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Paper 51
Date: October 30, 2025

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SAMSUNG ELECTRONICS CO., LTD. and
SAMSUNG ELECTRONICS AMERICA, INC.,
Petitioner,

v.

MAXELL LTD,
Patent Owner.

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IPR2024-00735
Patent 11,017,815 B2

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Before JAMESON LEE, TERRENCE W. McMILLIN, and
KEVIN C. TROCK, *Administrative Patent Judges.*

LEE, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining Some Challenged Claims Unpatentable
*35 U.S.C. § 318(a)*
Dismissing Patent Owner's Motion to Exclude
*37 C.F.R. § 42.64*

# I. INTRODUCTION

We instituted an *inter partes* review of claims 1–15 ("challenged claims") of U.S. Patent No. 11,017,815 B2 (Ex. 1001, "the '815 patent") owned by Maxell Ltd. ("Patent Owner"). Paper 11 ("Decision to Institute" or "Inst. Dec."). We have authority to conduct this *inter partes* review under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73.

Oral hearing was held on September 24, 2025, a transcript of which has been entered as Paper 47. We determine that Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (collectively, "Petitioner") have proved by a preponderance of the evidence that claims 1–6 and 9–13 of the '815 patent are unpatentable but have not proved by a preponderance of the evidence that claims 7, 8, 14, and 15 are unpatentable.

## *A. Background*

Petitioner filed a Petition requesting an *inter partes* review of the challenged claims pursuant to 35 U.S.C. §§ 311–319. Paper 3 ("Pet."). Patent Owner filed a Preliminary Response. Paper 9 ("Prelim. Resp.").

The Decision to Institute was entered on November 7, 2024. Paper 11. Thereafter, Petitioner filed a Motion to Submit Supplemental Information. Paper 15. Patent Owner opposed Petitioner's Motion to Submit Supplemental Information. Paper 16. Petitioner filed a Reply to Patent Owner's Opposition to Petitioner's Motion to Submit Supplemental Information. Paper 19. We denied Petitioner's Motion to Submit Supplemental Information. Paper 34.

Patent Owner filed a Motion to Submit Supplemental Information. Paper 38. Petitioner opposed Patent Owner's Motion to Submit Supplemental Information. Paper 41. Patent Owner filed a Reply to

Petitioner's Opposition to Patent Owner's Motion to Submit Supplemental Information. Paper 43. We denied Patent Owner's Motion to Submit Supplemental Information. Paper 49.

Patent Owner filed a Response to the Petition (Paper 20, "PO Resp."); Petitioner filed a Reply (Paper 23, "Reply"); and Patent Owner filed a Sur-reply (Paper 25, "Sur-reply").

Patent Owner filed a Motion to Exclude Exhibit 1010 ("WinTV") and various other portions of evidence relating to or referring to WinTV. Paper 28. Petitioner filed an Opposition (Paper 29) to Patent Owner's Motion to Exclude, and Patent Owner filed a Reply (Paper 30) to Petitioner's Opposition to Patent Owner's Motion to Exclude.

*B. Real Parties in Interest*

Petitioner identifies itself as the real party in interest. Pet. 98. Patent Owner also identifies itself as the real party in interest. Paper 5, 1 (Patent Owner's Mandatory Notices).

*C. Related Matters*

The parties identify the following related federal district court litigation of the '815 patent: *Maxell, Ltd. v. Samsung Electronics Co. Ltd. and Samsung Electronics America, Inc.*, No. 5:23-cv-00092-RWS (E.D. Tex.). Pet. 98; Paper 5, 1. Also, claims 16–27 of the '815 patent are the subject of another *inter partes* review Petition filed by Petitioner in IPR2024-00777.

*D. The '815 Patent*

The '815 patent issued on May 25, 2021, from Application No. 16/883,124, filed May 26, 2020, and claims priority through a chain of continuation application to Application 11/203,457, filed Aug. 11, 2005,

now Patent No. 7,613,383. Ex. 1001, codes (21), (22), (45), (63). The ’815 patent also claims priority to the following foreign patent filings: (1) JP 2004-349264 (Dec. 2, 2004); (2) JP 2004-378767 (Dec. 28, 2004); and (3) JP 2004-378768 (Dec. 28, 2004). *Id.* code (30).

The ’815 patent relates to a hierarchical management system for recording and reproducing device audio/video (“AV”) data. Ex. 1001, code (57). The ’815 patent describes a variety of recording and reproducing devices to which the management system relates, including a device capable of receiving and reproducing digital broadcast from an input (e.g., wave antenna, compressed AV data from another device, and analog AV), and data encryption, decryption, and processing steps prior to display on a television set screen via an output terminal. *Id.* at 4:45–55, 5:24–25, 5:28–46.

The ’815 specification describes a management system “in which the user can conduct manipulation of arbitrarily rearranging the display sequence of the play lists in the play list catalog on the user interface.” Ex. 1001, 2:36–39. The added upper management hierarchical level and unified management of play list and user-defined information allows the user to alter the display sequence of play lists. *Id.* at 2:53–55. The specification further describes that, in addition to an individual user’s ability to select and manage arbitrary play lists, a plurality of users sharing a single device can each manage favorite reproduction contents. *Id.* at 2:51, 2:63–67, 3:1.

Claim 1 is independent and reproduced below:[1]

[1pre] An information processing apparatus comprising:

[1a] a network interface;

[1b] a recording medium on which is stored a plurality of video information including first video information received wirelessly by the network interface over a network from another information processing apparatus,

[1c] wherein at least some of the plurality of video information is associated with a user profile;

[1d] a display; and

[1e] a processor for controlling the display to display:

[1f] a first area including a first character associated with a first group of video information for a first classification and a second character associated with a second group of video information for a second classification different from the first classification,

[1g] the first group of video information being configured to allow a user to edit,

[1h] wherein the first group of video information and the second group of video information are part of the plurality of stored video information,

[1i] a second area displaying thumbnails corresponding to at least a portion of the plurality of stored video information,

[1j] wherein user selection of the first character enables the display of a first group of thumbnails corresponding to the first group of video information in the second area,

[1k] wherein user selection of the second character enables the display of a second group of thumbnails corresponding to the second group of video information in the second area,

[1] The bracketed labels correspond to those used by Petitioner to reference the claim elements. *See* Pet. 1. We use the same labels here for ease of reference, understanding, and consistency.

[1l] wherein, upon one video information stored on the recording medium included in both the first group of video information and the second group of video information being deleted from the first group of video information, the one video information continues to be included in the second group of video information and

[1m] the processor controls the display to display a thumbnail corresponding to the one video information as one of the second group of thumbnails when the second character is selected.

Ex. 1001, 8:49–9:20.

Claim 9 also is independent and recites limitations similar to claim 1. *Id.* at 10:19–65.

*E. Reference relied on by Petitioner and Declarations*

Petitioner relies on the following references:

| Name | Patent Document/Publication | Exhibit |
|---|---|---|
| Horn[2] | U.S. Pat. No. 7,275,063 B2 | 1005 |
| Chao[3] | U.S. Pat. No. 7,970,240 B1 | 1006 |
| Kaplan[4] | U.S. Pub. No. 2001/0056434 A1 | 1014 |
| Bryant[5] | U.S. Pub. No. 2004/0201681 A1 | 1015 |
| Baumgartner[6] | U.S. Pub. No. 2005/0160458 A1 | 1016 |
| WinTV[7] | WinTV Installation and Reference Manual, Hauppauge.com | 1010 |

Petitioner relies on the Declaration of Benjamin B. Bederson, Ph.D. (Ex. 1003) with regard to technical substantive matters, and the Declarations

[2] Issued Sept. 25, 2007. Ex. 1005, code (45).
[3] Issued June 28, 2011. Ex. 1006, code (45).
[4] Published Dec. 27, 2001. Ex. 1014, code (43).
[5] Published Oct. 14, 2004. Ex. 1015, code (43).
[6] Published July 21, 2005. Ex. 1016, code (43).
[7] Petitioner alleges a publication date no later than September 14, 2003. Pet. 6.

of Roshan Bhattarai (Ex. 1063), Nathaniel E. Frank-White (Ex. 1008), and Ming Ching (Ex. 1073), with regard to issues relating to the publication dates of website contents. Patent Owner relies on the Declaration of Ravin Balakrishnan, Ph.D. (Ex. 2040).[8]

*F. Asserted Ground of Unpatentability*

Petitioner asserts that the following grounds of unpatentability:

| Claims Challenged | 35 U.S.C. §[9] | Reference(s)/Basis |
|---|---|---|
| 1–6, 9–13 | 103 | Horn, Baumgartner |
| 7, 8, 14, 15 | 103 | Horn, Baumgartner, WinTV |
| 1–15 | 103 | Horn, Baumgartner, WinTV, Chao |
| 1–6, 9–13 | 103 | Kaplan, Bryant |
| 7, 8, 14, 15 | 103 | Kaplan, Bryant, WinTV |

Pet. 22, 54, 60, 66, 95.

## II. ANALYSIS

*A. Burden of Proof*

Petitioner has the burden of proving unpatentability by a preponderance of the evidence. 35 U.S.C. § 316(e). That burden never

[8] The Declaration of Jacob Sharony, Ph.D. (Ex. 2021), submitted with Patent Owner's Preliminary Response, was not referred to in the Patent Owner Response.

[9] The Leahy-Smith America Invents Act, Pub. L. No. 112–29, 125 Stat. 284 (2011) ("AIA"), amended 35 U.S.C. §§ 102 and 103. Because we have held in the final written decision in related IPR2024-00777 that certain claims of the '815 patent are not entitled to a priority date prior to March 16, 2023, we refer to the AIA version of 35 U.S.C. § 103. Our findings and conclusions do not change, however, even if the pre-AIA version of 35 U.S.C. § 103 applies.

shifts to Patent Owner except in limited circumstances not present here. *In re Magnum Oil Tools Int'l, Ltd.*, 829 F.3d 1364, 1375 (Fed. Cir. 2016). "Preponderance of the evidence means the greater weight of evidence, evidence which is, more convincing than the evidence which is offered in opposition to it." *United States v. C.H. Robinson Co.*, 760 F.3d 1376, 1383 (Fed. Cir. 2014) (internal quotations omitted).

*B. Level of Ordinary Skill in the Art*

Petitioner asserts the following with respect to the level of ordinary skill in the art:

> A person of ordinary skill in the art ("POSITA") at the time of the alleged invention of the '815 patent would have had a bachelor's degree in Computer Science, Electrical Engineering, Computer Engineering, or a related field, and two years of practical experience in digital data management. EX1009, 9; EX1002, ¶67.

Pet. 5.

Patent Owner proposes the following:

> "A person of ordinary skill in the art" in the field of the '815 Patent would have a Bachelor of Science degree in Electrical Engineering, Computer Engineering, Computer Science, Human Computer Interaction, or a related technical field, with at least one year of experience working in the field of user interfaces and/or content management.

PO Resp. 4.

The Decision on Institution adopted Petitioner's proposed level of ordinary skill in the art. Inst. Dec. 8–9. We find Patent Owner's stated level to be less precise than that proposed by Petitioner in that the modifier "at least" used by Patent Owner imposes no upper bound on the amount of experience possessed by one of ordinary skill in the art. Also, Patent Owner states: "The difference between the Board's definition and Patent Owner's

does not change the arguments set forth herein." PO Resp. 5. Thus, we continue to adopt Petitioner's stated level of ordinary skill in the art.[10]

*C. Claim Construction*

We use the same claim construction standard that would be used to construe a claim in a civil action under 35 U.S.C. § 282(b), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. 37 C.F.R. § 42.100(b) (2022). The claim construction standard set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc) is applicable.

Claim terms are generally given their ordinary and customary meaning as would be understood by one with ordinary skill in the art in the context of the specification, the prosecution history, other claims, and extrinsic evidence including expert and inventor testimony, dictionaries, and learned treatises, although extrinsic evidence is less significant than the intrinsic record. *Phillips*, 415 F.3d at 1312–17. Usually, the specification is dispositive, and it is the single best guide to the meaning of a disputed term. *Id.* at 1315.

The specification may reveal a special definition given to a claim term by the patentee, or the specification or prosecution history may reveal an intentional disclaimer or disavowal of claim scope by the inventor. *Id.* at 1316. If an inventor acts as his or her own lexicographer, the definition must be set forth in the specification with reasonable clarity, deliberateness,

[10] All of our findings and conclusions would still be the same, however, had we applied Patent Owner's articulation of the level of ordinary skill in the art.

and precision. *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1249 (Fed. Cir. 1998). The disavowal, if any, can be effectuated by language in the specification or the prosecution history. *Poly-Am., L.P. v. API Indus., Inc.*, 839 F.3d 1131, 1136 (Fed. Cir. 2016).

