UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner

v.

DODOTS LICENSING SOLUTIONS LLC,
Patent Owner

Inter Partes Review Case No. IPR2024-00144
U.S. Patent No. 9,369,545

PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 9,369,545

TABLE OF CONTENTS

I. REQUIREMENTS FOR IPR 1

A. GROUNDS FOR STANDING 1

B. CHALLENGE AND RELIEF REQUESTED 1

C. CLAIM CONSTRUCTION 2

1. "networked information monitor" ("NIM") 3

2. "networked information monitor template" 4

D. LEVEL OF ORDINARY SKILL IN THE ART 5

II. THE '545 PATENT 5

A. BRIEF DESCRIPTION 5

B. PROSECUTION HISTORY 7

III. THE CHALLENGED CLAIMS ARE UNPATENTABLE 8

A. [GROUND 1A] – CLAIMS 1-4, 6-10, AND 13-15 ARE RENDERED OBVIOUS BY BROWN AND WECKER 8

1. Overview of Brown 8

2. Overview of Wecker 9

3. Combination of Brown and Wecker 12

4. Analysis 15

B. [GROUND 1B] – CLAIMS 5, 11-12, AND 16-21 ARE RENDERED OBVIOUS BY BROWN AND WECKER IN VIEW OF BEER 53

1. Overview of Beer 53

2. Combination of Brown, Wecker, and Beer 54

3. Analysis 57

C. [GROUND 2A] – CLAIMS 1-4, 6-7, 9-10, AND 13-15 ARE RENDERED OBVIOUS BY SHIMADA AND BUCHHOLZ 67

1. Overview of Shimada 67

2. Overview of Buchholz 69

3. Combination of Shimada and Buchholz 71

4. Analysis 72

D. [GROUND 2B] – CLAIMS 5, 8, AND 12 ARE RENDERED OBVIOUS BY SHIMADA, BUCHHOLZ, AND DARNELL 100

1. Overview of Darnell 100

2. Combination of Darnell and Shimada-Buchholz 101

3. Analysis 102

E. [GROUND 2C] – CLAIMS 11 AND 16-21 ARE RENDERED OBVIOUS BY SHIMADA, BUCHHOLZ, AND KRISHNA 104

1. Overview of Krishna 104

2. Combination of Krishna and Shimada-Buchholz 105

3. Analysis *106*
IV. PTAB DISCRETION SHOULD NOT PRECLUDE INSTITUTION **109**
A. THE GENERAL PLASTIC FACTORS FAVOR INSTITUTION 110
1. Factor 1: Petitioner's Multiple Petitions Do Not Prejudice Patent Owner *110*
2. Factors 2 and 3: Petitioner's Knowledge of the Prior Art in the Samsung Petition Did Not Prejudice Patent Owner and Does Not Implicate Road- Mapping or Playbooking Concerns *111*
3. Factors 4 and 5: Petitioner Diligently Prepared This Joinder Petition at the Appropriate Time *111*
4. Factors 6 and 7: Institution Efficiently Promotes Patent Quality *112*
B. THE *FINTIV* FACTORS FAVOR INSTITUTION 112
C. THE *ADVANCED BIONICS* TEST FAVORS INSTITUTION 113
V. CONCLUSION **113**
VI. MANDATORY NOTICES UNDER 37 C.F.R § 42.8(a)(1) **115**
A. REAL PARTY-IN-INTEREST UNDER 37 C.F.R. § 42.8(B)(1) 115
B. RELATED MATTERS UNDER 37 C.F.R. § 42.8(B)(2) 115
C. LEAD AND BACK-UP COUNSEL UNDER 37 C.F.R. § 42.8(B)(3) 116
D. SERVICE INFORMATION 116
E. PAYMENT OF FEES 116

APPENDIX OF EXHIBITS

Exhibit 1001	U.S. Patent No. 9,369,545 to Kembel, et al. ("the '545 Patent")
Exhibit 1002	Excerpts from the Prosecution History of the '545 Patent ("the Prosecution History")
Exhibit 1003[1]	Declaration of Dr. Douglas C. Schmidt
Exhibit 1004	Curriculum Vitae of Dr. Douglas C. Schmidt
Exhibit 1005	U.S. Patent No. 6,278,448 B1 ("Brown")
Exhibit 1006	U.S. Patent No. 6,449,638 B1 ("Wecker")
Exhibit 1007	U.S. Patent No. 5,793,368 ("Beer")
Exhibit 1008	U.S. Patent No. 6,789,263 B1 ("Shimada")
Exhibit 1009	U.S. Patent No. 6,088,340 ("Buchholz")
Exhibit 1010	U.S. Patent No. 6,819,345 B1 ("Jones")
Exhibit 1011	*HTML 4 Unleashed* ("Darnell")
Exhibit 1012	IPR2019-00988 Final Written Decision
Exhibit 1013	U.S. Patent No. 6,342,907 B1 ("Petty")
Exhibit 1014	*Lenovo Holding Company, Inc. v. DoDots Licensing Solutions* LLC, No. 2021-1247, 2021 WL 5822248 (Dec. 8, 2021).
Exhibit 1015	U.S. Patent No. 6,311,058 B1 ("Wecker 2")
Exhibit 1016	U.S. Patent No. 5,737,560 ("Yohanan")
Exhibit 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
Exhibit 1018	Declaration of June Ann Munford
Exhibit 1019	Complaint, *DoDots Licensing Solutions LLC v. APPLE Electronics Co., Ltd. et al*., 6:22-cv-00535, W.D. Tex., filed May 24, 2022
Exhibit 1020	U.S. Patent No. 6,094,681 ("Shaffer")
Exhibit 1021	U.S. Patent No. 6,055,522 ("Krishna")
Exhibit 1022	U.S. Patent No. 6,185,614 B1 ("Cuomo")
Exhibit 1023	*DoDots Licensing Solutions LLC v. Apple Inc.*, W-22-CV-00533-ADA, W.D. Tex., Order Granting Defendant's Motion to Transfer Issued July 25, 2023

[1] Petitioner notes that because Dr. Schmidt's declaration remains unchanged, the citations within the declaration retain the same exhibit numbers but use the original prefixes (e.g., SAMSUNG).

Exhibit 1024	*DoDots Licensing Solutions LLC v. Apple Inc.*, W-22-CV-00533-ADA, W.D. Tex., Report to USPTO re Transfer Decision
Exhibit 1025	*DoDots Licensing Solutions LLC v. Apple Inc.*, W-22-CV-00533-ADA, W.D. Tex., DoDots Motion to Waive Confidentiality Requirements

LISTING OF CHALLENGED CLAIMS

Claim 1	
[1pre]	A computer-implemented method of obtaining content over a network and displaying the content to a user, the method being implemented in a client computing device in operative communication with a server over a network, the client computing device including electronic storage, a display, and one or more processors configure to execute one or more computer program modules, the method comprising:
[1.1]	transmitting a request to the server over the network, the request requesting networked information monitor template;
[1.2]	receiving the requested networked information monitor template from the server over the internet, the requested networked information monitor template having been transmitted from the server over the network responsive to the transmitted request, the networked information monitor template comprising:
[1.3]	a definition of a viewer graphical user interface within which content in a web browser-readable language may be presented on the display of the client computing device; and
[1.4]	a definition of a first content element for the networked information monitor template, the definition of the first content element referencing a first network location from which the first content element for the networked information monitor template is served over the network;
[1.5]	responsive to instructions included in the requested networked information monitor template, presenting the viewer graphical user interface defined by the networked information monitor on the display of the client computing device separate from and outside of any other graphical user interface that includes user controls for specifying the first network location from which the first content

	element for the networked information monitor is served over the network;
[1.6]	responsive to instructions included in the requested networked information monitor template, transmitting over the network a first content request to the first network location referenced by the definition of the first content element for the networked information monitor template;
[1.7]	receiving, over the network, the first content element transmitted responsive to the first content request;
[1.8]	presenting the received the first content element in the viewer graphical user interface defined by the networked information monitor template, wherein the definition of the viewer graphical user interface and/or the first content element define all controls for enabling a user to interact with the first content element through the viewer graphical user interface.
Claim 2	
[2]	The method of claim 1, wherein the definition of the viewer graphical user interface includes a definition of at least one control effective for controlling an aspect of the viewer graphical user interface, and wherein presenting the viewer graphical user interface comprises presenting the at least one control.
Claim 3	
[3]	The method of claim 2, wherein the aspect is the location at which the user interface is rendered on a display device.
Claim 4	
[4]	The method of claim 2, wherein the aspect is the size of the user interface when presented on the display of the client computing device.
Claim 5	
[5]	The method of claim 1, wherein the networked information monitor template includes instructions in extensible markup language (XML) format, and further wherein the method further comprises parsing the definition of the viewer graphical user interface.
Claim 6	

[6]	The method of claim 1, wherein the definition of the viewer graphical user interface defined by the networked information monitor template comprises an image, and wherein presenting the viewer graphical user interface defined by the networked information monitor template on the display of the client computing device comprises presenting the image included in the definition as part of the viewer graphical user interface.
Claim 7	
[7]	The method claim 6, wherein presenting the received the first content element in the viewer graphical user interface defined by the networked information monitor template comprises presenting the received the first content element in association with the image.
Claim 8	
[8]	The method of claim 6, wherein presenting the received the first content element in the viewer graphical user interface defined by the networked information monitor template comprises presenting the received the first content element at least in part within the image.
Claim 9	
[9]	The method of claim 1, wherein the definition of the viewer graphical user interface defines at least one control permitting the modification of the appearance of the viewer graphical user interface defined by the networked information monitor template, and wherein presenting the viewer graphical user interface defined by the networked information monitor template on the display of the client computing device comprises presenting the at least one control.
Claim 10	
[10]	The method of claim 1, wherein the first content element includes audio content, video content, graphics content, still image content, textual content and/or interactive content.
Claim 11	
[11]	The method of claim 1, further comprising: executing a client parser application that is separate from the networked information monitor template, the client parser application being configured to present the viewer graphical user interface defined by the networked

	information monitor template on the client computing device, to generate the request for the content that is transmitted to the first network location referenced by the definition of the first content element for the networked information monitor template, and to present the first content element received from the first network location within the viewer graphical user interface defined by the networked information monitor template.
Claim 12	
[12]	The method of claim 1, further comprising causing the networked information monitor to communicate with another networked information monitor.
Claim 13	
[13]	The method of claim 1, wherein the networked information monitor is configured to cause the client computing device to periodically request the first content element from the first network location referenced by the definition the first content element for the networked information monitor template and to present the received first content element within the viewer graphical user interface in an ongoing manner.
Claim 14	
[14]	The method of claim 1, wherein the network is the internet.
Claim 15	
[15.1]	The method of claim 1, wherein the networked information template further comprising a definition of a second content element for the networked information monitor template, the definition of the second content element referencing a second network location from which the second content element for the networked information monitor template is served over the network, and wherein the method further comprises:
[15.2]	responsive to instructions included in the requested networked information monitor template, transmitting over the network a second content request to the second network location referenced by the definition of the second content element for the networked information monitor template;

[15.3]	receiving, over the network, the second content element transmitted responsive to the second content request; and

[15.4]	presenting the received second content element in the viewer graphical user interface defined by the networked information monitor template, wherein the definition of the viewer graphical user interface and/or the second content element define all controls for enabling a user to interact with the second content element through the viewer graphical user interface.
Claim 16	
[16pre]	A computer-implemented method of obtaining and displaying content obtained over a network to a user on a client computing device, the method being implemented in the client computing device, the client computing device including electronic storage, a display, and one or more processors configured to execute one or more computer program modules, the method comprising:
[16.1]	executing on the client computing device client parser, wherein the execution of the client parser results in the client computing device:
[16.2]	transmitting over the network a first content request to a first network location referenced by a definition of a first content element in a networked information monitor template that is readable by the client parser;
[16.3]	receiving, over the network, the first content element transmitted responsive to the first content request;
[16.4]	presenting a viewer graphical user interface defined by the networked information monitor template on the display of the client computing device and wherein the viewer graphical user interface defined by the networked information monitor template is presented separate from and outside of any other graphical user interface that includes user controls for specifying the first network location from which the first content element for the networked information monitor is served over the network; and
[16.5]	presenting the received content element within the viewer graphical user interface defined by the networked information monitor template, wherein the definition of the viewer graphical user interface and/or the first content element define all controls for enabling a user to interact with the first content element through the viewer graphical user interface.

Claim 17	
[17]	The method of claim 16, wherein execution of the client parser further results in the client computing device determining that the first element content modifies the networked information monitor template and responsive to such determination, modifying the networked information monitor template prior to the step of presenting the graphical user interface.
Claim 18	
[18]	The method of claim 16, further comprising presenting an icon representing networked information monitor associated with the networked information monitor template on the display of the client computing device, and wherein execution of the client parser to perform one or more of the transmitting operation, the presenting the viewer graphical user interface operation, or presenting the first content element operation is responsive to reception of selection by a user of the icon.
Claim 19	
[19]	The method of claim 16, further comprising invoking the client parser an initiating one or more of the transmitting operation, the presenting the viewer graphical user interface operation, or presenting the first content element operation automatically during a start-up process of the client computing device.
Claim 20	
[20.1]	The method of claim 19, wherein execution on the client computing device of the client parser further results in the client computing device: transmitting over the network a second content request to a second network location referenced by a definition of a second content element in a second networked information monitor template that is readable by the client parser;
[20.2]	receiving the second content element transmitted responsive to the second content request;

[20.3]	presenting a second viewer graphical user interface defined by the second networked information monitor template on the display of the client computing device, wherein the second viewer graphical user interface lacks user controls, wherein the definition of the second viewer graphical user interface and/or the second content element define all controls for enabling a user to interact with the second content element through the second viewer graphical user interface; and
[20.4]	presenting the second content element within the viewer second graphical user interface,
[20.5]	wherein execution of the client parser to perform the transmitting the second content request, the presenting the second viewer graphical user interface operation, and the presenting the second content element is responsive to reception of a selection to initiate a second networked information monitor associated with the second networked information monitor template.
Claim 21	
[21]	The method of claim 16, wherein the network is the internet.

Apple Inc., ("Petitioner" or "Apple") petitions for Inter Partes Review ("IPR") of claims 1-21 ("the Challenged Claims") of U.S. Patent No. 9,369,545 ("the '545 Patent").

I. REQUIREMENTS FOR IPR

A. Grounds for Standing

Apple certifies that the '545 Patent is available for IPR. This petition is being filed within one month of Decision instituting Inter Partes Review in *Samsung Electronics Co., Ltd., v. DoDots Licensing Solutions LLC, Inter Partes* Review No. IPR2023-00756. Apple is not barred or estopped from requesting review of the Challenged Claims on the below-identified grounds.

B. Challenge and Relief Requested

Apple requests IPR of the Challenged Claims on the grounds below. Dr. Douglas Schmidt provides supporting testimony in his Declaration. EX1003, ¶¶1-223.

Ground	Claim(s)	§103 Basis
1A	1-4, 6-10, 13-15	Obvious over Brown, Wecker
1B	5, 11-12, 16-21	Obvious over Brown, Wecker, Beer
2A	1-4, 6-7, 9-10, 13-15	Obvious over Shimada, Buchholz
2B	5, 8, 12	Obvious over Shimada, Buchholz, Darnell
2C	11, 16-21	Obvious over Shimada, Buchholz, Krishna

The ’545 Patent claims priority to a U.S. patent application filed on April 26, 2000, as well as to a number of provisional applications, the earliest of which was filed on April 26, 1999. EX1001, Cover. Solely for purposes of evaluating prior art in this proceeding and without conceding the propriety of these priority claims, this Petition will treat April 26, 1999, as the earliest alleged effective filing date (“Critical Date”). The references relied on in the above grounds qualify as prior art to the ’545 Patent at least under Pre-AIA §102(e) as indicated in the table below.

Reference	Publication Date	Filing Date
Brown	08/21/2001	02/17/1998
Wecker	09/10/2002	06/30/1998
Beer	08/11/1998	11/14/1996
Shimada	09/07/2004	06/18/1997
Buchholz	07/11/2000	06/23/1998
Darnell	1997	-
Krishna	04/25/2000	06/19/1997

C. Claim Construction

Petitioner submits that all claim terms should be construed according to the *Phillips* standard. *Phillips v. AWH Corp*., 415 F.3d 1303 (Fed. Cir. 2005); 37 C.F.R. §42.100. Under the *Phillips* standard, the “words of a claim are generally given their

ordinary and customary meaning as understood by a person of ordinary skill in the art when read in the context of the specification and prosecution history." *Thorner v. Sony Computer Entertainment America LLC*, 669 F. 3d 1362, 1366 (Fed. Cir. 2012) (citing *Phillips*, 415 F.3d at 1313). Petitioner submits that all claim terms should be given their ordinary and customary meaning in the context of the specification under the *Phillips* standard as detailed in the relevant sections below, except that Petitioner provides the following discussion to aid the Board in interpreting the following terms.[2] EX1003, ¶¶26-27.

1. "networked information monitor" ("NIM")

For purposes of the present proceeding, this term, which appears in claims 1, 12-13, 16, 18, and 20, 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 '545 patent, as well as the definition adopted by Patent Owner in prior proceedings. EX1001, 4:56-63; EX1012, Page 10; EX1014, *3-4. Thus, for purposes of this IPR, Petitioner adopts Patent Owner's construction of networked information monitor, which was adopted in IPR2019-00988. EX1012, Page 10; EX1014, *3-4; EX1003, ¶28.

[2] Petitioner does not concede that challenged claims meet statutory standards. Patentability under §101 or compliance with §112 is not appropriate to resolve in IPR, and Petitioner reserves all rights to challenge claims for reasons out of scope for IPR.

2. "networked information monitor template"

For purposes of the present proceeding, this term, which appears in claims 1, 5-9, 11, 13, 15-18, and 20, should be construed to mean "a data structure which defines the **characteristics of a NIM**, including the NIM **frame, view**, and **control characteristics**, and which excludes **executable applications/compiled code**." This definition is consistent with the use of the term in the specification of the '545 Patent. *See, e.g.,* EX1001, 6:34-37 ("Each NIM template defines the characteristics of a specific NIM, including fully configurable frame characteristics, viewer and control characteristics, and NIM content references."); *see also Id.* Additionally, the '545 Patent states, "NIMs allow a developer to provide an application feel without developing custom client applications." *Id.*, 26:33-35. The '545 Patent further states that a NIM definition "is content, rather than compiled code." *Id.*, 21:59-60. According to Patent Owner in IPR2019-00988, a networked information monitor template "is a data structure that defines the NIM; it is not the NIM and it is not an executable program (i.e., compiled code)." EX1012, Page 11. Thus, for purposes of this IPR, Petitioner adopts Patent Owner's construction of networked information monitor template, which was adopted in IPR2019-00988. EX1012, Pages 12-19; EX1014, *3-4; EX1003, ¶29.

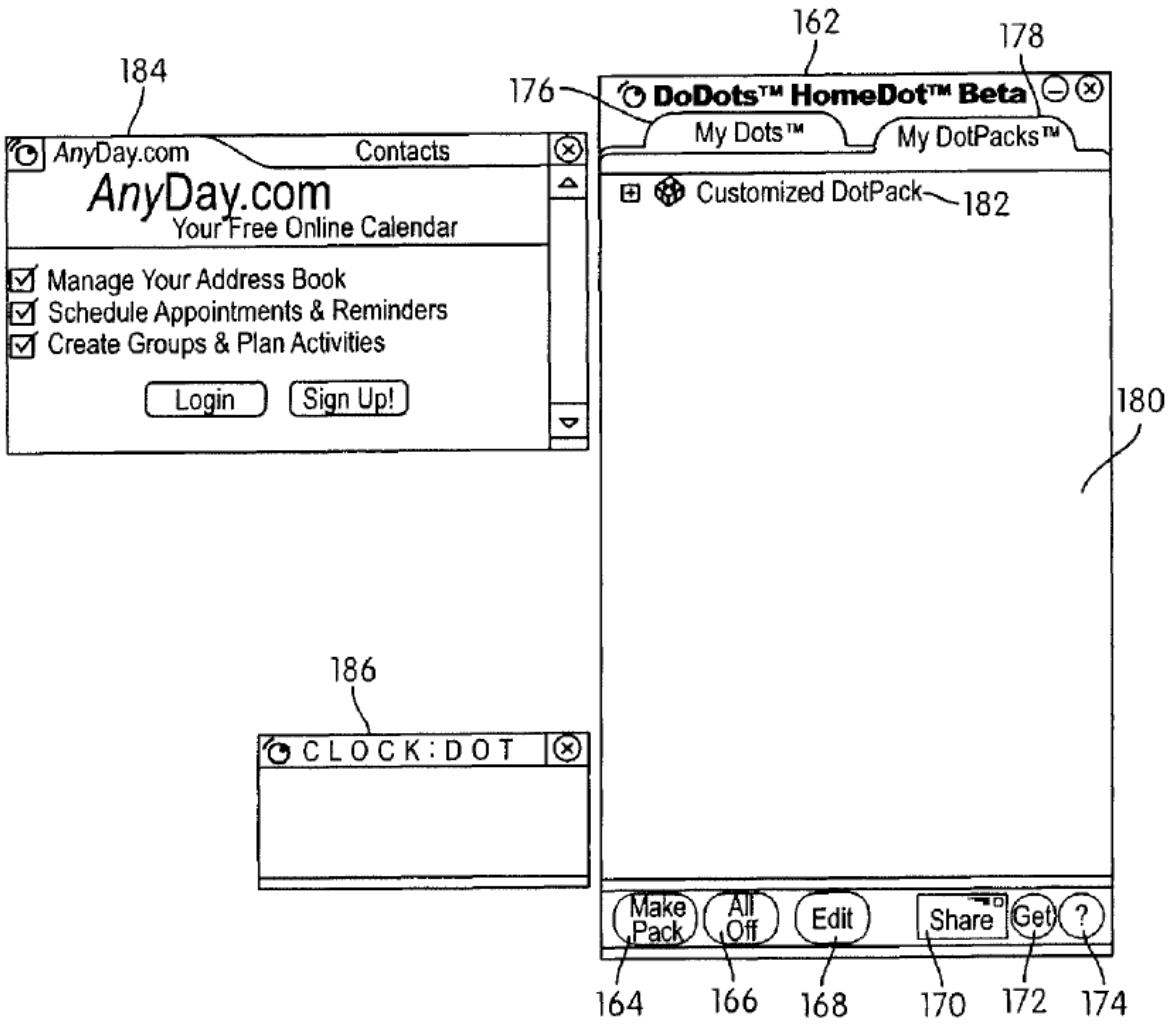
D. Level of Ordinary Skill in the Art

A person of ordinary skill ("POSITA") relating to the subject matter of the '545 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. EX1003, ¶¶20-21. Additional graduate education could substitute for professional experience, or significant experience in the field could substitute for formal education. *Id.* This definition is consistent with the previous definition of a POSITA adopted in IPR2019-00988. EX1012, Page 9.

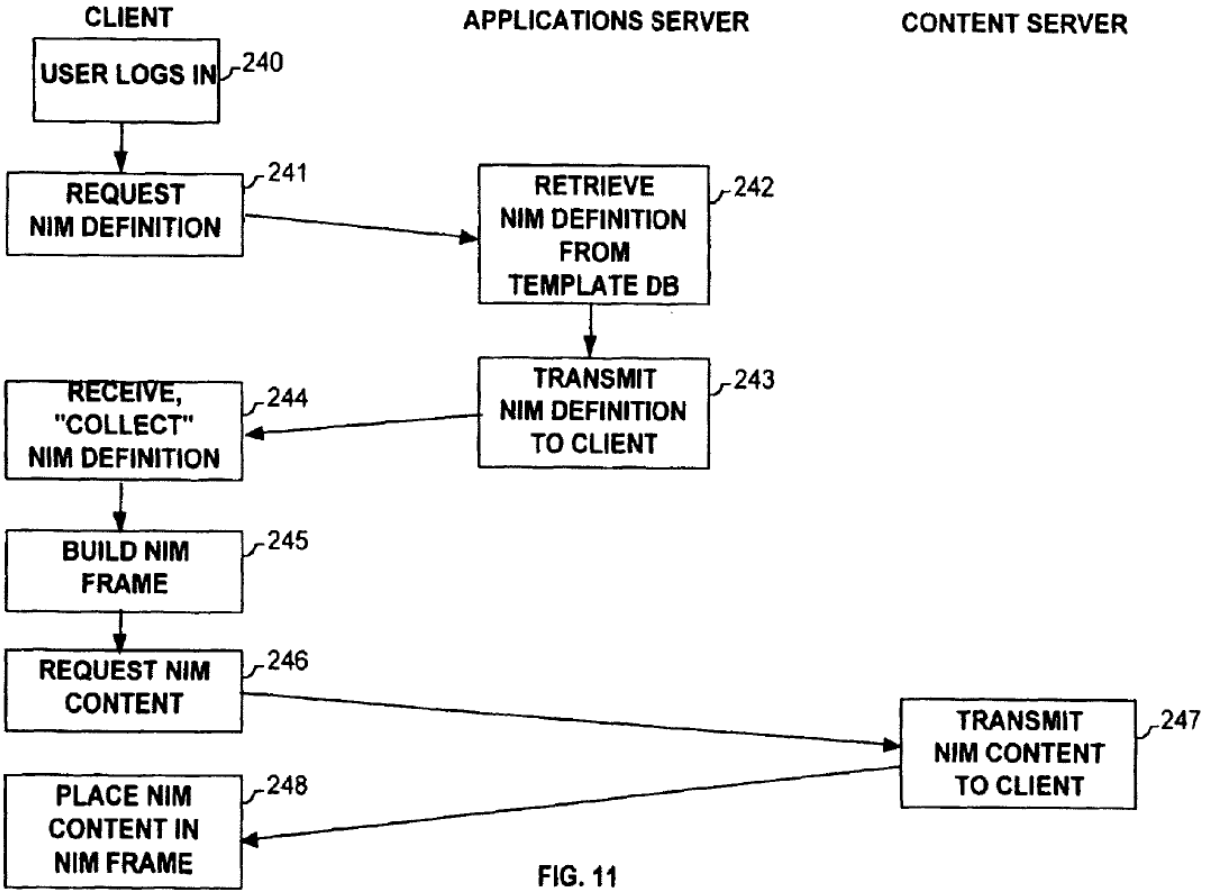
II. THE '545 PATENT

A. Brief Description

The '545 Patent is directed to "accessing and viewing internet content" through a plurality of software "networked information monitors" or "NIMs" EX1001, Abstract, 4:56-63. The '545 Patent discloses that NIMs include "a fully configurable frame with one or more controls; the frame through which content is optionally presented." *Id.* Figure 4 below provides an example of a collection of NIMs according to the '545 Patent. Figure 11 provides an example process of downloading and generating a NIM according to the '545 Patent.


162
178
184
176
DoDots™ HomeDot™ Beta
My Dots™
My DotPacks™
AnyDay.com
Contacts
AnyDay.com
Your Free Online Calendar
Manage Your Address Book
Schedule Appointments & Reminders
Create Groups & Plan Activities
Login
Sign Up!
Customized DotPack
182
180
186
CLOCK:DOT
Make Pack
All Off
Edit
Share
Get
?
164
166
168
170
172
174

EX1001, FIG. 4



EX1001, FIG. 11

B. Prosecution History

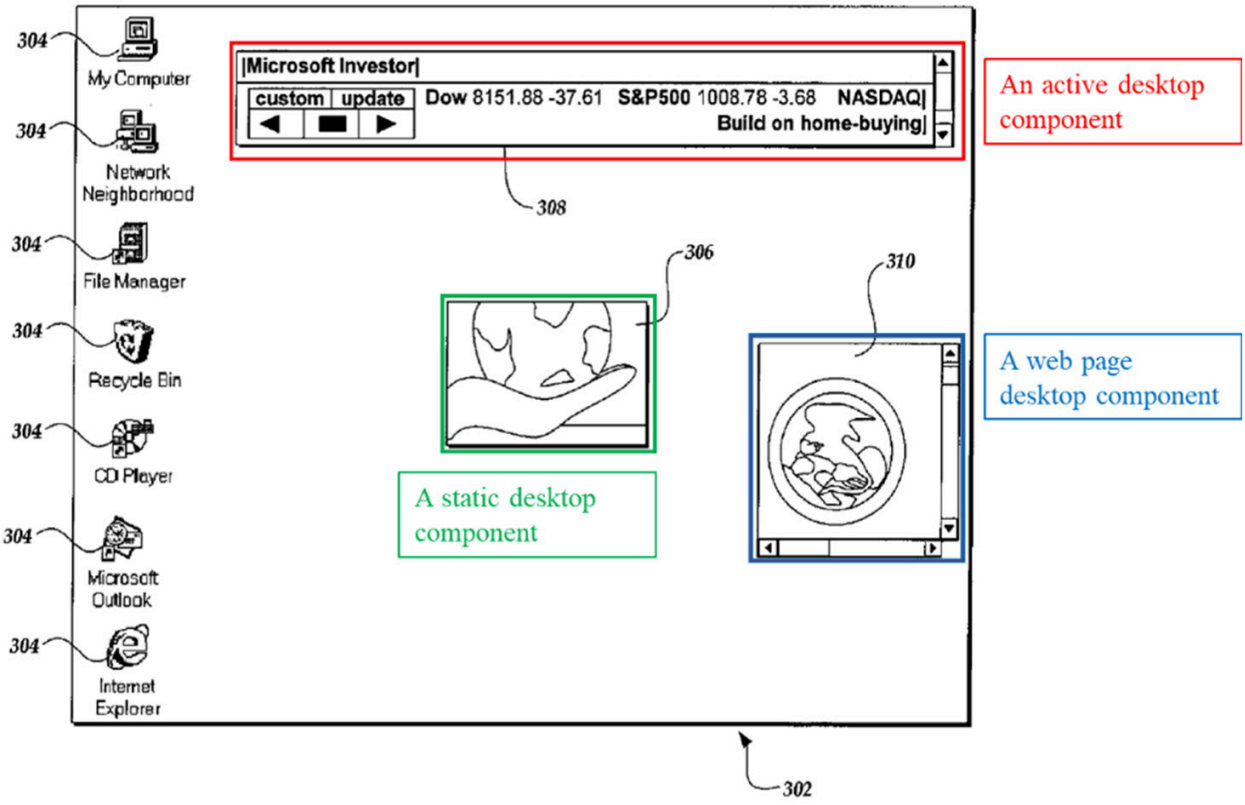
The '545 patent was allowed after one Office Action, which presented only a double-patenting rejection. EX1002, 176-180. During prosecution, the examiner did not consider any of Brown, Wecker, Beer, Shimada, Buchholz, Darnell, and Krishna. These references render the Challenged Claims obvious, as discussed below.

III. THE CHALLENGED CLAIMS ARE UNPATENTABLE

A. [GROUND 1A] – Claims 1-4, 6-10, and 13-15 are rendered obvious by Brown and Wecker

1. Overview of Brown[3]

Brown describes "a method of creating a composite desktop built from Web content retrieved from one or more Web sites." EX1005, Abstract. Brown's composite desktop includes components, which can be "a static image or an active desktop component providing dynamic content." *Id.*; EX1003, ¶30.



EX1005, FIG. 3A (annotated)

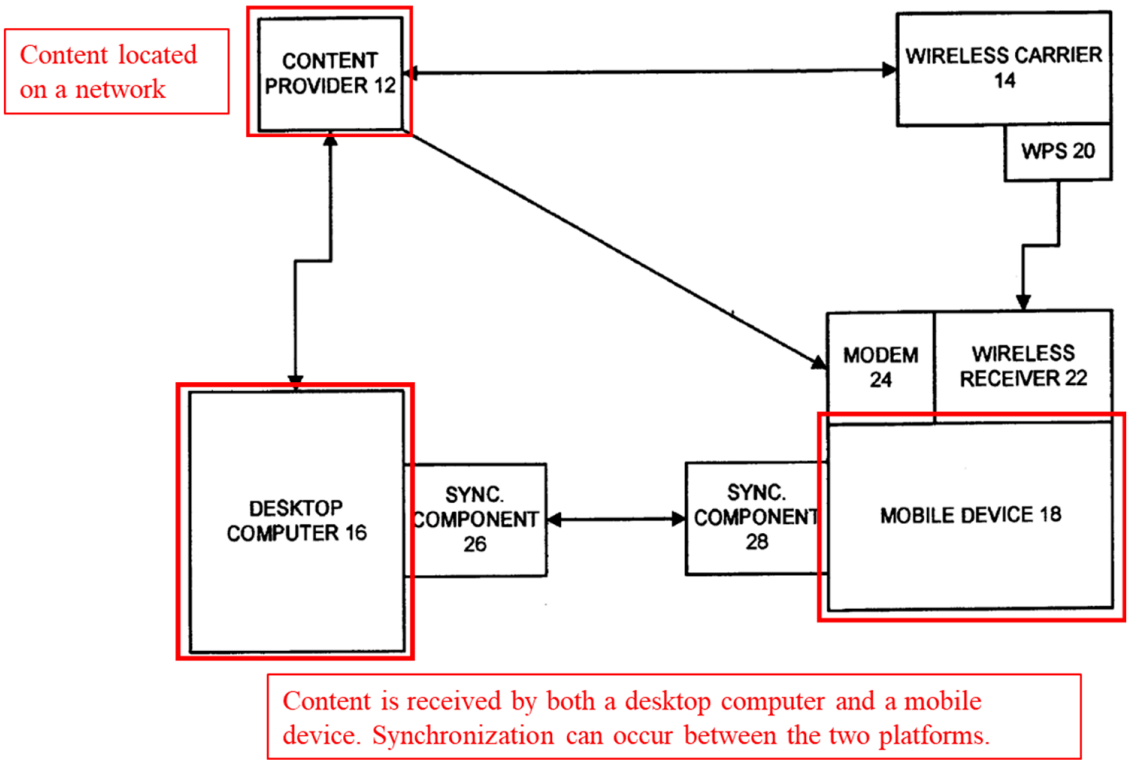
[3] Descriptions of the references and combinations thereof are incorporated into each mapping that includes citations to these references. All emphasis is added unless otherwise indicated.

