

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

RPX CORPORATION AND VIMEO, INC.,
Petitioner,

v.

LINK ENGINE TECHNOLOGIES LLC,
Patent Owner.

Case IPR2017-00886
Patent 7,480,694 B2

Before RAMA G. ELLURU, SCOTT A. DANIELS, and
DANIEL J. GALLIGAN, *Administrative Patent Judges*.

DANIELS, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a)

I. INTRODUCTION

A. Background

RPX Corporation and VIMEO, Inc. (“Petitioner”) filed a Petition to institute an *inter partes* review of claims 1–33 of U.S. Patent No. 7,480,694 B2 (“the ’694 patent”). Paper 3 (“Pet.”). Link Engine Technologies LLC (“Patent Owner”) filed a Preliminary Response. Paper 8 (“Prelim. Resp.”). We instituted trial for claims 1–33 of the ’694 patent on all grounds of unpatentability alleged in the Petition. Paper 13 (“Decision to Institute” or “Inst. Dec.”).

After institution of trial, Patent Owner filed a Patent Owner Response and a Contingent Motion to Amend seeking to replace claims 1–33 with substitute claims 34–51. Paper 15 (“PO Resp.”), Paper 16 (“Mot. to Amend”). Petitioner filed a Reply and an Opposition to the Contingent Motion to Amend. Papers 17 (“Reply”), 18 (“Opp. to Mot. to Amend”). Subsequently, Patent Owner filed a Reply to the Opposition. Paper 19 (“PO Reply to Opp.”). By an order on March 28, 2018 (Paper 20), we granted Petitioner a Sur-Reply to the Reply to the Opposition. Paper 23 (“Pet. Sur-Reply to Opp.”).

Petitioner relies on the declarations of Phillip Greenspun, Ph.D. Ex. 1010, Ex. 1035. Patent Owner did not submit testimony from a declarant in support of its positions.

A hearing for IPR2017-00886 was held on May 8, 2018. The transcript of the consolidated hearing has been entered into the record. Paper 29 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6(c). This final written decision is issued pursuant to 35 U.S.C. § 318(a). Based on the record before us, Petitioner has shown by a preponderance of the evidence that

claims 1–33 of the '694 patent are unpatentable. We further deny Patent Owner's Motion to Amend as to substitute claims 34–51.

B. Additional Proceedings

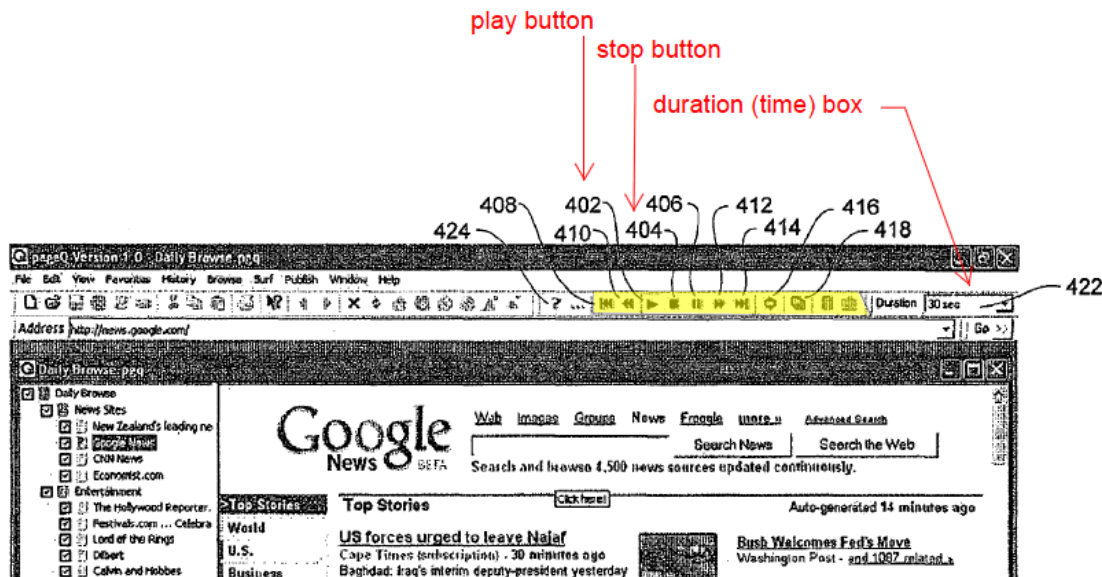
Petitioner states that the '694 patent is asserted against VIMEO Inc. in Case No. 0:2-16-cv-01070 in the United States District Court, Eastern District of Texas. Pet. 1.

C. The '694 Patent

The '694 patent (Ex. 1001), titled “Web Playlist System, Method, and Computer Program,” relates generally to a computer program that displays a sequence of web pages, i.e. a playlist, to a viewer and provides a control panel that allows the user to control the display. Ex. 1001, 1:52–57, 5:20–21. Stating that its program is more functional than “a simple static list of addresses or URLs such as, for example, Internet Explorer ‘Favorites,’” the '694 patent describes “a computer program that performs all the usual functions of a browser but with additional functionality . . . allowing a user to access web-sites and selectively capture a sequence of HTML pages or URLs for later playback and editing.” *Id.* at 1:41–42, 4:52–5:2.

By way of example, the '694 patent explains that the computer program could be implemented by an internet browser retrieving a plurality of network addresses, e.g. uniform resource locators (“URLs”), from a computer memory and displaying the addresses in a panel in a browser window. *Id.* at 5:6–21, Fig. 3. Figure 3 of the '694 patent is reproduced below.

Browser window 304 may also include a control panel as shown in annotated Figure 4 from the '694 patent, reproduced in part below and enlarged for ease of viewing.



Partial Figure 4 of the '694 patent, above with annotations added by the Board, illustrates a control panel, a portion of which is highlighted in yellow (no reference number), including for example, play button 402 and stop button 404. *See id.* at 6:3–18. Also illustrated is “duration” box 422, which conveys to the viewer a default time, “30 sec,” for the web page to be displayed. *Id.* at 7:30–37.

D. Illustrative Claim

Of the challenged claims, claims 1, 7, 13, 20, and 28 are independent. Each of dependent claims 2–6, 8–12, and 14–19 depend directly or indirectly from respective independent claims 1, 7, and 13. Claims 21–27 depend directly or indirectly from claim 20, and dependent claims 29–33 depend directly from independent claim 28. Claim 1 illustrates the claimed subject matter and is reproduced below:

1. A computer device executing an Internet browser comprising:
 - at least one browser window configured to display to a user at least one web page identified by one of a plurality of network addresses in computer memory, said network addresses representing a sequence;
 - a playlist engine configured to retrieve user selected network address(es) from the sequence, and further configured to display, in the browser window, web pages corresponding to the user selected network addresses; and*
 - a control panel configured to enable a user to select for display in the browser window(s) at least one of the web pages corresponding to the user selected network address(es), the control panel having a play mode control which when selected by the user causes the playlist engine to retrieve successive addresses from the sequence in the absence of user selection and to display in the browser window web pages corresponding to the retrieved successive addresses, the web pages each displayed for one or more predefined durations;
 - wherein the network addresses are associated with one or more duration values, the predefined duration for each web page specified by the associated duration value; and
 - further comprising a timer configured to display, for at least one of the displayed web pages, the time remaining for the playlist engine to display the web page.

Ex. 1001, 15:55–16:13 (emphasis added). We emphasize the “playlist engine” limitation as the parties’ arguments center mainly on this claim element. As noted by Petitioner’s Declarant, Dr. Greenspun, there is significant overlap and similarity across the independent claims. *See* Ex. 1010 ¶ 172. For example, instead of “[a] computer device,” and “a playlist engine,” independent claim 13 recites “[a]computer readable storage medium comprising a data file for use with an Internet browser . . . the data file comprising . . . computer program code operable to generate a playlist

engine.” *Id.* at 17:17–25. Notably, as Patent Owner points out, only claim 1 and its respective dependent claims 2–6, “require an Internet browser that includes a ‘playlist engine.’” PO Resp. 3 n.1. Patent Owner does not substantively address Petitioner’s challenges to claims 7–33. *See id.*

E. The Asserted Grounds of Unpatentability

Petitioner contends that the challenged claims are unpatentable on the following specific grounds.

References	Basis	Claims Challenged
Quimby ¹ and Quimby CD ²	§ 103	1–4, 7–10, 13–17, 20–31
Quimby and Lenz ³	§ 103	5, 11, 18, 32
Quimby and Maddalozzo ⁴	§ 103	6, 12, 19, 33
Quimby and Barrett ⁵	§ 103	1–4, 7–10, 13–17, 20–31
Quimby, Barrett and Lenz	§ 103	5, 11, 18, 32
Quimby, Barrett and Maddalozzo	§ 103	6, 12, 19, 33
Lenz	§ 103	1–5, 7–11, 13–18, 20–32
Lenz and Maddalozzo	§ 103	6, 12, 19, 33
Lenz and Barrett	§ 103	1–5, 7–11, 13–18, 20–32
Lenz, Barrett and Maddalozzo	§ 103	6, 12, 19, 33

II. CLAIM CONSTRUCTION

A. Legal standard

In an *inter partes* review, claim terms in an unexpired patent are interpreted according to their broadest reasonable construction in light of the

¹ Ex. 1005, U.S. Patent Appl’n. Pub. 2002/0199002 A1 (Dec. 26, 2002).

² Ex. 1006, CD including program code, submitted with Quimby Pub. 2002/0199002 A1.

³ Ex. 1007, WO 98/20434 A3 (May 14, 1998).

⁴ Ex. 1008, U.S. Patent No. 6,460,060 B1 (Oct. 1, 2002).

⁵ Ex. 1009, Dan Barrett, ESSENTIAL JAVASCRIPT™ FOR WEB PROFESSIONALS, Second Ed., Prentice Hall, 2003.

specification of the patent in which they appear. 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016) (upholding the use of the broadest reasonable interpretation standard).

“Under a broadest reasonable interpretation, words of the claim must be given their plain meaning, unless such meaning is inconsistent with the specification and prosecution history.” *Trivascular, Inc. v. Samuels*, 812 F.3d 1056, 1062 (Fed. Cir. 2016). If the specification “reveal[s] a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess[,] . . . the inventor’s lexicography governs.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) (en banc) (citing *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002)). We apply this standard to the claims of the ’694 patent.

B. Playlist engine

We determined in our Decision on Institution that “a ‘playlist engine’ is ‘a software program or series of software programs’ undertaking the respective functions described in the claims as would have been understood by one of ordinary skill read in the context of the claims.” Inst. Dec. 7–9 (citing Ex. 1001, 4:52–55, 5:43–44).

Petitioner states that it largely agrees with this construction but points out that the ’694 patent describes that “the playlist engine” is implemented “as a software program or series of software *functions*,” as opposed to “*programs*.” Pet. Reply 6 (citing Ex. 1001, 5:43–45). Petitioner acknowledges that this “may be a distinction without a difference” but requests us to consider this point in light of the difference “between JavaScript files (often referred to as applications or programs) and the JavaScript functions contained within such files.” *Id.* (citing Ex. 1035 ¶¶ 8–

10). This slight change in our determination appears reasonable as it does not alter substantively our understanding of “playlist engine,” and it is consistent with the express disclosure of the ’694 patent. Moreover, Patent Owner agreed during oral argument that it did not object to this change in our construction.⁶ *See* Tr. 32:16–22.

Therefore, we determine that a “playlist engine” as claimed, is “a software program or series of software functions undertaking the respective functions described in the claims as would have been understood by one of ordinary skill read in the context of the claims.”

C. Whether claim 1 requires the internet browser to include the playlist engine

Patent Owner argues that claim 1 requires the playlist engine to be part of, *i.e.* included in, the internet browser based on the preamble’s reciting “[a] comput[er] device *executing an Internet browser* comprising . . . a *playlist engine*.” PO Resp. 7–9; Tr. 21. Patent Owner asserts also that, because an “[i]nternet browser is a client-side program,” the playlist engine, as part of the browser, must similarly be a client-side program. PO Resp. 7.

Petitioner disagrees, arguing on one hand that “the playlist engine recited in the body of the claim is comprised within the ‘computing device,’ which is the subject of the claim.” Pet. Reply 2. On the other hand, Petitioner maintains that regardless of the claim construction, the asserted prior art teaches “executing an Internet browser that includes a software program or series of software functions.” *Id.* at 8.

⁶ Patent Owner maintained its argument during the oral hearing that the preamble of at least independent claim 1 requires “that the playlist engine is a component of an internet browser.” Tr. 32:24–33:2.

We acknowledge some grammatical ambiguity in claim 1 as to whether the “playlist engine” is included in a “computer device” or an “Internet browser.” Patent Owner, however, provides the more reasonable understanding of the claim language from the perspective of a person of ordinary skill in the art because a reader would naturally expect, in a subject-verb-object grammar construct, the subject closest to the verb to be the subject to which the verb pertains. In claim 1, “comprising” immediately follows “an *Internet browser.*” Ex. 1001, 15:55–56. *See* William Strunk, Jr. & E.B. White, *The Elements of Style* 28 (4th ed. 2000) (“The position of the words in a sentence is the principal means of showing their relationship.”). This is consistent with our preliminary determination in the Decision on Institution. *See* Inst. Dec. 17 (“[B]y use of the term ‘comprising’ a reasonable understanding of the claim language and the relationship of these elements is that the claimed Internet Browser includes *inter alia* ‘a playlist engine’ that performs particular functions . . .”).

In addition to “a playlist engine,” claim 1 also recites “at least one browser window,” which is a window of the aforementioned “an Internet browser.” Ex. 1001, 15:55–57. The structure of the claim, therefore, suggests that the limitations following the word “comprising” pertain to the “Internet browser.”

We determine, therefore, that claim 1 is most naturally understood to encompass “an Internet browser comprising a playlist engine” and that the playlist engine is “a software program or series of software functions undertaking the respective functions described in the claims as would have been understood by one of ordinary skill read in the context of the claims.”

In any event, and considering our analysis below, we note that our Decision would reach the same result even if we accepted Petitioner's construction that the "playlist engine" was more broadly encompassed within "[a] computer device."

III. ANALYSIS

A. *The law of obviousness*

A claim is unpatentable under 35 U.S.C. § 103(a) if "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) objective evidence of nonobviousness, i.e., secondary considerations. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

In that regard, an obviousness analysis "need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *KSR*, 550 U.S. at 418; *Translogic*, 504 F.3d at 1262. A prima facie case of obviousness is established when the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art. *In re Rinehart*, 531 F.2d 1048, 1051 (CCPA 1976).

B. Level of ordinary skill in the art

Petitioner contends, and Patent Owner does not dispute, that a person of ordinary skill in the art “would have had a bachelor’s degree in computer science, or equivalent work experience, and at least two years of experience as a web developer, including using HTML, cascading style sheets, and JavaScript.” Pet. 9–10. Further, the applied prior art reflects the appropriate level of skill at the time of the claimed invention. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). As Petitioner’s asserted level of skill is commensurate with that informed by our review of the prior art in this proceeding, we accept Petitioner’s asserted level of ordinary skill in the art.

*C. Claims 1–4, 7–10, 13–17, and 20–31— Obviousness over
Quimby and Quimby CD*

Petitioner asserts that claims 1–4, 7–10, 13–17, and 20–31 would have been obvious over Quimby and Quimby CD. Pet. 12–22. As explained below, Petitioner has shown, by a preponderance of the evidence, that claims 1–4, 7–10, 13–17, and 20–31 are unpatentable as obvious in view of Quimby and Quimby CD.