Only those claim terms that are in controversy need to be construed, and only to the extent necessary to resolve the controversy. *Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) ("The Board is required to construe 'only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.'" (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

Petitioner provides a construction for several terms and phrases including "video information," "one video information," "one video information . . . being deleted from the first group of video information," "the first group of video information being configured to allow a user to edit," and "user profile" or "user profiles." Pet. 18–22. Patent Owner proposes only a construction for "user profile(s)." PO Resp. 6–8.

*1. "User Profile"*

With respect to "user profile" and "user profiles," Petitioner asserts:

> These limitations should be construed as requiring data representing distinctive features and characteristics of a user. EX1047, 3 (defining "profile" as "5. A formal summary or analysis of data, often in the form of a graph or table, representing distinctive features or characteristics"); *see also* EX1048, 3 (defining "user profile" as "A computer-based record maintained about an authorized user of a multi-user computer system. A user profile is needed for security and other reasons; it can contain information such as the person's access restrictions, mailbox location, type of terminal, and so on."). EX1002, ¶78.

Pet. 22. In the Decision on Institution, we adopted Petitioner's proposed construction but changed the conjunctive "and" to the disjunctive "or". Inst. Dec. 14.

Patent Owner notes, however, that in parallel district court litigation, the district court has construed "user profile(s)" as "a collection of settings and information associated with a user," and urges our adoption of the court's interpretation. PO Resp. 6. Patent Owner explains:

> The court specifically noted that the term "user profile" has a well-known ordinary meaning, which is further reinforced by multiple dictionary definitions. This reinforces that the concept of a "user profile" is widely understood in the field and does not require an alternative or ambiguous interpretation.
>
> Accordingly, Patent Owner contends the court's construction of the term "user profile" more closely aligns with the plain and ordinary meaning of the term. EX2040, ¶39-40. This ensures consistency and prevents any misinterpretation of the term beyond its widely accepted meaning. Moreover, the Court's construction of "user profile" is supported by the '815 Patent's specification, as well as the priority applications. EX. 2040, ¶¶73-80. For example, while the precise term "user profile" is not used *in haec verba* in the specification, it discloses user "dedicated" folders where each user can store its playlists according to his/her preferences. EX1001, at 6:21-40 and Figs. 1, 6-7 where "mother" and "father" are shown to have user dedicated folders supporting their profiles); *see also* Ex. 2019, at ¶¶[0024]-[0025] and Figs 1, 6-7; EX2040, ¶74.

FIG.6

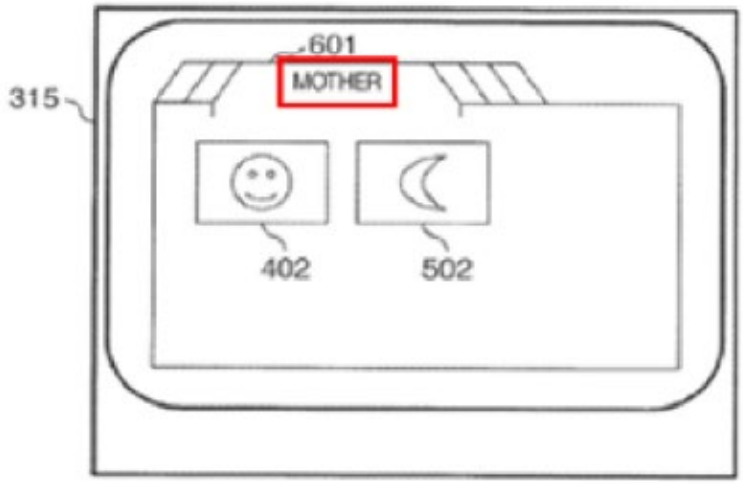
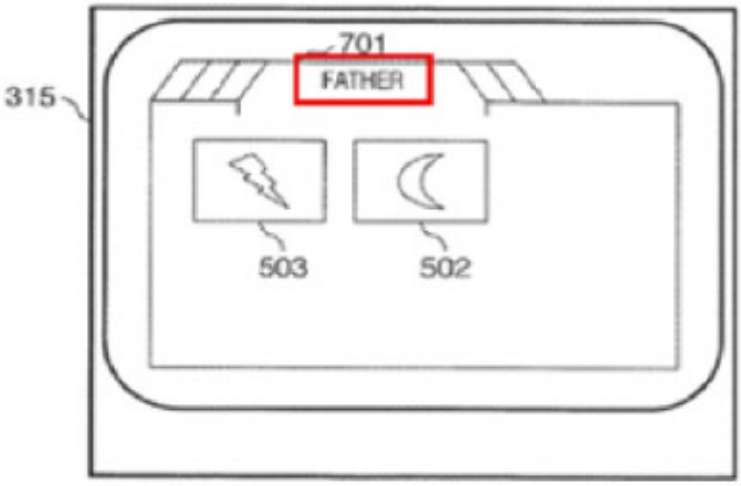



FIG.7




[Figures 6 and 7 illustrate, respectively, first and second output examples of user-defined unified information (Ex. 1001, 3:25–28) and Patent Owner has color labeled the "MOTHER" dedicated folder in Figure 6 and the "FATHER" dedicated folder in Figure 7]

Further, the '815 Patent also discloses that these user dedicated folders are possible by the use of hierarchical data directories with a "Root" directory followed by "user-defined unification information" and "contents of user-defined unified

> information" grouped to "meet respective users' taste by using one user-defined unified information [for] every user." *See* EX1001, 4:35-39; EX2019, at ¶[0027]. *See also* Figs. 8 and 9 and corresponding descriptions to show how the '815 Patent discloses the concept of a user profile consistent with the usage of root directories and folders, used for example to implement user profiles by a POSITA in Windows NT at that time. EX2039 (User' Guide for Microsoft 95 and Windows NT).

PO Resp. 6–8.

In its Reply, Petitioner does not assert that the district court's construction is incorrect. Rather, Petitioner simply states that the challenged claims are unpatentable under either Petitioner's construction or the district court's construction proposed by Patent Owner. Reply 2.

We agree with Patent Owner that the district court's construction is better than Petitioner's proposed construction, because for reasons indicated by Patent Owner, which are not disputed by Petitioner, settings in the computer, e.g., dedicated folders for each user, are the user profiles, rather than simply data alone of any kind. Further, when asked about the appropriateness of the district court's construction, counsel for Petitioner expressed that Petitioner has no objection to the Board's adopting the district court's construction for "user profile":

> JUDGE LEE: So, you'd be fine with just going with the District Court's construction?
>
> MR. HEINTZ: Yes, Your Honor.

Tr. 15:22–24.

For the foregoing reasons, we adopt the district court's construction for "user profile," i.e., "a collection of settings and information associated with a user."

*2. "the first group of video information being configured to allow a user to edit"*

Petitioner asserts: "This limitation should be construed for the purposes of this proceeding as meaning at least that a user can modify which video information is a part of the first group of video information." Pet. 21. Patent Owner neither proposed its own construction nor disagreed with Petitioner's proposed construction. We adopt the meaning as proposed by Petitioner.

*D. Alleged Obviousness of Claims 1–6 and 9–13 over Horn and Baumgartner*

*1. The Law on Obviousness*

A claim is unpatentable under 35 U.S.C. § 103 "if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains." 35 U.S.C. § 103; *see 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) where in evidence, so-called secondary considerations, including commercial success, long-felt but unsolved needs, failure of others, and unexpected results. *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17–18 (1966).

*2. Overview of Horn (Ex. 1005)*

Horn is titled, "Computer system for automatic organization, indexing and viewing of information from multiple sources." Ex. 1005, code (54).

Horn discloses a computer data processing system, including a central processing unit configured with a novel integrated computer control software system, for the management of data objects. Management includes dynamic and automatic organization, linking, finding, cross-referencing, viewing, and retrieval of multiple objects regardless of nature or source. *Id.* at code (57). Horn's overall computer-control system is termed "MFS" for metadata filing system. *Id.* at 5:31–46.

*3. Overview of Baumgartner (Ex. 1016)*

Baumgartner is titled, "Interactive television system with custom video-on-demand menus based on personal profiles." Ex. 1016, code (54). Baumgartner discloses an "interactive television system with custom video-on-demand menus based on personal profiles." *Id.* at code (57). The video may be television programming, video on demand content, and other information. *Id.* ¶ 82.

Figure 1 of Baumgartner is reproduced below:

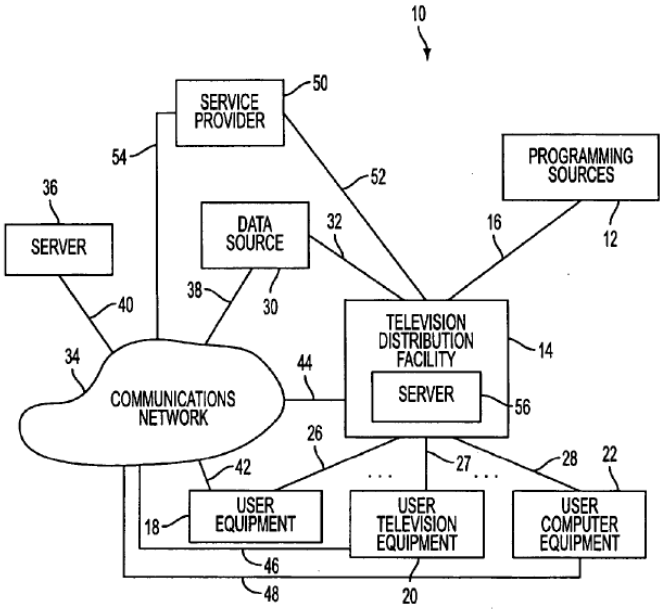



FIG. 1

Figure 1 illustrates an interactive television system in accordance with various embodiments of Baumgartner. Ex. 1016 ¶ 15.

Baumgartner describes: "Contents such as television programming and other media, such as digital music may be provided from programming sources 12 to television distribution facilities such as television distribution facility 14 using communications path 16." *Id.* ¶ 44. Baumgartner further describes:

> Television distribution facility 14 may be connected to various user equipment devices 18. Such user equipment 18 may, for example, be located in the homes of users. User equipment 18 may include user television equipment 20 or user computer equipment 22.
>
> The user equipment may receive television and music programming and other information from television distribution facility 14 over communications paths such as communications path 26, 27, and 28. . . . *Paths 26, 27, and 28 may be* cables or other wired connections, or *wireless connections* for broadcast or other satellite links.

*Id.* ¶¶ 47–48 (emphasis added).

Illustrative user television equipment 20 is based on a set-top box arrangement. Ex. 1016 ¶ 61. Illustrative user computer equipment is shown in Figure 5, reproduced below:

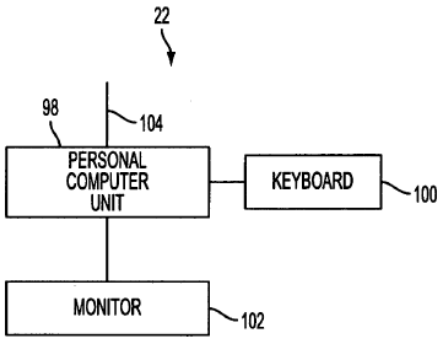



FIG. 5

Figure 5 illustrates user computer equipment according to various embodiments of Baumgartner. *Id.* ¶ 19.

Baumgartner describes:

> In the arrangement of FIG. 5, personal computer 98 may be controlled by the user using keyboard 100 or other suitable user input device, such as a trackball, mouse, touch pad, touch screen, voice recognition system, a remote control such as remote control 72 of FIG. 4, etc. Video content such as television programming and interactive television application display screens may be displayed on monitor 102. Television programming, video-on-demand content, video recordings played back from a network-based video recorder, and other information may be received from paths 28 and 48 (FIG. 1) using input/output 104. The user may also send commands and other information used during interactions with the interactive television application and system 10 over input/output line 104.
>
> Personal computer 98 may contain a television or video card such as television tuner card for decoding analog and digital television channels and for handling streaming video content. Multiple video cards (e.g., tuner cards) may be provided if desired.

Ex. 1016 ¶¶ 82, 83.

Baumgartner further describes that user computer equipment 22 accesses server 36 either through communication path 48 connecting to communications network 34, or through path 28, then television distribution facility 4, and then path 44 connecting to communications network 34. Ex. 1016 ¶ 54. Baumgartner describes that paths 44 and 48 can be wireless. *Id.* ¶¶ 53–54. Baumgartner also describes that communications network 34 can be the Internet. *Id.* ¶ 52. Server 36 is connected to communications network 34 through path 40 which can be a wireless path. *Id.* With regard to user computer equipment receiving video from server 36 through

communications network 34 which can be the Internet, Baumgartner describes:

> If desired, an interactive television application such as a network-based video recorder or a video-on-demand application may be supported using server 56, server 36, or equipment at service provider 50. Video-on-demand content and video recorded during a network-based video recorder arrangement may be stored on server 56 or server 36 or at service provider 50 and may be provided to the user equipment when requested by users.

Ex. 1016 ¶ 57.