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." EX 1005, 7:21-23. Brown describes that "the component may be selected from a Web page, within which the component is embedded." EX1005, 7:40-41; EX1003, ¶31.

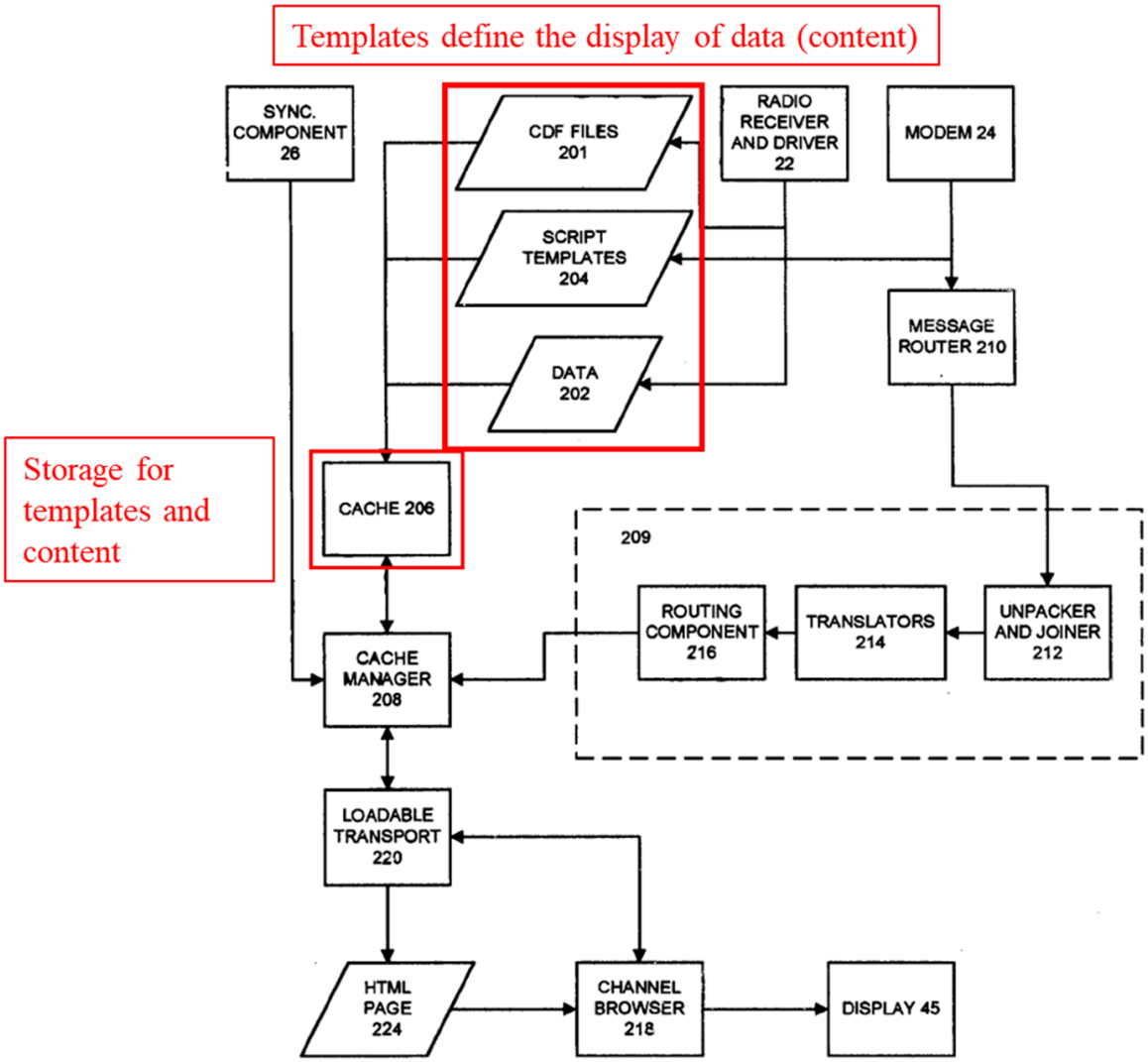
Brown also describes desktop component instructions, which "include a URL specifying an Internet location where additional HTML code corresponding to the active desktop component 308 resides." *Id.*, 13:1-4; EX1003, ¶32.

2. Overview of Wecker

Wecker describes "a method for rendering information," the information including "a content structure file, a data file and a script file." EX1006, 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.*; EX1003, ¶33.



EX1006, FIG. 1 (annotated)



EX1006, FIG. 6 (annotated)

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 als preferably described in a content structure file also known commonly as a channel definition format (CDF) file." EX1006, 3:2-6; EX1003, ¶34.

3. Combination of Brown and Wecker

A POSITA would have found it obvious to combine Brown and Wecker ("Brown-Wecker combination"). EX1003, ¶35. 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. EX1005, Abstract, 13:4-13, 13:39-44; EX1006, 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 of "mobile channels" in the context of Brown's system and would have found it obvious to implement Brown's desktop components as mobile channels, such that a user could download desktop components, and their associated HTML instructions, to their composite desktop. EX1005, 7:21-23; EX1006, 3:6-14; EX1003, ¶35.

As Dr. Schmidt explains, a POSITA would have been motivated to combine Brown and Wecker for various reasons. EX1003, ¶36.

First, a POSITA would have recognized that Wecker's mobile channel "script files," also referred to as "templates," are data structures corresponding to the "HTML instructions" that define Brown's "desktop components." EX 1005, 12:61-62; EX1006, 3:17-20; EX1003, ¶¶37-38. 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." EX1005, 3:63-66, 4:3-6. A POSITA would have recognized that the "desktop," as contemplated by Wecker, would have provided a way to suitably implement the "composite desktop" of Brown. EX1003, ¶37.

Second, a POSITA would have recognized or found obvious that, because Brown's desktop components are retrieved from "remote computers," such components would also be accessed via Wecker's "wireless push server" or "remote computer." EX1005, 4:16-21; EX1006, 3:34-38, 7:55-63; EX 1003, ¶39. In fact, Wecker describes that a "user typically runs the same types of applications on both the desktop computer and on the mobile device." EX1006, 1:39-44. A POSITA would have recognized or found obvious from this disclosure that an interface similar to the "composite desktop" taught by Brown would have been implemented on mobile devices, as contemplated by Wecker. EX1005, 4:13-19; EX1003, ¶39. Indeed, Brown describes that its techniques may be practiced in "other computer system configurations, including **hand-held devices**." EX1005, 4:44-49.

A POSITA would have been prompted to pursue these implementations 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. EX1003, ¶40; see also *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007). Additionally, both Brown and Wecker describe the Windows 95 operating system as a suitable operating system that can implement their techniques. EX1005, 6:26-32; EX 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. EX1005, Cover; EX1006, Cover. Thus, as Dr. Schmidt explains, a POSITA would have had a reasonable expectation of success in implementing Wecker's templates into the disclosure of Brown. EX1003, ¶40.

The publications thus detail various aspects of the Brown-Wecker combination and provide an explicit motivation to combine. Cimline, Inc. v. Crafco, 413 F. App'x 240, 245 (Fed. Cir. 2011). Aside from the express teaching to combine, a motivation to combine may be found based on the "background knowledge, creativity, and common sense of [a] person of ordinary skill." Cimline Inc., 413 F. App'x 240, 245. Inc.,

Moreover, a POSITA would have been motivated to combine Brown and Wecker to improve data transfer times, increase usability, standardize interfaces across different devices, reduce client-side storage requirements, and/or other relevant business or technical reasons. EX1003, ¶41.

For at least these reasons, a POSITA would have been motivated to combine Brown and Wecker and consider their disclosures together. EX1003, ¶42.

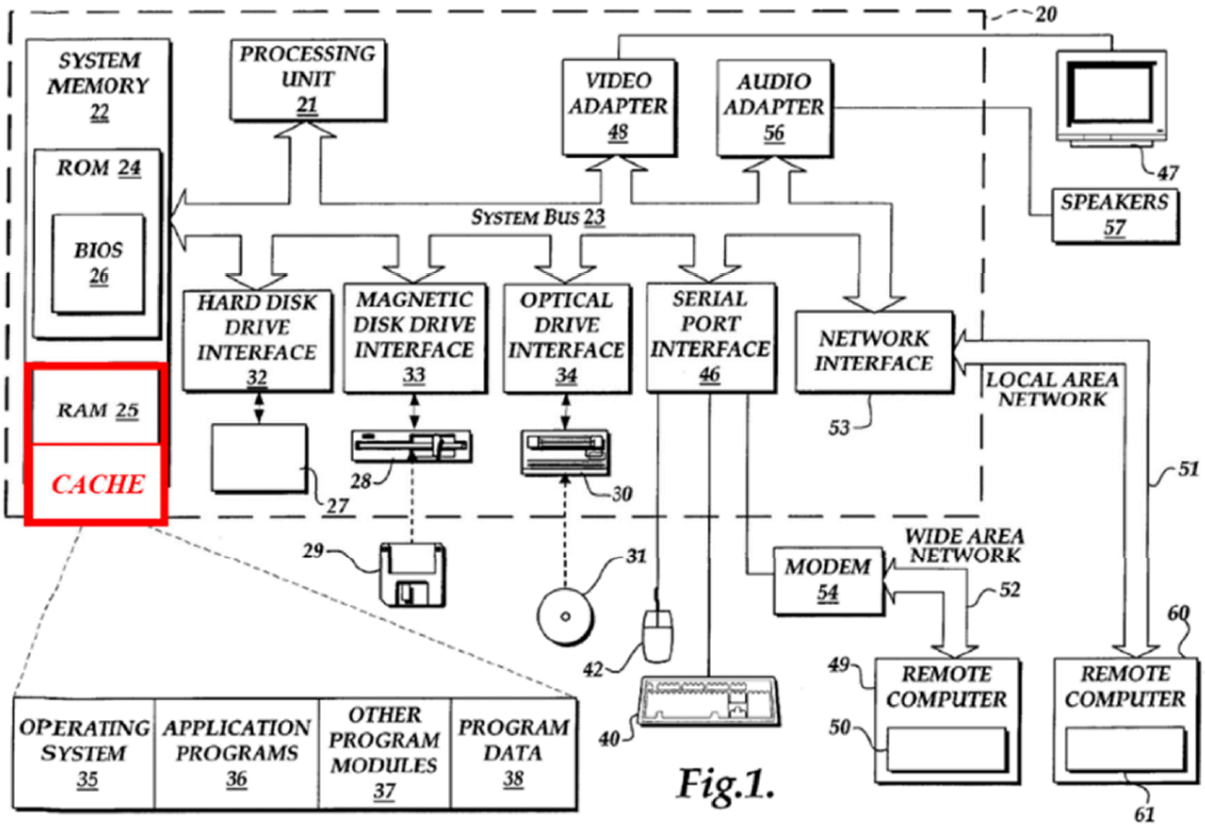
4. Analysis

[1.pre]

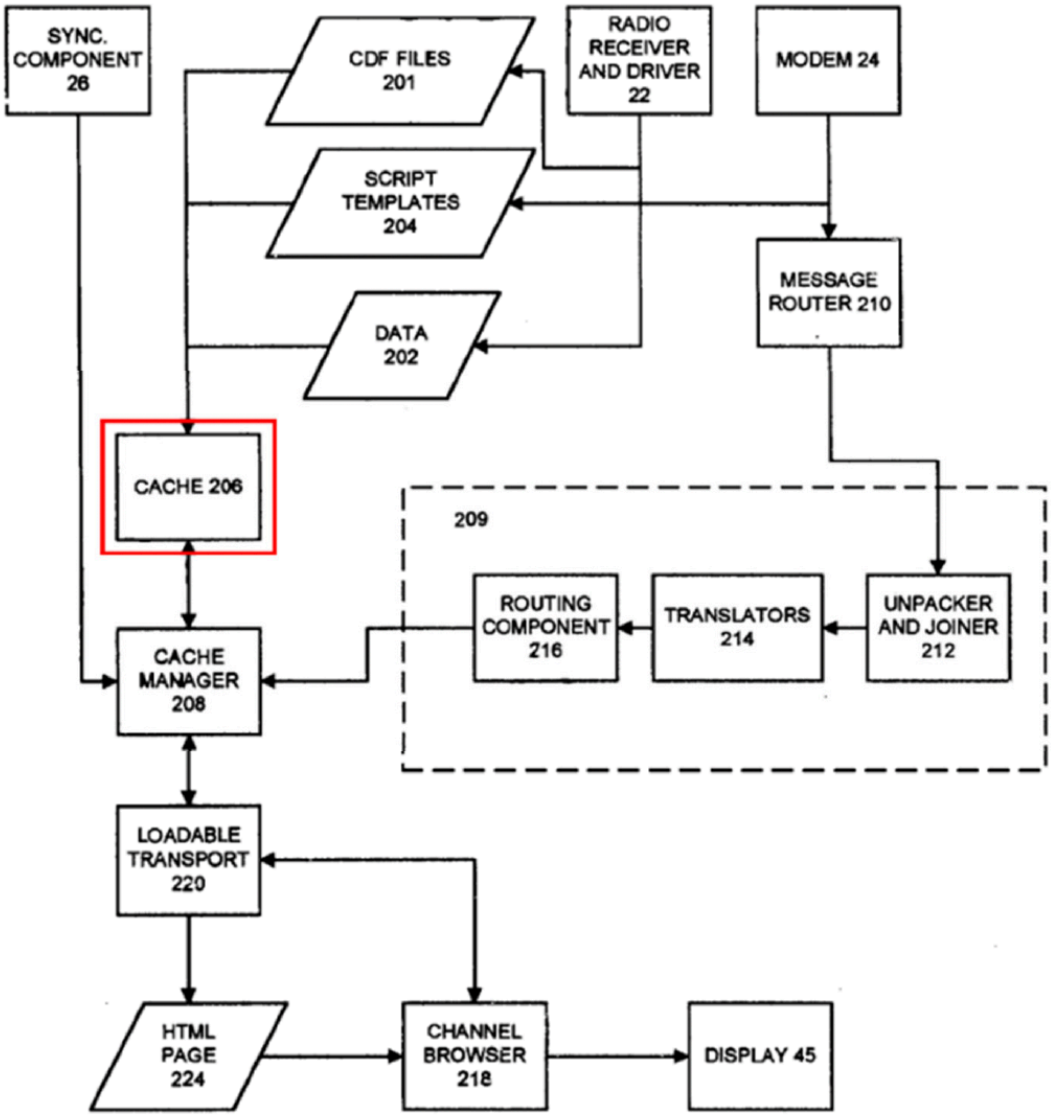
To the extent the preamble is limiting, the Brown-Wecker combination renders [1.pre] obvious. For example, Brown describes "a computer-based system for controlling the display of elements on a desktop," a "**computer-based method** ("**computer-implemented method**") of creating a composite desktop built from Web content," and that "an operating system user interface shell program executes on a computer, preferably a general purpose personal computer." EX1005, 2:54-57, 4:32-40, Claim 15. A POSITA would have understood or found obvious that "a computer-based system" and "personal computer" includes a "**client computing device**," as a computer is frequently referred to as a "client." *Id.*; EX1003, ¶43.

Both Brown and Wecker describe that their client devices can download content from the Internet. EX1005, 2:4-12; EX1006, 3:8-16, 4:3-13. Indeed, Brown describes that "[a] 'client' computer connected to the Internet can **download ("in operative communication with**") digital information from **'server' computers connected to the Internet ("a server over a network")**." EX1005, 2:4-8. Wecker also describes that desktop computers can "**periodically retrieve or receive** new and updated script, data and CDF files." EX1006, 4:3-13; EX1003, ¶44.

Brown discloses "a general purpose computing device" that includes a "system memory." EX1005, 4:54-58. As Dr. Schmidt explains, a POSITA would have understood or found obvious that a system memory is a form of "**electronic storage**" because a POSITA would have understood that memory is an example of electronic storage. EX1003, ¶45. Indeed, the '545 Patent frequently refers to "memory 30" within "computer 20." APPLE1001, 5:13-15, 5:23-25. A POSITA also would have understood or found obvious that this storage would be capable of storing files, like "templates" because it was well known as of the critical date that HTML files were stored in a form of "electronic storage." EX1003, ¶45. Indeed, Wecker discloses a "cache memory" used for holding "script templates." EX1006, 8:34-39. As one example, the Brown-Wecker combination would incorporate similar features, as illustrated below. EX1003, ¶45.

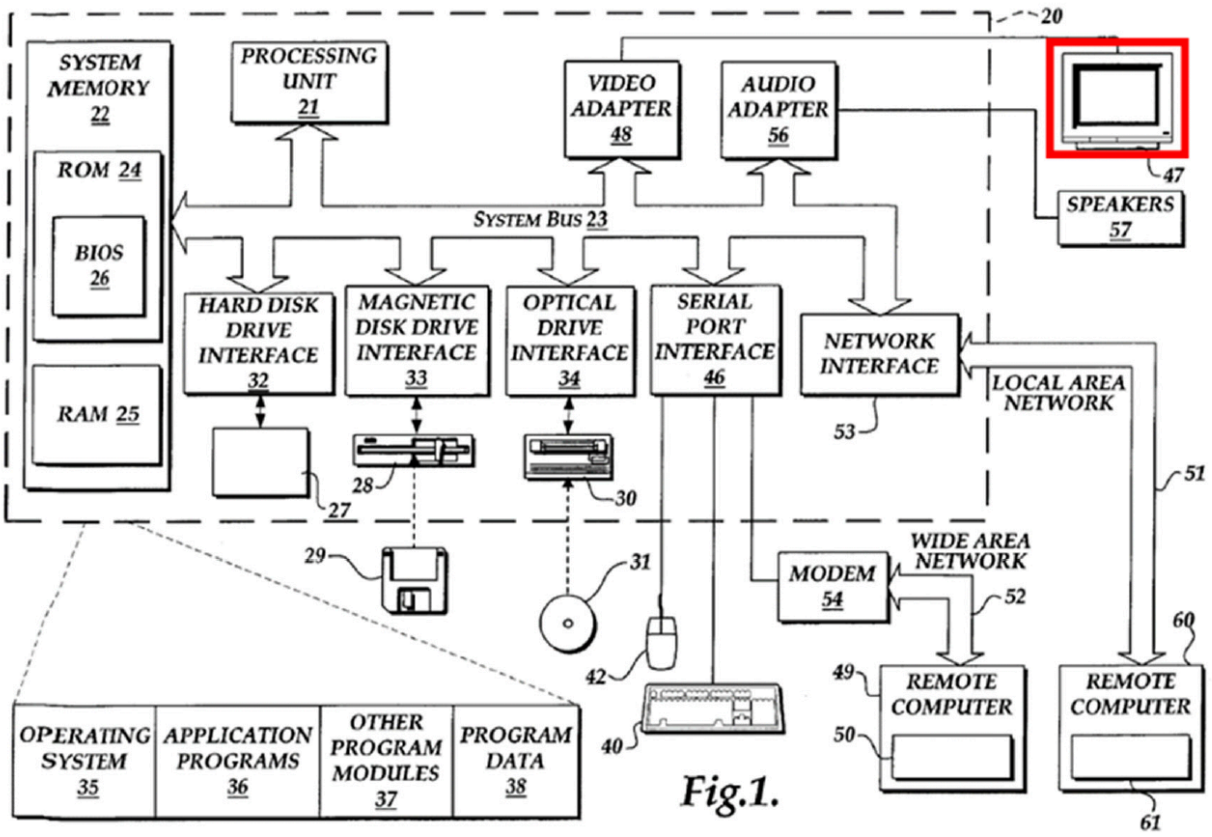


EX1005, FIG. 1 (annotated)



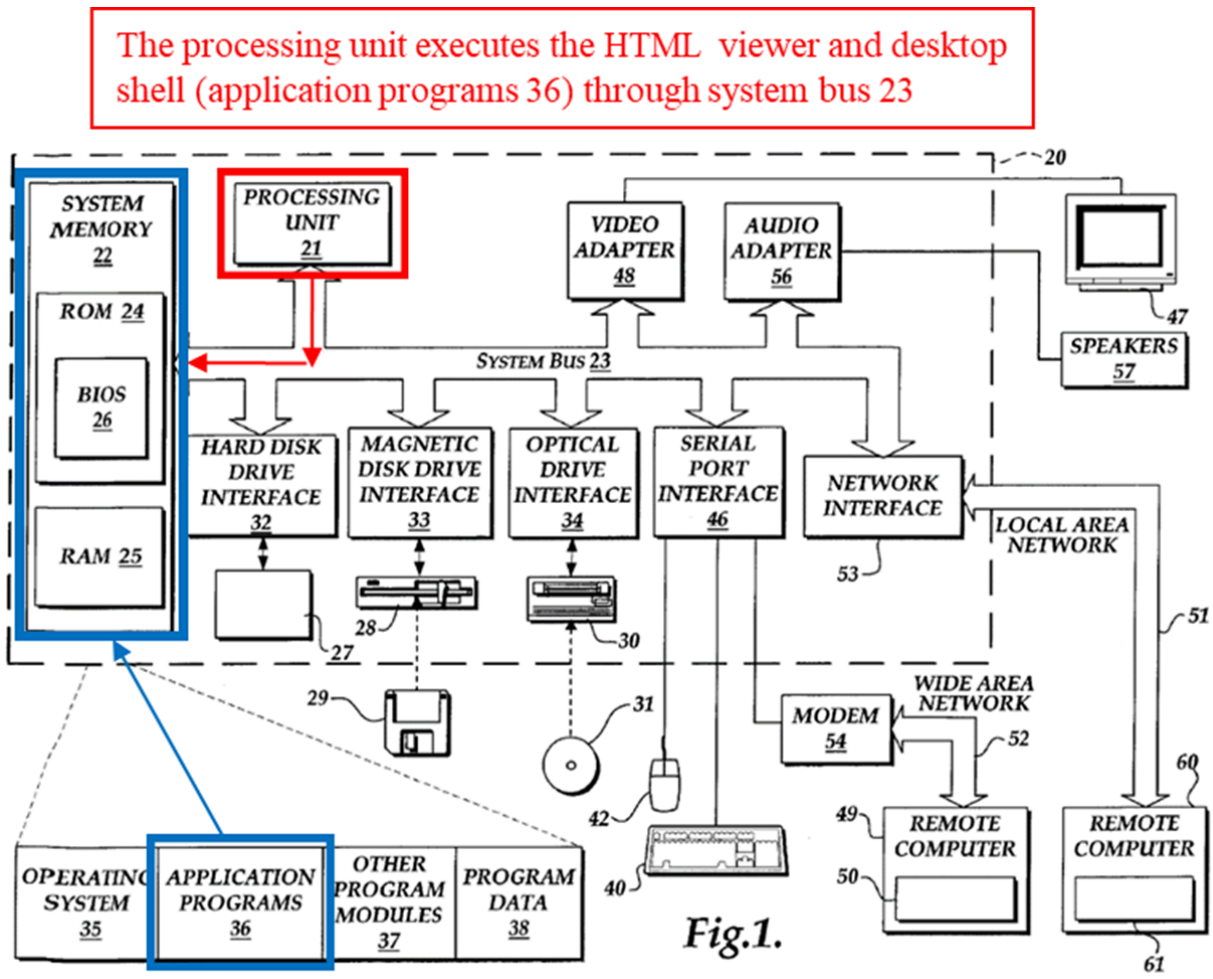
EX1006, FIG. 6 (annotated)

As annotated below in Figure 1, Brown's "computer-based system" includes an electronic **display**, which Brown refers to as a "monitor." EX1005, 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. EX1003, ¶46.



EX1005, FIG. 1 (annotated)

Brown also 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. EX1005, 6:26-40; EX 1003, ¶47. Presented below is Brown's Figure 1 and 2 showing these program modules.



EX1005, FIG. 1 (annotated)

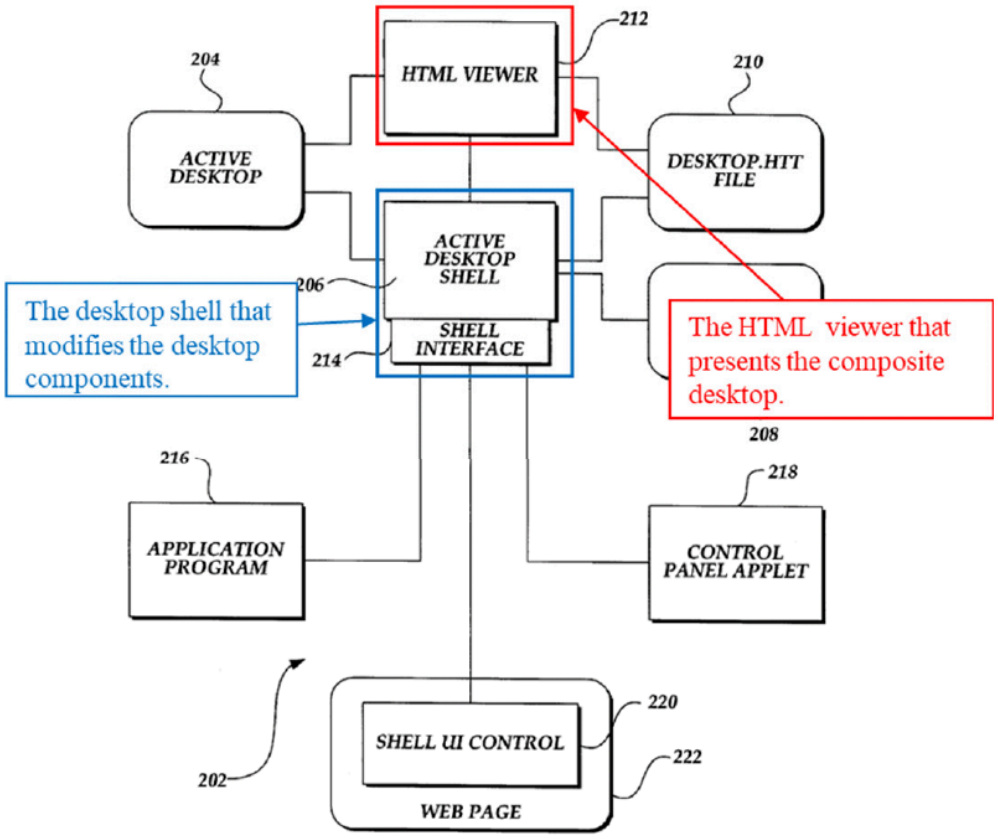


Fig.2.

EX1005, FIG. 2 (annotated)

As Dr. Schmidt explains, 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. EX1003, ¶48.

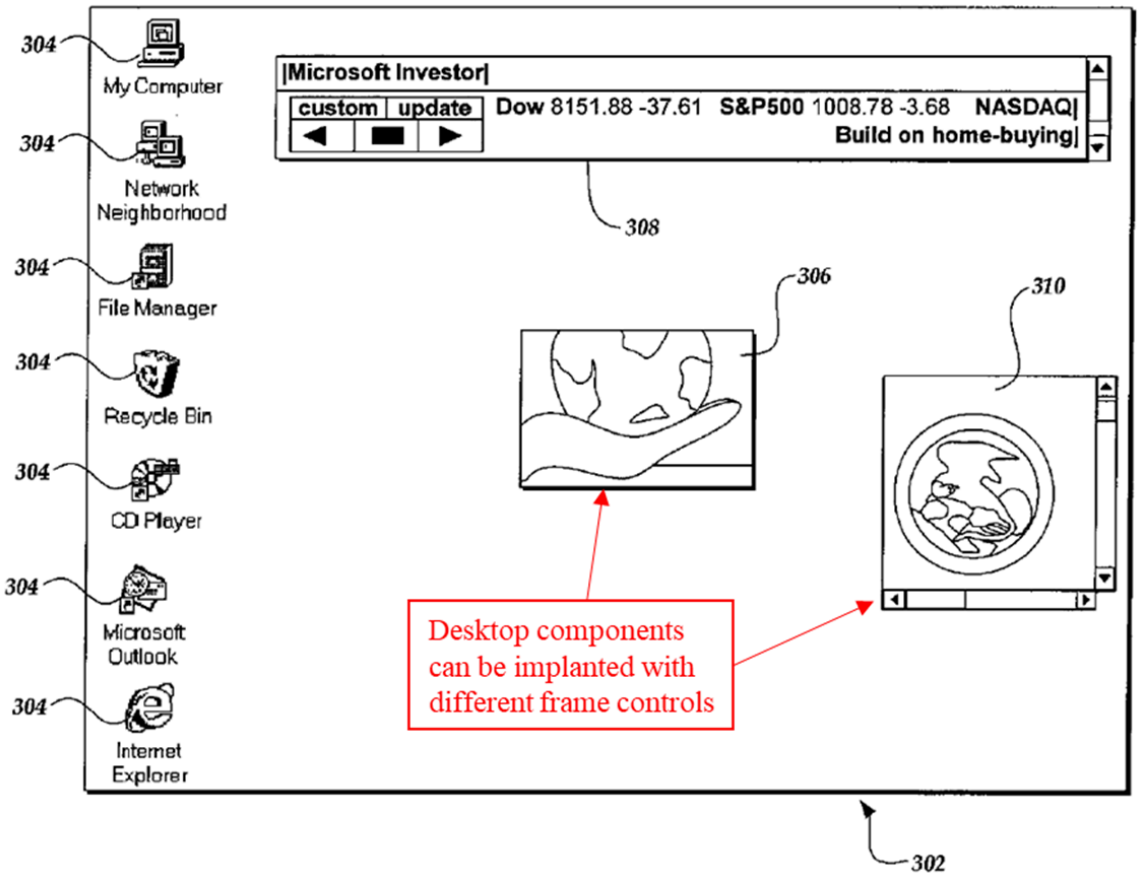
[1.1]

Brown describes sets of "HTML instructions" that define a "composite desktop" containing a plurality of "desktop components." EX1005, 6:34-36, 7:21-

22, 11:1-67, 12:1-67, 13:1-54. Brown explains that a desktop component is "a distinct geometric region that displays a single piece of Web-based content." *Id.*, 7:22-23; EX1003, ¶49.

As Dr. Schmidt explains, a POSITA would have understood or found obvious the "desktop components" of Brown to be "networked information monitors" because desktop components have similar features. EX1003, ¶50. Indeed, networked information monitors include "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. EX1001, 5:41-44; EX1003, ¶50; Section I.C.1, *supra*.