1. Quimby and Quimby CD

Quimby discloses a customizable website access system including a software program having a composer portion and a performing portion. Ex. 1005, Abst. Quimby explains that the composer portion is used by a website developer to create the performing portion for a viewer, including a slide show of web pages:

The composing portion of the software program is used to create a presentation. The presentation includes a list of URLs for display, a desired sequence of display of the URLs, and a duration of display of the URLs.

Id. Perhaps more relevant to our analysis, is the performing portion of Quimby's software that displays the presentation to a user:

The performing portion of the software program operates to load and display the presentation to a user of the web in an automatic slide show presentation.

Id. Quimby explains also that a user can control and modify the slide show presentation because

[t]he performing portion of the software program also preferably provides a control panel whereby a web user can not only pause or stop the presentation but can also change the sequence and/or duration of display of each of the URLs of the presentation.

Id. ¶ 8.

Figure 1 of Quimby, illustrating diagrammatically Quimby's web site access system, is reproduced below.

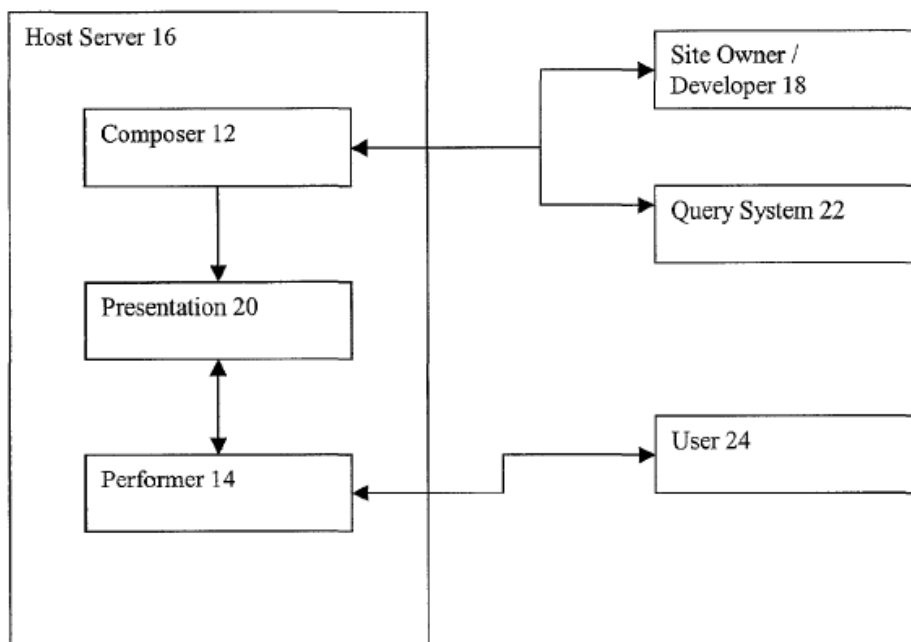


FIG. 1

Figure 1 of Quimby, above, illustrates diagrammatically customizable web site access system 10 (no reference number), including composer 12, presentation 20, and performer 14 implemented on host server 16. Ex. 1005 ¶ 22. Figure 1 illustrates also a communication relationship between User 24 and Performer 14. Quimby explains that “[t]he performer 14 is that portion of the software of system 10 that a user/visitor 24 to the web utilizes to access and view the customized presentation 20.” *Id.* ¶ 23.

An example of what a user of Quimby’s system would see, displayed on a computer, is shown generally in Figure 4, reproduced below. *See id.* ¶ 30.

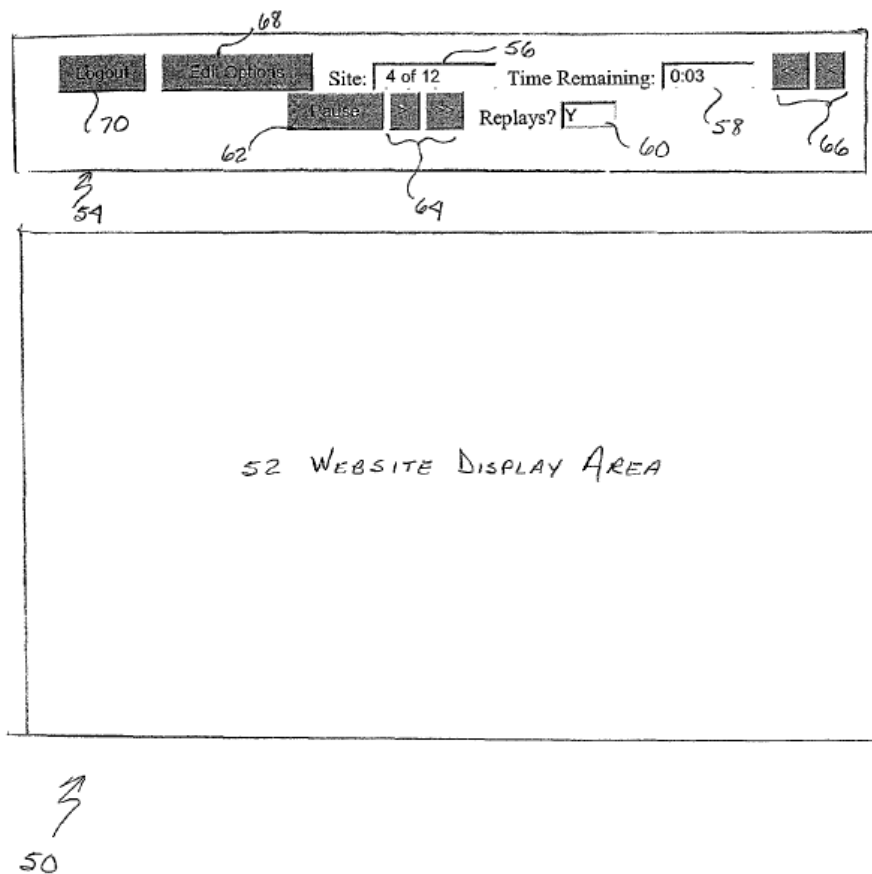


FIG. 4

Quimby's Figure 4, above, depicts website display area 52 below system-interactive user area 54, which includes pause button 62, site-forward button 64, site-backward button 66, and time remaining field 58 providing an "indication of how much longer the current web site will be displayed." *Id.* ¶¶ 32–33. Figure 4 of Quimby depicts a system-interactive user area 54 that appears as a "control panel" allowing the user to control the presentation. *Id.* ¶¶ 30, 32.

Quimby incorporates by reference Quimby CD, explaining that the CD submitted with the patent application is "[a] compact disc containing codes and information describing a preferred embodiment of the present invention." *Id.* ¶ 2. Quimby states that "[t]he compact disc contains the following files and/or programs:"

Title	Size in Bytes	Date of Creation
__vti__inf.html	1,759	08/10/2001
aboutus.asp	4,028	08/10/2001
composer.asp	7,698	08/10/2001
composer_edit.asp	17,961	08/10/2001
composer_saved.asp	4,264	09/20/2001
contact.htm	3,364	08/17/2001
contactus.asp	1,509	08/10/2001
default.asp	515	08/10/2001
director.asp	2,752	08/10/2001
director_api.asp	9,608	08/10/2001
director_simulator.asp	5,881	08/10/2001
director2.asp	2,964	08/10/2001
error.asp	1,500	08/10/2001
favicon.ico	7,406	08/10/2001
index.asp	2,172	08/10/2001
index.htm	3,646	09/20/2001
index_example.htm	5,991	08/10/2001
index_troy.htm	3,595	08/10/2001
install.asp	2,837	08/10/2001
intruder.asp	2,778	08/10/2001
jsperformer.asp	17,711	08/17/2001
jsperformer.css	66	08/10/2001
jsperformer.js	6,027	08/10/2001
launch.htm	306	08/10/2001
launch2.htm	1,263	08/31/2001

Id. The list reproduced above, from Quimby, is a partial list of computer files or programs, including the file jsperformer.asp, their size in Bytes, and date of creation, as contained on Quimby CD.⁷

2. *Claims 1–4*

Claim 1

Petitioner argues that Quimby discloses a “website access system” including a computer and web browser for retrieving website URLs for display to a user. Pet. 12–13 (citing Ex. 1005 ¶¶ 7, 21, 23, 37, 40; Ex. 1006, 1:13–23; Ex. 1010 ¶¶ 67–70, 80–81). Petitioner contends that Quimby’s website access system displays a web site, or web page, in a browser window from “a list of URLs” and implements “a desired sequence of display of the URLs, and a duration of display of the URLs.” Pet. 12, 16 (citing Ex. 1005 ¶ 7; Ex. 1006 ¶ 40).

Additionally, Petitioner contends that Quimby teaches the claimed “playlist engine,” which displays the sequence of URLs as a slide show of web pages to the user. Pet. 17. Petitioner argues that Quimby’s “‘performing portion’ software ‘operates to load and automatically display the presentation to a user of the web according to the URL list’ and ‘sequence of display.’” *Id.* (citing Ex. 1005 ¶¶ 7, 40). Petitioner asserts that the server-side jsperformer.asp “generates the Generated File” and sends the Generated File, as an HTML/JavaScript file, to the client-side browser for processing to retrieve and display the presentation to the user. *Id.* (citing Ex. 1010 ¶¶ 70, 82–84, 108).

⁷ Unless otherwise set out in this Decision, we refer to Quimby and Quimby CD, generally as “Quimby.”

Petitioner asserts further that a “control panel” and “play mode” for controlling the slide show as it is displayed to a user are also taught by the “performer” software where Quimby states that

[t]he performing portion of the software program also preferably provides a control panel whereby a web user can not only pause or stop the presentation but can also change the sequence and/or duration of display of each of the URLs of the presentation.

Pet. 19–20 (quoting Ex. 1005 ¶ 8).

Petitioner argues that the claimed “duration values” and “timer” display are both discussed and shown expressly in Figures 3 and 4 of Quimby. *Id.* at 21–23. Figure 4 as shown above, Petitioner argues, illustrates in Quimby’s control panel “time remaining field 58” as a display of remaining time for a web page to be shown to a viewer. Pet. 21 (citing Ex. 1005 ¶ 32 and Fig. 8). Also, Figure 3 is relied upon by Petitioner to show that Quimby teaches that a desired, i.e. predefined, time duration value can be entered for each listed URL to be displayed to a user for the predefined time during the slide show. *Id.* at 24 (citing Ex. 1005 ¶31).

In response, Patent Owner makes two main arguments, first, that “[t]he Petition fails to meet the requirements of 35 U.S.C. § 312 and 37 C.F.R. § 42.104 because Petitioner fails to specify where the claimed ‘playlist engine’ of the ’694 Patent is found” in Quimby. PO Resp. 1–2. Second, Patent Owner argues that Petitioner has failed to prove that either Quimby, or Lenz, discloses the claimed “playlist engine.” *Id.* at 3–12. We point out that Patent Owner does not make any substantive arguments for other claim limitations apart from the “playlist engine.” We address Patent Owner’s arguments in turn, below.

Whether the Petition Specifies where each Element of the Claim is found in Quimby under 37 C.F.R. § 42.104

We agree with Patent Owner’s general assertion that under 35 U.S.C. § 312 and 37 C.F.R. § 42.104 “a petition for *inter partes* review ‘must specify where each element of the claim is found in the prior art patents or printed publications relied upon.’” PO Resp. 1 (citing 37 C.F.R. § 42.104(b)(4)). The Office Patent Trial Practice Guide explains that “[a] complete petition for IPR requires that . . . the petitioner identify the claims being challenged and the specific basis for the challenge.” Office Trial Practice Guide, 77 Fed. Reg. 48763–64.

Our review indicates that the Petition does include the necessary specificity such that a reasonable reading of the Petition identifies specific software functions of Quimby that correspond to the “playlist engine” as a basis for the challenge to the claims. The Petition expressly states that the “performing portion” of the Quimby software initiates the software functions described in Quimby that meet the limitations of the “playlist engine” in claim 1. Pet. 17. For example, the Petition alleges that “Quimby’s performer or ‘performing portion’ software ‘operates to load and automatically display the presentation to a user of the web according to the URL list’ and ‘sequence of display.’” *Id.* (citing Ex. 1005 ¶ 7). Moreover, the Petition identifies “jsperformer.asp,” as shown, above, in the partial list of files from Quimby CD. *Id.* at 14 (citing Ex. 1010 ¶ 70). The Petition explains that “jsperformer.asp generates an HTML/JavaScript file that is downloaded and processed by the user’s browser.” *Id.* Petitioner’s position is clear that software functions within the client browser process the HTML/JavaScript file that is generated by jsperformer.asp and, therefore, teach the claimed “playlist engine.” *See id.* at 14–18 (discussing Quimby’s

“playlist engine” functionality, the Petition states that “the Generated File is sent from the server to the client, where the client browser processes the Generated File to cause the client browser to display the selected slide show.”).

We do not agree with Patent Owner’s assertion that the Petition lacks specificity because it identifies “three different alternatives from Quimby – client browser; performing portion; or output of two lines of JavaScript code in jsperformer.asp” as the “playlist engine.” PO Resp. 2. The Petition explains how the server-side “performer” is invoked by a user to run a presentation of web pages on the client-side computer where

Quimby discloses a source code embodiment in which the server-based “performer,” embodied in the code jsperformer.asp, generates an HTML/JavaScript file that is downloaded and processed by the user’s browser.

Pet. 14 (citing Ex. 1006, 1:1–9:459; Ex. 1010 ¶ 70). The three “alternatives” noted by Patent Owner are not disparate elements individually asserted to be the “playlist engine,” but, according to Petitioner, they are coordinated functions of Quimby’s computer program that are initiated by invoking jsperformer.asp.:

[s]pecifically, when a user initiates a presentation, e.g., by activating the “performer.asp” link in the index.html file, the server runs the program “jsperformer.asp.” In response, jsperformer.asp generates and sends to the user’s browser an HTML/JavaScript file (a.k.a. the “Generated File”) that configures the browser to perform all of the steps of Claim 1.

Id. (citing Ex. 1010 ¶¶ 70, 84–90; Ex. 1006). Keeping in mind our claim construction—that a “playlist engine” is “a software program or series of software functions undertaking the respective functions described in the claims”—it is reasonable to understand from the Petition that it is Quimby’s

orchestrated software functions, initiated by `jspformer.asp`, that generate an HTML/JavaScript file for configuring the internet browser on a client-side machine to display the presentation. In other words, contrary to Patent Owner's position, Petitioner has not relied upon a variety of disparate single elements, e.g. only `jspformer.asp`, only the browser, or a related function, of Quimby as teaching the "playlist engine," but has asserted that it is a composite of Quimby's described software programs and functions, including browser software and functions, which together are asserted to embody all the features of the claimed "playlist engine." *See* Section II.B.