> Television programming, video-on-demand content, video recordings played back from a network-based video recorder, and other information may be received from paths 28 and 48 (FIG. 1) using input/output 104. The user may also send commands and other information used during interactions with the interactive television application and system 10 over input/output line 104.

*Id.* ¶ 82.

*4. Claim 1*

Patent Owner takes issue with only Petitioner's accounting of limitations 1[b], 1[c], 1[g], and 1[m]. PO Resp. i. We have reviewed Petitioner's accounting of all other limitations of claim 1 as well as the preamble of claim 1, and find no deficiency with respect thereto. Hereinbelow, we discuss the issues relating to limitations 1[b], 1[c], 1[g], and 1[m].

*a) Limitation 1[b]*

Limitation 1[b] recites:

> [1b] a recording medium on which is stored a plurality of *video information* including first video information *received wirelessly* by the network interface over a network from another information processing apparatus,

Pet. 1 (emphasis added). There are three aspects to limitation 1[b], one pertaining to video information as content, another pertaining to receiving that video content wirelessly, and a third pertaining to receiving the video content from "another information processing apparatus." We address them, in turn.

Petitioner explains: "Although Horn focuses on photographs and music, Horn explicitly discloses video information, *i.e.*, 'movies.' EX1005, 12:13." Pet. 22. Patent Owner first argues:

> *Horn does not even disclose receiving video*, let alone receiving it wirelessly. Horn discloses receiving files, music and images: "[t]he e-mail domain is linked through a network for the communication of files, music and images to and from a network." EX1005, 12:5-7. This is because Horn is interested in providing a "space-saving" file system, and not a system like videos that would use up too much storage. Ex. 2040, ¶142.

PO Resp. 18 (emphasis added). Patent Owner's expert, Dr. Balakrishnan, testifies that "Horn does not disclose 'video information.'" Ex. 2040 ¶¶ 153, 155. That position is clearly incorrect, in light of the following passage in Horn, cited to in the Petition (Pet. 23) as well as in the Decision on Institution (Inst. Dec. 15):

> Mirrored Object System. MFS, by which is meant the inventive system disclosed herein, comprises one or more application(s) for organizing all types of text and image information-from word processing documents and spreadsheets; to web pages and multimedia; to illustrations, images, *movies*, and photographs; to contacts, notes, and appointments; to sounds and music; or anything else that is stored and retrieved on a computer—using the concept of extensible properties and link information stored as unified metadata (annotation and link metadata) associated with a reference object.

Ex. 1005, 12:8–18 (emphasis added).

Based on the above-quoted description, Horn does disclose that its system operates on video information, because movies are video information. Neither Patent Owner nor its expert Dr. Balakrishnan gives an explanation why movies are not video information.[11] To satisfy the "video information" requirement, Petitioner need not rely on anything from Baumgartner, which renders moot Petitioner's alternative reliance on Baumgartner's videos for this aspect of limitation 1[b].

The second aspect of limitation 1[b] is that the video information is received wirelessly by the network interface of limitation 1[a]. Petitioner explains:

> Horn does not expressly disclose that the digital video information is received by the network interface wirelessly. As discussed in limitation [1a], Horn discloses the network interface can be connected to the Internet via a LAN. E.g., EX1005, 6:59-63. A POSITA would have understood that a LAN is often implemented as a wireless LAN, and a POSITA would have found it obvious to implement Horn's LAN with a wireless LAN because they were often cheaper and easier to install than a wired LAN due to elimination of the need to run wires to all of the endpoint computers in the network. Additionally, wireless LAN can be more convenient for users. EX1003, ¶143.

Pet. 29–30. The above-quoted reasoning is presented in the Petition prior to additional discussion relying on Baumgartner's teaching of wireless transmission of video to user equipment through a network such as the Internet. Additionally, Petitioner asserts "[b]ecause Horn discloses a connection to the Internet and a LAN but does not provide any

[11] Dr. Balakrishnan's testimony that "Horn does not disclose 'video information'" (Ex. 2040 ¶¶ 153, 155) undermines his credibility with regard to how one of ordinary skill in the art would have understood the disclosure of Horn.

implementation details for that connection, a POSITA would similarly look to Baumgartner for additional detail for that implementation." *Id.* at 24–25. Specifically, Petitioner cites to Baumgartner's disclosure of transmission of video from server 36 via communications network 34 such as the Internet over link 48 implemented wirelessly to user computer equipment 22 such as a personal computer. *Id.* at 30–32. We understand Petitioner's position relying on Baumgartner to be that Baumgartner's disclosure of user computer equipment such as a personal computer receiving video wirelessly from an external network such as the Internet would have suggested to one of ordinary skill in the art to implement Horn's disclosed LAN as a wireless LAN.

Patent Owner does not dispute that if Horn's LAN, which is not indicated as either wired or wireless, were implemented as a wireless LAN then the "received wirelessly from the network interface" aspect of limitation 1[b] would be met. Rather, Patent Owner contends that Petitioner's assertion that wireless LAN was cheaper at the time of the '815 patent's invention is conclusory and unsupported. PO Resp. 10. Further, Patent Owner asserts:

> [P]ublicly available information shows that at the time of the '815 Patent's invention the price of wireless PC card and wireless access point was more than $300, as compared to the wired LAN card that cost om average less than $50. Petitioner's assertion regarding the costs involved might be true today but not around the early 2000's. Today of course a wireless solution may be more cost effective, but not at the time of the '815 invention. (Dec. 2004). [Ex. 2040 ¶ 124]; *see also* EXS. 2024-2025.

PO Resp. 10.

Both parties have provided evidence of the cost of a wireless LAN, but they vary considerably, ranging from $60 to $100 submitted by Petitioner to

more than $300 submitted by Patent Owner. Ex. 1070; Ex. 1071, 16; Ex. 2040 ¶ 124. Petitioner asserts:

> [F]or the cost of the wireless LAN, Maxell includes the cost of a PC card and an access point (a.k.a, a wireless router), which allows multiple devices to connect to the network; but for the cost of a wired LAN, [Patent Owner] only includes the cost of a PC wired LAN card without any consideration of a device such as a switch that is necessary for multiple connections to the LAN and that according to [Patent Owner] costs "less than $200." EX2025, 4.

Reply 5. Petitioner further asserts that Patent Owner "wholly ignore the cost of running the wires necessary to support a wired LAN," and notes that Dr. Bederson has testified that "the cost of running wires to support wired LANs in environments such as homes would significantly outweigh the cost of electronic equipment needed for wireless LANs." Ex. 2038, 44:14-48:7; 100:17-101:21." *Id.* at 4–5.

We do not reach a resolution on the issue of relative cost between a wired LAN versus a wireless LAN, because Petitioner's assertion that wireless LANs "were often cheaper and easier to install" is nebulous by use of the imprecise word "often." "Often" cheaper permits "often" not cheaper. Much depends on how many access points would exist in the wired LAN. Petitioner does not discuss that consideration in the context of Horn. Also, we are persuaded by Petitioner's other stated reasons for implementing Horn's LAN as a wireless LAN: (1) that a wireless LAN can be more convenient to users, and (2) Baumgartner provides adequate motivation by disclosing transmission of video from server 36 via communications network 34 such as the Internet over link 48 implemented wirelessly to user computer equipment 22 such as a personal computer. Pet. 29–32.

We are persuaded that a wireless LAN provides more user convenience by enabling the user equipment accessing the external network to be flexibly located within the range of the LAN without need to have wires installed to run to those locations. That is true whether there is only one user equipment or there are multiple user equipment, one per user. In the case of only one user equipment, the user can access the external network from a wide range of locations and change that location flexibly. In the case of multiple user equipment, one per user, each user can access the external network from his or her own preferred location, and also change that preference at any time without regard to whether wires have been installed to the preferred location.

In response, Patent Owner argues that "[t]he Horn system is a mainframe server" and "not a mobile system nor does the patent suggest any mobility requirements." PO Resp. 17 (citing Ex. 1005, 6:59–63, 7:7–10; Ex. 2040 ¶ 137). Dr. Balakrishnan testifies the same, also citing to the same portion of Horn. Ex. 2040 ¶ 137. The cited portions of Horn (Ex. 1005, 6:59–63, 7:7–10) are reproduced below and do not support Patent Owner and Dr. Balakrishnan's assertions that Horn's computer has to be a large and stationary mainframe computer. In one cited portion, Horn states:

> A network interface is coupled to the bus to provide an interface to the data communication network (LAN, WAN, and/or internet) for exchange of data among the various local network users, site computers, routers, and other computing devices.

Ex. 1005, 6:59–63. In another cited portion, Horn states: "In a net-worked environment, the program modules may be distributed among several computing devices coupled to the network, and used as needed." *Id.* at 7:7–10.

The position of Patent Owner and Dr. Balakrishnan also appear inconsistent with the illustration in Horn's Figure 1 which depicts computer 101 in the likeness of a laptop computer. Additionally, Horn describes "[a] computer used in the inventive system typically includes at least one processor and memory couples to a bus," which clearly is not restricted to a large mainframe server computer. *Id.* 6:45–47.

We do not credit Dr. Balakrishnan's testimony that Horn's computer is a large "mainframe server" computer. Even assuming Horn's computer is or must be a "mainframe server" computer, which we do not find is the case, a wireless LAN still provides convenience for when the "mainframe server" computer needs to be relocated for whatever reason, and also provides convenience for other equipment which may be connected to the LAN.

Patent Owner further asserts that one of ordinary skill in the art "would find no indication that mobility is a relevant factor in the system's design." PO Resp. 17. The argument is misplaced, because the suggestion for implementing Horn's LAN as a wireless LAN need not be expressly disclosed by Horn. A motivation to combine "can be found explicitly or implicitly in the prior art references themselves, in market forces, in design incentives, or in 'any need or problem known in the field of endeavor at the time of invention and addressed by the patent.'" *Forest Lab'ys, LLC v. Sigmapharm Lab'ys, LLC*, 918 F.3d 928, 934 (Fed. Cir. 2019) (quoting *Arctic Cat Inc. v. Bombardier Recreational Prods. Inc.*, 876 F.3d 1350, 1359 (Fed. Cir. 2017)). "A person of ordinary skill is also a person of ordinary

creativity, not an automaton." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007).

Further, in addition to the above-discussed sufficient reasoning to implement a wireless LAN in Horn based on user convenience, and notwithstanding Patent Owner's arguments to the contrary, we find persuasive Petitioner's position that Baumgartner's disclosure of user computer such as a personal computer receiving video wirelessly from an external network such as the Internet would have suggested to one of ordinary skill implementing Horn's LAN as a wireless LAN.

Patent Owner argues that one of ordinary skill would not have made this proposed combination because Horn's computer is not a general purpose computer. PO Resp. 11. Patent Owner's expert, Dr. Balakrishnan, testifies:

> Horn's MFS is designed for **high performance, data-intensive computing**, a characteristic that distinguishes it from general-purpose computers, which are optimized for single-user, lower-complexity tasks. Horn's system's architecture and functionality indicate that it is a robust, server-based solution that is intended to handle large volumes of data. Ex. 1005, 6:59-63.

Ex. 2040 ¶ 127. The cited portion of Horn, column 6, lines 59-63, already reproduced above where we discussed Dr. Balakrishnan's testimony that Horn's computer is a "mainframe server" computer, does not support Dr. Balakrishnan's similar testimony here that Horn's computer is a server-based solution distinguished from a general purpose computer. We do not credit this testimony of Dr. Balakrishnan.

Dr. Balakrishnan also testifies: "**First**, the Horn system is not a simple general-purpose computer but a dedicated server architecture specifically designed for **automatic organization, indexing, and retrieval**

of data from multiple sources. Ex. 1005, 3:10–17." The testimony is not supported by the cited portion of Horn, reproduced below:

> Accordingly, there is a long felt need in the art to provide a truly open computer system having data structures, input interfaces, displays and operational systems that permits the organization of information, as data objects, in a wide variety of files and databases, which computer system is independent of the source of the information objects, is dynamic and automatic, permitting faster archiving, retrieval and viewing of the information and providing more meaningful and useful links for better organization and indexing of the information.

Ex. 1005, 3:10–17.

The above testimony further appears inconsistent with the following disclosure of Horn:

> The inventive system is remarkably robust, yet *is a relatively small application program that can function with any type of Operating System*: Microsoft Windows, Windows NT, Windows 2000, and Windows XP; Apple Macintosh OS 9 and OSX; BSD Unix, HP-UX, Sun Solaris, Linux, and the like. *Currently the inventive technology is preferably implemented in its current best mode in a form that is executable on the Apple Macintosh OS9 and OSX operating systems*.

Ex. 1005, 37:27–35 (emphasis added). Dr. Balakrishnan testified on cross-examination that at the proper time frame the Apple Macintosh OS9 operating system ran on Macintosh which was a desktop computer, and that when used as a single computer the Macintosh was a personal computer. Ex. 1072, 28:15–29:7. As we noted above, Horn describes "[a] computer used in the inventive system typically includes one processor." Ex. 1005, 6:45–46.

