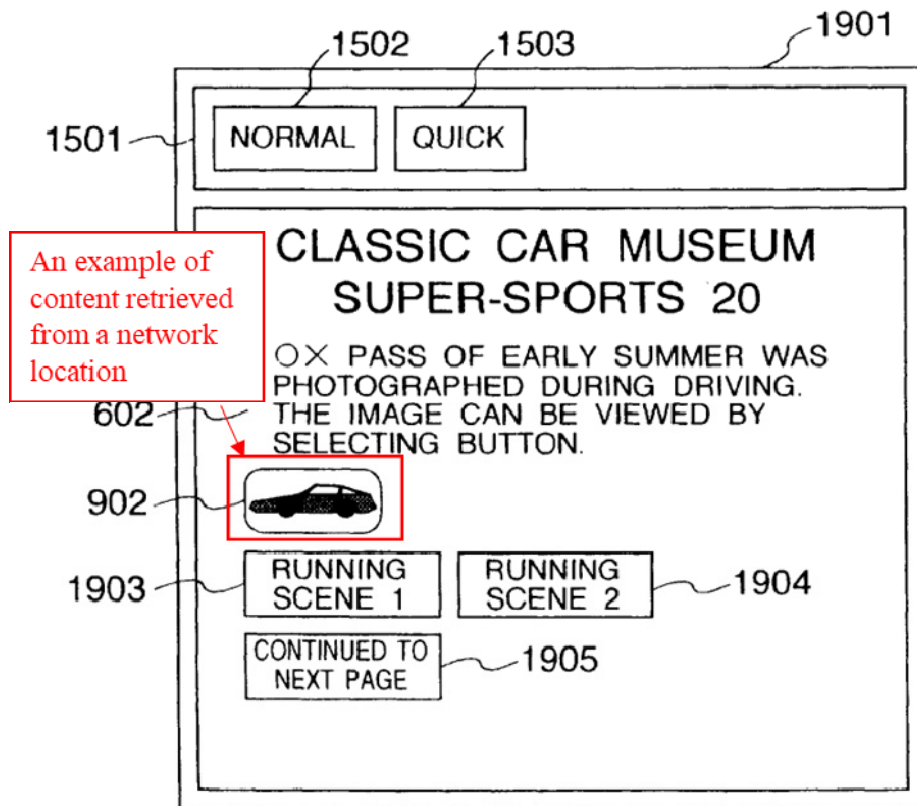
182. As evident in the annotated Figure 18, the content is “**displayed within the frame of the viewer graphical user interface defined by the networked information monitor template.**” SAMSUNG-1008, FIG. 17, FIG. 18.



SAMSUNG-1008, FIG. 17 (annotated)

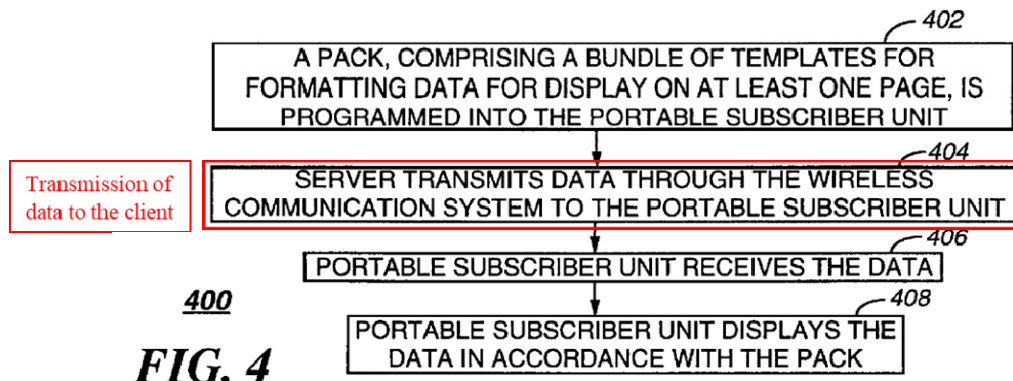
FIG. 18

EXAMPLE 1 OF CLIENT SCREEN



SAMSUNG-1008, FIG. 18 (annotated)

