

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

VIZIO, INC.,
Petitioner,

v.

MULTIMEDIA TECHNOLOGIES PTE. LTD.,
Patent Owner.

Case IPR2024-00722
Patent 9,232,168

**PETITION FOR INTER PARTES REVIEW
UNDER 35 U.S.C. § 312 AND 37 C.F.R. § 42.104**

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	GROUND FOR STANDING.....	2
III.	SUMMARY OF THE '168 PATENT AND THE PRIOR ART	2
A.	The '168 Patent	2
B.	Prosecution History of the '168 Patent	4
C.	Priority Date	5
D.	The Prior Art	8
i.	Lider	8
ii.	Eibl.....	11
IV.	LEVEL OF ORDINARY SKILL IN THE ART	14
V.	CLAIM CONSTRUCTION	15
VI.	RELIEF REQUESTED AND THE REASONS FOR THE REQUESTED RELIEF	15
VII.	IDENTIFICATION OF CHALLENGED CLAIMS.....	15
A.	Challenged Claims and Statutory Grounds for Challenge.....	15
B.	Ground 1: Claims 1-7, 10-15 Are Obvious Under 35 U.S.C. § 103 over Lider in view of the Knowledge of a POSITA.	16
i.	Claim 1	16
a.	[1.0].....	16
b.	[1.1].....	18
c.	[1.2].....	23
d.	[1.3].....	28
e.	[1.4].....	29

ii.	Claim 2.....	33
	a. [2.0].....	33
	b. [2.1].....	33
iii.	Claim 3.....	35
	a. [3.0].....	35
	b. [3.1].....	36
iv.	Claim 4.....	38
	a. [4.0].....	38
	b. [4.1].....	38
v.	Claim 5.....	40
	a. [5.0].....	40
	b. [5.1].....	40
vi.	Claim 6.....	43
	a. [6.0].....	43
	b. [6.1].....	43
vii.	Claim 7.....	44
	a. [7.0].....	44
	b. [7.1].....	44
	c. [7.2].....	47
	d. [7.3].....	48
viii.	Claim 10.....	50
ix.	Claim 11.....	50
	a. [11.0].....	50

b.	[11.1].....	51
c.	[11.2].....	52
d.	[11.3].....	53
e.	[11.4].....	54
f.	[11.5].....	54
g.	[11.6].....	54
h.	[11.7].....	55
x.	Claim 12.....	55
a.	[12.0].....	55
b.	[12.1].....	55
c.	[12.2].....	55
d.	[12.3].....	55
xi.	Claim 13.....	56
a.	[13.0].....	56
b.	[13.1].....	56
c.	[13.2].....	56
xii.	Claim 14.....	56
a.	[14.0].....	56
b.	[14.1].....	56
c.	[14.2].....	56
d.	[14.3].....	57
e.	[14.4].....	57
xiii.	Claim 15.....	59

C.	Ground 2: Claims 1-7, and 10-15 Are Obvious Under 35 U.S.C. § 103(a) over Lider in view of Eibl and the Knowledge of a POSITA	59
i.	Reasons to Combine Lider and Eibl	59
ii.	Claim 1	64
iii.	Claim 2	64
iv.	Claim 3	64
v.	Claim 4	64
vi.	Claim 5	64
vii.	Claim 6	64
viii.	Claim 7	64
	a. [7.0]	64
	b. [7.1]	65
	c. [7.2]	68
	d. [7.3]	70
ix.	Claim 10	70
x.	Claim 11	70
xi.	Claim 12	71
xii.	Claim 13	71
xiii.	Claim 14	71
	a. [14.0]	71
	b. [14.1]	71
	c. [14.2]	71
	d. [14.3]	71

e. [14.4].....	72
xiv. Claim 15	74
VIII. DISCRETIONARY DENIAL WOULD BE INAPPROPRIATE.....	74
A. Discretionary Denial Under the <i>Fintiv</i> Factors Is Not Appropriate.....	74
B. Discretionary Denial Under 35 U.S.C. § 325(d) Is Not Appropriate.....	75
IX. CONCLUSION.....	75
X. MANDATORY NOTICES	76
A. Real Party in Interest (§42.8(b)(1))	76
B. Related Proceedings	76
C. Lead and Back-up Counsel (§42.8(b)(3))	76
D. Service Information (§42.8(b)(4)).....	76
E. Fee for Inter Partes Review (§ 42.15(a)).....	76

TABLE OF AUTHORITIES

Cases

<i>Cimline, Inc. v. Crafcro, Inc.</i> , 413 F. App'x 240 (Fed. Cir. 2011)	33, 43, 62
<i>Dynamic Drinkware, LLC v. National Graphics, Inc.</i> , 800 F.3d 1375 (Fed. Cir. 2015).....	6
<i>In re Etter</i> , 756 F.2d 852 (Fed. Cir. 1985).....	15
<i>In re Mouttet</i> , 686 F.3d 1322 (Fed. Cir. 2012).....	15
<i>Nat. Alternatives Int'l, Inc. v. Iancu</i> , 904 F.3d 1375 (Fed. Cir. 2018).....	7
<i>Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.</i> , 868 F.3d 1013 (Fed. Cir. 2017).....	15
<i>Penumbra, Inc. v. RapidPulse, Inc.</i> , IPR2021-01466, Paper 34 (PTAB Mar. 10, 2023)	6
<i>Phillips v. AWH Corp.</i> , 415 F.3d 1303 (Fed. Cir. 2005).....	15
<i>Unified Patents, LLC v. Dolby Lab. Licensing Corp.</i> , IPR2021-00275, Paper 21 (PTAB June 17, 2021).....	8

Statutes

35 U.S.C § 112(a)	6
35 U.S.C. § 102(a)	16
35 U.S.C. § 102(b)	16
35 U.S.C. § 102(e)	16
35 U.S.C. § 103	16

35 U.S.C. § 103(a)	1, 59
35 U.S.C. § 311	1
35 U.S.C. § 314(a)	1
35 U.S.C. § 325(d)	75

Other Authorities

MPEP 2159.02 (9th ed. Rev. 07.2022)	8
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Regulations

37 C.F.R. § 42.100	1
37 C.F.R. § 42.100(b)	15
37 C.F.R. § 42.104(a).....	2

EXHIBIT LIST

Exhibit No.	Description
1001	U.S. Patent No. 9,232,168 to Sirpal (the “’168 Patent”)
1002	Prosecution History of U.S. Patent No. 9,232,168
1003	Declaration of Dr. Henry Houh
1004	<i>Curriculum vitae</i> of Dr. Henry Houh
1005	U.S. Patent No. 9,158,440 to Lider <i>et al.</i> (“Lider”)
1006	U.S. Publication No. 2009/0222771 A1 to Eibl (“Eibl”)
1007	RESERVED
1008	Plaintiff Multimedia Technologies Pte., Ltd.’s Objections and Responses to Defenant VIZIO, Inc.’s First Set of Interrogatories (Nos. 1-11) dated October 30, 2023.
1009	Webster’s New World Dictionary of Computer Terms, Fifth Edition, 1994 (“Webster’s”) at pages 191, 473.
1010	Digital Trends, The History of Windows: How the OS has Changed Over Time, https://www.digitaltrends.com/computing/the-history-of-windows

Exhibit No.	Description
1011-1033	RESERVED
1034	“A History of the GUI, by Jeremy Reimer, dated May 4, 2005, published by Ars Technica, available at https://arstechnica.com/features/2005/05/gui/
1035	Webpage printout from Toastytech.com, available at http://toastytech.com/guis/win952.html
1036	“IOS: A Visual History,” by Verge Staff, dated September 16, 2013, available at https://www.theverge.com/2011/12/13/2612736/ios-history-iphone-ipad
1037	“Apple TV (1st generation),” published by Apple Wiki, available at https://apple.fandom.com/wiki/Apple_TV_(1st_generation)
1038	U.S. Patent No. 5,905,521 to Gatto et al.

Exhibit No.	Description
1039	“WebTV May Not Be for Everyone, but It’s a Step in the Right Direction,” by Lawrence J. Magid, dated September 30, 1996, published by the LA Times, available at https://www.latimes.com/archives/la-xpm-1996-09-30-fi-49004-story.html
1040	“Holiday Buyer’s Guide 2007, Part 2; HP MediaSmart TV” by Sina Mohammadi, dated November 12, 2007, published by tom’s Hardware, available at https://www.tomshardware.com/reviews/holiday-buyers-guide-2007,1723-9.html
1041-1044	RESERVED
1045	“Google TV: Everything You Need To Know,” by Jay Yarow, dated May 21, 2010, published by Business Insider, available at https://www.businessinsider.com/what-is-google-tv-2010-5

Exhibit No.	Description
1046	“Sony Outs The First HDTV Powered By Google TV,” by Matt Burns, dated October 12, 2010, published by TechCrunch, available at https://techcrunch.com/2010/10/12/sony-google-tv/
1047-1049	RESERVED
1050	VIZIO’s Motion to Dismiss for Improper Venue Under Rule 12(b)(3), <i>Multimedia Technologies PTE Ltd., v. VIZIO Inc.</i>, No. 2:23-cv-00124-JRG-RSP (E.D. Tex.), Dkt. 20, Public version.
1051	Multimedia Technologies’ Response in Opposition to VIZIO’s Motion to Dismiss for Improper Venue Under Rule 12(b)(3), <i>Multimedia Technologies PTE Ltd., v. VIZIO Inc.</i>, No. 2:23-cv-00124-JRG-RSP (E.D. Tex.), Dkt. 32, Public version.

LISTING OF CHALLENGED CLAIMS

Limitation	
[1.0]	1. A method for providing a user interface in an intelligent television, the method comprising:
[1.1]	receiving, by a processor of the intelligent television, a selection associated with a first navigation bar in the user interface of the intelligent television;
[1.2]	determining if a second user interface, associated with the selection, can contain a second navigation bar;
[1.3]	if a second user interface, associated with the selection, can contain a second navigation bar, rendering a horizontal navigation bar as the second navigation bar in the second user interface; and
[1.4]	if a second user interface, associated with the selection, can not contain a second navigation bar, rendering a different user interface device for the second navigation bar in the second user interface.
[2.0]	2. The method as defined in claim 1, further comprises the processor determining one or more of a content and a format of the second navigation bar.

Limitation	
[3.0]	The method as defined in claim 2, further comprises the processor determining one or more of a format and a characteristic of the second user interface.
[4.0]	4. The method as defined in claim 2, wherein the determination of if a second user interface, associated with the selection, can contain a second navigation bar comprises the processor comparing one or more of the content and the format of the second navigation bar with one or more of the format and the characteristic of the second user interface.
[5.0]	5. The method as defined in claim 2, wherein if the second navigation bar is too large for the second user interface, the processor renders different user interface device.
[6.0]	6. The method as defined in claim 2, further comprises the processor presenting the second user interface with the second navigation bar.
[7.0]	7. The method as defined in claim 2, further comprises:
[7.1]	the processor determining if a drop-down navigation bar is needed;

Limitation	
[7.2]	if the drop-down navigation bar is needed, the processor rendering the drop-down navigation bar as the second navigation bar; and
[7.3]	if the drop-down navigation bar is not needed, the processor rendering a vertical navigation bar as the second navigation bar.
[10.0]	10. The method as defined in claim 2, further comprises the processor presenting the second user interface with the second navigation bar.
[11.0]	11. An intelligent television system comprising:
[11.1]	a memory operable to store social media data; and
[11.2]	a processor in communication with the memory, the processor programmed to:
[11.3]	execute a user interface application, the user interface application:
[11.4]	receiving a selection associated with a first navigation bar in the user interface of the intelligent television;
[11.5]	determining if a second user interface, associated with the selection, can contain a second navigation bar;

Limitation	
[11.6]	if a second user interface, associated with the selection, can contain a second navigation bar, rendering a horizontal navigation bar as the second navigation bar in the second user interface; and
[11.7]	if a second user interface, associated with the selection, can not contain a second navigation bar, rendering a different user interface device for the second navigation bar in the second user interface.
[12.0]	12. The intelligent television system as defined in claim 11, wherein the user interface application:
[12.1]	determines one or more of a content and a format of the second navigation bar;
[12.2]	determines one or more of a format and a characteristic of the second user interface; and
[12.3]	presents the second user interface with the second navigation bar.
[13.0]	13. The intelligent television system as defined in claim 12,

Limitation	
[13.1]	wherein the determination of if a second user interface, associated with the selection, can contain a second navigation bar comprises the processor comparing one or more of the content and the format of the second navigation bar with one or more of the format and the characteristic of the second user interface, and
[13.2]	wherein if the second navigation bar is too large for the second user interface, the processor renders the different user interface device.
[14.0]	14. The intelligent television system as defined in claim 12, wherein the user interface application:
[14.1]	determines if a drop-down navigation bar is needed;
[14.2]	if the drop-down navigation bar is needed, renders the drop-down navigation bar as the second navigation bar;
[14.3]	if the drop-down navigation bar is not needed, renders a vertical navigation bar as the second navigation bar; and

Limitation	
[14.4]	wherein the drop-down navigation bar includes one or more drop down menus associated with top-level categories presented in the drop-down navigation bar, and wherein the vertical navigation bar includes categories presented vertically in the second user interface.
[15.0]	15. The intelligent television system as defined in claim 12, wherein the user interface application presents the second user interface with the second navigation bar.

I. INTRODUCTION

Pursuant to 35 U.S.C. §§ 311, 314(a), and 37 C.F.R. § 42.100, VIZIO, Inc. (“VIZIO” or “Petitioner”) requests that the Board review and cancel as unpatentable under 35 U.S.C. § 103(a) claims 1-7 and 10-15 (the “Challenged Claims”) of U.S. Patent No. 9,232,168 (the “’168 Patent”) (EX1001).

The ’168 Patent claims systems and methods that render rudimentary graphical user interface (“GUI”) elements such as horizontal and vertical toolbars and drop-down menus, all long known in the art, on an “intelligent television” display using obvious techniques and concepts such as determining whether the elements will fit within an available display area. *See, generally*, EX1003, ¶¶29-44. The purported invention can be summarized as determining whether a horizontal navigation bar can be displayed on the screen; if a horizontal toolbar can be displayed, then displaying it, and if it cannot, then displaying something besides a horizontal toolbar.

The ’168 Patent describes and claims obvious methods of “determining,” such as comparing the size of the element to be displayed with the size of the available space in which to display it to ascertain whether the element is too large to fit within available space. If the element is too large to fit, a different user interface element that fits within the available space must be used—an obvious and fundamental concept. These are not novel determination methods. As explained

herein, each Challenged Claim element is rendered obvious in view of the prior art and the knowledge of a person of ordinary skill in the art.

II. GROUNDS FOR STANDING

The '168 Patent is eligible for IPR, and Petitioner is not barred or estopped from requesting IPR. 37 C.F.R. § 42.104(a).

III. SUMMARY OF THE '168 PATENT AND THE PRIOR ART

A. The '168 Patent

The '168 Patent, entitled “Systems and Methods for Providing User Interfaces in an Intelligent Television,” issued on January 5, 2016. EX1001. The '168 Patent is directed to an “intelligent television” that can “provide various interfaces for navigating processes associated with providing content[,]” wherein such interfaces “include unique visual representations and organizations that allow the user to utilize the intelligent television more easily and more effectively.” EX1001, Abstract; EX1003, ¶45.