Dr. Balakrishnan still further testifies:

> **Second**, the system's capabilities align with enterprise-level data management, including aggregating data from

> multiple inputs, performing complex indexing operations, and providing structured data views. These are defining characteristics of server-based computing environments—features that are neither typical nor necessary for general-purpose personal computers, which primarily function for localized, single-user tasks.
>
> Furthermore, the architectural framework described in the Horn disclosure supports **high availability, scalability, and efficient handling** of extensive data volumes. Such design considerations are commonly associated with enterprise data centers, further reinforcing that the Horn system is a server-based computing environment requiring a high-performance infrastructure.

Ex. 2040 ¶¶ 129–130. Such reasonings are insufficient to establish that one of ordinary skill in the art would have concluded that a general purpose personal computer cannot be used as Horn's computer, particularly in light of the fact that Horn describes: "Currently the inventive technology is preferably implemented in its current best mode in a form that is executable on the Apple Macintosh OS9 and OSX operating systems." Ex. 1005, 37:27–35.

For the foregoing reasons, we do not credit the testimony of Dr. Balakrishnan distinguishing Horn's computer from a personal general purpose computer on the alleged basis that Horn's computer is or must be a specially designed server-based computer that provides higher performance on data-intensive computing.

Patent Owner asserts that Horn real-time indexing and retrieval of high data volumes "necessitate" low-latency, high-speed communication. PO Resp. 13 (citing Ex. 2040 ¶ 133). Dr. Balakrishnan testifies that because wireless networks introduce variable latency and bandwidth limitations, wireless connectivity is unsuitable for Horn's operational needs. Ex. 2040

¶ 133. We do not credit this testimony because, as discussed above, Dr. Balakrishnan does not persuade us that Horn's computer must be a "mainframe server" computer or a server-based enterprise-level computer that is substantially different from a general purpose computer such as a personal computer. Horn expressly requires no particular speed or low level of latency. Although higher speed and low latency provided by a wired connection may be better, it is not only the best performing option that can and would be suitable. Dr. Balakrishnan does not credibly explain why a wireless LAN would be truly unworkable in the context of Horn.

Patent Owner further asserts: "The Horn system is explicitly designed for data aggregation and management, making data integrity and security paramount." PO Resp. 15. According to Patent Owner, wired LANs offer a superior security framework by eliminating risks associated with wireless transmissions, such as hacking, data interception, and unauthorized access. *Id.* at 16. According to Dr. Balakrishnan, wireless LANs, especially those n 2004, were significantly more vulnerable to security breaches. *Id.* Again, it is not only the best performing option that can and would be suitable. Even assuming that wireless connectivity is more vulnerable than wired connectivity, that is not sufficient to indicate unworkability of a wireless LAN.

The third aspect of limitation 1[b] is that the video information is received over a network "from another information processing apparatus." Petitioner identifies the remote server, referred to in Horn as a "site computer," as the "another information processing apparatus." Pet. 32. Patent Owner faults Petitioner for identifying the remote server as "another information processing apparatus," on the basis that Petitioner had identified

a personal computer PC as an information processing apparatus. PO Resp. 20. According to Patent Owner, Petitioner must then identify another personal computer PC as the "another information processing apparatus." *Id.* We disagree. Patent Owner's position is without merit.

The term "information processing apparatus" is broad and can be met by any number of information processing components. A personal computer can be an information processing apparatus. So can a remote server, e.g., Horn's site computer. Patent Owner gives no reason why the two must be the same, and we see none.

For the foregoing reasons, Petitioner adequately accounts for limitation 1[b].

*b) Limitation 1[c]*

Limitation 1[c] recites: "wherein at least some of the plurality of video information is associated with a user profile."

Petitioner explains:

> Horn discloses that at least some of the plurality of information is associated with a user profile: "so as to provide information management tools that facilitate communication to generate, transmit and receive, archive, search, order, retrieve and render objects, ***including information organization personalized for each individual user based on preferences selected by the user***." EX1005, 6:11-22, 3:35-43.
>
> Horn discloses at 8:58-67:
>
> > Collections: . . . allow[] users to categorize objects in ways that most clearly reflect different approaches and ways of viewing the same information. Users can select predetermined collections provided in a basic menu, such as Family, Friends, Work, To Do, Activities, and Vacation when running the MFS program for the

> first time, and can create and set up user-defined collections as well.

EX1005, 15:12-27. Horn also discloses that "[u]ser-defined categorization is enabled by a user directly specifying that a given object belongs to a given collection." EX1005, 6:5-23. When a user specifies that a given object belongs to a user-defined collection, that object becomes associated with a user profile. EX1003, ¶146.

Pet. 33–34.

Notwithstanding Patent Owner's argument to the contrary, discussed below, we are persuaded that at least some of Horn's plurality of video information is associated with a user profile. Figure 26 of Horn is reproduced below, rotated 90 degrees clockwise to facilitate viewing:

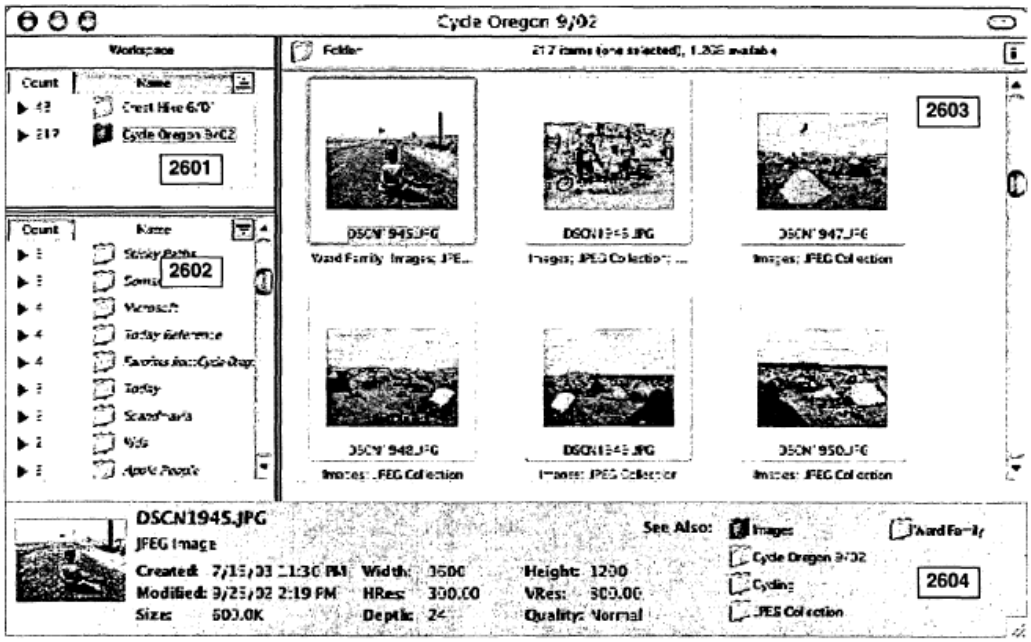



Figure 26

Figure 26 shows the workspace view of an embodiment of Horn. Ex. 1005, 10:60. Pane 2602 shows all the collections defined by a user, together with the name of the user. *Id.* at 15:45–46. Pane 2603 dynamically displays that content selected by a user, either an entire collection or a specific item. *Id.* at 15:47–53.

Patent Owner argues that Petitioner incorrectly treats Horn's collections as user profiles. According to Patent Owner, user profile is construed as "a collection of settings and information associated with a user." We agree, as discussed above in Section II.C. But Petitioner did not rely on mere "collections" to meet the user-profile requirement. Rather, as is evident from the above-quoted portion of the Petition, Petitioner relies on collections defined by users themselves and organized and structured in the computer as such for access and storage. Horn even states: "What makes the inventive system of particular interest to industry is that the PIM Domain functionality provides a new feature: the ability to organize information objects by person and by project." Ex. 1005, 37:66–38:3.

Horn's organized collections are configured settings in the computer much like and correspond to the dedicated folders, e.g., "FATHER" and "MOTHER" in the '815 patent, which Patent Owner explains as supporting user profiles of father and mother (PO Resp. 7) and which counsel for Patent Owner identifies at oral hearing as user profiles (Tr. 30:19–31:1).

Petitioner has adequately accounted for limitation 1[c].

*c) Limitation 1[g]*

Limitation 1[g] recites: "the first group of video information being configured to allow a user to edit." Petitioner adequately accounts for this limitation on pages 38–39 of the Petition. Patent Owner, however, contends that Petitioner's accounting is deficient because (1) Horn does not disclose video information, and (2) the combination of Horn and Baumgartner would not have suggested receiving the video information wirelessly by the network interface. PO Resp. 23. We have already addressed and rejected both of these Patent Owner arguments in the context of the analysis of

limitation 1[b]. These arguments are unavailing. Petitioner has adequately accounted for limitation 1[g].

*d) Limitation 1[m]*

Limitation 1[m] recites: "the processor controls the display to display a thumbnail corresponding to the one video information as one of the second group of thumbnails when the second character is selected."

Petitioner adequately accounts for this limitation on pages 42–43 of the Petition. Patent Owner, however, contends that Petitioner's accounting is deficient because (1) Horn does not disclose video information, and (2) the combination of Horn and Baumgartner would not have suggested receiving the video information wirelessly by the network interface. PO Resp. 24. We have already addressed and rejected both of these Patent Owner arguments in the context of the analysis of limitation 1[b]. These arguments are unavailing. Petitioner has adequately accounted for limitation 1[m].

*e) Conclusion*

For the foregoing reasons, Petitioner has proved by a preponderance of the evidence that claim 1 would have been obvious over Horn and Baumgartner.

*5. Claim 9*

Claim 9 is substantially similar to claim 1. Patent Owner's arguments directed to limitations 1[b], 1[c], 1[g], and 1[m] of claim 1 equally apply to limitations 9[a], 9[b], 9[e], and 9[k], and are equally unpersuasive as we explained above with respect to limitations 1[b], 1[c], 1[g], and 1[m] of claim 1. Patent Owner's argument regarding lack of motivation to combine Horn and Baumgartner is without merit for the same reasons we discussed in

the context of claim 1. Patent Owner presents no additional argument for claim 9. We have reviewed Petitioner's accounting for the other parts of claim 9 and are persuaded thereby.

Petitioner has proved by a preponderance of the evidence that claim 9 would have been obvious over Horn and Baumgartner.

*6. Claims 2–6 and 10–13*

Claims 2–6 each depend from claim 1 and claims 10–13 each depend from claim 9. Patent Owner does not present arguments additional to those it has presented for claims 1 and 9, discussed and rejected above. We have reviewed all of Petitioner's accountings for claims 2–6 and 10–13 and are persuaded thereby.

Petitioner has proved by a preponderance of the evidence that claims 2–6 and 10–13 would have been obvious over Horn and Baumgartner.

*E. Alleged Obviousness of Claims 7, 8, 14, and 15 over Horn, Baumgartner, and WinTV*

The main issue for this alleged ground of obviousness is whether WinTV (Ex. 1010) constitutes a printed publication prior to the effective filing date of the '815 patent. The earliest possible effective filing date of the '815 patent is December of 2004. Ex. 1001, code (30).

According to Petitioner, WinTV is an Installation and Reference Manual for a product ("WinTV product" or "WinTV card") that was offered for sale in the United States by Hauppauge Computer Works, Inc. at least by November 10, 1999. Pet. 6. Also, according to Petitioner, WinTV was published no later than September 14, 2003, on the huppauge.com website, citing the testimony of Nathaniel E. Frank-White, Records Request Processor at the Internet Archive. *Id.*

"Whether a reference qualifies as a printed publication under § 102 is a legal conclusion based on underlying fact findings." *Acceleration Bay, LLC v. Activision Blizzard Inc.*, 908 F.3d 765, 772 (Fed. Cir. 2018). A reference is publicly accessible if "persons interested and ordinarily skilled in the subject matter or art, exercising reasonable diligence, can locate it." *Id.*; *see also Jazz Pharms., Inc. v. Amneal Pharms., LLC*, 895 F.3d 1347, 1355–56 (Fed. Cir. 2018). In an *inter partes* review, "the petitioner bears the burden of establishing by a preponderance of the evidence that a particular document is a printed publication." *Nobel Biocare Servs. AG v. Instradent USA, Inc.*, 903 F.3d 1365, 1375 (Fed. Cir. 2018).

Uploading a document to a website may make the document "technically accessible" since "someone could theoretically find it on the Internet," but uploading a document to a website does not necessarily make the document "publicly accessible." *Samsung Elecs. Co. v. Infobridge Pte. Ltd.*, 929 F.3d 1363, 1369 (Fed. Cir. 2019); *see Acceleration Bay*, 908 F.3d at 772–774. For a document uploaded to a website, a petitioner must present "some evidence that a person of ordinary skill could have reasonably found the website" and then found the document "on that website" with reasonable diligence. *See Samsung*, 929 F.3d at 1369. Indexing or cataloging on the website is not required, if a person of ordinary skill interested in the relevant subject matter would have found the reference using the website's own search functions "and applying reasonable diligence." *Id.*; *VoterVerified, Inc. v. Premier Election Solutions, Inc.*, 698 F.3d 1374 (Fed. Cir. 2012).