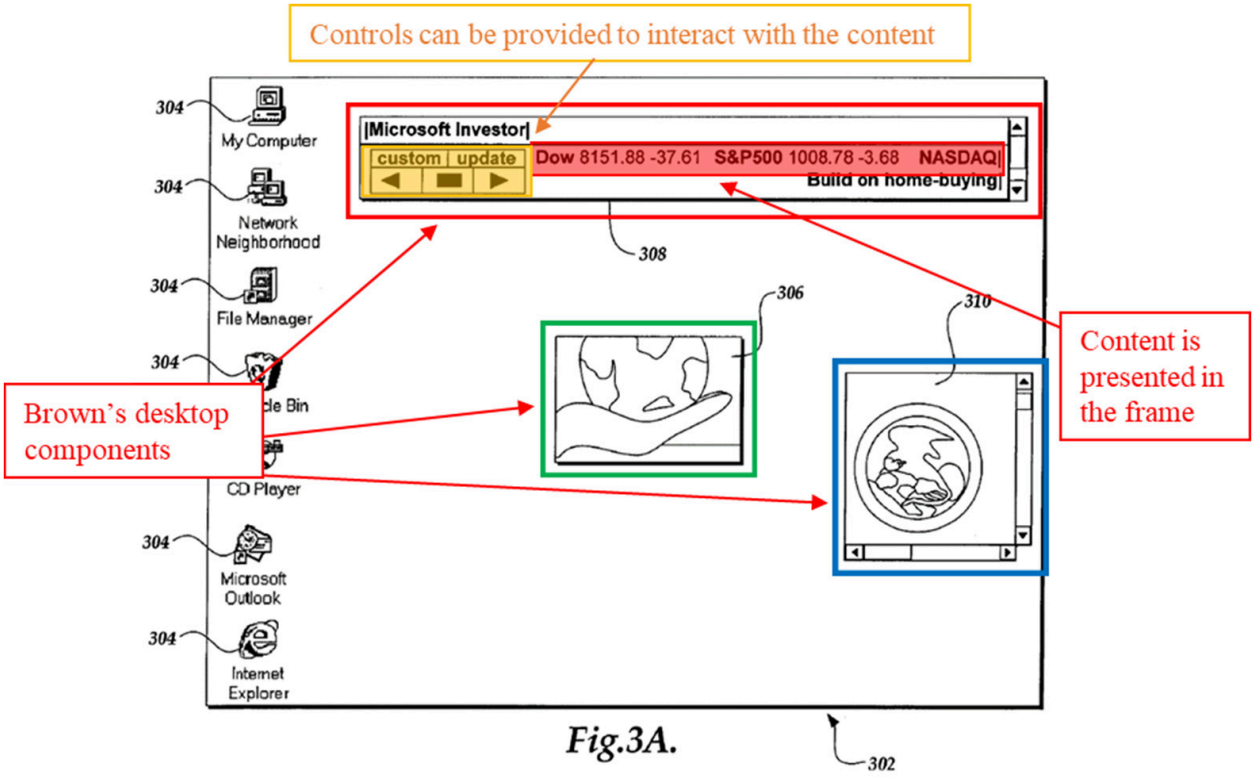
For instance, Brown describes that desktop components are "implemented as floating **frames**." EX1005, 12:61-64; *infra* [1.3]. Brown further explains that floating frames "can be positioned anywhere on a screen" and that desktop components, and their frames, can be "positioned at any location on a composite desktop, and can be resized if desired." EX1005, 7:24-26, 12:64-65. Brown presents examples of desktop components with different frame "**controls**", as annotated in Figure 3A below. EX1005, FIG. 3A. The above disclosures render Brown's desktop component frames "**fully configurable**" as this term is used by the '545 Patent. EX1001, 30:34-36; EX1003, ¶51.



EX1005, FIG. 3A (annotated)

Finally, Brown describes that desktop components "[display] a single piece of Web-based **content**." EX1005, 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**." EX 1001, 2:45-59; EX1005, 7:24-26, 12:64-65, FIG. 3A; EX1003, ¶52.

Therefore, Brown's desktop components are "networked information monitors," as properly construed. EX1003, ¶53.



EX1005, FIG. 3A (annotated)

Additionally, 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. EX1005, 11:39-67, 12:1-43; EX1003, ¶54. 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. EX1001, 7:19-23, 8:53-57, 14:34-35; EX1003, ¶54; Section I.C.2, *supra*. 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**"). EX1005, 14:7-8.

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**"). EX1005, 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; EX1003, ¶55.

For example, Brown describes that "[f]loating **frames** are designated by the 'IFRAME' tag." EX1005, 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. EX1005, 11:56-67, 12:1-10; EX 1003, ¶56.

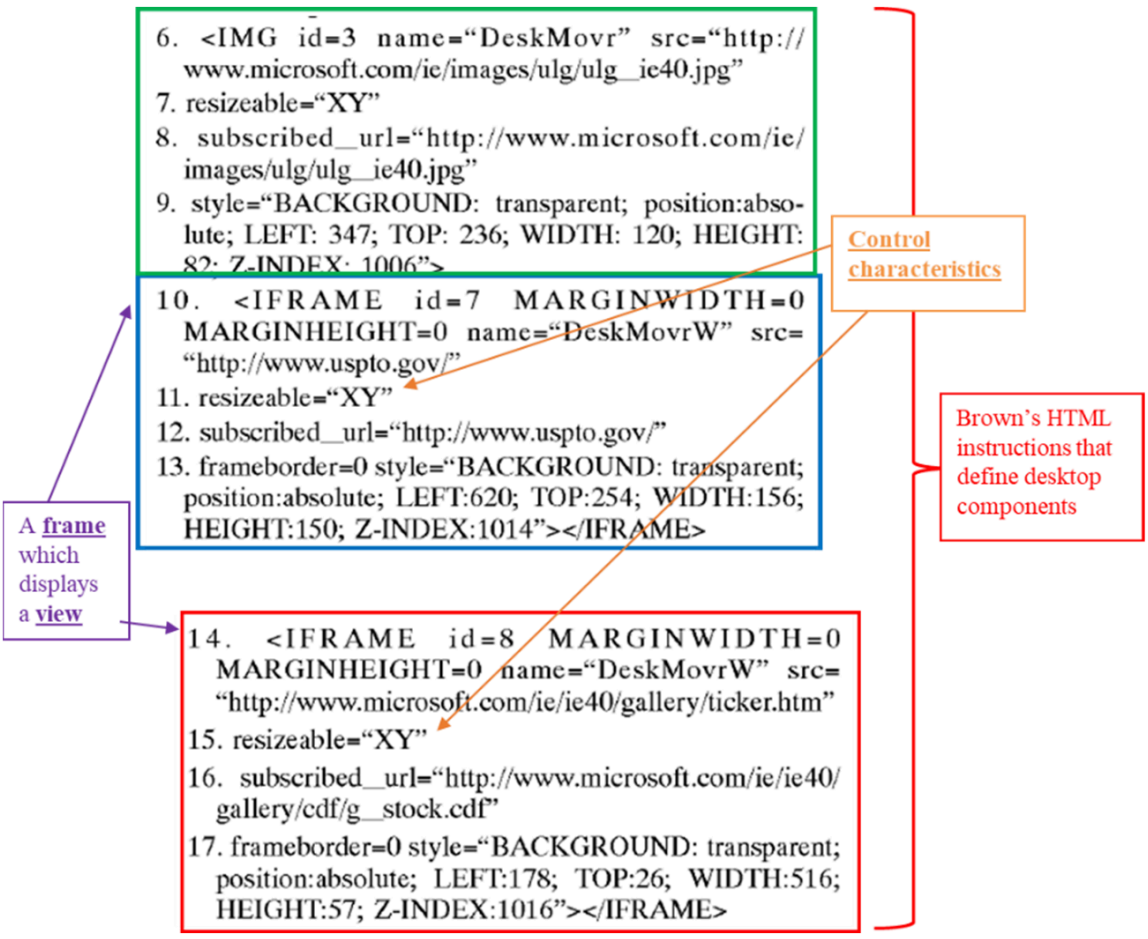
It can also be seen from the annotated figure that visual features of the desktop component ("**the view**") are defined by the HTML instructions. EX 1005, 11:56-67, 12:1-10; EX1003, ¶57. For example, the HTML instructions include a "frameborder" tag, as well as a "BACKGROUND" tag, that both define visual features of the desktop component. *Id.*

Additionally, Brown's HTML instructions provide the ability to designate a desktop component as "resizable" ("**a control characteristic**"). EX 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." EX1005, 7:57-59; EX1003, ¶58.

Additionally, as it can be seen in the annotated instructions below, Brown's HTML instructions do not contain "**applications**" or "**compiled code**." EX 1005, 11:56-67, 12:1-10; EX1003, ¶59. Indeed, Brown describes its HTML instructions are stored in "an HTML file, referred to as the desktop.htt file 210," which, as Dr. Schmidt explains, 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; EX1003, ¶59.

Therefore, with the above disclosures, Brown's HTML instructions correspond to a "networked information monitor template." EX1003, ¶60.

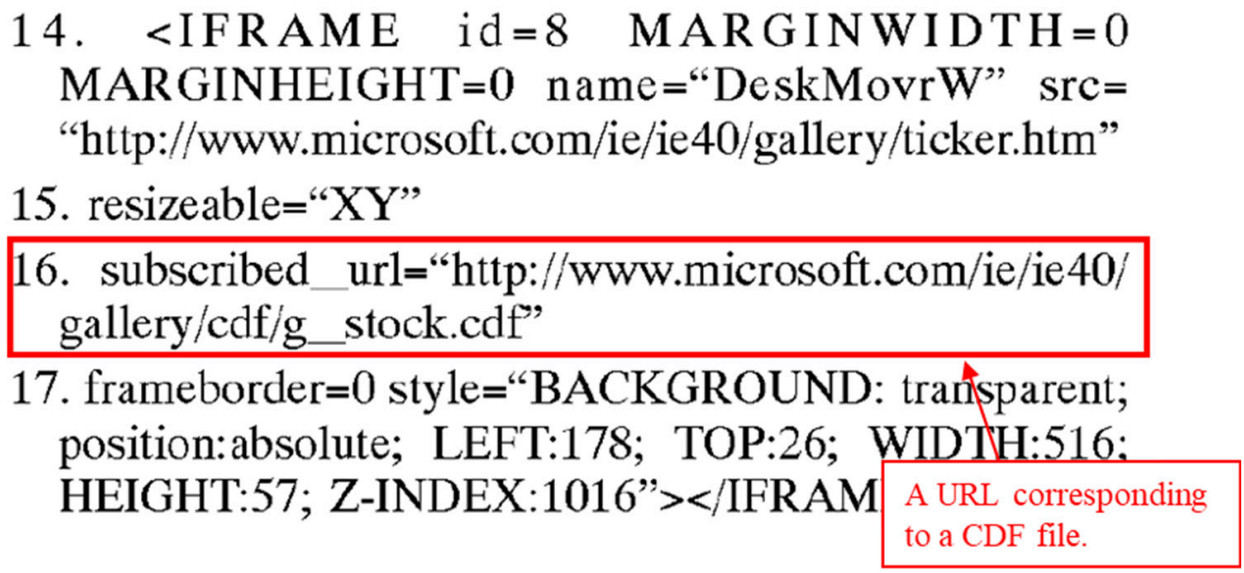


EX1005, 11:56-67, 12:1-10 (annotated)

Brown describes that its client device can download content. EX 1005, 2:4-12; EX1006, 3:8-16, 4:3-13. Indeed, Brown describes that "[a] 'client' computer connected to the Internet can **download** ("**transmitting … a request**") digital information from '**server' computers** connected to the Internet ("**over the network**")." EX1005, 2:4-8; EX1003, ¶61.

As Dr. Schmidt explains, a POSITA would have understood or found obvious that this transmission would occur "**to a server over [a] network**" because Brown describes the use of "uniform resource locators" or "URLs." EX 1005, 3:24-33,

11:43-67, 12:1-43; EX1003, ¶23, 62. For example, one of Brown's example desktop components includes "a URL corresponding to a CDF file." EX1005, 12:1-8, FIG. 3A.



EX1005, 12:1-8 (annotated)

Additionally, 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." EX1006, 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. EX1003, ¶63; Section III.A, *supra*.

Indeed, both Wecker and Brown describe that HTML files could be downloaded to a client. EX1005, 2:13-29; EX1006, see at least 10:25-56. Dr.

Schmidt explains that, in view of the above, a POSITA would have recognized or found obvious that HTML instructions ("**[a] networked information monitor template**") could be requested from a "**server**" as both Brown and Wecker clients are capable of communicating "**over a network**" to a "**server**." EX1003, ¶64.

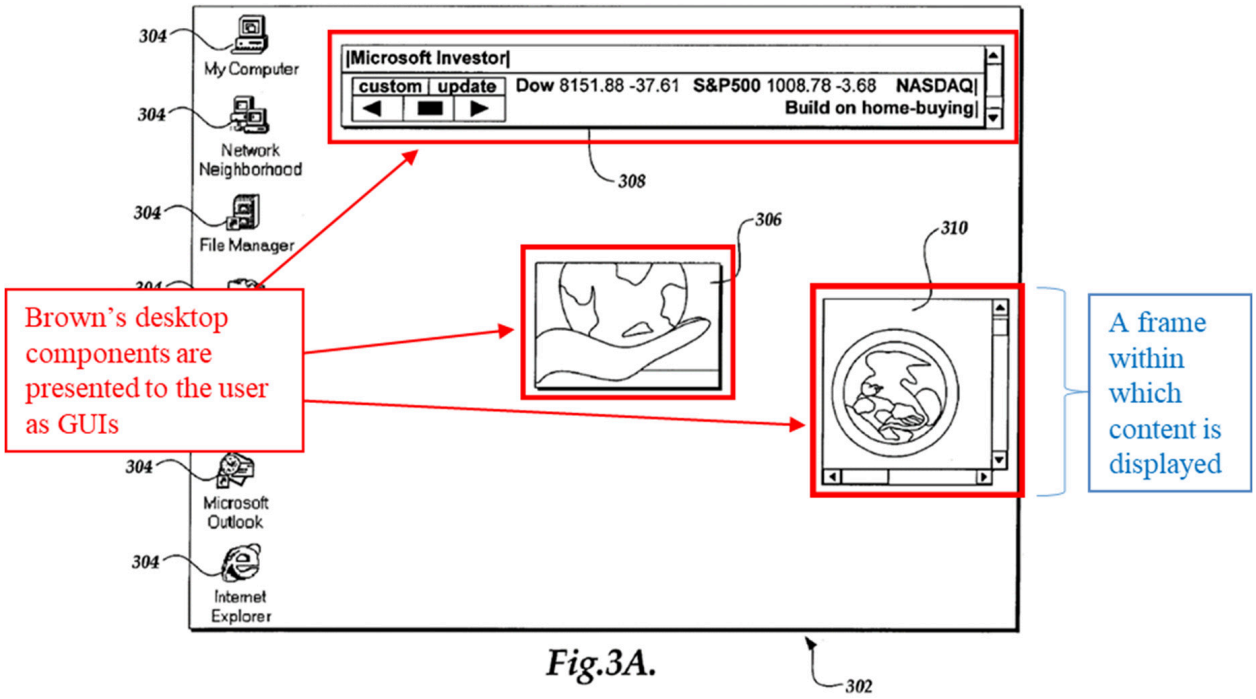
[1.2]

See [1.1] (incorporated here). A POSITA would have understood or found obvious that, once requested from the web server, the client would receive the content included in the request ("**receiving the requested networked information monitor template from the server over the internet … responsive to the transmitted request**"). EX1003, ¶65. Indeed, Wecker describes a "loadable transport" that can "periodically retrieve or receive new and updated script." EX1006, 3:63-67, 4:1-6.

[1.3]

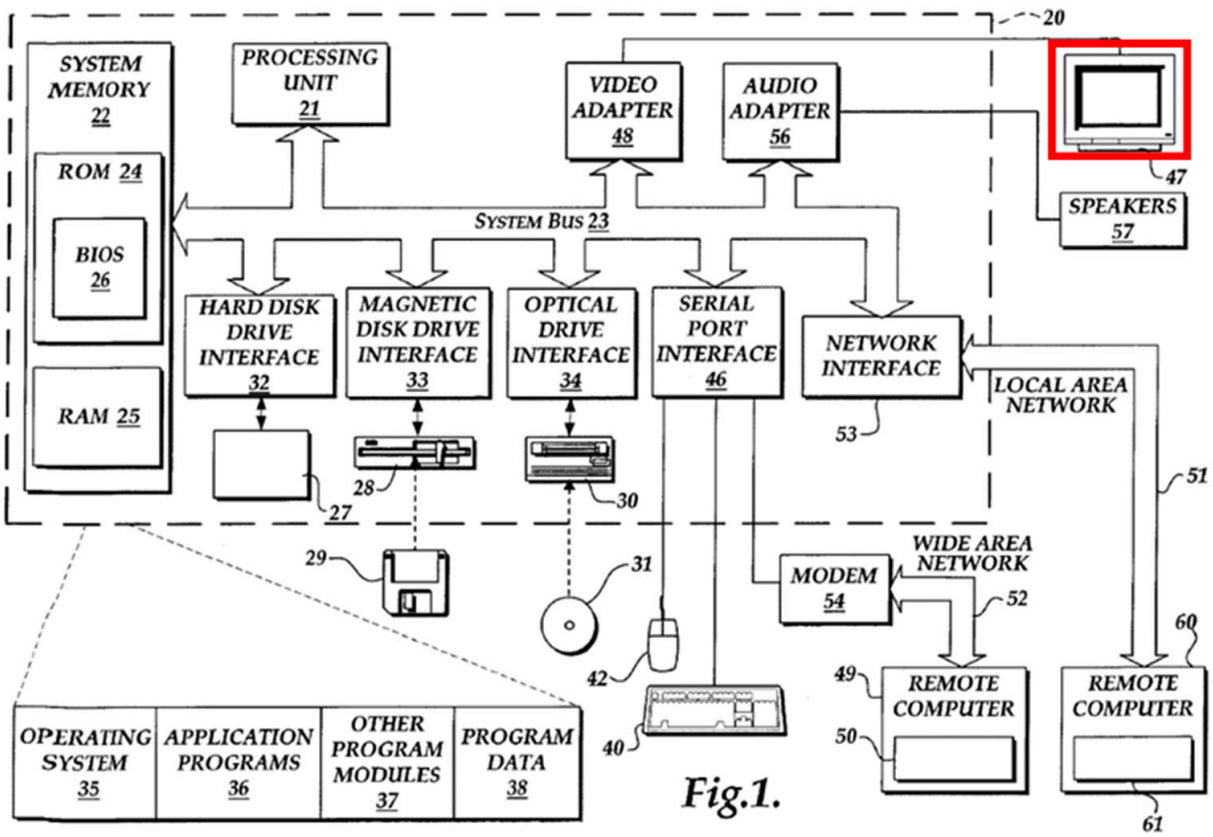
As Dr. Schmidt explains, a POSITA would have recognized that Brown's desktop components are presented as "graphical user interfaces" or "GUIs" as these terms are commonly used in the art to describe such visual components. EX1005, FIG. 3A; EX1003, ¶66. Example desktop components are presented below. Indeed, Brown refers to its composite desktop (and all Windows-based desktops) as a "**GUI** desktop." EX1005, 1:35-38, FIG. 3A. Because Brown's HTML instructions define

the desktop component, a POSITA would have recognized or found obvious that they contain "**a definition of a graphical user interface**."



EX1005, FIG. 3A (annotated)

Brown further describes that desktop components are "implemented as floating frames" that bound the content of the component ("**within which content … is presented**"). EX1005, 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." EX1005, 5:38-39. A POSITA would have recognized or found obvious from this disclosure that a display would be used to **"[present] content on the display of the client computing device**." EX 1003, ¶67.



EX1005, FIG. 1 (annotated)

Brown also describes that Web pages or documents presented in desktop components "[function] similarly to the corresponding Web page **viewed in a browser window**." EX1005, 11:20-28. As Dr. Schmidt explains, 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. EX1003, ¶24, 68. Indeed, Darnell describes an HTML "standard" for web-browsers. EX1011, Page 112.

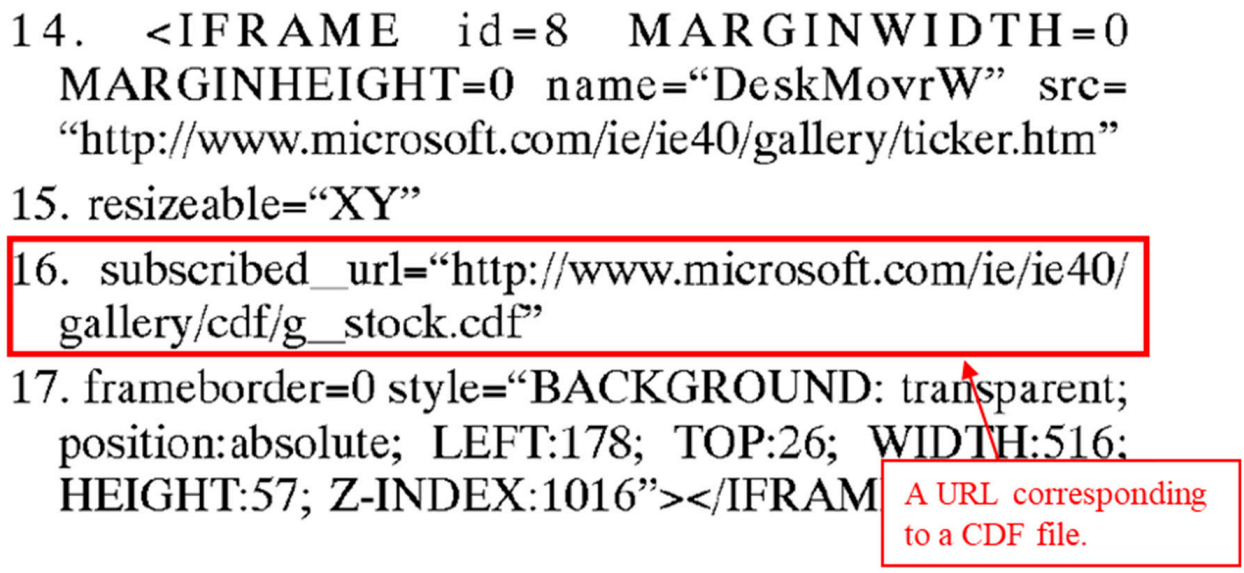
In view of the above disclosures, a POSITA would have understood or found obvious that Brown's content is "**content in a web browser-readable language**."

Indeed, the ’545 Patent frequently refers to HTML as “standard web content” or “a NIM’s content.” EX1001, 4:29-34, 21:55-64, 37:5-7; EX1003, ¶69.

[1.4]

As Dr. Schmidt explains, a POSITA would have recognized the CDF subscription to be “**a first content element … referencing a first network location**” because CDF subscriptions reference a URL, at which, content is available. EX 1003, ¶25, 70. For example, one of Brown’s example desktop components includes “a URL corresponding to a CDF file.” EX1005, 13:4-5. Wecker also describes that “**web content** is also preferably described in a content structure file also known commonly as a channel definition format (CDF) file.” EX1006, 3:3-5.

Brown explains that “CDF files are used to implement ‘subscriptions’ in which **information is regularly retrieved and updated (“served over the network**”) within the active desktop component.” EX1005, 13:4-7; EX 1003, ¶71. An annotated example of Brown’s “HTML instructions” and “CDF subscription” is provided below.



EX1005, 12:1-8 (annotated)

As Dr. Schmidt explains, 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. EX1003, ¶23, 72. Indeed, Darnell provides support and explains that "uniform … 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**." EX1011, 103.

[1.5]

See [1.3] (incorporated here) regarding a "**viewer graphical user interface defined by the networked information monitor**." EX1003, ¶73.

As annotated below in Figure 1, Brown's "computer-based system" includes an electronic "**display**", which Brown refers to as a "monitor." EX1005, 5:38-39. As Dr. Schmidt explains, a POSITA would have recognized or found obvious from this disclosure that a display would be used to present content to a viewer ("**presenting … on the display of the client computing device**"). EX1003, ¶74.

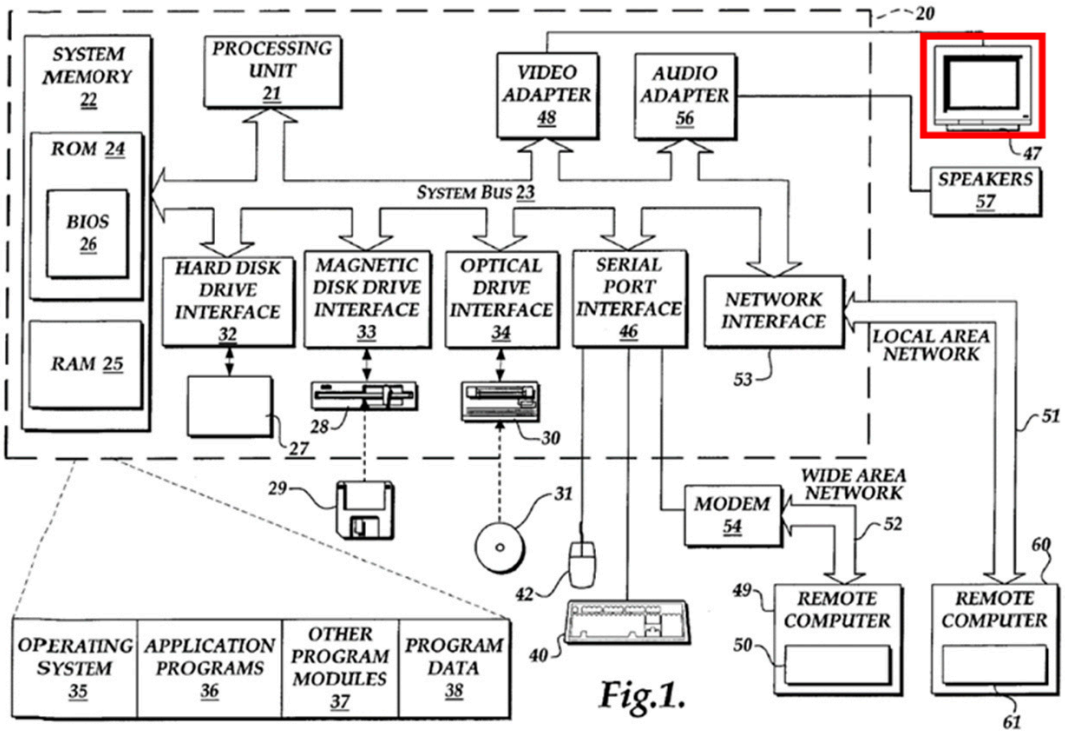
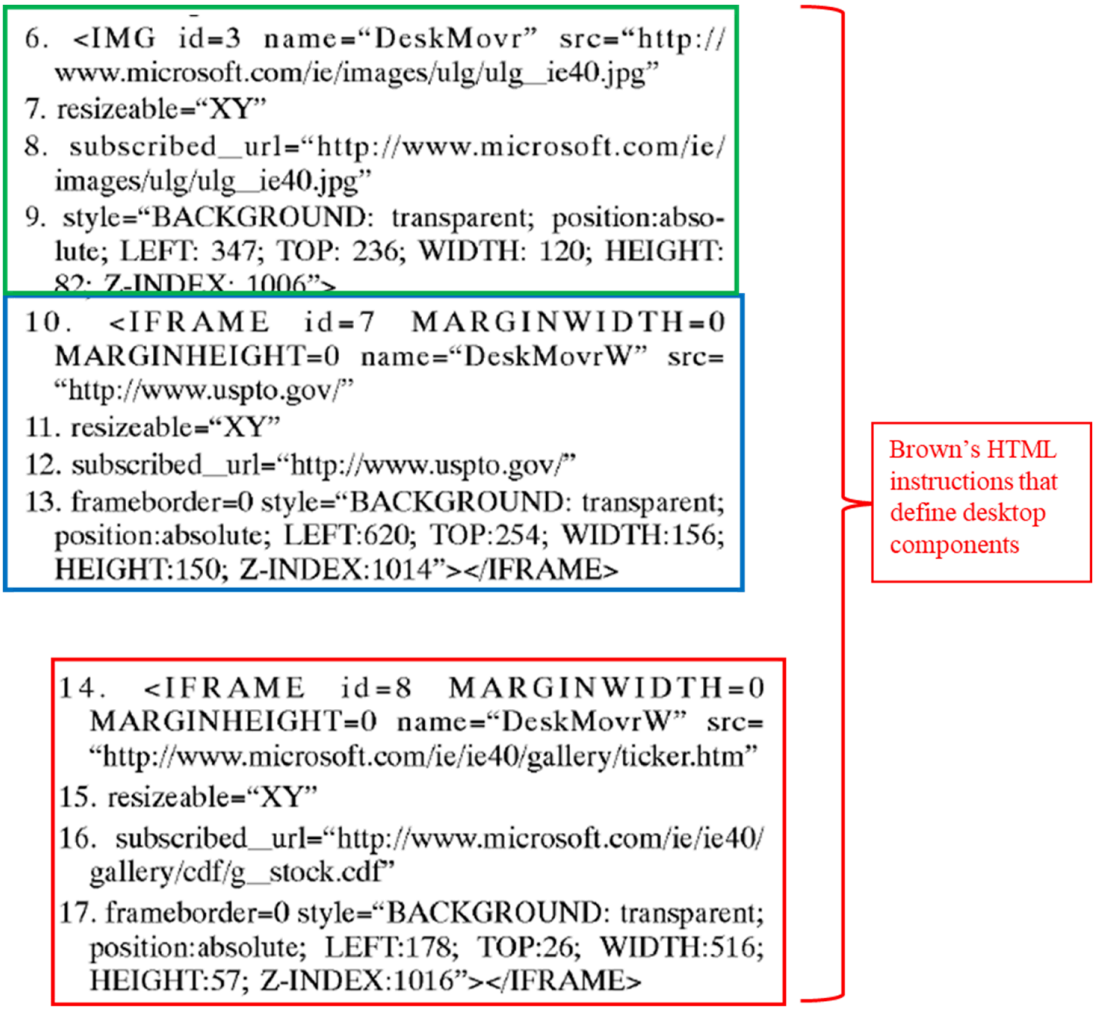


Fig.1.

EX1005, FIG. 1 (annotated)

As Dr. Schmidt explains, a POSITA would have recognized or found obvious that the "**presenting**" of the "**viewer graphical user interface**" is performed "**responsive to instructions included in the requested networked information monitor template**" as Brown's HTML instructions are used to render the desktop component. EX1005, 11:56-67, 12:1-10; EX1003, ¶75. Indeed, as evident from the

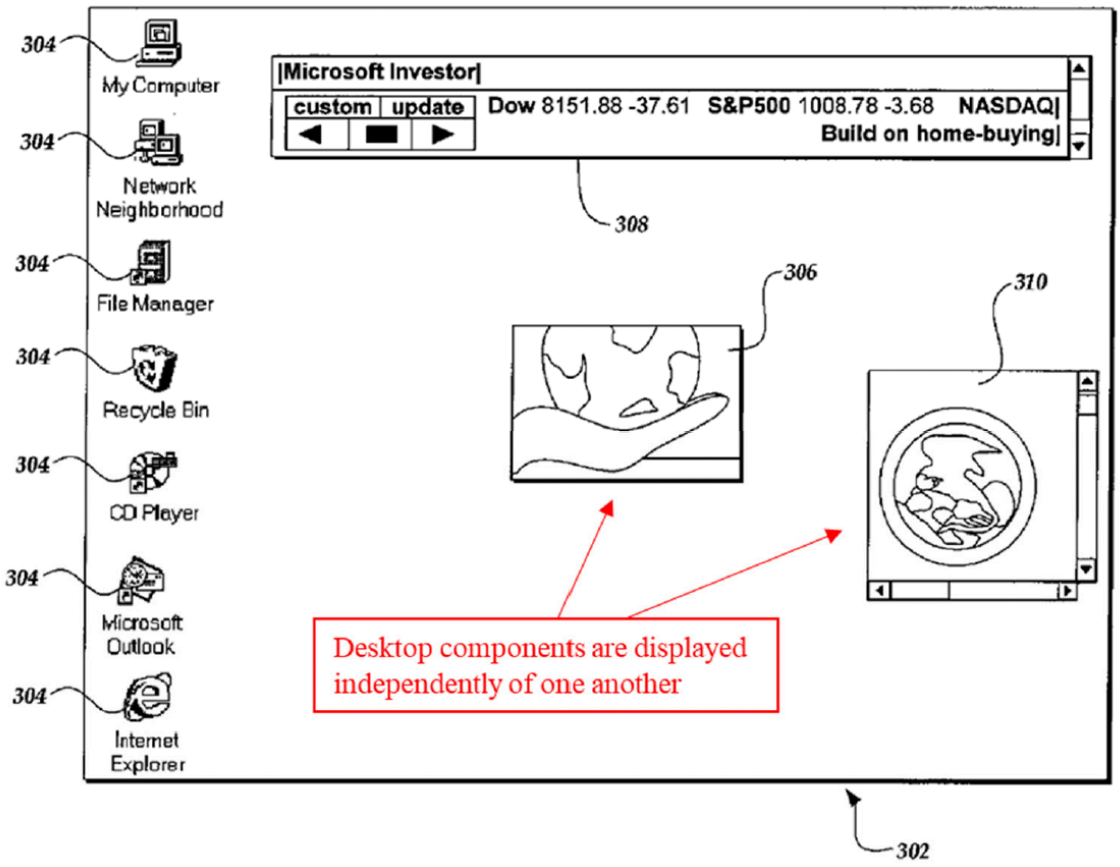
figure below, HTML instructions include "**instructions**" for "**presenting**" the desktop component. EX1005, 11:56-67, 12:1-10.



EX1005, 11:56-67, 12:1-10 (annotated)

As Dr. Schmidt explains, a POSITA would have recognized or found obvious in reviewing Brown's figures that the components are displayed "**separate from and outside of any other graphical user interface**." Indeed, as further illustrated below, Brown describes its "desktop components" as "**distinct** geometric region[s]" ("**separate from and outside**"). EX1005, 7:21-23, FIG. 3A; EX1003, ¶76.