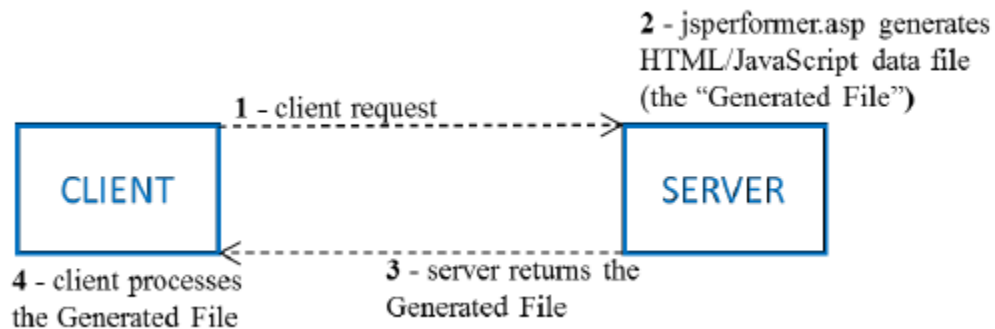
Therefore, we are persuaded on the record before us as a whole that Petitioner has properly described where each element of the claimed invention is found in the prior art in accordance with 37 C.F.R. § 42.104(b)(4).

Whether Quimby discloses the claimed "playlist engine"

Patent Owner argues that there are "at least three reasons" that the Petition fails to prove that Quimby discloses the claimed "playlist engine." PO Resp. 7. First, Patent Owner contends that Quimby's "performing portion" is stored on a server and therefore is not included in, or part of, the "[i]nternet browser" as required by claim 1. *Id.* at 7–8. We disagree for reasons similar to that explained above—that is, it is not simply Quimby's server-side file "`jspformer.asp`" that is relied upon by Petitioner to teach the "playlist engine," but also the generated HTML/JavaScript file, which is sent to, and processed by, the client-side internet browser to display a presentation. *See* Pet. 14–17.

We agree with Patent Owner's position that `jspformer.asp` is a server-side program, a fact that is corroborated by Dr. Greenspun. *See* Ex.

1010 ¶ 70 (Dr. Greenspun explains that “[t]he file /jspperformer.asp runs on the server.”). Petitioner and Dr. Greenspun contend, however, that this assertion does not tell the whole story. *See id.* (Dr. Greenspun explains also that the server “generates output to be sent to the browser. The output is an HTML/JavaScript file . . .”). According to Dr. Greenspun, Quimby discloses “a playlist engine because the internet browser executes the JavaScript program in order to carry out the playlist engine functionality.” Ex. 1035 ¶ 5. Dr. Greenspun explains that, upon reading Quimby a person of ordinary skill in the art “would understand that a browser request (on the client) triggers jspperformer.asp (on the server) to generate an HTML/JavaScript file that is returned to the client for processing by the client browser.” Ex. 1010 ¶ 70. Thus, software functions within the client browser process the HTML/JavaScript file generated by jspperformer.asp to produce the viewable slideshow. Dr. Greenspun’s testimony provides the following illustration, and description, of Quimby’s source code embodiment:



The above illustration sets forth the following steps:

- 1) The client web browser, e.g., following a user click, requests jspperformer.asp;

- 2) The server evaluates `jsp performer.asp`, which generates an HTML/JavaScript file corresponding to the requested slide show (the “Generated File”);
- 3) The server returns the Generated File to the client;
- 4) The client web browser processes the Generated File, i.e., renders the HTML and interprets the JavaScript contained in the file. The result is the user experience of a slide show.

Id. We understand Dr. Greenspun’s testimony, as he clarified in his second declaration, to be that “a standard browser running a JavaScript program is precisely what Quimby discloses.” Ex. 1035 ¶ 6.

With Quimby’s teaching in mind, and referring to the ’694 patent and the claim language at issue, Dr. Greenspun states further that “a [person of ordinary skill in the art] would have understood ‘executing an Internet browser comprising ... a playlist engine’ to encompass a standard web browser program that is running, or executing, a JavaScript program.” *Id.* ¶ 5.

Patent Owner’s explanations that Quimby’s software and related functions are separate and distinct elements and its efforts to cast doubt on Dr. Greenspun’s testimony are unpersuasive. For one thing, the attorney argument in Patent Owner’s response provides no objective evidence rebutting Dr. Greenspun’s testimony. It is well settled that argument of counsel cannot take the place of evidence lacking in the record. *Estee Lauder Inc. v. L’Oreal, S.A.*, 129 F.3d 588, 595 (Fed. Cir. 1997). Dr. Greenspun’s testimony is factually unrebutted. Patent Owner has provided no persuasive evidence that Dr. Greenspun’s technical assessment and analysis of Quimby is inaccurate or that a person of ordinary skill in the art would not understand from Quimby that a standard browser is running a

JavaScript program to display a presentation to a user on a client-side computer.

We note that Patent Owner’s assertion that “Dr. Greenspun takes conflicting positions on Quimby,” (PO Resp. 5) is essentially the same as the 37 C.F.R. § 42.104 argument provided earlier—that Petitioner is playing fast and loose with what elements and functions of Quimby’s computer program are equated to the claimed “playlist engine.” *See* Tr. 22–23 (Patent Owner’s counsel alleged during oral argument that “there’s a lot of contradicting and confusing statements when it comes down to really what is the specific argument? Where is the playlist engine in Quimby?”). We do not agree with Patent Owner’s characterization of Petitioner’s arguments and Dr. Greenspun’s testimony as “conflicting.” For disclosure of the “playlist engine,” Dr. Greenspun points on one hand to Quimby’s disclosure that “[t]he performing portion of the software program operates to load and automatically display the presentation to a user of the web.” Ex. 1005 ¶ 7, *quoted in* Ex. 1010 ¶ 90. Dr. Greenspun testifies further that `jsp performer.asp` “creates and sends an HTML/JavaScript file (a.k.a. the Generated File) to the browser. The browser’s runtime engine then executes the Generated File and configures the browser window to perform all of the steps of Claim 1.” Ex. 1010 ¶ 84. Rather than being conflicting, these explanations exemplify software code and programs providing a certain cooperating functionality.

We acknowledge Patent Owner’s argument that “they [Petitioner] don’t make the allegation that Quimby[’s] browser plus generated file is the playlist engine.” Tr. 31:18–19. Dr. Greenspun, however, in a second declaration, clarified his testimony. First, referring to an “embodiment of

the '694 patent involv[ing] an internet browser program executing a JavaScript program in order to create the playlist engine,”Dr. Greenspun testifies that

[a] person of ordinary skill in the art . . . would understand that this preferred embodiment is an internet browser comprising (or including) a playlist engine *because the internet browser executes the JavaScript program in order to carry out the playlist engine functionality.*

Ex. 1035 ¶ 5 (emphasis added). Dr. Greenspun further testifies: “As discussed in my original declaration, a standard browser running a JavaScript program is precisely what Quimby discloses, thereby satisfying the playlist engine limitation under Patent Owner’s proposed reading.” *Id.* ¶ 6. This testimony by Dr. Greenspun explaining in detail that a person of ordinary skill in the art would understand Quimby’s client-side browser software that processes the HTML/JavaScript file (generated by the server-side jsperformer.asp), as encompassing the claimed “playlist engine,” is also factually un rebutted.

Patent Owner’s second reason that Quimby does not disclose a “playlist engine” is essentially a restatement of the first reason discussed above, i.e. that the jsperformer.asp file “is a single server-side .asp file” and therefore not included, or part of, a browser where “an Internet browser is a client-side software program.” PO Resp. 8 (citing Ex. 1010 ¶ 5). Rather, for the same reasons discussed above, Petitioner and Dr. Greenspun are consistent in describing the claimed “playlist engine” as encompassed by

the server’s jsperformer.asp (i.e., performer shown in Quimby FIG. 1) generat[ing] the Generated File, which is sent to the client. (*Supra* Section VI.A.1.a.) On processing the Generated File, the client browser then retrieves page addresses from the Generated File and displays the corresponding web pages.

Pet. 17 (citing Ex. 1010 ¶¶ 70, 82–84, 108).

The third reason Patent Owner asserts is that “the Board’s interpretation of Petitioner’s argument that JSPERFORMER.ASP is the claimed ‘playlist engine,’” is at odds with Dr. Greenspun’s contention that the “playlist engine . . . is generated by JavaScript code.” PO Resp. 9. As discussed in detail above, however, our analysis of Quimby is consistent with Dr. Greenspun’s testimony where we determined that it is Quimby’s “performing portion” and related software functions, initiated by `jsp performer.asp`, which generates an HTML/JavaScript file for configuring the internet browser on a client-side machine to display the presentation. Patent Owner’s argument here fails to address the Board’s complete analysis in our Institution Decision under the analysis titled, “playlist engine,” on pages 15–18, a portion of which stated:

Our understanding is ostensibly consistent with Dr. Greenspun’s testimony explaining that in Quimby a client, i.e. user, request for a website gets a response from server 16 with JSPERFORMER.ASP generating an HTML/JavaScript data file, i.e. the “Generated File,” that is returned to the client browser and “intended for rendering by a standard web browser of 2001, such as Mozilla or MSIE.” Ex. 1010 ¶ 83.

Inst. Dec. 17. Patent Owner has not provided the Board with any factual basis to draw a different conclusion. Rather, Quimby discloses a “performing portion” of a software program that generates an HTML/JavaScript file that is processed by a browser on a client-side computer “to load and automatically display the presentation to a user of the web according to the URL list, sequence of display, and duration of display.” Ex. 1005 ¶ 7.

We determined in our claim construction that a “playlist engine” is “a software program or series of software functions undertaking the respective functions described in the claims as would have been understood by one of ordinary skill read in the context of the claims.” Section II.B. Considering that Quimby’s software includes both the server-side `jspperformer.asp` file and the client-side browser software that processes the HTML/JavaScript file, Petitioner has shown persuasively that a person of ordinary skill in the art would understand Quimby teaches a software program or series of software functions that operate as part of an internet browser “to load and automatically display the presentation to a user of the web according to the URL list, sequence of display, and duration of display.” Ex. 1005 ¶ 7. For example, Dr. Greenspun explains that the HTML/JavaScript file processed by the web browser includes “a single HTML FORM,” and “[w]ithin the FORM are buttons that allow the user to start and stop the slide show or navigate among slides within the slide show,” and also provides “a SELECT menu that will enable changing the slide show’s speed.” Ex. 1010 ¶¶ 114–115 (citing Ex. 1006, 7:364–9:449, 7:374–378, 8:402–419). Again, Dr. Greenspun’s testimony is unrebutted.

Patent Owner does not present substantive arguments with respect to other limitations in claim 1 apart from the “playlist engine” as discussed above. *See* PO Resp. 9 (Patent Owner mainly contends, overall, that this ground of unpatentability fails because, “JSPERFORMER.ASP, is a server-side file, unlike the claimed ‘playlist engine,’ which is included in the client-side Internet browser program recited in Claim 1.”). The burden, however, remains on Petitioner to prove unpatentability. 35 U.S.C. § 316(e); *see also Dynamic Drinkware LLC, v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378

(Fed. Cir. 2015). We therefore address the remaining limitations from claim 1 below.

We are persuaded that Quimby discloses also “at least one browser window configured to display to a user at least one web page,” as recited in claim 1, where Quimby describes, for example that “the present invention exhibits display screen 50 to the user, incorporating web site display area 52 and system-interactive user area 54, and presents a slide show of the linked web pages.” Ex. 1005 ¶ 40, *quoted in* Pet. 16. Further, Petitioner persuades us that Quimby teaches a user interactive “control panel” as recited in claim 1 for playing and pausing a slide show of web pages, where Quimby describes a “software program also preferably provides a control panel whereby a web user can not only pause or stop the presentation but can also change the sequence and/or duration of display of each of the URLs of the presentation.” Ex. 1005 ¶ 8, *quoted in* Pet. 19–20. The “timer” limitation recited in claim 1, is persuasively shown, for instance in Quimby’s Figure 4, above, illustrating in the display and interactive user area 54 a “time remaining field 58.” Ex. 1005 ¶ 32. Also, we are persuaded that Quimby discloses a predefined “duration value[]” as recited in claim 1, for example as shown in Quimby’s Figure 3 reproduced below.

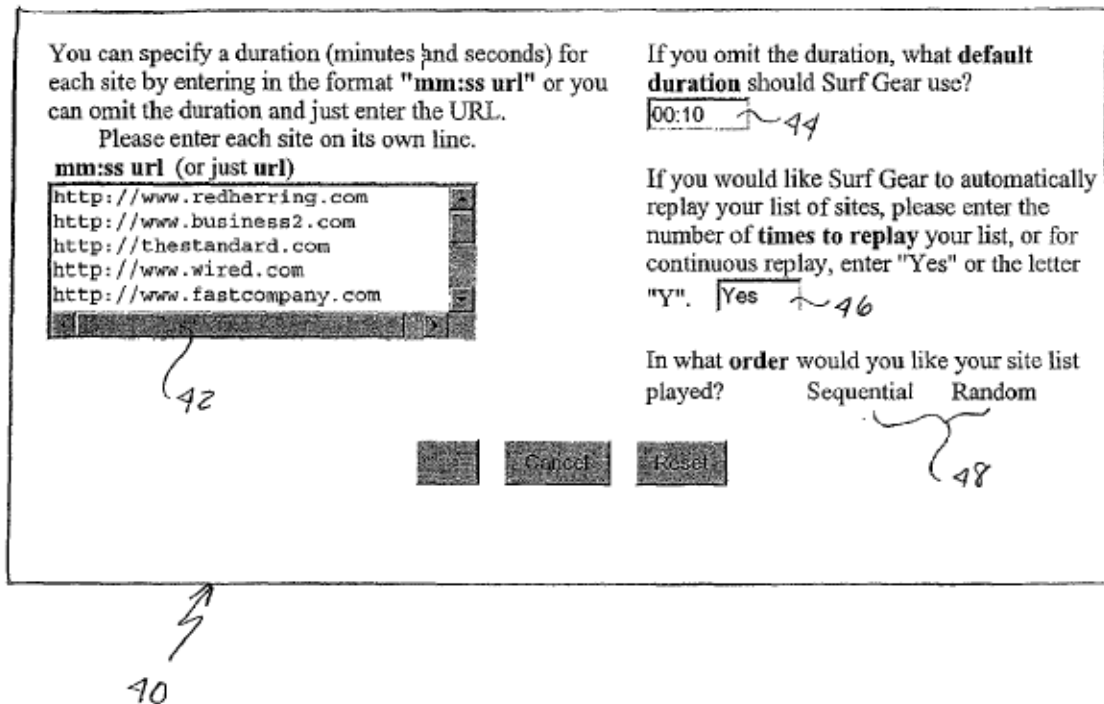


FIG. 3

Quimby's Figure 3, above, illustrates field 44 permitting a default time of 10 seconds to be set for a specific URL selected from the list shown in field 42. Ex. 1005 ¶ 31.

Based on our analysis above and the evidence presented by Petitioner, we are persuaded that Petitioner has shown, by a preponderance of the evidence, that claim 1 of the '694 patent would have been obvious over Quimby.

Dependent claims 2-4

Dependent claims 2-4 each recite limitations of "duration value" associated with one or more "network addresses." Petitioner points persuasively to Quimby's Figure 2A as teaching associating a default duration value with the network addresses, or, in the alternative, overriding a

default value with an alternative duration value, associated with each listed website. Pet. 24–25. Quimby’s Figure 2A is reproduced below.