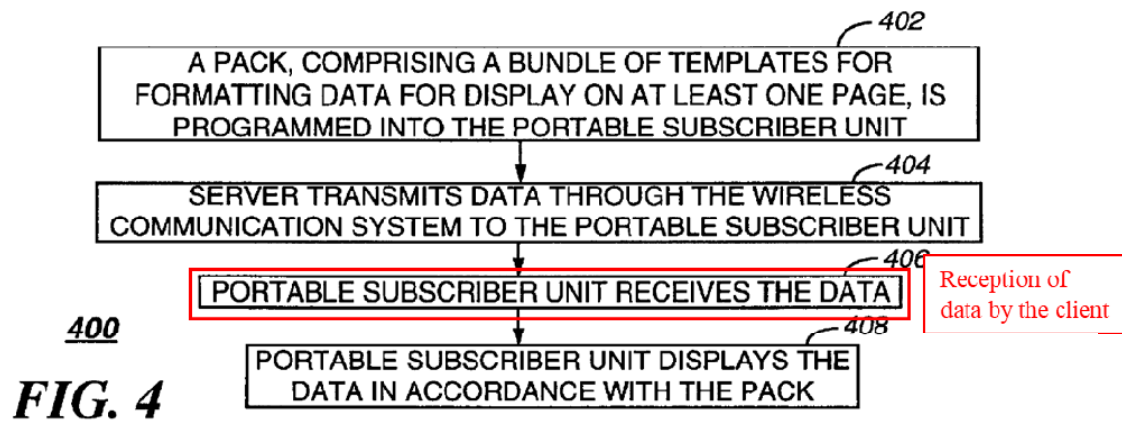
183. Buchholz similarly describes that once a template is programmed, “the server 124 transmits 404 the template data through the wireless communication system to the intended portable subscriber unit 122.” SAMSUNG-1009, 5:29-35. The annotated figure 4 of Buchholz below describes a process in which template data is updated in a pack. SAMSUNG-1009, FIG. 4.



SAMSUNG-1009, FIG. 4 (annotated)

[1.4]: reception, over the network from the web server at the network location, of content transmitted from the web server in response to the content request, the content being time-varying:

184. See [1.1] (regarding “**time-varying content**”) and [1.3] (incorporated here). A POSITA would have understood or found obvious that, once requested from the web server (“**over the network from the web server at the network location**”), the client would receive the content included in the request (“**in response to the content request**”). Indeed, Buchholz describes that, once requested, “[t]he portable subscriber unit 122 **receives 406 the template data** and then displays 408 the template data in accordance with the templates of the pack.” SAMSUNG-1009, 5:32-35, FIG. 4. The annotated figure 4 of Buchholz below describes a process in which template data is received by the client. SAMSUNG-1009, FIG. 4.



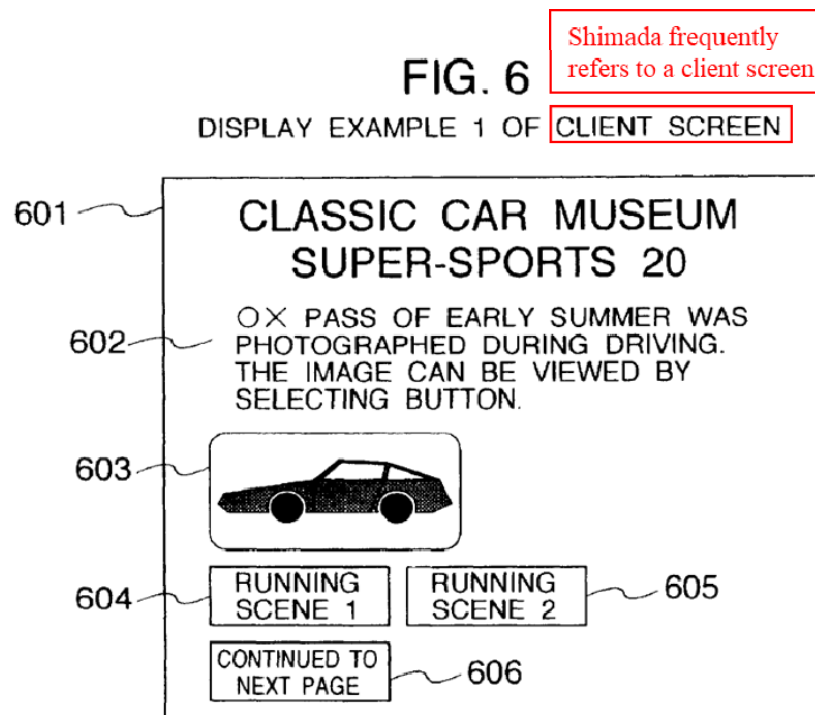
SAMSUNG-1009, FIG. 4 (annotated)

185. Requesting and reception of content, for example in “real-time,” would be obvious to a POSITA as this function was well known in the art. For example, Beer is one such reference that describes a well-known method for “retrieve[ing] a user interface and a visual style from a local or remote storage unit, [and] rapidly display[ing] the visual stylized user interface.” SAMSUNG-1007, Abstract. Beer describes the use of a “Programmable Graphical User Interface” or “PGUI” that “renders the appearance of each part of the user interface in accordance with any newly selected visual style, and redisplay[s] the changed user interface for **response to events** and for **display of content**.” *Id.*, Abstract, 14:1-22. Beer describes that remote storage units can be “a UIL server via a protocol such as ... the World Wide Web (WWW) HTTP protocol (‘a **web server**’).” *Id.*, 3:50-54.

[1.5]: presentation, on the display, of the viewer graphical user interface defined by the networked information monitor template outside of and separate from any graphical user interface of any other application; and

186. See [1.3] (incorporated here) regarding a “viewer graphical user interface defined by the networked information monitor template.”