Referencing Brown's FIG. 3A above, it can be seen that desktop components lack "**user controls for specifying the first network location from which the first content element for the networked information monitor is served over the network**." EX1005, FIG. 3A; EX1003, ¶77. To the extent that Patent Owner argues that a desktop component can be created with such controls, Dr. Schmidt explains that "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." EX1003, ¶77.



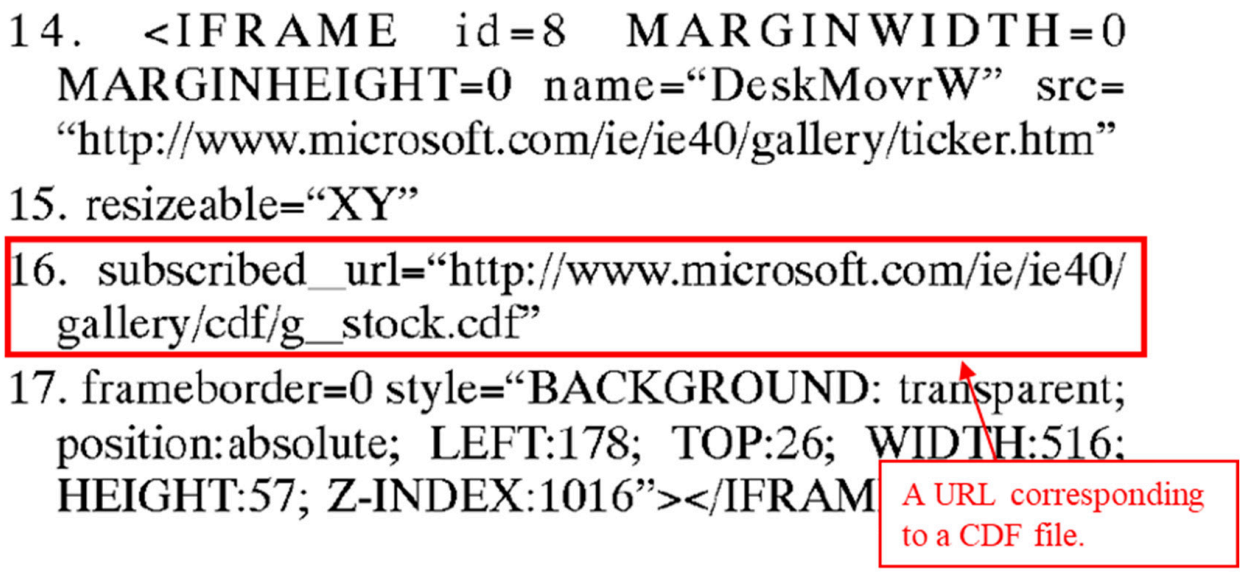
EX1005, FIG. 3A (annotated)

[1.6]

Brown describes that its client device can download content from the Internet. EX1005, 2:4-12; EX1006, 3:8-16, 4:3-13. Indeed, Brown describes that "[a] 'client' computer connected to the Internet can **download ("transmitting … a first content request**") digital information from 'server' computers connected to the Internet." EX1005, 2:4-8; EX1003, ¶78.

As Dr. Schmidt explains, a POSITA would have understood or found obvious that this transmission would include a reference to "**a first network location**

referenced by the definition of the first content element" because Brown describes the use of "uniform resource locators" or "URLs" which are known to correspond to such network locations. EX1005, 3:24-33, 11:43-67, 12:1-43; EX1003, ¶79. For example, one of Brown's example desktop components includes "a URL corresponding to a CDF file." EX1005, 12:1-8, FIG. 3A. An annotated example of this desktop component is provided below.



EX1005, 12:1-8 (annotated)

As Dr. Schmidt explains, 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. EX1003, ¶80. 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**." EX1011, 103.

Wecker also describes that desktop computers can "**periodically retrieve or receive** new and updated script, data and CDF files" ("**transmitting over the network a first content request to the first network location referenced by the definition of the first content element**"). EX1006, 4:3-13; EX1003, ¶81.

[1.7]

See [1.3] (incorporated here). As Dr. Schmidt explains, a POSITA would have understood or found obvious that, once requested from the web server ("**over the network**"), the client would receive the content included in the request ("**in response to the first content request**"). EX1003, ¶82. Indeed, Brown describes that CDF subscriptions "are used to implement "subscriptions" in which information is regularly retrieved ("**receiving … the first content element**") and updated." EX1005, 12:1-8, 13:4-13.

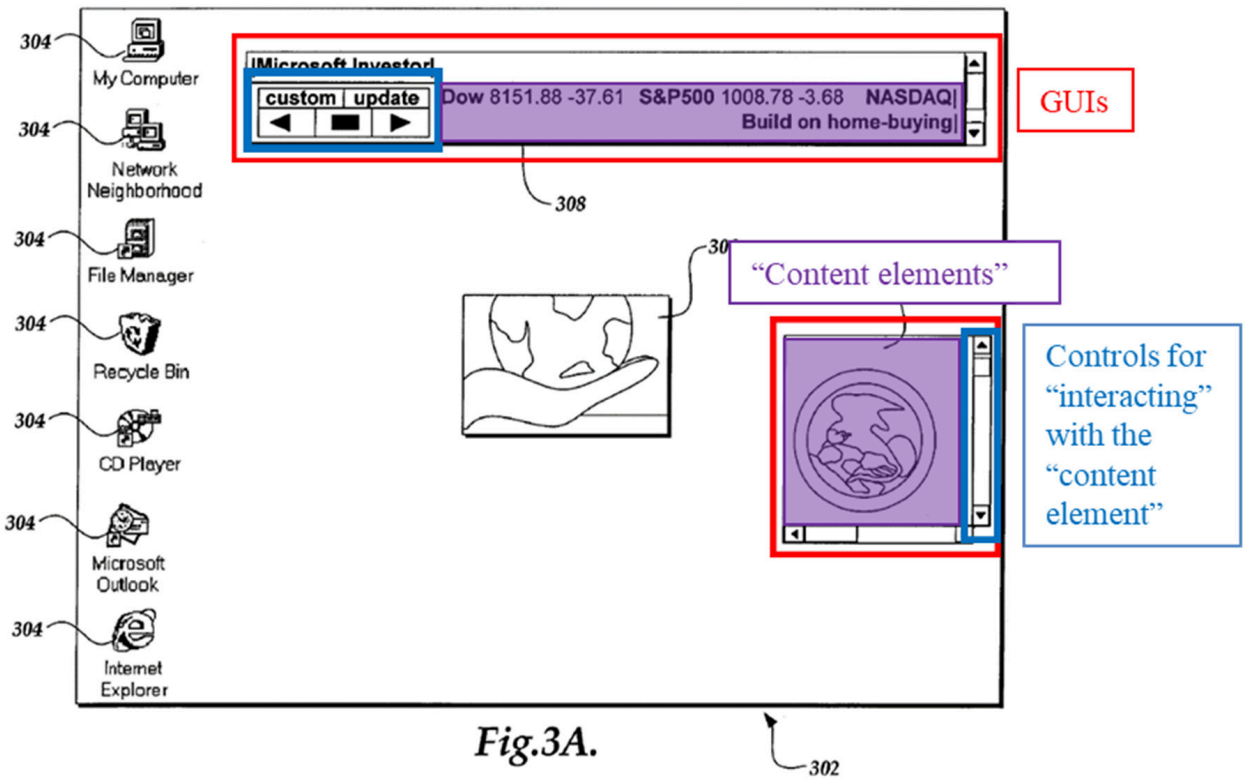
Dr. Schmidt explains that requesting and reception of content would have been obvious to a POSITA as this function was well known in the art. EX 1003, ¶¶83-84. Indeed, Brown describes that "[client] application software executing on client computers typically accept commands from a user and **obtain[s] data and services by sending requests** to server applications running on server computers connected to the Internet." EX1005, 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." *Id.*, 2:36-41.

[1.8]

See [1.4] and [1.5] (incorporated here). Dr. Schmidt explains that a POSITA would have recognized or found obvious that Brown's "**content element[s]**" are **"[presented] … in the viewer graphical user interface defined by the networked information monitor template**." EX1005, FIG. 3A; EX1003, ¶85.

Dr. Schmidt also explains that a POSITA would have recognized or found obvious that a "**viewer graphical user interface and/or … content element**" would define "**all controls for enabling a user to interact with [the] content element**." EX1003, ¶85. As shown below, Brown's desktop components define "**all controls for enabling a user to interact with the first content element**," as all controls presented in the GUI are within the frame. EX 1005, FIG. 3A. Additionally, Brown does not disclose any controls used for content interaction not bounded by the frame of the desktop component. EX1005, 11:43-67, 12:1-43, FIG. 3A. This implementation is consistent with the '545 Patent, which describes that "[t]he space **within the frame** is the **control space** or viewer; visible controls are **distributed within the control space** or viewer." EX1001, 22:34-38.

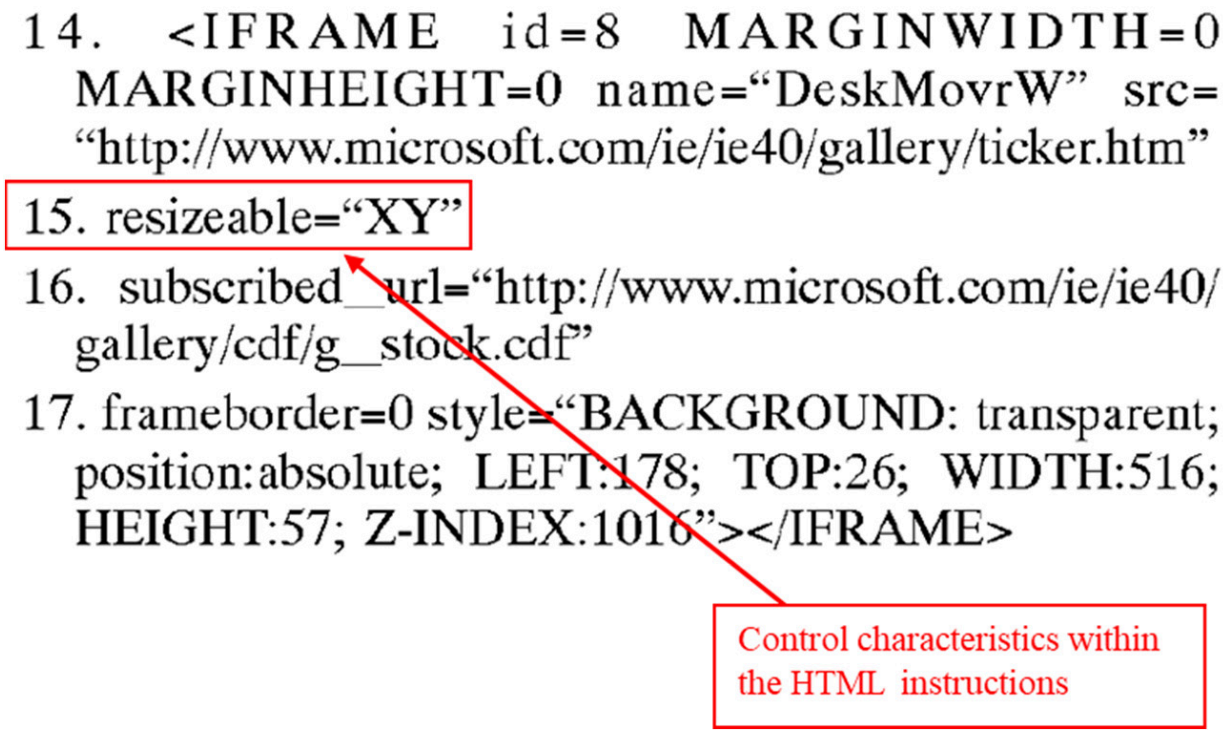


EX1005, FIG. 3A (annotated)

[2]

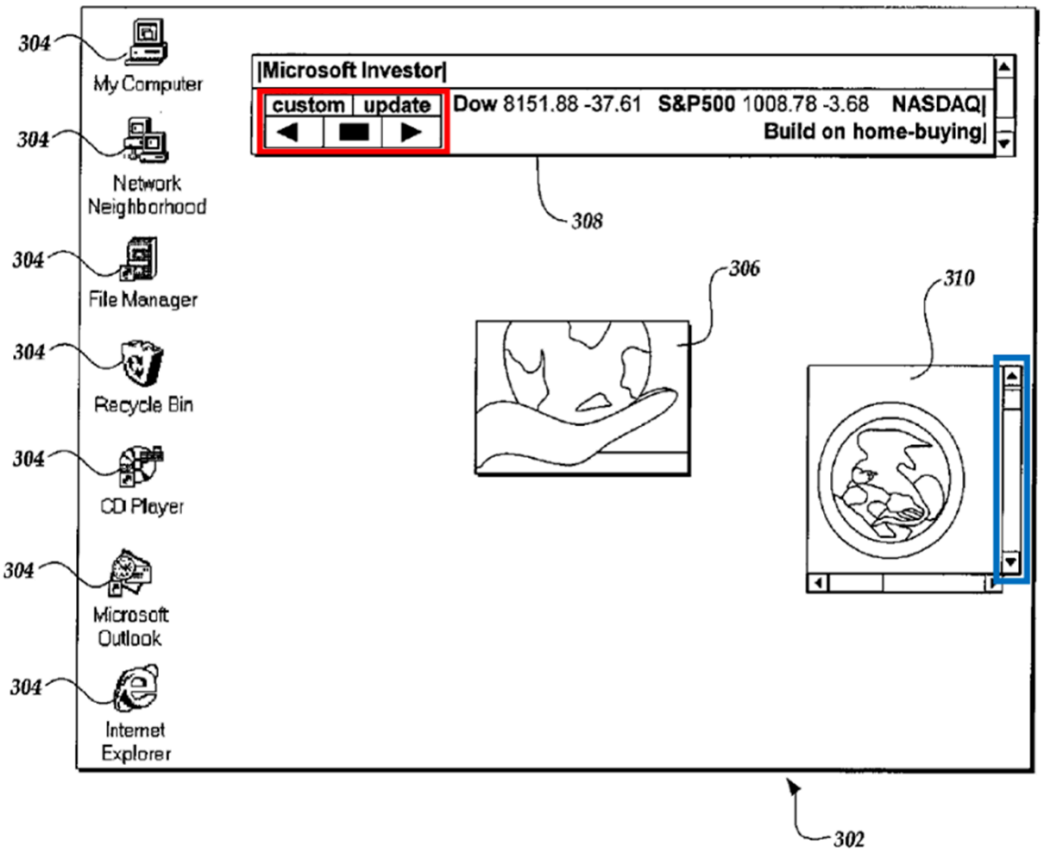
As Dr. Schmidt explains, a POSITA would have recognized or found obvious that desktop components contain multiple features that **"[include] a definition of at least one control effective for controlling an aspect of the viewer graphical user interface."** EX1003, ¶86. Further, a POSITA would have understood or found obvious that "**presenting the viewer graphical user interface**" would include "**presenting the at least one control**" because these controls are defined by the same set of HTML instructions. EX1005, 11:56-67, 12:1-10; EX1003, ¶86.

First, Brown discloses a "windowed component manipulation control 326 and a windowless component manipulation control 328," which allow the user to "move and resize desktop components. EX1005, 7:59-61; EX1003, ¶87. An example of a resizable desktop component is presented below in the annotated set of HTML instructions.



EX1005, 12:1-8 (annotated)

Second, Brown's Figure 3A depicts multiple forms of controls within desktop components. EX1005, FIG. 3A; EX1003, ¶88. As noted in the annotated figure, Brown's desktop components can be outfitted with scroll bars. EX1005, 9:13-27.



EX1005, FIG. 3A (annotated)

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

Scroll bars can be implemented for desktop components.

EX1005, 9:13-27 (annotated)

Third, Brown additionally directs the reader to "Jones," a co-pending application directed to "managing position and size for a desktop component." EX1005, 13:39-44; EX1010, Cover. As Dr. Schmidt explains, a POSITA would have recognized or found obvious that Jones' techniques of resizing and repositioning desktop components would have been part of a POSITA's general knowledge and applicable to Brown, which refers the reader to Jones. EX1003, ¶89.

[3]

See [2] (incorporated here). As Dr. Schmidt explains, a POSITA would have recognized or found obvious from reviewing the controls discussed in [2] that the "**aspect**" could be "**the location at which the user interface is rendered on a display device**." EX1003, ¶90. For example, Brown discusses allowing the user to "move and resize desktop components. EX1005, 7:59-61. This disclosure within Brown is consistent with Jones ("such as for moving the desktop component on the desktop"). EX1010, 5:8-14.

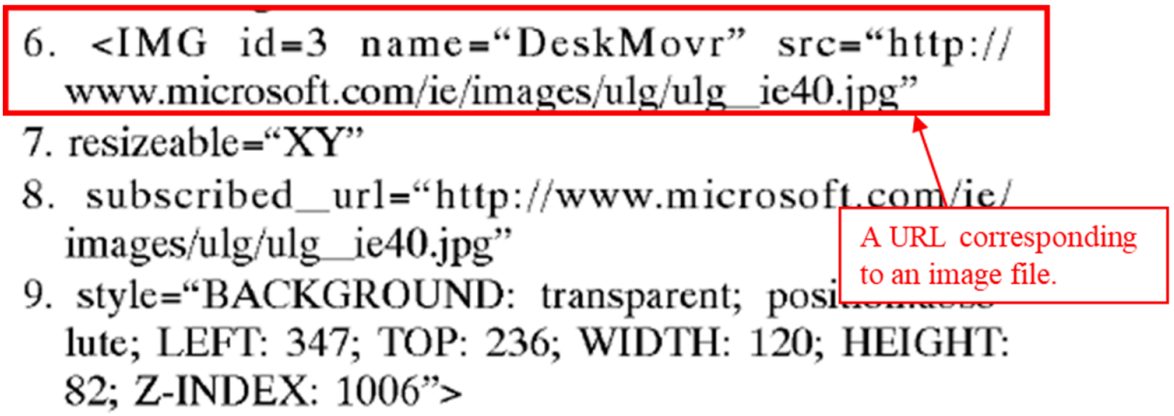
[4]

See [2] (incorporated here). As Dr. Schmidt explains, a POSITA would have recognized or found obvious from reviewing the controls discussed in [2] that the "**aspect**" could be "**the size of the user interface when presented on the display of the client computing device**." EX1003, ¶91. For example, Brown discusses

allowing the user to "move and resize desktop components. EX1005, 7:59-61. This disclosure within Brown is consistent with Jones. EX1010, 5:1-7.

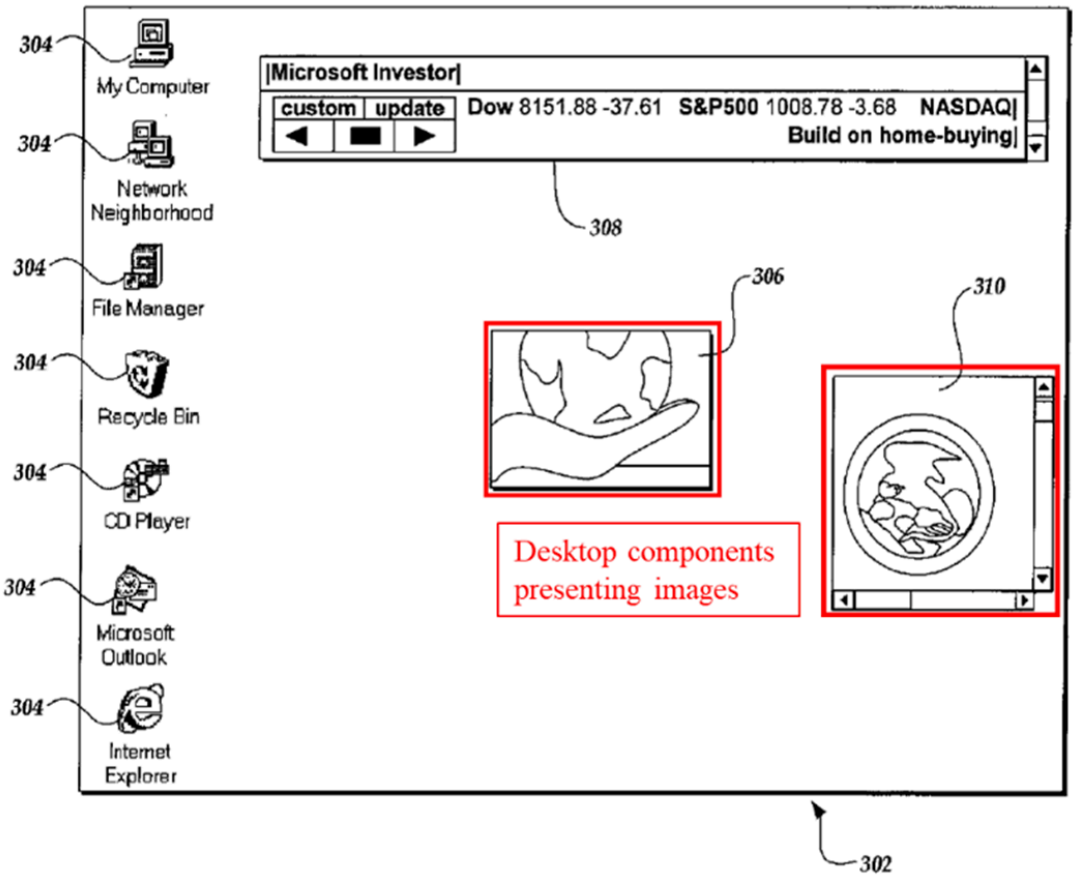
[6]

Brown describes that HTML documents can contain "graphics … and video clips" (both examples of an "**image**"). EX1005, 2:20-21. As Dr. Schmidt explains, a POSITA would have understood or found obvious that these images are part of the "**definition of the viewer graphical user interface defined by the networked information monitor template**" and that "**presenting the viewer graphical user interface**" would include "**presenting the image included in the definition as part of the viewer graphical user interface**" as these images are within Brown's HTML instructions. EX1005, 11:51-59, 12:44-50, FIG. 3A; EX1003, ¶92. Presented below are figures that demonstrate images in Brown's HTML instructions and desktop components.



EX1005, 11:51-59 (annotated)

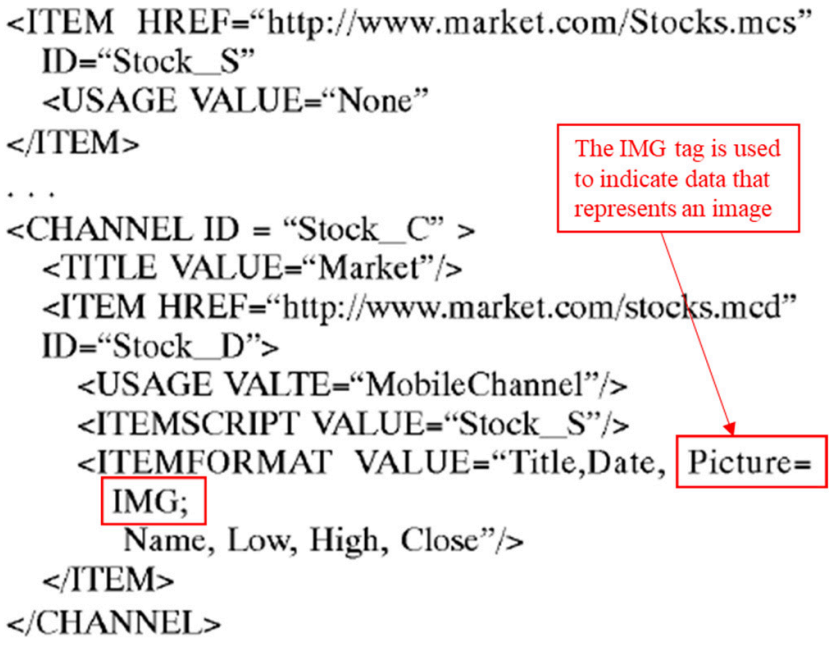
Additionally, Brown describes the use of "webpage desktop components" which "[function] similarly to the corresponding Web page viewed in a browser window." EX1005, 11:21-28, 11:59-67, 13:14-21, FIG. 3A. An example webpage desktop component (310) is illustrated below, which includes an image within the GUI.



EX1005, FIG. 3A (annotated)

Wecker also describes that **images** can be contained within a CDF subscription. EX1006, 16:25-67. Wecker describes that "IMG indicates the field that

represents an **image**, such as JPG or GIF." EX1006, 16:64-65; EX1003, ¶93. An annotated example of a "stocks" script file according to Wecker is provided below.



EX1006, 16:44-60 (annotated)

[7]

See [6] (incorporated here). As Dr. Schmidt explains, a POSITA would have recognized or found obvious that a "Web page," presented in a webpage desktop component, would include a combination of "**content element[s]**" and "**images**," such that at least "**the first content element [is presented] in association with the image**." EX1005, FIG. 3A; EX1003, ¶94; [6], *supra*. Indeed, the URL referenced by Brown's webpage desktop component includes an image, and as Dr. Schmidt explains, a POSITA would have recognized or found obvious that this URL would

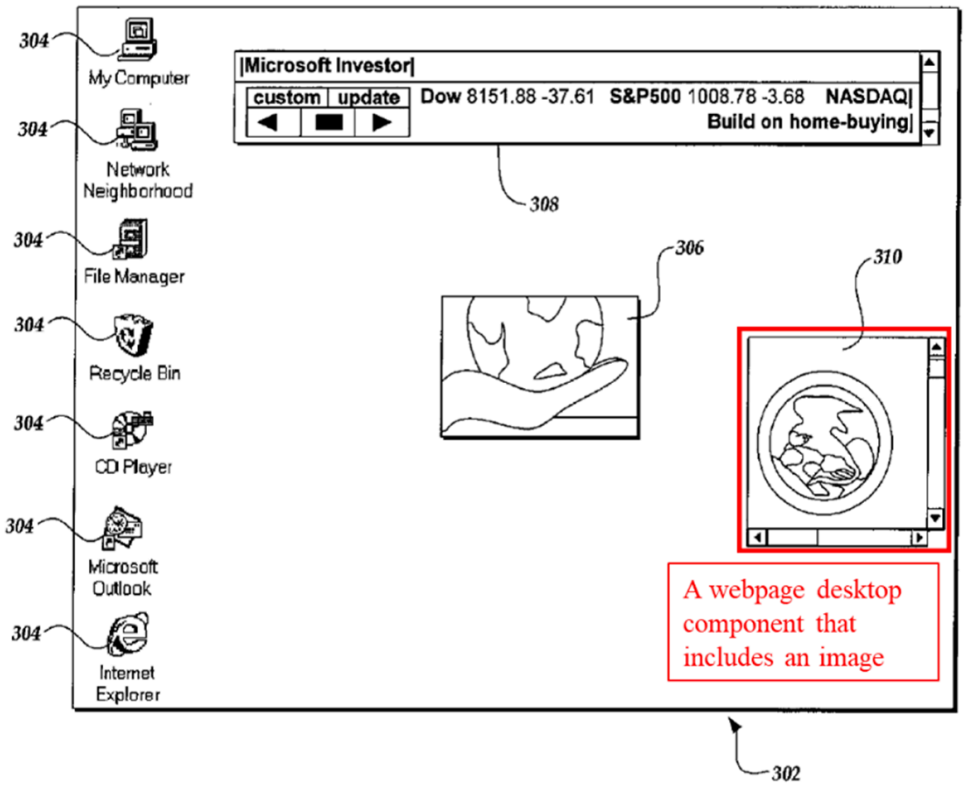
include additional non-image content as it was a website known to host such content.

Id.

```
10. <IFRAME id=7 MARGINWIDTH=0
    MARGINHEIGHT=0 name="DeskMovrW" src=
    "http://www.uspto.gov/"
11. resizeable="XY"
12. subscribed_url="http://www.uspto.gov/"
13. frameborder=0 style="BACKGROUND: transparent;
    position:absolute; LEFT:620; TOP:254; WIDTH:156;
    HEIGHT:150; Z-INDEX:1014"></IFRAME>
```

A URL corresponding to a web page

EX1005, 11:59-67 (annotated)



EX1005, FIG. 3A (annotated)

In addition to the above, Dr. Schmidt explains that a POSITA would have recognized or found obvious that Brown obviates this limitation in multiple ways. EX1003, ¶95. For example, a POSITA would have recognized or found obvious that HTML could create a "background" using an "**image**" presented behind at least "**the first content element**," such that both are presented "**in association with**" each other. EX1003, ¶¶95-96.

[8]

See [7] (incorporated here). As Dr. Schmidt explains, a POSITA would have recognized or found obvious that the use of a "background" would result in "**presenting the received the first content element at least in part within the image**" as the image of a background is displayed behind any content. EX1003, ¶97.

[9]

See [1.1], [2], [3], and [4] (incorporated here). As Dr. Schmidt explains, a POSITA would have understood or found obvious that modifying an "**aspect**" of the GUI would also modify the "**appearance**." EX1003, ¶98.

[10]

Brown describes that "[an] HTML document can contain text ("**textual content**"), graphics ("**graphics content**" and "**still image content**"), audio clips ("**audio content**"), and video clips ("**video content**"), as well as metadata or commands providing formatting information." EX1005, 2:20-23. As Dr. Schmidt

explains, a POSITA would have recognized or found obvious that any of the above content could be "**interactive content**," as they are displayed in a GUI with controls. EX1003, ¶99; [2], *supra*.

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**." EX1005, 1:24-34; EX1003, ¶100. As an example of content that can change over time, Brown presents a desktop component directed to stock information.

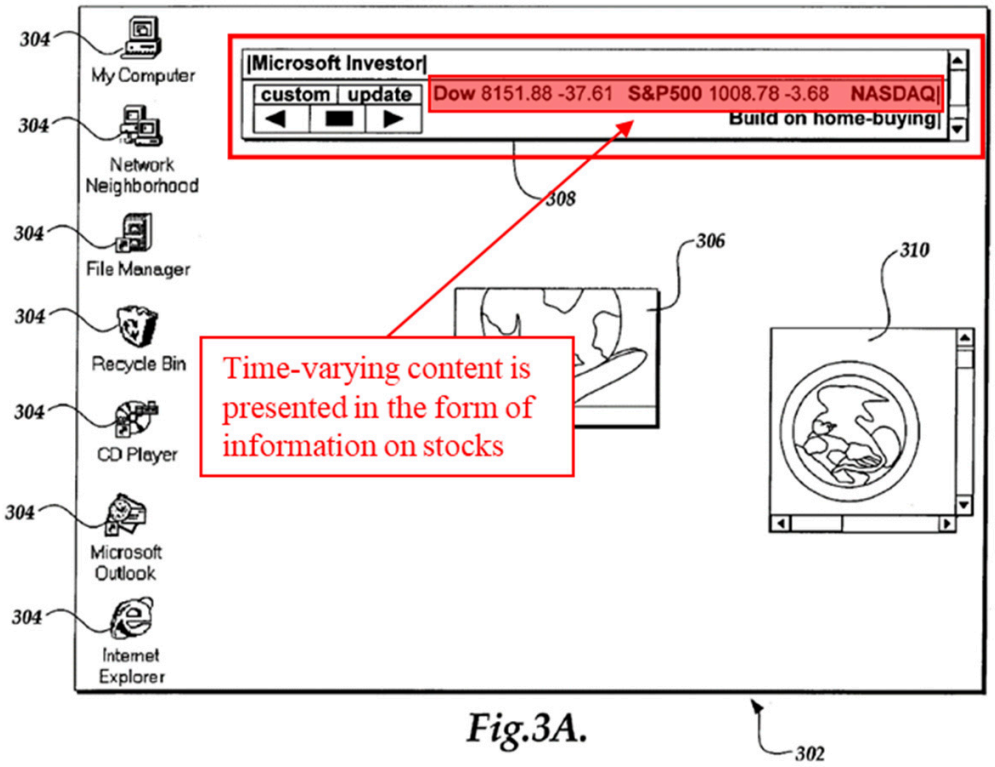


Fig.3A.

EX1005, FIG. 3A (annotated)

In view of the above disclosures, a POSITA would have understood or found obvious that Brown's content is "**periodically [requested] … from the first network location referenced by the definition the first content element for the networked information monitor template"** and **"[presented] … within the viewer graphical user interface in an ongoing manner**." EX1003, ¶101; [1.6]-[1.8], *supra*. Further, because this content is referenced by a URL in the HTML instructions that define the desktop component, the desktop component is "**configured**" to perform these operations. *Id.*

Dr. Schmidt also explains that a POSITA would have 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. EX1003, ¶102; [7], *supra*.