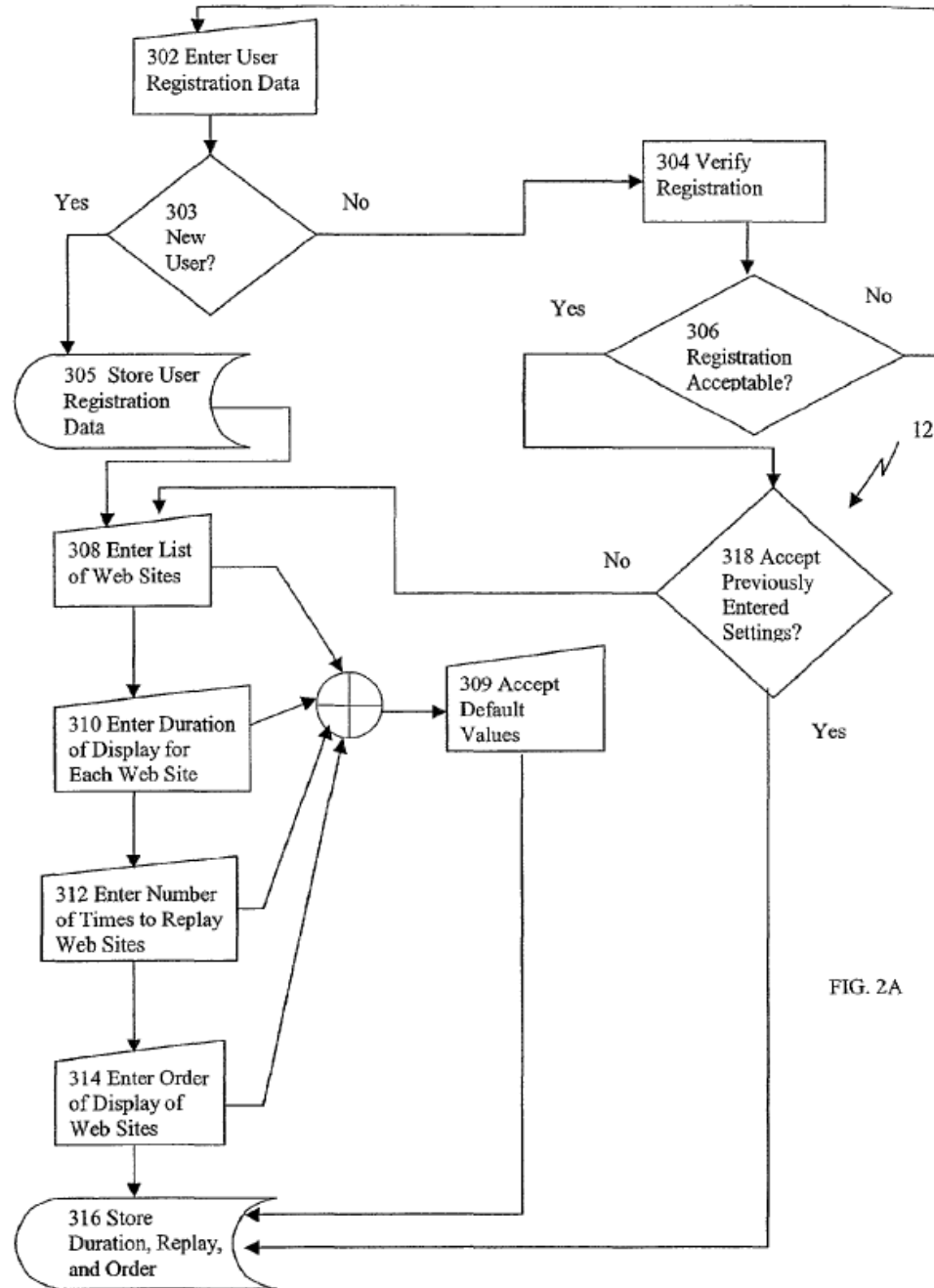


FIG. 2A

Quimby’s Figure 2A, above, is a flow chart including the steps of: entering a list of web sites at step 308; entering a duration of display for each web site at step 310; or accepting default values at step 309. *See Ex. 1005 ¶ 31*

(emphasis added) (Quimby teaches that “[d]ata entry screen 40 preferably includes a web site list field 42 that allows the site owner/developer to **enter a web site address (URL) and a duration of display** in a minute and second format (mm:ss).”).

Patent Owner does not present substantive arguments with respect to dependent claims 2–4. *See* PO Resp. 9 (Patent Owner urges simply that “all Grounds in Petition should be denied as to Claim 1 and all claims depending therefrom.”). The burden, however, remains on Petitioner to prove unpatentability. We are persuaded that Quimby at step 309 fairly discloses that “the network addresses are each associated with an item [a single default] duration value,” as recited in claims 2 and 4. And, our reading of Quimby is consistent with Petitioner’s position that Quimby, at step 310, teaches in addition to “a default duration value . . . an item duration value overriding the default duration value,” as called for in claim 3. Therefore, we are persuaded that that Petitioner has shown, by a preponderance of the evidence, that claims 2–4 of the ’694 patent would have been obvious over Quimby.

3. Claims 7–10 and 28–31

Independent claim 7 differs from claim 1 in that it recites “[a] web page display *system* for use with an Internet browser . . . the system comprising . . . a playlist engine.” Ex. 1001, 16:37–43 (emphasis added). Independent claim 28 does not recite “a playlist engine” and is drawn to “[a] *method* of displaying a plurality of web pages,” reciting steps including limitations very similar to those in independent claims 1 and 7. *Id.* at 19:4. Moreover, Patent Owner does not present any independent arguments with respect to claims 7–10 and 28–31 and concedes that “[o]nly claim 1 and

claims depending therefrom of the '694 Patent require an Internet browser that includes a 'playlist engine.'" See PO Resp. 3 n.1 (Patent Owner states that "[o]nly claim 1 and claims depending therefrom of the '694 Patent require an Internet browser that includes a 'playlist engine.' Patent Owner does not address the other independent and dependent claims herein.").

Petitioner essentially argues claims 1–4, 7–10, and 28–31 together, contending that independent claims 7 and 28 are not patentably distinct from claim 1, and compares the commensurate claim language of each independent claim, together, to the relevant disclosure in Quimby, as shown in Petitioner's claim chart reproduced below.

7,480,694	Quimby (Exs. 1005-1006)
1.0 A computer device executing an Internet browser comprising:	¶21: "... The web site access system of the present invention operates to combine the bookmark feature of web browsers with the slide show feature of presentation software. "
7.0 A web page display system for use with an Internet browser having	¶37: "... The user's experience in accessing the World Wide Web becomes analogous to browsing several publications sequentially"
28.0 A method of displaying a plurality of web pages identified by network	¶23: "... The performer 14 may be activated by a user 24 by simply entering a web site"

Pet. 15. The claim chart from the Petition, above, shows by way of example, the preambles of each of claims 1, 7, and 28 as compared to the asserted relevant disclosure from Quimby argued by Petitioner as encompassing the preamble. See Pet. 12–16. We are persuaded that there is little, if any substantive difference between the nomenclatures in each of these independent claims, as for example, each of the preambles compared above refers to similar aspects and features of a computer and visual display

executing an internet browser and showing a web page, or plurality of web pages, to a user.

We agree with, and adopt as our own findings, Petitioner's showing that Quimby describes and suggests each of the limitations of independent claims 7 and 28. *Id.* We credit the testimony of Dr. Greenspun that Quimby, for example, discloses a web browser including a web browser window configured to display web pages to a user. Ex. 1010 ¶ 83 (citing Ex. 1005, Fig. 4, ¶ 32). Dr. Greenspun provides further credible testimony as to the objective comparison of features in Quimby with each of the limitations of independent claims 7 and 28. *See id.* ¶¶ 80–94. Thus, we find that one of ordinary skill in the art would have understood that Quimby teaches or suggests all of the limitations as recited by independent claims 7 and 28.

Respective dependent claims 8–10 and 29–31 each recite limitations of “duration value” associated with one or more “network addresses” that are similar to, if not the same as, those in dependent claims 2–4. As discussed above, Petitioner points persuasively to Quimby's Figure 2A and Figure 3 as evidence that Quimby teaches associating a default duration value with the network addresses, or, in the alternative, overriding a default value with an alternative duration value, associated with each listed website. Pet. 24–26 (citing Ex. 1001 Figs. 2A, 3, ¶¶ 27, 31; Ex. 1010 ¶¶ 95–99).

Therefore, we conclude on the record before us that Petitioner has shown by a preponderance of the evidence that claims 7–10 and 28–31 would have been obvious under 35 U.S.C. § 103 in view of Quimby.

4. *Claims 13–17 and 20–24*

Independent claims 13 and 20 include all the limitations of claim 1 as discussed above, including for example, “a playlist engine,” “a control

panel,” “a timer,” and “duration values.”⁸ Ex. 1001, 17:17–46, 18:11–42. Different from claim 1, claims 13 and 20 recite “*a data file* for use with an Internet browser having a browser window” (claim 13) and “[a] method of creating *a data file* for use with an Internet browser having a browser window” (claim 20). *Id.* at 17:17–18, 18:11. Petitioner contends that the two claims are not patentably distinct. Pet. 26.

The claimed “data file” Petitioner asserts, simply “contain[s] the list of network addresses and the code to generate the playlist engine, control panel and timer.” *Id.* According to Petitioner, the claimed “data file” is disclosed by Quimby’s

HTML/JavaScript file (which this petition also refers to as the “Generated File”) that contains a sequence of network addresses for the web page slide show, along with JavaScript code that generates a playlist engine and control panel for the slide show when executed by the user’s browser.

Id. at 26–27.

We agree with, and adopt as our own Petitioner’s showing that Quimby describes and suggests the “data file” as recited in each of claims 13 and 20. Pet. 26–29 (citing Ex. 1010 ¶¶ 105, 118–119, 122). We credit, again, the unrebutted testimony of Dr. Greenspun that “a [person of ordinary skill in the art] would understand the source code of *jsp performer.asp* to generate a data file as claimed.” Ex. 1010 ¶ 109. Dr. Greenspun explains that in Quimby

[t]he web browser would render the HTML and execute the JavaScript within the data file (Generated File) produced by *jsp performer.asp*. The data file would first be stored in the “computer memory” of the server so that it could be transmitted

⁸ Claim 20 recites the limitation “displaying . . . the time,” rather than, “a timer,” as set forth in claim 13. Ex. 1001, 18:40–41.

by the network software and hardware. The data file would then be stored in the “computer memory” of the client computer so that it could be received by the network software and hardware and processed by the web browser program.

Id. ¶ 117. Dr. Greenspun contends also that at least from Barrett, *ESSENTIAL JAVASCRIPT FOR WEB PROFESSIONALS*, Second Ed., 2002, one of ordinary skill in the art would have known by at least the 2003–2004 time frame that it was a familiar JavaScript and web design concept that Quimby’s generated data file would have contained “data items representing . . . network addresses,” as recited in claims 13 and 20, because “[t]he JavaScript is contained within an HTML file. Information regarding which URLs to fetch for each slide of the slide show, and any additional information about each URL, is stored in JavaScript arrays.” *Id.* ¶¶ 71–73 (citing Ex. 1009, 223). In addition, Dr. Greenspun points to specific portions of the program source code in Quimby CD, and testifies that

[t]he playlist engine required by 13.2 (see Claim Chart) is generated by JavaScript code generated at [Quimby CD] lines 320-321 of \jsp performer.asp.

Id. ¶ 108 (citing Ex. 1006, 6:320–321).

Dr. Greenspun’s testimony provides credible technical explanation as to the objective comparison of features in Quimby with each of the limitations of independent claims 13 and 20. *See id.* ¶¶ 104–117. Thus, we are satisfied that one of ordinary skill in the art would have understood that Quimby teaches or suggests all the limitations as recited by independent claims 13 and 20.

Dependent claims 14–17 and 21–24, which depend either directly or indirectly from independent claims 13 and 20, recite “header section” limitations of the data files. For example claim 14 recites:

14. A computer readable storage medium comprising a data file for use with an Internet browser as claimed in claim 13 further comprising *a header section*.

Ex. 1001, 17:47–49 (emphasis added). Petitioner argues that “Quimby discloses that jsperformer generates the HEAD portion of the Generated File, which is a header section.” Pet. 30 (citing Ex. 1006, 6:299–330; Ex. 1010 ¶ 128). Moreover, and by way of further example, claim 15 recites that the “header section includes a single default duration value.” Ex. 1001, 17:52–53. Dr. Greenspun testifies credibly in support of Petitioner’s position that “[t]he HEAD portion of the document in Quimby contains a default duration value that is an argument to the constructor of the new Surfer object: jsInterval.” Ex. 1010 ¶ 129 (citing Ex. 1006, 6:321).

We agree with, and adopt as our own, Petitioner’s showing that Quimby describes and suggests the “header section” limitations recited in each of dependent claims 14–17 and 21–24. Pet. 30–31 (citing Ex. 1006, 6:299–330; Ex. 1010 ¶¶ 128–132).

For the reasons set forth above, we conclude Petitioner has shown by a preponderance of the evidence that claims 13–17 and 20–24 would have been obvious under 35 U.S.C. § 103 in view of Quimby.

5. *Dependent Claims 25–27*

Claims 25–27 depend directly from claim 20 and recite a data file “wherein at least one network address” is: “selected by a user” (claim 25); “obtained from a data file” (claim 26); and “selected by a computer program” (claim 27). Ex. 1001, 18:62–19:3.

Petitioner argues, *inter alia*, that Quimby teaches “allowing a user to: ‘utilize the composer 12 to create their own personalized presentation of web favorites.’” Pet. 32 (citing Ex. 1005 ¶ 35). Also, Petitioner contends that

Quimby discloses “obtaining a network address from a data file, e.g., from . . . a ‘list’ of ‘web site addresses.’” *Id.* at 32 (citing Ex. 1005 ¶¶ 37, 43, Fig. 5). Petitioner argues that Quimby discloses a computer program, such as Google search engine, illustrated in Figures 9–11, for selecting at least one network address. *Id.* (citing Ex. 1005 ¶¶ 42–43, Figs. 9–11).

Quimby’s relevant disclosure is commensurate with Petitioner’s assertions above. For example, with respect to claim 27, Quimby explains that “[i]tem navigation is most applicable to a listing of search results from a World Wide Web search engine.” Ex. 1005 ¶ 42, *see id.* ¶ 18 (“**FIG. 9** (pages 1 and 2) depicts a typical search result list of a search performed by a search engine.”).

We agree with, and adopt as our own, Petitioner’s showing that Quimby describes and suggests the alternative network address selection limitations recited in each of dependent claims 25–27. *See* Pet. 31–32 (citing Ex. 1005 ¶¶ 8, 23, 28, 30, 35, 37, 40, 42–43).

Therefore, we conclude Petitioner has shown by a preponderance of the evidence that claims 25–27 would have been obvious under 35 U.S.C. § 103 in view of Quimby.

D. Claims 5, 11, 18, and 32— Obviousness over Quimby and Lenz

Petitioner asserts that claims 5, 11, 18, and 32 would have been obvious over Quimby and Lenz. Pet. 32–34. Petitioner has shown, by a preponderance of the evidence, that claims 5, 11, 18, and 32 are unpatentable as obvious in view of Quimby and Lenz.

1. Lenz

Lenz teaches a computer system including web server 102 connecting via the internet to various personal computer and server systems 106A–B,

108A–C, as illustrated generally in Figure 1, reproduced below.

