UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LG ELECTRONICS, INC., LG ELECTRONICS U.S.A., INC., and VIZIO, INC.,
Petitioner,

v.

MULTIMEDIA TECHNOLOGIES PTE. LTD.,
Patent Owner.

IPR2024-00352[1]
U.S. Patent No. 9,247,174

LG ELECTRONICS, LG ELECTRONICS U.S.A., AND VIZIO'S NOTICE OF APPEAL TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

via P-TACTS
Patent Trial and Appeal Board

via Email
Director of the United States Patent and Trademark Office
efileSO@uspto.gov

via CM/ECF
United States Court of Appeals for the Federal Circuit

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[1] VIZIO, Inc. filed a petition in IPR2024-00696 and was joined as petitioner in an understudy role in this proceeding. Paper 14.

Pursuant to 28 U.S.C. § 1295(a)(4)(A), 35 U.S.C. §§ 141(c), 142, and 319, and 37 C.F.R. §§ 90.2(a), 90.3, 5 U.S.C. §§ 701–706, and Federal Circuit Rule 15(a)(1), Petitioners LG Electronics, Inc. and LG Electronics U.S.A., Inc. (collectively, "LG") and VIZIO, Inc. ("VIZIO")[2] (collectively, "Petitioners") provide notice that they appeal to the United States Court of Appeals for the Federal Circuit from the Final Written Decision of the Patent Trial and Appeal Board ("Board") entered April 29, 2025 (Paper 32) and from all underlying and related orders, decisions, rulings, and opinions regarding U.S. Patent No. 9,247,174 ("the '174 patent") in Inter Partes Reviews IPR2024-00352, -00696.

In accordance with 37 C.F.R. § 90.2(a)(3)(ii), the expected issues on appeal include, but are not limited to: the Board's error(s) in determining that Petitioners have failed to demonstrate that challenged claims 1–14 of the '174 patent are unpatentable, and any finding or determination supporting or related to that determination, including the Board's erroneous claim constructions; the Board's errors in finding that the prior art does not teach "based on the content and the at

[2] VIZIO, Inc. filed a petition in IPR2024-00696 and was joined as petitioner in an understudy role in IPR2024-00352. *LG Electronics, Inc. et al v. Multimedia Technologies Pte. Ltd.*, PTAB-IPR2024-00352, Paper 14 (P.T.A.B. Jun. 24, 2024).

least one of the content source and the content information, providing a first content panel in the application panel interface" or "wherein the first content panel is a first type of content panel"; the Board's errors regarding motivation to combine Woods and Machida; as well as all other issues decided adversely to Petitioners in any orders, decisions, rulings, or opinions in *Inter Partes* Reviews IPR2024-00352 and IPR2024-00696.

Pursuant to 35 U.S.C. § 142 and 37 C.F.R. § 90.2(a), this Notice is being filed with the Director of the United States Patent and Trademark Office and with the Patent Trial and Appeal Board. In addition, a copy of this Notice and the required docketing fees are being filed with the Clerk's Office for the United States Court of Appeals for the Federal Circuit via CM/ECF.

Respectfully submitted on behalf of both parties,

Dated: June 30, 2025

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CERTIFICATE OF FILING

The undersigned hereby certifies that, in addition to being electronically filed through PTAB P-TACTS, a true and correct copy of the above-captioned PETITIONERS' NOTICE OF APPEAL TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT is being filed by email with the Director on June 30, 2025, at efileSO@uspto.gov.

The undersigned also hereby certifies that a true and correct copy of the above-captioned PETITIONERS' NOTICE OF APPEAL TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT and the filing fee is being filed via CM/ECF with the Clerk's Office of the United States Court of Appeals for the Federal Circuit on June 30, 2025.

Respectfully submitted,

Dated: June 30, 2025

/David L. McCombs/
David L. McCombs
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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6, this is to certify that a true and correct copy of the foregoing "Petitioners' Notice of Appeal to the United States Court of Appeals for the Federal Circuit" was served on counsel for Patent Owner Multimedia Technologies Pte. Ltd. as detailed below:

Date of service	June 30, 2025
Manner of service	Electronic Service by E-mail: – schreiner@carmichaelip.com – jim@carmichaelip.com – stevemcbride@carmichaelip.com – mitch@carmichaelip.com – chris.gerson@srz.com
Documents served	**Petitioners' Notice of Appeal to the United States Court of Appeals for the Federal Circuit**
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Paper 32
Date: April 29, 2025

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LG ELECTRONICS, INC., LG ELECTRONICS U.S.A., INC., and VIZIO, INC.,
Petitioner,

v.

MULTIMEDIA TECHNOLOGIES PTE. LTD.,
Patent Owner.

IPR2024-00352[1]
Patent 9,247,174 B2

Before ST. JOHN COURTENAY III, ROBERT L. KINDER, and SHARON FENICK, *Administrative Patent Judges*.

COURTENAY, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining No Challenged Claims Unpatentable
35 U.S.C. § 318(a)

[1] VIZIO, Inc. filed a petition in IPR2024-00696 and was joined as petitioner in an understudy role in this proceeding. Paper 14.

In this *inter partes* review, LG Electronics, Inc. and LG Electronics U.S.A., Inc. (collectively, "Petitioner") filed a Petition (Paper 1, "Pet."), along with the Declaration of Andrew Lippman, Ph.D (Ex. 1003), challenging the patentability of claims 1–14 ("the challenged claims") of U.S. Patent No. 9,247,174 B2 (Ex. 1001, "the '174 patent"), owned by Multimedia Technologies Pte. Ltd.

On May 21, 2024, the Board instituted an *inter partes* review of the challenged claims pursuant to 35 U.S.C. § 314. Paper 9 ("Dec."). We also joined VISIO, Inc. to this proceeding on June 24, 2024. Paper 14 (Granting Institution of *Inter Partes* Review under 35 U.S.C. § 314 and Granting Motion for Joinder under 35 U.S.C. § 315(c); 37 C.F.R. § 42.122).

After institution, Patent Owner filed a Patent Owner Response (Paper 19, "PO Resp"), along with the Declaration of Rajeev Surati, Ph.D (Ex. 2011). Petitioner filed a Reply (Paper 22, "Pet. Reply"), and Patent Owner filed a Sur-reply (Paper 26, "PO Sur-reply"). The parties presented oral arguments at a hearing on February 19, 2025, and a transcript of the hearing has been entered into the record (Paper 31, "Tr.").

For the reasons set forth in this Final Written Decision pursuant to 35 U.S.C. § 318(a), we determine that Petitioner has not demonstrated, by a preponderance of the evidence, that claims 1–14 of the '174 patent are unpatentable under any ground set forth in the Petition.

I. INTRODUCTION

A. Real Parties in Interest

Petitioner identifies LG Electronics, Inc. and LG Electronics U.S.A., Inc. as the real parties-in-interest. Pet. 100. Patent Owner identifies itself, Multimedia Technologies Pte. Ltd., as the real party-in-interest. Paper 16, 1.

As discussed *supra*, VIZIO, Inc. was joined as a petitioner to this proceeding. Paper 14. VIZIO, Inc. identified Walmart Inc. as a real party-in-interest. IPR2024-00696, Paper 15 (VIZIO, Inc.'s updated mandatory notices), 2.

B. Related Matters

The parties identify the following related district court litigation: *Multimedia Technologies Pte. Ltd. v. LG Electronics Inc. et al.,* No. 2:22-cv-00494 (E.D. Tex.) (filed Dec. 23, 2022); *Multimedia Technologies Pte. Ltd. v. Vizio, Inc.*, No. 2:23-cv-00124, (E.D. Tex.) (filed Mar. 24, 2023). Pet. 100; Paper 16, 1.

We note that in addition to this Petition, Petitioner filed the following three other petitions challenging related patents owned by Multimedia: (1) *LG Electronics, Inc. v. Multimedia Technologies Pte. Ltd.*, IPR2024-00351, Paper 1 (PTAB Dec. 20, 2023) (challenging claims 1–6, 11–16, 21, and 22 of U.S. Patent No. 9,510,040 B2); (2) *LG Electronics, Inc. v. Multimedia Technologies Pte. Ltd.*, IPR2024-00353, Paper 3 (PTAB Dec. 22, 2023) (LG Corrected Petition) (challenging claims 1–4, 6, 8–10, 12–17, and 19 of U.S. Patent No. 9,055,254 B2); and (3) *LG Electronics, Inc. v. Multimedia Technologies Pte. Ltd.*, IPR2024-00354, Paper 1 (PTAB Dec. 22, 2023) (challenging claims 1–18 of U.S. Patent No. 10,419,805 B2)). Paper 16, 1 (Patent Owner's Second Amended Mandatory Notices).

C. The '174 patent

The '174 patent is entitled "Panel User Interface for an Intelligent Television," and relates to methods for displaying content on an intelligent television. Ex. 1001, code (57). According to the '174 patent, there "is a need for an Intelligent TV with intuitive user interfaces and with seamless user interaction capability." *Id.* at 2:3–5.

Figure 14, reproduced below, is a diagram of a television display according to the '174 patent:

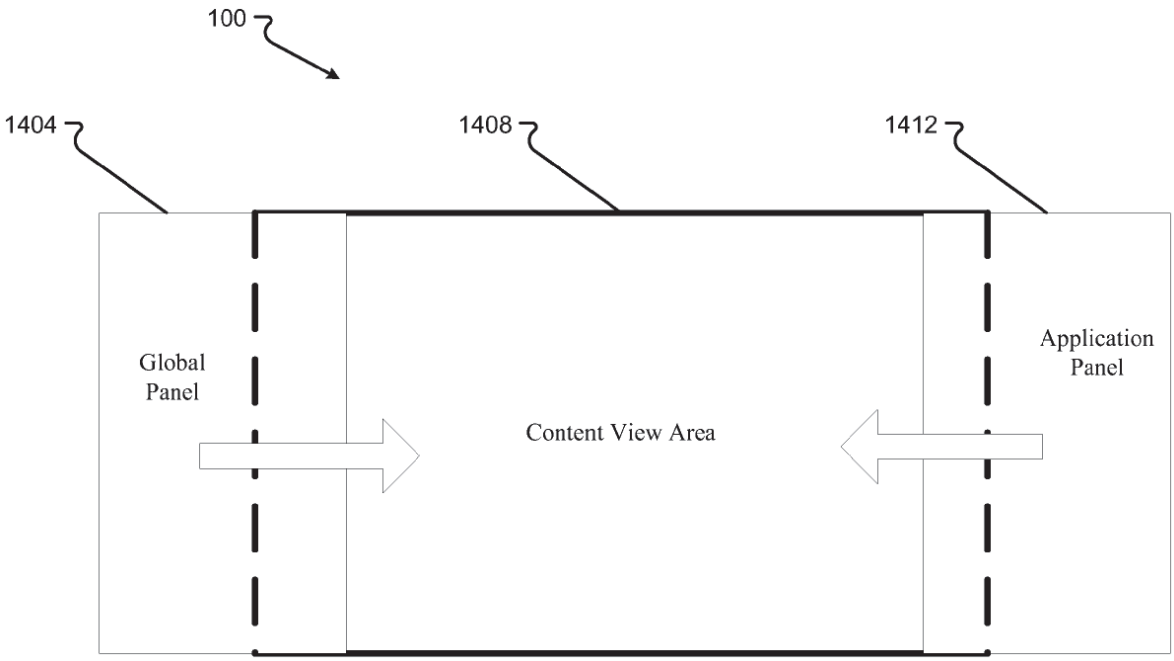


Figure 14 illustrates Intelligent TV 100, displaying global panel 1404, active content view 1408, and application panel 1412. *Id.* at 30:39–40. "The content displayed in the application panel 1412 depends on the content displayed in content view area 1408." *Id.* at 32:16–17. The '174 patent further discloses application panel 1412 may comprise an application panel navigation bar 1604, a content area 1608, and a hotkey legend 1612. *Id.* at 32:47–49; *see also* Fig. 16A. "[D]epending on the active content area currently selected or being viewed, the panel content area 1608 may change and/or may be presented in a different way (i.e., have a slightly different look or content)." *Id.* at 33:1–6.

Within the application panel 1412, multiple content area panels are possible, based on the context of navigation. *Id.* at 35:26–29. Panel types can be categorized, and each category may include several panel types

within it. *Id.* at 35:38–44. Figures 17A and 17B illustrate a number of panel types, such as "Series Info," "Collection Info," Photo Album Info," "Device Info," "Video Info," "Movie Info," "Episode Info," "Videos," "Movies," "TV Shows," "Most Viewed," and "Search Results." *Id.* at Figs. 17A, 17B.