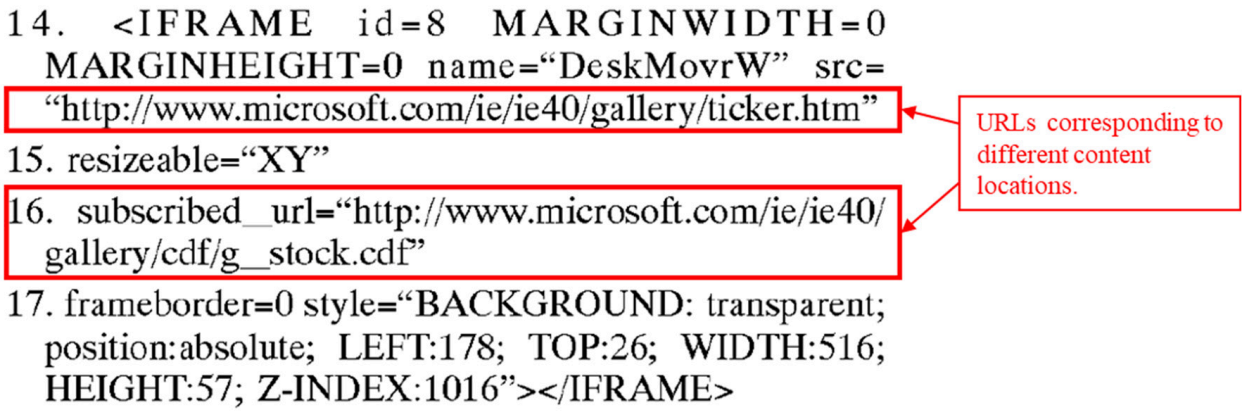
[14]

Both Brown and Wecker describe operating over the "internet." EX1005, 13:1-4; EX1006, 3:1-7; EX1003, ¶103.

Further, Brown describes "HyperText Transfer Protocol (HTTP)," which a POSITA would have recognized or found obvious to be a form of TCP/IP that operates over the internet. EX1005, 2:29-33; EX1003, ¶22, 104. Indeed, Darnell discloses that "HTTP [hypertext transfer protocol] operates **over the Internet**, where communication occurs between computers via TCP/IP." EX1011, Page 88.

[15.1]

See [1.4] (incorporated here). As Dr. Schmidt explains, a POSITA would have recognized from reviewing Brown's HTML instructions and figures that multiple (e.g., at least a "**second**") "**content elements**" each referencing different "**network locations**" could be presented with desktop components ("**a definition of the second content element for the networked information template … referencing a second network location**"). EX1005, 12:1-8, FIG. 3A; EX1003, ¶105, see *In re Harza*, 274 F.2d 669, 671 (CCPA 1960).



EX1005, 12:1-8 (annotated)

[15.2]

See [1.6] (incorporated here). Brown-Wecker renders obvious multiple content requests and network locations because Brown discloses multiple URLs, each referencing a network location. EX1008, FIG. 18; EX1003, ¶106; *see In re Harza*, 274 F.2d at 671. A POSITA also would have understood or found obvious that, in order to retrieve content distinct from the first content, a second content request is transmitted. EX1003, ¶106.

[15.3]

See [1.7] (incorporated here). Dr. Schmidt explains that a POSITA also would have understood or found obvious that, once the request was transmitted, the client would "**receive**" the requested "**content element**" as this was well known in the art. EX1003, ¶107; see *In re Harza*, 274 F.2d at 671.

[15.4]

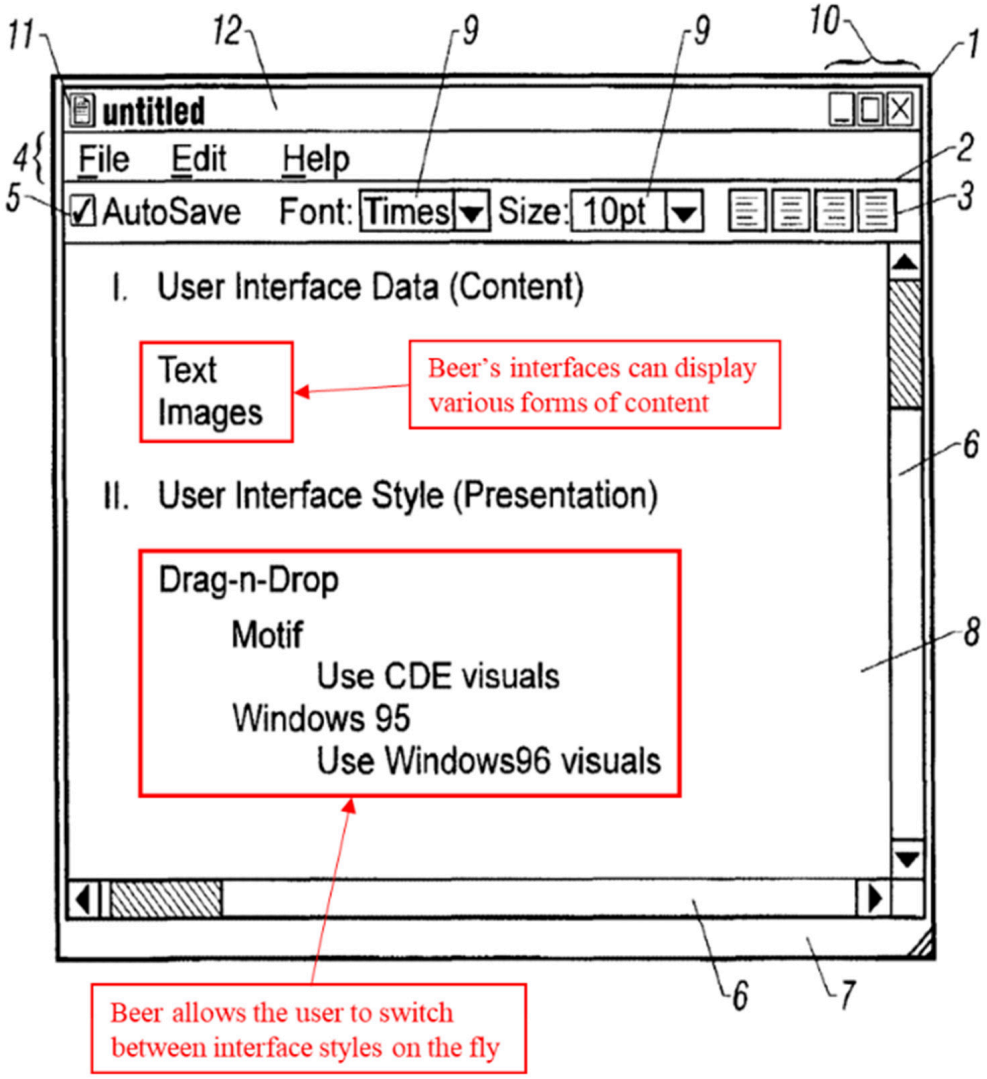
See [1.5] (incorporated here) regarding "**presenting the received the second content element in the viewer graphical user interface defined by the networked information monitor template**." *See* [1.8] (incorporated here) regarding "**the definition of the viewer graphical user interface … [defining] all controls for enabling a user to interact with the second content element through the viewer graphical user interface**." EX1003, ¶108; see *In re Harza*, 274 F.2d at 671.

B. [GROUND 1B] – Claims 5, 11-12, and 16-21 are rendered obvious by Brown and Wecker in view of Beer

1. Overview of Beer

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." EX1007, 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 redisplays the changed user

interface for response to events and for display of content." *Id.*, Abstract, 14:1-22; EX1003, ¶¶109-110. An annotated interface according to Beer is provided below.

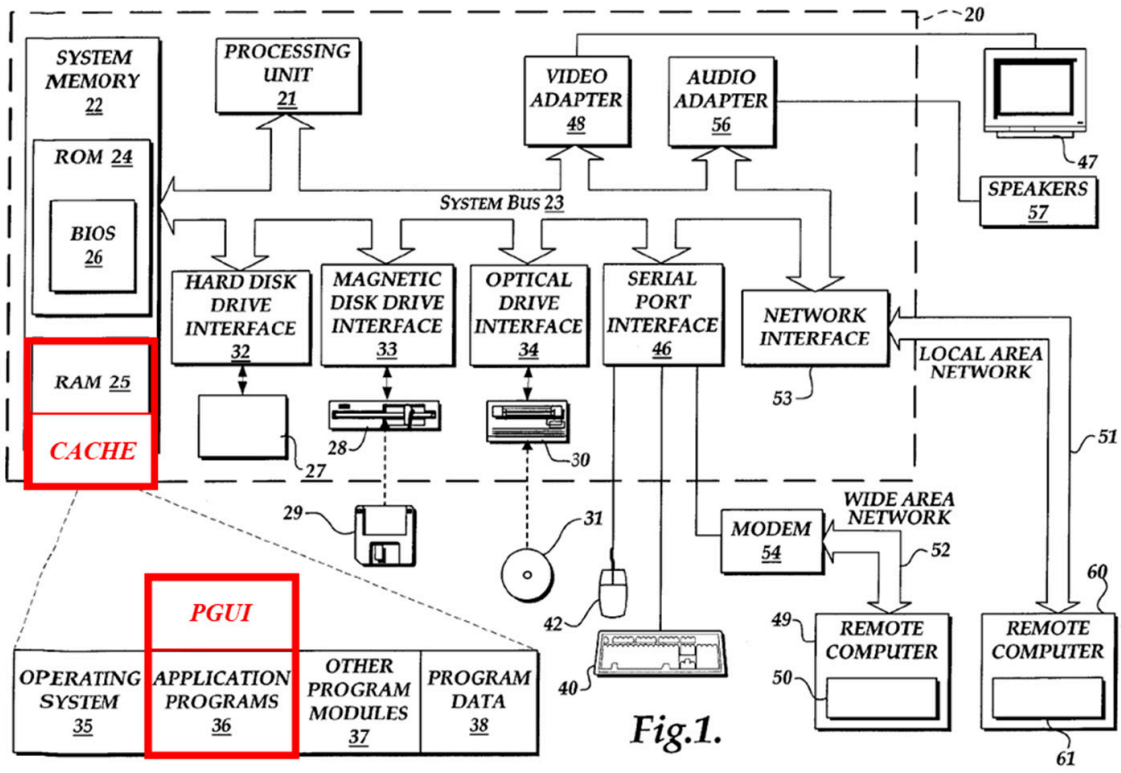


EX1007, FIG. 1 (annotated)

2. Combination of Brown, Wecker, and Beer

A POSITA would have found it obvious to combine Brown, Wecker, and Beer ("Brown-Wecker-Beer combination"). EX1003, ¶111. Among other things, Brown,

Wecker, and Beer are generally directed to "accessing and viewing internet content." EX1005, Abstract; EX1006, Abstract; EX1007, Abstract, 3:50-55, 13:65-67, 14:1-22. Brown and Beer also describe content in a GUI defined by a style template (Brown, HTML instructions; Beer, User Interface Language). EX1005, 6:34-36, 7:21-22, 11:1-67, 12:1-67, 13:1-54; EX1007, 3:41-45. Annotated figures of the Brown-Wecker-Beer combination are presented below.



EX1005, FIG. 1 (annotated)

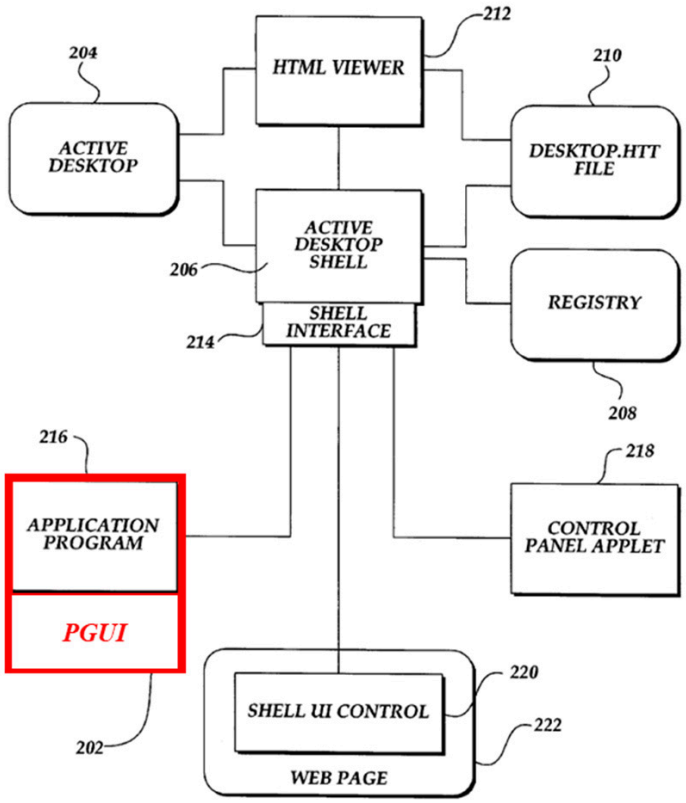


Fig.2.

EX1005, FIG. 2 (annotated)

As Dr. Schmidt explains, a POSITA would have been motivated to combine Brown, Wecker, and Beer for various reasons. EX1003, ¶112.

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. EX1005, 12:61-62; EX1007, 3:41-45; EX1003, ¶113.

Second, a POSITA would have understood or found obvious that the same content may be displayed in multiple styles across operating systems. EX1003, ¶114. 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." EX1007, 3:16-33. As Dr. Schmidt explains, 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. EX1003, ¶118.

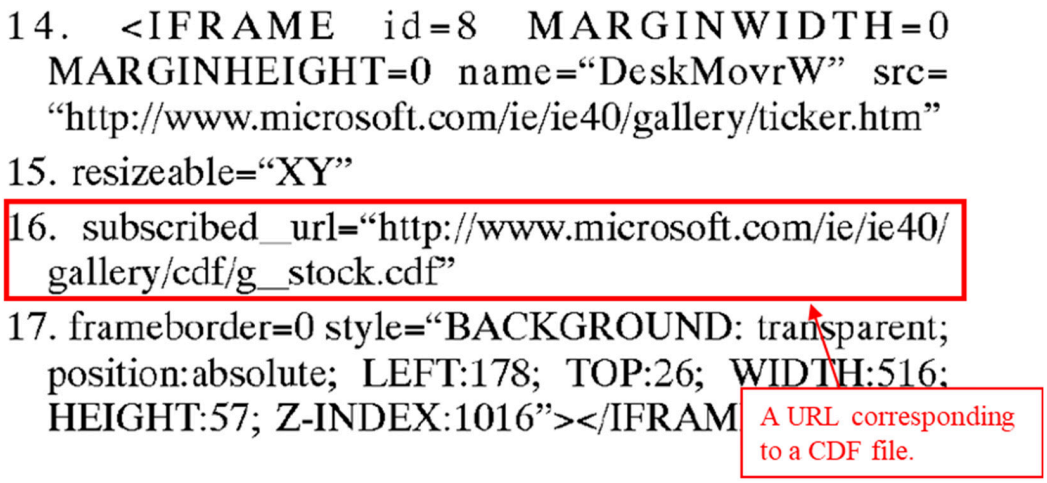
A POSITA would have been prompted to pursue this implementation because doing so is merely the application of known techniques (*e.g.*, Beer's PGUI parser) to a known structure (*e.g.*, Brown's client computer, and/or Wecker's portable subscriber unit) to yield predictable results. EX1003, ¶115; *see KSR*, 550 U.S. at 417.

3. Analysis

[5]

Wecker describes that CDF is "based on the **Extensible Markup Language (XML)**." EX1006, 10:57-62. As Dr. Schmidt explains, a POSITA would have recognized that, since the CDF subscription is contained within Brown's HTML instructions, these instructions "**[include] instructions in extensible markup**

language (XML) format." EX1003, ¶116. Figures presenting HTML instructions and an XML CDF file are provided below.



EX1005, 12:1-8 (annotated)

TABLE 1

```
—       <!-Declare item scripts -->
        <ITEM HREF="Http://www.microsoft.com/test/script1.mcs", ID="IS1">
            <USAGE VALUE="None"/>
K       </ITEM>
        <ITEM HREF="Http://www.microsoft.com/test/script2.mcs", ID="IS2">
            <USAGE VALUE="None"/>
        </ITEM>
—       < -- Declare channel scripts -->
        <ITEM HREF="Http://www.microsoft.com/test/script3.mcs" ID="CS1">
            <USAGE VALUE="None"/>
J       </ITEM>
        <ITEM HREF="Http://www.microsoft.com/test/script4.mcs" ID="CS2">
            <USAGE VALUE="None"/>
—       </ITEM>
    A   <CHANNEL HREF = "mctp://www.microsoft.com/test/test.cdf", ID="test"
    C   BASE = "http://www.microsoft.com/test/
    B   SELF = "http://www.microsoft.com/test.cdf/>
            <ITTLE VALUE = "Test Channel" />
            <!-IS1 is the general item script to use within the channel -->
            <ITEMSCRIPT VALUE-"IS1"/>
            <!-CS1 is the general channel script to use within the channel -->
            <CHANSCRIPT VALUE = "CS1"/>
    E       <ITEM HREF = "Http://www.microsoft.com/test/AD1.mad" ID="AD1">
                <USAGE VALUE = "MobileAd"/>
            <ITEM>
            <ITEM HREF = "Http://www.microsoft.com/test/AD2.mad" ID-"AD2">
                <USAGE VALUE = "MobileAd"/>
            <ITEM>
    G       <CHANNEL ID = "C1" DEFAULTPREF = "ON">
                <ITTLE VALUE = "Test Subchannel 1" />
                -This subchannel is also rendered by the general channel script
                CS1 -->
                <ITEM HREF="http://www.microsoft.com/test/item-a.mcd" ID="ITA">
                <!This item is rendered by the item-specific IS2 script -->
                    <ITEMSCRIPT VALUE="IS2"/>
                    <USAGE VALUE="MOBILECHANNEL"/>
                </ITEM>
                . . . . . .
            </CHANNEL>
    H       <CHANNEL ID = "C2" DEFAULTPREF = "OFF">
                <ITTLE VALUE = "Test Subchannel 2" />
                -This subchannel is rendered by the channel-specific script CS2
        -->
                    <CHANSCRIPT VALUE = "CS2" />
                    <ITEM HREF="http://www.microsoft.com/test/item-b.mcd"
                    ID="ITB">
                    <!-This item is also rendered by the general IS1 item
                    script -->
                    <USAGE VALUE="MOBILECHANNEL"/>
            </ITEM>
        </CHANNEL>
        </CHANNEL>
```

An example set of XML instructions in a CDF file.

EX1006, Col 11 (annotated)

Additionally, as Dr. Schmidt explains, a POSITA would have understood or found obvious that the use of XML would involve "**parsing the definition of the**

viewer graphical user interface" as the use of XML typically involved the use of a compatible parser. EX1003, ¶¶117-118. Beer provides an example of one such parser, the PGUI. EX1007, Abstract, 14:1-22; Section III.B.3, *supra*; [11], *infra*.

[11]

As an initial matter, Dr. Schmidt explains that a POSITA would have recognized or found obvious that a "parser," or equivalent program module, was known to perform various functions with a template. For instance, Brown's "HTML viewer" and "desktop shell" perform operations for "**present[ing] the viewer graphical user interface," "generat[ing] the request for the content that is transmitted to the first network location referenced by the definition of the first content element,"** and "**present[ing] the first content element within the viewer graphical user interface**." EX1005, 6:9-48, 14:8-12; EX 1003, ¶119. Likewise, a POSITA would have recognized or found obvious that Wecker's "loadable transport" and "script interpreter" also perform similar functions. EX1006, 3:58-67, 4:1-13, 4:43-52; EX1003, ¶119.

Additionally, a POSITA would have recognized that each of these program modules could be implemented as an "**application**," as this is a common type of program module. EX1003, ¶121. Additionally, a POSITA would have recognized or found obvious that Beer's "PGUI resident" is an example of such an "**application**." EX1007, 14:3-5; EX1003, ¶120.

To the extent that Patent Owner argues that the "parser application" must be a single program module, Dr. Schmidt explains that a POSITA would have also recognized or found obvious that a single program module could effectuate these functions. EX1003, ¶121. For example, Beer discusses the use of a "PGUI" that "retrieves [a] corresponding **user interface definition** from a storage device … **parses** the **user interface definition** and creates each part of the application **user interface** … retrieves a defined visual style object … renders the appearance of **each part of the user interface** in accordance with the defined visual style … [and] displays the user interface rendered in the specified style for **response to events and for display of content**" (all collectively "**present[ing] the viewer graphical user interface [and at least a] first content element**" and "**generat[ing] the request for the content**"). EX1007, 14:3-23. Dr. Schmidt also explains that, based on the same disclosure in Beer, a POSITA would have recognized or found obvious that the PGUI is "**separate from the networked information monitor template**." EX1003, ¶121.[12]

Beer describes that, in displaying a User Interface Language, "a UIL user interface description file can use the **request feature** to load user interface components **which are described with a different UIL**." EX1007, 14:25-36. Dr. Schmidt explains that, in order for this "request" process to occur, one UIL would need to "**communicate**" with the other, and that a POSITA would have recognized

or found obvious that communications between user interfaces would be possible ("**networked information monitor[s]**," and the associated GUIs). *Id.*, EX1003, ¶122.

[16pre]

To the extent the preamble is limiting, Brown-Wecker-Beer renders [16pre] obvious. EX1003, ¶123. As Dr. Schmidt explains, a POSITA would have recognized that the Brown-Wecker-Beer combination (and the Brown-Wecker combination) is also a "**computer-implemented method of obtaining and displaying content obtained over a network to a user 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." EX1005, Abstract, Claim 19; EX1003, ¶123. 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.

As discussed above, Brown's "computer" includes "**electronic storage, a display, and one or more processors configured to execute one or more computer program modules**"). See [1.pre], supra; EX1003, ¶124.

[16.1]-[16.5]

The Brown-Wecker-Beer combination renders these claims obvious in the same manner as explained above for the corresponding claims listed in the following table. EX1003, ¶¶125-129.

Claim	Corresponding Claim
[16.1]	[11]
[16.2]	[1.6], [11]
[16.3]	[1.7], [11]
[16.4]	[1.5], [11]
[16.5]	[1.8], [11]

[17]

See [11] (incorporated here). Beer describes that "[t]he PGUI displays the user interface rendered in the specified style for response to events ("**determining that the first element content modifies the networked information monitor template**") and for display of content." EX1007, 14:3-22. Beer also describes that an example "response" to an "event" can be "**redraw[ing]** the user interface ("**modifying the networked information monitor template prior to the step of presenting the graphical user interface**")." EX1007, 13:22-24; EX1003, ¶130.

Additionally, Dr. Schmidt explains that a POSITA would have understood or found obvious that time-varying content would drive regular (e.g., continual) modification to the GUI. EX1003, ¶131.

[18]

As Dr. Schmidt explains, the use of icons was well known in the art as of the Critical Date, and a POSITA would have recognized or found obvious that selection of an icon would effectuate certain functions of a parser or similar computer program module. EX1003, ¶132. Indeed, Brown describes that an "icon corresponds to a program file, a program, or a resource **that is invoked** when a user selects and activates the icon ("**transmitting operation**" and/or "**presenting … operation**")." EX1005, 7:18-20. A POSITA would have recognized or found obvious that these "program files" could be HTML instructions associated with desktop components ("**an icon representing networked information monitor associated with the networked information monitor template**"), or other similar templates, as Brown describes these templates as "**a file** corresponding to the composite desktop." EX1005, 3:4; EX1003, ¶133. Additionally, a POSITA would have recognized that any of the previously discussed computer program modules could perform the actions recited by the claim. *See* [11], *supra*; EX1003, ¶132.

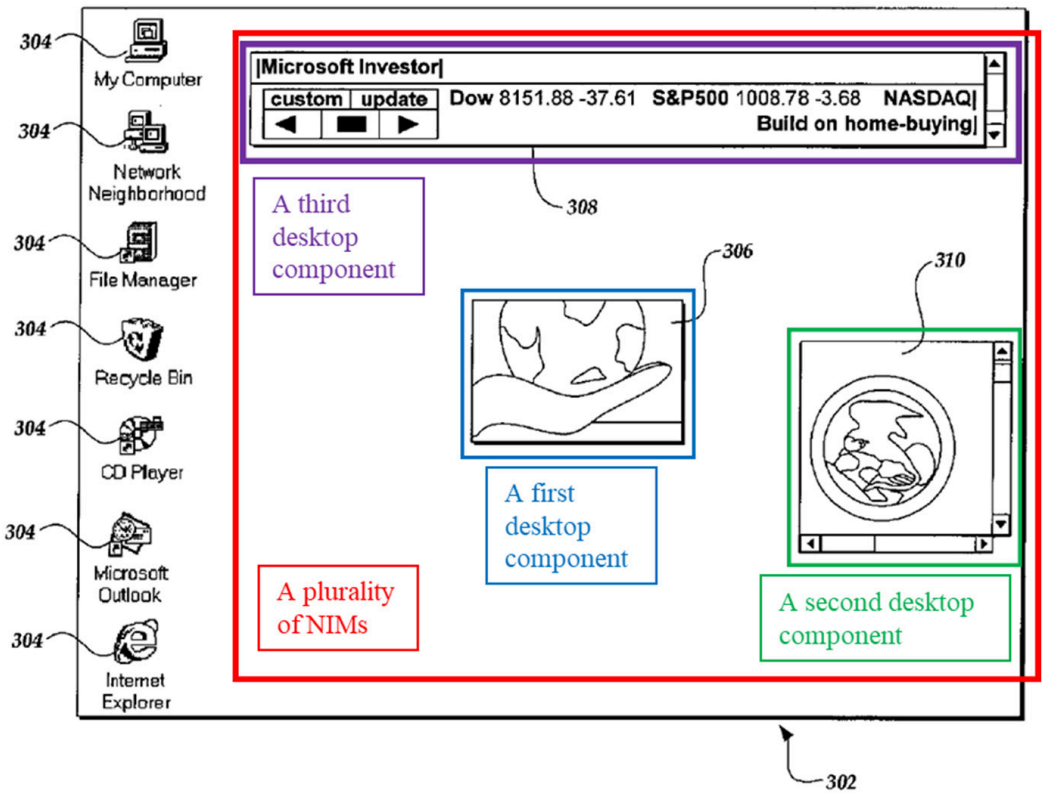
[19]

See [11] (incorporated here) with respect to "**the transmitting operation**" and "**the presenting the viewer graphical user interface operation**." EX1003, ¶133.

[20.1]

See [1.1], [1.6], and [11] (incorporated here). As Dr. Schmidt explains, a POSITA would have recognized from reviewing the figures of Brown that the "composite desktop" is comprised of "one **or more** components," which includes additional sets of "HTML instructions" that define the desktop "components." EX1005, 4:13-19, FIG. 3A; EX1003, ¶134, *see In re Harza*, 274 F.2d at 671.

Brown renders obvious multiple content requests because Brown discloses multiple desktop components and content elements, each with an associated network location. FIG. 3A; EX1003, ¶135. As discussed above, a POSITA would have recognized or found obvious that the parser application could "**transmit**" a "**content request**." *See* [11], *supra*; EX1003, ¶135.



EX1005, FIG. 3A (annotated)

[20.2]-[20.5]

The Brown-Wecker-Beer combination renders these claims obvious in the same manner as explained above for the corresponding claims listed in the following table. EX1003, ¶¶136-139; *see In re Harza*, 274 F.2d at 671.

Claim	Corresponding Claim
[20.2]	[1.7], [11]
[20.3]	[1.5], [11]
[20.4]	[1.8], [11]
[20.5]	[11], [18]

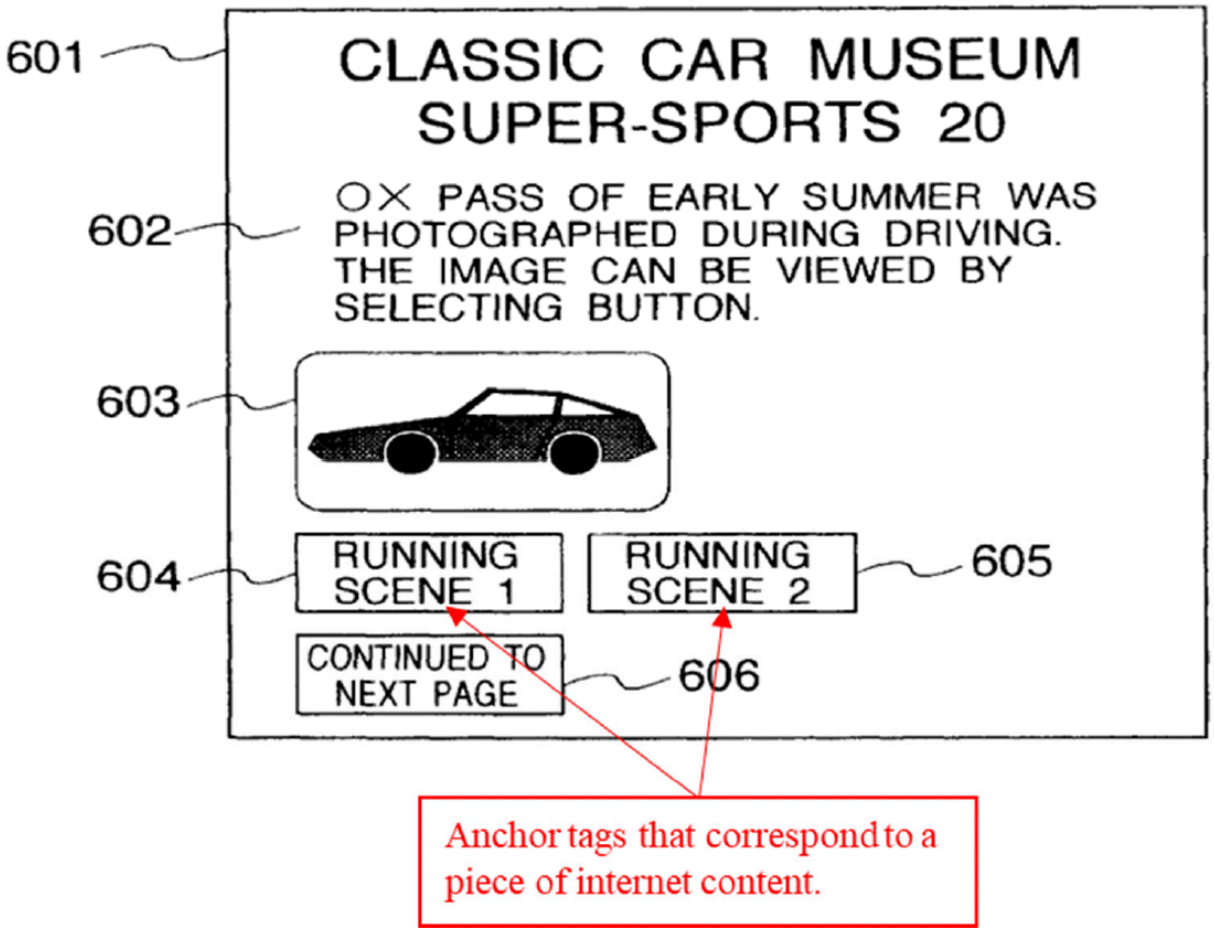
[21]

See [14] (incorporated here). EX1003, ¶140.

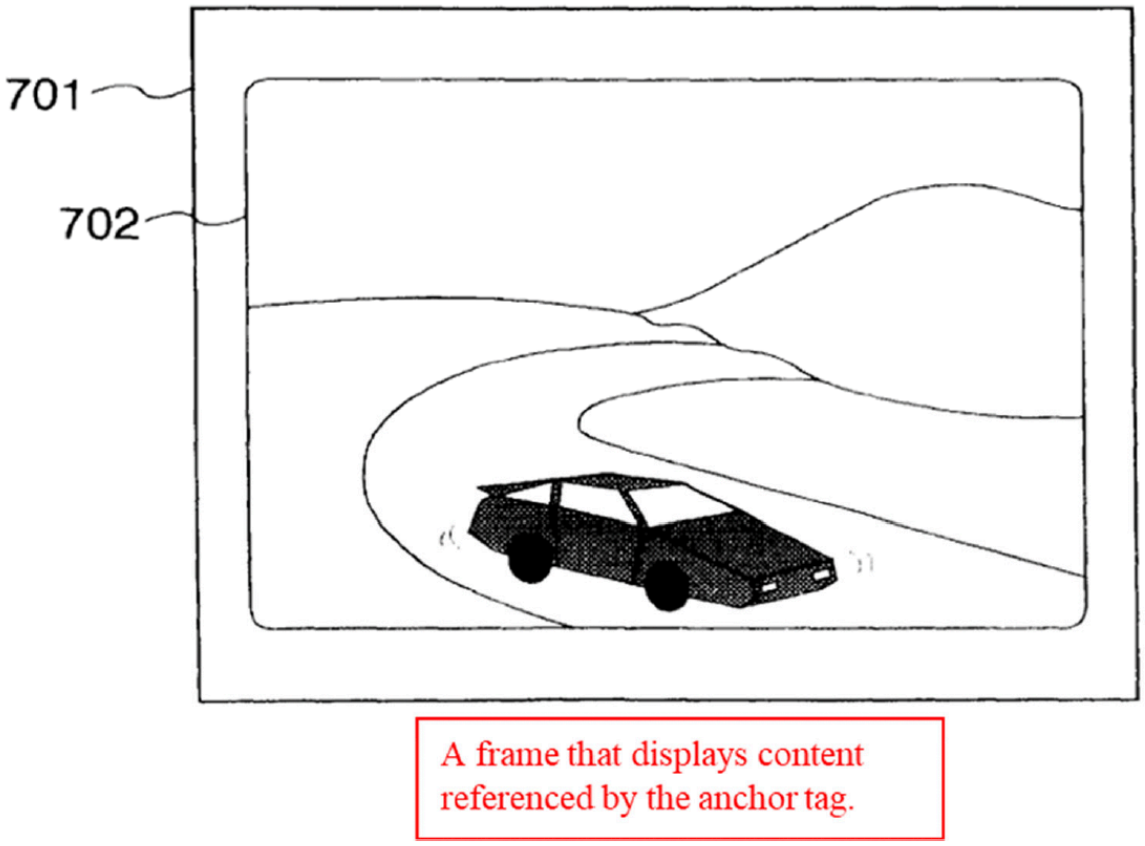
C. [GROUND 2A] – Claims 1-4, 6-7, 9-10, and 13-15 are rendered obvious by Shimada and Buchholz

1. Overview of Shimada

Shimada describes "a data conversion apparatus included an information input device" and "a convertor for executing the data in accordance with a predetermined rule." EX1008, 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 figures 6 and 7 below provide examples of anchor tags that generate the display areas according to Shimada. EX1003, ¶141.