The '168 Patent describes methods and systems for providing a user interface wherein a processor receives a “*selection associated with a first navigation bar*,” determines if a “*second user interface*” can contain a “*second navigation bar*” and, if so, renders such “*second navigation bar*” as a horizontal navigation bar, as shown in Figure 22A below (annotated). *See, e.g.*, EX1001, cl. 1; EX1003, ¶46.

If the “second user interface” cannot contain the “second navigation bar,” a different “user interface device” is rendered, as shown in Figure 22B below (annotated). EX1001, 45:19-34; EX1003, ¶47.

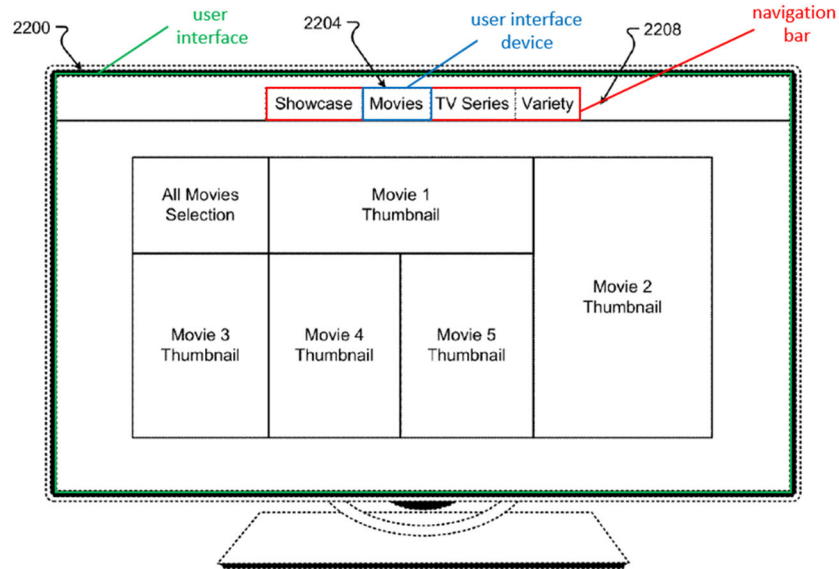


Fig. 22A

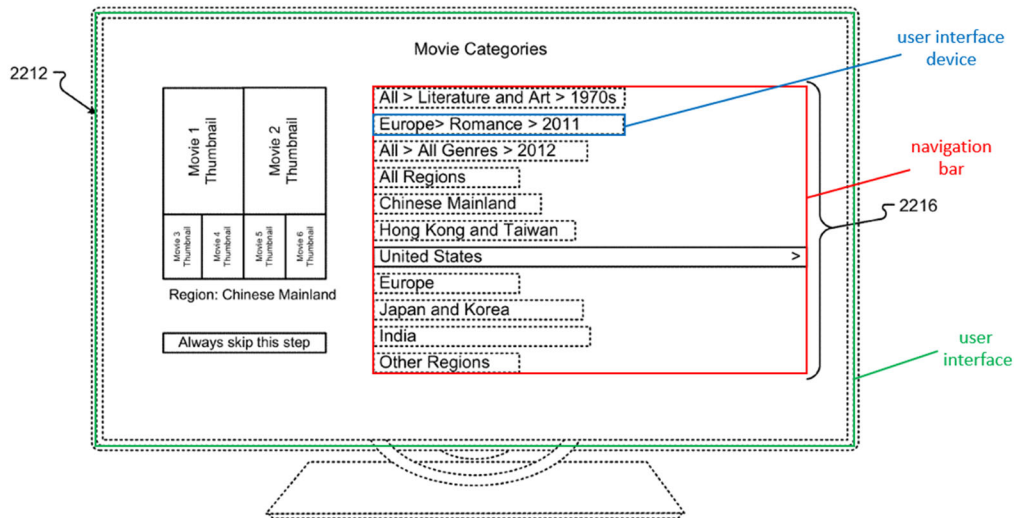


Fig. 22B

The specification describes the '168 Patent's core concept—determining whether a user interface can contain a horizontal navigation bar—as follows:

The content and format of the navigation bar may be set or changed depending on what needs to be viewed within each navigation bar. For example, the navigation bar 2208, in FIG. 22A, is a single banner navigation bar across the top of the screen with only four different user interface devices that may be selected by a user. However, if the content of that navigation bar is too great to be provided over the banner area, as shown in FIG. 22A, the user interface may have to change to another user interface 2212, as shown in FIG. 22B. Here, the navigation bar 2216 is displayed vertically as a series of user selectable devices arranged in rows. These rows are provided because the navigation bar could not [be] displayed across the top of a banner with the amount of information that needs to be provided in the navigation bar.

EX1001, 45:24-37; EX1003, ¶48.

B. Prosecution History of the '168 Patent

On November 6, 2013, the Patentee filed preliminary amendments canceling certain original claims and adding new claims. EX1002, 162. A Notice of Allowance issued without any substantive Office Actions. *Id.* After the Examiner issued a Notice of Allowance, the Patentee amended claims 4, 15-20, and 23-28. *Id.*, 3546.

C. Priority Date

The '168 Patent was filed on August 19, 2013, and claims priority to sixteen provisional applications:

Provisional App. No.	Filing Date
61/684,672	Aug. 17, 2012
61/697,710	Sept. 6, 2012
61/700,182	Sept. 12, 2012
61/702,650	Sept. 18, 2012
61/736,692	Dec. 13, 2012
61/798,821	Mar. 15, 2013
61/804,942	Mar. 25, 2013
61/804,998	Mar. 25, 2013
61/804,971	Mar. 25, 2013
61/804,990	Mar. 25, 2013
61/805,003	Mar. 25, 2013
61/805,053	Mar. 25, 2013
61/805,030	Mar. 25, 2013
61,805,027	Mar. 25, 2013
61,805,042	Mar. 25, 2013

Provisional App. No.	Filing Date
60/805,038	Mar. 25, 2013

There is no presumption that claims of a patent are entitled to the effective filing date of its provisional application(s), including the '168 Patent. *Dynamic Drinkware, LLC v. National Graphics, Inc.*, 800 F.3d 1375, 1380 (Fed. Cir. 2015). Patent Owner bears the burden to establish the Challenged Claims are entitled to the priority benefit of the provisional applications by demonstrating that the provisional applications provide the full support required by 35 U.S.C § 112(a) for each claim. *See Chiron Corp. v. Genentech, Inc.*, 363 F.3d 1247, 1253 (Fed. Cir. 2004) (A patent “may only claim priority to an earlier application if the earlier application fulfills the requirements of § 112, first paragraph.”); *Penumbra, Inc. v. RapidPulse, Inc.*, IPR2021-01466, Paper 34, at 18 (PTAB Mar. 10, 2023) (“[A] patent’s claims are not entitled to an earlier priority date because the patentee claims priority.... Rather, for a patent’s claims to be entitled to an earlier priority date, the patentee must demonstrate that the claims meet the requirements of 35 U.S.C. § 120,’ which include fulfilling the requirements of § 112.”) (*quoting In re NTP, Inc.*, 654 F.3d 1268, 1276-77 (Fed. Cir. 2011)).

None of the '168 Patent’s claims are entitled to a priority date earlier than August 19, 2013, at least because none of the provisional applications describe or enable the Challenged Claims’ limitations, including, but not limited to (1)

“determining if a second user interface, associated with the selection, can contain a second navigation bar,” (2) “if a second user interface, associated with the selection, can contain a second navigation bar, rendering a horizontal navigation bar as the second navigation bar in the second user interface;” (3) “if a second user interface, associated with the selection, can not contain a second navigation bar, rendering a different user interface device for the second navigation bar in the second user interface,” and (4) “the processor determining if a drop-down navigation bar is needed” (or substantially similar variants thereof), which are all required elements.¹

In the underlying District Court case, Patent Owner was asked to identify support for a priority date earlier than the ’168 Patent filing date, if any. EX1008, 29-31. Patent Owner declined to identify any alleged support in the provisional application labyrinth. *Id.* The ’168 Patent is not entitled to a date before August 19, 2013. *Nat. Alternatives Int’l, Inc. v. Iancu*, 904 F.3d 1375, 1380 (Fed. Cir. 2018).

¹ If Patent Owner introduces evidence that the ’168 Patent is entitled to an earlier date, Petitioner reserves the right to submit rebuttal evidence not limited to the above-mentioned limitations.

D. The Prior Art

“If a patent application (1) contains or contained at any time a claim to a claimed invention having an effective filing date as defined in 35 U.S.C. 100(i) that is on or after March 16, 2013...then AIA 35 U.S.C. 102 and 103 apply to the application, (i.e., the application is an AIA application)”). MPEP 2159.02 (9th ed. Rev. 07.2022).

Regardless of whether pre- or post-AIA governs the '168 Patent, the prior art relied on herein satisfies both. *Unified Patents, LLC v. Dolby Lab. Licensing Corp.*, IPR2021-00275, Paper 21, at 11 (PTAB June 17, 2021) (“[O]ur unpatentability analysis remains the same under either the pre- or post-AIA versions of 35 U.S.C. §§ 102 and 103.”).

i. Lider

U.S. Patent 9,158,440 (“Lider”), entitled “Display of Information Areas in a View of a Graphical Interface,” was filed on August 1, 2012. EX1005. Lider discloses systems and methods for presenting data in one or more information areas within a GUI. *Id.*, 1:23-35; EX1003, ¶52. “An information area can be a toolbar displaying selectable controls or status information,” and “[d]etermining the current state of the device can include determining a size of the view, where the selected display modes are based on the determined size of the view, and the display mode can be changed in response to a change in the view size.” EX1005,

1:55-60; EX1003, ¶52. Lider’s method “determines at least one current state of the device including a size of the view, and causes a display of one or more toolbars within the view, each toolbar displaying one or more controls selectable by the user and/or status information.” EX1005, 2:15-19; EX1003, ¶53.

Lider specifically contemplates that its GUI can be displayed on an intelligent television. Figure 10, for example, depicts “a block diagram of an example device which may be used for one or more implementations” of Lider’s claimed systems and methods. EX1005, 3:50-52; EX1003, ¶54.

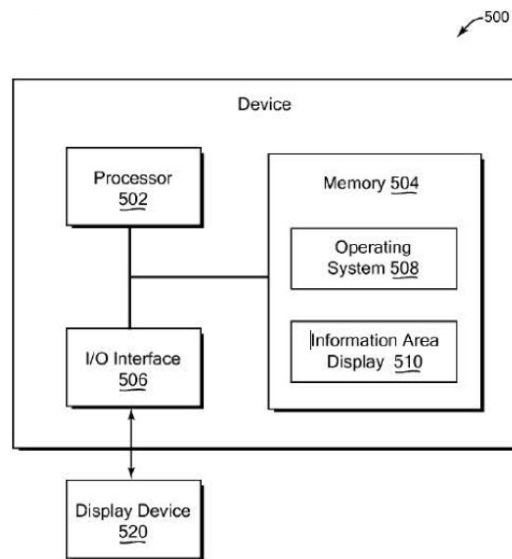


FIG. 10

“Device 500,” depicted in Figure 10, “can be any suitable computer system, server, or other electronic or hardware device. For example, the device 500 can be

a...**television** (e.g., television with one or more processors embedded therein and/or coupled thereto).”² EX1005, 19:19-25; EX1003, ¶55.

Lider teaches using view size thresholds to determine how many horizontal toolbars can be displayed. Lider’s “device determines the current size of the view and checks whether the view size is less than any one or more predetermined size thresholds intended for display mode selection.” EX1005, 15:39-41; EX1003, ¶56. “[M]ultiple view size thresholds can be designated, where each size threshold can pertain to a different associated set of information areas.” EX1005, 15:45-47. “[E]ach size threshold can be associated with a maximum number of information areas that can be displayed in independent display mode in the view dimension governed by that threshold.” *Id.*, 15:61-64; EX1003, ¶57. Further, “if the view size is below the vertical size threshold, then a maximum of two horizontal toolbars can be displayed.” *Id.*, 16:9-11. “A second vertical size threshold can allow a maximum of one horizontal toolbar....” EX1005, 16:15-16; EX1003, ¶58.

Lider teaches the display of “both horizontal and vertical toolbars” (EX1005, 7:43-48) as well as “[o]ther types of information areas besides toolbars” such as “windows or panels displaying controls and/or status information,” which “can be

² Unless noted otherwise, all emphasis added by Petitioner.

displayed, in any desired configuration and/or position within the view 208.” *Id.*, 8:13-17; EX1003, ¶59.

ii. Eibl

U.S. Publication No. 2009/0222771 A1 (“Eibl”), entitled “Adaptable Measuring Device and Method for Adaptation,” was filed on March 3, 2009, and published on September 3, 2009. EX1006; EX1003, ¶60.

Eibl discloses a “measuring device providing a display device” that “can display several dialogs simultaneously.” EX1006, Abstract. “The input of given values in given dialogs effects the opening and/or closing of at least one respectively associated further dialog,” and further teaches that the “content and/or the position and/or the form and/or the linking of the dialogs are adapted.” *Id.*; EX1003, ¶61.

Eibl’s “display device preferably displays text and/or graphics by means of output fields. The user enters numerical values and/or texts and/or selects preferably preset entries preferably by means of input fields. Accordingly, a flexible operation and an adaptation of the measuring device and a high information content of the dialogs are provided.” EX1006, [0010]. “The display device preferably displays several dialogs side-by-side and/or one above the other and/or superimposed. This guarantees a high information content of the display.” *Id.*, [0015]; EX1003, ¶62.

Eibl's Figure 1, shown below, depicts “measuring device 100 [that] provides a display device 101, a processing device 102 and a databank 103.” EX1006, [0027]. “[T]he display device 101 and the processing device 102 are connected to one another,” and “processing device 102 determines what the display device 101 displays.” *Id.*; EX1003, ¶63.

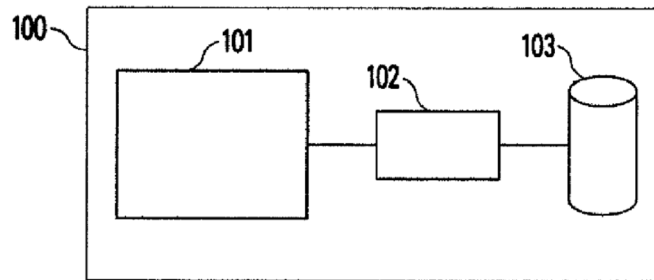


Fig. 1

Eibl's Figure 2, annotated below, depicts “display device 101 show[ing] a dialog 1 on an overall surface.” EX1006, [0028]; FIG. 2; EX1003, ¶64.