187. Shimada frequently refers to a “client screen **display**,” which a POSITA would have understood or found obvious to be the “**display**” in which content is “**presented**.” SAMSUNG-1008, *see at least* 6:4-9, FIG. 6, FIG. 7, FIG. 17, FIG. 18. Also, as evidenced in the figure below, Shimada’s screen configuration data is presented “**outside of and separate from any graphical user interface of any other application**.” *Id.* An example of Shimada’s client display is provided below.



SAMSUNG-1008, FIG. 6 (annotated)

188. 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.

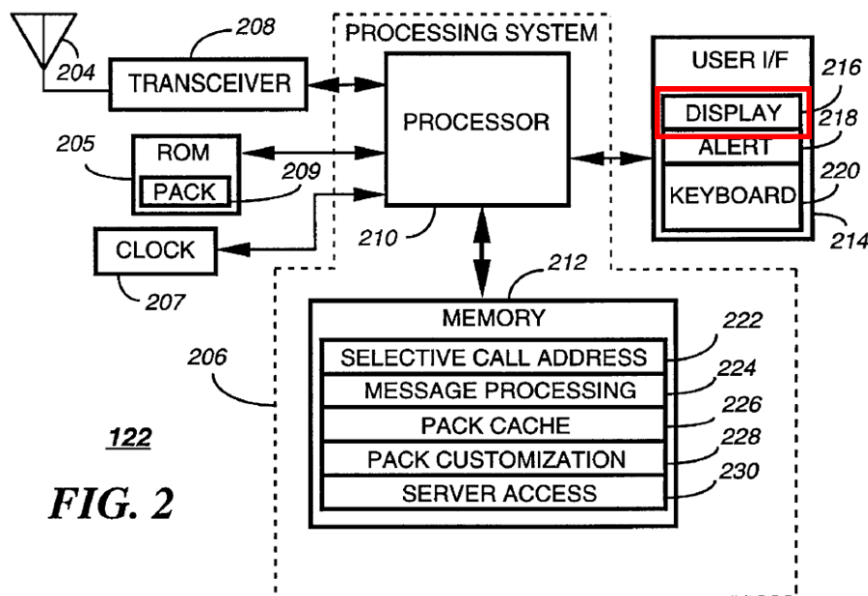
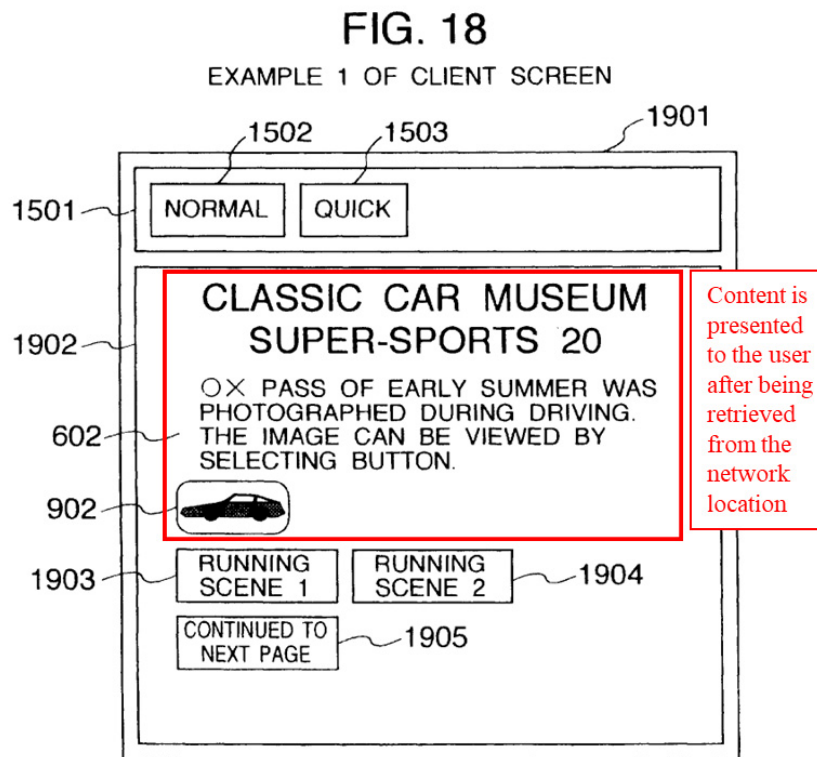


FIG. 2

SAMSUNG-1009, FIG. 2 (annotated)

[1.6]: presentation, on the display within the frame of the viewer graphical user interface defined by the networked information monitor, of the time-varying content received from the web server.

189. See [1.3] and [1.4] (incorporated here). A POSITA would have recognized or found obvious from reviewing Shimada’s figures, for example, the annotated Figure 18 reproduced below, that the **time-varying content**” of the Shimada-Buchholz’s combination could be “[presented] on the display within the frame of the viewer graphical user interface defined by the networked information monitor.” SAMSUNG-1008, see at least FIG. 18.



SAMSUNG-1008, FIG. 18 (annotated)

[2]: The method of claim 1, further comprising, responsive to reception of one or more elements included in the received time-varying content, modifying a feature of said viewer graphical user interface defined by the networked information monitor template in accordance with a modification corresponding to the received one or more elements.