EX1008, FIG. 6 (annotated)



EX1008, FIG. 7 (annotated)

2. Overview of Buchholz

Buchholz describes "a method in a wireless communication system for controlling a display of template data by a portable subscriber unit." EX 1009, 1:57-59. 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. EX1003, ¶142.

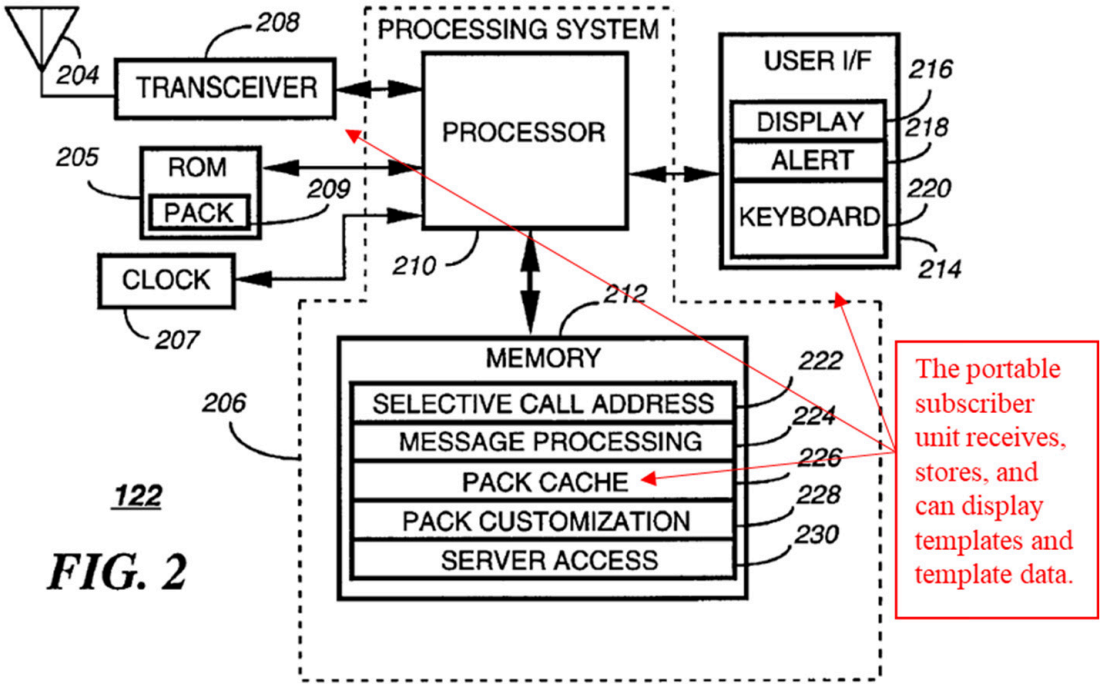


FIG. 2

EX1009, FIG. 2 (annotated)

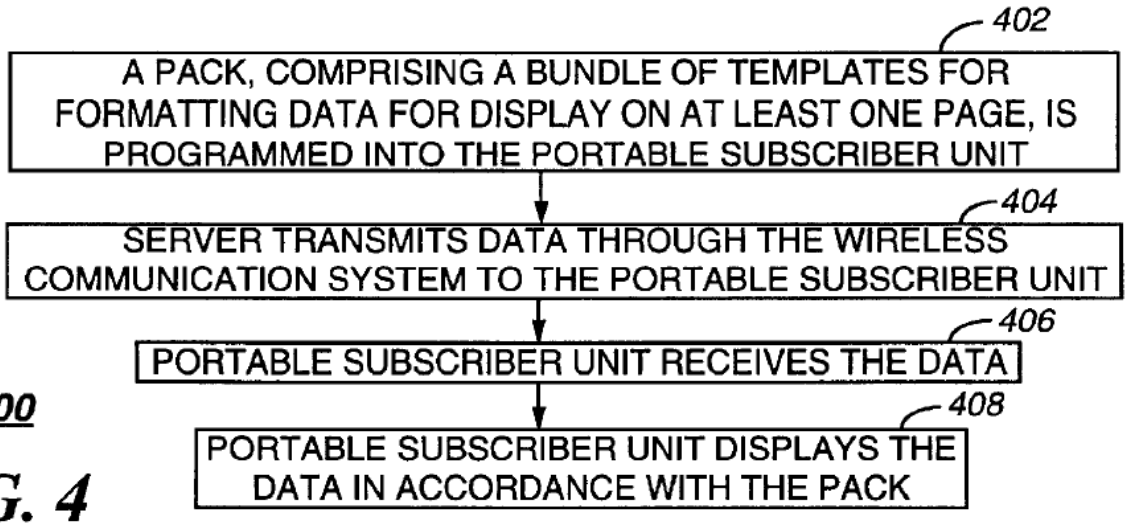
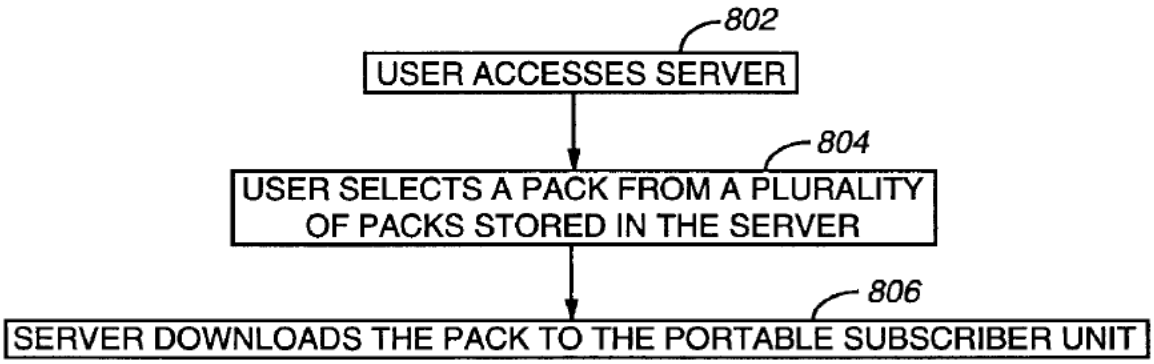


FIG. 4

EX1009, FIG. 4



800

FIG. 8

EX1009, FIG. 8

3. Combination of Shimada and Buchholz

A POSITA would have found it obvious to combine Shimada and Buchholz ("Shimada-Buchholz combination"). EX1003, ¶143. 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." EX1008, Abstract, 1:34-55; EX1009, Abstract, 1:49-54.

As Dr. Schmidt explains, a POSITA would have combined Shimada and Buchholz for various reasons. EX1003, ¶144.

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. EX 1008, 1:40-44; EX1003, ¶145. Indeed, Buchholz also contemplates such networks, for example,

"wireless communication systems" that can experience "excessive latency" when requesting and displaying web pages. EX1009, 1:26-37.

Second, a POSITA would have recognized that the "screen configuration data" of Shimada and the "templates" of Buchholz are both implemented in HTML. EX1008, 6:59-62; EX1009, 5:9-13; EX1003, ¶146.

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. EX1003, ¶147. With these motivations, a POSITA would have found it obvious to consider the disclosures of Shimada and Buchholz together. EX1003, ¶147.

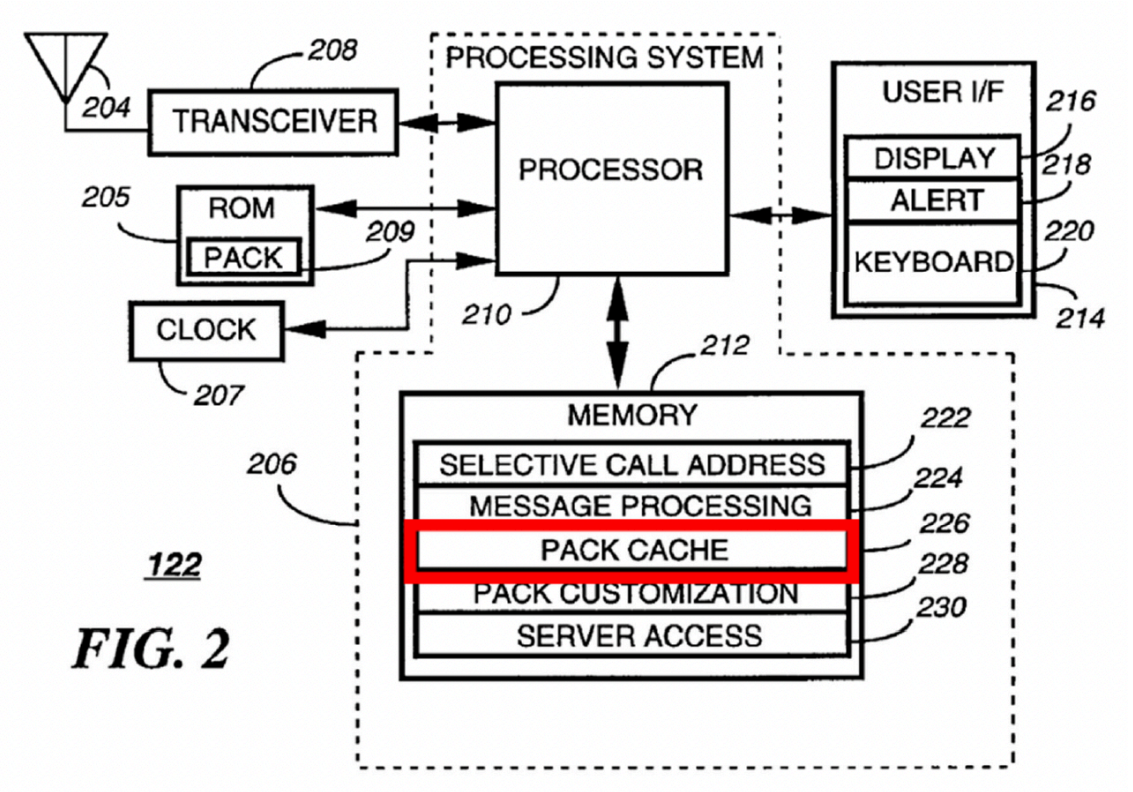
4. Analysis

[1.pre]

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." EX1008, 5:48-51. A POSITA would have understood or found obvious that "a client" is a form of "**client computing device**" as the addition of "computing device" does not create any limitation. EX 1003, ¶148. 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 "**[obtain] content over a network and [display] the content to a user**." EX1008, 1:34-36; EX1003, ¶148. A POSITA also would have understood based on the same disclosure that Shimada's client is "**in operative communication with a server over a network**." *Id.*, 5:48-51.

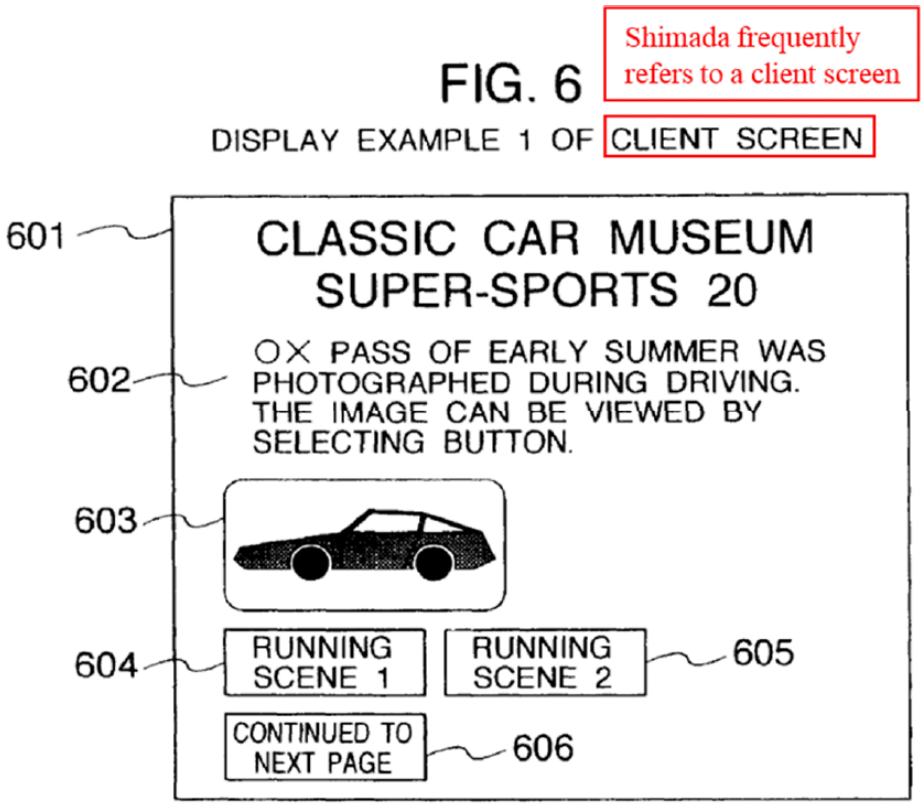
Buchholz discloses a "memory 212" that comprises "a pack cache 226 for **storing a pack** utilized by the portable subscriber unit 122." EX1009, 4:23-25. Buchholz describes that a pack "comprises a **bundle of templates** for formatting template data for display on at least one page" and that a template is "a pattern utilized by the processing system 206 and the user interface 214 to lay out the presentation of information to the user." EX1009, 5:4-9; EX1003, ¶149. An example portable subscriber unit is provided below.



EX1009, FIG. 2 (annotated)

As Dr. Schmidt explains, 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**" because a POSITA would have understood that memory is an example of electronic storage. EX1003, ¶150. Indeed, the '545 Patent frequently refers to "memory 30" within "computer 20." EX1001, 5:13-27.

Shimada frequently refers to a "client screen display," which a POSITA would have understood or found obvious to be "**a display**." EX1008, 6:4-9, FIG. 6, FIG. 7, FIG. 17, FIG. 18; EX1003, ¶151. An example of Shimada's client display is provided below.



EX1008, FIG. 6 (annotated)

Buchholz also describes such features, and discloses that portable subscriber devices include a "conventional display 216." EX1009, 4:1-2; EX1003, ¶152. An example portable subscriber device is provided below.

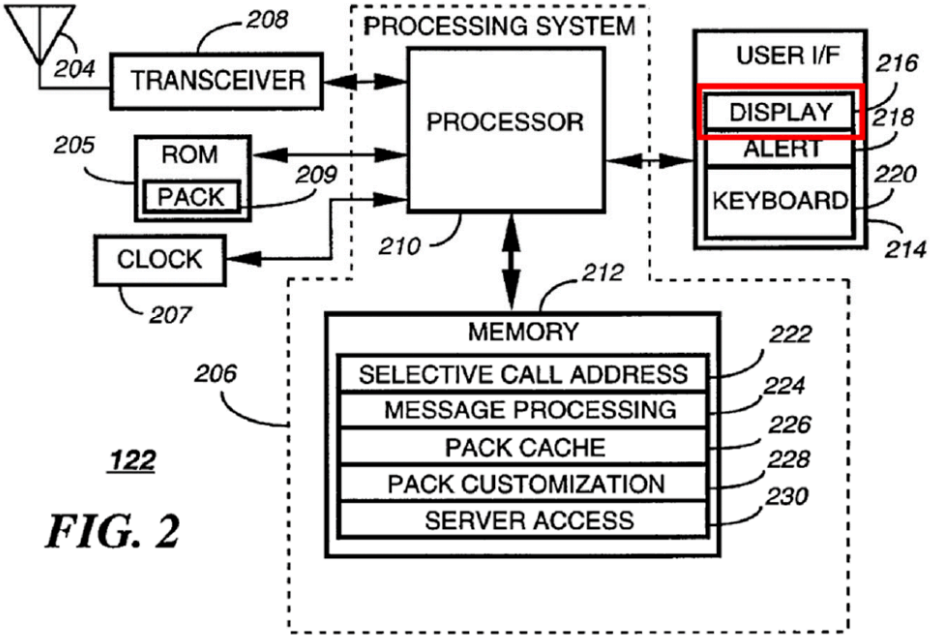
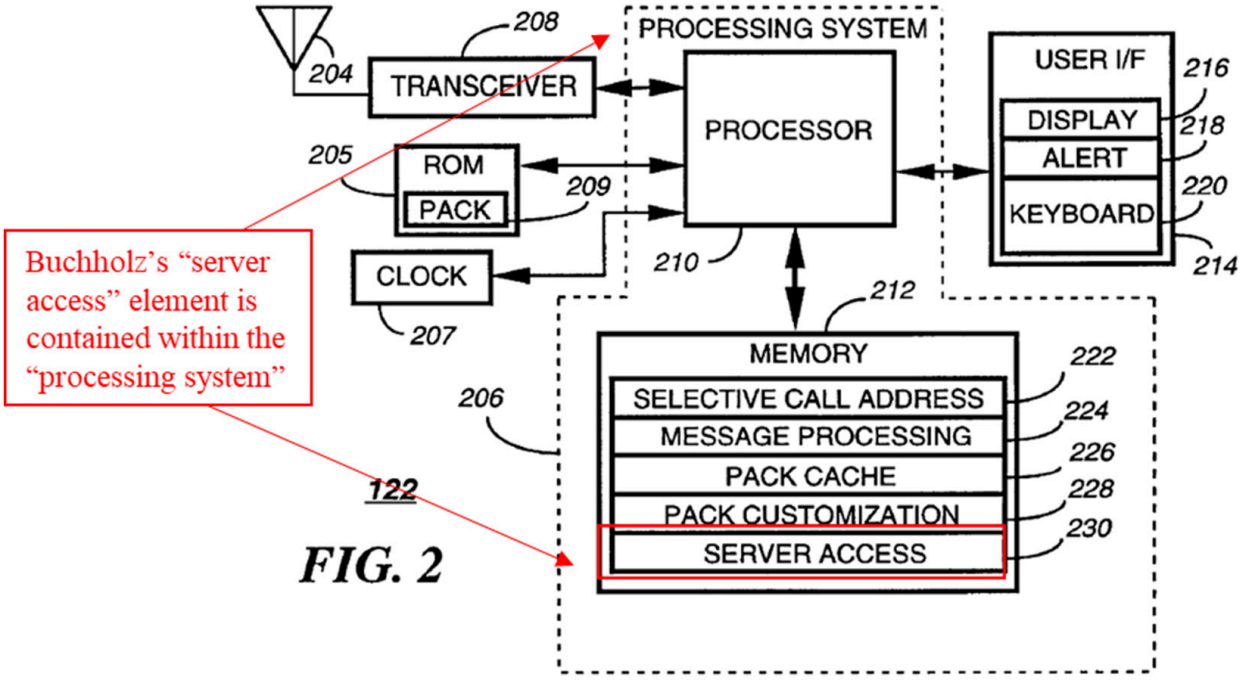


FIG. 2

EX1009, FIG. 2 (annotated)

Shimada also discloses that "processing" occurs on the client and states that the "information **processing** unit on the service requesting side is referred to as a 'client.'" EX1008, 1:26-28, FIG. 1, FIG. 4, FIG. 6, FIG. 7. As Dr. Schmidt explains, a POSITA would have understood or found obvious from this disclosure that a "processor" would execute the screen configuration data. EX1003, ¶153.

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 ("configured to execute one or more computer program modules**")." EX1009, 4:14-31, FIG. 2; EX1003, ¶154.



EX1009, FIG. 2 (annotated)

[1.1]

See [1.pre] (incorporated here). Buchholz describes "**a server access element 230** for programming the processing system 206 to allow a user to **access the server 124 ("transmitting a request to the server over the network")** for creating, modifying, and **downloading a pack ("the request requesting networked information monitor template**")." EX1009, 4:14-31, FIG. 2, FIG. 5, FIG. 8; EX1003, ¶155. An annotated figures of Buchholz are presented below.

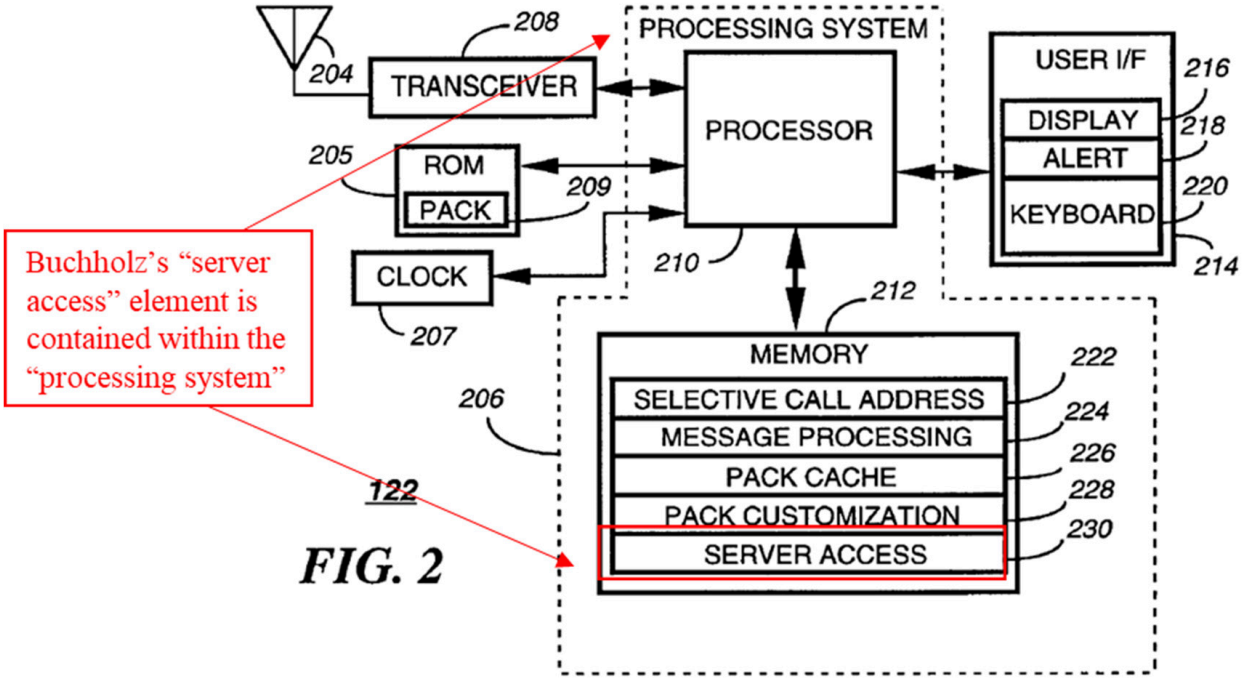
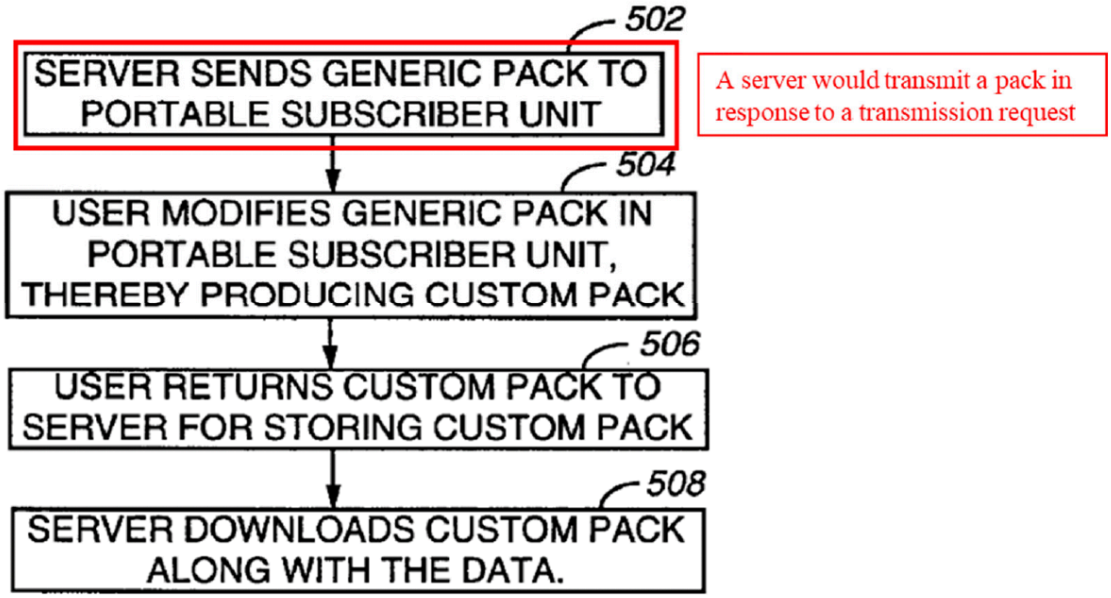
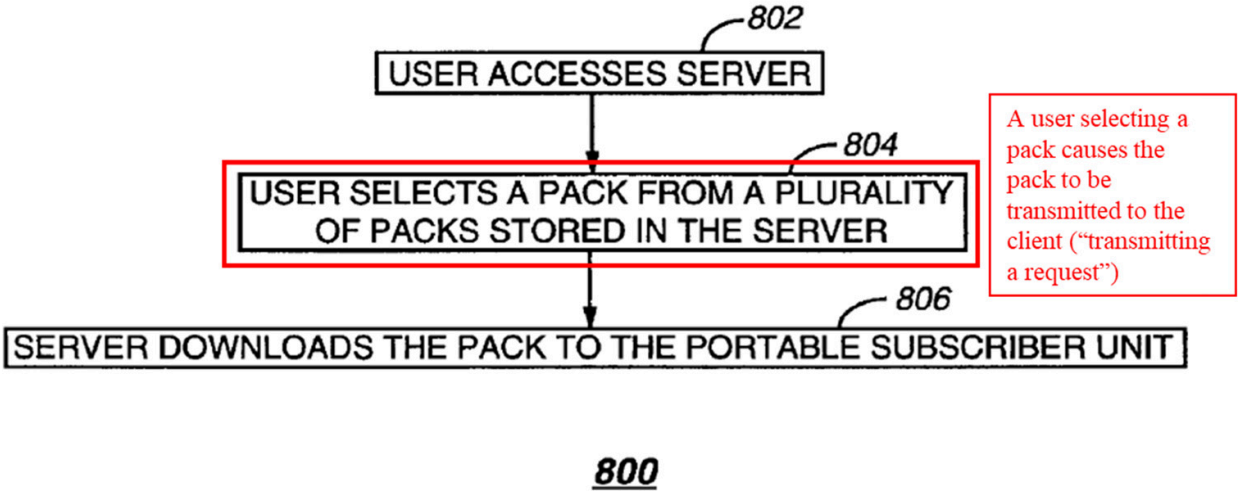


FIG. 2

EX1009, FIG. 2 (annotated)



EX1009, FIG. 5 (annotated)

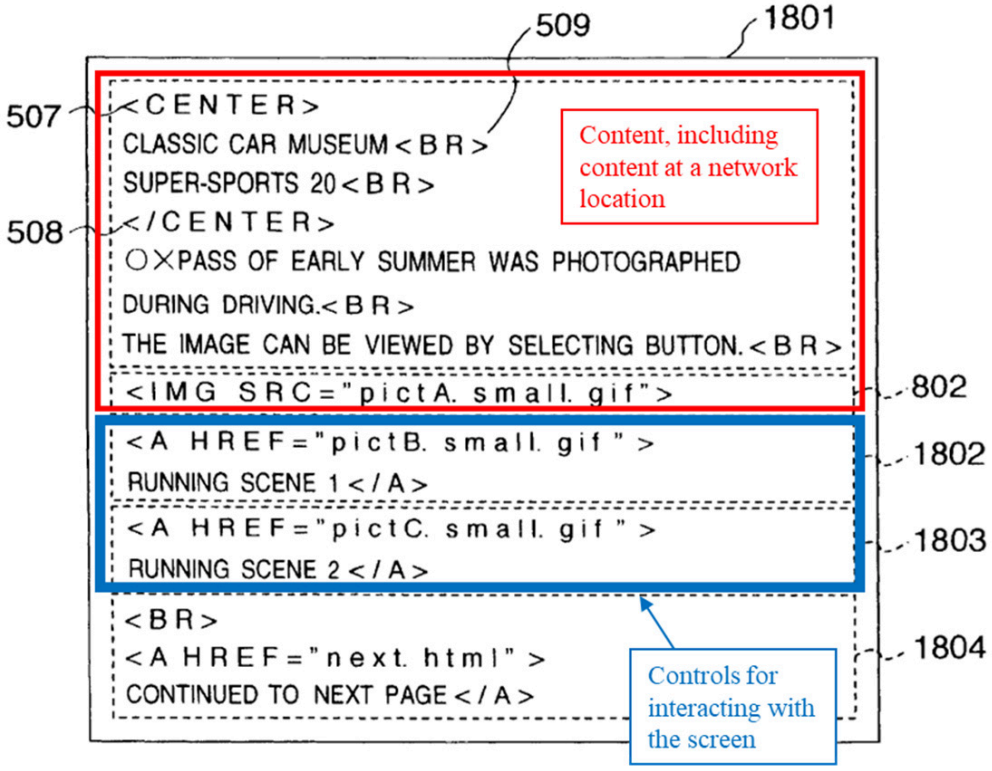


EX1009, FIG. 8 (annotated)

A POSITA would have recognized or found obvious that screen configuration data is a "template," as screen configuration data is also an HTML data structure that defines the presentation of content. *See* Section III.B.3, *supra*; EX1003, ¶156. Annotated figures depicting screen configuration data and the associated screen are provided below.