In the Petition, Petitioner asserts:

> A POSITA would have been familiar with Hauppauge WinTV products as they were among the early TV tuner products at that time and were one of only two TV tuner products supported by

> the Windows Media PC. A POSITA would therefore have known to look on the Hauppauge website for relevant information. These products were also mentioned in patents that would have come to the attention of a POSITA looking for information on such products.

Pet. 6–7.[12]

As discussed above, we have adopted Petitioner's proposed level of ordinary skill in the art as one who "would have had a bachelor's degree in Computer Science, Electrical Engineering, Computer Engineering, or a related field, and two years of practical experience in digital data management."

We find two deficiencies with Petitioner's accounting for the "public accessibility" of WinTV (Ex. 1010) explanation. First, Petitioner has not adequately explained why such a person of ordinary skill in the art would have been interested in TV tuner products and in particular the WinTV product. Petitioner also does not explain the manner in which the cited patent documents (Ex. 1037, Ex. 1038) describes WinTV products, and how that description shows that one of ordinary skill in the art would have been interested in WinTV products.

Second, even assuming that one of ordinary skill in the art would have gone to the huppauge.com website to find WinTV, Petitioner in its Petition

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[12] In its Reply, Petitioner asserts: "[T]he WinTV manual was published via distribution with the WinTV products that were on sale in 1999." Reply 18. The theory of actual distribution with product sales is presented for the first time in the Reply and thus untimely. We decline to consider it. In any event, Petitioner does not present evidence showing that WinTV accompanied the sale of WinTV products sold prior to December 2, 2004. Petitioner also has not presented evidence of any actual sales, e.g., the number of WinTV product units sold prior to December 2, 2004. Thus, even if the belated argument is considered, it is unpersuasive.

presents nothing to show how one of ordinary skill in the art would have located it on the website and why that effort is within the scope of reasonable diligence. In contrast, Patent Owner' expert, Dr. Balakrishnan, testifies that "[o]ther than being presented with the WinTV manual (Ex. 1010), and by accessing the link provided by Petitioner, I could not independently find the manual as set forth by Petitioner after considerable attempts through use of the Internet Archive around 2003." Ex. 2040 ¶ 98.

Dr. Balakrishnan further testifies:

> I navigated within the Internet Archive to the Hauppauge web site around the time Petitioner contends the WinTV manual was available (in August or September 2003), explored some links presented at the time within those web pages, such as:

| Exhibit | **Link** |
|---|---|
| 2027 | https://web.archive.org/web/20031001191953/http://www.hauppauge.com:80/html/tech.htm |
| 2028 | https://web.archive.org/web/20031001185005/http://www.hauppauge.com:80/html/specs.htm |
| 2029 | https://web.archive.org/web/20031011045622/http://www.hauppauge.com:80/manuals/ |

Ex. 2040 ¶ 99. Dr. Balakrishnan additionally testifies with respect to the link shown above as Exhibit 2029 that

> [I]t is the next higher level directory where one would expect the manuals to be accessible. However, as can be seen from Exhibit 2029, that access was denied.

The Wayback Machine - https://web.archive.org/web/20031011045622/http://www.hauppauge.com:80/manuals/

**Directory Listing Denied**

This Virtual Directory does not allow contents to be listed.

*Id.* ¶ 100. Dr. Balakrishnan further still testifies that through the Hauppauge web site at the time, "I could find no link to current or archived manuals." *Id.* ¶ 101.

It is Petitioner's burden to prove public accessibility of a reference, not Patent Owner's burden to prove lack of public accessibility. *See Nobel Biocare*, 903 F.3d at 1375. Although the Petition presents no evidence on how one of ordinary skill would have located WinTV on the hauppage.com web site, Petitioner in its Reply asserts that WinTV can be located on the Internet Archive's hauppauge.com website "*in just 3 clicks*." Reply 18–19.

During cross-examination of Dr. Balakrishnan, Petitioner's counsel provided counsel's computer to Dr. Balakrishnan, and instructed Dr. Balakrishnan on what links to click on the computer's already bookmarked browser which began at what is purported to be an archived website of hauppauge.com prior to December 4, 2003. Ex. 1072, 52:9–58:20. Then, counsel instructed Dr. Balakrishnan on what links to click and after just three clicks the cover page of a manual appeared and counsel instructed Dr. Balakrishnan to download and save as Exhibit 1068. *Id.* at 58:22–65:15. Petitioner represents an authenticated copy of that downloaded manual is filed within Exhibit 1073. Reply 21. Petitioner also represents that the manual downloaded by Dr. Balakrishnan is identical to WinTV (Ex. 1010). *Id.* Dr. Balakrishnan testifies: "Just having scrolled through and without reading every single line of each [Ex. 1010 and the just downloaded manual at counsel's direction] – both documents, I would say it looks like it's the same document." *Id.* at 68:8–10.

For several reasons, even assuming that the document downloaded by Dr. Balakrishnan at Dr. Balakrishnan's cross-examination at Petitioner

counsel's direction is the same as WinTV (Ex. 1010), Petitioner has not proved by a preponderance of the evidence that one of ordinary skill in the art, after having arrived at the hauppauge.com web site, would have been able to locate WinTV on the website while exercising reasonable diligence.

First, Petitioner does not disclose what efforts it expended in exploring on the hauppauge.com web site to locate WinTV, and the extent of its exploration, e.g., dead ends and inaccessible pages, to arrive at the document that is WinTV. Second, the document Dr. Balakrishnan downloaded from the hauppauge.com website is located by clicking on an icon labeled as "Software Updates" rather than an icon labeled as "Product Specs" or "Technical Info." Ex. 1072, 59:5–19. All three icons appear on the hauppauge.com web site for a visitor to explore. Ex. 1073, 5. We find that one of ordinary skill in the art attempting to locate an installation and reference manual for the WinTV product naturally would have explored the icons "Product Specs" and "Technical Info" first, and perhaps not even "Software Updates." Thus, Petitioner's suggestion that one of ordinary skill in the art would have located WinTV on the hauppauge.com web site in just 3 clicks is unpersuasive. Third, Petitioner presents no other evidence that one of ordinary skill in the art would have located WinTV on the hauppauge.com web site applying just reasonable diligence. It is even possible that one of ordinary skill would abandon the search for WinTV, a product installation and reference manual, if it is not found by following the path to "Product Specs" and "Technical Info." In any event, we decline to speculate. Petitioner simply has not proved that one of ordinary skill in the art would have located WinTV on the hauppauge.com web site by exercise of just reasonable diligence.

Because Petitioner has not proved that WinTV is a printed publication with a publication date prior to December 4, 2003, WinTV is not applicable prior art. Petitioner has not proved by a preponderance of the evidence that claims 7, 8, 14, and 15 would have been obvious over Horn, Baumgartner, and WinTV.

*F. Alleged Obviousness of Claims 1–15 over Horn, Baumgartner, WinTV, and Chao*

Petitioner explains:

> With the substitution of Chao's thumbnails instead of Horn's folder icons to represent folders in Horn's Workspace view as exemplified in Fig. 26, the Horn-Baumgartner-Chao combination renders obvious claims 1-6 and 9-13 *for the same reasons identified for Ground 1 above* [obviousness over Horn and Baumgartner], and the Horn-Baumgartner-WinTV-Chao combination renders claims 7, 8, 14 and 15 obvious *for the same reasons identified in Ground 2 above* [obviousness over Horn, Baumgartner, and WinTV]. EX1003, ¶217.

Pet. 66.

However, nothing in claims 1–15 requires collections of video information or folders of video information to be represented by thumbnails on a display or interface. Petitioner fully accounted for claims 1–6 and 9–13 above on the ground of obviousness over just Horn and Baumgartner without applying thumbnails to any collection or folder of video information on a display or interface, and Patent Owner has not asserted that any challenged claim requires collections of video information or folders of video information to be represented by thumbnails on a display or interface. Therefore, the alleged obviousness of claims 1–6 and 9–13 over Horn, Baumgartner, WinTV, and Chao is adequately supported by the same

reasonings Petitioner presents for these claims over just Horn and Baumgartner, discussed above.

For completeness, we further discuss the parties' arguments applying the teachings of Chao.

Petitioner asserts that in light of Chao's teaching of using thumbnails to represent albums or folders of content data, one of ordinary skill in the art would have been motivated to do so in Horn. Pet. 60–61. Petitioner explains that in Horn a collection can include not just individual objects but also folders each containing a group of objects. Pet. 61–62 (citing Ex. 1005, 4:1–9, Fig. 12 (folder "Mia & Cam Flying 5/03" and folder "Mia, Cam and Chloe 5/03" within the "Family" collection), Fig. 19 (folder "Norway 7/02" within the "Scandinavia" collection)). Petitioner explains that one of ordinary skill in the art would have understood that such folders would be included in content pane 2603 of Fig. 26 when a collection including those folders is selected in collections pane 2602. Pet. 63 (citing Ex. 1003 ¶¶ 211–212).

Petitioner refers to Figure 8 of Chao, reproduced below, as illustrating the use of "thumbnails" to represent both individual objects shown in display area 811 as well as collections shown in display area 810 (Pet. 63):

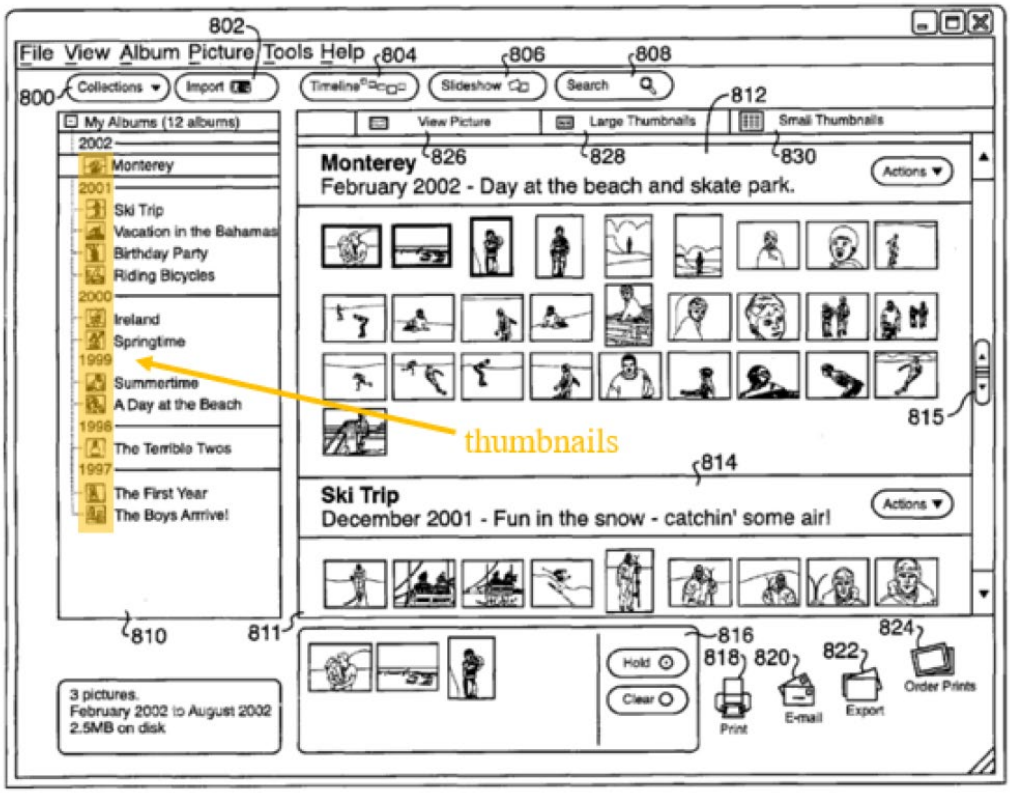


FIG. 8

Figure 8 of Chao (color annotation added by Petitioner) illustrates features of an image sharing process according to Chao. Ex. 1006, 3:1–3.

Petitioner explains that in light of Chao, it would have been obvious to one of ordinary skill in the art to use a thumbnail to represent a folder/collection in content pane 2603 of Horn, when such a folder/collection is to be displayed in content pane 2603 because of user selection in collections pane 2602. Petitioner further explains:

> A POSITA would have been motivated to use thumbnails to represent folders in Horn's content data organization system because Horn already teaches the use of thumbnails for individual objects. EX1005, FIG . 26, 19:25-27. A POSITA would have recognized the benefit of using thumbnails to represent folders of objects as disclosed by Chao to provide easy visual navigation for users through their collections, folders, and files, as is taught by Horn. EX1005, 30:44-31:16, FIG. 26, 19:25-57. As disclosed in the references, thumbnails are commonly

> used in graphical user interfaces, such as file explorers and media management applications that host an extensive library of images or videos, to improve the user experience by providing a faster and more efficient way to browse through media content. A POSITA would have understood a thumbnail could simply represent multiple objects rather than a single object—including multiple video objects. EX1003, ¶214.