As an example, if "Info" is selected on navigation bar 1604, a panel may be displayed based on the panel type "Series Info" 1704A, or any other panel type in the "Info Views" category. *Id.* at 35:29–45; *see also id.* at Fig. 17A. Figure 20C, reproduced below, illustrates the layout and content of the display in the situation just described.

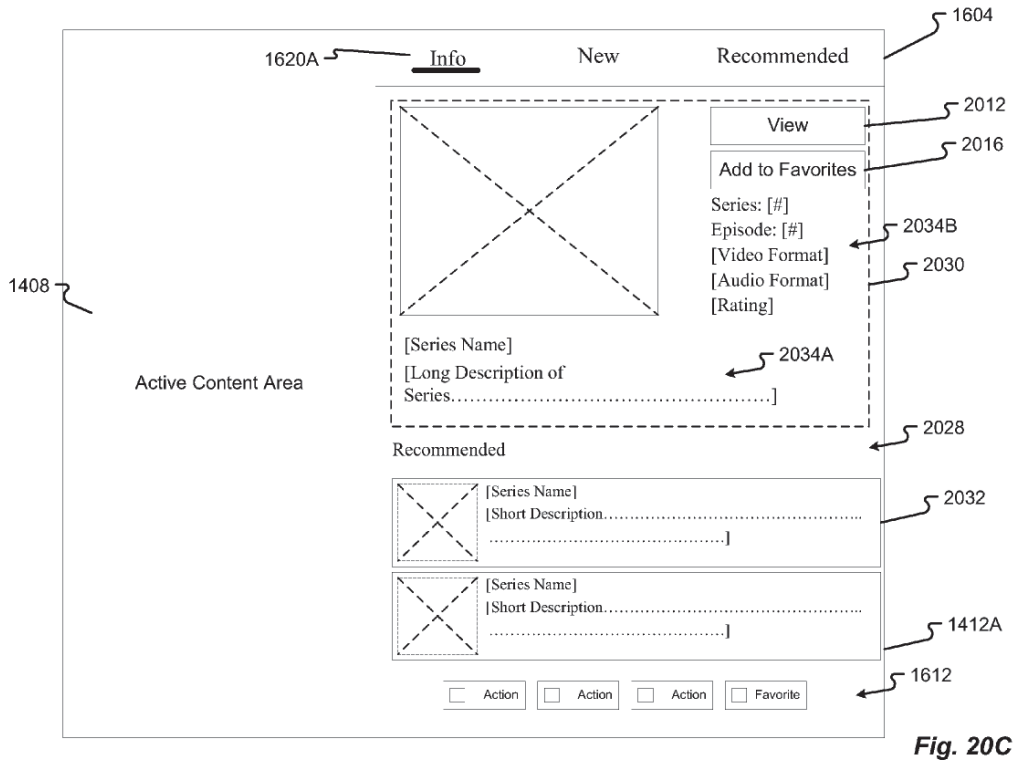


Fig. 20C

Figure 20C shows content area 1408, and info panel 1412A, which includes menu bar 1604, and information from "panel type 1704A." *Id.* at 39:61–66. "The series panel type 1704A may include series information 2034A and 2034B, a view button 2012, a favorite button 2016, and a thumbnail display of the series information 2008." *Id.* at 40:1–4.

D. Illustrative Claim

Petitioner challenges claims 1–14 of the '174 patent. Pet. 6.

Claim 1, one of two independent claims challenged, is illustrative of the challenged claims, and recites the following (Petitioner's bracketing and identifiers added):

> [1.0] A method for displaying content on a television, comprising:
>
> [1.1] receiving a first input via an input device associated with the television;
>
> [1.2] in response to the first input, displaying, via the television, an application panel interface;
>
> [1.3] determining content currently being shown on the television;
>
> [1.4.1] identifying at least one of a content source and content information [1.4.2] associated with the content currently being displayed via the television;
>
> [1.5.1] based on the content and the at least one of the content source and the content information, providing a first content panel in the application panel interface, [1.5.2] wherein the first content panel is a first type of application panel;
>
> [1.6] receiving a first directional input via the input device associated with the television;
>
> [1.7.1] determining, based on a first direction associated with the first directional input, a second content panel to display via the television in the application panel interface, [1.7.2] wherein the second content panel is a second type of application panel;
>
> [1.8] retrieving, from memory, a second content information based on the second type of content panel; and
>
> [1.9] displaying, via the television, the second content information in the second content panel.

Ex. 1001, 48:57–49:16; Pet. 102–103.

E. Asserted Prior Art References

Petitioner relies upon the prior art references set forth in the table below.

Name[2]	Reference	Dates	Exhibit No.
Woods	US 2010/0262938 A1	published Oct. 14, 2010 filed	1005
Istvan	US 2002/0060750 A1	published May 23, 2002 filed	1006
Machida	US 2007/0047920 A1	published Mar. 1, 2007	1008

F. The Asserted Grounds of Unpatentability

Petitioner challenges claims 1–14 of the '174 patent based upon the following grounds:

Ground	Claims Challenged	35 U.S.C. §	Reference(s)/Basis
1	1–14	103(a)[3]	Woods
2	6, 8, 14	103(a)	Woods, Istvan
3	1–14	103(a)	Woods, Machida
4	6, 8, 14	103(a)	Woods, Machida, Istvan

Pet. 12. Patent Owner disputes Petitioner's asserted grounds of unpatentability. *See generally* PO Resp, PO Sur-reply.

[2] For clarity and ease of reference, we only list the first named inventor.
[3] The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) ("AIA"), amended 35 U.S.C. § 103, effective on March 16, 2013. The '174 patent claims the benefit of filing dates prior to the effective date of the applicable AIA amendments. *See* Ex. 1001, code (60). Therefore, we refer to the pre-AIA version of 35 U.S.C. § 103.

II. ANALYSIS

A. LEVEL OF ORDINARY SKILL IN THE ART

We consider the asserted grounds of unpatentability in view of the understanding of a person of ordinary skill in the art (POSITA). In assessing the level of ordinary skill in the art, various factors may be considered, including the "type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field." *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (quoting *Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986)). "[O]ne or more factors may predominate." *Id.*

Relying on the declaration testimony of Dr. Lippman, Petitioner contends that an ordinarily skilled artisan for the '174 patent "would have had a bachelor's degree in Electrical Engineering, Software Engineering, or Computer Engineering, or equivalent training, and approximately two years of experience working in the field of television systems and networking, human-computer interaction, or related technologies," and that a "[l]ack of professional experience can be remedied by additional education, and vice versa." Pet. 10 (citing Ex. 1003 ¶¶ 18–20).

Patent Owner indicates it "accepts the Petitioner's definition of the POSITA." PO Resp. 9–10.

Based on the final record before us, we adopt Petitioner's definition of the level of ordinary skill in the art. On the final record, we are satisfied that this definition comports with the level of skill necessary to understand and implement the teachings of the '174 patent and the asserted prior art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (explaining that the prior art itself can reflect appropriate level of ordinary skill in art).

B. CLAIM CONSTRUCTION

In interpreting the claims of the '174 patent, we "us[e] the same claim construction standard that would be used to construe the claim[s] in a civil action under 35 U.S.C. [§] 282(b)." *See* 37 C.F.R. § 42.100(b) (2023). Accordingly, our claim construction standard is the same as that of a district court. *See id.* Under that standard, claim terms are generally given their plain and ordinary meaning, as would have been understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). "There are only two exceptions to this general rule: (1) when a patentee sets out a definition and acts as his own lexicographer, or (2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution." *Thorner v. Sony Comput. Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012).

At the outset, we note that a method claim is generally not limited to the performance of the steps in a particular order, unless the claim explicitly or implicitly requires a specific order.[4] However, we do not consider herein any alternative order of the steps of method claim 1, because Petitioner, who

[4] "[A]lthough a method claim necessarily recites the steps of the method in a particular order, as a general rule the claim is not limited to performance of the steps in the order recited, unless the claim explicitly or implicitly requires a specific order." *Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1345 (Fed. Cir. 2008); *accord Altiris, Inc. v. Symantec Corp.*, 318 F.3d 1363, 1369–71 (Fed. Cir. 2003); *Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1342–43 (Fed. Cir. 2001) (reciting a two-part test for determining if the steps of a method claim that do not otherwise recite an order, must nonetheless be performed in the order written).

has the burden of showing unpatentability, does not argue any alternative order. Moreover, this issue is inapplicable to dispositive step 1.5.1, which must be performed after steps 1.2, 1.3, and 1.4.1, as discussed *infra*.

1. The Disputed Claim Terms

As discussed in our Decision on Institution: "[t]o the extent necessary for institution, we note a disagreement between the parties regarding the term "application panel" in claims 1 and 10." Dec. 16–17. On the complete record, we find there remains a substantive disagreement between the parties regarding the proper construction of the claim term "***application panel interface***," as recited in steps 1.2, 1.5.1, and 1.7.1, as well as the claim term "***based on***," as recited in step 1.5.1 ("***based on*** the content *and* the at least one of the content source *and* the content information, providing a first content panel in the application panel interface") (emphasis added). Therefore, we focus our claim construction analysis *infra* on the disputed claim terms "application panel interface," and "based on."

a. "application panel interface"

Petitioner identifies two terms it contends are defined in the Specification of the '174 patent: (A) "panel" and (B) "at least one." Pet. 11. Here, we focus on Petitioner's proposed construction for the term "panel."

Petitioner asserts that the claim term "panel" in claims 1–4 and 8–12 encompasses "a user interface displayed in at least a portion of the display." Pet. 11 (citing Ex. 1001, 7:36–44; Ex. 1003 ¶¶ 37–39).

Regarding the claim term "panel," Patent Owner indicates it has "applied the ordinary and customary meaning of the claim terms as understood in the context of the '174 Patent," including "the meaning of 'application panel interface' in limitation 1.2." PO Resp. 11 (citing Section VIII.B of the Response, i.e., PO Resp. 18–31). Patent Owner emphasizes

"the repeated and consistent characterization in the ['174 patent] specification confirms that '*application panel interface*' refers to a panel interface providing information that is determined ***based on currently-displayed*** program content." PO Resp. 33–34 (citing *Phillips*, 415 F.3d at 1315, 1321) (second emphasis added).

A significant difference between the parties' proposed constructions is that Patent Owner's construction (*id.*) requires a temporal element, i.e., based on ***currently-displayed*** program content, or as expressly recited in step 1.3, "determining content ***currently*** being shown on the television," that is subsequently referenced by antecedent basis in step 1.5.1: "***based on*** *the content and the at least one of the content source and the content information*." (emphases added). We note the claim term "application panel interface" is first introduced in step 1.2 and is subsequently referred to by antecedent basis in steps 1.5.1 and 1.7.1.

b. "based on"

Petitioner asserts that, with respect to "based on the content and the at least one of the content source and the content information, providing a first content panel in the application panel interface" (limitation 1.5.1), Patent Owner's construction requiring content based on currently-displayed content is "reading a limitation from the written description into the claims" (Pet. Reply 7), because "none of [Patent Owner's] cited passages [from the '174 patent] describe an application panel interface 'that is **determined based on** currently-displayed program content.'" *Id.* (citing PO Resp. 32–33).

Petitioner contends "the quoted portions describe the application panel interface displaying information '*corresponding to*,' '*related to*,' or '*pertaining to*' content." *Id.* (citing PO Resp. 32–33 (citing Ex. 1001, 33:61–63; 37:31–32, 38:5–16)) (emphasis added). Petitioner also argues

that "based on" as recited in step 1.5.1 could be broadly construed to mean "***about***." Pet. Reply 11 (citing Pet. 29–31, 42–44) (emphasis added).

Patent Owner disagrees, and explains: "[t]he '174 Patent consistently describes application panel interface 1412 as providing content that is ***based on*** *or* ***dependent on*** the ***currently-displayed*** content in the active content area 1408," as reproduced below from the '174 patent at column 32, lines 16–20:

> The content displayed in the application panel 1412 ***depends on*** the content displayed in content view area 1408. Stated another way, application panel 1412 is contextually ***dependent upon*** the ***source of content and the content itself*** in content view area 1408.

PO Resp. 19 (quoting Ex. 1001, 32:16–20 (emphasis added); citing Ex. 1001, 33:1–3, 33:61–63, 37:31–32, 37:50–54, 37:59–61, 38:5–16, Fig. 19B, Fig. 20A, 2:18–21 ("selecting a panel type based on the identified at least one of content source and second content information currently being displayed via the television"); Ex. 2011 ¶ 128).