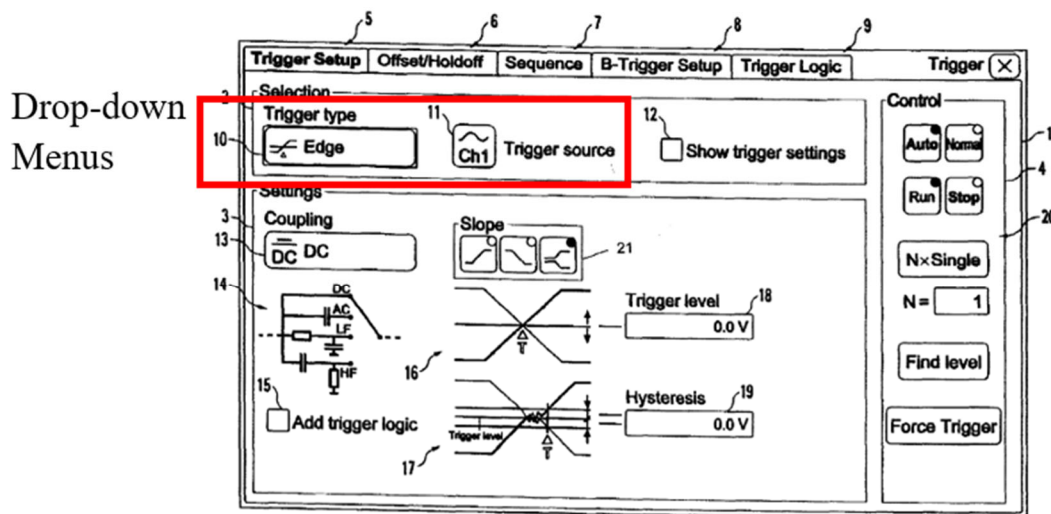


Fig. 2

“[I]nput fields 10, 11 are drop-down menus” and “[i]f the input field 10 or 11 is selected, a list of selection options...is rolled down.” EX1006, [0028]; FIG. 2.

Eibl's Figure 3, annotated below, "shows a second dialog" depicting "after the selection of the input field 10," which, Eibl teaches, "leads to the rolling down of selection list 40 with preset options." *Id.*, [0033]; FIG. 3; EX1003, ¶65.

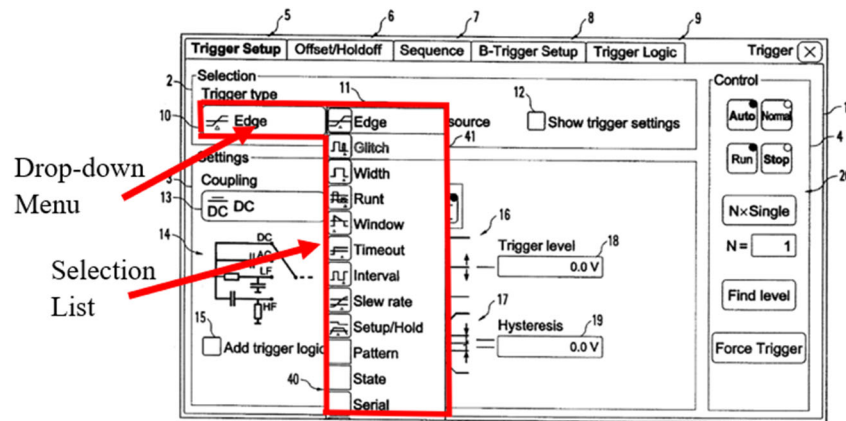


Fig. 3

Eibl teaches drop-down menus with different formats than, for example, "input field 10" depicted in Figure 2. For example, Figure 5 depicts "drop-down menu 63," shown annotated below. EX1006, [0038]; FIG. 5; EX1003, ¶66.

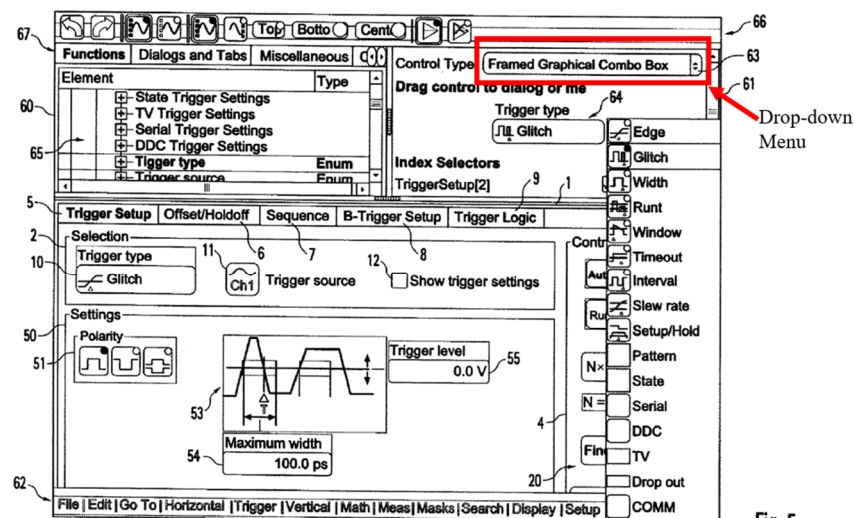


Fig. 5

Eibl's Figure 6, annotated below, depicts "the dialog shown in FIG. 5 after the selection of the drop-down menu 63." EX1006, [0040]; FIG. 6. "[D]rop-down

menu 63 is rolled down here after selection. A list of possible display types 80...is now displayed.” *Id.*; EX1003, ¶¶67.

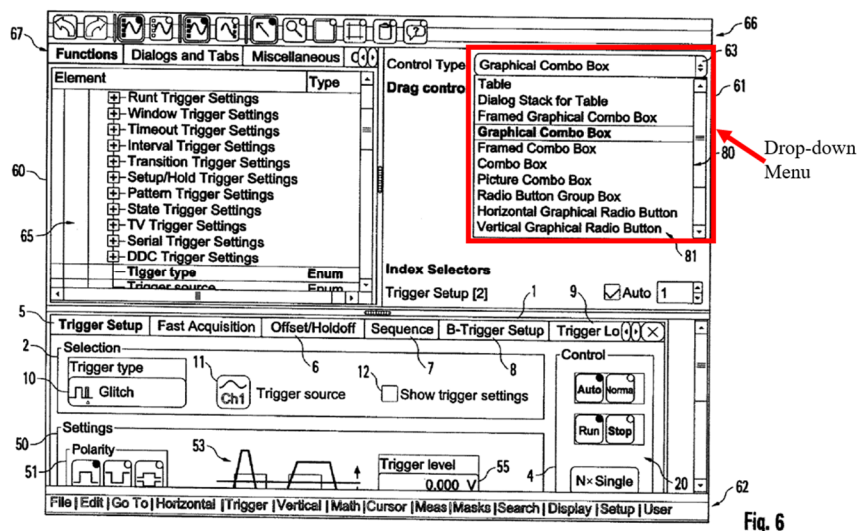


Fig. 6

IV. LEVEL OF ORDINARY SKILL IN THE ART

A Person of Ordinary Skill in the Art (“POSITA”) in August of 2013³ would have been someone knowledgeable of and familiar with GUI displays that are pertinent to the ’168 Patent. A POSITA 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 and/or digital video systems, human-computer interaction, or related technologies. Lack of professional experience can be remedied by additional education, and vice versa. EX1003, ¶¶19-22.

³ Even if Patent Owner can claim priority to an August 2012 date, the level of ordinary skill in the art would be the same. EX1003, ¶20 (n.1).

V. CLAIM CONSTRUCTION

Claims are construed during IPR according to their “ordinary and customary meaning” to those skilled in the art. 37 C.F.R. § 42.100(b). *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005). For this proceeding and the grounds presented herein, no claim term requires express construction. *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017).

VI. RELIEF REQUESTED AND THE REASONS FOR THE REQUESTED RELIEF

Petitioner respectfully asks that the Board institute IPR and cancel the Challenged Claims in view of the analysis below. Petitioner challenges the Challenged Claims because they are asserted in co-pending litigation.

VII. IDENTIFICATION OF CHALLENGED CLAIMS

A. Challenged Claims and Statutory Grounds for Challenge⁴

Grounds	Claims	Basis
1	1-7, and 10-15	35 U.S.C. § 103 over Lider in view of a POSITA’s knowledge

⁴ For the combination presented herein, Petitioner relies on teachings, not a physical incorporation of elements. *See In re Mouttet*, 686 F.3d 1322, 1332 (Fed. Cir. 2012); *In re Etter*, 756 F.2d 852, 859 (Fed. Cir. 1985).

Grounds	Claims	Basis
2	1-7, and 10-15	35 U.S.C. § 103 over Lider in view of Eibl and a POSITA's knowledge

Lider, filed on August 1, 2012, more than a year before the '168 Patent's filing date, is prior art under pre-AIA 35 U.S.C. § 102(b)⁵ and AIA 35 U.S.C. § 102(a).

Eibl was filed on March 3, 2009, and published on September 3, 2009—four years before the '168 Patent's filing date. Eibl is prior art under pre-AIA 35 U.S.C. § 102(b) and AIA 35 U.S.C. § 102(a).

B. Ground 1: Claims 1-7, 10-15 Are Obvious Under 35 U.S.C. § 103 over Lider in view of the Knowledge of a POSITA.

i. Claim 1

a. [1.0]

Lider discloses and renders obvious a “*method for providing a user interface in an intelligent television.*” EX1003, ¶77. Lider teaches “a method [that] includes causing a display of a portion of a data presentation within a view in a graphical

⁵ Even if the August, 2012 priority date applies, Lider is still prior art under pre-AIA 35 U.S.C. §§ 102(a) and/or 102(e).

interface, where different portions of the data presentation are displayable.”

EX1005, Abstract⁶; EX1003, ¶72.

Lider’s GUI may be displayed on an “*intelligent television*.” EX1003, ¶72.

Lider’s Figure 2 depicts “GUI 200,” which is “an example graphical user interface (GUI) displaying a data presentation and information areas in the view of the interface.” EX1005, 3:29-31; FIG. 2; EX1003, ¶73.

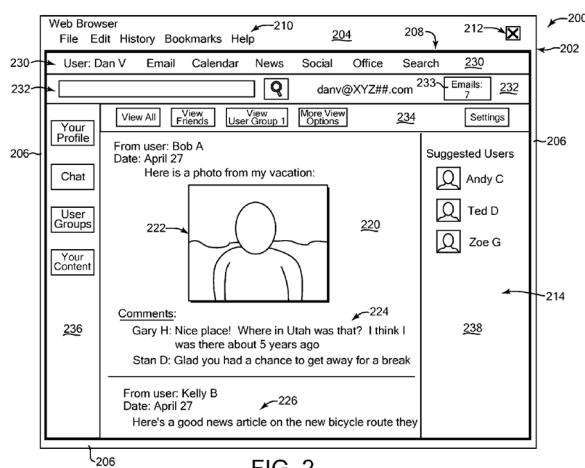


FIG. 2

“GUI 200 can be displayed” on multiple devices such as “a client device 120, 122, 124, and/or 126, or a server device 104.” EX1005, 5:64-62; FIGS. 1-2; EX1003, ¶74. Lider’s Figure 10 depicts “device 500...which may be used to implement any of the client devices 120-126 of Fig. 1, and perform appropriate method implementations described herein or parts thereof.” EX1005, 19:12-17. Figure 10’s “device 500” includes a “Processor 502” as shown annotated below:

⁶ Petitioner cites to exhibits’ original numbers.

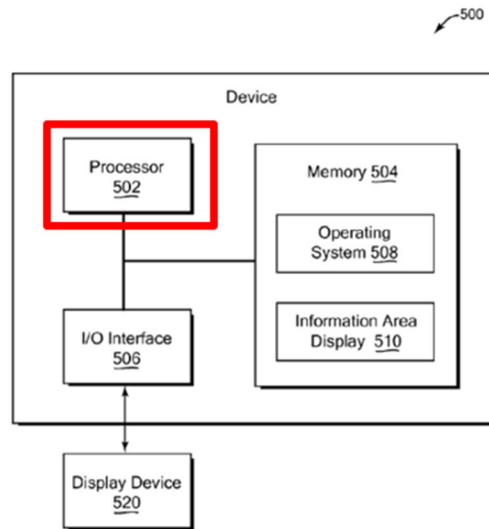


FIG. 10

Id., FIG. 10; EX1003, ¶75.

Lider explicitly discloses that “device 500” can be an “*intelligent television*” by teaching that “[d]evice 500 can be any suitable computer system, server, or other electronic or hardware device,” including a “television (e.g., *television with one or more processors embedded therein and/or coupled thereto*)...” EX1005, 19:19-25; EX1003, ¶76.

b. [1.1]

Lider teaches “*receiving, by a processor of the intelligent television, a selection associated with a first navigation bar in the user interface of the intelligent television.*” EX1003, ¶78.

Concerning the “*intelligent television*” limitation, as discussed above, Lider’s “device 500” can be a “television with one or more processors embedded therein and/or coupled thereto.” EX1005, 19:19-25; §VII(B)(i)(a). Thus, the

“*intelligent television*” limitation is satisfied. Lider also discloses televisions with processors, as the claim requires. *Id.*; EX1003, ¶79.

Next, Lider teaches “*a first navigation bar*” by disclosing that “device 500” can display toolbars from which users can make selections. Specifically, “information areas” are displayed within Lider’s GUI and “can be a toolbar displaying *selectable controls* or status information.” EX1005, 1:23-24, 55-56. Lider further explains that “information areas can be toolbars that display controls *selectable by the user to activate or access functions....*” *Id.*, 4:19-22; EX1003, ¶80. Users make selections associated with functional toolbar 230:

[F]unction toolbar 230 displays a number of options which the user may select to navigate to different web page interfaces providing different functions for the user. For example, *selecting the “email” option causes an email interface to be loaded* and displayed in view 208 instead of the web page, the “calendar option causes a calendar interface to be displayed, and a ‘social option causes a different social network interface to be displayed.

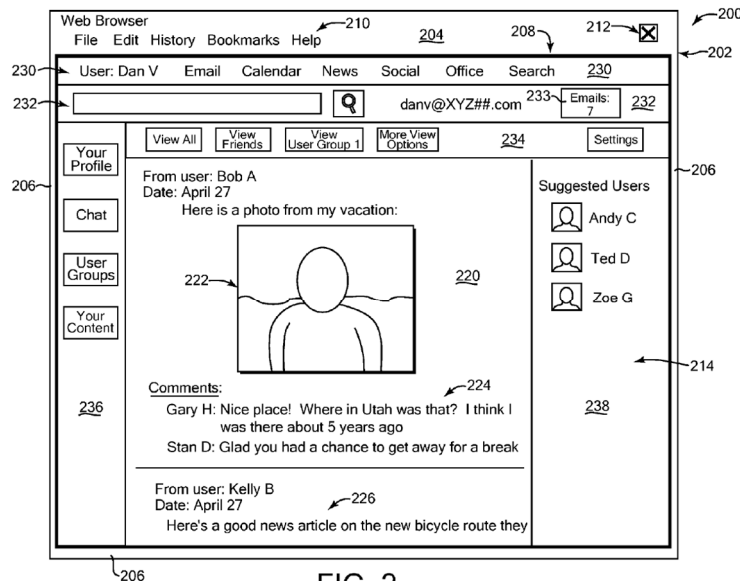


FIG. 2

EX1005, 7:49-56, FIG. 2; EX1003, ¶81.