Pet. 64–65.

> A POSITA would have had a reasonable expectation of success in the combination because Horn already discloses thumbnails for individual objects and characters that represent collections/folders. A POSITA thus would have had a reasonable expectation that the modification of Horn-Baumgartner and Horn-Baumgartner-WinTV combinations with Chao would be successful. EX1003, ¶216. A POSITA would have found that the teachings of Horn, Baumgartner, WinTV, and Chao could have been predictably combined at least because of the predictability of the art of computer systems and the known interchangeability of the various elements of content management systems and user interfaces for the same. Therefore, a POSITA would have considered it obvious to include the album/folders thumbnails of Chao in Horn-Baumgartner and Horn-Baumgartner-WinTV for the benefits described above. *Id*.

*Id.* at 65–66.

We are persuaded by Petitioner's stated motivation to combine the teachings of Horn and Chao, notwithstanding Patent Owner's arguments to the contrary, discussed below.

First, Patent Owner asserts: "Petitioner fails to state why a POSITA would be motivated to modify Horn to add thumbnails for folders of content data as disclosed in Chao." PO Resp. 32. That is incorrect. We have identified and summarized above Petitioner's stated motivation to combine the teachings of Chao and Horn.

Second, Patent Owner asserts that "Petitioner fails to state what thumbnails would be used from Chao to modify the folders in Horn." PO. Resp. 33. The argument is misplaced, because Petitioner has not proposed a bodily incorporation of any specific thumbnail from Chao. Petitioner is simply relying on Chao's general teaching of using thumbnails to represent albums and folders on a display.

Third, Patent Owner asserts: "Petitioner fails to disclose why a POSITA would be motivated to modify the operating system (OS) code of Horn computer to include the thumbnails feature from Chao." PO Resp. 33. This argument is both incorrect and misplaced. Petitioner has clearly stated a motivation for one of ordinary skill in the art to combine the teachings of Chao and Horn, as summarized above, and Petitioner has not relied on a theory of bodily incorporation, e.g., to take the specific operating system code of Horn and make modifications to that.

Fourth, Patent Owner asserts: "Simply identifying that thumbnails exist in Chao is not a sufficient motivation to modify Horn. Without a clear rational for the combination, the Petitioner's argument relies on impermissible hindsight reconstruction." PO Resp. 33. But Petitioner has not simply noted that thumbnails exist in Chao. Rather, as noted above, Petitioner presents a clear rational for using Chao's thumbnail representation of albums and folders to represent Horn's collections or folders.

Fifth, Patent Owner argues:

> Petitioner does not explain how a POSITA would access or modify Horn's OS code to integrate Chao's thumbnails. Chao provides no guidance on which specific lines of Horn's OS code would require modification, leaving a POSITA to engage in an uncertain and speculative process. *Id.*, ¶167. Specifically,

> obviousness requires a reasonable expectation of success, which Petitioner has failed to establish.

PO Resp. 34. The argument is misplaced. Petitioner has not engaged in a bodily incorporation approach where the specific lines of code of Horn would be revised, and Patent Owner has not taken the position that one of ordinary skill in the art would not have known how to implement thumbnail representation of an object or of a folder containing objects. Further, Horn already discloses the use of thumbnails to represent on a display individual image objects. Patent Owner's argument based on lack of reasonable likelihood of success is unavailing.

Sixth, Patent Owner argues that "Horn teaches away from adding further complexity to its system, because its goal is to organize and display data in a space efficient manner." PO Resp. 33 (citing Ex. 2040 ¶ 164). Specifically, Patent Owner asserts: "A POSITA would recognize that modifying Horn to include Chao's thumbnails would undermine its core functionality by introducing processing overhead that conflicts with its space-efficient design. In particular, the modifications which contradict the intended function of the prior art (Horn) cannot be considered obvious." *Id.*

The argument is unavailing, because Horn already uses thumbnails to represent individual image objects. Ex. 1004, Fig. 26 (pane 2603). Horn also already uses a generic folder icon or image to represent folder collection on a display. *See e.g.*, Ex. 1004, Fig. 19 (cited by Petitioner (Pet. 62)). Further, using a thumbnail to represent a folder containing a plurality of objects would seem more processing efficient and space efficient than to display a thumbnail for each object contained within the folder. We see no conflict between using thumbnails for folders and Horn's core functionality and intended function. We do not credit the testimony of Dr. Balakrishnan

to the contrary. Ex. 2040 ¶ 166. That testimony is conclusory and not adequately explained. Dr. Balakrishnan does not explain why using thumbnails for Horn's folders would substantially introduce processing overhead, particularly in light of Horn's already using thumbnails to represent individual objects within folders.

Seventh, Patent Owner asserts:

> Furthermore, Petitioner ignores the fact that Horn's OS architecture is not compatible with Chao's thumbnail-based system. A POSITA would not simply extract Chao's thumbnail implementation and insert it into Horn without overcoming significant hardware and software integration challenges. EX2040 ¶168. Petitioner fails to address these challenges, making the proposed modification impractical and nonobviousness.

PO Resp. 34. The argument is both misplaced and unavailing. Petitioner has not proposed a "bodily incorporation" of all that are implemented in Chao, but just relied on Chao's teaching of using thumbnails to represent objects which are containers such as an album or a folder. We do not credit the cited testimony in paragraph 168 of Dr. Balakrishnan's declaration, because Dr. Balakrishnan does not identify and discuss what specific hardware and software challenges exist for using thumbnails to represent a folder collection and because Dr. Balakrishnan does not account for the fact that Horn itself already uses thumbnails to represent individual image objects and a generic folder icon to represent a folder.

For the foregoing reasons, Petitioner has proved by a preponderance of the evidence that claims 1–6 and 9–13 would have been obvious over

Horn, Baumgartner, WinTV, and Chao, with or without any teaching from Chao.[13]

Claims 7, 8, 14, and 15, however, present a different circumstance. Petitioner relies on the teachings of WinTV to fully account for the subject matter of claims 7, 8, 14, and 15. Because, as we discussed above, Petitioner has not shown WinTV is a printed publication with a publication date prior to the effective filing date of the '815 patent, Petitioner's accounting for the subject matter of claims 7, 8, 14, and 15 is deficient.

Petitioner has not proved by a preponderance of the evidence that claims 7, 8, 14, and 15 would have been obvious over Horn, Baumgartner, WinTV, and Chao.

### *G. Alleged Obviousness of Claims 1–6 and 9–13 over Kaplan and Bryant*

#### *1. Overview of Kaplan (Ex. 1014)*

Kaplan is directed to "a multimedia management system for storing, manipulating, and displaying multimedia content." Ex. 1014 ¶ 4. To facilitate the storage and subsequent retrieval of multimedia data files, the system includes a user interface with a plurality of predefined functions to uniquely index multimedia files, create an index database file, and create visual representations of the files for later retrieval. *Id.* ¶ 44. The indexed file stores a pointer in a management system database to a physical file location, while providing a thumbnail image that can be used to represent the file in the user interface. *Id.* Multiple pointers in the database may be related to a single physical file stored on computer media, so there is no need

[13] In Petitioner's accounting for claims 1–6 and 9–13, Petitioner has not relied on the teachings of WinTV, even though the alleged ground of obviousness is based on Horn, Baumgartner, WinTV, and Chao. Pet. 66.

to store multiple physical files of the same multimedia data. *Id.* Kaplan's Figure 4 is reproduced below:

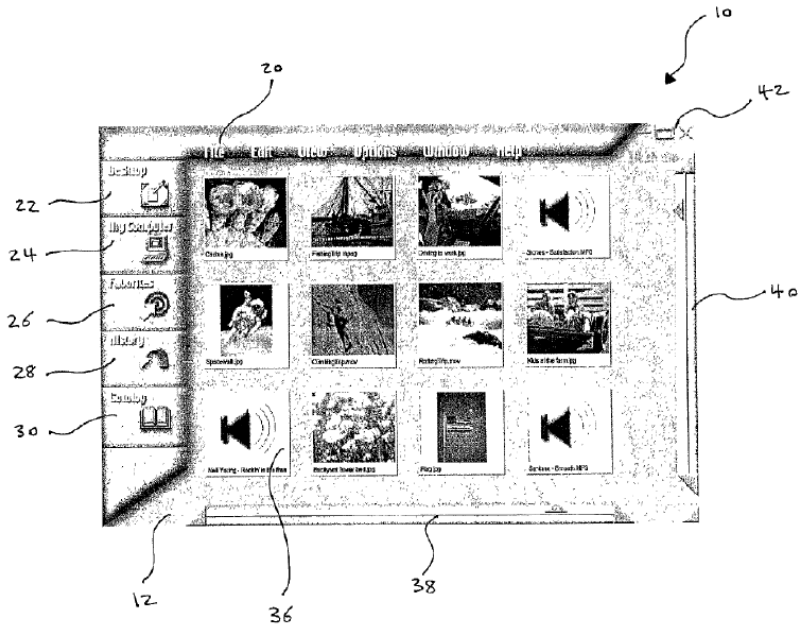


FIG-4

Figure 4 is a graphical representation of control options available to a user via interface 12 that can be displayed on a "monitor or TV." *Id.* ¶¶ 14, 39. Functions associated with user interface 12 may be carried out via control buttons for various primary options in user interface 12, including Desktop 22, My Computer 24, Favorites 26, History 28, and Catalog 30. *Id.* ¶¶ 39–40. For example, users may store their favorite multimedia content by way of the Favorites 26 primary option. *Id.* ¶ 42. All information and multimedia content is displayed through thumbnails 36, which are small image representations of larger images. *Id.* ¶ 40. A user may click on thumbnails to view and/or listen to multimedia content. *Id.* ¶ 50.

Playback may occur within the thumbnail itself, in a partial screen mode, or in a full screen mode. *Id.* ¶ 51.

*2. Overview of Bryant (Ex. 1015)*

Bryant is directed to "grouping and classifying digital still images and digital motion images captured using a handheld digital camera." Ex. 1015, ¶ 29. Grouping and classification data are stored in a database on a host computer. *Id*. The classification provides "affective information," which is information that relates to the feelings or emotions of a person toward images. *Id.* ¶ 30. An example of affective information is the level of importance a user associates with an image, such as whether the image is a "favorite." *Id.*

Bryant discloses that its database includes "favlevel" metadata, which indicates whether the user has selected the image as a favorite, and "thmnail" metadata in row 692, which holds a copy of the compressed thumbnail image as stored by the digital camera. *Id.* ¶¶ 84, 85, 87.

Figure 9A of Bryant is reproduced below:

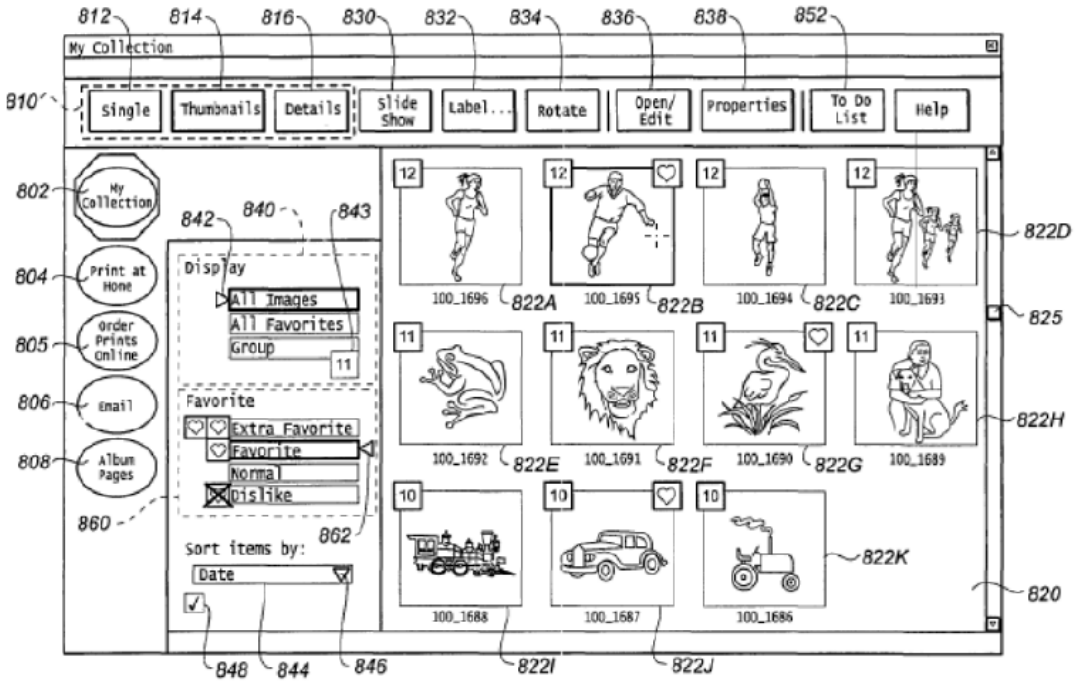


FIG. 9A

Figure 9A depicts an example of a computer user interface screen for displaying all of the transferred images. *Id.* ¶ 89. The user interface screen includes area 820 for displaying the thumbnail images provided using "thmnail" metadata 692 of each object from general assets table 600. *Id.* By moving selector 842 within display selection area 840, the user can select among the display of "All Images," "All Favorites," or "Group" based on group number/name box 843. *Id.* The user also can change the level of a selected image to be an "Extra Favorite," a "Favorite," a "Normal," or a "Dislike" image using selector 862 in favorites level selection area 860. *Id.* ¶ 96.