Because Petitioner implicitly relies upon a broader construction for the claim 1 term "***based on***" (i.e., "based on" means "corresponding to," "related to," or "pertaining to" content (Pet. Reply 7) or "***about***" content (Pet. Reply 11)), we find a dispute exists between Petitioner's implicit proposed construction of the claim term "based on" and Patent Owner's proposed construction as meaning "determined ***based on*** [i.e., ***dependent on***] ***currently-displayed*** program content." PO Resp. 33, 19 ("The '174 Patent consistently describes application panel interface 1412 as providing content that is ***based on*** *or* ***dependent on*** the currently-displayed content in the active content area 1408." (emphasis added)).

2. The Intrinsic Evidence

"In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence." *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17); *see also David Netzer Consulting Eng'r LLC v. Shell Oil Co.*, 824 F.3d 989, 993–94 (Fed. Cir. 2016); *Tempo Lighting, Inc. v. Tivoli, LLC*, 742 F.3d 973, 977 (Fed. Cir. 2014). We apply this guidance to the claim construction dispute between the parties, *infra*.

a. The Claim Language

Beginning with the claim language itself, we note the express recitation of disputed step 1.5.1: "*based on* the content and the at least one of the content source and the content information, *providing* a first content panel in the application panel interface, ..." (emphasis added). We additionally note the plain language of the claim recites the temporal limitation "currently" twice, within steps 1.3 and 1.4.1:

> [1.0] A method for displaying content on a television, comprising:
> [1.1] receiving a first input via an input device associated with the television;
> [1.2] in response to the first input, displaying, via the television, ***an application panel interface***;
> [1.3] determining content ***currently*** being shown on the television;
> [1.4.1] identifying at least one of a content source and content information [1.4.2] associated with the content ***currently*** being displayed via the television;
> [1.5.1] based on the content and the at least one of the content source and the content information,

> providing a first content panel ***in the application panel interface***, [1.5.2] wherein the first content panel is a first type of application panel;
>
> . . .
>
> [1.7.1] determining, based on a first direction associated with the first directional input, a second content panel to display via the television ***in the application panel interface***, [1.7.2] wherein the second content panel is a second type of application panel;

Ex. 1001 48:57–49:11 (emphases added).

At the outset, we emphasize the claim element "an application panel interface" introduced in step 1.2 requires no temporal *currently* displayed television content restriction, as this will not be determined until subsequent step 1.3 is performed.[5] *See* step 1.2 ("in response to the first input, displaying, via the television, *an application panel interface*") (emphasis added); *see also* step 1.3 ("determining content *currently* being shown on the television") (emphasis added).

In contrast, the "first content panel" and "application panel interface" recited in step 1.5.1 ***depend upon*** (via antecedent basis) temporal "***content*** currently being shown on the television," as determined by step 1.3 (emphasis added).

In relying upon the selected exemplary embodiments described in the '174 patent specification (e.g., Pet. Reply 6 (citing Ex.1001, 7:36–37)), and

[5] To the extent that steps 1.3 and 1.4.1/1.4.2 might be performed in a different order, such as immediately following the preamble 1.0, as noted above in section II (B.), Petitioner, who has the burden of showing unpatentability, does not argue any specific ordering of steps, nor would it change our analysis regarding dispositive step 1.5.1. Arguments not made are waived or forfeited.

by arguing the term "panel" merely requires "a user interface displayed in at least a portion of the display (*id.*), Petitioner appears to ignore the plain language of step 1.5.1 ("***based on*** *the content* and *the* at least one of *the content source* and *the content information*") which references temporal content by antecedent basis: i.e., step 1.3 ("determining content ***currently*** being shown on the television"), and step 1.4.1 of "identifying at least one of a content source and content information [1.4.2] associated with the content ***currently*** being displayed via the television" (emphases added).

By ignoring: (1) the "based on" language recited in step 1.5.1, and (2) the temporal limitation "currently" as recited in steps 1.3 and 1.4.2, and (3) the antecedent basis relationships required by the plain language of step 1.5.1, Petitioner's broader construction of "*an application panel interface*" departs from the claim language of step 1.5.1, because when step 1.5.1 is performed "*the application panel interface*" includes "a first content panel" that is *provided* "***based on***" the step 1.3 temporal "content *currently* being shown on the television," and the step 1.4.1, "at least one of a content source and content information [1.4.2] associated with the content *currently* being displayed via the television," in which the first panel is provided "***in*** *the application panel interface*" (emphases added).

Accordingly, we find: (1) the temporal "***currently***" (shown or displayed television content) term recited in steps 1.3 and 1.4.2, and (2) the associated ***temporal dependency*** resulting from the ***antecedent basis*** requirements of step 1.5.1, weigh strongly in favor of Patent Owner's claim construction of claim 1 for the disputed step 1.5.1 claim terms "***the application panel interface***" and "***based on***" (emphases added).

We emphasize that we are not reading a "dependency" from the '174 patent specification into the claim. Rather, we conclude a ***temporal***

(currently shown or displayed) television content ***dependency*** is required by antecedent basis under the plain language of the claim for step 1.5.1 and "wherein" clause 1.5.2.

However, as noted above, the plain language of step 1.2 is different than step 1.5.1, in that step 1.2 requires no temporal *currently* displayed television content restriction regarding "an application panel interface" at that point in the performance of the method, which weighs in favor of Petitioner for step 1.2, as discussed *infra*.

b. The Specification

Turning to the specification, the Court of Appeals for the Federal Circuit instructs that the "specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." *Phillips*, 415 F.3d at 1315 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)).

Petitioner relies principally upon the purported definition for "panel" as described in column 7, lines 36–43 of the '174 patent specification:

> The term "panel," as used herein, *can mean* a user interface displayed in at least a portion of the display. The panel *may be* interactive (e.g., accepts user input) *or* informational (e.g., does not accept user input). A panel *may be* translucent whereby the panel obscures but does not mask the underlying content being displayed in the display. Panels *may be* provided in response to a user input from a button or remote control interface.

Pet. 11 (citing Ex. 1001, 7:36–44; Ex. 1003 ¶¶ 37–39); *accord* Reply 6 (citing Pet. 24–25; Ex. 1001, 7:36–37).

Because of the liberal use of the qualifying terms "*can mean*" and "*may be*," we consider this description at column 7, lines 36–44, of the '174 patent to be exemplary, and not a limiting definition, *per se* (emphases added).

We find this description argued by Petitioner is more pertinent to the context of the step 1.5.1 "first content panel" and the step 1.7.1 "second content panel" which are provided "***in*** the application panel interface" (as recited in steps 1.5.1 and 1.7.1, respectively), "wherein the first content panel is a first type of application panel" (as recited in step 1.5.2), and "wherein the second content panel is a second type of application panel" (as recited in step 1.7.2).[6]

In contrast, Patent Owner relies principally upon the description in the '174 patent specification of how the content displayed in application panel 1412 ***depends on*** the content displayed in content view area 1408:

> The content displayed in the application panel 1412 ***depends on*** the content displayed in content view area 1408. Stated another way, application panel 1412 is contextually ***dependent upon*** the ***source of content and the content itself*** in content view area 1408.

PO Resp. 19 (quoting Ex. 1001, 32:16–20 (emphasis added); citing Ex. 1001, 33:1–3, 33:61–63, 37:31–32, 37:50–54, 37:59–61, 38:5–16, Fig. 19B, Fig. 20A, 2:18–21 ("selecting a panel type based on the identified at least one of content source and second content information currently being displayed via the television"); Ex. 2011 ¶ 128).

Patent Owner reiterates in the Sur-reply: "The '*application panel interface*'" is repeatedly and consistently described in the '174 Patent [specification] as a panel providing information that is based on ***currently*** displayed program content." Sur-reply 1–2 (citing PO Resp. 32–34 (citing

[6] The specification language "[p]anels may be provided *in response to* a user input from a button or remote control interface" (Ex. 1001, 7:41–43) guides us that the scope of the step 1.1 term "first input" encompasses a user input that triggers the act of "providing" recited in step 1.5.1. (emphasis added).

Ex. 1001, 32:16–17 ("The content displayed in the application panel 1412 ***depends on*** the content displayed in the content view area 1408"), 32:17–20 ("the application panel 1412 is contextually ***dependent*** on the . . . content itself [displayed] in content view area 1408"), 33:1–3, 37:31–32, 37:59–61, 38:5–16, 38:61–64, Figs. 16A–16B, 20A; *see also* Ex. 2011 ¶¶ 161–163) (emphasis added)). As reproduced above, we find column 32, lines 16–17 of the '174 patent is especially descriptive on this point of ***dependence*** upon temporal (i.e., currently displayed) television content.

On the complete record, we find the supporting written description of the '174 patent (*id.*, including Figs. 16A–16B, 20A) weighs in favor of Patent Owner's construction of claim 1 for the disputed terms "application panel interface" and "based on."

At the same time, we find the description in column 7, lines 36–43 of the '174 patent specification as argued by Petitioner is more pertinent to the context of the step 1.5.1 "first content panel" and the step 1.7.1 "second content panel" which are provided "***in*** the application panel interface" (as recited in steps 1.5.1 and 1.7.1, respectively), "wherein the first content panel is a first type of application panel" (as recited in step 1.5.2), and "wherein the second content panel is a second type of application panel" (as recited in step 1.7.2).

c. The Prosecution History

Turning to the prosecution history, Petitioner notes that "[i]n response to a rejection, the Applicant added claim limitations related to the 'application panel interface.'" Pet. 10 (citing Ex. 1002, 188–93, 216–27). Petitioner notes "[t]he Office then allowed the case." *Id.* (citing Ex. 1002, 106–09). Petitioner asserts that "for the reasons explained below, the concept of an 'application panel interface' as well as the other claim

limitations of the '174 patent were not new as of the time of filing." *Id.* (citing Ex. 1003 ¶¶ 31–33).

But Petitioner does not explain how any portion of the prosecution history refutes the Patent Owner's claim construction as to the claim 1 term "application panel interface," as discussed above. *See generally* Pet. Reply. *Compare id. with* PO Resp. 19 (citing Ex. 1001, 32:16–20, 33:1–3, 33:61–63, 37:31–32, 37:50–54, 37:59–61, 38:5–16, Fig. 19B, Fig. 20A; *see also id.* at 2:18–21 ("selecting a panel type based on the identified at least one of content source and second content information currently being displayed via the television"); *see also* Ex. 2011 ¶ 128. Nor does Petitioner point to any purported disavowal of claim scope by Patent Owner.

Further, we find Petitioner does not point to any portion of the prosecution history that supports its broader claim construction for the step 1.5.1 term "based on."[7] We find Petitioner's broader claim construction (Pet. Reply 7, 11) does not fully contemplate the "***based on***" term recited in step 1.5.1, and its associated ***dependency*** upon step 1.5.1 "the content and the at least one of the content source and the content information," which further reference by antecedent basis the temporal "currently" shown or displayed television content recited in steps 1.3 and 1.4.2, respectively.

On the complete record, we find the prosecution history does not support Petitioner's broader claim construction for the disputed claim 1 terms "application panel interface" and "based on."

[7] As noted above, Petitioner implicitly relies upon a broader construction for the claim 1 term "based on (i.e., "based on" means "corresponding to," "related to," or "pertaining to"' content (Pet. Reply 7) or "about" content (Pet. Reply 11)).

3. Claim Construction Conclusion

In light of the intrinsic evidence, we agree with and adopt Patent Owner's proposed claim construction for the limitation 1.5.1 terms "the application program interface" and "based on," as articulated in the Response at page 18:

> Limitation 1.5.1 recites "providing a first content panel in the application panel interface" "based on the [determined] content and the [identified] at least one of the content source and the content information" for the content "currently being displayed via the television." In other words, limitation 1.5.1 provides that the first content panel is determined ***based on*** the content source and/or the content information that is identified for the ***currently-displayed content*** in limitation 1.4.

PO Response 18 (citing Ex. 1013 ¶ 126).

Accordingly, when "a first content panel" is provided "***in*** the application panel interface" in step 1.5.1, both the "first content panel" and "the application panel interface" become "***based on*** "*the content* and *the at least one of the content source* and *the content information*," as ***dependent*** upon temporal steps 1.3 and 1.4.2, respectively, by virtue of the antecedent basis requirements of step 1.5.1 (emphases added).

However, as noted above, we emphasize the claim element "an application panel interface," as initially introduced in step 1.2, requires no *currently* displayed television content restriction, as this will not be determined until step 1.3. Only *when* step 1.5.1 is performed, does "the application panel interface" become ***dependent*** upon temporal currently displayed content, at the point in time *when* the "first content panel" is provided "***in*** the application panel interface." (emphases added).