Lider's Figure 2 teaches displaying "a first navigation bar," such as toolbar 230, that presents options users may select, such as Mail, Calendar, News, Social, etc. EX1005, FIG. 2. A POSITA would understand that, for an email interface to be loaded in response to a user selecting the GUI's "Email" option, the user's selection would be received by Lider's processor, which would then execute one or more functions to cause the display of the email interface in response to receiving the selection. EX1003, ¶82. Likewise, when the user selects "Calendar," a POSITA would understand that the processor receives the selection and, in response, executes one or more functions to cause the display of the calendar interface. In other words, Lider's processor receives a user's selection of options provided by navigation bars in a GUI. EX1003, ¶83.

Other portions of Lider confirm that its processor receives users' selections. For example, the specification teaches that "[t]he ***processor can determine that a user has accessed a function*** presented by the graphical interface, where the display mode is based on the accessed function." EX1005, 2:65-67. "Determining the current state of the device can include ***determining that a user has accessed a function*** presented by the graphical user interface, such as selecting or deselecting one or more items..." *Id.*, 1:60-65. Hence, Lider's processor receives and acts on users' selections accordingly. EX1003, ¶84.

Additionally, Lider's "*navigation bars*" (*i.e.*, toolbars) are displayed "*in the user interface of the intelligent television.*" For example, "view 208 is provided as a designated viewing area in window 202" and "the view can be any display area of the display device, in any shape or size." EX1005, 6:36-41. Thus, Lider discloses an intelligent television GUI, such as "view 208," in which toolbars (*i.e.*, navigation bars) are displayed. EX1003, ¶85.

Finally, Lider Claim 5 includes "wherein determining that the user has accessed the function includes ***receiving a selection by the user*** of one or more items within the data presentation." EX1005, 21:63-65; EX1003, ¶86. Thus, Lider also discloses and renders obvious the "*receiving, by a processor of the intelligent television, a selection*" limitation. EX1003, ¶87.

The “*selection*” is “*associated with a first navigation bar in the user interface of the intelligent television*” because, as Lider specifies, the “[i]mplementations described herein can enable information areas, ***such as toolbars***, panels, or other displayed areas, to flexibly assume a particular display mode in a view of a graphical user interface.” EX1005, 3:63-66; EX1003, ¶88.

Figure 2 discloses a GUI where “both horizontal and vertical toolbars are displayed in the view 208. The ***horizontal toolbars include a function toolbar 230, a search toolbar 232, and a group view toolbar 234***. The vertical toolbars include a navigation toolbar 236 and a right side toolbar 238.” EX1005, 7:43-48.

“***[F]unction toolbar 230 displays a number of options which the user may select...***” *Id.*, 7:49-50. Thus, Lider teaches displaying a first navigation bar, such as a toolbar, that presents selectable options. EX1003, ¶89.

Lider discloses and renders obvious that navigation bars (*i.e.*, toolbars) are displayed “*in the user interface of the intelligent television*” by disclosing “view 208” which, Lider teaches, “is provided as a designated viewing area in window 202...” EX1005, 6:36-37. “[T]he view can be any display area of the display device, in any shape or size.” *Id.*, 6:40-41; EX1003, ¶90.

c. [1.2]

Lider discloses and renders obvious “*determining if a second user interface, associated with the selection, can contain a second navigation bar.*” EX1003, ¶93.

First, Lider discloses a “*second user interface.*” Specifically, “view 208 [] can be a sub-portion of the entire display area of the display device” or “a designated viewing area” where one or more toolbars are displayed. EX1005, 6:33-37. Further, “in some implementations, view 208 is provided as a designated viewing area in window 202,” and “the view can be any display area of the display device, in any shape or size.” *Id.*, 6:36-41; EX1003, ¶94.

A POSITA would understand that because “view 208” is (1) “a designated viewing area in [a] window,” (2) “can be a sub-portion of the entire display area,” and (3) “can be any display area...in any shape or size,” “view 208” can comprise multiple user interfaces, each of which may contain toolbars from which a user may make selections. EX1003, ¶95. A POSITA would understand from Lider’s teachings that multiple instances of “view 208” could be displayed simultaneously or concurrently, with each instance having its own dimensions and/or position on the screen. EX1003, ¶97.

Returning to the example concerning Figure 2, Lider teaches that “selecting the ‘email’” option causes an email interface to be loaded and displayed in view 208 instead of the web page...” EX1005, 7:49-56, FIG. 2. In other words, the

display area defined by “view 208” in Figure 2 can be replaced entirely with an email interface (*i.e., a second user interface*) and any associated toolbars. EX1003, ¶98.

Alternatively, the email interface might take up only a portion of “view 208,” consistent with Lider’s teaching that one or more “information areas” may be displayed within a view, and that “information areas” can be toolbars. EX1005, 1:30, 55-56, 2:39-40; 4:18-19, 8:13-14 (“Other types of information areas besides toolbars can be displayed in the view 208...”); EX1003, ¶99.

Further, the “display mode of a toolbar can be based on one or more current states of the device,” and “current states” can include “a user action within the view to access a function of the interface or device.” EX1005, 8:51-56. Thus, the display of a second toolbar (*i.e., second navigation bar*) can result from a user making a selection in another toolbar. EX1003, ¶100.

Second, Lider discloses a “*second user interface*” that is “*associated with the selection*” by teaching the display of “information areas,” such as toolbars related to user actions or input. Figure 9 depicts “an example of a method 400 of *displaying information areas* in a view of a graphical interface *based on user input* such as user interaction with the device or graphical interface.” EX1005, 18:3-6; FIG. 9; EX1003, ¶101. Specifically, “[i]n block 404, the device checks whether the user has performed any action within the graphical user interface to

access a function presented by the graphical interface.” EX1005, 18:14-16; FIG. 9. Further, “in block 406 the device checks whether any information areas for display in the view are related to the user action,” and that “a related information area is one that presents information or one or more controls related to the function accessed by the user...” *Id.*, 18:23-27; FIG. 9; EX1003, ¶102.

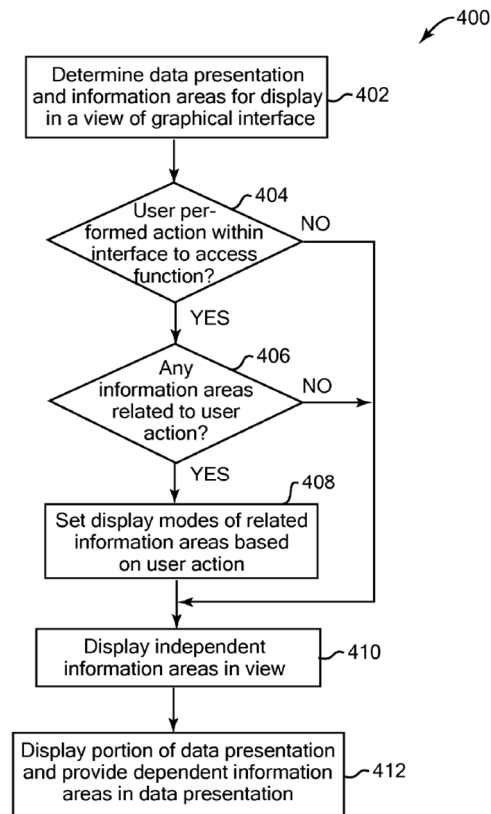


FIG. 9

EX1005, FIG. 9. “If one or more information areas are related, then in block 408 the device sets the display modes of the related information areas based on the user action.” *Id.*, 18:39-42; FIG. 9; EX1003, ¶102.

Similarly, returning to Figure 2, “selecting the ‘email’ option causes an email interface to be loaded and displayed in view 208 instead of the web page...” EX1005, 7:49-56, FIG. 2. A POSITA would understand that the display of the email interface and any associated toolbars (*i.e.*, “*a second user interface*”) would have been a direct response to, and therefore “*associated with,*” a user “*selection.*” EX1003, ¶103.

Third, Lider discloses “*determining if a second user interface, associated with the selection, can contain a second navigation bar.*” For example, Lider uses size thresholds to determine whether toolbars can be displayed within a view. Specifically, “[t]he processor operations can include *determining a size of the view*, where display modes for *the information areas are based on the determined view size.*” EX1005, 2:63-65; EX1003, ¶104.

“[T]he device determines the current size of the view and checks whether the view size is less than any one or more predetermined size thresholds intended for display mode selection.” EX1005, 15:39-42. Further, “one view size threshold may be used, which can govern the display mode of one or more associated information areas displayable in the view.”⁷ *Id.*, 15:42-45. “[E]ach size threshold

⁷ “Information areas” can be toolbars (*i.e.* navigation bars). EX1005, 1:55-56; EX1003, ¶105(n. 3).

can be associated with a maximum number of information areas that can be displayed in independent display mode in the view dimension governed by that threshold.” *Id.*, 15:61-64; EX1003, ¶105.

Lider discloses “*determining if a second user interface...can contain a second navigation bar*” by teaching the use of a size threshold to determine the maximum number of toolbars that can be displayed. Lider specifically teaches “*determining a size of the view, where the selected display modes are based on the determined size of the view*, and the display mode can be changed in response to a change in the view size.” *Id.*, 1:56-60. Moreover, Lider’s method “*determines...a size of the view, and causes a display of one or more toolbars within the view*, each toolbar displaying one or more controls selectable by the user....” *Id.*, 2:14-19; EX1003, ¶106.

Lider provides examples using a first vertical size threshold of 800 pixels and a second vertical size threshold of 528 pixels, noting that “if the current view size is greater than 800 pixels vertically, there can be any number of toolbars displayed...” EX1005, 16:18-29. “If the view size is less than 800 pixels but greater than 528 pixels,” then Lider teaches that “*there can be a maximum of two horizontal toolbars...*” *Id.*, 16:22-25. “[I]f the view size is less than 528 pixels vertically, then...*there can be a maximum of one horizontal toolbar...*” *Id.*, 16:26-28. “[S]imilar determinations can be made for horizontal view thresholds and

vertically arranged information areas such as vertical toolbars.” *Id.*, 17:12-19; EX1003, ¶107.

Because Lider teaches determining how many toolbars the view can include by using size thresholds, Lider discloses and renders obvious “*determining whether a second user interface, associated with the selection, can contain a second navigation bar.*” EX1003, ¶108.

d. [1.3]

Lider discloses and renders obvious “*if a second user interface, associated with the selection, can contain a second navigation bar, rendering a horizontal navigation bar as the second navigation bar in the second user interface.*” EX1003, ¶111.

For example, a second horizontal toolbar is rendered if, using size thresholds, a determination is made that the view can contain a second horizontal toolbar. “[I]f the view size is less than 800 pixels but greater than 528 pixels vertically, then...there can be a maximum of two horizontal toolbars” displayed. EX1005, 16:22-25. Lider further teaches that “[i]f the vertical size is less than the first threshold, as described above, then ***a maximum of two horizontal toolbars can be displayed...***” *Id.* 17:3-6; EX1003, ¶109.

In other words, if a first toolbar and a second toolbar can be displayed within the user interface based on the determined view size relative to the applicable size

thresholds, then Lider teaches that two horizontal toolbars are displayed. EX1003, ¶110. Thus, Lider discloses and renders obvious “*if a second user interface, associated with the selection, can contain a second navigation bar, rendering a horizontal navigation bar as the second navigation bar in the second user interface.*” EX1003, ¶110.

e. [1.4]

As explained in §VII(B)(i)(b), Lider teaches a method for “*determining whether a second user interface, associated with the selection, can contain a second navigation bar*” through the use of size thresholds. EX1003, ¶112. Lider also discloses, “*if a second user interface, associated with the selection, can not contain a second navigation bar, rendering a different user interface device for the second navigation bar in the second user interface.*” EX1003, ¶113.

Lider discloses displaying “*a different user interface device*” than a horizontal navigation bar by disclosing “both horizontal and vertical toolbars are displayed within the view 208” (EX1005, 7:43-44), and that “[o]ther types of information areas besides toolbars can be displayed in the view 208, such as “windows or panels displaying controls and/or status information...in any desired configuration and/or position within the view 208.” *Id.*, 8:13-17; *see also id.*, 4:22-24 (disclosing “other types of information areas that are graphical elements such as panels or windows.”). EX1003, ¶114.

Lider teaches how to determine whether the display can contain only a single horizontal toolbar. *Id.*, 16:26-28 (“If the view size is less than 528 pixels vertically, then...there can be a maximum of one horizontal toolbar...”); EX1003, ¶115. Lider also teaches how to determine whether the display can contain user interface devices other than horizontal navigation bars—such as vertical toolbars, vertically arranged information areas, windows, and panels—by teaching that “similar determinations can be made for horizontal view size thresholds and vertically arranged information areas such as vertical toolbars 236 and 238 of FIG.2.” *Id.*, 17:12-19; FIG. 2; EX1003, ¶116.

As a result, a POSITA would understand if it is determined that a maximum of one horizontal toolbar can be displayed (*i.e.*, if it is determined that the view cannot contain a second horizontal navigation bar), then “*a different user interface device*” that the display could contain such as, for example, a vertical toolbar, a window, or panel should be rendered for the second navigation bar instead. EX1003, ¶117.

Lider further discloses rendering “*a different user interface device*” by teaching the display of a “reduced display form” of a toolbar that fits within the bounds of a view. EX1005, 12:4-12. A POSITA would find it obvious that if a second user interface cannot contain a second horizontal toolbar, a different user

interface device that could be contained within the user interface would need to be rendered instead. EX1003, ¶118.

Specifically, it would have been obvious to a POSITA that rendering “*a different user interface device*” in place of a second horizontal navigation bar after determining that the user interface cannot contain a second horizontal navigation bar is merely the simple substitution of one known user interface element (*i.e.*, Lider’s horizontal toolbars) for another known user interface element (*e.g.* Lider’s vertical toolbar, vertically arranged information area, window, panel, or “reduced form”) to obtain predictable results (*i.e.* display of a user interface containing elements that will fit within the available area). EX1003, ¶119. A POSITA would have been able to successfully implement those design changes because Lider teaches how to display both horizontal toolbars and “[o]ther types of information areas besides toolbars” such as “windows or panels displaying controls and/or status information...in any desired configuration and/or position within the view 208.” EX1005, 8:13-17, 4:22-24; EX1003, ¶120.

It would also have been obvious for a POSITA to try rendering “*a different user interface device*” that the display can contain such as, for example, the “types of information areas besides toolbars.” Lider teaches rendering “*a different user interface device*” in place of a second horizontal navigation bar if it was determined that the user interface cannot contain a second horizontal navigation

bar, because doing so would have merely involved choosing from Lider's finite number of identified user interface elements. EX1003, ¶121. Rendering a "*user interface device*" that will fit within the available display area would be a predictable solution to the problem of the user interface not being able to contain a second horizontal navigation bar, and a POSITA would have a reasonable expectation of success due to Lider's teaching of how to display vertical toolbars, vertically arranged information areas, windows, panels, and "reduced form" within the user interface. EX1005, 8:13-17, 4:22-24; EX1003, ¶122.