FIG. 17

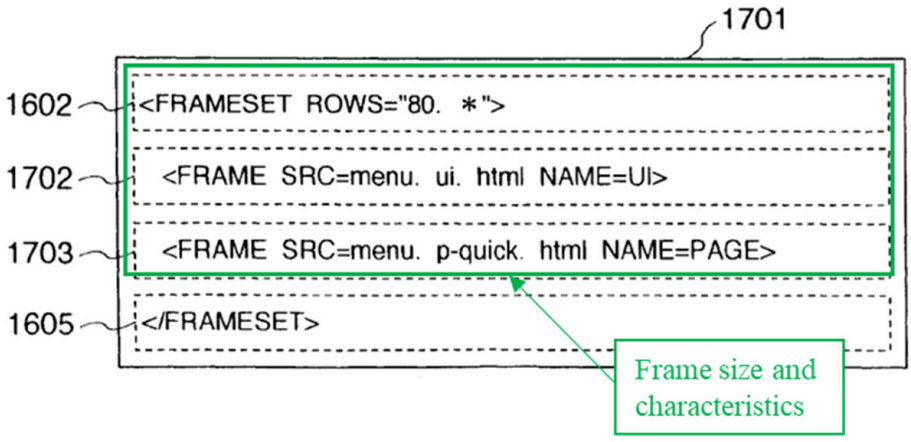
EXAMPLE OF CONVERTED SCREEN CONFIGURATION DATA (QUICK MODE)



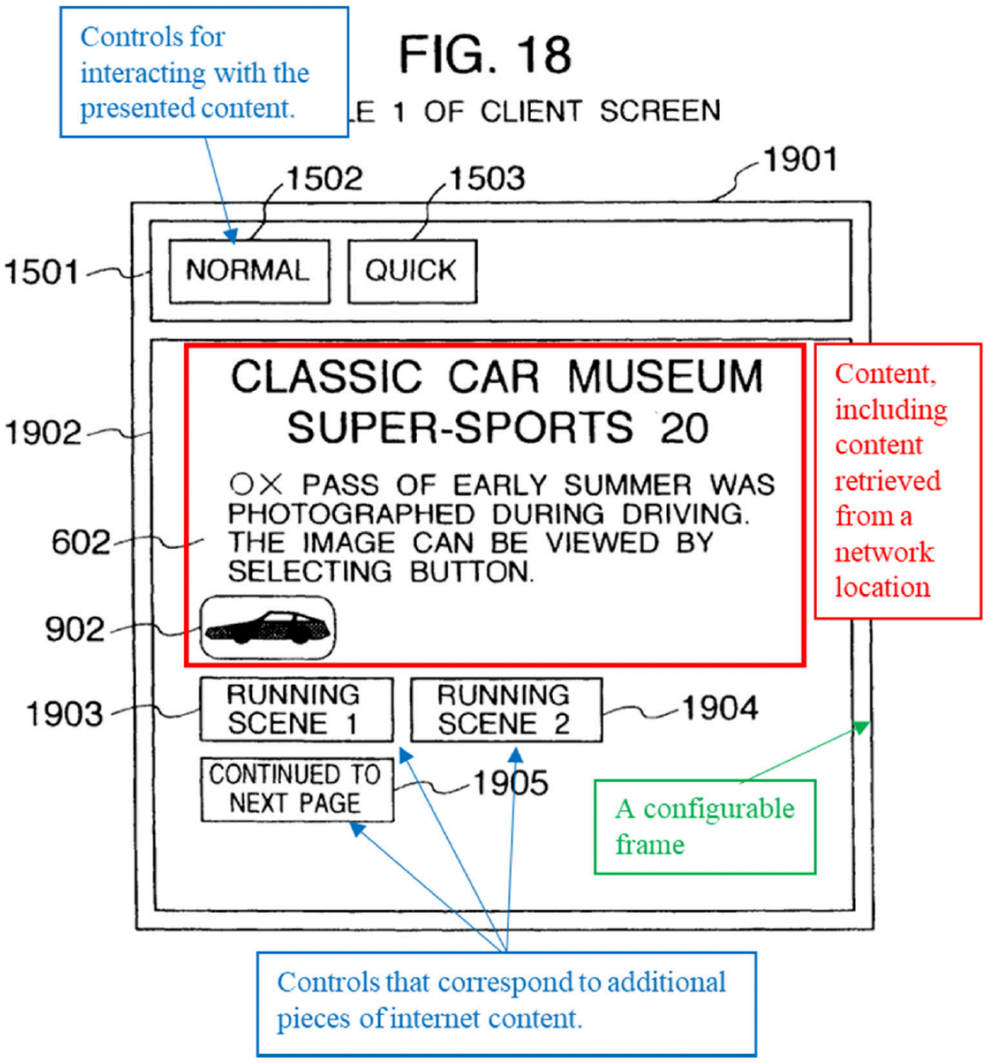
EX1008, FIG. 17 (annotated)

FIG. 16

EXAMPLE OF EXPANDED SCREEN CONFIGURATION DATA



EX1008, FIG. 16 (annotated)



EX1008, FIG. 18 (annotated)

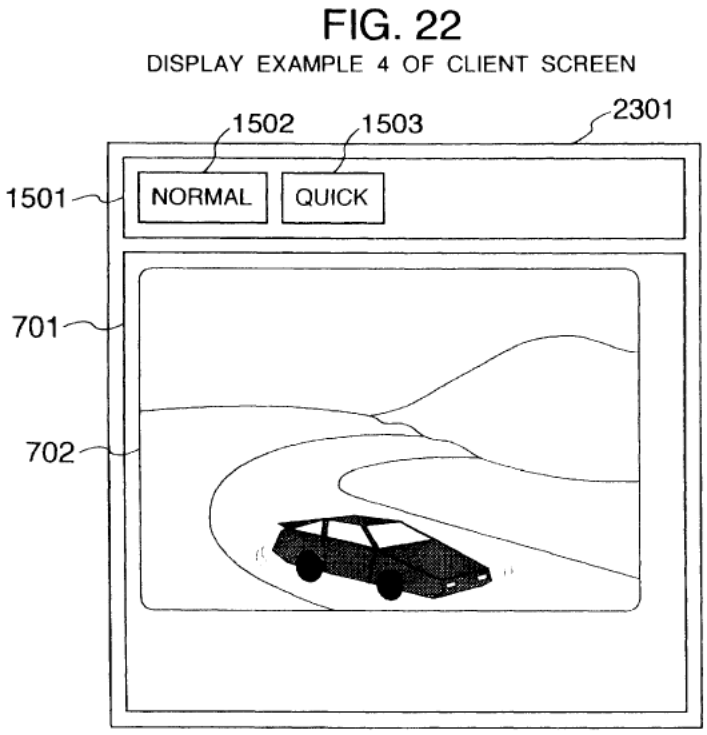
As Dr. Schmidt explains, a POSITA would have understood or found obvious that the "screens" of Shimada correspond to "networked information monitors" in view of their similar features. EX1003, ¶157. Indeed, networked information monitors are "a **fully configurable frame**, with one or more **controls**, 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. EX1001, 5:41-44; EX1003, ¶157; Section I.C.1, *supra*.

For example, Shimada's screens present 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**"). EX1008, 6:39-51, FIG. 18. Shimada describes "[<A HREF="pictB.gif">]0 and [</A>] in the description 504 are referred to as 'anchor tags,' and the portion encompassed by these tags becomes **a button on the screen** of the client 105. When the user clicks this button, the client 105 transmits the transfer request of the data designated by [HREF=" "] in the anchor tag to the server." *Id.* Shimada also describes that "**control can be made** so that when the client 105 first gains access to the data or when the **user selects the QUICK button**, all the static images transferred to the client 105 are reduced, and when the **user selects the NORMAL button**, the static image data are not reduced in the same way." *Id.*, 13:12-18. A POSITA would have recognized or found obvious that these buttons are "**one or more controls**" as describing a feature as a button implies user control. EX1003, ¶158.

A POSITA also would have recognized or found obvious that the text and images (.gifs) presented to the user are "**content … presented to the user**," as .gifs are a common image file. EX1008, FIG. 18; EX1003, ¶159. Additionally, a POSITA would have recognized or found obvious that the content locations referenced by the

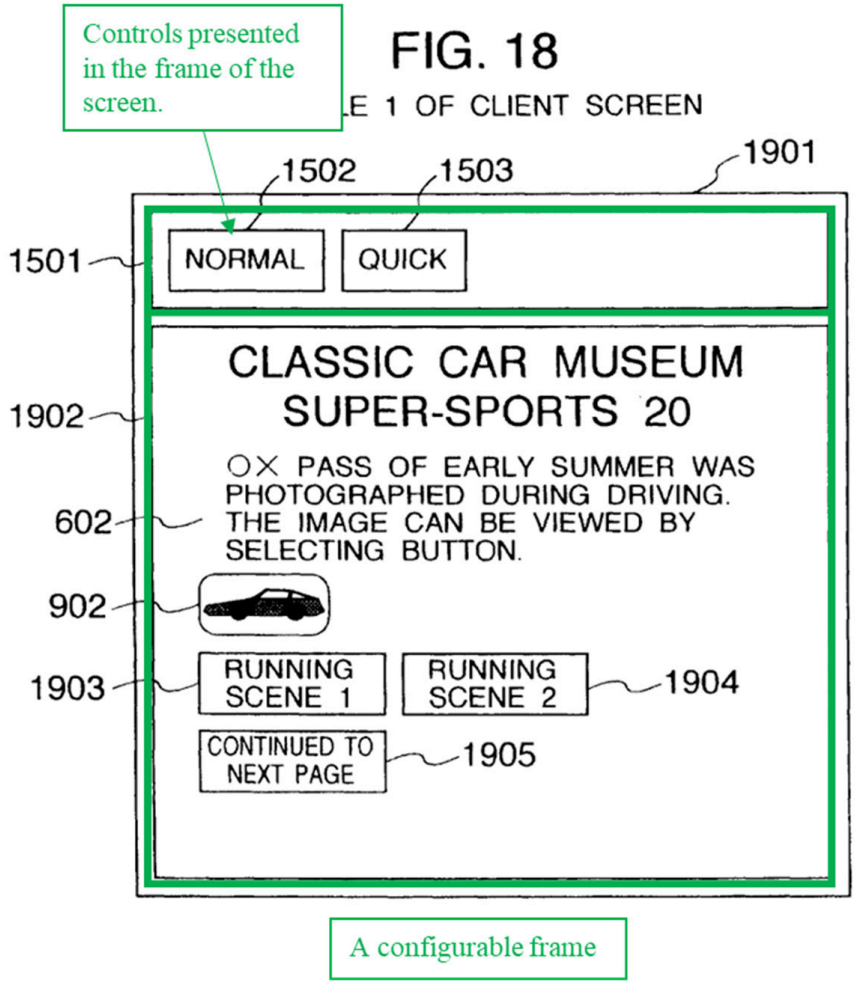
anchor tags correspond to additional content locations, as the addresses of these network locations also correspond to .gif files. *Id.* An example of this additional content is provided below.



EX1008, FIG. 22

Finally, a POSITA would have recognized or found obvious that this content is presented in a "**fully configurable frame**" from reviewing, at least, Figure 18 of Shimada that includes a "**frame**." EX1008, FIG. 18; EX1003, ¶160. Additionally, the size of this frame can be defined and controls can be specified to control the frame. EX1008, 7:21-22, 8:65-67, FIG. 15, FIG. 16, FIG. 18. The above disclosures render Shimada's screens "**fully configurable**" as this term is used by the '545

Patent. EX1001, 1:60-67. The annotated figure shows the frame of Shimada's screen, along with the associated controls.



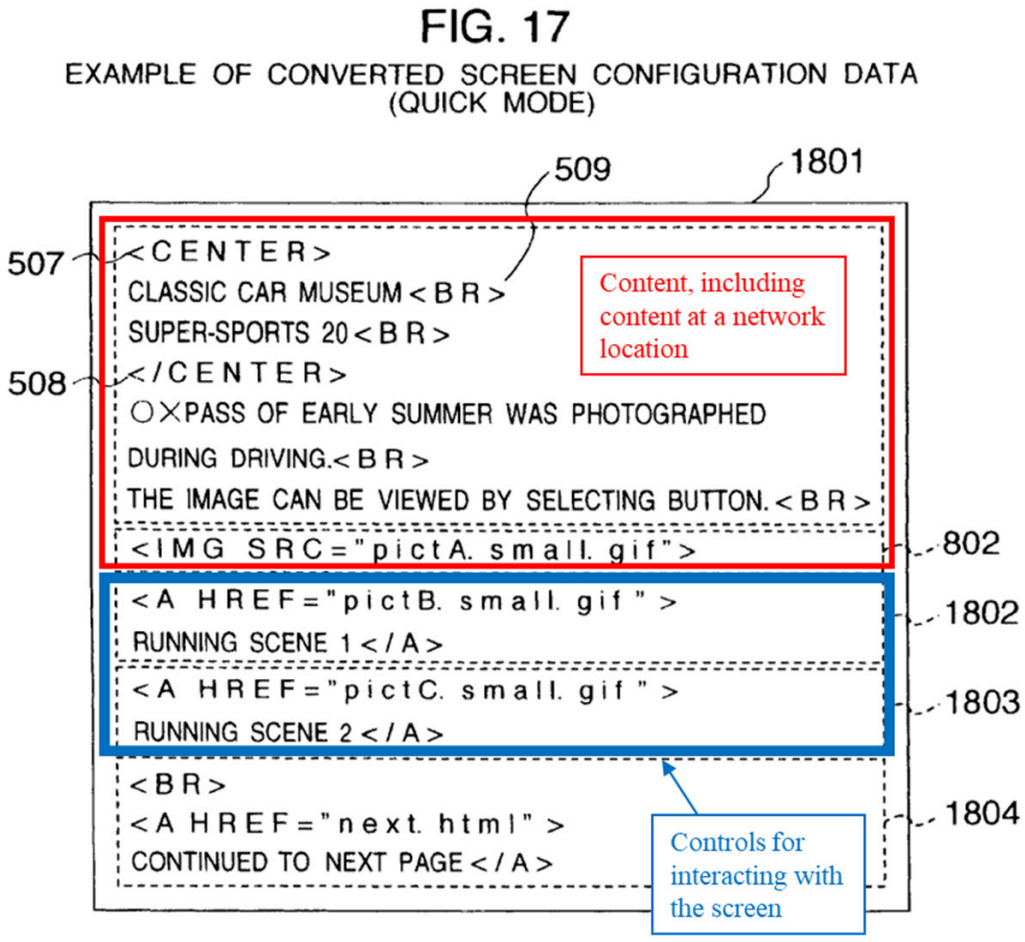
EX1008, FIG. 18 (annotated)

Alternatively, as Dr. Schmidt explains, 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. EX1003, ¶161. For example, Dr. Schmidt explains that Shimada's anchor tags also possess all of the features of a NIM. EX1003, ¶161.

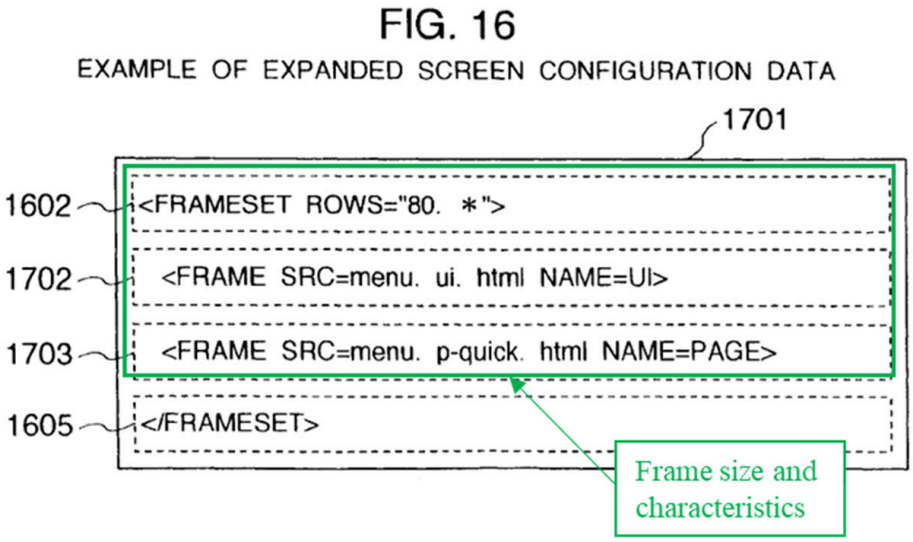
Therefore, Shimada's screens and anchor tags correspond to "networked information monitors." EX1003, ¶162.

A POSITA would have recognized or found obvious that the "screen configuration data" is a "**networked information monitor template**" because screen configuration data has similar features. EX1008, 6:7-51; EX 1003, ¶163. 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. EX1001, 7:19-23, 8:53-57, 14:34-35; EX1003, ¶163; Section I.C.2, *supra*. As seen 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**"). EX1008, 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**"). EX1008, FIG. 16, FIG. 17. Therefore, Shimada's screen configuration data corresponds to a "networked information monitor template." EX1003, ¶163.

Additionally, as it can be seen below, Shimada's HTML screen configuration data does not contain "**applications**" or "**compiled code**." EX1008, 6:59-62, FIG. 16, FIG. 17. Dr. Schmidt explains that 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; EX1003, ¶164



EX1008, FIG. 17 (annotated)



EX1008, FIG. 16 (annotated)

[1.2]

See [1.1] (incorporated here). A POSITA would have understood or found obvious that, once requested, the client would receive the content included in the request ("**receiving the requested networked information monitor template from the server over the internet … responsive to the transmitted request**"). EX1003, ¶165. Indeed, Buchholz describes that, once requested, "[the] server 124 then downloads 806 the pack **to the portable subscriber unit 122**." EX1009, 6:50-52, FIG. 8.

[1.3]

See [1.1] (incorporated here). As Dr. Schmidt explains, a POSITA would have recognized that Shimada's screens are "**a definition of a viewer graphical user interface**" or, "GUI," as the screens both present content ("**content in a web**

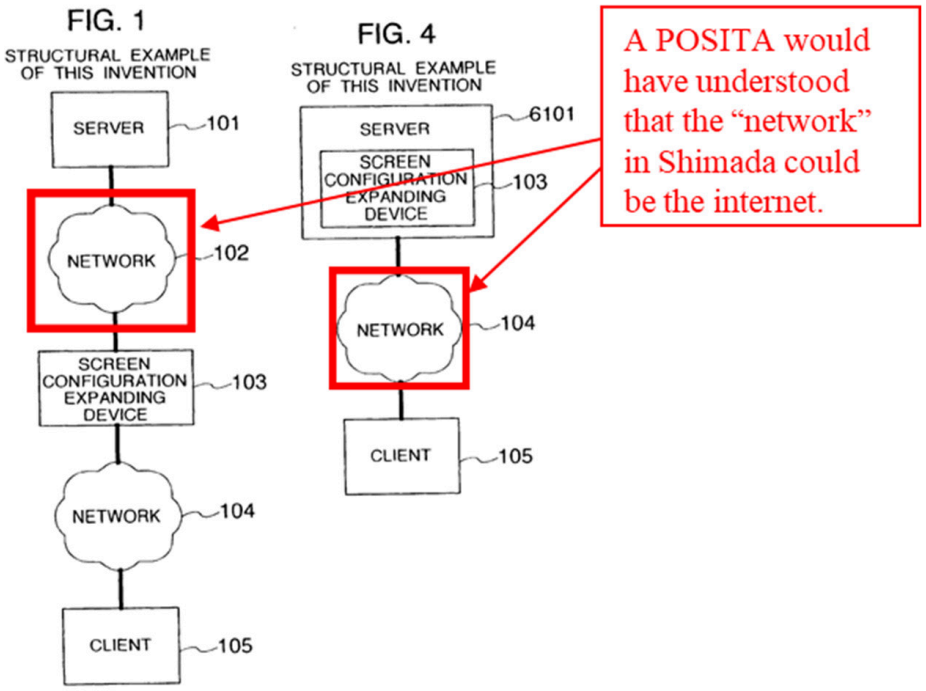
browser-readable language … presented on the display of the client computing device") and allow user interaction. EX1008, FIG. 18; EX1003, ¶¶166-167.

As Dr. Schmidt explains that a POSITA would have understood or found obvious that the Shimada-Buchholz combination would be 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. EX1008, 6:56-62, FIG. 16, FIG. 17; EX1009, 5:9-13; EX1003, ¶168.

[1.4]

Shimada discloses that screen configuration information ("**a first content element**") is received from a server ("**served over the network**"), and describes that "the addition of a new screen display area to the screen configuration information which is **received from the server** 101 and contains **data to be displayed and information** on the configuration of the screen for displaying this data." EX 1008, 5:52-65; EX1003, ¶169. Shimada also discloses that the server is connected to the client via a "network." *Id.*

As Dr. Schmidt explains, 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**". EX1003, ¶170.

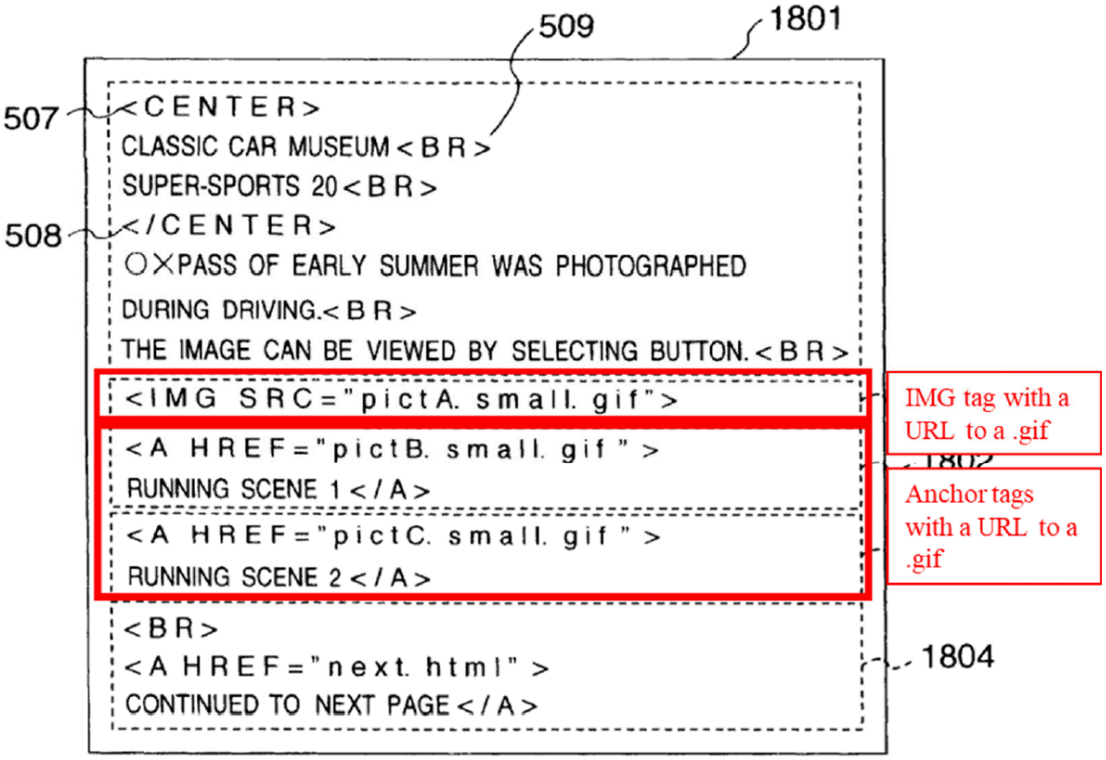


EX1008, FIG. 1 and FIG. 4 (annotated)

Additionally, a POSITA would have recognized or found obvious that both Shimada's IMG and anchor tags include a **URL** that "comprises **a network location** at which content … is accessible" ("**a first network location**") because Shimada describes these tags as including an "address representing a static image" which is obtained from a "server." EX1008, 6:30-51; EX1003, ¶171. Presented below is an annotated figure of URLs in screen configuration data.

FIG. 17

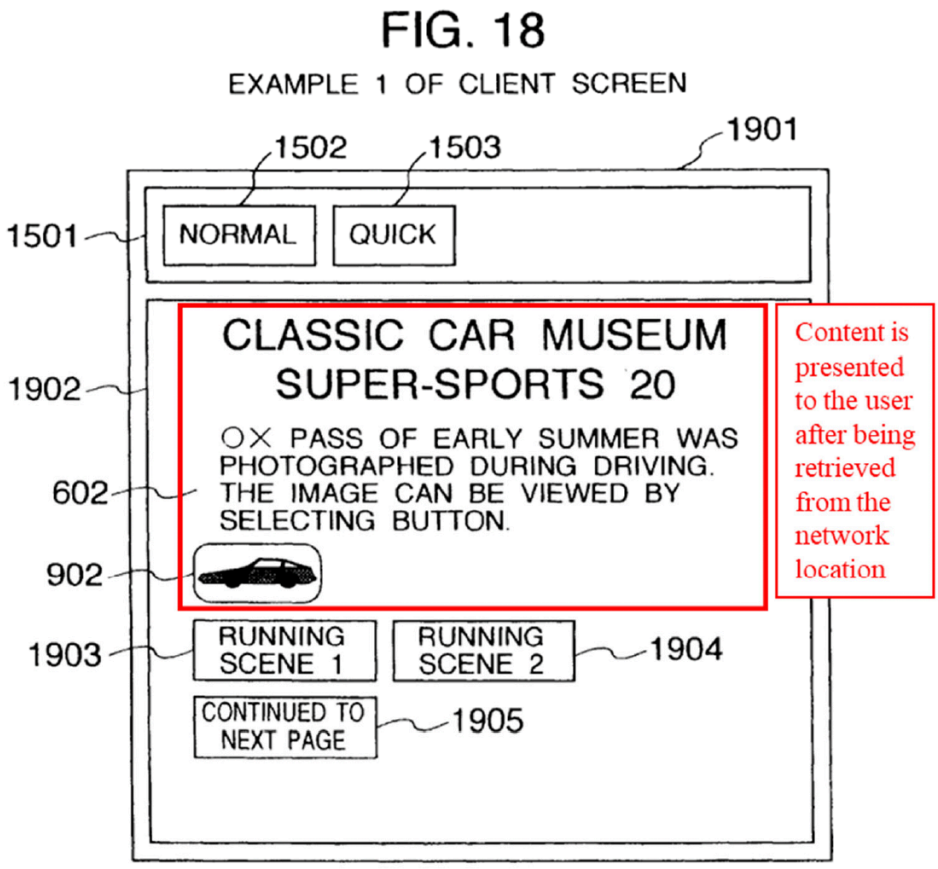
EXAMPLE OF CONVERTED SCREEN CONFIGURATION DATA (QUICK MODE)



EX1008, FIG. 17 (annotated)

[1.5]

As Dr. Schmidt explains, a POSITA would have understood or found obvious that the "instructions" for requesting the content in Shimada also cause the client to **"[present] the viewer graphical user interface defined by the networked information monitor on the display of the client computing device**" because the tags that request content also define the presentation of the content on the screen. EX1003, ¶172. The annotated figure below illustrates the presentation of content.



EX1008, FIG. 18 (annotated)

Alternatively, a POSITA also would have understood or found obvious that Shimada's anchor tags serve as "**instructions**" to both "**request content from the network location**" and "**generate the graphical user interface of the first networked information monitor**" as selecting the anchor tag results in the execution of both of these tasks. EX1008, 6:39-51, FIG. 22; EX1003, ¶173.

As indicated in FIG. 18, Shimada's screen configuration data is presented "**separate from and outside of any other graphical user interface that includes user controls for specifying the first network location from which the first**

content element for the networked information monitor is served." EX1008, FIG. 6, FIG. 7, FIG. 17, FIG. 18, FIG. 22; Section III.A.4.[1.5], *supra*; EX1003, ¶174.

[1.6]

See [1.4] (incorporated here). As Dr. Schmidt explains, a POSITA would have understood or found obvious that URLs are "**instructions**" for "**transmitting over the network a first content request to the first network location referenced by the definition of the first content element**" as URLs were known in the art to reference content over a network. EX1003, ¶175; [1.4] *supra*.

[1.7]

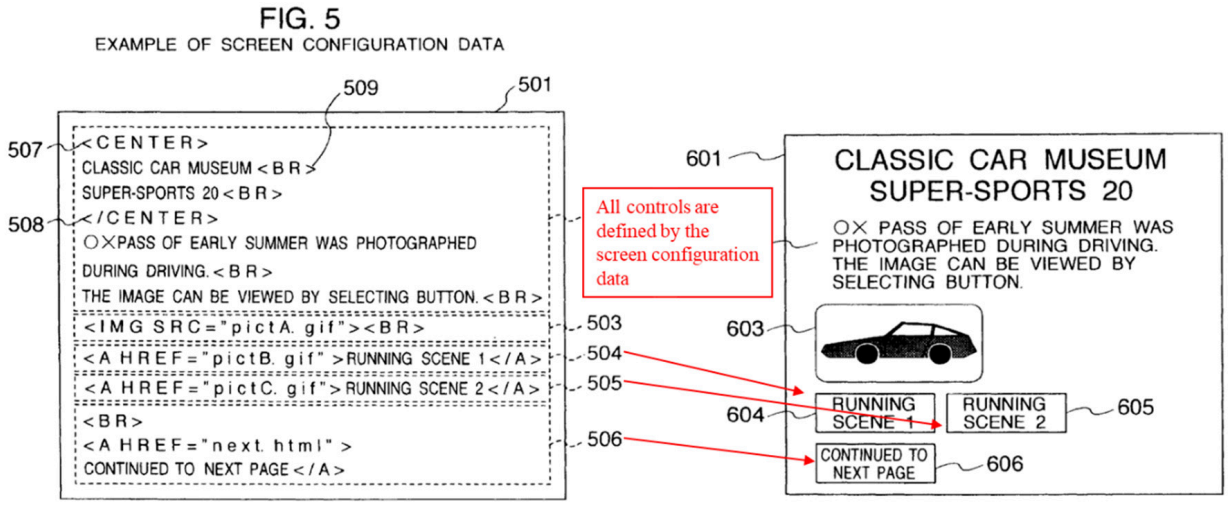
Dr. Schmidt explains that a POSITA also would have understood or found obvious that, once the request was transmitted, the client would "**receive**" the requested "**content element**" as this was well known in the art. EX1003, ¶176.

[1.8]

See [1.5] (incorporated here) regarding "**presenting the received the first content element in the viewer graphical user interface defined by the networked information monitor template**." EX1003, ¶177.

Dr. Schmidt also explains that a POSITA would have recognized or found obvious that a "**viewer graphical user interface and/or … content element**" would define "**all controls for enabling a user to interact with [the] content element**."

EX1003, ¶177. As illustrated below, the "**viewer graphical user interface**" defines "**all controls for enabling a user to interact with the first content element**." *Id.*; EX1008, FIG. 18. Additionally, Shimada does not disclose any controls used for content interaction not bounded by the frame of the desktop component. EX1008, 6:39-51, FIG. 17. This implementation is consistent with the '545 Patent, which describes that "[t]he space **within the frame** is the **control space** or viewer; visible controls are **distributed within the control space** or viewer." EX1001, 22:34-38.



EX1008, FIG. 5 and 6 (annotated)

[2]

See [1.1] (incorporated here) regarding "**a definition of at least one control effective for controlling an aspect of the viewer graphical user interface**." As Dr. Schmidt explains, a POSITA would have understood or found obvious that "**presenting the viewer graphical user interface**" would include "**presenting the**

at least one control" as the appearance of the controls is defined by the screen configuration data. EX1003, ¶178.

[3]

Buchholz describes that "[a] template can, for example, define where, and in what size and color, the corresponding template data is to be displayed." EX 1009, 5:11-13. As Dr. Schmidt explains, a POSITA would have understood or found obvious that templates could be created to enable the user to specify their location ("**location at which the user interface is rendered on a display device**") as this feature was well known in the art. EX1003, ¶179. Indeed, Brown describes prior art solutions where "Windows" in a GUI can "typically be resized, **moved around the display**, and stacked so as to overlay each other." EX1005, 1:66-67.

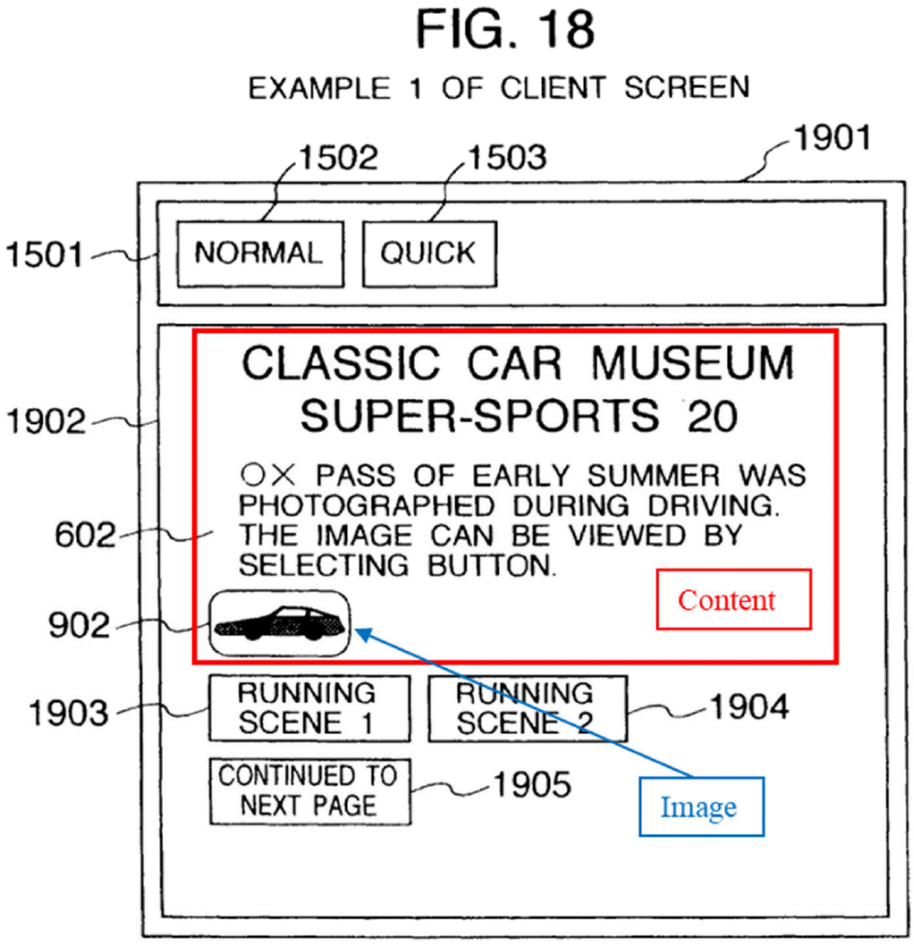
[4]

Buchholz describes that "[a] template can, for example, define where, and in what **size** and color, the corresponding template data is to be displayed." EX1009, 5:11-13. As Dr. Schmidt explains, a POSITA would have understood or found obvious that templates could specify their size ("**size of the user interface when presented on the display**") as this was well known in the art. EX1003, ¶180.