C. PRINCIPLES OF LAW

"In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable." *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify "with particularity . . . the evidence that supports the grounds for the challenge to each claim")). This burden of persuasion never shifts to Patent Owner. *See Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (discussing the burden of proof in *inter partes* review).

A patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when in evidence, objective evidence of nonobviousness.[8] *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). "[W]hen a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a

[8] Patent Owner does not present arguments or evidence of secondary considerations (i.e., objective indicia of non-obviousness) in its Response. *See generally* PO Resp. Therefore, secondary considerations do not constitute part of our analysis herein.

predictable result." *KSR*, 550 U.S. at 416 (citing *United States v. Adams*, 383 U.S. 39, 50–51 (1966)). An obviousness inquiry is not limited to the prior art's preferred embodiment. *See, e.g.*, *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1370 (Fed. Cir. 2007). We also recognize that prior art references must be "considered together with the knowledge of one of ordinary skill in the pertinent art." *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (citing *In re Samour*, 571 F.2d 559, 562 (CCPA 1978)).

D. GROUND 1 – OBVIOUSNESS OVER WOODS

Petitioner contends that claims 1–14 of the '174 patent are unpatentable under 35 U.S.C. § 103(a) as obvious over Woods. Pet. 13–80. Patent Owner opposes, and focuses its argument on five claim 1 limitations as not being taught by Woods.

In particular, Patent Owner contends step 1.2 ("in response to the first input, displaying, via the television, an application panel interface") is not taught by Woods. PO Resp. 31–34. Patent Owner also contends step 1.5.1 ("based on the content and the at least one of the content source and the content information, providing a first content panel in the application panel interface") is not taught by Woods. *Id.* at 18–29. Patent Owner additionally contends that recitation 1.5.2 ("wherein the first content panel is a first type of application panel"), "determining" step 1.7.1, and recitation 1.7.2 ("wherein the second content panel is a second type of application panel") are not taught by Woods. *Id.* at 39–48.

1. Summary of Woods (Ex. 1005)

Woods is titled "Systems and Methods for Generating a Media Guidance Application with Multiple Perspective Views." Ex. 1005, code (54).

Woods describes that interactive program guides for media content available via the Internet, cable and satellite television, and radio often display "guide listings in a single perspective view grid indexed by time and program source (e.g., a television channel). In particular, the guide listings appear flat on the screen." *Id.* ¶ 2.

Woods discloses instead "a media guidance application with multiple perspective views." *Id.* ¶ 3. Woods discloses that a "first of a plurality of media guidance objects may be displayed in a first perspective view that appears flat on the screen," but that a "second media guidance object may be displayed in a second perspective view that appears to be going into the screen." *Id.*, code (57). This creates "the appearance of a fold between the first and second media guidance application objects at a location where the first perspective view changes into the second perspective view." *Id.* Figure 5D, reproduced below, "shows an illustrative display screen of user profile representations displayed in different perspectives." *Id.* ¶ 17.

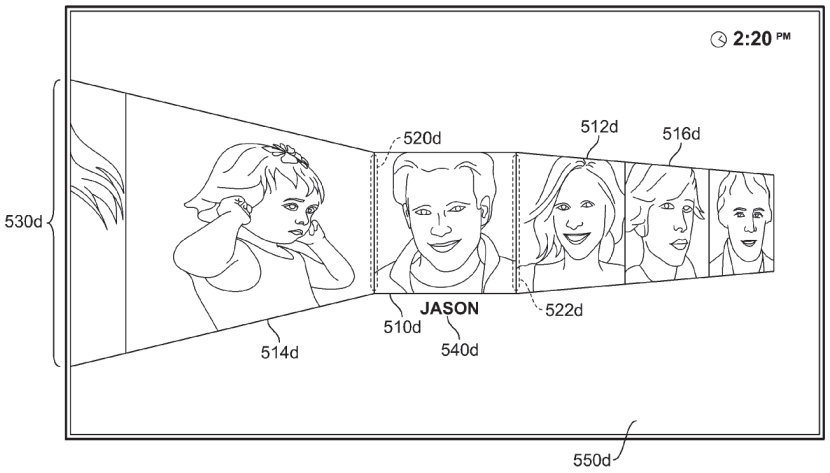


Figure 5D shows display screen 550d, with "continuous array 530d of user profile representations," which "may include a first user profile representation 514d displayed in a first perspective view, a second user profile representation 510d displayed in a second perspective view and third

and fourth user profile representations 512d and 516d displayed in a third perspective view." *Id.* ¶¶ 112, 116. Figure 5D also shows folds 520d and 522d. *Id.* ¶ 117.

Woods discloses a display that provides "program scheduling information," e.g., "program listings," for a variety of time periods. *Id.* ¶ 152; *see also id.* at Fig. 9.

Figure 10, reproduced below, shows a display that provides a "selected program listing" of a program selected from the program listings:

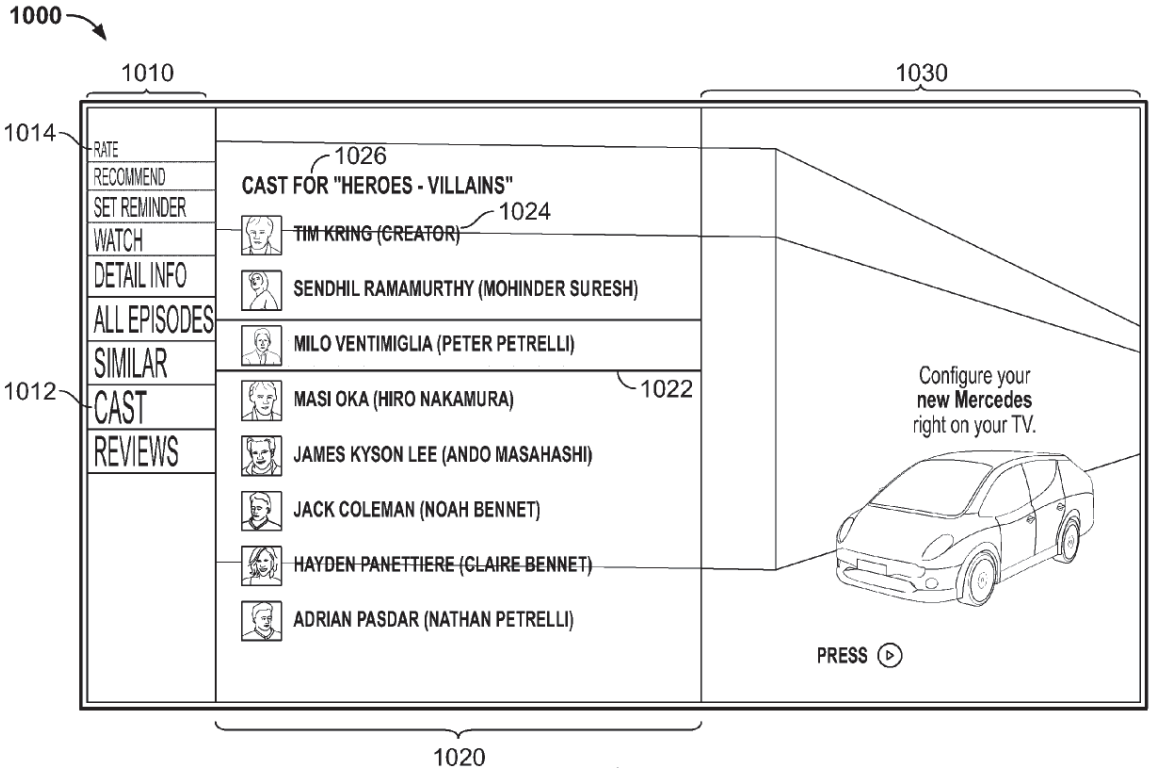


Figure 10 illustrates display screen 1000, with functions menu bar 1010, function options region 1020, and media region 1030. *Id.* ¶ 170. "As the user navigates to select different menu bars by, for example, pressing an up/down arrow key or using a movable cursor (e.g., mouse), media guidance objects associated with the selected menu bar are displayed." *Id.* ¶ 132.

Figure 10 further illustrates the result of selecting "CAST" from menu bar 1010, which displays a "selectable list of all or most of the cast members that are present in the media asset corresponding to the selected program listing." *Id.* ¶ 178. Figure 10 further illustrates "highlight region 1022 over the desired cast member" a user is ready to select on the display. *Id.* ¶ 180. A "user may select one of the cast member indicators (e.g., names or pictures) that is displayed in the list by, for example, pressing up/down arrow keys to position [the] highlight region 1022 over the desired cast member." *Id.*

Figure 11, reproduced below, illustrates a display that represents "information corresponding to an option or item selected from region 1020." *Id.* ¶ 183.

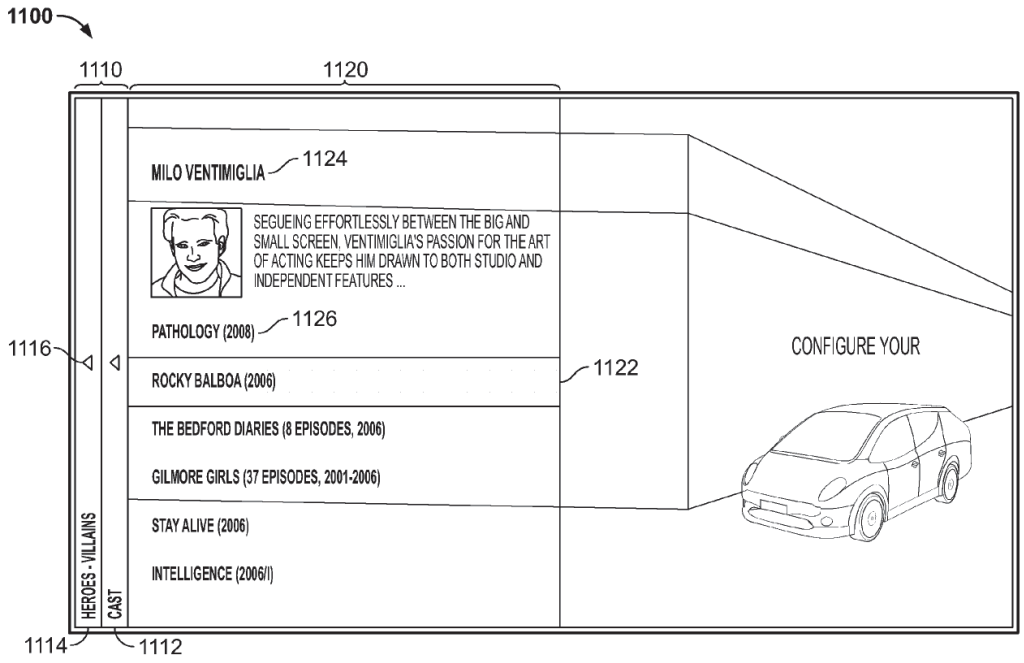


Figure 11 shows display screen 1100, which includes identifiers 1110, information region 1120, which shows the program previously selected in identifier 1114, function "CAST" previously selected on the screen in

Figure 10 in identifier 1112, and information about the cast member selected. *Id.* ¶¶ 183–184.

2. Independent Claim 1

a. Preamble [1.0]

The preamble 1.0 of claim 1 recites: "[a] method for displaying – content on a television, comprising." Ex. 1001, 48:57–58.

To the extent the preamble is limiting, Petitioner contends that "Woods discloses user equipment 300 which may be, for example, a television set." Pet. 16.

Patent Owner does not rebut Petitioner's arguments regarding preamble 1.0 in the Response. *See generally* PO Resp.

Based upon our review of the complete record, we find Petitioner has shown that Woods teaches the preamble 1.0 of claim 1.

b. Step [1.1]

Step 1.1 of claim 1 recites: "receiving a first input via an input device associated with the television." Ex. 1001, 48:59–60.

Petitioner again notes that "Woods discloses user television equipment 300 ('*the television*')," referring to television 300, as depicted in Woods' Figure 3. Pet. 18–19 (citing Ex. 1005 ¶ 37, Fig. 3). Petitioner further notes that Woods discloses that a "user may control the control circuitry 304 using user input interface 310." Pet. 19 (citing Ex. 1005 ¶ 53, Fig. 3) (emphasis omitted). Petitioner thus contends that Woods teaches or suggests limitation 1.1.

Patent Owner does not rebut Petitioner's arguments regarding step 1.1 in the Response. *See* PO Resp. *generally*.

Based upon our review of the complete record, we find Petitioner has shown that Woods teaches step 1.1 of claim 1.

c. Step [1.2]

Step 1.2 of claim 1 recites: "in response to the first input, displaying, via the television, *an application panel interface*." Ex. 1001, 48:61–62. (emphasis added). Our analysis of Petitioner's unpatentability arguments turns upon the claim construction for this limitation *supra*, as discussed in section II.B.