Lider's disclosure of displaying "[o]ther types of information areas besides toolbars" within the user interface (EX1005, 8:13-17, 4:22-24) would have motivated a POSITA to combine this teaching with Lider's disclosure of using size thresholds to determine whether the user interface can contain a second horizontal navigation bar (*Id.*, 17:3-14; *see also id.*, 17:16-19 (teaching "similar determinations can be made for...vertically arranged information areas such as vertical toolbars...")) in order to cause "*a different user interface*" to be displayed in place of a second horizontal navigation bar if it was determined that the user interface could not contain a second horizontal navigation bar. A POSITA would have a reasonable expectation of success in implementing this combination because of Lider's teachings. EX1003, ¶123.

Moreover, it would have been common sense for a POSITA to cause “*a different user interface device*” to be rendered in the user interface instead of a second horizontal navigation bar after determining that the user interface cannot contain the latter. *Cimline, Inc. v. Crafcro, Inc.*, 413 F. App’x 240, 245 (Fed. Cir. 2011) (holding that motivation can be found based on the “background knowledge, creativity, and common sense of” a POSITA). A POSITA would have been motivated to display Lider’s user interface with elements that fit therein, and would have had a reasonable expectation of success in doing so due to Lider’s teaching of size thresholds to determine whether the user interface can contain elements including, for example, horizontal and vertical toolbars. EX1003, ¶124.

ii. Claim 2

a. [2.0]

See Claim 1, §VII(B)(i).

b. [2.1]

Lider discloses and renders obvious the method of claim 1 “*further compris[ing] the processor determining one or more of a content and a format of the second navigation bar.*” EX1003, ¶127.

Lider teaches using a processor to perform its disclosed and claimed methods. “Processor 502,” depicted in Figure 10, “can be one or more processors or processing circuits to execute program code and control basic operations of the device 500.” EX1005, 19:30-32. “[S]oftware for display of information areas...can

include *instructions that enable processor 502 to perform functions described herein...*” *Id.*, 19:54-57; EX1003, ¶128.

Concerning determining “*one or more of a content and a format of the second navigation bar,*” the ’168 Patent teaches the following:

With each user interface, the panel manager 536 can determine the content and format of the navigation bar...For example, the navigation bar 2208, in FIG. 22A, is a single banner navigation bar across the top of the screen with only four different user interface devices...if the content of that navigation bar is too great to be provided over the banner area...the user interface may have to change to another user interface 2212, as shown in FIG. 22B. Here, the navigation bar 2216 is displayed vertically as a series of user selectable devices arranged in rows...because the navigation bar could not be displayed across the top of a banner with the amount of information that needs to be provided in the navigation bar.

EX1001, 45:19-37; EX1003, ¶129.

Thus, the ’168 Patent teaches that determining the content and format of a toolbar includes, for example, determining “the amount of information that needs to be provided,” the number of “user interface devices,” and the location and orientation of the toolbar on the screen (*e.g.* “a single banner...across the top of the

screen” or “vertically as a series of user selectable devices arranged in rows”). But this was known in the prior art, as explained below. EX1003, ¶130.

Lider discloses and renders obvious determining “*one or more of a content and a format of the second navigation bar*,” as claimed in the ’168 Patent. As Lider describes, if “the area of the vertical toolbar 238 displayed in the view 208 has been reduced...” such that “the text and icons of the toolbar 238 can no longer be displayed completely in the view 208,” then “a feature allows a reduced display object or form 244 for an information area to be displayed.” EX1005, 10:48-51; *compare* toolbar 238 depicted in Lider FIG.2 *with* toolbar 238 and reduced form 244 depicted in FIG. 4; EX1003, ¶131. A POSITA would thus understand that Lider teaches a processor determining the content and format of a navigation bar such as, for example, “the area of” the toolbar, and “the text and icons of the toolbar” that are to be displayed. EX1005, 10:48-51; EX1003, ¶132. Based on Lider’s disclosures, a POSITA would further understand that such determination would be made by Lider’s processor. EX1005, 19:30-32, 19:54-57; EX1003 ¶133.

iii. Claim 3

a. [3.0]

See Claim 2, §VII(B)(ii).

b. [3.1]

Lider discloses and renders obvious the “*method as defined in claim 2, further compris[ing] the processor determining one or more of a format and a characteristic of the second user interface.*” EX1003, ¶135.

As explained concerning Claim 2.1, Lider teaches using a processor to perform its methods. “The *processor operations can include determining a size of the view*, where display modes for the information areas are based on the determined view size.” EX1005, 2:63-65; EX1003, ¶136.

Concerning determining “*one or more of a format and a characteristic of the second user interface,*” according to the ’168 Patent, “the panel manager 536 can determine the format and characteristics of the user interface, the content in the navigation bar, and/or what other information needs to be provided...These characteristics determine the location of the navigation bar and how the navigation bar may be navigated.” EX1001, 45:38-43; EX1003, ¶137. Further, “the space available for the navigation bar in the banner section of the user interface, or another section of the user interface, and the amount of content that needs to be displayed by the navigation bar. *Based on the available space and the amount of space needed, the panel manager can determine if the navigation bar can be displayed* in certain situations or certain locations.” *Id.*, 45:48-54; EX1003, ¶138.

Thus, '168 Patent discloses determining the format and characteristic of a user interface includes determining (1) “the section of the user interface” where a navigation bar is to be displayed, (2) “the space available for the navigation bar,” and (3) “the location of the navigation bar.” This was known in the prior art, as explained below. EX1003, ¶139.

Lider discloses determining “*one or more of a format and a characteristic of the second user interface*” as claimed in the '168 Patent. Lider Figure 4, for example, depicts a GUI where “the view 208 has been reduced in the horizontal dimension compared to the view 208 of FIG. 2, and has maintained the same vertical dimension.” EX1005, 10:38-41. Lider teaches that if “the area of the vertical toolbar 238 displayed in the view 208 has been reduced by moving of the right border of the view 208 toward the left,” such that “the text and icons of the toolbar 238 can no longer be displayed completely in the view 208 [then] a feature allows a reduced display object or form 244 for an information area to be displayed.” *Id.*, 10:48-51; EX1003, ¶140.

A POSITA would understand that Lider teaches determining a format and characteristic of the user interface such as, for example, the horizontal and vertical dimensions of the user interface, or the locations of the user interface's borders. *Id.*; *see also id.* at 1:56-60 (teaching “determining a size of the view”); EX1003, ¶141. Based on Lider's disclosures, a POSITA would further understand that such

determination would be made by Lider's processor. EX1005, 19:30-32, 19:54-57; EX1003, ¶142.

iv. Claim 4

a. [4.0]

See Claim 2, §VII(B)(ii).

b. [4.1]

Lider discloses and renders obvious the “*method as defined in claim 2, wherein the determination of if a second user interface, associated with the selection, can contain a second navigation bar comprises the processor comparing one or more of the content and the format of the second navigation bar with one or more of the format and the characteristic of the second user interface.*” EX1003, ¶144.

Lider teaches the use of a processor to perform its methods. *See* §VII(B)(ii). According to the '168 Patent, “the panel manager 536 determines if the user interface, based on its format and characteristics, can contain the navigation bar based on the navigation bar's content and format...” EX1001, 45:44-47. “Based on the available space and the amount of space needed,” the '168 Patent teaches, “the panel manager 536 can determine if the navigation bar can be displayed in certain situations or in certain locations.” *Id.*, 45:51-54; EX1003, ¶145. Thus, the '168 Patent discloses comparing “the available space” (*i.e.*, “*one of the format and the characteristic of the user interface*”) with “the amount of space needed” (*i.e.*, “*one*

of the content and the format of the second navigation bar”) to determine whether the second user interface can contain a second navigation bar. EX1003, ¶146.

Lider teaches this limitation, as disclosed by the ’168 Patent, by describing that if “the area of the vertical toolbar 238 displayed in the view 208 has been reduced” such that “the text and icons of the toolbar 238 can no longer be displayed completely in the view 208 [then] a feature allows a reduced display object or form 244 for an information area to be displayed.” EX1005, 10:46-51; FIG. 8; EX1003, ¶147. A POSITA would understand Lider teaches the comparison of “the area...in the view” (*i.e.*, “*one of the format and the characteristic of the user interface*”) with “the text and icons of the toolbar” (*i.e.*, “*one of the content and the format of the second navigation bar*”) to determine whether the user interface can contain the toolbar. EX1003, ¶148. Lider further teaches that “the reduced form can be displayed when any portion of the associated information area is outside the view 208...when an information area has a threshold amount of its area outside the view 208, or when any portion of the items displayed by the information area are outside the view 208.” EX1005, 10:54-59; FIG. 8; EX1003, ¶149.

A POSITA would understand Lider as teaching the comparison of, for example, the area of the information area and/or “the items displayed by the information area” (*i.e.*, “*one of the content and the format of the second navigation bar*”) with the area of the “view 208” (*i.e.*, “*one of the format and the*

characteristic of the user interface”) to determine whether the user interface can contain the toolbar. EX1003, ¶150. Based on Lider’s disclosures, a POSITA would further understand that such comparison would be made by Lider’s processor. EX1005, 19:30-32, 19:54-57; EX1003, ¶151.

v. Claim 5

a. [5.0]

See Claim 2, §VII(B)(ii).

b. [5.1]

Lider discloses and renders obvious the “*method as defined in claim 2, wherein if the second navigation bar is too large for the second user interface, the processor renders different user interface device.*” EX1003, ¶153.

Lider teaches the use of a processor to perform its methods. *See* §VII(B)(ii). Lider further teaches that if “the area of the vertical toolbar 238 displayed in the view 208 has been reduced” such that “the text and icons of the toolbar 238 can no longer be displayed completely in the view 208 [then] a feature allows a reduced display object or form 244 for an information area to be displayed.” EX1005, 10:46-51; FIG. 8; EX1003, ¶154.

A POSITA would thus understand Lider to disclose that if a navigation bar such as “vertical toolbar 238” is too large for the second user interface (*i.e.* “view 208”), then a “*different user interface device*” is rendered such as “reduced display object or form 244.” EX1003, ¶155.

Specifically, a POSITA would understand that rendering “*a different user interface device*” “*if the second navigation bar is too large for the second user interface*” is merely the simple substitution of one known user interface element (*i.e.*, horizontal toolbars, as Lider teaches) for another known user interface element (*e.g.* a vertical toolbar, vertically arranged information area, window, panel, or “reduced form” as Lider teaches) to obtain predictable results (*i.e.* display of user interface elements that are not too large to fit within the available area). EX1003, ¶156. A POSITA would have been able to successfully implement those design changes because Lider teaches how to display both horizontal toolbars and “[o]ther types of information areas besides toolbars” such as “windows or panels displaying controls and/or status information...in any desired configuration and/or position within the view 208.” EX1005, 8:13-17, 4:22-24; EX1003, ¶157.

It would also have been obvious for a POSITA to try rendering “*a different user interface device*” that is not too large such as, for example, the “types of information areas besides toolbars” Lider teaches (EX1005, 8:13-17, 4:22-24) in place of a “*second horizontal navigation bar [that] is too large for the second user interface,*” because doing so would have merely involved choosing from a finite number of identified user interface elements Lider discloses. EX1003, ¶158. Rendering a “*user interface device*” that is not too large for the available display area would be a predictable solution to the problem of “*the second navigation bar*

[being] *too large for the second user interface*,” and a POSITA would have a reasonable expectation of success due to Lider’s teaching of how to display multiple different types of “*user interface device*” such as vertical toolbars, vertically arranged information areas, windows, panels, and “reduced form” within the user interface (EX1005, 8:13-17, 4:22-24) as well as Lider’s use of size thresholds to determine whether the display can contain “*user interface devices*” other than horizontal toolbars such as, for example, vertical toolbars. *Id.* 17:16-19; EX1003, ¶159.

Lider’s disclosure of displaying “[o]ther types of information areas besides toolbars” within the user interface (EX1005, 8:13-17, 4:22-24) would have motivated a POSITA to combine this teaching with Lider’s disclosure of using size thresholds to determine whether something is too large to be displayed (*Id.*, 10:46-51, FIG. 8; *see also id.*, 17:16-19 (teaching “similar determinations can be made for...vertically arranged information areas such as vertical toolbars...”)) in order to cause “*a different user interface*” to be displayed in place of a second horizontal navigation bar “*if the second navigation bar is too large for the second user interface*.” A POSITA would have a reasonable expectation of success in implementing this combination because of Lider’s teachings. EX1003, ¶160.

Moreover, it would have been common sense for a POSITA to cause “*a different user interface device*” to be rendered in the user interface instead of a

second horizontal navigation bar after determining that “*if the second navigation bar is too large for the second user interface.*” *Cimline*, 413 F. App’x at 245. A POSITA would have been motivated to display Lider’s user interface with elements that are not too large to fit therein, and would have had a reasonable expectation of success in doing so due to Lider’s teaching of size thresholds to determine what is and is not too large to be displayed. EX1003, ¶161.

For all of these reasons, to the extent that Lider does not disclose the “*method as defined in claim 2, wherein if the second navigation bar is too large for the second user interface, the processor renders different user interface device*” doing so have been obvious to a POSITA. EX1003, ¶162.

Based on Lider’s disclosures, a POSITA would further understand that the “*different user interface device*” would be rendered by Lider’s processor. EX1005, 19:30-32, 19:54-57; EX1003, ¶163.

vi. Claim 6

a. [6.0]

See Claim 2, §VII(B)(ii).

b. [6.1]

Lider discloses and renders obvious the “*method as defined in claim 2, further compris[ing] the processor presenting the second user interface with the second navigation bar.*” EX1003, ¶165.

Lider teaches the use of a processor to perform its methods. *See* §VII(B)(ii).

Lider discloses “at least one processor...operative to perform operations comprising...causing a display by a device of a portion of a data presentation within a view in a graphical interface, the graphical interface displayed on a display of a display device,” and “causing a display of one or more information areas within the view” (EX1005, 22:50-54; 62-63), which “information areas” Lider teaches can be toolbars. *Id.*, 1:55-56; EX1003, ¶166. Additionally, as explained concerning Claim 1.2, Lider teaches that the display area defined by “view 208” can be replaced entirely with an email interface (*i.e., a second user interface*) and any associated toolbars. *See* §VII(B)(i)(c); EX1003, ¶167.

vii. Claim 7

a. [7.0]

See Claim 2, §VII(B)(ii).

b. [7.1]

While Lider does not explicitly use the phrase “drop-down navigation bar,” this limitation is inherently disclosed and would have been obvious in view of the knowledge of a POSITA. GUIs with “drop-down” menus predate both Lider and the ’168 Patent by decades, and would have been well known to a POSITA at the time of invention of the ’168 Patent. EX1003, ¶169.

For example, Webster’s New World Dictionary of Computer Terms from 1994 (“Webster’s”) defines “drop-down menu” as “[a] type of menu that drops

from the menu bar when requested and remains open without further action until the user closes it or chooses a menu item. Same as PULL-DOWN MENU.” EX10008, 191. Webster’s defines “pull-down menu” in relevant part as “[a] second-level menu, or list of commands, that appears from the top of the screen when a command needs to be given and then disappears when the selection has been made. A pull-down menu is usually used as an extension to a menu bar.” *Id.*, 473; EX1003, ¶170.