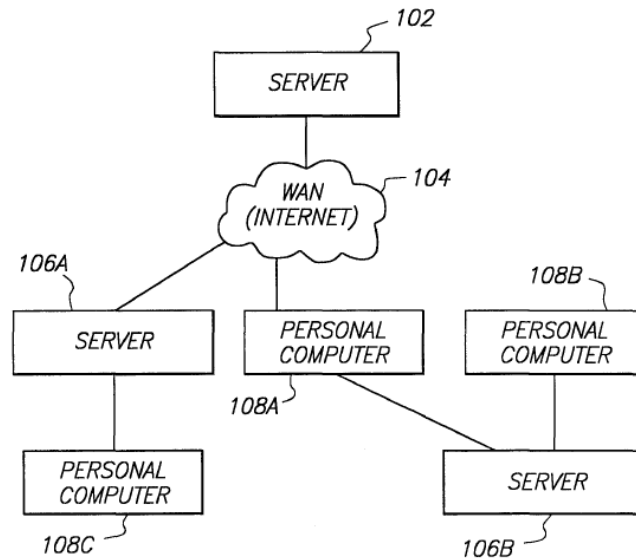


FIG. 1

Figure 1 depicts a “communication system includ[ing] a web server 102, a wide area network 104, destination servers 106A, 106B, and personal computers 108A-C.” Ex. 1007, 4:31–33. Lenz explains that when web server 102 receives a request for a certain URL from a user of a personal computer, for example from destination computer 108A, it subsequently “transmits the requested web page to the destination computer 108A,” which “receives the web page data and displays the web page.” Ex. 1007, 5:5–12.

Lenz describes that the invention includes a server module stored on server 102 and a client module that is transmitted to the destination computer 108A upon receiving a request. *Id.* at 5:15–22. The server module permits a webmaster to build and modify a menu selection that is a sequence of webpages that is to be stored on server 102 and presented to a client computer upon request. *See id.* at 9:18–10:13 (Lenz stating that, using control buttons “[t]he webmaster can then move, add, delete, or copy web

pages in order to develop a suitable web site presentation sequence.”). The client module includes “Vayu Web client module 1104,” which displays menu 1206 to a user, and as shown in the flow diagram in Figure 12 of Lenz reproduced below, the user can select menu item at step 1208 to initiate a display sequence, i.e. a presentation, of web pages 1210, 1212. *Id.* at 15:10–23.

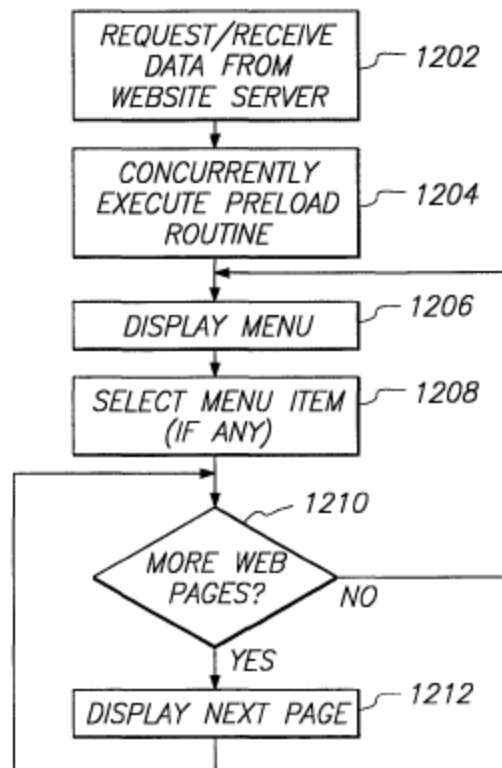


FIG. 12

Figure 12 of Lenz, above, illustrates a flow diagram of Vayu Web client module 1104. During the presentation at 1210, 1212, Lenz describes further that the user, i.e. client, can passively watch a predetermined display of web pages, or alternatively “[w]ithin each web page the client also has the option of manipulating a control panel.” *Id.* at 18:1–2.

Operating in conjunction with Vayu Web client module 1104 on the destination computer is web page preload module 1106. *See id.* at Fig. 13. Where Vayu Web client module 1104 displays the website sequence presentation to the user and may provide the user the ability to interact and control aspects of the presentation, web page preload module 1106 works behind the user interface to efficiently implement “a preload strategy to optimize the performance of the presentation of web pages to the client.” *Id.* at 15:7–8. For example, Lenz explains that “[a]fter determining the preloading priority for each web page, the web page preload module 1106 preloads 1308 the web pages having the highest priority.” *Id.* at 17:33–34. In addition, Lenz describes that a user is provided in the website display screen with a tool bar 1504, shown for example in Figure 16, that “can also include status indicators 1606 to show the remaining time left to view this page.” *Id.* at 19:19–20.

2. *Dependent Claims 5, 11, 18, and 32*

Dependent claims 5, 11, 18, and 32, each recite essentially the same limitation as shown in claim 5, reproduced below:

5. A computer device executing an Internet browser as claimed in claim 1 wherein the playlist engine is configured to display the web page corresponding to a network address from the sequence *while retrieving the web page(s) corresponding to at least one subsequent network address in the sequence.*

Ex. 1001, 16:25–30 (emphasis added). Petitioner argues that this language embodies the “preload function” described in the ’694 patent “for the purpose of overcoming limitations ‘on the speed of the user’s internet connection.’” Pet. 32 (citing Ex. 1001, 7:46–8:4). Petitioner contends that Lenz’s system for presenting web pages to a viewer similarly discloses a preload function and motivation for preloading a subsequent web page. *Id.*

at 33 (citing Ex. 1007, 15:12–14, 17:33–36; Ex. 1010 ¶¶ 100, 133–35). Petitioner reasons that a person of ordinary skill in the art would have been motivated to apply Lenz’s web page to Quimby because “applying this known preloading technique to the Quimby system would have led to the predictable result of reducing page change wait times.” *Id.* at 33–34. Dr. Greenspun testifies in support of Petitioner’s position that “[p]eople working in the web publishing industry circa 2003-04, including [persons of ordinary skill in the art], were aware of the link between perceived page load time and site popularity.” Ex. 1010 ¶ 135 (citing Ex. 1022). Dr. Greenspun describes standard web application techniques such as Lenz, along with industry knowledge, for web publishers to preload or “to prefetch a list of web pages without doing any programming at all, i.e., simply by adding some information to the HEAD of an HTML document.” *Id.* ¶ 134. We credit Dr. Greenspun’s testimony that

[e]ven without Lenz, a [person of ordinary skill in the art] would understand that, given that a properly designed prefetching algorithm should choose to fetch the most likely-to-be-needed-next data, a prefetching algorithm for a slide show system would select the next slide in the show to prefetch.

Id. ¶ 133.

We are persuaded that a person of ordinary skill in the art would have been aware of industry desire for faster web page load time and that Lenz describes a known web page preload module 1106 for performing such a prefetching technique. We are persuaded also that, even prior to the filing of the application which became the ’694 patent, a person of ordinary skill in the art would have understood Lenz’s preload technique to be germane to Quimby’s web page slide show presentation and address known concerns in

the field of web publishing for faster web page loading. *See* Ex. 1010 ¶¶ 133–136.

Therefore, we conclude Petitioner has shown by a preponderance of the evidence that claims 5, 11, 18, and 32 would have been obvious under 35 U.S.C. § 103 in view of Quimby and Lenz.

E. Claims 6, 12, 19, and 33— Obviousness over Quimby and Maddalozzo

Petitioner asserts that claims 6, 12, 19, and 33 would have been obvious over Quimby and Maddalozzo. Pet. 35–37. Petitioner has shown, by a preponderance of the evidence, that claims 6, 12, 19, and 33 are unpatentable as obvious in view of Quimby and Maddalozzo.

1. Maddalozzo

Maddalozzo describes a specific web browser application, namely “multiple browser applications operating simultaneously and accessing the Internet,” for operating on the World Wide Web including searching for, and displaying to a user, the web page results of a particular search. Ex. 1008, 1:6–14. One browser search embodiment in Maddalozzo teaches “a process for creating a list for searching URLs retrieved from a bookmark file or history file.” *Id.* at 6:6–8.

The background section of Maddalozzo explains in detail how the World Wide Web connects, via a telecommunications system, websites on separate servers and how an Internet browser (client) communicates with and retrieves, i.e. downloads, web pages from a website. *Id.* at 1:17–34. Pertinent to our inquiry below, Maddalozzo explains further that “[g]enerally, each browser client permits multiple windows in operation at

the same time. Each browser window may operate independently and connect with separate web pages.” *Id.* at 1:36–38.

2. *Dependent Claims 6, 12, 19, and 33*

Dependent claims 6, 12, 19, and 33, each recite essentially the same limitation as shown in claim 6, reproduced below:

6. A computer device executing an Internet browser as claimed in claim 1 wherein the playlist engine is further configured to retrieve the user selected network addresses from the sequence *and to display the web pages corresponding to the network addresses in respective browser windows.*

Ex. 1001, 16:31–35 (emphasis added). Claims 6, 12, 19, and 33 are directed to multiple web pages being displayed in multiple (“respective”) browser windows. *See id.* at 5:32–36 (“It will be appreciated that the internet browser could generate and display a plurality of browser windows, each browser window configured to display to a user respective web pages each identified by respective network addresses.”).

Petitioner argues that “[a]s reflected in Maddalozzo, browsers in 2003-2004 allowed for multiple simultaneous windows.” Pet. 35 (citing Ex. 1008, 1:36–38). Maddalozzo states in the Background of the Invention, that “[g]enerally, each browser client permits multiple windows in operation at the same time. Each browser window may operate independently and connect with separate web pages.” Ex. 1008, 1:36–38. Dr. Greenspun testifies that Maddalozzo teaches one of ordinary skill in the art how to open network addresses “each in its own browser window.” Ex. 1010 ¶ 171. Dr. Greenspun states further that “it would have been obvious for a [person of ordinary skill in the art] to implement this option via conventional JavaScript programming.” *Id.* (citing Ex. 1027).

Petitioner reasons that a person of ordinary skill in the art would have been motivated to use the known multiple browser window application described in Maddalozzo with Quimby and open each slide in a separate browser window because “a multi-window system would allow users to analyze related slides at the same time, side-by-side, with no switching back and forth.” Pet. 35 (citing Ex. 1010 ¶ 101). Also, Petitioner describes that a multi-window browser application is helpful because, “when a user wished to re-view an earlier slide, she would not have to click back through multiple slides and wait for reloading of the desired slide, but could instead simply switch to the already-open window displaying that earlier slide.” *Id.*

We are persuaded that Petitioner has presented adequate reasoning supported by evidentiary underpinnings to support a finding that claims 6, 12, 19, and 33 would have been obvious to a person of ordinary skill in the art in view of Quimby and Maddalozzo’s specific teaching of opening web pages in separate browser windows. We conclude, on the record before us, that Petitioner has shown by a preponderance of the evidence that claims 6, 12, 19, and 33 would have been obvious under 35 U.S.C. § 103 in view of Quimby and Maddalozzo.

F. Claims 1–4, 7–10, 13–17, and 20–31— Obviousness over Quimby and Barrett

Petitioner contends that, to the extent independent claims 13 and 20 require a single, unitary “data file” that is not expressly taught by Quimby, it would have been obvious from “Barrett’s express teachings to use a single HTML/JavaScript file for providing all information and code needed for the webbased slideshow.” Pet. 37.

Patent Owner does not expressly contest this ground or provide a claim construction for “data file,” and it does not address in the Patent Owner Response the combination of Quimby and Barrett.

1. Barrett

Barrett is titled “Essential JavaScript™ for Web Professionals” and provides teaching, instruction and examples explaining how website developers can utilize JavaScript to increase the functionality of websites. Ex. 1009, 3.⁹ Barrett states that the intent of the JavaScript instruction and examples in the book “are designed to give you a solid foundation in JavaScript on which you can build as you continue to use it.” *Id.* at 11.

Barrett teaches in Chapter 6 an advanced JavaScript project titled “Interactive Photo Slideshow.” *Id.* at 31. This project provides a JavaScript data file, i.e. a script, enabling a dual functionality for a user to click through a slideshow, or “they can click on the Start Slideshow button and let the pictures cycle through automatically with a short delay between each.” *Id.* at 32. Barrett details a script at pages 34–58 that is inserted into the header of the html file, *fashion_show.html*, and includes all the slide show functionality in the same data file, e.g., for the manual click through the *photoNext ()* function, the *photoprevious ()* function, and for autonomous presentation, the function, *slideshow ()*. *Id.* at 54–56.

2. Independent Claims 13 and 20

Petitioner argues that this JavaScript program and its explanation in Barrett are “a detailed description of how to write a single data file of html and JavaScript that, when executed by a browser, causes the browser to

⁹ We refer to Petitioner’s Exhibit page numbers added to Exhibit 1009, not the actual page numbers of Barrett itself.

present a photo slideshow.” Pet. 38 (citing Ex. 1009, 34–58; Ex. 1010 ¶¶ 73, 124). Petitioner relies upon Dr. Greenspun’s testimony to support this argument, and Dr. Greenspun testifies that “Barrett’s Chapter 6 ‘Interactive Photo Slideshow’ project provides a specific example of creating a single HTML/JavaScript file (*fashion_show.html*[’]).” Ex. 1010 ¶ 124. Pointing out that Barrett discloses “a single HTML/JavaScript file that would cause a browser to run a sequenced slide show,” Petitioner contends that one of ordinary skill in the art would have known of, and been motivated, to use a single data file such as taught by Barrett and to include the slide show functionality of Quimby in the single data file “in order to (i) increase portability, (ii) reduce the impact of version changes, and (iii) make debugging easier.” Pet. 39 (citing Ex. 1010 ¶ 119). We find this reasoning by Petitioner, supported by Dr. Greenspun’s testimony, to be persuasive. Writing a single client-side script, including relevant JavaScript code defining various related functions for a slide show presentation, is consistent with, and expressly shown by the examples and description in Barrett. Barrett, for example, states that for a client-side script “the browser’s JavaScript runtime engine is called to interpret the script, which it reads from top to bottom, executing statements as it goes. . . . [A]ll of this can be done without going back to the Web server and grabbing more information.” Ex. 1009, 13.

Assuming, as Petitioner has done here, that claims 13 and 20 require a single data file, we are persuaded that a person of ordinary skill in the art would have combined Barrett and Quimby to meet this potential limitation for the reasons set forth by Petitioner. We do not, however, by this Decision, infer or express a claim construction that “data file” as recited in

each of claims 13 and 20 is limited to a single data file, as Petitioner has assumed. To the extent a single data file is *not* required by the claim language, our determination includes that Barrett discloses a “data file.”

3. Claims 1–4, 7–10, 14–17, and 21–31

Petitioner argues that claims 1–4, 7–10, 14–17, and 21–31 would have been obvious over Quimby alone, and thus, “they would have been obvious over Quimby and Barrett.” Pet. 40–41 (citing Pet. § VI.A.4.). Petitioner contends that the modification of Quimby to include a single data file “that did not incorporate external files by reference,” as taught by Barrett, does not change the underlying determination and technical analysis that the other claim elements, discussed above, would have been obvious in view of Quimby. Pet. 40 (citing Ex. 1010 ¶¶ 126, 140). We agree.

We conclude, above, that claims 1–4, 7–10, 14–17, and 21–31, (as a subset of claims 1–4, 7–10, 13–17, and 20–31), would have been obvious in view of Quimby, and rely upon those same findings for this ground. *See supra* Section III.C.). We are persuaded on this record, for the reasons discussed in this Decision, in Section III.C., above, that claims 1–4, 7–10, 14–17, and 21–31 would have been obvious, also, in view of Quimby and Barrett.