*3. Motivation to Combine*

Over eight pages in the Patent Owner Response, Patent Owner asserts and explains its contention that the Petition lacks a sufficiently clearly state motivation to combine the teachings of Kaplan and Bryant, using independent claim 1 as a specific example. Petitioner's accounting for independent claim 9 is similar to its accounting for claim 1 (Pet. 93–94), and therefore is subject to the same criticism by Patent Owner. In summary, Patent Owner's stated position is this:

> It is Petitioner's burden to explain specifically how the references would be combined to produce the claimed invention." *Lowe's Home Centers, LLC v. Epistar Corp.*, IPR2018-00932, Paper 7 at 19 (PTAB Nov. 1, 2018) (citing *TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1066 (Fed. Cir. 2016)). Indeed, this requirement is set out in the statutory text of 35 U.S.C. § 312(a)(3)—"the petition identifies, in writing and ***with particularity***, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim." For each of the individual reasons herein, the Petition lacks this explanation and therefore Grounds 4 and 5 fail.

PO Resp. 35 (emphasis in original).

In short, Patent Owner 's position is that the Petition does not present a clear and consistent manner of how the teachings of Kaplan and Bryant are put together to meet the limitations of independent claims 1 and 9.

Patent Owner asserts:

> The Petition never stays true to one primary reference and one secondary reference in this combination. Rather, the Petition simply ignores one reference in favor of the other in some limitations (e.g., limitations 1[pre], 1[a], 1[c]) and oftentimes alleges to discuss the "Kaplan-Bryant combination" while only relying on a single reference (e.g., limitations 1[e]-1[k]). Such approaches are insufficient to establish obviousness under Section 103. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) ("A patent composed of several elements is not proved obvious by merely demonstrating that each of its elements was, independently, known in the prior art.").

PO Resp. 40.

> The result of Petitioner's mix-and-match approach to combining Kaplan and Bryant along with the overly broad citations [citing to three columns of Kaplan for limitation 1[l] (Pet. 85)] asks the Board and Patent Owner to interpret which elements from each reference a POSITA would choose to combine, which portions of each reference should be considered, and what the combined teachings might suggest to a POSITA.
>
> Petitioner's choice to discuss the teachings of Kaplan and Bryant separately rather than to discuss "the contemplated workings of the combination" cannot establish a reasonable likelihood of success. *Personal Web Techs.*, 848 F.3d at 994; *Trend Micro Inc.*, IPR2023-00692, Paper 8 at 28.

*Id.*

Patent Owner asserts:

> **First**, the Petition repeatedly recites what Kaplan and Bryant purportedly teach individually (e.g., Pet. at 73 ("The Kaplan-Bryant combination renders this limitation obvious.

> Kaplan's computer includes . . . Bryant's computer also . . . Kaplan further discloses . . . as does Bryant . . .")) but fails to assert "what the combined teachings of those references would have suggested to those of ordinary skill in the art." *Willis Elec. Co., Ltd. v. Polygroup Macau Ltd.*, 777 Fed. Appx. 495, 501 (Fed. Cir. 2019) (citing In re Keller, 62 F.2d 413, 425 (CCPA 1981)). But, "the Board tends to reject a 'pick and choose' approach to the presentation of evidence." *Trend Micro Inc. v. Open Text Inc.*, IPR2023-00692, Paper 8 at 28 (PTAB Nov. 6, 2023) (denying institution where "Petitioner's case is lacking a clear roadmap of which reference it relies on to disclose which limitation"). Such approach is "challenging to follow and makes it difficult to piece together in order to understand Petitioner's proposed combination or modification." *Lyft, Inc. v. Quartz Auto Techs., LLC*, IPR2020-01450, Paper 7 at 17-20 (PTAB Mar. 4, 2021) (denying institution where petitioner "does not articulate adequately how it proposes to modify one of the references or to combine the two references' teachings").
>
> While the features of a secondary reference need not be bodily incorporated into the structure of the primary reference, a "clear, evidence-supported account of the contemplated workings of the combination is a prerequisite to adequately explaining and supporting a conclusion that a relevant skilled artisan would have been motivated to make the combination and reasonably expect success in doing so" is required. *Personal Web Tech., LLC v. Apple, Inc.*, 848 F.3d 987, 994 (Fed. Cir. 2017).

PO Resp. 35–37 (emphasis in original).

The following illustration, prepared by Patent Owner, depicts Petitioner's submission (PO Resp. 38–40):

| Claim Limitation | Petitioner's Asserted Reference Discussion |
|---|---|
| [1pre] | "To the extent the preamble is limiting, Kaplan discloses it." Pet. at 70. |
| [1a] | "The limitation is obvious over Bryant." Pet. at 71 (no mention of Kaplan) |
| [1b] | "The Kaplan-Bryant combination renders this limitation obvious." Pet. at 73 (discussing Kaplan and Bryant individually without discussing the combination) |
| [1c] | "Bryant discloses this limitation." Pet. at 74 (no mention of Kaplan) |
| [1d] | "The Kaplan-Bryant combination discloses and renders obvious this limitation." Pet. at 74-75 (discussing Kaplan and Bryant individually without discussing the combination) |
| [1e] | "The Kaplan-Bryant combination discloses and renders obvious this limitation." Pet. at 75 (discussing Kaplan and no mention of Kaplan) |
| [1f] | "The Kaplan-Bryant combination renders this limitation obvious." Pet. at 76-77 (discussing Kaplan and no mention of Bryant) |
| [1g] | "The Kaplan-Bryant combination renders this limitation obvious." Pet. at 77 (discussing Kaplan and no mention of Bryant) |
| [1h] | "The Kaplan-Bryant combination renders this limitation obvious," Pet. at 77 (discussing Kaplan and no mention of Bryant) |

| Claim Limitation | Petitioner's Asserted Reference Discussion |
|---|---|
| [1i] | "The Kaplan-Bryant combination renders this limitation obvious." Pet. at 776-78 (discussing Kaplan and no mention of Bryant) |
| [1j] | "Bryant and Kaplan each disclose and/or render obvious this limitation, and their combination renders it obvious." *But see* Pet. at 78-79 (discussing Kaplan and no mention of Bryant) |
| [1k] | Pet. at 79-80 (discussing Kaplan and no mention of Bryant) |
| [1l] | "To the extent that this limitation is not disclosed or obvious over Kaplan, it is disclosed or at least obvious over Bryant." Pet. at 83 |
| [1m] | ". . . taught by both Kaplan and Bryant" Pet. at 87 |

PO Resp. 38–40 (footnote omitted).

But the above assertions of Patent Owner ignore the five pages Petitioner presents (Pet. 66–70) with regard to a motivation to combine teachings of Kaplan and Bryant. The specific analysis Petitioner provides for individual claims must be read in light of the backdrop provided by the roadmap provided on pages 66–70 of the Petition.

Patent Owner asserts that Petitioner's stated motivations to combine on pages 66–70 of the Petition are too general and conclusory. PO Resp. 37–38. We disagree. To the contrary, it provides a specific roadmap with regard to how the teachings of Kaplan and Bryant would be combined.

Specifically, Petitioner asserts that "a POSITA would have been motivated to supplement the teachings of Kaplan by using Bryant's teachings regarding image capture and obtaining video information with

user's camera." Pet. 66. Thus, Petitioner clearly starts with the disclosure of Kaplan and adds modification to Kaplan based on or including the teachings of Bryant "regarding image capture and obtaining video information with a user's camera."

Petitioner explains:

> A benefit of using a digital camera, as disclosed in Bryant, is that it can include user controls for categorizing the images, including metadata that enables subsequent organization. *See, e.g.*, EX1015, ¶¶3-5, 29. Moreover, Bryant explains that by using multimedia according to its systems and methods, a particular user's "affective information" can be captured, which can be stored with the still or video images. EX1015, ¶¶29-34. A POSITA would have recognized that inclusion of the richer metadata in Bryant would have improved the Kaplan system, allowing for more effective (e.g., more detailed or more personalized) organization and retrieval of multimedia information. *See, e.g.*, EX1015, ¶¶29 ("can later be used in retrieving"), 30 ("One very important type of affective information is the level of importance a user associates with an image, such as whether the image is a 'favorite.'"), 32-33 ("Different users. . ."); *see also* EX1014, ¶¶42-49, FIG. 7. In this respect, the teachings of Bryant itself motivates the combination. EX1003, ¶218-219.

Pet. 67. This reasoning is not conclusory but is supported by the cited evidence. It also provides a roadmap which Patent Owner mistakenly regards as missing.

Petitioner further explains:

> Second, a POSITA would have been motivated to use Bryant's robust disclosure of user-customizable metadata, such as "groups"(*e.g.*, Animals, Sports) and corresponding areas of the interface menu. *See* discussion regarding Claim 1 in Section IX.B; *see also* EX1015, FIGS. 8, 9A-9C. For instance, a POSITA would have used the display arrangement and controls set forth in Bryant's FIGS. 9A-9C, which would allow for more effective (*e.g.*, more detailed or more personalized) organization and

> retrieval of multimedia information. *See, e.g.,* EX1015, ¶100 ("In block 146 of FIG. 3, the user optionally resets images that are no longer considered favorites. This is accomplished using the favorites level selection area 860. The user first selects one of the thumbnail images (*e.g.*, thumbnail image 822B), and the favorites level selection area 860 then displays the current favorites level. If the user has not previously modified the level, the images are either 'Normal' or 'Favorite'. Using the selector 862, the user can change the level of the selected image to be an 'Extra Favorite', a 'Favorite', a 'Normal' image, or a 'Dislike image."). For instance, the metadata of Bryant would be useful with respect to the search functions in Kaplan. *See* EX1014, ¶¶65-66. With its emphasis on user customization and control, Bryant itself motivates the combination. EX1003, ¶220.

Pet. 67–68.

This reasoning is not conclusory but is supported by the cited evidence. It also provides a roadmap which Patent Owner mistakenly regards as missing.

Petitioner further explains:

> A POSITA would have known how to modify any data structures and user interfaces to include additional metadata because modifying data structures and user interfaces was well within their skill, and they had already created those data structures and user interfaces to create the system of Kaplan in the first place. EX1003, ¶221. Thus, adding the metadata of Bryant to Kaplan would have been no more than the use of a known technique to improve [a] similar device in the same way. EX1003, 222.

Pet. 69–70. This reasoning also is not conclusory but is supported by the cited evidence. It also provides a roadmap which Patent Owner mistakenly regards as missing.

For the foregoing reasons, we find that Petitioner has provided a sufficient motivation to combine the teachings of Kaplan and Bryant.

*4. Claims 1 and 9*

We have reviewed the uncontested elements of claims 1 and 9 and find that Petitioner has adequately accounted for them. Patent Owner provides contrary argument for limitations 1[b]/9[a], 1[c]/9[b], 1[g]/9[c], 1[l]/9[j], and 1[m]/9[k]. PO Resp. 43–50. We address them below, in turn.

*a) Limitation 1[b]/9[a]*

Limitation 1[b[ recites: "a recording medium on which is stored a plurality of video information including first video information received wirelessly by the network interface over a network from another information processing apparatus." Limitation 9[a] recites: "storing a plurality of video information including first video information received wirelessly by a network interface over a network from another information processing apparatus."

Patent Owner asserts, with regard to Bryant: "Although the home computer 10 includes a modem 22, Bryant does not disclose that the home computer 10 wirelessly receives video information by the network interface over a network from another information processing apparatus." PO Resp. 43. Patent Owner also asserts, with regard to Kaplan: "Additionally, Kaplan also fails to disclose that it receives video information wirelessly, as required by claim 1 of the '815 patent." *Id.*

The argument is unavailing. In accounting for limitation 1[b] and 9[a], Petitioner explains that Kaplan discloses receiving video information via the Internet. Pet. 73. Petitioner further explains that it would have been obvious to one of ordinary skill in the art to make that connection to the Internet wireless, because (1) Bryant discloses that its camera within the computer sends image files (including motion images) and control files to a remote service provider via a wireless modem, and (2):

> A POSITA would have been motivated to use a wireless modem to implement a wireless connection to the Internet, such as using a cellular modem or an 802.11 modem as taught by Bryant to allow the Bryant's home computer 10 to be placed in a location in the home where a wired connection was unavailable or undesirable, and a POSITA would have understood that the 802.11 modem could connect to a wireless router such as that used in an in-home LAN for the connection to the Internet.