By way of a further non-limiting example, Microsoft Windows 1.0 was publicly released in 1985, and “[a]t the time of its release, Windows 1.0...introduced many computer users to drop-down menus, icons, and dialogue boxes.” EX1009; EX1003, ¶172.

A POSITA would have been familiar with Microsoft Windows 1.0 and its implementation of drop-down menus, and would have also understood that the above dictionary definitions accurately reflect the nature and functionality of drop-down menus as they would be known in the art. EX1003, ¶173. Indeed, much of the general public is likely familiar with drop-down menus given their ubiquitous use in common applications such as Microsoft Word.

The ’168 Patent teaches that a “Smart TV represents the trend of technological *convergence between computers and television sets.*” EX1001, 1:53-54. Because a “Smart TV” is effectively a television with a computer inside, a

POSITA would have been motivated to implement common, well-known computer GUI elements such as drop-down menus in the GUI of a “Smart TV.” EX1003, ¶174. This is because a POSITA would have understood that drop-down menus are very space-efficient and, because televisions are designed to be viewed from greater distances than computer monitors—*e.g.* from a couch instead of a desk chair—television user interface elements are typically large, necessitating efficient use of available display area. *Id.*, ¶175.

Similarly, Lider discloses “a television with one or more processors embedded therein” (EX1005, 19:24-25), which a POSITA would understand is a “Smart TV represent[ing] the...convergence between computers and television sets” as described by the ’168 Patent. EX1001, 1:53-54. Lider discloses that “[o]ther types of information areas besides toolbars can be displayed in the view 208. For example, windows or panels displaying controls and/or status information can be displayed, in any desired configuration and/or position within the view 208.” EX1005, 8:13-17. “Drop down menus” are covered by this broad disclosure and, therefore, inherently disclosed. EX1003, ¶176.

Moreover, a POSITA would recognize that drop-down menus are a type of “information areas besides toolbars,” as disclosed by Lider, and would thus have been motivated to implement common, well-known computer GUI elements such as drop-down menus in the GUI of Lider’s intelligent television. In addition, such

computing platforms allow the use of standard development tools which already implement common controls such as the well-known drop-down menus. EX1003, ¶177. Thus, it would have been obvious to a POSITA to determine whether a drop-down navigation bar, a well-known computer GUI element, is needed in the graphical user interface of an intelligent television—effectively a combined computer and TV—to efficiently utilize the available display area. EX1003, ¶178.

c. [7.2]

As explained concerning Claim 2.1, Lider teaches using a processor to perform its methods. As explained in Claim 7.1, drop-down menus were well known to a POSITA. EX1003, ¶179. Further, A POSITA would understand that microprocessors are responsible for carrying out and implementing functionality in an intelligent television, including rendering functions. EX1003, ¶180. For the reasons described above, *see* §VII(B)(vii)(a), it would have been obvious to a POSITA to program the processor of an intelligent television—a combined computer and TV—to render a drop-down navigation bar, a well-known computer GUI element, as the second navigation bar if it was determined that a drop-down navigation bar was needed to efficiently utilize the available display area. EX1003, ¶181.

d. [7.3]

Lider teaches that “both horizontal and vertical toolbars are displayed within the view 208.” EX1005, 7:43-44. Further, “[i]n some implementations, vertical toolbar 236 can be displayed...” *Id.*, 9:24-25; EX1003, ¶182. Lider describes the use of size thresholds to determine the number of horizontal toolbars that can be displayed within a view (*e.g.*, *id.*, 17:3-14), and further teaches that “similar determinations can be made for...vertically-arranged information areas such as vertical toolbars 236 and 238 of FIG. 2.” *Id.*, 17:16-19; EX1003, ¶183.

A POSITA would understand that drop-down menus may be needed in situations where, for example, available display area is limited and, therefore, a list of user-selectable options should be displayed only when the user wants to access those options. EX1003, ¶184. If a POSITA determined that a drop-down menu was not needed—for example, where sufficient available display area exists to display a list of user-selectable options constantly rather than hidden in a drop-down menu—it would have been obvious to render a vertical navigation bar in view of Lider’s teachings. Lider discloses, for example, that “vertical toolbar 238” is displayed in “view 208” when there is sufficient space, and that a “reduced display object or form 244” is displayed instead when there is insufficient space to display “vertical toolbar 238.” EX1005, 10:46-64; EX1003, ¶185. In other words, Lider teaches displaying a vertical navigation bar when there is enough available display

space to do so. Further, A POSITA would understand that microprocessors are responsible for carrying out and implementing functionality in an intelligent television, including rendering functions. EX1003, ¶186. Thus, it would have been obvious to a POSITA to program the processor to render a vertical navigation bar as the second navigation bar if it was determined that a drop-down navigation bar was not needed. EX1003, ¶187.

Specifically, it would have been obvious to a POSITA that rendering “*a vertical navigation bar*” “*if the drop-down navigation bar is not needed*” is merely the simple substitution of one known user interface element (*i.e.*, vertical navigation bars, as Lider teaches (*see, e.g.*, EX1005, 9:24-25) for another known user interface element (*e.g.* drop-down menus) to obtain predictable results (*i.e.* avoiding the display of user interface elements that are determined to be “not needed”). A POSITA would have been able to successfully implement those design changes because Lider teaches how to display vertical toolbars (*Id.*, 7:43-44, 9:24-25) as well as how to use size thresholds to determine whether a vertical toolbar will fit within the available display area. *Id.*, 17:16-19; EX1003, ¶188. A POSITA would have been motivated to cause a “*vertical navigation bar*” to be rendered if a drop-down menu is not needed because Lider teaches displaying a vertical navigation bar when there is enough available display space to do so. EX1005, 10:46-64; EX1003, ¶189.

It would also have been obvious for a POSITA to try causing Lider's processor to render "*a vertical navigation bar*" "*if the drop-down navigation bar is not needed,*" because doing so would have merely involved choosing from a finite number of identified user interface elements Lider discloses. Causing Lider's processor to render "*a vertical navigation bar*" instead of an un-needed drop-down menu would be a predictable solution because Lider teaches that vertical navigation bars should be displayed when there is enough room to do so, and a POSITA would have a reasonable expectation of success due to Lider's teachings. EX1005, 10:46-64, 17:16-19 (teaching use of size thresholds to determine whether a vertical toolbar can be displayed); EX1003, ¶190.

Based on Lider's disclosures, a POSITA would further understand that the "*vertical navigation bar*" would be rendered by Lider's processor. EX1005, 19:30-32, 19:54-57; EX1003, ¶192.

viii. Claim 10

Claim 10 is identical to Claim 6. *See* Claim 6, §VII(B)(vi). EX1003, ¶193.

ix. Claim 11

a. [11.0]

As explained concerning Claim 1.0, §VII(B)(i)(a), Lider discloses a "television with one or more processors embedded therein and/or coupled thereto." EX1005, 19:24-25. Thus, Lider discloses and renders obvious "*an intelligent television system.*" EX1003, ¶¶194-195.

b. [11.1]

Lider discloses and renders obvious “*a memory operable to store social media data*” by disclosing “Memory 504,” which “may be any suitable processor-readable storage medium, such as random access memory (RAM), read-only memory (ROM), Electrical Erasable Read-only Memory (EEROM), Flash memory, etc...” EX1005, 19:45-52. “[M]emory 504...can store data for data presentations, information areas, graphical interfaces, and other data used in the features described herein.” *Id.*, 19:60-63; EX1003, ¶196.

Additionally, users “can receive information, status, messages and notifications from other users and a social network via *a social network* system...” EX1005, 5:17-19; *see also* FIG. 1 (depicting client devices communicating via a network with a server system that includes a “Social Network Database”); EX1003, ¶197. Lider teaches that “server system 102 provides appropriate data to the client devices such that each client *device can receive shared content uploaded to the social network system* via the server system 102.” *Id.*, 5:24-27. “[T]he graphical interface can display a data presentation, such as *content provided by one or more users of the social network system*. The data presentation can be provided by the server device 104 to one or more client devices 120-126 over the network 130.” *Id.*, 5:48-52; EX1003, ¶198. A POSITA would thus understand that Lider teaches a “*memory operable to store social media data*.” EX1003, ¶199.

c. [11.2]

Lider discloses and renders obvious “a processor in communication with the memory” by disclosing “device 500” that includes a “Processor 502” in communication with a “Memory 504” as shown in annotated Figure 10 below.

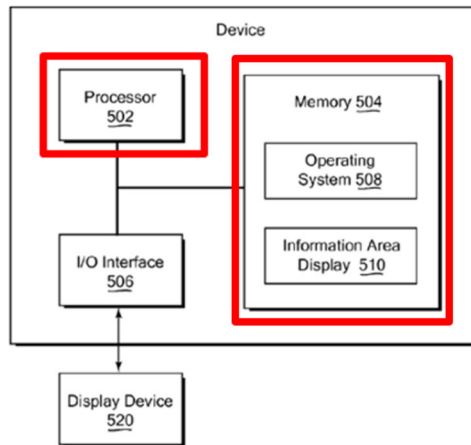


FIG. 10

EX1005, FIG. 10; EX1003, ¶200. A POSITA would understand from Lider’s Figure 10 that the components depicted in the “device 500” box, such as “Processor 502,” “Memory 504,” and “I/O Interface 506” are “in communication” with one another based on the connection between those components in Figure 10. EX1003, ¶201.

Additionally, “Processor 502,” depicted in Figure 10, “can be one or more processors or processing circuits to execute program code and control basic operations of the device 500.” *Id.*, 19:30-32; EX1003, ¶202. Lider further discloses that the “processor” is “programmed” by disclosing “software for display of

information areas” that “can include instructions that enable processor 502 to perform functions described herein...” EX1005, 19:54-57; EX1003, ¶203. Thus, Lider discloses a “*processor in communication with the memory, the processor programmed to*” perform the remaining claim limitations as explained below. EX1003, ¶204.

d. [11.3]

Lider discloses and renders obvious that the processor is programmed to “*execute a user interface application*” by teaching that “[t]he view can be displayed within an application program interface, such as a window of a web browser or other program.” EX1005, 4:13-15; EX1003, ¶205. Lider further discloses that “the GUI 200 can be displayed as part of an operating system or application running on a client device or server device.” EX1005, 6:2-4. As Lider expressly describes, its implementations can take “the form of a computer program product accessibly stored on a computer-readable medium providing program instructions or code for use by or implemented by a computer or any instruction execution system, such as one or more processors...” *Id.*, 14:5-9; EX1003, ¶206. “[M]ethod 300 of displaying information areas in a view of a graphical interface” Lider explains, “can be a component of an application running on the client device, or a separate application or software running in conjunction with other applications and operating system [sic].” *Id.*, 13:61-63; 14:18-21; EX1003, ¶207. Thus, a

POSITA would understand that Lider's processor is programmed to "*execute a user interface application.*" EX1003, ¶208.

e. [11.4]

See Claim 1.1, §VII(B)(i)(b). "Any suitable programming language and programming techniques may be user to implement the routines" Lider teaches, and "the routines may be executed on a single processing device or multiple processors." EX1005, 20:44-45; 20:48-49. Because Lider's user interface application necessarily runs on the processor, a POSITA would understand that Lider discloses that the user interface application performs this claimed functionality. EX1003, ¶209.

f. [11.5]

See Claim 1.2, §VII(B)(i)(c). Because Lider's user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), a POSITA would understand that Lider discloses that the user interface application performs this claimed functionality. EX1003, ¶210.

g. [11.6]

See Claim 1.3, §VII(B)(i)(d). Because Lider's user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), a POSITA would understand that Lider discloses that the user interface application performs this claimed functionality. EX1003, ¶211.

h. [11.7]

See Claim 1.4, §VII(B)(i)(e). Because Lider’s user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), a POSITA would understand that Lider discloses that the user interface application performs this claimed functionality. EX1003, ¶212.

x. Claim 12

a. [12.0]

See Claim 11, §VII(B)(ix).

b. [12.1]

See §VII(B)(ii). Because Lider’s user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), a POSITA would understand that Lider discloses that the user interface application performs this claimed functionality. EX1003, ¶215.

c. [12.2]

See §VII(B)(iii). Because Lider’s user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), a POSITA would understand that Lider discloses that the user interface application performs this claimed functionality. EX1003, ¶216.

d. [12.3]

See §VII(B)(vi). Because Lider’s user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), a POSITA would understand

that Lider discloses that the user interface application performs this claimed functionality. EX1003, ¶217.

xi. Claim 13

a. [13.0]

See Claim 12, §VII(B)(x). EX1003, ¶218.

b. [13.1]

See Claim 4, §VII(B)(iv). EX1003, ¶219.

c. [13.2]

See Claim 5 §VII(B)(v). EX1003, ¶220.

xii. Claim 14

a. [14.0]

See Claim 12, §VII(B)(x). EX1003, ¶221.

b. [14.1]

See Claim 7.1, §VII(B)(vii)(a). Because Lider's user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), a POSITA would understand that Lider discloses that the user interface application performs this claimed functionality. EX1003, ¶222.

c. [14.2]

See Claim 7.2, §VII(B)(vii)(c). Because Lider's user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), a POSITA

would understand that Lider discloses that the user interface application performs this claimed functionality. EX1003, ¶223.

d. [14.3]

See Claim 7.3, §VII(B)(vii)(d). Because Lider’s user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), a POSITA would understand that Lider discloses that the user interface application performs this claimed functionality. EX1003, ¶224.

e. [14.4]

Although Lider does not explicitly use the phrases “drop-down” or “top-level categories,” this limitation is inherently disclosed and would have been obvious in view of the knowledge of a POSITA. EX1003, ¶225.

As discussed in §VII(B)(vii)(b), “drop-down menu” and “pull-down menu” were defined and described in general dictionaries. EX1008, 191, 473; EX1003, ¶227. A POSITA would have understood from these definitions that a drop-down menu or pull-down menu is a “second-level menu” and, thus, would understand that a drop-down menu or pull-down menu is “associated with top-level categories presented in the drop-down navigation bar,” the selection of which “top-level categories” could cause the display of a drop-down menu (*i.e.*, “menu that drops from the menu bar when requested”). EX1003, ¶228.

Thus, the limitation “*wherein the drop-down navigation bar includes one or*

more drop down menus associated with top-level categories presented in a drop-down navigation bar” would have been obvious to a POSITA. EX1003, ¶229.

With respect to the limitation “wherein the vertical navigation bar includes categories presented vertically in the second user interface,” Lider teaches that “both horizontal and vertical toolbars are displayed in the view 208.” EX1005, 7:43-44. As shown below, for example, Lider Figure 2 (annotated) depicts “vertical toolbar 236” and “vertical toolbar 238.” *Id.*, 9:24; 9:30; FIG. 2; EX1003, ¶230.