190. *See* [1.1] (incorporated here). Buchholz describes subscriptions for “[i]nformation services” with “up-to-date information on stocks, sports, news, and the like.” SAMSUNG-1009, 1:13-19. A POSITA would have understood or found obvious in implementing the Shimada-Buchholz combination that, in order to display “up-to date information” (“**elements included in the received time-varying content**”), the contents of the frame (“**feature**”) of the “**viewer graphical**

user interface” would need to be regularly (e.g., continuously) updated (“**a modification corresponding to the received one or more elements**”).

191. For example, Shaffer describes “a push service provider which provides **scheduled updates of stock prices**” that includes time-varying elements such as “a drop in stock X below a certain price, for example \$50 per share.” SAMSUNG-1020, 2:38-59. A POSITA would have understood or found obvious that, in order to display regularly (e.g., continuously) time-varying content, such as stock prices, the frame content of the GUI would need to also be changing regularly (e.g., continuously) in order for this content to be useful.

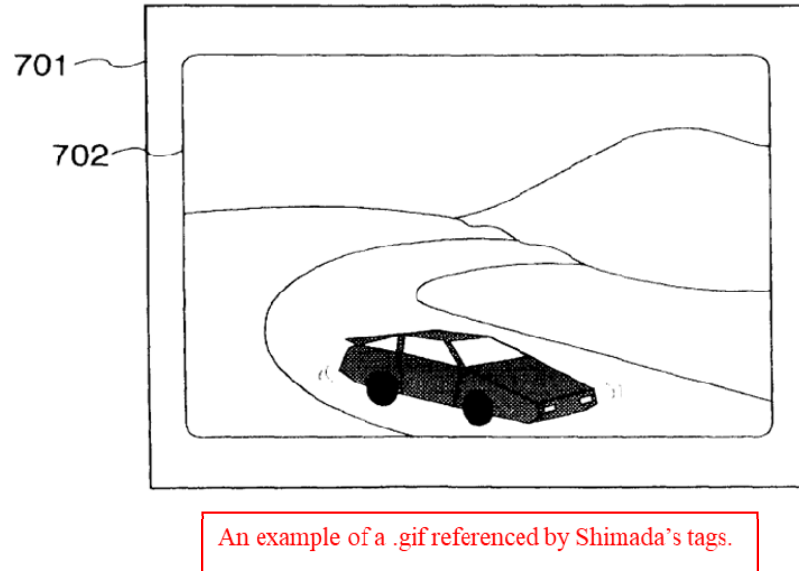
192. A POSITA would have also understood or found obvious that the frame of the “**viewer graphical user interface**” is “**defined by the networked information monitor template.**” *See also* [1.1] and [1.3], *above*.

193. This feature is also within the capability of dHTML, as described above. *See* [2], *above*.

[3]: The client computing device of claim 2, wherein said modification corresponding to the received one or more elements comprises a modification to an image defined by the networked information monitor template as forming a part of said viewer graphical user interface.

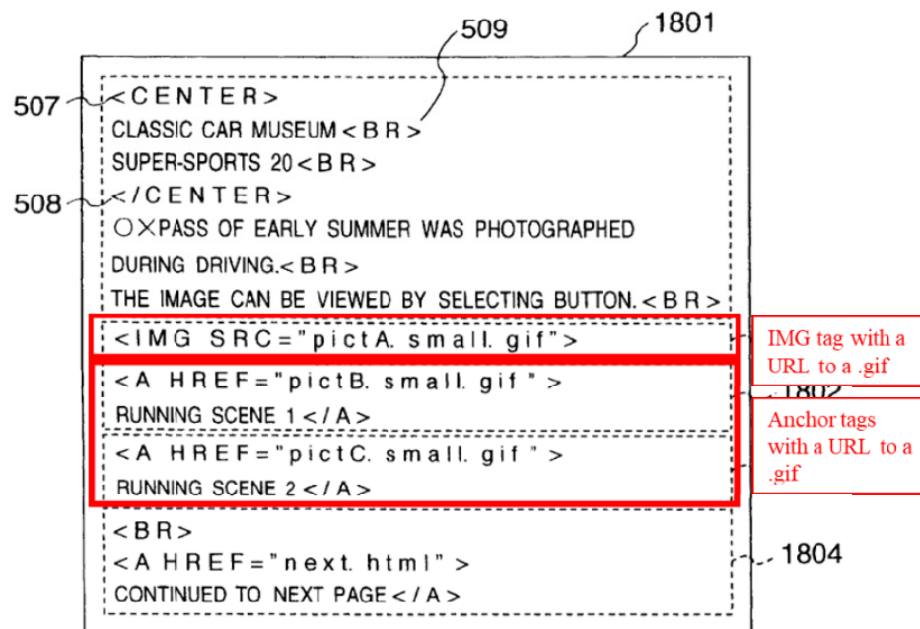
194. *See* [2] (incorporated here). Shimada describes the use of .gif files, which a POSITA would have understood or found obvious to include “**image[s] defined by the networked information monitor template**” from reviewing, at least, the figures of Shimada. SAMSUNG-1008, *see at least* FIG. 7 and FIG. 17.