[6]

Shimada describes the use of .gif files, which a POSITA would have understood or found obvious to be "**image[s]**" associated with "**the definition of the**

viewer graphical user interface." EX1008, FIG. 18; EX1003, ¶181. A POSITA also would have recognized or found obvious that these images are presented with the GUI ("**presenting the image included in the definition as part of the viewer graphical user interface**"). *Id.*

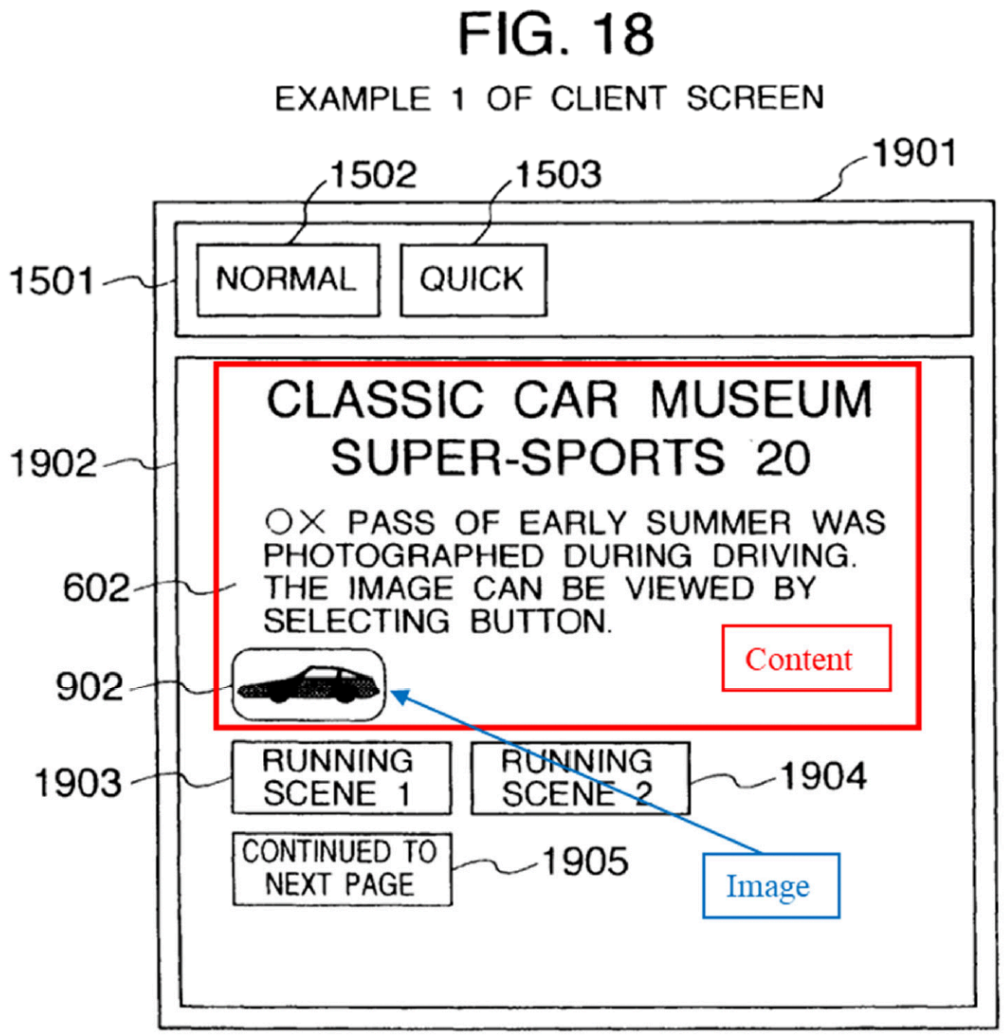


EX1008, FIG. 18 (annotated)

[7]

See [6] (incorporated here). As Dr. Schmidt explains, a POSITA would have recognized or found obvious from reviewing the figures of Shimada that content

could be presented "**in association with**" an image. EX1008, FIG. 18; EX1003, ¶182.



EX1008, FIG. 18 (annotated)

[9]

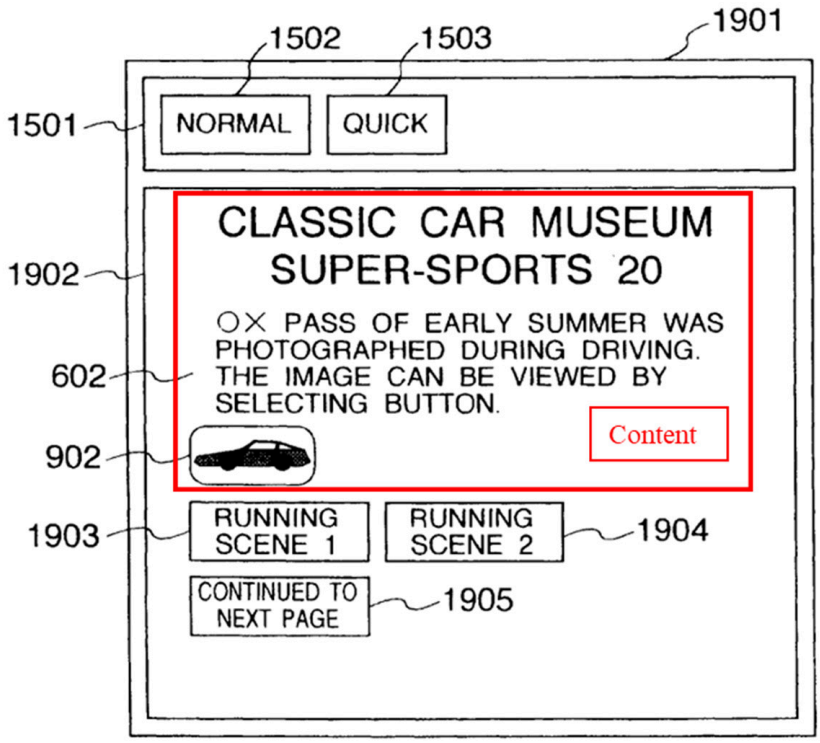
See [1.1], [2], [3], and [4] (incorporated here). As Dr. Schmidt explains, a POSITA would have understood or found obvious that modifying an "**aspect**" of the GUI would also modify the "**appearance**." EX1003, ¶183.

[10]

Shimada discusses various forms of content, and describes "transmission media" including "image ("**graphics content, still image content**"), speech data ("**audio content**"), sound-attached moving-picture data ("**audio content, video content, graphics content**")" in addition to the text ("**textual content**") evident from the figures. EX1008, 1:19-20, FIG. 18. As Dr. Schmidt explains, a POSITA would have understood or found obvious that Shimada's content is "**interactive content**" as the user can interact with the content through the GUI. EX1008, FIG. 18; EX1003, ¶184.

FIG. 18

EXAMPLE 1 OF CLIENT SCREEN



EX1008, FIG. 18 (annotated)

Buchholz also discusses various forms of content and describes "up-to-date information on stocks, sports, news, and the like." EX1009, 1:15-16. As Dr. Schmidt explains, a POSITA would have recognized or found obvious that the content described in the claim would be present in the media contemplated by Buchholz. EX1003, ¶185.

[13]

Buchholz describes subscriptions for "[i]nformation services" with "**up-to date information** on stocks, sports, news, and the like." EX1009, 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 "**periodically [requested] … from the first network location referenced by the first content element**" and **"[presented] … in an ongoing manner**." EX1003, ¶186.

[14]

See [1.4] (incorporated here). Shimada describes "**world wide networks** and access to world-wide information … acquired by making access to the **servers in the world**." EX1008, 1:34-36. As Dr. Schmidt explains, a POSITA would have recognized or found obvious that "world wide networks" could include the internet, as the internet is the most common "world wide network." EX 1003, ¶187.

[15.1]

See [1.4] (incorporated here). Shimada-Buchholz renders obvious multiple content elements because Shimada discloses multiple tags, each with a content reference and associated network location. EX1008, FIG. 18; EX 1003, ¶188. Indeed, Buchholz discloses that the template "pack" comprises "**a bundle of templates** for formatting the template data for display on at least one page." EX1009, 2:26-27; *see In re Harza*, 274 F.2d at 671.

[15.2]

See [1.6] (incorporated here). Shimada-Buchholz renders obvious multiple (e.g., first and second) content requests and network locations because Shimada discloses multiple tags, each with a content reference and associated network location. EX1008, FIG. 18; EX1003, ¶189; *see In re Harza*, 274 F.2d at 671. A POSITA also would have understood or found obvious that, in order to retrieve content distinct from the first content, a second content request must be transmitted. EX1003, ¶189.

[15.3]

See [1.7] (incorporated here). Dr. Schmidt explains that a POSITA also would have understood or found obvious that, once the request was transmitted, the client would "**receive**" the requested "**content element**" as this was well known in the art. EX1003, ¶190; *see In re Harza*, 274 F.2d at 671.

[15.4]

See [1.5] (incorporated here) regarding "**presenting the received the second content element in the viewer graphical user interface defined by the networked information monitor template**." *See* [1.8] (incorporated here) regarding "**the definition of the viewer graphical user interface … [defining] all controls for enabling a user to interact with the second content element through the viewer graphical user interface**." EX1003, ¶191; *see In re Harza*, 274 F.2d at 671.

D. [GROUND 2B] – Claims 5, 8, and 12 are rendered obvious by Shimada, Buchholz, and Darnell

1. Overview of Darnell

Darnell is an academic reference directed to HTML and the creation of webpages. EX1011, *see at least* Cover, Introduction, xxxiii-xxxvii; EX1003, ¶192. Darnell teaches "an introduction into the basics of HTML, including basic page structure and all of the tags needed to build the page." *Id.*, xxxvii. Darnell describes "a comprehensive resource for HTML 3.2" and also "tables, frames, [and] design." *Id.*



EX1011, Cover

2. Combination of Darnell and Shimada-Buchholz

A POSITA would have found it obvious to combine the teachings of Darnell with the Shimada-Buchholz combination. EX1003, ¶193. Among other things, all three references are directed to "accessing and viewing internet content." EX1008, Abstract, 1:34-55; EX1009, Abstract, 1:49-54; EX1011, Introduction.

A POSITA would have recognized or found obvious that Darnell includes both basic and advanced methods for utilizing HTML, and that these methods could be used to improve the HTML screen configuration data described in Shimada. Thus,

as Dr. Schmidt explains, a POSITA would have recognized that the techniques of these references were complementary, and each would enhance the abilities of the other. EX1003, ¶194.

Moreover, a POSITA would have been motivated to combine Darnell with the Shimada-Buchholz combination to increase usability, improve GUI visual aesthetics, implement additional HTML functionality, and/or other relevant business or technical reasons. EX1003, ¶195.

3. Analysis

[5]

Darnell discusses the benefits of XML, and describes:

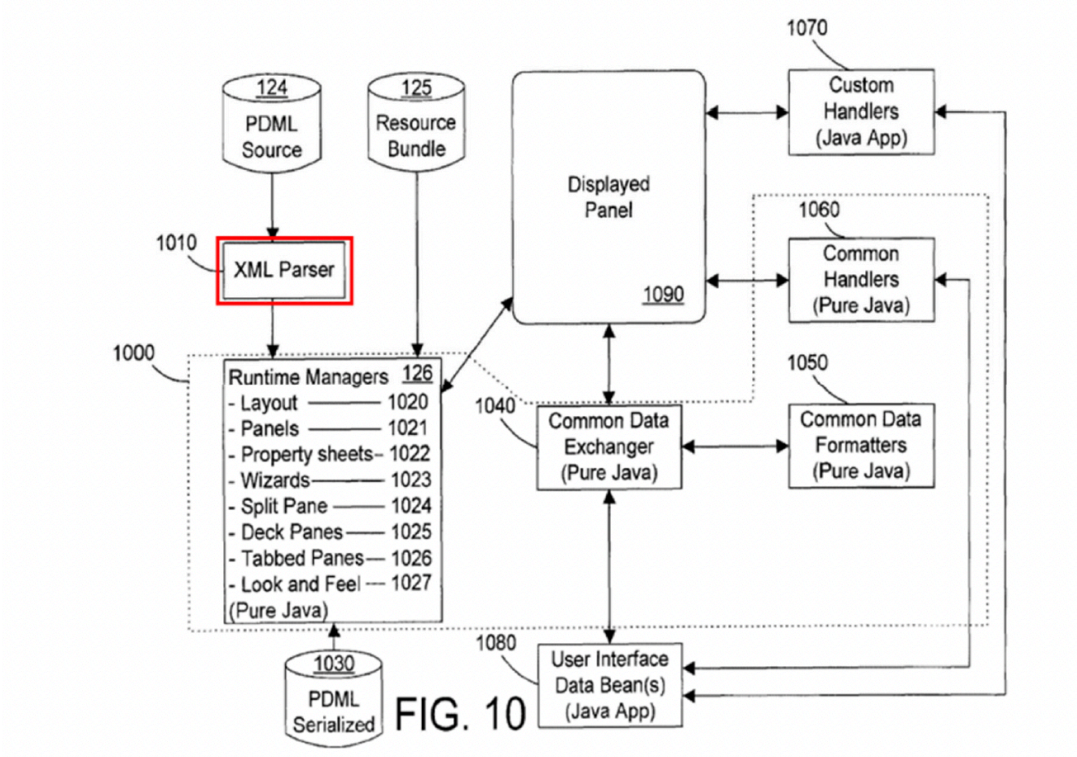
> "**XML (eXtensible Markup Language) is a simple and compact subset of SGML designed specifically for use on the Internet in the way that HTML is currently used**." EX1011, 782; EX1003, ¶196.

"By attaching the [document data type] with the document sent over the network, you can ensure that the **XML software reading the document can parse it correctly**" EX1011, 783; EX 1003, ¶196.

As Dr. Schmidt explains, a POSITA would have recognized or found obvious that XML could be used to create style templates, and would be "**parsed**," as both of these features were well known in the art. EX1003, ¶197.

Petty provides an additional example of style templates ("PDML") built from XML and describes an "XML definition 123 of a panel definition markup language

(PDML)." EX1013, 6:3-4; EX1003, ¶198. Petty, like Darnell, also describes parsing XML documents with an "XML parser," as annotated in the figure below. *Id.*, see at least FIG. 10.



EX1013, FIG. 10 (annotated)

[8]

As Dr. Schmidt explains, a POSITA would have recognized or found obvious that a common way of presenting a content element "**at least in part within [an] image**" would be through the use of a background. EX1003, ¶199. Indeed, Darnell discusses the use of the HTML "BODY" tag and describes that "[the] **image** is placed in the **background of the Web page**, similar to hanging wallpaper in a

bedroom. If the image is smaller than the space occupied by the browser window, it's tiled to fill the entire background." EX1011, 242-243.

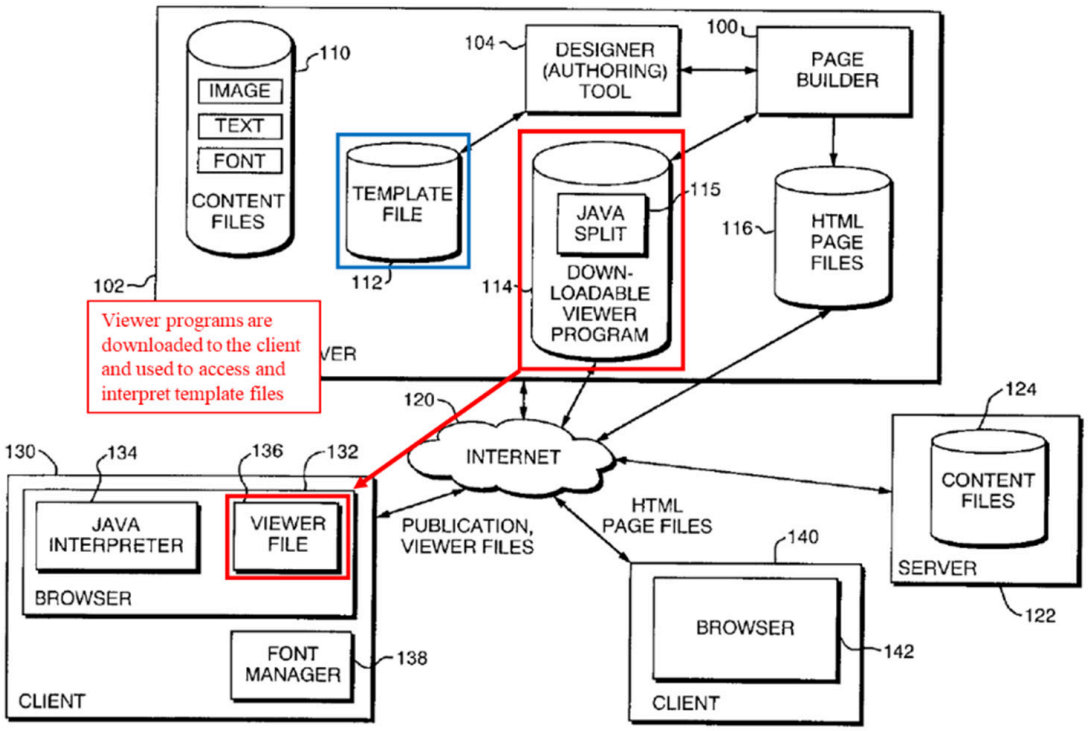
[12]

As Dr. Schmidt explains, a POSITA would have recognized or found obvious that actions in one "NIM" could affect another. EX1003, ¶200. Indeed, Darnell describes "frames" for presenting content and that "[it's] also possible to have the user's actions in one frame affect the content of other frames." EX1011, 338. As Dr. Schmidt explains, a POSITA would have recognized or found obvious from the above that "**communication**" would need to occur between the frames. EX1003, ¶201.

E. [GROUND 2C] – Claims 11 and 16-21 are rendered obvious by Shimada, Buchholz, and Krishna

1. Overview of Krishna

Krishna is directed to "[a] Page Builder software program that operates in connection with a dynamic content publishing program." EX1021, Abstract; EX1003, ¶201. Krishna refers to these software programs as "Viewer programs" and describes that Viewer programs can be "activated to locate and interpret the object content and actions contained in [a] template file." *Id.*, Abstract, 2:9-21. Krishna's system is illustrated below.



EX1021, FIG. 1 (annotated)

2. Combination of Krishna and Shimada-Buchholz

A POSITA would have found it obvious to combine the teachings of Krishna with the Shimada-Buchholz combination. EX1003, ¶202. Among other things, all three references are directed to "accessing and viewing internet content." EX1008, Abstract, 1:34-55; EX1009, Abstract, 1:49-54; EX1021, Abstract, 1:20-32.

A POSITA would have recognized or found obvious that Krishna's methods of "producing dynamic content publications" could be implemented in the Shimada-Buchholz combination as all three references describe the use of HTML. EX1008, 6:59-62; EX1009, 5:9-13; EX1021, Abstract; EX1003, ¶203.

Moreover, a POSITA would have been motivated to combine Krishna with the Shimada-Buchholz combination to increase usability, eliminate the need to download specialized applications, reduce client-side storage requirements, and/or other relevant business or technical reasons. EX1003, ¶204.

3. Analysis

[11]

Krishna describes a "FutureTenseTM viewer program" that can "use URLs contained within the template file 112 to **obtain the content and action information ("generate the request for the content**") from servers 102 and/or 122. The content and action to information in the template file 112 are then used to **change the Visual display of the page** in response to the user inputs ("**present the viewer graphical user interface**" and "**present the first content element**")." EX1021, 4:40-52, 5:16-31. As Dr. Schmidt explains, based on the above disclosure, a POSITA would have recognized or found obvious that the viewer program is "**separate from the networked information monitor template**." EX1003, ¶205.

Additionally, a POSITA would have recognized that "viewer program" modules could be implemented as an "**application**," as this is a common type of program module. EX1003, ¶206; Section III.B.3.[11], *supra*.

[16.pre]-[16.5]

The Shimada-Buchholz-Krishna combination renders these claims obvious in the same manner as explained above for the corresponding claims listed in the following table. EX1003, ¶¶207-212.

Claim	Corresponding Claim
[16.pre]	[1.pre], [11]
[16.1]	[11]
[16.2]	[1.6], [11]
[16.3]	[1.7], [11]
[16.4]	[1.5], [11]
[16.5]	[1.8], [11]

[17]

See [11] (incorporated here). Dr. Schmidt explains that a POSITA would have understood or found obvious that time-varying content would drive regular (e.g., continual) modification to the GUI. EX1003, ¶213. For example, Buchholz describes subscriptions for "[i]nformation services" with "**up-to-date information** on stocks, sports, news, and the like." EX1009, 1:13-19. A POSITA would have recognized or found obvious that, in order for information to be "up-to-date," the GUI would need to be **"[modified] … prior to the step of presenting the graphical**

user interface" by the viewer program or computer program module. EX1003, ¶213.

[18]

As Dr. Schmidt explains, the use of icons was well known in the art as of the Critical Date, and a POSITA would have recognized or found obvious that selection of an icon would effectuate certain functions of a parser or similar computer program module. Section III.B.3.[18], *supra*; EX1003, ¶214.

[19]

See [11] (incorporated here) with respect to "**the transmitting operation" and "the presenting the viewer graphical user interface operation**." EX1003, ¶215.

[20]

The Shimada-Buchholz-Krishna combination renders these claims obvious in the same manner as explained above for the corresponding claims listed in the following table. EX1003, ¶¶216-220; *see In re Harza*, 274 F.2d at 671.

Claim	Corresponding Claim
[20.1]	[1.1], [1.6], [11]
[20.2]	[1.7], [11]
[20.3]	[1.5], [11]
[20.4]	[1.8], [11]
[20.5]	[11], [18]

[21]

See [14] (incorporated here). EX1003, ¶221.

IV. PTAB DISCRETION SHOULD NOT PRECLUDE INSTITUTION

On March 28, 2023, Samsung Electronics Co., Ltd. ("Samsung") petitioned for *inter partes* review of the '545 patent ("the Samsung Petition") in IPR2023-00756 ("the Samsung Proceeding"). The Board instituted review in that proceeding on October 11, 2023. On May 23, 2023, Petitioner petitioned for IPR of the '545 patent ("the Original Petition") in IPR2023-00937 ("the Apple Proceeding"). The Board has yet to render an institution decision based on the Original Petition. Petitioner presently submits this Petition ("the Joinder Petition") with a conditional motion to join Petitioner to the Samsung Proceeding **if**, **and only if**, the Board declines to institute the Original Petition in the Apple Proceeding.

This Joinder Petition and its accompanying conditional motion avoids **(1)** duplicative litigation in different forums on the same printed publication prior art grounds, and **(2)** potentially inconsistent decisions from different forums. If the Board were to deny both Apple's Original Petition and this Joinder Petition, Apple would have no choice but to pursue its invalidity defenses in district court in parallel with the Samsung Proceeding. Against that outcome, institution of one petition or the other promotes judicial efficiency.

A. The General Plastic Factors Favor Institution

The Board's "intent in formulating the [*General Plastic*] factors was to take undue inequities and prejudices to Patent Owner into account" when evaluating second-in-time petitions. *General Plastic Indus. Co. v. Cannon Kabushiki Kaisha*, IPR2016-01357, Paper 19 at 16 (PTAB Sept. 6, 2017) (precedential). The Board has applied this framework to the joinder petition of a petitioner that previously filed its own petition. *Apple Inc., v. Uniloc 2017 LLC*, IPR2020-00854, Paper 9 (PTAB Oct. 28, 2020) (precedential). And while the Board denied institution in *Apple v. Uniloc*, the facts here are quite different and serve the Board's goals of promoting fairness and efficiency for both parties.

1. Factor 1: Petitioner's Multiple Petitions Do Not Prejudice Patent Owner

The fact that Petitioner previously filed a petition (the Original Petition) against overlapping claims of the '545 patent does not reveal prejudice to Patent Owner. Indeed, it is not uncommon for petitioners to submit more than one petition against the same patent with an understanding that the Board will typically institute no more than one of them. *See* CTPG at 59-61 (discussing "parallel petitions"). Just as a parallel petitioner does not introduce prejudice by requesting institution of multiple petitions **in the alternative**, Petitioner also does not introduce prejudice by filing this Joinder Petition with a conditional request for joinder.

2. Factors 2 and 3: Petitioner's Knowledge of the Prior Art in the Samsung Petition Did Not Prejudice Patent Owner and Does Not Implicate Road- Mapping or Playbooking Concerns

Entirely independent of Samsung, Apple was concurrently preparing the Original Petition based on different prior art when it learned of the Samsung Petition at the time it was filed, and Apple filed the Original Petition **before** Patent Owner submitted its preliminary response to the Samsung Petition. Given that this Joinder Petition mirrors the prior art grounds from the Samsung Petition without alteration, Petitioner also has not gained any advantage over Patent Owner here in this proceeding. Moreover, the patentability analysis of this Joinder Petition was not modified in any way to account for the Board's analysis and/or Patent Owner's arguments made in the Samsung Proceeding.

3. Factors 4 and 5: Petitioner Diligently Prepared This Joinder Petition at the Appropriate Time

As a matter of statutory law, under 35 U.S.C. § 315(c), Petitioner could not have been joined to the Samsung Proceeding any earlier than the Board's institution of the Samsung Petition. And the filing date of this Joinder Petition is within the one-month timeline set by the Board's rules. The facts here are in stark contrast to *General Plastic* where the petitioner "provided no meaningful explanation" for a nine-month delay filing its follow-on petition. *General Plastic* at 10; *see also Apple v. Uniloc* at

5-6, 10-11 (noting the follow-on petition was filed long after the original petition had been denied institution).

4. Factors 6 and 7: Institution Efficiently Promotes Patent Quality

The Board's finite resources are well spent here. Institution will allow *inter partes* review to serve its intended function as a true alternative to district court litigation on the subject of validity over certain printed publication prior art grounds. *See*, *e.g.*, *General Plastic* at 16 ("In exercising discretion…we are mindful of the goals of the AIA–namely, to improve patent quality and make the patent system more efficient by the use of post-grant review procedures"); *OpenSky Industries, LLC v. VLSI Technology LLC*, IPR2021-01064, Paper 102 at 28 (PTAB Oct. 17, 2022) (precedential) ("Congress intended AIA proceedings to be a less-expensive alternative to district court litigation to resolve certain patentability issues.").

Both parties will benefit from confining adjudication on certain invalidity grounds to a single forum. As to the capacity of the Board to issue a final written decision within one year, Petitioner's willingness to serve as an "understudy" in the Samsung Proceeding is fully consistent with the Board's statutory goal.

B. The *Fintiv* Factors

On July 25, 2023, the district court granted Apple's Motion to Transfer Venue to the Northern District of California, closing the litigation in the Western District of Texas. EX1023 (Redacted Order Granting Transfer); EX1024 (Report to USPTO

re Transfer Decision). Patent Owner has filed a Petition for Writ of Mandamus, challenging the transfer ruling, and no matter has yet been opened in the Northern District of California. *See, e.g.*, EX1025 (DoDots's motion seeking to waive confidentiality with respect to its petition for a writ of mandamus, which challenges transfer order). Accordingly, there is no active parallel litigation between the parties. In the event that Patent Owner argues the *Fintiv* favors denying institution, Apple reserves its right to address the *Fintiv* factors in a preliminary sur-reply based on the then-existing state of the litigation.

C. The *Advanced Bionics* Test Favors Institution

This Petition presents new prior art and arguments against the Challenged Claims. None of Wecker, Beer, Shimada, Buchholz, Darnell, and Krishna were previously cited or applied in a rejection during prosecution of the '545 Patent. While Brown is listed on the face of the '545 Patent, it was not applied or discussed by the Examiner in any capacity during prosecution. *See generally* EX1002. Simply citing a reference on an information disclosure statement, without more, does not favor denying institution. *See Navistar, Inc. v. Fatigue Fracture Tech., LLC*, IPR2018-00853, Paper 13 at 16-17 (PTAB Sept. 12, 2018).

V. CONCLUSION

The Challenged Claims are unpatentable.

Respectfully submitted,

BY: /s/ Paul R. Hart
Paul R. Hart, Reg. No. 59,646
Adam P. Seitz, Reg. No. 52,206
Kevin Rongish, Reg. No. 78,716

COUNSEL FOR PETITIONER

VI. MANDATORY NOTICES UNDER 37 C.F.R § 42.8(A)(1)

A. Real Party-In-Interest Under 37 C.F.R. § 42.8(b)(1)

Apple Inc. is the real party-in-interest. 37 C.F.R. § 42.8(b)(1).

B. Related Matters Under 37 C.F.R. § 42.8(b)(2)

Pursuant to 37 C.F.R. § 42.8(b)(2), Apple identifies the following matters related to the '545 Patent:

- *Samsung Electronics Co., Ltd. v. DoDots Licensing Solutions LLC*, IPR2023-00621
- *DoDots Licensing Solutions LLC v. Apple Inc. et al*, 6:22-cv-00533, (W.D.Tex. May 24, 2022), terminated pursuant to transfer, but not yet re-filed in transferee court
- *DoDots Licensing Solutions LLC v. Samsung Electronics Co., Ltd. et al*, 6:22-cv-00535, (W.D.Tex. May 24, 2022)

C. Lead And Back-Up Counsel Under 37 C.F.R. § 42.8(b)(3)

Petitioners provide the following designation and service information for lead and back-up counsel. 37 C.F.R. § 42.8(b)(3) and (b)(4).

Lead Counsel	Back-Up Counsel
Paul R. Hart (Reg. No. 59,646) paul.hart@eriseip.com PTAB@eriseip.com Postal and Hand-Delivery Address: ERISE IP, P.A. 717 17th St., Ste. 1400 Denver, Colorado 80202 Telephone: (913) 777-5600 Fax: (913) 777-5601	Adam P. Seitz (Reg. No. 52,206) adam.seitz@eriseip.com Kevin Rongish (Reg. No. 78,716) kevin.rongish@eriseip.com PTAB@eriseip.com Postal and Hand-Delivery Address: ERISE IP, P.A. 7015 College Blvd., Suite 700 Overland Park, Kansas 66211 Telephone: (913) 777-5600 Fax: (913) 777-5601

D. Service Information

Please address all correspondence to the lead and back-up counsel as shown above. Petitioner consents to electronic service by e-mail at the e-mail addresses provided above.

E. Payment of Fees

The PTO is authorized to charge any fees due during this proceeding to Deposit Account No. 50-6159.

Respectfully submitted,

BY: */s/ Paul R. Hart*
Paul R. Hart, Reg. No. 59,646
Adam P. Seitz, Reg. No. 52,206
Kevin Rongish, Reg. No. 78,716

COUNSEL FOR PETITIONER

CERTIFICATION OF WORD COUNT

The undersigned certifies pursuant to 37 C.F.R. §42.24 that the foregoing Petition for *Inter Partes* Review, excluding any table of contents, mandatory notices under 37 C.F.R. §42.8, certificates of service or word count, or appendix of exhibits, contains 13,988 words according to the word-processing program used to prepare this document (Microsoft Word).

Dated: November 13, 2023

Respectfully submitted,

BY: /s/ Paul R. Hart
Paul R. Hart, Reg. No. 59,646
Adam P. Seitz, Reg. No. 52,206
Kevin Rongish, Reg. No. 78,716

COUNSEL FOR PETITIONER

CERTIFICATE OF SERVICE ON PATENT OWNER
UNDER 37 C.F.R. § 42.105

Pursuant to 37 C.F.R. §§ 42.6(e) and 42.105, the undersigned certifies that on November 13, 2023, a complete and entire copy of this Petition for *Inter Partes* Review including exhibits was provided via Federal Express to the Patent Owner by serving the correspondence address of record for the '545 Patent as listed on PAIR:

PK PATENT LAW
213 S. Payne Street
Alexandria, VA 22314

Further, a courtesy copy of this Petition for *Inter Partes* Review was sent via electronic mail to Petitioner's and Patent Owner's counsel in Inter Partes Review IPR2023-00756:

W. Karl Renner (IPR39843-0148IP1@fr.com)
Jeremy J. Monaldo (PTABInbound@fr.com)
Copy to: PTABInbound@fr.com, axfptab@fr.com, jjm@fr.com, and in@fr.com

Jason S. Charkow (jason.s.charkow@gmail.com)
Richard Juang (richard.juang@gmail.com)
Chandran B. Iyer (cbiyer@daignaultiyer.com)
Ronald M. Daignault (rdaignault@daignaultiyer.com)
dodotslit@daignaultiyer.com

Respectfully submitted,

BY: /s/ Paul R. Hart
Paul R. Hart, Reg. No. 59,646
Adam P. Seitz, Reg. No. 52,206
Kevin Rongish, Reg. No. 78,716

COUNSEL FOR PETITIONER