Petitioner notes "[f]irst, as discussed at [1.1], Woods discloses receiving a user's input command to select a program listing ('*first input*')." Pet. 22 (emphasis omitted). Petitioner further notes:

> **Second**, Woods discloses that in response to the user selecting a program listing ("*in response to the first input*"), the television displays to the user display screen 1000 with functions menu bar 1010 and function options region 1020 that together teach an "*application panel interface*." Ex.1005, [0170]; *see also* Ex.1005, [0036] ("A user may indicate a desire to access media information by selecting a selectable option provided in a display screen. . . **In response to the user's indication**, **the media guidance application may provide a display screen with media information**. . . .").

Pet. 22–23 (alterations in original).

Petitioner maps the claimed "*an application panel interface*" as recited in step 1.2 to the combined Woods' regions 1010 and 1020, as depicted in Figure 10, and as explained by Petitioner below:

> Woods' regions 1010 and 1020 similarly display a user interface in a portion of the screen as shown in Figure 10 and therefore correspond to a "*panel*." Regions 1010 and 1020 are a user "*interface*" because they provide the user with the ability to interact with the media guidance application through directional controls, as will be described in further detail below. Moreover, Woods' regions 1010 and 1020 are analogous to the description of the "*application panel interface*" in the '174 patent. As explained above in the Overview of the '174 Patent, the "*application panel interface*" includes a navigation bar 1604 and

> content area 1608, which is analogous to Woods menu bar 1010 and options region 1020 as shown below [reproducing Ex. 1001, Fig. 16A and Ex. 1005, Fig. 10 on page 26 of the Petition].

Pet. 25–26.

Petitioner refers to Woods' Fig. 10, and contends that in response to the user selecting the program listing corresponding to "'Heroes,' (see Ex.1005, [0184]), the television displays screen 1000 with functions menu bar 1010 and function options region 1020, which together correspond to '*an application panel interface*.'" Pet. 23. Petitioner thus contends that Woods teaches or suggests limitation [1.2].

Patent Owner disagrees, and responds: "[t]he Petitioner and its expert assert that the claimed '*application panel interface*' of limitation 1.2 is the combination of functions region 1010 and options region 1020 in Figure 10 of Woods." PO Resp. 34 (citing Pet. 22–26; Ex. 1004 ¶¶ 70–74).

Patent Owner explains:

> The function region 1010 and options region 1020 are not determined based on the currently-displayed content in media region 1030 (e.g., Mercedes advertisement). Woods, Fig. 10. Woods instead teaches that the information in function region 1010 and options region 1020 is **determined independently** of any currently-displayed content in media region 1030. For this reason and the reasons set forth in Section VIII.B.2, *supra*, Woods does not teach or suggest an "*application panel interface*" providing information that is determined based on currently displayed program content in media region 1030 pursuant to limitation 1.2.

PO Resp. 36 (citing Ex. 2011 ¶ 167).

We agree with Patent Owner, and find the information in function region 1010 and options region 1020, as depicted in Figure 10 of Woods, is determined *independently* of any currently displayed content in media region

1030. Moreover, we note that in Woods' Figure 10, a Mercedes advertisement, which appears to be unrelated to the "Heroes" program 1020 (depicting "Heroes" cast 1026), is depicted in section 1030. Given this evidence, we thus agree with Patent Owner that in Woods: "[t]he function region 1010 and options region 1020 [of Woods' Figure 10] are not determined based on the currently-displayed content in media region 1030 (e.g., *Mercedes advertisement*)." PO Resp. 36 (citing Ex. 1005; Fig. 10) (emphasis added).

However, consistent with our claim construction for step 1.2 discussed above in section II.B, for the disputed term "application panel interface," we find Petitioner is correct (Pet. 22–23; Pet. Reply 7) that Woods teaches "an application panel interface" as recited in step 1.2 under a plain meaning not *based upon* any (unclaimed) temporal *currently* displayed television content at this early step in the performance of method claim 1.

After review of the record, we agree with Petitioner that Woods teaches "in response to the first input, displaying, via the television, *an application panel interface*," as recited in step 1.2.

Based upon the complete record, we find Petitioner has shown that Woods teaches step 1.2.

d. Step [1.3]

Step 1.3 of claim 1 recites: "determining content currently being shown on the television." Ex. 1001, 48:63–64.

Petitioner notes "[f]irst, as discussed at the preamble [1.0], Woods discloses user television equipment 300 ("*the television*")." Pet. 27 (emphasis omitted).

Petitioner further notes:

> **Second**, Woods teaches "*determining content currently*

> *being shown*" because Woods discloses that the processing circuitry 306 of the user television equipment 300 highlights or brings to focus the program guide listing corresponding to the content currently tuned and displayed on the television. "When the user first enters screen 900, processing circuitry 306 may **highlight or bring into focus** ... **the currently tuned program or program being currently accessed.**" Woods further discloses that "**The currently tuned or accessed program may also be displayed** behind the program schedule information." Ex.1005, [0155]. To do this, the "program schedule information displayed in screen 900 may be partially transparent such that both the program schedule information and the currently tuned to or accessed program can be seen simultaneously." *Id*.

Pet. 27.

Petitioner contends: "Woods' processing circuity 306 '*determine[es] the content currently being shown on the television*' because it highlights or focuses that content within the program guide of Fig. 9." Pet. 27 (alteration in original). Petitioner thus contends that Woods teaches limitation 1.3.

Patent Owner does not rebut Petitioner's arguments regarding step 1.3 in the Response. *See* PO Resp. *generally*.

After review of the record, we agree with Petitioner that Woods' processing circuity 306 teaches "determining content currently being shown on the television," as recited in step 1.3.

Based upon the complete record, we find Petitioner has shown that Woods teaches step 1.3 of claim 1.

e. Step [1.4.1]

Step 1.4.1 of claim 1 recites: "identifying at least one of a content source and content information." Ex. 1001, 48:65–66.

Petitioner contends that Woods identifies both the claimed "content source" and "content information" in the form of a media content source, a program source, and broadcasters. Pet. 32 (citing Ex. 1005 ¶¶ 36, 65, 153).

Petitioner contends the claimed "content information" is identified in Woods' paragraph 155 (regarding the currently tuned program) and as depicted in Figure 9: "program source 950 and program source information at the bottom of the screen (e.g., broadcaster 'NBC')." Pet. 33. Petitioner thus contends that Woods teaches or suggests limitation 1.4.1.

Patent Owner does not rebut Petitioner's arguments regarding step 1.4.1 in the Response. *See* PO Resp. *generally*.

After review of the record, we agree with Petitioner that Woods identifies both the claimed "content source" and "content information" in the form of a media content source, a program source, and broadcasters (Pet. 32 (citing Ex. 1005 ¶¶ 36, 65, 153)), and thus teaches "identifying at least one of a content source and content information," as recited in step 1.4.1.

Based upon the complete record, we find Petitioner has shown that Woods teaches step 1.4.1 of claim 1.

f. Step [1.4.2]

Step 1.4.2 of claim 1 recites: "[the content source and content information are] associated with the content currently being displayed via the television." Ex. 1001, 48:66–67.

As evidence in support of the obviousness of limitation 1.4.2, Petitioner points to, *inter alia*, "Figure 10 [of Woods that] illustrates an example in which the identified 'cast' information is displayed on the television screen with the currently tuned television program (HEROES-VILLIANS, *See* [1.3])." Pet. 41. Petitioner thus contends that Woods teaches or suggests limitation 1.4.2.

Patent Owner does not rebut Petitioner's arguments regarding step 1.4.2 in the Response. *See* PO Resp. *generally*.

After review of the record, we agree with Petitioner that Woods Figure 10 teaches "[the content source and content information are] associated with the content currently being displayed via the television," as recited in step 1.4.2

Based upon our review of the complete record, we find Petitioner has shown that Woods teaches step 1.4.2 of claim 1.

g. Step [1.5.1]

Step 1.5.1 of claim 1 recites: "***based on*** the content and the at least one of the content source and the content information, ***providing*** a first content panel in the application panel interface." Ex. 1001, 49:1–3 (emphasis added). For the reasons set forth below, we find that Petitioner has not shown that Woods teaches or suggests step 1.5.1.

Petitioner argues that, "[a]s discussed at elements [1.4.1]–[1.4.2], Woods discloses identifying source and content information ('*the content source and the content information*') ***about*** the program currently being displayed on the television ('*the content*')." Pet. 43 (alteration in bold).

For subsequent step 1.5.1, Petitioner relies upon Woods' description that "[m]edia region 1030 may provide a display of . . . the currently tuned television program . . . corresponding to the program listing selected from screen 900 (FIG. 9) or a media asset selected." *Id.* (citing Ex. 1005 ¶ 174). Petitioner further notes Woods discloses "the user may first have selected a program listing corresponding to the media asset 'Heroes.'" *Id.* (citing Ex. 1005 ¶ 184).

On page 44 of the Petition, Petitioner ***annotates*** Figure 10 of Woods by ***removing the Mercedes advertisement*** *depicted in media region 1030 of Figure 10 and replacing it with a quotation from paragraph 174 of Woods reading*: "Media region 1030 may provide a display of … the currently

tuned television program." Pet. 44 (depicting Ex. 1005 with Figure 10 annotated by Petitioner quoting in part Ex. 1005 ¶ 174).

As noted above as an initial issue of claim construction, Petitioner emphasizes "the '174 patent defines a panel as 'a user interface displayed in at least a portion of the display.'" Pet. 43 (quoting Ex. 1001, 7:36–37). Given this claim interpretation, Petitioner asserts that Woods' "Fig[ure]10 illustrates an example where the indicator of the menu bar is focused on 'cast.' Accordingly, option regions 1020 displays a first "list of options or items" related to the cast, which teaches [the] claimed '*first content panel*.'" Pet. 43. Petitioner thus contends that Woods teaches or suggests step 1.5.1.

Patent Owner disagrees and asserts that by Petitioner's own admission:

> functions region 1010 and options region 1020 of Figure 10 [of Woods] are determined based on the program listing selected by the user from the program guide of Figure 9, as admitted multiple times by the Petitioner and its expert. Pet., 23 ("As shown below in Fig. 10, in response to the **user selecting the program listing** corresponding to 'Heroes' . . . the television displays screen 1000 with functions menu bar 1010 and function options region 1020."); Lippman Decl., ¶ 71 (same); Pet., 26 ("Thus, Woods discloses that in response to the **user's input command to select a program listing** . . . displaying, via the television, a functions menu bar 1010 and a function options region 1020 . . . ."); Lippman Decl., ¶ 74 (same) (all emph. added). Surati Decl., ¶ 166.

PO Resp. 35–36.

Patent Owner argues: "The function region 1010 and options region 1020 [of Woods] are not determined ***based on*** the currently-displayed content in media region 1030 (e.g., Mercedes advertisement)." PO Resp. 36 (citing Ex. 1005, Fig. 10) (emphasis added).

Patent Owner asserts that Woods instead teaches that the information in function region 1010 and options region 1020 is **determined independently** of any currently-displayed content in media region 1030." *Id.*

Patent Owner thus concludes: "Woods does not teach or suggest an '*application panel interface*' providing information that is determined ***based on*** *currently displayed* program content in media region 1030 pursuant to limitation 1.2." *Id.* (citing 2011 ¶ 167) (emphasis added).

In Reply, Petitioner disagrees, and contends that because Woods' region 1020 (Figure 10) displays options and items "***based on*** the currently displayed program (e.g., Heroes) that the 'processing circuitry 306 [] highlight[ed] or br[ought] into focus' when the user first entered screen 900 (of Figure 9)," the "options and items are '***based on*** *the content and ...the content information*' as claimed." Pet. Reply 9 (citing Pet. 44) (emphasis added).

Petitioner again reproduces an ***annotated*** version of Figure 10 of Woods (removing the Mercedes advertisement depicted in media region 1030) in the Reply (10), and argues that Patent Owner's "purported distinctions between the specification and the prior art are not relevant to the Petition's analysis of the claim language." Pet. Reply 10 (citing *Phillips*, 415 F.3d at 1323). Petitioner additionally cites *Nazomi Communications, Inc. v. ARM Holdings, PLC*, 403 F.3d 1364, 1369 (Fed. Cir. 2005) (claims may embrace "different subject matter than is illustrated in the specific embodiments in the specification"). *Id.* Petitioner also contends that "the Petition did not rely on the case where the user is watching a Mercedes advertisement. Instead, the Petition analyzed the example where the user is watching Heroes, and then selects Heroes from the guide to obtain additional

information about Heroes—the currently-tuned program." Pet. Reply 11 (citing Pet. 29–31, 42–44).