195. This feature is also within the capability of dHTML, as described above. See [2], above.



SAMSUNG-1008, FIG. 7 (annotated)

FIG. 17
EXAMPLE OF CONVERTED SCREEN CONFIGURATION DATA
(QUICK MODE)



SAMSUNG-1008, FIG. 17 (annotated)

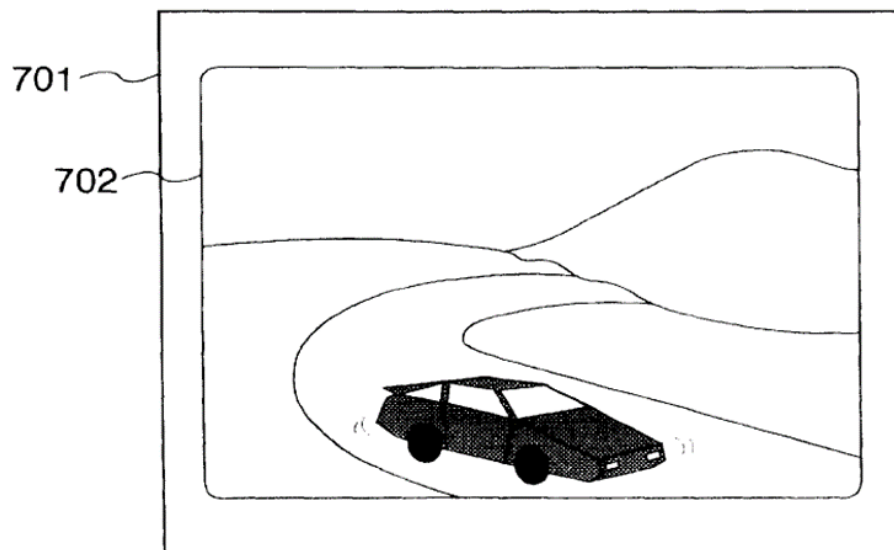
[4]: The client computing device of claim 2, wherein the correspondence between the modification and the received one or more elements is defined by the networked information monitor template.

196. *See* [2] (incorporated here). A POSITA would have understood or found obvious that, because the content reference is contained within the screen configuration data, the “**modification**” and “**received one or more elements**” are “**defined by the network information monitor template.**” SAMSUNG-1008, 6:30-51, FIG.17; [1.1], [2], *above*.

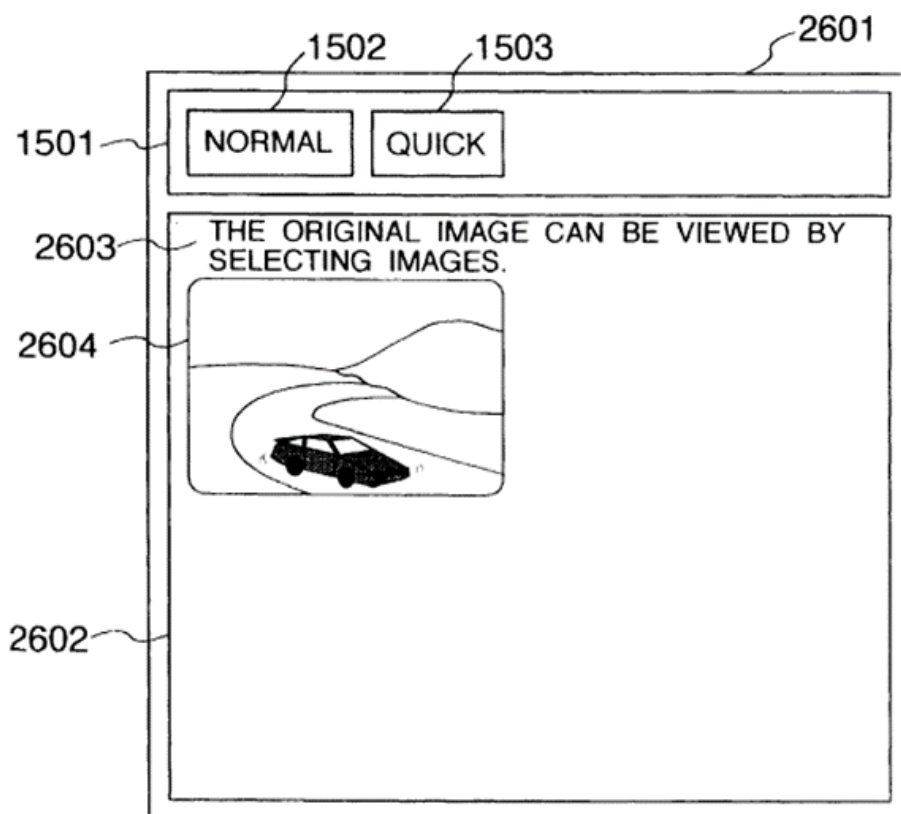
197. This feature is also within the capability of dHTML, as described above. *See* [2], *above*.