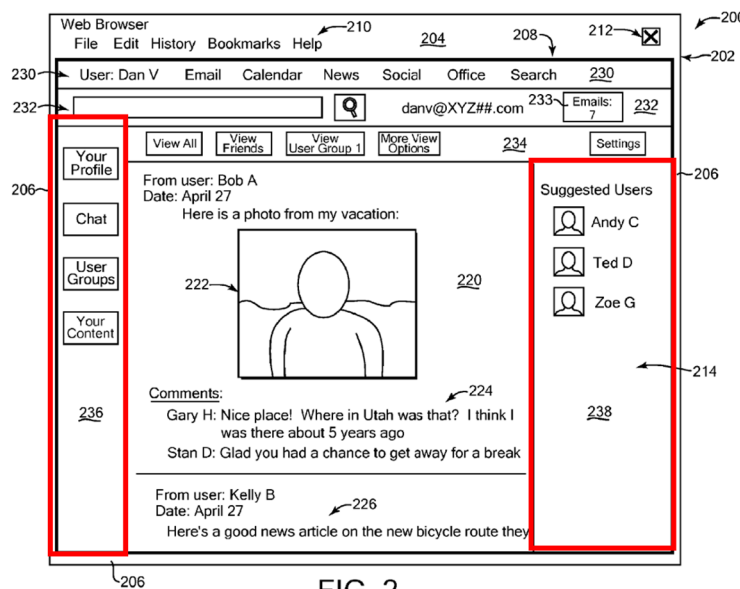


FIG. 2

Lider teaches, for example, that “vertical navigation toolbar 236 displays several options related to social network functions, such as displaying the user’s profile information, displaying a chat interface to talk or type text to communicate with other users, displaying a list of the user’s user groups (such as “circles” or friends lists), and displaying the user’s own posted content.” EX1005, 8:1-6; FIG.

2. Lider further teaches, for example, that “right side toolbar 238 can display a number of suggested users which have been found to be related to the viewing user through friends or contacts. Other information can also be displayed in the right side toolbar 238 depending on the other screens or interfaces selected from toolbars 236 or 230, such as a chat window, news items, etc.” *Id.*, 9:7-12; EX1003, ¶231.

Lider discloses and renders obvious that “*the vertical navigation bar includes categories presented vertically in the second user interface.*” For all of the reasons explained above, Lider discloses and renders obvious Claim 14 in view of the knowledge of a POSITA. EX1003, ¶232.

xiii. Claim 15

See Claim 12, §VII(B)(x). Claim 15 depends from Claim 12, but is identical in scope to Claim 12 because the limitation in Claim 15 is substantively identical to the last limitation in Claim 12. EX1003, ¶233.

C. Ground 2: Claims 1-7, and 10-15 Are Obvious Under 35 U.S.C. § 103(a) over Lider in view of Eibl and the Knowledge of a POSITA

i. Reasons to Combine Lider and Eibl

A POSITA would have found it obvious to combine Lider with Eibl. EX1003, ¶234. Both references relate to GUIs. EX1003, ¶235. Lider discloses a GUI for display on a device, which Lider teaches “can be *any suitable* computer system, server, or other *electronic device or hardware device.*” EX1005, 19:19-20.

Lider teaches that the device upon which the GUI is displayed “includes a processor...a memory...and input-output (I/O) interface...” *Id.*, 19:27-29; EX1003, ¶236. Similarly, Eibl discloses a GUI for display on a measuring device comprising a display device, a processing device, and a databank. EX1006, [0010]-[0011]; EX1003, ¶237. Thus, both Lider and Eibl are directed to providing GUIs on electronic devices. EX1003, ¶238.

Lider teaches altering the user interface in response to changes in the view size. *See, e.g.*, EX1005, 10:46-59; 15:39-16:29. Different user interface devices, such as toolbars, windows, and panels, can be displayed in the view depending on the determined view size. *Id.*, 3:63-66; 4:22-24; 8:13-17; 10:46-59; 15:39-16:29. EX1003, ¶239. In Lider, a given user interface device might have two display forms such as, for example, a normal form that is displayed when the available view size is sufficient, and a “reduced form” that is displayed “based on one or more of various conditions” such as, for example, when “the text and icons of the toolbar 238 can no longer be displayed completely in the view 208,” “when any portion of the associated information area is outside the view 208 and not displayed in the view 208, when an information area has a threshold amount of its area outside the view 208, or when any portion of the items displayed by the information area are outside the view 208.” EX1005, 10:46-59; EX1003, ¶240.

Eibl's display device provides a GUI for a measuring device such as, for example, an oscilloscope, wherein the display device displays a number of dialogs, and wherein the user interface is adaptable such that the content, position, form, etc., of the dialogs may be changed during operation of the measuring device. EX1006, [0008]. Because the display device "preferably displays several dialogs side-by-side and/or one above the other and/or superimposed," Eibl teaches its invention "guarantees a high information content of the display." *Id.*, [0014]; EX1003, ¶241.

While slight differences exist between the GUIs in Lider and Eibl, a POSITA would have understood that the adaptable dialog GUI designs from the Eibl device, such as drop-down menus, would have been useful in combination with the GUI of Lider's "intelligent television" to achieve the "high information content of the display" as taught by Eibl. A POSITA would have understood that drop-down menus allow the efficient use of available display area because they only display items when a user wants to access them. A POSITA would have been successfully able to implement those design changes. EX1003, ¶242.

Specifically, a POSITA would have understood that this combination is merely the simple substitution of one known user interface element (*e.g.* drop-down menus as taught by Eibl and well-known in the art for decades) for another (*e.g.* the horizontal and vertical toolbars, vertical information areas, windows,

panels and other user interface elements taught by Lider) to obtain the predictable result of displaying a GUI that makes efficient use of the available display area. EX1003, ¶243. Together, Lider and Eibl detail various aspects of a graphical user interface that presents user-selectable controls and provides an explicit motivation to combine. *Cimline*, 413 F. App’x at 245. EX1003, ¶244. A motivation to combine may also be found based on the “background knowledge, creativity, and common sense of [a] person of ordinary skill.” *Cimline, Inc.*, 413 F. App’x at 245. Here, drop-down menus were well-known and within a POSITA’s background knowledge, as reflected by even general dictionary definitions. EX1003, ¶245.

Lider teaches that “[o]ther types of information areas besides toolbars *can be displayed* in the view 208. For example, windows or panels displaying controls and/or status information can be displayed, *in any desired configuration and/or position within the view* 208.” EX1005, 8:13-17. Thus, Lider provides a POSITA with an express motivation to combine the teachings of Lider with references teaching “other types of information areas” displayable within a GUI, such as Eibl’s teaching of a drop-down menu. EX1003, ¶246.

Eibl is a natural extension of Lider and complements Lider by disclosing additional details relating to GUI design and generation, including using adaptable elements such as drop-down menus to generate GUIs. EX1003, ¶247. It would have been obvious to a POSITA to implement Eibl’s drop-down menu on Lider’s

intelligent television GUI if it was determined that a drop-down menu was needed. EX1003, ¶248.

The combination of Lider and Eibl merely combines prior art elements (*e.g.*, drop-down menus, processors, GUIs) according to known methods (*e.g.*, generating and presenting of adaptable GUIs) to yield predictable results (*e.g.*, provide the user with an ordered GUI with user-selectable controls). EX1003, ¶249.

The combination is nothing more than applying a known technique (*e.g.*, generating a drop-down menu in a GUI) to improve the similar GUI of Lider efficiently utilizing the available screen space by using drop-down menus, which a POSITA would understand are space-efficient because they only display items when a user wants to access them. EX1003, ¶250.

The results would have been predictable, and there would have been a reasonable expectation of success in the combination given that Lider teaches and/or suggests the use of “other types of information areas besides toolbars” such as “windows or panels displaying controls and/or status information.” *Id.* Eibl provides further details relating to the “other types of information areas besides toolbars” Lider contemplates. EX1005, 8:13-17. Eibl discloses and teaches a well-known user interface element—drop-down menus—which a POSITA would understand as a type of “windows or panels displaying controls and/or status

information,” as taught by Lider. EX1003, ¶251. A POSITA would have been able to successfully implement Eibl’s drop-down menu in Lider’s intelligent television GUI. EX1003, ¶252.

ii. Claim 1

See Claim 1, §VII(B)(i). EX1003, ¶253.

iii. Claim 2

See Claim 2, §VII(B)(ii). EX1003, ¶254.

iv. Claim 3

See Claim 3, §VII(B)(iii). EX1003, ¶255.

v. Claim 4

See Claim 4, §VII(B)(iv). EX1003, ¶256.

vi. Claim 5

See Claim 5, §VII(B)(v). EX1003, ¶257.

vii. Claim 6

See Claim 6, §VII(B)(vi). EX1003, ¶258.

viii. Claim 7

a. [7.0]

See Claim 2, §VII(B)(ii). EX1003, ¶259.

b. [7.1]

To the extent Lider does not inherently disclose a “drop-down navigation bar,” this limitation would have been obvious in view of the teachings of Eibl. EX1003, ¶260.

Eibl discloses “drop-down menus,” for example, “input fields 10 [and] 11” depicted in annotated Figure 2 below. EX1006, [0028]; FIG. 2; EX1003, ¶261.

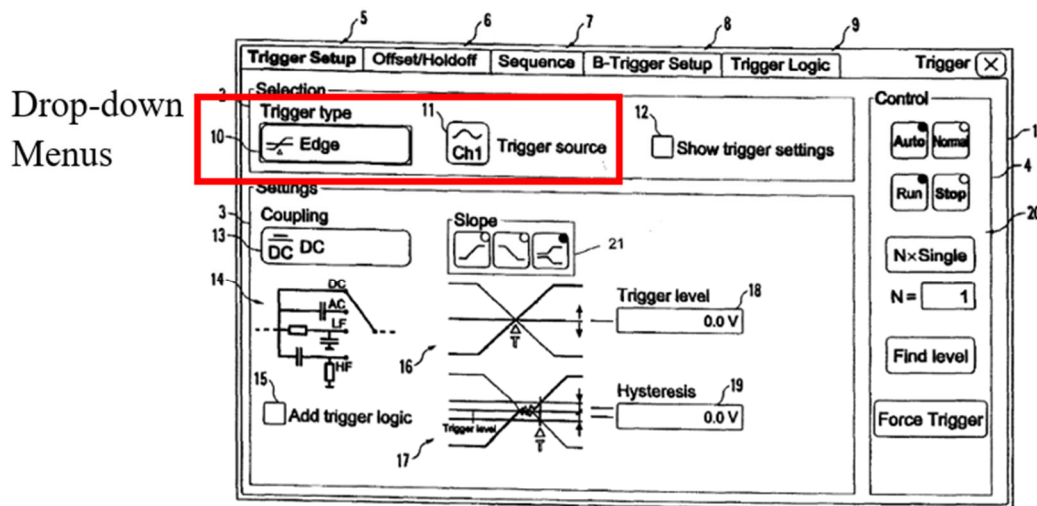


Fig. 2

Eibl teaches that “[i]f the input field 10 or 11 is selected, a list of selection options...is rolled down.” *Id.* Eibl Figure 3, annotated below, “shows a second dialog” depicting “after the selection of the input field 10,” which Eibl teaches “leads to the rolling down of selection list 40 with preset options.” *Id.*, [0033]; FIG. 3; EX1003, ¶262.

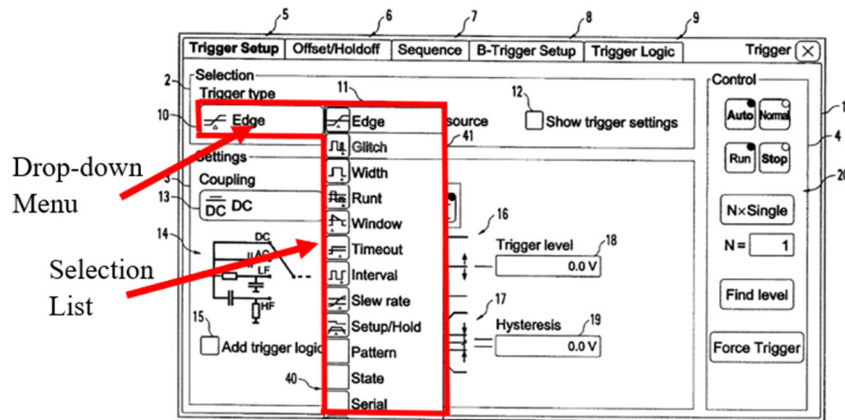


Fig. 3

Eibl further discloses drop-down menus with different formats than, for example, “input field 10” depicted in Figure 2. For example, Eibl Figure 5, annotated below, depicts “drop-down menu 63.” EX1006, [0038]; FIG. 5; EX1003, ¶263.

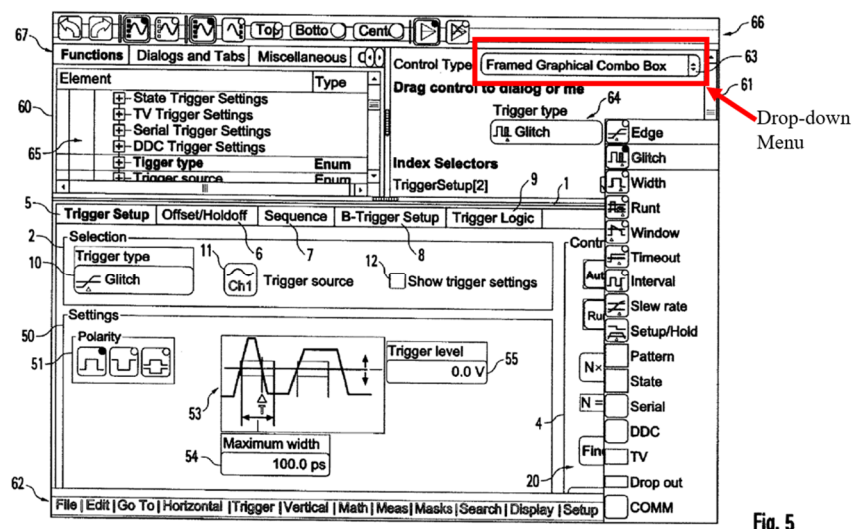


Fig. 5

Figure 6 of Eibl, annotated below, depicts “the dialog shown in FIG. 5 after the selection of the drop-down menu 63.” EX1006, [0040]; FIG. 6. Eibl teaches that “drop-down menu 63 is rolled down here after selection. A list of possible display types 80...is now displayed.” *Id.*; EX1003, ¶264.