Pet. 72–73. Dr. Bederson also testifies that a wireless modem connection "was well known to a POSITA (as disclosed in Baumgartner). EX1016, ¶54, FIG. 1)." Ex. 1003 ¶ 366. We are persuaded that one of ordinary skill in the art would have known to use a wireless modem to connect Kaplan's computer to the Internet.

*b) Limitation 1[c]/9[b]*

Limitation 1[c] recites: "wherein at least some of the plurality of video information is associated with a user profile." Limitation 9[b] recites: "wherein at least some of the plurality of video information is associated with a user profile."

Patent Owner argues:

> Petitioner erroneously relies on Bryant's disclosure regarding "affective information" about images to argue that the user profile limitation is met. EX1003, ¶226; EX2040, ¶179. However, Petitioner, agrees that Bryant discloses "information that relates to the feelings or emotions of a person towards images." EX1015, ¶30. Notably, the feelings and emotions information is not a "collection of settings and information associated with a user." But Bryant's disclosure of "affective information" about images does not meet the user profile limitation, and Petitioner's reliance on this argument is both incorrect and misleading. EX2040, ¶180.

PO Resp. 44.

Patent Owner's argument is unavailing. Petitioner does not rely simply on "affected information" in the abstract or in the mind as user profile. Indeed, Petitioner asserts:

Bryant further discloses:

> Different users can have different emotional reactions to the same image. Therefore, to be most useful, affective information relating to images should be associated with a particular user, if the images are to be shared with various users. In some embodiments, this is accomplished by associating a user identifier with the affective information. The user identifier can be any type of information that helps enable a particular user to be identified. For example, the user identifier can be a personal identification code such as a globally unique ID (GUID), a user number, a Social Security number, a camera serial number, or the like. The user identifier can also be a complete legal name, a nick name, a computer user name, or the like.

Pet. 74. We find that the user identifier recognized by the computer in the form of a personal identification code that is associated with "affected information" of a user for motion images does constitute a "user profile" the construction of which is as proposed by Patent Owner, i.e., "collection of settings and information associated with a user." Patent Owner does not meaningfully explain why it does not.

*c) Limitation 1[g]/9[e]*

Limitation 1[g] recites: "the first group of video information being configured to allow a user to edit." Limitation 9[e] recites the same.

Petitioner asserts: "The [Kaplan] buttons 26, 28 represent containers that are configured to allow a user to edit, such as by adding a video to a container using standard operating system window functions 20, such as

FILE which can include marking a video as favorite. EX1014, ¶44; EX1003, ¶230." Pet. 77.

Patent Owner argues:

> Specifically, Petitioner simply points to Kaplan paragraph 44 to show that the buttons 26, 28 represent "containers that are configured to allow a user to edit, such as by adding a video to a container using standard operation system window functions 20, such as FILE which can include marking a video as a favorite." Pet. at 77. Petitioner is mischaracterizing Kaplan's disclosure. Paragraph 44 of Kaplan doesn't refer to button 28. Additionally, the disclosure provides no evidence that a user can edit "video information." EX20204, ¶183.

PO Resp. 45. Patent Owner asserts that limitation 1[g] and 9[e] are not met by Petitioner's accounting, "under Petitioner's own proposed construction" of "the first group of video information being configured to allow a user to edit." Sur-reply 20–21. Patent Owner's arguments are unavailing because, as pointed out by Petitioner:

> With respect to the argument that "paragraph 44 of Kaplan doesn't refer to button 28," the Petition referred to both buttons 26 and 28 as corresponding to containers that are both configured to allow a user to edit, and then went on to give as an example a "FILE function which can include marking a video as favorite" and cited EX1014, ¶44 in support. Petition, 77. ¶44 of EX1014 does in fact discuss "copy a multimedia file into one of the Favorites 26 containers 48."

Reply 25. Thus, the "Favorites" group of video files indeed is edited, according to the cited disclosure of Kaplan.

*d) Limitation 1[l]/9[j]*

Limitation 1[l] recites: "wherein, upon one video information stored on the recording medium included in both the first group of video information and the second group of video information being deleted from

the first group of video information, the one video information continues to be included in the second group of video information."

Limitation 9[j] recites: "upon one video information stored on the recording medium included in both the first group of video information and the second group of video information being deleted from the first group of video information, the one video information continues to be included in the second group of video information."

Petitioner asserts that Kaplan discloses or renders obvious this limitation. Pet. 80. Petitioner explains: "Kaplan discloses the use of an indexed database file and pointers to a physical file location for an object such as a video. EX1014, ¶44. These pointers allow for a single object at a physical file location to be represented as thumbnails in multiple user interface groups such as 'Favorites' and 'History.' *Id.*" Pet. 81. Paragraph 44 of Kaplan states:

> The indexed file stores a pointer in the management system database to the physical file location, while providing a thumbnail image that can be used to represent the file in the management system user interface. This allows multiple pointers in the media management database, which relate to a single physical file stored on computer media. Thus, there is no need to store multiple physical files of the multimedia data, thereby saving storage space.

Ex. 1014 ¶ 44. Petitioner's assertion that Kaplan would have suggested limitations 1[l] and 9[j] is supported by the cited evidence and persuasive.

Patent Owner merely argues:

> After contending that Kaplan alone discloses this limitation, Pet. at 81-83, the Petition then states that "***to the extent that*** this limitation [1l] is not disclosed or obvious over Kaplan, it is disclosed or at least obvious over Bryant." Pet. at 83. However, the Petition is silent as to what circumstances Kaplan would not

> disclose this element or what Bryant might specifically provide to remedy Kaplan's deficiency. EX2040, ¶185.

PO Resp. 45–46 (emphasis in original).

Patent Owner's argument is unavailing. There is nothing wrong with Petitioner providing an alternative to reliance on Kaplan's disclosure for meeting limitation 1[l] and not speculating what particular circumstance may cause limitation 1[l] not to be deemed disclosed or rendered obvious by Kaplan. All circumstances are covered.

We are persuaded that the cited disclosures of Kaplan reasonably would have suggested limitation 1[l] and 9[j]. Because Kaplan's implementation is achieved by pointers with only a single physical copy of the video stored in memory, it would have been reasonably suggested to one of ordinary skill in the art that deletion of a video entry from "Favorites" group or "History" group would involve only the deletion of the corresponding pointer.

Petitioner asserts that the doctrines of issue preclusion and collateral estoppel preclude Patent Owner from contesting that Bryant does not disclose, and the combination of Kaplan and Bryant do not render obvious limitation 1[l]. We need not reach the matter of issue preclusion and collateral estoppel, because Patent Owner's arguments against Kaplan suggesting the limitation is unavailing, as discussed above. Because Petitioner persuades us that Kaplan reasonably would have suggested limitation 1[l], we need not determine whether Bryant reasonably would have suggested limitation 1[l].

*e) Limitation 1[m] and 9[k]*

Limitation 1[m] recites: "the processor controls the display to display a thumbnail corresponding to the one video information as one of the second group of thumbnails when the second character is selected."

Limitation 9[k] recites: "and displaying a thumbnail corresponding to the one video information as one of the second group of thumbnails when the second character is selected."

With respect to limitation 1[m], Petitioner asserts:[14]

> In view of Kaplan's and Bryant's disclosures discussed above for limitation [1k], a POSITA would have understood that selection of a second collection (*e.g.*, the History or All Images collection) would result in the display of thumbnails for all objects in the second collection even if one of those objects had been removed from a favorites collection, and a POSITA would have found it obvious to provide this same functionality for video information such as movies as taught by both Kaplan and Bryant. EX1003, ¶241.

Pet. 87.

Patent Owner argues: "Kaplan discloses folder icons and does not show the thumbnails corresponding to the video information. EX2040, ¶187. For example, Figure 8 of Kaplan shows that selection of History button results in displaying of objects that include a film icon on folder 56 instead of the video information thumbnail. Ex. 1014, Fig. 8.; EX2040, ¶187." PO Resp. 49. Patent Owner's argument is unavailing, because the use of a thumbnail, instead of a generic folder icon, to represent a displayed folder in Kaplan is already addressed and sufficiently accounted for by Petitioner in the context of limitation 1[k]. For instance, Petitioner asserts, in the context

[14] Petitioner makes the same assertion with respect to limitation 9[k]. Pet. 94.

of limitation 1[k]: "The choice of an icon such as the folder icon on folder 56 or a thumbnail such as on folder 36 was a design choice and would have been obvious to a POSITA." Pet. 80 (citing Ex. 1003 ¶ 234).

*f) Conclusion*

For the foregoing reasons, Petitioner has proved by a preponderance of the evidence that claims 1 and 9 would have been obvious of Kaplan and Bryant.

*g) Claims 2–6 and 10–13*

Patent Owner does not present separate arguments for dependent claims 2–6 which depend from claim 1, and for claims 10–13 which depend from claim 9. We have reviewed Petitioner's assertions for claims 2–6 and 10–13, and find that Petitioner has proved by a preponderance of the evidence that claims 2–6 and 10–13 would have been obvious over Kaplan and Bryant.

*H. Alleged Obviousness of Claims 7, 8, 14, and 15 over Kaplan, Bryant, and WinTV*

As we discussed above in Section II.E., Petitioner has not shown WinTV is a printed publication with a publication date prior to the earliest possible effective filing date of the '815 patent. Therefore, WinTV is not applicable as a prior art reference against the challenged claims.

Accordingly, Petitioner has not proved by a preponderance of the evidence that claims 7, 8, 14, and 15 would have been obvious over Kaplan, Bryant, and WinTV.

*I. Patent Owner's Motion to Exclude Evidence*

Patent Owner's Motion to Exclude seeks to exclude WinTV (Ex. 1010), Exhibit 1008, Exhibit 1011, Exhibits 1051–1057, Exhibits 1065–1068, paragraphs 101–104, 194, 196–199, 200–204, 209, 270, 335, 337,

339, 341–344 and 419 of Ex. 1003, Exhibit 1070, Exhibit 1073, and a portion of Dr. Balakrishnan's deposition testimony (Ex. 1072, 52:9–68:12). Paper 28.

Exhibits 1051–1057 were the subject of Petitioner's Motion to Submit Supplemental Information. Paper 15. We denied Petitioner's Motion to Submit Supplemental Information. Paper 34. Thus, these exhibits are not before us to consider exclusion.

With respect to Exhibit 1070, the Motion to Exclude does not explain why it should be excluded, and we have made no finding or conclusion adverse to Patent Owner on the basis of Exhibit 1070.

Exhibit 1010 is WinTV, the prior art reference itself. All of the other evidence sought to be excluded by Patent Owner relate to Petitioner's efforts to show WinTV is a printed publication with a publication date prior to the earliest possible effective filing date of the '815 patent.

Because we have concluded, without excluding any evidence, that Petitioner has not proved by a preponderance of the evidence that WinTV is a printed publication with a publication date prior to December 4, 2003, the request to exclude WinTV and evidence relating to the publication date of WinTV is moot.

Patent Owner's Motion to Exclude is *dismissed* as moot.

## III. CONCLUSION[15]

We determine that Petitioner has proved by a preponderance of the evidence that claims 1–6 and 9–13 of the ’815 patent are unpatentable. We also determine that Petitioner has not proved by a preponderance of the evidence that claims 7, 8, 14, and 15 of the ’815 patent are unpatentable.

In summary:

| Claims | 35 U.S.C. § | References/Basis | Claims Shown Unpatentable | Claims Not shown Unpatentable |
|---|---|---|---|---|
| 1–16, 9–13 | 103 | Horn, Baumgartner | 1–6, 9–13 | |
| 7, 8, 14, 15 | 103 | Horn, Baumgartner, WinTV | | 7, 8, 14, 15 |
| 1–15 | 103 | Horn, Baumgartner, WinTV, Chao | 1–6, 9–13 | 7, 8, 14, 15 |
| 1–6, 9–13 | 103 | Kaplan, Bryant | 1–6, 9–13 | |
| 7, 8, 14, 15 | 103 | Kaplan, Bryant, WinTV | | 7, 8, 14, 15 |
| **Overall Outcome** | | | 1–6, 9–13 | 7, 8, 14, 15 |

[15] Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this Decision, we draw Patent Owner’s attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. *See* 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. *See* 37 C.F.R. § 42.8(a)(3), (b)(2).

## IV. ORDER

In consideration of the foregoing, it is hereby

ORDERED that claims 1–6 and 9–13 of the ’815 patent have been proved unpatentable by a preponderance of the evidence;

FURTHER ORDERED that claims 7, 8, 14, and 15 of the ’815 patent have not been proved unpatentable by a preponderance of the evidence;

FURTHER ORDERED that Patent Owner’s Motion to Exclude (Paper 28) is *dismissed* as moot; and

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

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