[5]: The client computing device of claim 2, wherein the one or more computer program modules and the networked information monitor template are configured such that modifying the feature of the viewer graphical user interface comprises adjusting a size of the frame of the viewer graphical user interface.

198. *See* [2] (incorporated here). A POSITA would have understood or found obvious that frames could be automatically resized (“**adjusting a size of the frame**”) because Shimada discloses frames of differing sizes. SAMSUNG-1008, FIG. 7, FIG. 10, FIG. 19, FIG. 22, FIG. 25. Examples of Shimada’s screens are provided below, each one displaying the same piece of content.



SAMSUNG-1008, FIG. 7



SAMSUNG-1008, FIG. 25

199. This feature is also within the capability of dHTML, as described above. *See [2], above.*

[6]: The client computing device of claim 2, wherein the one or more computer program modules and the networked information monitor template are configured such that modifying the feature of the viewer graphical user interface comprises changing a color of a frame border or background of the viewer graphical user interface.

200. *See [2] and [3] (incorporated here).* A POSITA would have understood and found obvious that, because the content referenced by Shimada can occupy the entire frame, it would enable the control of the background color of the frame. SAMSUNG-1008, FIG. 7. An annotated figure of Shimada's content occupying a frame is presented below.



SAMSUNG-1008, FIG. 7 (annotated)

201. Additionally, a POSITA would have recognized or found obvious that HTML provides the ability to set a background color for a file referenced in a tag,

for example, files referenced by Shimada's tags. Darnell discusses that "the <BODY> tag is also used to set various display attributes for the document, including **background colors and images.**" SAMSUNG-1011, 148-149.

202. Further, a POSITA would have recognized or found obvious that, because Shimada's screen configuration data is implemented in HTML, basic HTML elements and attributes could provide the ability to specify a "**color of a frame border**" and a "**color of a background.**" SAMSUNG-1008, FIG. 17; *see also* SAMSUNG-1011, 69-86, 137-153, 337-361. For example, as discussed above, Darnell explains that the "<BODY>" tag (or "<BODY> element") can be used to set a "**color of a background.**" SAMSUNG-1011, 148-149. Additionally, Darnell describes a "<FRAME> tag" that sets the attributes for a frame, to include "the content, **color**, and border width ('**color of a frame border**')." SAMSUNG-1011, 341-342.

203. This feature is also within the capability of dHTML, as described above. *See* [2], *above*.

[7]: The client computing device of claim 2, wherein the one or more computer program modules and the networked information monitor template are configured such that modifying the feature of the viewer graphical user interface comprises modifying text of the viewer graphical user interface in a manner defined by the networked information monitor template.

204. *See* [2] (incorporated here). A POSITA would have recognized or found obvious that text would accompany most forms of time-varying content. For

example, in Shaffer's discussion of stock information above, the prices of the stock are communicated to the user in terms of a numeric value ("**text of the viewer graphical user interface.**") SAMSUNG-1009, 1:13-19; SAMSUNG-1020, 2:38-59; [2], *above*.

205. This feature is also within the capability of dHTML, as described above. *See* [2], *above*.

[8]: The client computing device of claim 1, wherein the networked information monitor template includes a markup language file.

206. *See* [1.1] (incorporated here). Shimada and Buchholz both describe that screen configuration data and templates are implemented in "**HTML.**" SAMSUNG-1008, 6:59-62; SAMSUNG-1009, 5:9-13. A POSITA would have understood, or found obvious, that HTML is a "markup language file." *See* [1.1], *above*.

[9]: The client computing device of claim 1, wherein one or more computer program modules are configured such that the time-varying content is received from the web server over the network according to the TCP/IP protocol.

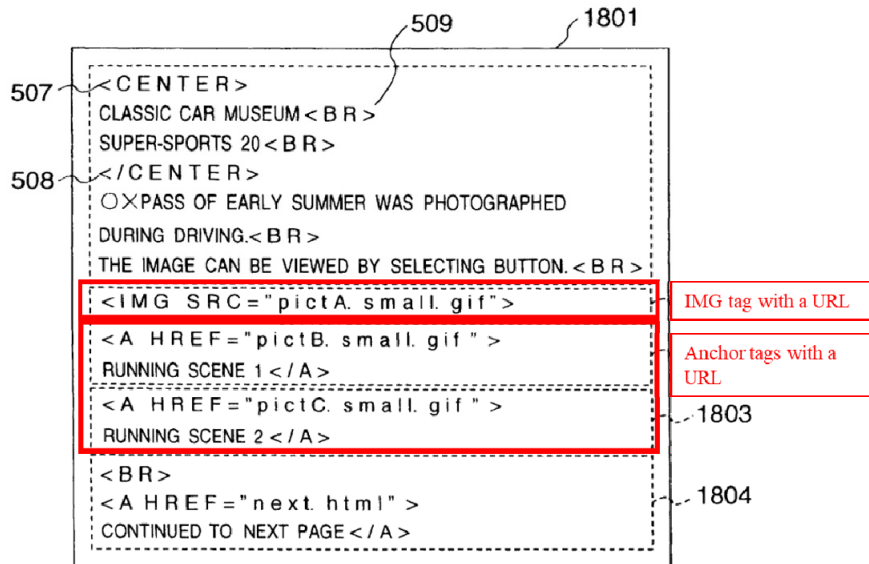
207. *See* [1.2] and [1.3] (incorporated here). Shimada discloses that screen configuration information is received from **a server** ("the addition of a new screen display area to the screen configuration information which is **received from the server 101**"). SAMSUNG-1008, 5:52-65. Shimada also discloses 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** (‘**web server**’).” SAMSUNG-1008, 1:34-36. Additionally, Darnell discloses that “HTTP [hypertext transfer protocol] operates **over the Internet**, where communication occurs between computers **via TCP/IP.**” SAMSUNG-1011, Page 88.