In Sur-reply, Patent Owner addresses this argument and disagrees with Petitioner: "Woods expressly states that the options/items information in options region 1020 is based on the selected program listing: If Cast is selected in menu 1010, the options region 1020 provides 'a selectable list of . . . cast members that are present in the media asset corresponding to the **selected program listing**.'" Sur-reply 7 (citing Ex. 1005 ¶ 178; Ex. 2011 ¶¶ 144–145; PO Resp. 24–25).

We find Patent Owner thus correctly concludes that "[o]ptions region[] 1020 [in Woods' Figure 10] (which Petitioner corresponds to the step 1.5.1 "first content panel" Pet. 43) is not displayed ***based on*** the currently-displayed content, even if the displayed content *happens to correspond to the selected program listing*." Sur-reply 7 (citing Ex. 1005 ¶ 174; PO Resp. 26–28; Ex. 2011 ¶ 148) (emphasis added). We find Options region 1020 in Woods' Figure 10 is instead ***based on*** user selection as argued by Patent Owner. Sur-reply 7.

Patent Owner also addresses the Mercedes advertisement embodiment expressly depicted in Figure 10 of Woods: "Petitioner asserts that the Patent Owner only addresses Figure 10 of Woods with the Mercedes advertisement, not Petitioner's ***modified Figure 10*** that allegedly *would be* displaying the Heroes program." Sur-reply 8 (citing Pet. Reply 11) (emphasis added). Regarding the Mercedes advertisement as depicted in Woods' Figure 10 in media region 1030, Patent Owner asserts that Petitioner's Reply "misses the germane point, which is that options region 1020 is based on **the selected program listing**, **not the currently-displayed content** as would be required by limitation 1.5.1." Sur-reply 8.

As discussed with respect to claim construction (*supra* Section II.B), in step 1.5.1 "the application panel interface" includes "a first content panel" that is provided "***in*** the application panel interface," in which the first content panel *becomes part of* "the application panel interface," which refers by antecedent basis back to "an application panel interface," as first introduced in step 1.2. (emphasis added).

Thus, as noted above in section II.B, at the point in time when the "first content panel" recited in step 1.5.1 is provided "***in*** the application panel interface," antecedent basis brings in a ***dependency*** (for both the "first content panel" and "the application panel interface") upon the temporal limitations "currently being shown on the television" and "currently being displayed via the television," as expressly required by steps 1.3 and 1.4.2, respectively. (emphasis added).

Consistent with our claim construction, we note Figure 16B of the '174 patent depicts, for example, a large thumbnail image 1658 that corresponds to a specific show is displayed in application panel 1412 [i.e., the 'application panel interface' recited in 1.5.1]." Ex. 1001, 33:66–34:1 (emphasis added). This would correspond, for example, to INFO 1620A tab being selected by the user, as depicted at the top of Figure 20B of the '174 patent, in which one of the "Info Views" panel types depicted in Figure 17A [i.e., a first type of content panel] is displayed ***in*** application panel interface 1412. PO Resp. 39 (citing Ex. 1001, 39:21–23; Ex. 2011 ¶ 173).

Thus, when the "first content panel" (based on temporal "currently" displayed television content) is provided in step 1.5.1 "***in*** the application panel interface" the application panel interface now *includes* the "first content panel" (for example, one of the "Info Views" panel types depicted in Figure 17A) which is based upon the "currently being shown" and "currently

being displayed" temporal television content limitations, as recited in steps 1.3 and 1.4.2, respectively (emphasis added). We note a number of other possible panel types for inclusion in application panel 1412 are depicted in Figure 17A of the '174 patent. *See* PO Resp. 39 (citing Ex. 1001, 39:21–23; Ex. 2011 ¶ 173).

Based upon our review of the complete record, we credit Dr. Surati's testimony that the information in Woods' options region 1020 (i.e., the first content panel as mapped by Petitioner (Pet. 43; Pet. Reply 16–17)), is determined *independently* of any currently displayed program content, and what is displayed (e.g., the cast of "Heroes" as depicted in Figure 10) is in fact ***based on*** the *selected* program listing, which does not teach or suggest 1.5.1 (nor recitation 1.5.2 "wherein the first content panel is a first type of application panel"). Ex. 2011 ¶ 143.

We find persuasive Dr. Surati's testimony that "a POSITA would readily understand that the information displayed [in Woods'] region 1020 [of Figure 10] is ***based on*** the ***selected program listing*** (e.g., Heroes 912) made by ***the user*** in Figure 9, not the *currently-displayed* content in media region 1030 of Figure 10." *Id.* (emphases added). In support, Dr. Surati further testifies that "[i]n fact, region 1020 of Figure 10 presents information about the ***selected*** program listing for Heroes and is not based on the Mercedes advertisement displayed in media region 1030." *Id.*; *see also id.* at ¶ 144 (depicting Ex. 1005, Fig. 10 above paragraph 144) (emphasis added).

However, Petitioner maintains that step 1.5.1 nevertheless broadly encompasses an ***alternative*** "example where the user is watching Heroes, and then selects Heroes from the guide to obtain additional information ***about*** Heroes—the currently-tuned program." Pet. Reply 11 (citing Pet. 29–31, 42–44) (emphasis added). Petitioner reiterates on page 12 of the Reply,

"regardless of whether the user selected the show Heroes, Woods' options and items in region 1020 still display information ***about*** the currently tuned program and thus the first content panel is provided "***based on***" that content." Pet. Reply 12 (alteration in bold).

But Petitioner makes an admission in the Petition indicating that it is *user action* in Woods (i.e., *user selection*) that determines the displayed content: "As shown below in Fig. 10, in response to the ***user selecting the program listing*** corresponding to 'Heroes' . . . the television displays screen 1000 with functions menu bar 1010 and function options region 1020." Pet. 23 (emphasis added).

We have fully addressed *supra* the claim construction dispute regarding "the application panel interface" and the "based on" language, as recited in step 1.5.1, and we agree with Patent Owner's claim construction, which we find does not encompass the portions of Woods relied upon by Petitioner (Pet. 22–23; Reply 5–8), with respect to step 1.5.1 for essentially the same reasons argued by Patent Owner. PO Resp. 31–38; Sur-reply 5–11. Simply put, we have not adopted Petitioner's broader claim interpretation of "***based on***" as recited in step 1.5.1 to mean "***about***." (emphasis added). *See* Pet. Reply 11–12.

Accordingly, on the complete record, we find Petitioner has not shown by a preponderance of the evidence that Woods teaches or suggests step 1.5.1 of claim 1 under Ground 1. We note that limitation 10.5 of remaining independent system claim 10 recites functional language of commensurate scope to step 1.5.1 of independent method claim 1, as discussed *infra*.

h. Step [1.5.2]

Step 1.5.2 of claim 1 recites: "wherein the first content panel is a first type of application panel." Ex. 1001, 49:3–4.

Petitioner contends, "as discussed at [step 1.5.1], Woods discloses that function options region 1020 has a first list of options or items ('*first content panel*')." Pet. 46. Petitioner further contends:

> Woods explains that when the menu bar 1010 has the "cast" indicator highlighted the list of options or items of the function options region 1020 ("*first content panel*") is a "cast" type of application panel ("*first type of application panel*"). "As the user brings different indicators into focus, the list of options or items displayed in function options region 1020 may change to correspond to the indicator of the function in focus." Ex. 1005, [0175].

Pet. 46 (alterations in original). Petitioner thus contends that Woods teaches or suggests limitation 1.5.2.

Patent Owner disagrees, and notes the support found in the '174 patent: "For example, Figure 20B depicts an Info panel 1412A presented when the Info panel view 1620A is selected:" PO Resp. 39–40 (referring to annotated Ex. 1001, Fig. 20B). Patent Owner asserts that "[t]he Info panel 1412A may use **info panel type series info 1704A** to display the information *based on the currently-displayed content* in active area 1408." PO Resp. 40 (citing Ex. 1001, 39:18–32, Fig. 20B, Fig. 17A; Ex. 2001 ¶¶ 174–175) (emphasis added). Patent Owner thus concludes: "the '174 Patent discloses that selecting Info panel view 1620A [depicted in Figure 20B] results in the display of '*a first content panel [that is] a first type of application panel*' per limitation 1.5." PO Resp. 40 (citing Ex. 2011 ¶ 176).

Patent Owner therefore contends, in contrast: "Woods is merely inserting two different sets of information into a ***single*** content panel type—

options region panel 1020—not using ***two different types of content panels*** as claimed." PO Resp. 43 (citing Ex. 2011 ¶ 182) (emphasis added).

In Reply, Petitioner asserts that "Woods describes the same panel changing technique described and claimed in the '174 patent." Pet. Reply 15 (citing Pet. 47, 54). Petitioner asserts "there is nothing recited in the claim—or even described in the specification of the '174 patent—that distinguishes Woods' panel changing technique from what is claimed." Pet. Reply 16. Petitioner reads the "first type of application panel" recited in 1.5.2 on Woods' panel 1020, as depicted in Figure 10. Pet. Reply 16–17. Petitioner argues that "Woods discloses that the function options region 1020 with second list of options or items is a 'detailed description' type of application panel." Pet. Reply 17 (quoting Pet. 54). Petitioner asserts that this "is similar to what is described in the '174 patent." *Id.*

In Sur-reply, Patent Owner argues that the "reply does not dispute the specification support provided by Patent Owner and its expert for limitations 1.5 and 1.7." Sur-reply 13 (citing Pet. Reply 15–22). Patent Owner contends: "Woods at best discloses a **single content panel type** (options region 1020) populated with **two different sets of information**, **not two different types of content panels** per limitations 1.5 and 1.7." Sur-reply 14 (citing PO Resp. 42–43).

Patent Owner asserts: "Woods confirms this: 'As the user brings different indicators [in functions menu 1010] into focus, . . . the list of options or items displayed in function options region 1020 **may change or be updated**.'" Sur-reply 14 (citing Ex. 1005 ¶ 175; Ex. 2011 ¶¶ 181–186). Patent Owner notes the "Petitioner's expert agreed with this understanding in deposition. *Id.* (citing PO Resp. 44 (citing Ex. 2013 [Dep. Tr. Lippman], 75:1–5). Patent Owner further notes this is "a point the Petitioner does not

dispute on reply." *Id.* (citing Pet. Reply, 15–22). Patent Owner contends the "Petitioner's argument disregards the claim language in limitations 1.5 and 1.7 providing that there are two **types** of application panels." *Id.* (citing Pet. Reply 17).

Patent Owner notes that the "Petitioner compares Figure 20C of the '174 Patent to a modified Figure 10 of Woods." Sur-reply 15 (citing Pet. Reply 16). However, Patent Owner asserts the "functionality is not the same. In Figure 20C, the Info panel 1412A uses the **panel type** Series Info type 1704A ('*first type of application panel*')." *Id.* (citing Ex. 1001, 39:64–40:1, Fig. 20C, 38:3–5, 39:21–23.2). Patent Owner contends that "[i]n Figure 10 of Woods, options region 1020 (alleged '*first content panel*') does not have a panel type. The Board was correct in recognizing that the '174 Patent discloses content panels (e.g., Info panel 1412A) having different **types** of content panels such as described in Figures 17A-17B." *Id.* (citing Dec. 4–5).

As noted above, Petitioner reads "wherein the first content panel is a first type of application panel" as recited in "wherein clause" 1.5.2 on Woods' options region 1020, as depicted in Figure 10. Pet. Reply 16–17. As also noted above, Patent Owner contends: "Woods at best discloses a **single content panel type** (options region 1020) populated with **two different sets of information**, **not two different types of content panels** per limitations 1.5 and 1.7." Sur-reply 14 (citing PO Resp. 42–43).

But whether Woods teaches a single panel type rather than two different types of content panels is not dispositive for step 1.5.2. Because the language of step 1.5.1 restricts the *temporal* type of content included in the provided 1.5.2 "first content panel" that "is a first type of application panel" to be "***based on*** *the content* and *the at least one of the content source*

and *the content information*" (which refer by antecedent basis to the ***currently*** *shown* or *displayed* television content as set forth in preceding steps 1.3 and 1.4.2), Petitioner does not persuade us that Woods teaches "the first content panel" that "is a first type of application panel" as recited in "wherein" clause 1.5.2, for the same reasons discussed above regarding our claim construction of the step 1.5.1 term "***based on***." (emphasis added).