G. Claims 5, 11, 18, and 32 — Alleged obviousness over Quimby, Barrett, and Lenz

Petitioner relies on Lenz for the limitations in dependent claims 5, 11, 18, and 32 relating to the “preload function” described in the ’694 patent. Pet. 41. Relying on its arguments from previous grounds, i.e., that faster web page loading was desirable, Petitioner asserts that “it would have been

obvious to add Lenz's preloading feature to the 'data file' of Quimby and Barrett." *Id.* (citing Ex. 1010 ¶¶ 126, 133–36.)).

We are persuaded, for the reasons discussed above, that a person of ordinary skill in the art would have been aware of industry desire for faster web page load time and that Lenz describes a known web page preload module 1106 for performing such a prefetching technique. *See* § III.D. We are persuaded, as also discussed above, that a person of ordinary skill in the art would have understood Lenz's preload technique to be germane to Quimby's web page slide show presentation and address known concerns in the field of web publishing industry for faster web page loading.

Therefore, we conclude Petitioner has shown by a preponderance of the evidence that claims 5, 11, 18, and 32 would have been obvious under 35 U.S.C. § 103 in view of Quimby, Barrett, and Lenz.

H. Claims 6, 12, 19, and 33 — Alleged obviousness over Quimby, Barrett, and Maddalozzo

Petitioner relies on Maddalozzo for the limitations recited in dependent claims 6, 12, 19, and 33 relating to display of the retrieved network addresses, i.e., URLs, in separate browser windows. Pet. 41–42.

Petitioner argues that a person of ordinary skill in the art, for the same reasons set forth with respect to Quimby and Maddalozzo, would have been motivated "to use multiple browser windows with the 'data file' slide presentation of Quimby and Barrett." *Id.* at 41 (citing Ex. 1010 ¶ 137).

We are persuaded, for the reasons discussed above, that a person of ordinary skill in the art would have known to use a multiple browser window application as described in Maddalozzo with Quimby and Barrett and to open each slide in a separate browser window because "a multi-window

system would allow users to analyze related slides at the same time, side-by-side, with no switching back and forth.” *See* Pet. 35 (citing Ex. 1010 ¶ 101).

Therefore, we conclude Petitioner has shown by a preponderance of the evidence that claims 6, 12, 19, and 33 would have been obvious under 35 U.S.C. § 103 in view of Quimby, Barrett, and Maddalozzo.

I. Claims 1–5, 7–11, 13–18, and 20–32 — Alleged obviousness over Lenz and also Lenz and Barrett

Petitioner contends that claims 1–5, 7–11, 13–18, and 20–32 would have been obvious over Lenz, as well as Lenz and Barrett, because Lenz discloses a personal computer and server connected to the internet and the computer displaying at least one browser window including a web page to a user. Pet. 42 (citing Ex. 1007, 9:18–33; Ex. 1010 ¶ 145). Petitioner argues that Lenz also teaches “a playlist engine, i.e., software running on the client-side processor (including the web page preload and Vayu Web client modules), that retrieves and displays the web pages in sequence in the browser.” *Id.* (citing Ex. 1007, 15:12–14).

According to Petitioner’s declarant, Dr. Greenspun, Lenz’s functionality is no different from the claimed “playlist engine” because Lenz teaches encoding such a sequence [of network addresses] in an HTML file,” such that “the file must necessarily include a list of URLs, along with the sequence of those URLs.” Ex. 1010 ¶ 145. Petitioner argues that the network addresses are “user selected,” as recited in claim 1, because a user selects a menu item that includes a sequence of network address. Pet. 43.

Lenz also teaches a “control panel,” Petitioner asserts, because in Figure 14 of Lenz, as reproduced below, “[t]he control functions include

pause, fast forward, reverse, and exit.” Pet. 44–45 (citing Ex. 1007, 18:26–30; Figs. 14–16; Ex. 1010 ¶ 148).

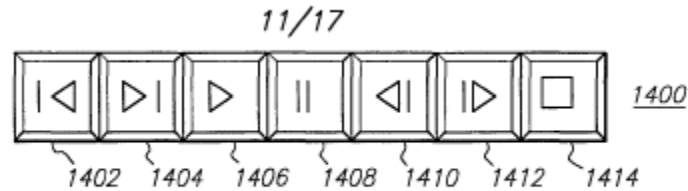


FIG. 14

Lenz’s Figure 14, shown above, includes, *inter alia*, play button 1406, pause button 1408, and stop button 1414. *See e.g.*, Ex. 1007, 4:5–6 (“Figure 14 is an illustration of a web page control panel according to one embodiment of the present invention.”). According to Lenz’s description, it is the user who causes “execution of the web page display by selecting control panel button 1406.” Ex. 1007, 20:6–7.

Petitioner argues also that Lenz “discloses displaying each web page for a predefined duration, using a ‘transition’ timer with a specified value.” Pet. 46 (citing Ex. 1007, 10:4–11). Petitioner points specifically to Lenz’s disclosure of “status indicators 1606 to show the remaining time left to view this page” for teaching a timer display. Ex. 1007, 19:19–20, *quoted in* Pet. 47.

Patent Owner argues that Petitioner’s arguments fail to show that Lenz discloses a “playlist engine” as recited in claim 1. PO Resp. 9–12. Patent Owner’s first specific contention is that Petitioner has not, with any degree of particularity, set forth the elements in Lenz that correspond to the claimed “playlist engine.” *Id.* at 10. The argument is a “moving-target,” according to Patent Owner, because, “in the claim chart for Lenz, the Petition alleges that the Vayu Web client module 1104 alone is the ‘playlist

engine,”” whereas elsewhere in the Petition, the playlist engine is equated to “software running on the client-side processor (including the web page preload and Vayu Web client modules).” *Id.* at 10–11; *compare* Pet. 25 with Pet. 42.

Patent Owner’s second contention rests on Lenz’s Figure 11, reproduced below, and alleges that “the Vayu Web client module 1104 is separate and distinct from the Internet browser 1102.” PO Resp. 11.

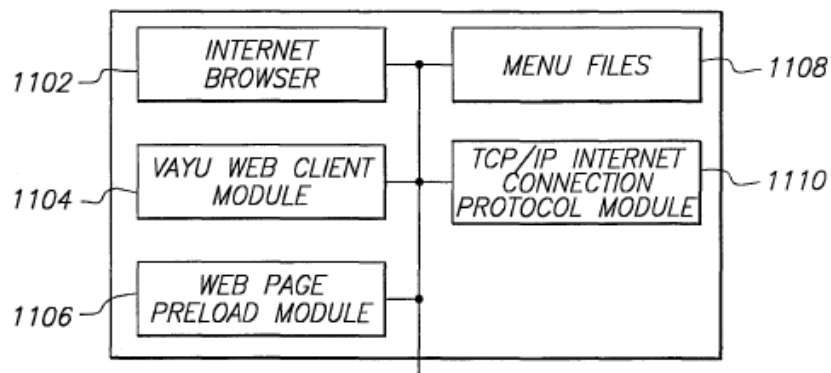


FIG. 11

Figure 11, above, from Lenz illustrates diagrammatically a client computer storage device including a communicating relationship between Internet browser 1102 and Vayu Web Client Module 1104. Ex. 1007, 14:4–7.

Patent Owner argues, therefore, based on our claim construction, that the Vayu Web client module 1104 is not a part of the web browser as required by claim 1. PO Resp. 11.

We address each of these arguments in turn, starting with independent claims 1, 7, and 28.

1. Claims 1, 7, and 28

We address claims 1, 7, and 28 together as they contain the same, or similar, limitations, differing mainly in that claim 1 recites “[a] computer

device,” claim 7 “[a] web page display system,” and claim 28 “[a] method of displaying a plurality of web pages.” Ex. 1001, 15:55, 16:36, 19:4.

Whether the Petition Specifies where each Element of the Claim is found in Lenz under 37 C.F.R. § 42.104

We do not agree with Patent Owner’s assertion that the Petition lacks specificity because it identifies “three unexplained alternatives” from Lenz – client-side software running Vayu Web Client Module; Vayu Web client module alone; or the client-side processor, as the “playlist engine.” PO Resp. 10–11. The Petition explains how the client-side software is “running on the client-side processor” and, as shown for example in Figure 11 above, includes the web page preload 1106 and Vayu Web client modules 1104 that “retrieve[] and display[] the web pages in sequence in the browser.” Pet. 42 (citing Ex. 1007, 15:12–14, 24:22–25, Fig. 12; Ex. 1010 ¶¶ 144, 147). Petitioner explains that the web page addresses, i.e. URLs, are stored in, and retrieved from, the menu files also on the client-side computer memory as seen in Figure 11 of Lenz. *Id.* at 43–44 (citing Ex. 1007, 11:29–32, 14:5–11; FIG. 11).

We understand that the three “unexplained alternatives” noted by Patent Owner are not disparate elements individually asserted to be the “playlist engine,” but coordinated functions of Lenz’s client-side computer software, which Petitioner equates to the claimed “playlist engine.” We are persuaded that these functions, which reside as computer programs and data files on the client-side computer, operate in conjunction to invoke, “user selected network address(es) from the sequence, and . . . display, in the browser window, web pages corresponding to the user selected network addresses,” as recited in claim 1. *See* Ex. 1007, 15:12–14 (“When the user

selects 1208 a menu item the Vayu Web client module 1104 identifies 1210 the first web page in the predefined sequence of web pages associated with the menu item and displays 1212 the first web page.”).

Whether Lenz discloses the claimed “playlist engine”

Asserting its claim construction position that the playlist must be part of the Internet browser, Patent Owner argues that Figure 11 is evidence “that the Vayu Web client module 1104 *is separate and distinct* from the Internet browser 1102.” PO Resp. 11 (emphasis added). We disagree. Lenz expressly describes using HTML and JavaScript to implement its client-side functionality as shown in Figure 11. *See* Ex. 1007, 14:19–22 (Lenz describes that the Vayu Web client module can be implemented “(1) as a Java Applet; (2) as a Javascript script where Javascript is a[n] Internet language developed by Netscape Corporation; (3) as a Client-Pull mechanism using a <META> tag in the HTML file, that causes the browser itself to automatically load pages on a timed basis.”).

Lenz’s disclosed functionality, for example implementation of the Vayu Web client module as part of and invoked by the browser, is consistent with Dr. Greenspun’s testimony that “Lenz teaches a browser receiving and interpreting JavaScript, causing the browser to carry out the recited playlist engine functions.” Ex. 1035 ¶ 7 (citing Ex. 1010 ¶ 74 (“A POSITA in 2003-04, a point at which all popular browsers supported JavaScript, would have been motivated to implement the Lenz system with a single-page HTML/JavaScript application.”). Dr. Greenspun explained further, in his second declaration, responding to Patent Owner’s contention that the Vayu Web client module was not part of the browser, that

[i]t is conventional to break up software into modules. These modules may be called, for example, “procedures” or

“functions,” depending on the computer language. A function may be “called,” “invoked,” or “executed” at the request of another portion of the overall software program.

Id. ¶ 9.

We determined in our claim construction that a “playlist engine” is “a software program or series of software functions undertaking the respective functions described in the claims as would have been understood by one of ordinary skill read in the context of the claims.” Section II.B. Even considering that the illustrated structure of the computer program in Lenz’s processor from Figure 11 shows separate and connected boxes for the functions, i.e., Internet browser, Vayu Web client module, Preload module, and Menu files, Petitioner has shown persuasively that a person of ordinary skill in the art would have understood that Lenz teaches a software program, and at the very least, a series of software functions (including the Vayu Web client module implemented as an HTML/JavaScript file) that, regardless of the diagrammatic illustration in Figure 11, operate as part of an internet browser, so “[w]hen the user selects 1208 a menu item, the Vayu Web client module 1104 identifies 1210 the first web page in the predefined sequence of web pages associated with the menu item and displays 1212 the first web page.” Ex. 1007, 15:12–15.

Patent Owner has characterized Petitioner’s arguments and evidence of the browser functions in both Quimby and Lenz as an unsupported “inherency” argument, contending that “[t]he Petition does not allege that the claimed ‘playlist engine’ is inherently disclosed by Lenz or would be an obvious modification of Lenz.” PO Resp. 9, *see* Tr. 25:9–17 (Patent Owner’s counsel argued “that there’s no evidence that rises to the level of

inherency which is sufficient under *Net MoneyIN.*”).¹⁰ Petitioner’s challenges here, however, are based on obviousness, not anticipation.

Patent Owner’s inherency argument is not persuasive in the context of obviousness and on the facts and evidence here because it presupposes that there is a limitation in the claims that is missing from Petitioner’s evidence and reasoning. *See* Tr. 39:19–21 (Patent Owner’s counsel argued that “[t]here’s no discussion of *how* the internet browser integrates with the Vayu Web client module in Lenz.”) (emphasis added), *see also Net MoneyIN, Inc.*, 545 F.3d at 1371 (“But differences between the prior art reference and a claimed invention, however slight, invoke the question of obviousness, not anticipation.”). We are persuaded that Petitioner has, through Dr. Greenspun, presented evidence, technical explanations, and persuasive reasoning that a person of ordinary skill in the art

when implementing the system of Lenz for a browser circa 2003-04 and in accordance with Lenz’s explicit suggestion to use JavaScript (Lenz 14:14-24), would most likely have followed web development conventions and created a single file of HTML and JavaScript containing both the sequence of web page addresses and the “client-side processor” of Lenz.

Ex. 1010 ¶ 146. Patent Owner offers no evidence to the contrary, and did not, in fact, depose Dr. Greenspun. *See* Tr. 37:17–19. Therefore, Patent Owner’s inherency argument is not persuasive in the face of Dr. Greenspun’s unrebutted evidentiary underpinnings and testimony supporting Petitioner’s reasoning, namely, that one of ordinary skill in the art would have understood Lenz’s disclosure of HTML/JavaScript functional implementation of Vayu Web and web page Preload software modules on

¹⁰ In *Net MoneyIN, Inc. v. Verisign, Inc.*, 545 F.3d 1359 (Fed. Cir. 2008), the Federal Circuit clarified the test for anticipation under 35 U.S.C. §102(a).

Lenz's client-side processor as a software program, or a series of software functions meeting the claimed "playlist engine" as it is invoked by Lenz's web browser. *See* Pet. Reply 22 ("A POSITA would have understood that a module implemented in either Java Applet or JavaScript, as described by Lenz, must run inside a browser. Specifically, Java Applets must run inside a browser and JavaScript files are interpreted and run inside a browser.") (citing Ex. 1010 ¶¶ 2, 22, 27, 31).

Petitioner also points to the specification of the '694 patent itself, asserting that a preferred embodiment of a playlist data file that falls within the scope of "playlist engine" is specifically described in the '694 patent and is essentially the same conventional HTML/JavaScript code and program structure for rendering a web page as described in Quimby and Lenz. Pet. Reply 7–8, 10 (citing Ex. 1010 ¶¶ 3–5). Petitioner points out that the '694 patent describes,

[t]he HTML/javascript playlist file format will be associated with normal Browser programs so that the HTML/javascript playlist may be immediately recognized by the operating system as needing to be opened by the default Browser, such as Microsoft's Internet Explorer or Netscape's Navigator.