[10]: The client computing device of claim 1, wherein the network location corresponds to a uniform resource locator included in the networked information monitor template.

208. *See* [1.3] (incorporated here). A POSITA would have recognized or found obvious that both Shimada’s IMG and anchor tags include **URLs** (“**uniform resource locator[s]**”) that correspond to “**network locations**” because Shimada describes these tags as including an “address representing a static image” which is obtained from a “server.” SAMSUNG-1008, 6:30-51, *see at least* FIG. 17. An example URL contained within Shimada’s screen configuration data is provided below.

FIG. 17
EXAMPLE OF CONVERTED SCREEN CONFIGURATION DATA
(QUICK MODE)



SAMSUNG-1008, FIG. 17 (annotated)

[11]: The client computing device of claim 10, wherein the one or more computer program modules are further configured such that accessing the networked information monitor defined by the networked information monitor template results in transmission of the content request to the uniform resource locator included in the networked information monitor template, and the content request being transmitted according to the TCP/IP protocol over the network.

209. See [1.2], [1.3], and [9] (incorporated here). As discussed above, a POSITA would have understood or found obvious that this function is executed by “one or more computer program modules.” SAMSUNG-1008, 1:26-28, FIG. 1, FIG. 4; SAMSUNG-1009, 4:14-31, FIG. 2; [1.2], *above*. A POSITA also would have understood or found obvious that this content request is transmitted “according to the TCP/IP protocol over the network.” SAMSUNG-1008, 1:34-36; SAMSUNG-1011, Page 88; [1.3], [9], *above*.

[12.1]: The client computing device of claim 1, wherein the one or more computer program modules are further configured: to transmit, over the network to a networked information monitor server, a request for the networked information monitor template:

210. *See* [1.2] and [1.3] (incorporated here). As discussed above, a POSITA would have understood or found obvious that this function is executed by “**one or more computer program modules.**” SAMSUNG-1009, 4:14-31, FIG. 2; SAMSUNG-1013, Abstract, 5:58-59, 7:58-59; [1.2], *above*.

[12.2]: to receive, from the networked information monitor server over the network, the networked information monitor template; and

211. *See* [1.2] and [1.4] (incorporated here). As discussed above, a POSITA would have understood or found obvious that this function is executed by “**one or more computer program modules.**” SAMSUNG-1009, 4:14-31, FIG. 2; SAMSUNG-1013, Abstract, 5:58-59, 7:58-59; [1.2], *above*.

[12.3]: to store the networked information monitor template to the electronic storage.

212. *See* [1.1] and [1.2] (incorporated here). As discussed above, a POSITA would have understood or found obvious that this function is executed by “**one or more computer program modules.**” SAMSUNG-1009, 4:14-31, FIG. 2; SAMSUNG-1013, Abstract, 5:58-59, 7:58-59; [1.2], *above*. Additionally, Buchholz describes “**electronic storage.**” SAMSUNG-1009, 4:23-25.

[13.pre]: A computer-implemented method of accessing content over a network on a client computing device, the client computing device having electronic storage and one or more processors configured to execute one or more computer program modules, the client method comprising:

213. To the extent the preamble is limiting, a POSITA would have recognized that the Shimada-Buchholz combination is also a **“computer-implemented method of accessing content over a network on a client computing device”** because Shimada describes that the “information processing unit on the service requesting (**‘accessing content’**) side is referred to as a ‘client.’ (**‘client computing device’**).” SAMSUNG-1008, 1:26-28, FIG. 1, FIG. 4. Additionally, Buchholz describes “a method ... for controlling a display of template data (**‘content’**),” to include “transmitting the template data” and “receiving the template data by the portable subscriber unit (**‘client computing device’**).” SAMSUNG-1009, Claim 1, *see also* Abstract.

214. As discussed above, Shimada’s “client” and Buchholz’s “portable subscriber units” include **“electronic storage and one or more processors configured to execute one or more computer program modules”**). *See* [1.1], [1.2], *above*.

[13.1]: storing, to the electronic storage, a networked information monitor template associated with a networked information monitor, the networked information monitor template having therein a definition of a viewer graphical user interface having a frame within which time-varying content in a web browser-readable language may be presented on a display associated with the client computing device, wherein the frame of the viewer graphical user interface lacks controls for enabling a user to specify a network location at which content for the networked information monitor is available;

215. *See* [1.1] (incorporated here). Given that the Shimada-Buchholz combination renders obvious “electronic storage configured to store networked

information monitor template associated with a networked information monitor,” a POSITA would have also found obvious the method of “**storing, to the electronic storage, a networked information monitor template associated with a networked information monitor**” as this is nothing more than the implementation of the above system.