As testified by Dr. Surati, "[i]n fact, region 1020 of Figure 10 presents information about the selected program listing for Heroes and is not based on the Mercedes advertisement displayed in media region 1030." Ex. 2011 ¶ 143 (emphasis omitted). As noted above, we credit Dr. Surati's testimony that the information in Woods' Figure 10 options region 1020 (i.e., "a first content panel" as mapped by Petitioner (Pet. Reply 16–17)), is determined *independently* of any *currently displayed program content*. Instead, what is displayed (e.g., the cast of "Heroes" as depicted in options region 1020 of Woods' Figure 10) is ***based on the user selected*** *program listing* (as depicted in Woods' Figure 9), which does not meet the requirements of step 1.5.1, nor the "wherein" clause of step 1.5.2. Ex. 2011 ¶ 143 (emphasis added).

Accordingly, based upon the complete record, we find Petitioner has not shown that Woods teaches or suggests "wherein" clause 1.5.2 ("wherein the first content panel is a first type of content panel"). Our findings for step 1.5.1 and "wherein" clause 1.5.2 are dispositive for claim 1, as considered under Ground 1.

i. Conclusion for Independent Claim 1 under Ground 1

Having considered the arguments and evidence presented by both the Petitioner and Patent Owner, we determine that Petitioner has not shown by a preponderance of the evidence that the subject matter of independent claim

1 would have been obvious over Woods, considered as a single reference under 35 U.S.C. § 103(a). In particular, we find Petitioner has not shown that Woods teaches or suggests step 1.5.1 and "wherein" clause 1.5.2.

3. Dependent Claims 2–9 under Ground 1 over Woods

By virtue of their dependency, claims 2–9 include the same steps as independent method claim 1.[9] Petitioner does not present arguments and supporting evidence with respect to these dependent claims that remedy the deficiencies in its analysis of independent claim 1 as being purportedly obvious over Woods under Ground 1.

Accordingly, for the same reasons discussed above regarding claim 1, we determine that Petitioner has not shown by a preponderance of the evidence that the subject matter of dependent claims 2–9 would have been obvious over Woods, considered as a single reference under 35 U.S.C. § 103(a).

4. Independent Claim 10 under Ground 1 over Woods

Independent claim 10 recites:

> [10.0] A system for displaying content on a television, comprising: an input device associated with the television; a memory; and a microprocessor that:
>
> [10.1] receives a first input via an input device associated with the television;
>
> [10.2] in response to the first input, displays, via the television, an application panel interface;
>
> [10.3] *determines content currently being shown on the*

[9] We note that each of dependent claims 2–9, includes all the limitations of the claim(s) from which it depends. *See* Pre-AIA 35 U.S.C. § 112, fourth paragraph. In the '174 patent, each of dependent claims 2–9 depends directly from independent method claim 1.

television;

[10.4] *identifies at least one of a content source and content information associated with the content currently being displayed via the television*;

[10.5] *based on the content and the at least one of the content source and the content information, provides a first content panel in the application panel interface, wherein the first content panel is a first type of application panel*;

[10.6] receives a first directional input via the input device associated with the television;

[10.7] determines, based on a first direction associated with the first directional input, a content panel to display via the television in the application panel interface, wherein the second content panel is a second type of application panel;

[10.8] retrieves, from memory, a second content information based on the second type of content panel; and

[10.9] displays, via the television, the second content information in the second content panel.

Ex. 1001, 50:1–28 (numbered annotation brackets adopted as provided by Petitioner).

Because independent claim 10 has nearly identical limitations to claim 1 that we have found are not taught by Woods, we likewise reach the same result for claim 10, for the reasons discussed above.

Petitioner argues that "[l]imitations [10.1]-[10.9] are substantially similar to limitations [1.1]-[1.9], and therefore are unpatentable for the same reasons as described above [regarding claim 1 under Ground 1]." Pet. 80 (citing Ex. 1003 ¶¶ 225–33). We note Dr. Lippman's declaration for

Petitioner maps each limitation of claim 10 to the corresponding limitation of claim 1. Ex. 1003 ¶¶ 225–233.

Patent Owner argues that "[i]ndependent Claim 10 has limitations similar to Claim 1 and is patentable for at least the same reasons." PO Resp. 18 (citing Ex. 2011 ¶¶ 124–125).

Regarding independent system claim 10, we note the similar limitations 10.3 ("determines"), 10.4 ("identifies"), and 10.5 ("based on") that we conclude are of commensurate scope to steps 1.3 ("determining"), 1.4 (identifying), 1.5.1 ("based on") and 1.5.2 ("wherein the first content panel is a first type of application panel"), as recited in independent method claim 1.

Accordingly, for the same reasons advanced by Patent Owner regarding at least step 1.5.1 and "wherein" clause 1.5.2 of independent claim 1, which correspond to limitation 10.5 of claim 10 (PO Resp. 39–48; Sur-reply 5–19), as discussed above, we likewise find that Petitioner has not demonstrated, by a preponderance of the evidence, that independent claim 10 of the '174 patent is unpatentable under 35 U.S.C. § 103(a) over Woods.

5. Dependent Claims 11–14 under Ground 1 over Woods

By virtue of their dependency, claims 11–14 include the same limitations as independent system claim 10.[10] Petitioner does not present arguments and supporting evidence with respect to these dependent claims

[10] We note that each of dependent claims 11–14, includes all the limitations of the claim(s) from which it depends. *See* Pre-AIA 35 U.S.C. § 112, fourth paragraph. In the '174 patent, each of dependent claims 11–14 depends directly from independent system claim 10.

that remedy the deficiencies in its analysis of independent claim 10, as being purportedly obvious over Woods under Ground 1.

Accordingly, for the same reasons discussed above regarding claims 1 and 10, we determine that Petitioner has not shown by a preponderance of the evidence that the subject matter of dependent claims 11–14 would have been obvious over Woods, considered as a single reference under 35 U.S.C. § 103(a).

E. GROUND 2 – OBVIOUSNESS OF CLAIMS 6, 8, and 14 OVER WOODS and ISTVAN

1. Summary of Istvan (Ex. 1006)

Istvan is titled "Single-Button Remote Access to a Synthetic Channel Page of Specialized Content," and "pertains to a user interface to television broadcasts and Internet content." Ex. 1006, code (54), ¶ 3.

Istvan describes that prior art user interfaces for Internet-enabled televisions are "limited in their capabilities and do not provide for user-friendly access to both broadcast television (TV) and Internet content." *Id.* ¶ 4. Istvan claims it "provides for user-friendly access to both broadcast television and Internet content via a single integrated user interface." *Id.* ¶ 6.

A diagram of an exemplary user interface is shown in Figure 6, reproduced below.

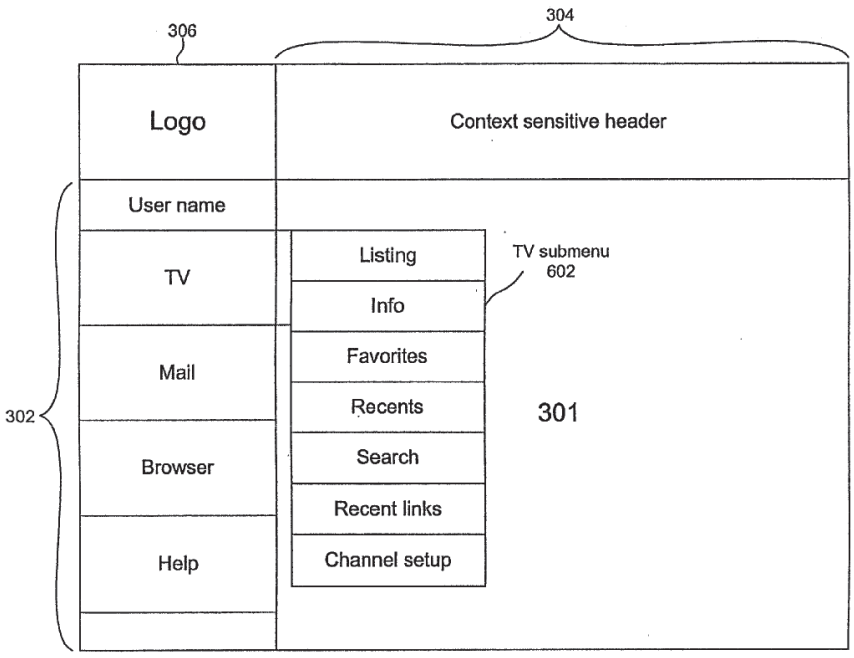


Figure 6 shows a television user interface, with primary on-screen television control menu 302, and with TV submenu 602 activated over reduced-size television viewing area 301. *Id.* ¶¶ 40, 54. Submenu 602 includes selections such as "Listing," "Info," and "Favorites." *Id.* at Fig. 6; *see also id.* ¶¶ 54–57.

2. Dependent Claim 6

Dependent claim 6 recites "The method of claim 1, wherein the second content information comprises information associated with content information marked as favorite."

3. Dependent Claim 8

Dependent claim 8 recites "The method of claim 1, wherein the second type of content panel is a search panel."

4. Dependent Claim 14

Dependent claim 14 recites "The system of claim 10, wherein the second content information comprises information associated with content information marked as favorite."

Petitioner addresses dependent claims 6, 8, and 14, as considered under Ground 2, on pages 80–90 of the Petition. Patent Owner addresses dependent claims 6, 8, and 14, as considered under Ground 2, on pages 58–64 of the Response.

We agree with Petitioner that the cited features of Istvan teach or suggest the "content information marked as favorite," as recited in claims 6 and 14, and the "search panel" recited in claim 8. However, we find Petitioner does not present persuasive arguments and supporting evidence with respect to these dependent claims that demonstrates how Istvan remedies the deficiencies in Petitioner's analysis of independent claims 1 and 10 as being purportedly obvious over Woods as considered above under Ground 1, particularly regarding step 1.5.1, "wherein" clause 1.5.2, and limitation 10.5.

Accordingly, for the same reasons discussed above regarding independent claims 1 and 10 as considered under Ground 1, we determine that Petitioner has not shown by a preponderance of the evidence that the subject matter of dependent claims 6, 8, and 14 would have been obvious over Woods and Istvan, as considered under Ground 2 under 35 U.S.C. § 103(a).

F. GROUND 3 – OBVIOUSNESS OVER WOODS AND MACHIDA

1. Summary of Machida (Ex. 1008)

Machida is titled "Multimedia Player with Plurality of Operation Panels." Ex. 1008, code (54). Machida relates "to image rendering techniques for reproduction control of digital contents by using user operation interfaces," and is "for an apparatus which reproduces digital contents." *Id.* ¶ 2.

Machida describes that a conventional digital broadcasting compatible HDD/DVD (Hard Disk Drive/ Digital Video Disk) decoder (i.e., a digital content reproduction apparatus) requires, in addition to channel tuning, a number of control keys (e.g., reproduce, stop, fast forward, fast backward, temporary stop), as well as keys such as "up," "down," "right," "left," "decide,' and "four-color keys for operation control of data broadcasting." *Id.* ¶ 3. Machida describes that a user interface is typically required to display all the control keys, so a "wide operation panel rendering area is used" on-screen. *Id.* ¶ 5. Machida discloses it is "an object of the present invention to display automatically only usable operation keys." *Id.* ¶ 7.