Ex. 1001, 12:16–21, *quoted in* Pet. Reply 9.¹¹ According to Petitioner, Appendix B attached to the '694 patent is an example of an HTML/JavaScript playlist file carrying out the recited "playlist engine" functions. Pet. Reply 7. Petitioner contends that the '694 patent data file embodiments include "a modified version of the *computer program of the invention capable of being integrated with a standard browser.*" Pet. Reply

¹¹ Petitioner mistakenly cites column 9, lines 54–57 of the '694 patent for this disclosure.

8 (quoting Ex. 1001, 11:53–62; citing Ex. 1001, 15:2–3). Petitioner argues that these embodiments described in the '694 patent are conventional operations of an integrated HTML/JavaScript data file and Internet browser that are essentially the same as those described in Quimby and Lenz. *Id.* at 10 (citing Ex. 1010 ¶ 70).

In this regard, we credit the testimony of Dr. Greenspun who explained in his initial declaration how, prior to the filing of the '694 patent, HTML/JavaScript data file and Internet browser were conventionally integrated:

[A] JavaScript program would first be downloaded by the browser and then request structured data in JSON (JavaScript Object Notation, early 2000s) or XML (Extensible Markup Language, 1996) format. Most of the HTML rendered by the browser, and therefore displayed to the user, would be generated by a JavaScript program running within the browser.

Ex. 1010 ¶ 27. This testimony is un rebutted. We find Petitioner's argument, supported by Dr. Greenspun's credible testimony, persuasive that there is little, if any, substantive difference between the HTML/JavaScript data file and Internet browser integration embodiment described in the '694 patent, and that taught by Quimby and Lenz. Moreover, during oral argument, Patent Owner's counsel declined to address whether the HTML/JavaScript data file and Internet browser integration embodiment in the '694 patent was covered by the claimed "playlist engine":

JUDGE GALLIGAN: Mr. Salmon, I have a question for you. I wanted to ask you about petitioner's point in columns 11 and 12 of the '694 patent. Do the claims encompass this JavaScript invocation or where the browser interprets the JavaScript file? Is that encompassed within the claims?

MR. SALMON: I don't think the patent owner has taken a position on that in the proceeding.

Tr. 23:10–16.

Patent Owner does not present substantive arguments with respect to other limitations in claim 1 apart from the “playlist engine” as discussed above. *See* PO Resp. 12 (Patent Owner contends overall that this ground of unpatentability fails “because the Vayu Web client module 1104 of Lenz is not included within the Internet browser, unlike the claimed ‘playlist engine,’ which is included in the Internet browser recited in Claim 1.”) The burden, however, remains on Petitioner to prove unpatentability. We therefore address the remaining limitations from claim 1 below.

We are persuaded by Petitioner’s arguments and evidence, as they are consistent with our understanding of the applied reference, that Lenz discloses “a control panel” as recited in claim 1, enabling a user to select and display at least one of the sequence of network addresses and also providing a “play mode control” whereby each web page in the sequence of web pages can be displayed for a “predetermined duration,” as also called for in claim 1. *See* Ex. 1001, 15:65–16:7. Lenz describes, and illustrates for example, in Figures 14 and 15 shown above, “a web page control panel 1400” including a play mode for “beginning the execution of the web page display by selecting control panel button 1406.” Ex. 1007, 18:2–11. Lenz also teaches the web pages being displayed for “a certain period of time.” *Id.* at 24:29–31. Also, we determine that Lenz discloses a display of “the time remaining for the playlist engine to display the web page” as called for in claim 1. *See* Ex. 1007, 19:18–20 (“The tool bar 1504 can also include status indicators 1606 to show the remaining time left to view this page.

This tool bar 1504 can be used for every page displayed using the present invention.”).

Independent claims 7 and 28 contain the same or similar limitations as claim 1. *See* Section III. C. 3. Based on the evidence presented, we are persuaded that Petitioner has shown, by a preponderance of the evidence, that claims 1, 7, and 28 of the '694 patent would have been obvious over Lenz.

2. Dependent claims 2–4, 8–10, and 29–31

Dependent claims 2–4, 8–10, and 29–31 recite limitations of “duration value” associated with one or more “network addresses.” Petitioner points persuasively to Lenz’s Figure 20, reproduced below, depicting a user defined “Timer” field, as teaching associating a default duration value with the network addresses, or, in the alternative, overriding a default value with an alternative duration value, associated with each listed website. Pet. 51–52.

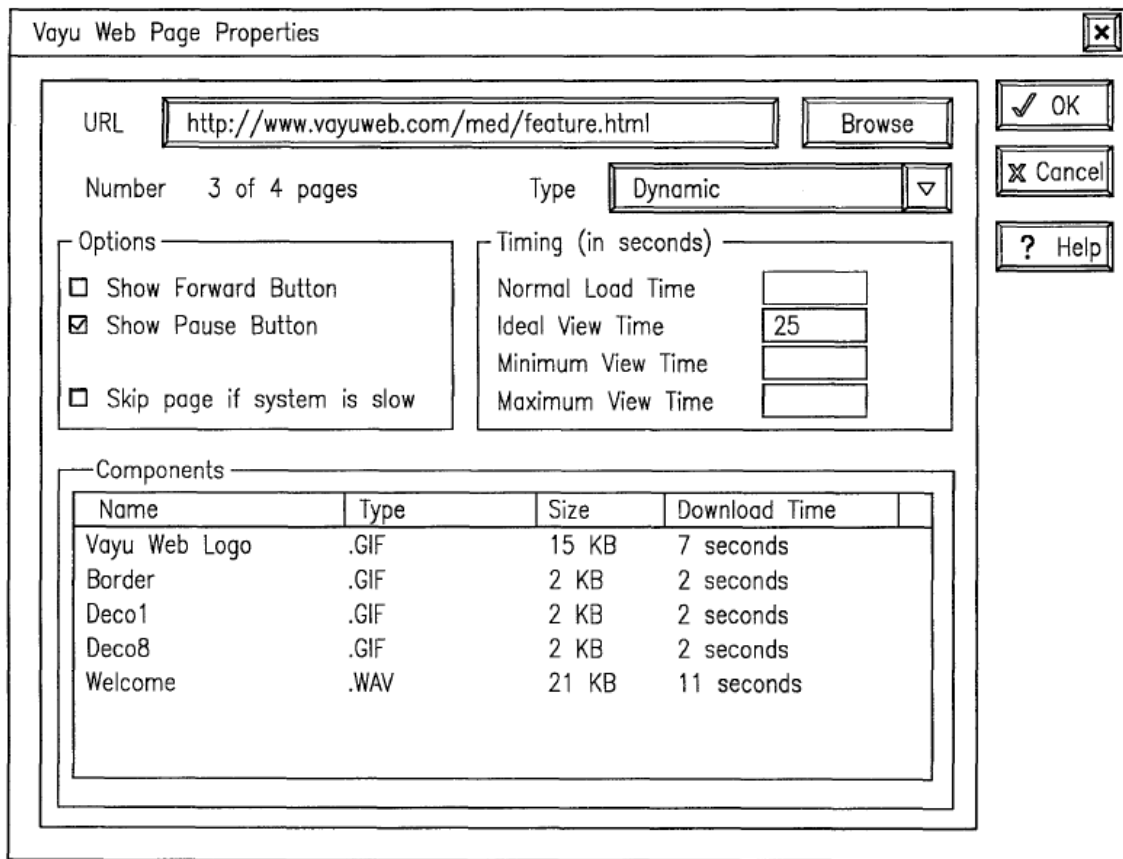


FIG. 20

Lenz's Figure 20, above, illustrates a web page property screen display, including fields for defining view times for the web page. Ex. 1007, 21:31–22:7.

We are persuaded that that Petitioner has shown, by a preponderance of the evidence, that claims 2–4, 8–10 and 29–31 of the '694 patent would have been obvious over Lenz.

3. Dependent claims 5, 11, and 32

Claims 5, 11, and 32 relate to the “preload function” described in the '694 patent. For the same reasons as discussed above in Section III.D.2., we are persuaded on this record that a person of ordinary skill in the art would have been aware of industry desire for faster web page load time and that

Lenz describes a known web page preload module 1106 for performing such a prefetching technique. Again, we are persuaded that, even prior to the filing of the application which became the '694 patent, a person of ordinary skill in the art would have understood Lenz's preload technique to address known concerns in the field of web publishing industry for faster web page loading.

We conclude Petitioner has shown by a preponderance of the evidence that claims 5, 11, and 32 would have been obvious under 35 U.S.C. § 103 in view of Lenz.

4. *Claims 13–18 and 20–24*

Independent claims 13 and 20 include all the limitations of claim 1, as discussed above, including for example, “a playlist engine,” “a control panel,” “a timer,” and “duration values.”¹² Ex. 1001, 17:17–46, 18:11–42. Different from claim 1, claims 13 and 20 recite “*a data file* for use with an Internet browser having a browser window,” (claim 13), and “[a] method of creating *a data file* for use with an Internet browser having a browser window” (claim 20). *Id.* at 17:17–18, 18:11. Petitioner contends that claims 13 and 20 are not patentably distinct. Pet. 54.

According to Petitioner,

Lenz discloses making a data file including an “HTML . . . file” with the “sequences” of web page network addresses “for the automated web site” (23:20–26). It also discloses using “JavaScript script” to implement the “Vayu Web client module,” which generates the playlist engine, control panel, and timer associated with Lenz's sequenced web page display.

Id.

¹² Claim 20 recites the limitation “displaying . . . the time,” rather than, “a timer,” as set forth in claim 13. Ex. 1001, 18:40–41.

We agree with, and adopt as our own Petitioner’s showing that Lenz describes a “data file” as recited in each of claims 13 and 20. Pet. 54–56 (citing Ex. 1007, 13:20–39, 14:14–24, 23:20–26; Ex. 1010 ¶¶ 145–146, 156, 162). We credit, again, the unrebutted testimony of Dr. Greenspun that “Lenz explicitly discloses generating a data file for consumption by client-side code. Lenz explicitly discloses the use of JavaScript when a browser is capable of processing JavaScript.” Ex. 1010 ¶ 156. Dr. Greenspun’s testimony, as a whole, provides credible technical analysis as to the objective comparison of features in Lenz with each of the limitations in independent claims 13 and 20. *See id.* ¶¶ 145–154. Thus, we are satisfied, for the reasons set forth by Petitioner, that one of ordinary skill in the art would have understood that Lenz teaches or suggests all the limitations, including, a “data file,” as recited by independent claims 13 and 20.

Dependent claims 14–17 and 21–24, which depend either directly or indirectly from independent claims 13 and 20, recite “header section” limitations of the data files, for example claim 14 recites:

14. A computer readable storage medium comprising a data file for use with an Internet browser as claimed in claim 13 further comprising *a header section*.

Ex. 1001, 17:47–49 (emphasis added). Petitioner argues that “Lenz discloses creation of an HTML/JavaScript file, which a [person of ordinary skill in the art] would understand to include a HEAD section.” Pet. 56 (citing Ex. 1010 ¶ 157). Petitioner asserts that “Lenz discloses that page duration information be stored in a portion of the HEAD section called a META tag. *Id.* (citing Ex. 1007, 14:20–24). Moreover, and by way of further example, claim 15 recites that the “header section includes a single default duration value.” Ex. 1001, 17:52–53. In addition to Lenz’s

disclosure, Dr. Greenspun testifies persuasively, that “a [person of ordinary skill in the art] would have been motivated to avoid repeatedly transmitting the same number over a slow modem (1996) or cellular data (2003-04) link and therefore it would have been obvious to include this default in a header.” Ex. 1010 ¶ 158.

Patent Owner presents no evidence or argument to the contrary, and giving credit to Dr. Greenspun’s testimony, we are persuaded, and adopt as our own findings, Petitioner’s showing that one of ordinary skill in the art would have known to use a default duration value in a HEAD section of an HTML/JavaScript file. Pet. 56–58 (citing Ex. 1007, 14:20–24; Ex. 1010 ¶¶ 158–160).

Claim 18 includes the same preloading limitations as discussed, above, with respect to claims 5, 11, and 32. For the same reasons set forth in Section III.I.3., we are persuaded that Lenz teaches the preloading limitations of claim 18.

For the reasons set forth above, we conclude Petitioner has shown by a preponderance of the evidence that claims 13–18 and 20–24 would have been obvious under 35 U.S.C. § 103 in view of Lenz.

5. Claims 25–27

Claims 25–27 depend directly from claim 20 and recite a data file “wherein at least one network address” is: “selected by a user” (claim 25); “obtained from a data file” (claim 26); and “selected by a computer program” (claim 27). Ex. 1001, 18:62–19:3.

Petitioner argues *inter alia*, that Lenz teaches that “[t]he user selects the sequence of network addresses to display ‘[w]hen the user selects 1208 a menu item.’” Pet. 58 (quoting Ex. 1007, 15:12–14). Also, Petitioner

contends that Lenz discloses that “the user may select a page within the sequence to begin the presentation by using a ‘next page button’ or other navigation buttons.” *Id.* (citing Ex. 1007, 18:1–11; Ex. 1010 ¶ 167).

Petitioner argues that Lenz discloses obtaining a network address from a data file for web pages that are to be displayed. *Id.* at 58–59 (citing Ex. 1007, 11:29–33; 12:1–13:18 (Table 1); Ex. 1010 ¶ 168).

Our understanding of Lenz and its relevant disclosure is commensurate with Petitioner’s arguments above. For example, with respect to claim 27, Lenz describes a computer program, i.e., “web site analyzer 310,” and explains that “[t]he web site analyzer 310 selects a web page by selecting one of the hyperlinks of a previously analyzed web page.” Ex. 1007, 7:9–10.

We agree with, and adopt as our own, Petitioner’s showing that Lenz describes and suggests the alternative network address selection limitations as recited in each of dependent claims 25–27. *See* Pet. 58–59 (citing Ex. 1007, 6:7–8, 6:21–30, 8:30–9:5, 9:18–20; 10:2–4, 11:29–33; 12:1–13:18, 15:12–14; Ex. 1010 ¶¶ 167–168).

Therefore, we conclude Petitioner has shown by a preponderance of the evidence that claims 25–27 would have been obvious under 35 U.S.C. § 103 in view of Lenz.

J. Claims 16, 12, 19, and 33 — Alleged obviousness over Lenz and Maddalozzo

Dependent claims 6, 12, 19, and 33, each recite essentially the same limitation as shown in claim 6, reproduced below:

6. A computer device executing an Internet browser as claimed in claim **1** wherein the playlist engine is further configured to retrieve the user selected network addresses from the sequence

and to display the web pages corresponding to the network addresses in respective browser windows.

Ex. 1001, 16:31–35 (emphasis added). Claims 6, 12, 19, and 33 are directed to multiple web pages being displayed in multiple (“respective”) browser windows. *See id.* at 5:32–36 (“It will be appreciated that the internet browser could generate and display a plurality of browser windows, each browser window configured to display to a user respective web pages each identified by respective network addresses.”).

Petitioner argues that “it was conventional for browsers in 2003 to allow for multiple simultaneous windows.” Pet. 60 (citing Ex. 1008, 1:9–12, 1:36–39, 7:27–32). Maddalozzo states in the Background of the Invention, that “[g]enerally, each browser client permits multiple windows in operation at the same time. Each browser window may operate independently and connect with separate web pages.” Ex. 1008, 1:36–38. Dr. Greenspun testifies that Maddalozzo teaches one of ordinary skill in the art how to open network addresses “each in its own browser window.” Ex. 1010 ¶ 171. Dr. Greenspun states further, that “it would have been obvious for a [person of ordinary skill in the art] to implement this option via conventional JavaScript programming.” *Id.* (citing Ex. 1027).