[13.2]: accessing the networked information monitor defined by the networked information monitor template, wherein accessing the networked information monitor defined by the networked information monitor template results in:

216. *See* [1.2] (incorporated here). I believe that [13.2] is obvious for the reasons discussed above in [1.2].

[13.3]: transmission, over a network to a web server at a network location, of a content request for content to be displayed in the viewer graphical user interface defined by the networked information monitor template;

217. *See* [1.3] (incorporated here). I believe that [13.3] is obvious for the reasons discussed above in [1.3].

[13.4]: reception, over the network from the web server at the network location, of content transmitted from the web server in response to the content request, the content being time-varying:

218. *See* [1.4] (incorporated here). I believe that [13.4] is obvious for the reasons discussed above in [1.4].

[13.5]: presentation, on the display, of the viewer graphical user interface defined by the application media package template outside of and separate from any graphical user interface of any other application; and

219. *See* [1.5] (incorporated here). I believe that [13.5] is obvious for the reasons discussed above in [1.5].

[13.6]: presentation, on the display within the frame of the viewer graphical user interface defined by the networked information monitor, of the time-varying content received from the web server.

220. *See* [1.6] (incorporated here). I believe that [13.6] is obvious for the reasons discussed above in [1.6].

[14]: The method of claim 13, responsive to reception of one or more elements included in the received time-varying content, modifying a feature of said viewer graphical user interface defined by the networked information monitor template in accordance with a modification corresponding to the received one or more elements.

221. *See* [2] (incorporated here). I believe that [14] is obvious for the reasons discussed above in [2].

[15]: The method of claim 14, wherein said modification corresponding to the received one or more elements comprises a modification to an image defined by the networked information monitor template as forming a part of said viewer graphical user interface.

222. *See* [3] (incorporated here). I believe that [15] is obvious for the reasons discussed above in [3].

[16]: The method of claim 14, wherein the correspondence between the modification and the received one or more elements is defined by the networked information monitor template.

223. *See* [4] (incorporated here). I believe that [16] is obvious for the reasons discussed above in [4].

[17]: The method of claim 14, wherein modifying the feature of the viewer graphical user interface comprises adjusting a size of the frame of the viewer graphical user interface.

224. *See* [5] (incorporated here). I believe that [17] is obvious for the reasons discussed above in [5].

[18]: The method of claim 14, wherein modifying the feature of the viewer graphical user interface comprises changing a color of a frame border or background of the viewer graphical user interface.

225. *See* [6] (incorporated here). I believe that [18] is obvious for the reasons discussed above in [6].

[19]: The method of claim 14, wherein modifying the feature of the viewer graphical user interface comprises modifying text of the viewer graphical user interface in a manner defined by the networked information monitor template.

226. *See* [7] (incorporated here). I believe that [19] is obvious for the reasons discussed above in [7].

[20]: The method of claim 13, wherein the networked information monitor template includes a markup language file, and wherein storing the networked information monitor template comprises storing the markup language file.

227. *See* [1.1], [12.4], and [8] (incorporated here). I believe that [20] is obvious for the reasons discussed above in [1.1], [12.4], and [8].

[21]: The method of claim 13, wherein the time-varying content is received from the web server over the network according to the TCP/IP protocol.

228. *See* [9] (incorporated here). I believe that [21] is obvious for the reasons discussed above in [9].

[22]: The method of claim 13, wherein the network location corresponds to a uniform resource locator included in the networked information monitor template.

229. *See* [10] (incorporated here). I believe that [22] is obvious for the reasons discussed above in [10].

[23]: The method of claim 22, wherein accessing the networked information monitor defined by the networked information monitor template results in transmission of the content request to the uniform resource locator included in the networked information monitor template, and the content request being transmitted according to the TCP/IP protocol over the network.

230. *See* [11] (incorporated here). I believe that [23] is obvious for the reasons discussed above in [11].

[24.1]: The method of claim 13, further comprising: prior to storing the networked information monitor template to the electronic storage, transmitting, over the network to a networked information monitor server, a request for the networked information monitor template; and

231. *See* [1.1], [12.4], and [13.1] (incorporated here) regarding “**storing the networked information monitor template to the electronic storage.**” *See* [1.3], [12.2], and [13.3] (incorporated here) regarding “**transmitting, over the network ... a request for the networked information monitor template.**” I believe that [24.1] is obvious for the reasons discussed above in [1.1], [1.3], [12.2], [12.4], [13.1], and [13.3].

[24.2]: receiving, from the networked information monitor server over the network, the networked information monitor template.

232. *See* [1.4], [12.3], and [13.4] (incorporated here). I believe that [20] is obvious for the reasons discussed above in [1.4], [12.3], and [13.4].

ADDITIONAL REMARKS

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

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

Dated: 11/09/2023

By: 