Figures 2 to 4, reproduced below, show a diagram of a user interface on a monitor, along with two examples of operation panels for display in the operation panel display area of the user interface:

FIG. 2

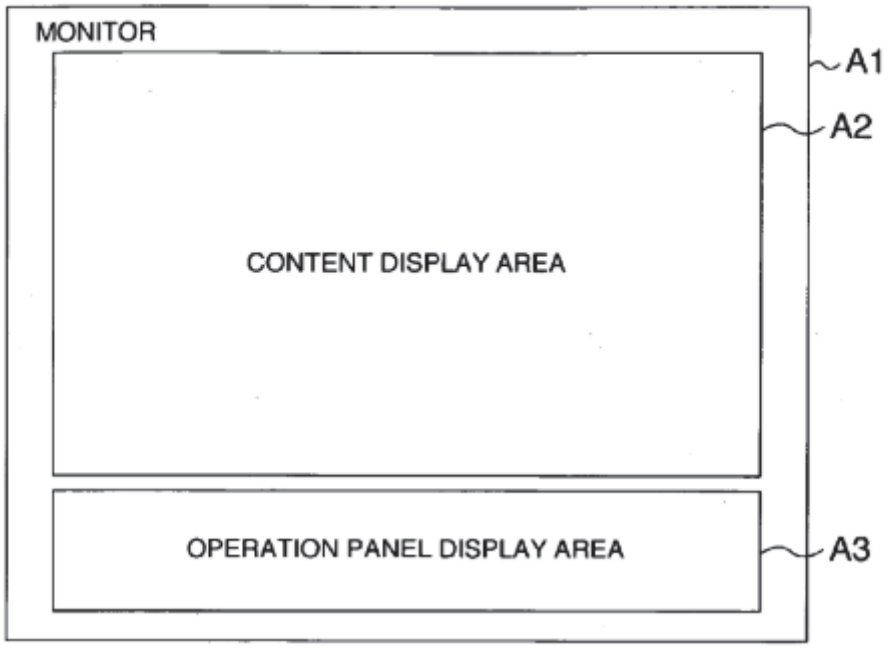


FIG. 3



FIG. 4

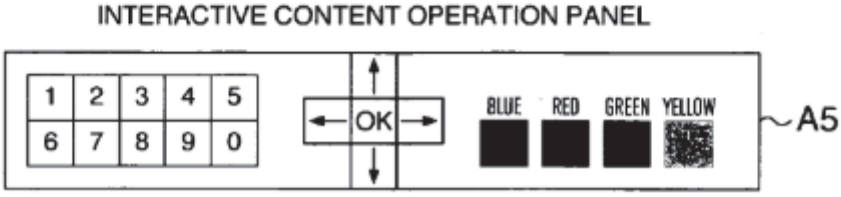


Figure 2 shows a monitor A1 with both content display area A2, and "operation panel display area" A3. *Id.* ¶ 31. Figures 3 and 4 show two examples of operation panels for display in area A3, with "linear content

operation panel" A4, depicted in Figure 3, and, "interactive content operation panel" A5, depicted in Figure 4. *Id.*

Machida discloses that "linear content operation panel A4 and interactive content operation panel A[5] are displayed exclusively and are not displayed at the same time." *Id.* ¶ 33. Operation panel A4 is displayed during "reproduction of linear contents such as moving image contents." *Id.* ¶ 31. Operation panel A5 is displayed during "reproduction of interactive contents such as data broadcast contents." *Id.* ¶ 32.

2. Independent Claim 1 under Ground 3 over Woods and Machida

Petitioner argues that Machida explains that "[t]he linear content operation panel A4 and interactive content operation panel A5 are displayed exclusively and are not displayed at the same time." Pet. 92 (citing Ex. 1008 ¶ 33). Thus, we understand Petitioner relies upon Machida for teaching "it was known in the art to use the same panel area to change between two different types of panels with predefined functions." *Id.* (citing Ex. 1003 ¶¶ 266–68).

Petitioner contends: "[a] POSITA would have found it obvious for the options and items within Woods' options region 1020 to be presented as different predetermined panels according to Machida's teachings of displaying different panels (panel A4 and panel A5) within a predefined display area A3." *Id.* (citing Ex. 1003 ¶ 269). Petitioner argues that "[a] POSITA would have looked to known techniques such as Machida's in which two different predetermined panels are interchangeably displayed within the same predefined region. Doing so would have yielded the predictable result of displaying Woods options and items for different functions (cast, detailed description, episodes) within different panels in

the same predefined region 1020 at different times." Pet. 94 (citing Ex. 1003 ¶ 273). Petitioner further contends: "[a] POSITA would have found it obvious to use predetermined panels as suggested by Woods and explicitly taught by Machida because doing so allows for precise, uniform, and consistent arrangement of the user interface elements according to design." Pet. 94. Petitioner additionally argues that "[a] POSITA would have had a reasonable expectation of success in implementing Woods' options and items according to Machida's panel technique, given the similarities in the two systems." Pet. 95.

But Patent Owner disagrees:

> A POSITA would readily understand that the two user operation panels of Machida are for playback/navigation of content presented in the content display area. The operation panels are very distinct from the function options menu 1020 of Woods' Figure 10 that the Petitioner alleges to be the claimed "*first content panel*" (when displaying "cast information" for a selected program listing like Heroes) and the claimed "*second content panel*" (when displaying "detailed information" for the same selected program listing).

PO Resp. 67–68 (citing Ex. 1011 ¶ 250).

Patent Owner additionally argues that a "POSITA would not modify Woods' options region 1020 displaying 'cast information' with either of Machida's operational panels for playback of content." PO Resp. 68. In support, Patent Owner emphasizes that "Woods' options region 1020 displaying 'cast information' does not perform playback of content displayed in media region 1030. Likewise, Woods' options region 1020 displaying 'detailed information' about a selected program listing does not perform playback of content displayed in media region 1030." PO Resp.

68–69. Patent Owner thus concludes that a "POSITA would not make the proposed combination." PO Resp. 69 (citing Ex. 2011 ¶ 252).

We agree with Patent Owner on this point regarding Petitioner's proposed combination of Woods and Machida, given that neither of the proposed versions of Woods' options region 1020 (displaying general "cast information" in Figure 10), nor Woods' options region 1020 (alternatively displaying "detailed information" about cast member "Milo" (as depicted in Fig. 11) when the "DETAIL INFO" tab is selected by the user in functions menu bar 1010 of Fig. 10), performs playback of content display in media region 1030. *See also* Ex. 1005, Fig. 11.

We understand that Petitioner's proposed combination of Woods and Machida under Ground 3 appears to be responsive to Patent Owner's argument under Ground 1 (with respect to the first and second content panels as recited in steps 1.5 and 1.7 respectively) that "Woods is merely inserting two different sets of information into a ***single*** content panel type—options region panel 1020—not using ***two different types of content panels*** as claimed." PO Resp. 43 (citing Ex. 2011 ¶ 182) (emphasis added).

However, as discussed above under Ground 1, the step 1.5.1 and "wherein" clause 1.5.2 "first content panel" must be "based on" (i.e., "dependent on" as required by antecedent basis) temporal *currently shown or displayed* television content, as *determined* or *identified* under steps 1.3 and 1.4.1, respectively. Thus, whether Woods teaches a single panel type rather than two different types of content panels is not dispositive for step 1.5.1 and "wherein" clause 1.5.2 regarding the "first content panel."

Therefore, we are not persuaded that Woods considered alone (under Ground 1) or in combination with Machida (under Ground 3) teaches "providing" step 1.5.1 ("***based on*** the content and the at least one of the

content source and the content information, ***providing*** a first content panel ***in*** the application panel interface,"), and "wherein" clause 1.5.2 ("wherein the first content panel is a first type of application panel"), for the same reasons discussed above regarding our claim construction of the step 1.5.1 term "based on." (emphases added).

For the reasons discussed *supra*, we credit Dr. Surati's testimony that "[i]n fact, region 1020 of [Woods'] Figure 10 presents information about the selected program listing for Heroes and is not based on the Mercedes advertisement displayed in media region 1030." Ex. 2011 ¶ 143. As noted above, we also credit Dr. Surati's testimony that the information in options region 1020 (i.e., "a first content panel" as mapped by Petitioner (Pet. Reply 16–17), is determined ***independently*** of any ***currently*** *displayed program content*, and what is displayed (e.g., the cast of "Heroes" as depicted in Figure 10) is based on the selected program listing, which does not meet 1.5.1 nor 1.5.2. Ex. 2011 ¶ 143.

Because we agree with Patent Owner's arguments regarding the combinability of Woods and Machida (PO Resp. 69 (citing Ex. 2011 ¶ 252)), and because Petitioner has not shown that Machida remedies the deficiency in step 1.5.1 and "wherein" clause 1.5.2 under Ground 1 over Woods, we do not find Petitioner's arguments under Ground 3 persuasive for independent claim 1.

3. Dependent Claims 2–9 under Ground 3 over Woods and Machida

By virtue of their dependency, claims 2–9 include the same steps as independent method claim 1.[11] Petitioner does not present arguments and

[11] We note that each of dependent claims 2–9, includes all the limitations of the claim(s) from which it depends. *See* Pre-AIA 35 U.S.C. § 112, fourth

supporting evidence regarding these dependent claims that remedy the deficiencies in its analysis of independent claim 1 as being purportedly obvious over Woods and Machida under Ground 3.

Accordingly, for the same reasons discussed above regarding claim 1 as considered under Ground 3, we find that Petitioner has not shown by a preponderance of the evidence that the subject matter of dependent claims 2–9 would have been obvious over Woods and Machida under Ground 3.

4. Independent Claim 10 under Ground 3 over Woods and Machida

As noted above, remaining independent claim 10 recites similar limitations 10.3 ("determines"), 10.4 (identifies), and 10.5 ("based on") that we conclude are of commensurate scope to steps 1.3 ("determining"), 1.4 (identifying), 1.5.1 ("based on") and "wherein" clause 1.5.2 ("wherein the first content panel is a first type of application panel"), as recited in independent method claim 1.

Accordingly, for the same reasons we have articulated above regarding independent claim 1 as considered under Ground 3, we likewise find that Petitioner has not demonstrated, by a preponderance of the evidence, that independent claim 10 of the '174 patent is unpatentable over Woods and Machida.

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paragraph. In the '174 patent, each of dependent claims 2–9 depends directly from independent method claim 1.

5. Dependent Claims 11–14 under Ground 3 over Woods and Machida

By virtue of their dependency, claims 11–14 include the same limitations as independent system claim 10.[12] Petitioner does not present arguments and supporting evidence with respect to these dependent claims that remedy the deficiencies in its analysis of independent claim 10 as being purportedly obvious over Woods and Machida under Ground 3.

Accordingly, for the same reasons discussed above regarding independent claims 1 and 10 as considered under Ground 3 we determine that Petitioner has not shown by a preponderance of the evidence that the subject matter of dependent claims 11–14 would have been obvious over Woods and Machida under Ground 3.

G. GROUND 4 – OBVIOUSNESS OVER WOODS, MACHIDA, AND ISTVAN for claims 6, 8, and 14

Because we have found *supra* that neither Woods, Machida, nor Istvan teach step 1.5.1 and "wherein" clause 1.5.2 of independent claim 1, or the similar language recited in limitation 10.5 of independent claim 10, we likewise reach the same result as discussed above for dependent claims 6, 8, and 14 under Ground 2.

Petitioner addresses dependent claims 6, 8, and 14, as considered under Ground 4 in short form: "The analysis for claims 6, 8, and 14 is similar to that of Ground 2, but additionally relies on the analysis in Ground 3 with respect to the independent claims." Pet. 98 (citing Ex. 1003 ¶ 285).

[12] We note that each of dependent claims 11–14, includes all the limitations of the claim(s) from which it depends. *See* Pre-AIA 35 U.S.C. § 112, fourth paragraph. In the '174 patent, each of dependent claims 11–14 depends directly from independent method claim 10.

Patent Owner similarly addresses dependent claims 6, 8, and 14, as considered under Ground 4 in short form: "The Petitioner's entire analysis for Ground 4 consists of the following: 'The analysis for claims 6, 8, and 14 is similar to that of Ground 2, but additionally relies on the analysis in Ground 3 with respect to the independent claims.'" PO Resp. 69 (citing Pet. 98; Ex. 2011 ¶ 254). Patent Owner concludes: "[a]ccordingly, claims 6, 8, and 14 are patentable for at least the reasons set forth above for Ground 2 and Ground 3." *Id.* (citing Ex. 2011 ¶ 255).

We have found above under Ground 2 that Istvan teaches or suggests the "content information marked as favorite" required by dependent claims 6 and 14 and the "search panel," required by claim 8. However, we find Petitioner does not present arguments and supporting evidence with respect to these dependent claims that demonstrates how either Machida or Istvan remedies the deficiencies in Petitioner's analysis of independent claims 1 and 10 as being purportedly obvious over Woods as considered above under Ground 1, particularly regarding at least step 1.5.1 and "wherein" clause 1.5.2 of independent claim 1, which correspond to limitation 10.5 of claim 10.

Accordingly, for the same reasons discussed above regarding independent claims 1 and 10 as considered under Ground 1, and claims 6, 8, and 14 as considered under Ground 2, and claims 1–14 as considered under Ground 3, we determine that Petitioner has not shown by a preponderance of the evidence that the subject matter of dependent claims 6, 8, and 14 would have been obvious over Woods, Machida, and Istvan, as considered under Ground 4 under 35 U.S.C. § 103(a).

III. CONCLUSION[13]

The table below summarizes our conclusions as to the challenged claims:

Claim(s)	35 U.S.C. §	Reference(s)/ Basis	Claim(s) Shown Unpatentable	Claim(s) Not Shown Unpatentable
1–14	103(a)	Woods		1–14
6, 8, 14	103(a)	Woods, Istvan		6, 8, 14
1–14	103(a)	Woods, Machida		1–14
6, 8, 14	103(a)	Woods, Machida, Istvan		6, 8, 14
Overall Outcome				1–14

IV. ORDER

Accordingly, it is

ORDERED that, based on a preponderance of the evidence, claims 1–14 of U.S. Patent No. 9,247,174 B2 have not been shown to be unpatentable; and

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

[13] 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).

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