Petitioner reasons that a person of ordinary skill in the art would have been motivated to use the known multiple browser window application described in Maddalozzo with Lenz to open each slide in a separate browser window because a multi-window system would allow users “to analyze related slides at the same time, side-by-side, with no switching back and forth.” Pet. 60 (citing Ex. 1010 ¶ 101). Also, Petitioner describes that a multi-window browser application is helpful for “re-viewing earlier slides by switching to an already-open window, instead of having to click back

through and reload multiple windows in order to display that earlier slide.”

Id.

Patent Owner does not present any specific arguments with respect to the claims in this challenge.

We are persuaded that Petitioner has presented adequate reasoning supported by evidentiary underpinnings to support a conclusion that claims 6, 12, 19, and 33 would have been obvious to a person of ordinary skill in the art in view of Lenz and in further view of Maddalozzo’s specific teaching of opening web pages in separate browser windows. We conclude, on the record before us, that Petitioner has shown by a preponderance of the evidence that claims 6, 12, 19, and 33 would have been obvious under 35 U.S.C. § 103 in view of Lenz and Maddalozzo.

K. Claims 1–5, 7–11, 13–18, and 20–32 — Alleged obviousness over Lenz and Barrett

Petitioner contends that to the extent independent claims 13 and 20 require a single, unitary “data file” that is not expressly taught by Lenz, it would have been obvious “over Barrett, which expressly teaches using a single HTML/JavaScript file for implementing an automated slide show.” Pet. 61.

Patent Owner does not expressly contest this ground or provide a claim construction for “data file,” and does not address in the Patent Owner Response the combination of Lenz and Barrett.

Petitioner argues that the JavaScript program and its explanation in Barrett “expressly teaches using a single HTML/JavaScript file for implementing an automated slide show.” Pet. 61. Petitioner relies upon Dr. Greenspun’s testimony to support this argument, and Dr. Greenspun testifies

that “Barrett’s Chapter 6 ‘Interactive Photo Slideshow’ project provides a specific example of creating a single HTML/JavaScript file (*fashion_show.html*[’]).” Ex. 1010 ¶ 124. Pointing out that Barrett discloses “a single HTML/JavaScript file that would cause a browser to run a sequenced slide show,” Petitioner contends that it would have been known by, and predictable to, a person of ordinary skill in the art to use a single data file such as taught by Barrett and to include the slide show functionality of Lenz in the single data file. Pet. 62 (citing Ex. 1010 ¶¶ 71–73, 124, 146).

We find this reasoning by Petitioner, supported by Dr. Greenspun’s testimony, to be persuasive. Writing a single client-side script, including relevant JavaScript code defining various related functions for a slide show presentation, is consistent with, and expressly shown by the examples and description in Barrett. Barrett, for example, states that for a client-side script “the browser’s JavaScript runtime engine is called to interpret the script, which it reads from top to bottom, executing statements as it goes. . . . [A]ll of this can be done without going back to the Web server and grabbing more information.” Ex. 1009, 13.

Assuming, as Petitioner has done here, that claims 13 and 20 require a single data file, we are persuaded that a person of ordinary skill in the art would have combined Barrett and Lenz to meet this potential limitation for the reasons set forth by Petitioner. We do not, however, by this Decision, infer or express a claim construction that “data file” as recited in each of claims 13 and 20 is limited to a single data file, as Petitioner has assumed. To the extent a single data file is *not* required by the claim language, our determination includes that Barrett discloses a “data file.”

L. Claims 6, 12, 19, and 33 — Alleged obviousness over Lenz, Barrett, and Maddalozzo

Petitioner again relies on Maddalozzo for the limitations recited in dependent claims 6, 12, 19, and 33, relating to display of the retrieved network addresses, i.e., URLs, in separate browser windows. Pet. 63–64.

Petitioner argues that a person of ordinary skill in the art, for the same reasons set forth with respect to Lenz and Maddalozzo, above, would have been motivated to combine Lenz, Barrett, and Maddalozzo “to create a system that used multiple browser windows when displaying the sequence of web pages.” *Id.* (citing Ex. 1010 ¶ 171).

We are persuaded, for the reasons discussed above, that a person of ordinary skill in the art would have known, and been motivated, to use a multiple browser window application as described in Maddalozzo with Lenz and Barrett, essentially for the same reasons as described above with respect to Maddalozzo and Lenz, namely, to open each slide in a separate browser window because, e.g., “it would be helpful for users to be able to use the standard operating system and browser controls to compare information in multiple windows.” Ex. 1010 ¶ 101.

Therefore, we conclude Petitioner has shown by a preponderance of the evidence that claims 6, 12, 19, and 33 would have been obvious under 35 U.S.C. § 103 in view of Lenz, Barrett, and Maddalozzo.

IV. CONTINGENT MOTION TO AMEND

Having determined that claims 1–33 of the ’694 patent are unpatentable, we address Patent Owner’s contingent Motion to Amend.

In an *inter partes* review, amended claims are not added to a patent as of right but, rather, must be proposed as a part of a motion to amend.

35 U.S.C. § 316(d). We must assess the patentability of the proposed substitute claims “without placing the burden of persuasion on the patent owner.” *Aqua Prods., Inc. v. Matal*, 872 F.3d 1290, 1328 (Fed. Cir. 2017). Thus, we determine whether substitute claims are patentable by a preponderance of the evidence based on the entirety of the record. Patent Owner’s proposed substitute claims still must meet the statutory requirements of 35 U.S.C. § 316(d) and the procedural requirements of 37 C.F.R. § 42.221. *See* “Guidance on Motions to Amend in view of *Aqua Products*” (Nov. 21, 2017).¹³ Accordingly, Patent Owner must demonstrate (1) the amendment responds to a ground of unpatentability involved in the trial; (2) the amendment does not seek to enlarge the scope of the claims of the patent or introduce new subject matter; (3) the amendment proposes a reasonable number of substitute claims; and (4) the original disclosure sets forth written description support for each proposed claim. *See* 37 C.F.R. § 42.221.

A. Proposed Substitute Claims

Patent Owner proposes contingently substituting claims 34–51, for cancelled original claims 1–33. Mot. to Amend 1. The proposed substitute claims correspond to original claims 1–12 and 28–32. Patent Owner asserts that the proposed substitute claims do not enlarge the scope of the claims and are supported by the original specification. *Id.* Patent Owner characterizes the substitute claims as responsive to a ground of unpatentability involved in the proceeding. *Id.* Patent Owner explains that

¹³ The guidance memorandum is publicly available at https://www.uspto.gov/sites/default/files/documents/guidance_on_motions_to_amend_11_2017.pdf.

proposed independent claims 34, 40, and 46 are identical to original independent claims 1, 7, and 28, but include, now, an additional limitation: “a playlist engine of the Internet browser.” *Id.* at 2–3.

Substitute claim 34 is representative of the proposed substitute independent claims, and is reproduced below, with underlined material indicating language added to original claim 1.

34. (Substitute for Original Claim 1) A computer device executing an Internet browser comprising:

at least one browser window configured to display to a user at least one web page identified by one of a plurality of network addresses in computer memory, said network addresses representing a sequence;

a playlist engine of the Internet browser configured to retrieve user selected network address(es) from the sequence, and further configured to display, in the browser window, web pages corresponding to the user selected network addresses; and

a control panel configured to enable a user to select for display in the browser window(s) at least one of the web pages corresponding to the user selected network address(es), the control panel having a play mode control which when selected by the user causes the playlist engine to retrieve successive addresses from the sequence in the absence of user selection and to display in the browser window web pages corresponding to the retrieved successive addresses, the web pages each displayed for one or more predefined durations;

wherein the network addresses are associated with one or more duration values, the predefined duration for each web page specified by the associated duration value; and

further comprising a timer configured to display, for at least one of the displayed web pages, the time remaining for the playlist engine to display the web page.

Id. at 2. Only the phrase “of the Internet browser” is added in substitute claim 34.

B. Unpatentability analysis

Petitioner does not challenge whether the number of substitute claims is reasonable. *See generally* Opp. to Mot. to Amend. Nor does Petitioner challenge whether the amendments are responsive to a ground of unpatentability in the trial or that the substitute claims introduce new matter.

Id. We do not independently find that the amendments introduce new matter, that the number of substitute claims is unreasonable, or that those claims are not responsive to grounds of unpatentability in this trial. *See* Mot. 4 (explaining that the substitute claims respond to grounds of unpatentability). Petitioner argues that the subject matter of substitute independent claims 34, 40, and 46, and the proposed substitute claims 35–39, 41–46, and 48–51 which respectively depend therefrom, would have been obvious over Quimby and Lenz. Opp. to Mot. to Amend 1.

As discussed below, we determine, based on a preponderance of the evidence, that substitute claims 34–51 are unpatentable under 35 U.S.C. § 103(a).

As discussed *supra*, Petitioner has shown by a preponderance of the evidence that independent claims 1, 7, and 28 are unpatentable under 35 U.S.C. §103(a) as obvious over either Quimby or Lenz alone, and also over Quimby or Lenz as combined with various secondary references. Section III.C–L. In this Motion, substitute claims 34, 40, and 46 contain all of the limitations of original claims 1, 7, and 28 and add a recitation that modifies the “playlist engine” to be specifically a feature “of the Internet browser.” Mot. 2.

To assess the consequence of this amendment, we recall our claim construction. We determined that the preamble of claim 1 is most naturally understood to encompass “an Internet browser comprising a playlist engine” and that the playlist engine is “a software program or series of software functions undertaking the respective functions described in the claims as would have been understood by one of ordinary skill read in the context of the claims.” Section II.C. The term “comprising” informs us that the playlist engine is an element of the Internet browser, but does not exclude additional elements.” *See Genentech, Inc. v. Chiron Corp.*, 112 F.3d 495, 501 (Fed.Cir.1997) (“Comprising is a term of art used in claim language which means that the named elements are essential, but other elements may be added and still form a construct within the scope of the claim.”). The MPEP explains that “[t]he transitional term ‘comprising,’ . . . is synonymous with ‘including,’ ‘containing,’ or ‘characterized by,’ [and] is open-ended and does not exclude additional, unrecited elements or method steps.” MPEP § 2111.03 (8th ed. rev. 2010).

Petitioner argues that we should deny the Motion because the proposed amendment, including the “‘playlist engine of an/the Internet browser,’” “can be found in both *Quimby* and *Lenz*.” According to Petitioner, therefore, “proposed claims 34–51 are unpatentable under the same grounds set forth in the Petition.” *Opp. to Mot. to Amend* 1. Petitioner argues, as it did in the Petition, that the playlist engine (even under Patent Owner’s proposed claim amendment) is part of the browser because *Quimby* discloses an “HTML/JavaScript file that is downloaded and processed by the user’s browser.” *Id.* at 11 (citing *Pet.* 15; *Ex.* 1010 ¶ 70). Petitioner again relies upon the testimony of Dr. Greenspun, who states that

in Quimby the web page displays are “generated by a JavaScript program running within the browser.” Ex. 1010 ¶ 27, quoted in Opp. to Mot. to Amend 12. Dr. Greenspun further testifies that providing an HTML/JavaScript file from a server to a client “result[s] in the execution of the JavaScript on the Web browser.” *Id.* ¶ 31.

We are persuaded by Petitioner’s arguments for at least two reasons. First, we cannot discern how the proposed claim language “of the Internet browser” (proposed substitute claims 34, 40), or “by a playlist engine of an Internet browser,” (proposed substitute claim 46), changes, at all, the scope of the substitute claims relative to original claims 1, 7, and 28, as we have properly construed them. Importantly, our claim construction already construed the preamble of claim 1 for example, to mean an “Internet browser *comprising* a playlist engine.” In other words, our claim construction is reasonably understood to mean that the Internet browser *includes* a playlist engine. Second, Patent Owner argues in its Motion, specifically, that

Quimby’s “performing portion” is a stored on a server An Internet browser resides on a client computer. Accordingly, Quimby’s server-side performing portion is not a “playlist engine *of* [an/the] Internet browser,” as recited in the substitute claims.

Mot. To Amend 5. We are not apprised of any substantive difference from Patent Owner’s position, as stated in its Patent Owner Response, that

[a]n Internet browser is a client-side program. Ex. 1001, 4:34-36 (“A web browser program is typically installed on client 120, enabling a client 120 to access web content and display it to a user using appropriate protocols.”). Quimby’s “performing portion,” on the other hand, is a stored on a server.

PO Response 7–8. We cannot discern a substantive difference in either the scope of the substitute claims or Patent Owner’s arguments for patentability

of the proposed substitute claims from Patent Owner's position with respect to the patentability of the original claims. In addition, neither Patent Owner's Motion, nor its Reply to Petitioner's Opposition, explains how the proposed amendment further limits claim 1 as it is properly construed.¹⁴ Courts have consistently found that minor word changes do not alter the scope of a claim. *See Slimfold Mfg. Co. v. Kinkead Indus., Inc.*, 810 F.2d 1113, 1115 (Fed. Cir. 1987) (In the context of reissued claims, "[i]dential" has consistently been interpreted as not excluding minor word changes."). This is not a procedural burden of persuasion on Patent Owner but a substantive failure by Patent Owner to provide an amendment that is a different in claim scope from the original claims. *See Aqua Prods.*, 872 F.3d at 1327 (The Federal Circuit explained that "the PTO may not place that burden [of persuasion] on the patentee."). The amendments appear, based on our claim construction, to be a distinction without a difference and, on the other hand, can also reasonably be characterized as an express reiteration of our claim construction, set forth in the body of the claim, and yielding no different scope than that relied upon throughout this Decision.

Where we cannot discern a difference in the scope of the claims from that already considered under the appropriate claim construction, and where Patent Owner offers the same arguments as presented previously for the original claims, we are persuaded by Petitioner's arguments, and, therefore, do not deviate from, and rely upon our analysis, as discussed above, with respect to claims 1–33.

¹⁴ We granted Patent Owner a Reply (Paper 19) to Petitioner's Opposition to Patent Owner's Motion to Amend, and subsequently granted Petitioner a Sur-Reply (Paper 23).

Based on the complete record before us and Petitioner's arguments and evidence as discussed above with respect to claims 1–12 and 28–32, we determine that a preponderance of the evidence shows that the subject matter of proposed claims 34–51 would have been obvious in view of either Quimby; Quimby and Lenz; Quimby and Maddalozzo; Quimby and Barrett; Quimby, Barrett, and Lenz; Quimby, Barrett, and Maddalozzo; Lenz; Lenz and Maddalozzo; Lenz and Barrett; and Lenz, Barrett, and Maddalozzo. Accordingly, we deny Patent Owner's Contingent Motion to Amend as to claims 34–51.

V. SUMMARY

Petitioner has proved by a preponderance of the evidence that claims 1–33 are unpatentable.

We deny Patent Owner's Contingent Motion to Amend to replace claims 1–33 with substitute claims 34–51.

VI. ORDER

For the reasons given, it is

ORDERED, based on a preponderance of the evidence, that claims 1–33 are unpatentable;

FURTHER ORDERED, Patent Owner's Motion to Amend is denied; and

FURTHER ORDERED, because this is a final written decision, the parties to this proceeding seeking judicial review of our Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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