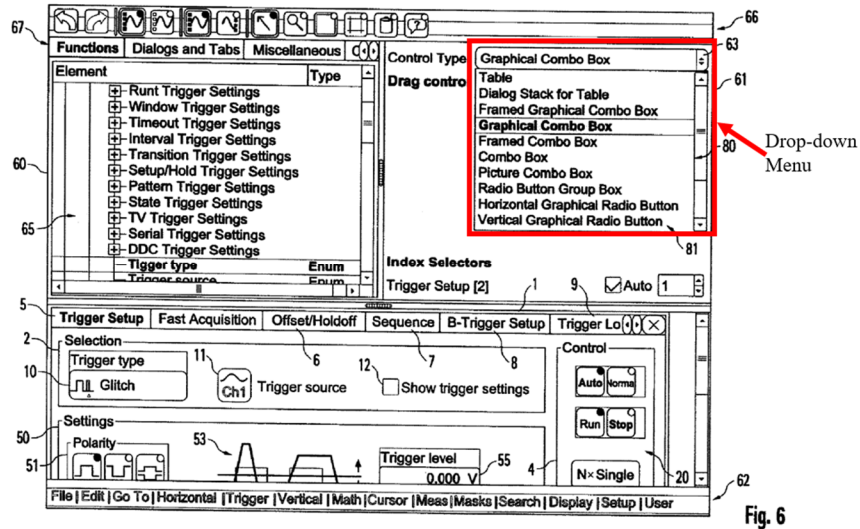


Fig. 6

At a minimum, it would have been obvious to a POSITA that a processor determines if a drop-down navigation bar, such as the drop-down menus taught by Eibl, was needed in Lider's GUI. EX1003, ¶265. This would involve using a known user interface element (drop-down menus) to achieve a predictable result, wherein a POSITA would have a reasonable expectation of success in implementing the design. *Id.* A POSITA would have been motivated to design Lider's GUI such that a processor determines whether a drop-down navigation bar was needed because, as explained in §VII(B)(vii), a POSITA would have understood that drop-down menus are space-efficient. EX1003, ¶266. This combination is consistent with Eibl's teaching that its user interface elements, such as drop-down menus, "guarantee[] a high information content of the display." EX1006, [0014]. This combination is consistent with Lider's teaching that "[o]ther types of information areas besides toolbars can be displayed...in any desired

configuration and/or position within the view...” EX1005, 8:13-17; EX1003, ¶267.

Lider expressly teaches using a processor to perform the functionalities it discloses. *See id.*, FIG. 10, 19:30-32, 19:54-57; EX1003, ¶128.

This limitation would also have been obvious in view of the knowledge of a POSITA. As explained in §VII(B)(vii), graphical user interfaces with “drop-down” menus predate both Lider and the ’168 Patent by decades, and would have been well known to a POSITA as being space efficient at the time of invention of the ’168 Patent. EX1003, ¶268.

Thus, it would have been obvious to a POSITA that a processor determines whether a drop-down navigation bar is needed in the GUI of an intelligent television to efficiently utilize the available display area. EX1003, ¶270.

c. [7.2]

Lider teaches the use of a processor to perform its methods. *See* §VII(B)(ii). EX1003, ¶271. As explained in Claim 7.1, Eibl teaches multiple different formats of “drop-down menu” that can be displayed on a GUI. Eibl teaches, for example, that “[i]f the input field 10 or 11 is selected, a list of selection options...is rolled down.” EX1006, [0028]. Figure 3, annotated below, “shows a second dialog” depicting “after the selection of the input field 10,” which, Eibl teaches, “leads to the rolling down of selection list 40 with preset options.” *Id.*, [0033]; FIG. 3; EX1003, ¶272.

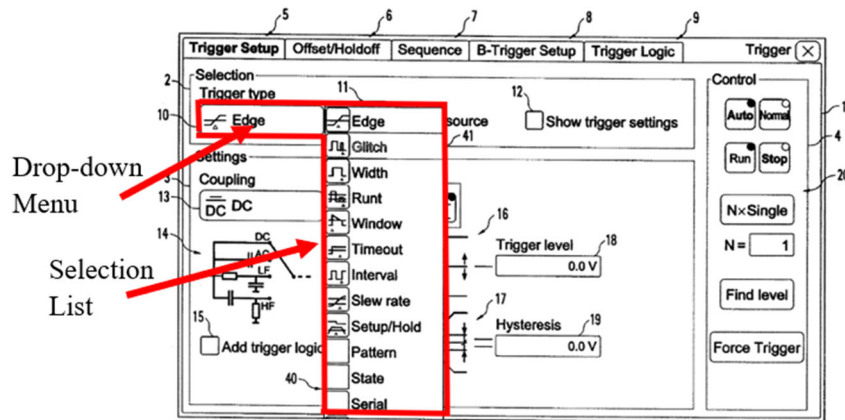


Fig. 3

Figure 6 of Eibl, annotated below, depicts “the dialog shown in FIG. 5 after the selection of the drop-down menu 63.” EX1006, [0040]; FIG. 6. “[D]rop-down menu 63 is rolled down here after selection. A list of possible display types 80...is now displayed.” *Id*; EX1003, ¶273.

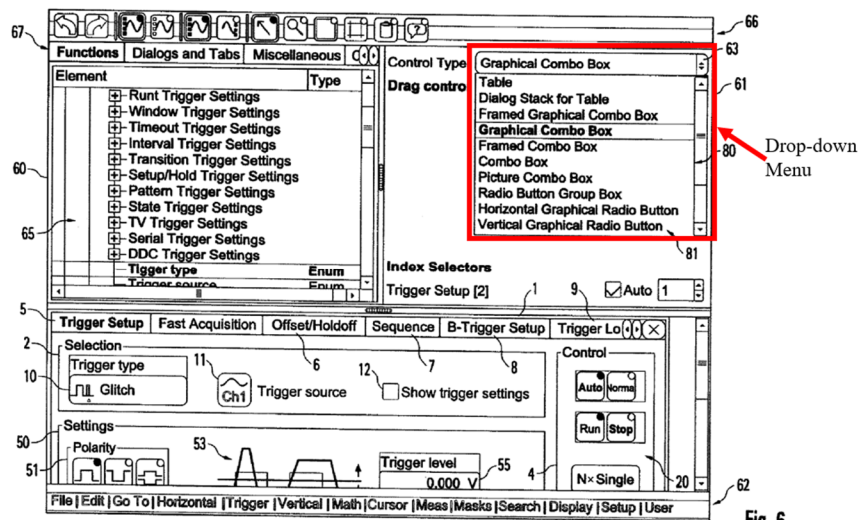


Fig. 6

At a minimum, it would have been obvious to a POSITA for a processor to render a drop-down navigation bar, such as the drop-down menus taught by Eibl, if it was determined that a drop-down navigation bar was needed in the GUI of Lider to efficiently use available screen space. This would involve the use of a known

user interface element (drop-down menus) to achieve a predictable result—the display of items in a drop-down menu only when the user wants to access them (*see, e.g.*, EX1006, “drop-down menu 63 is rolled down here after selection”)—wherein a POSITA would have a reasonable expectation of success of implementing the design. EX1003, ¶274. A POSITA would have been motivated to design Lider’s GUI in this way for a processor to render a drop-down menu because Eibl teaches that its user interface elements, such as drop-down menus, “guarantee[] a high information content of the display” (EX1006, [0014]) and, as explained in §VII(B)(vii), a POSITA would have understood that drop-down menus are space-efficient. EX1003, ¶275.

Moreover, drop-down menus were well known to a POSITA. It would have been obvious to a POSITA for a processor to render a drop-down navigation bar as the second navigation bar if it was determined that a drop-down navigation bar was needed in order to efficiently use available screen space. EX1003, ¶276.

d. [7.3]

See Claim 7.3, §VII(B)(vii)(c). EX1003, ¶277.

ix. Claim 10

See Claim 10, §VII(B)(viii). EX1003, ¶279.

x. Claim 11

See Claim 11, §VII(B)(ix). EX1003, ¶280.

xi. Claim 12

See Claim 12, §VII(B)(x). EX1003, ¶281.

xii. Claim 13

See Claim 13, §VII(B)(xi). EX1003, ¶282.

xiii. Claim 14

a. [14.0]

See Claim 12, §VII(B)(x). EX1003, ¶283.

b. [14.1]

See Claim 7.1, §VII(B)(vii)(a). Because Lider's user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), a POSITA would understand that Lider discloses that the user interface application performs this claimed functionality. EX1003, ¶284.

c. [14.2]

See Claim 7.2, §VII(B)(vii)(c). Because Lider's user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), a POSITA would understand that Lider discloses that the user interface application performs this claimed functionality. EX1003, ¶285.

d. [14.3]

See Claim 7.3, §VII(B)(vii)(d). Because Lider's user interface application necessarily runs on the processor (*see* EX1005, 20:44-45; 20:48-49), a POSITA

would understand that Lider discloses that the user interface application performs this claimed functionality. EX1003, ¶286.

e. [14.4]

To the extent Lider does not inherently disclose this limitation, it would have been obvious in view of Eibl. EX1003, ¶287.

Eibl teaches multiple different formats of “drop-down menu” that can be displayed on a GUI. For example, “[i]f the input field 10 or 11 is selected, a list of selection options...is rolled down.” EX1006, [0028]. Figure 3 “shows a second dialog” depicting “after the selection of the input field 10,” which “leads to the rolling down of selection list 40 with preset options.” *Id.*, [0033]; FIG. 3; EX1003, ¶288. Figure 6 of Eibl depicts “the dialog shown in FIG. 5 after the selection of the drop-down menu 63.” EX1006, [0040]; FIG. 6. Eibl teaches that “drop-down menu 63 is rolled down here after selection. A list of possible display types 80...is now displayed.” *Id.*; EX1003, ¶289. Thus, Eibl teaches one or more drop-down menus that are associated with top-level categories such as, for example, “input field to” and “drop-down menu 63,” which are examples of top-level categories that can be selected by a user, which selections cause the display of a drop-down menu. EX1003, ¶290.

Moreover, as explained concerning Claim 14.1 and 14.2, §VII(B)(xii)(b)-(c), this limitation would have been obvious in view of the knowledge of a POSITA. EX1003, ¶291.

Concerning the “*wherein the vertical navigation bar includes categories presented vertically in the second user interface*” limitation, Lider teaches that “both horizontal and vertical toolbars are displayed in the view 208.” EX1005, 7:43-44. Lider Figure 2, annotated below, depicts “vertical toolbar 236” and “vertical toolbar 238.” *Id.*, 9:24; 9:30; FIG. 2; EX1003, ¶292.

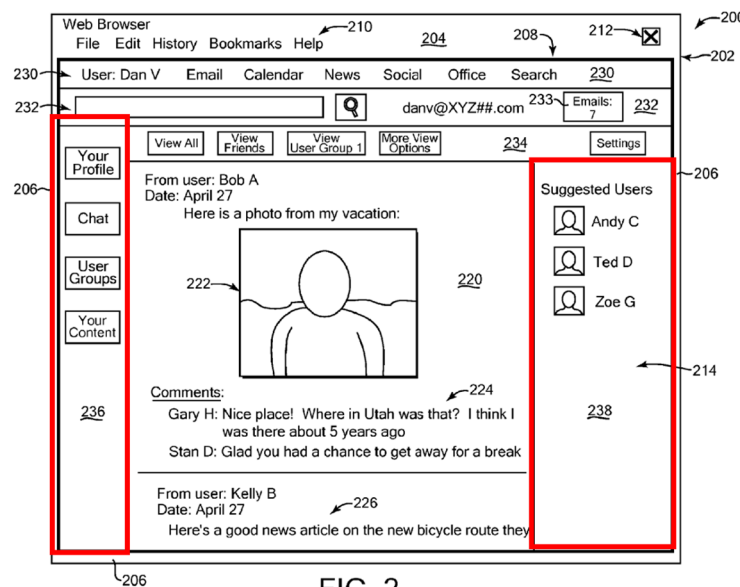


FIG. 2

For example, “vertical navigation toolbar 236 displays several options related to social network functions, such as displaying the user’s profile information, displaying a chat interface to talk or type text to communicate with other users, displaying a list of the user’s user groups (such as “circles” or friends lists), and displaying the user’s own posted content.” EX1005, 8:1-6; EX1003,

¶239. Additionally, “right side toolbar 238 can display a number of suggested users which have been found to be related to the viewing user through friends or contacts. Other information can also be displayed in the right side toolbar 238 depending on the other screens or interfaces selected from toolbars 236 or 230, such as a chat window, news items, etc.” EX1005, 9:7-12; EX1003, ¶294.

xiv. Claim 15

See §VII(B)(xiii). EX1003, ¶297.

VIII. DISCRETIONARY DENIAL WOULD BE INAPPROPRIATE

A. Discretionary Denial Under the *Fintiv* Factors Is Not Appropriate

The *Fintiv* factors favor institution. (1) No motion to stay has been filed. (2) The trial date is not guaranteed as Petitioner moved to dismiss the co-pending litigation under Federal Rule 12(b)(3), and Patent Owner’s opposition asked, in the alternative, to transfer to the Central District of California. EX1050; EX-1051, 22. (3) The co-pending litigation is still relatively early, and much work remains. (4) Petitioner stipulates that if instituted, it will not pursue in District Court the grounds asserted here. (5) Petitioner’s involvement in the parallel proceeding should not be a basis for denying institution. (6) “[T]he PTAB will not rely on the *Fintiv* factors to discretionarily deny institution in view of parallel district court litigation where a petition presents compelling evidence of unpatentability”—this Petition presents such compelling evidence and should end the inquiry. *See* June 21, 2022 Director Memo., p. 2. Accordingly, discretionary denial is inappropriate.

B. Discretionary Denial Under 35 U.S.C. § 325(d) Is Not Appropriate

Denial under § 325(d) is not warranted because the challenges presented in this petition are neither cumulative nor redundant to the prosecution of the '168 Patent.

IX. CONCLUSION

For the foregoing reasons, the challenged claims are unpatentable.

Dated: March 22, 2024

Respectfully Submitted,

/Steven W. Hartsell/

Steven W. Hartsell (Reg. No. 58,788)
Lead Counsel for Patent Owner

X. MANDATORY NOTICES

A. Real Party in Interest (§42.8(b)(1))

The real party-in-interest of this petition pursuant to 37 C.F.R. 42.8(b)(1) is VIZIO, Inc.

B. Related Proceedings

The '168 Patent is involved in the following proceedings:

- *Multimedia Technologies Pte. Ltd. v. VIZIO, Inc.*, No. 2:22-cv-00124 (E.D. Tex.).
- *Multimedia Technologies Pte. Ltd. v. LG Electronics Inc. and LG Electronics USA, Inc.*, No. 2:22-cv-00494 (E.D. Tex.).

C. Lead and Back-up Counsel (§42.8(b)(3))

Lead counsel is Steven W. Hartsell (Reg. No. 58,788). Back-up counsel is Rex Hwang (Reg. No. 56,206).

D. Service Information (§42.8(b)(4))

Petitioner consents to service in this proceeding by email at VIZIO_SDTeam@skiermontderby.com.

E. Fee for Inter Partes Review (§ 42.15(a))

The director is authorized to charge any fees during this proceeding to Deposit Account No. DA506293.

CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24(d), Petitioner hereby certifies, in accordance with and in reliance on the word count provided by the word-processing system used to prepare this Petition, that the number of words in this paper is 13,854.

Pursuant to 37 C.F.R. § 42.24(d), this word count excludes the table of contents, table of authorities, mandatory notices under § 42.8, certificate of service, certificate of word count, appendix of exhibits, and any claim listing.

Dated: March 22, 2024

Respectfully Submitted,

/Steven W. Hartsell/

Steven W. Hartsell (Reg. No. 58,788)
Lead Counsel for Petitioner

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e) and 37 C.F.R. § 42.105, I certify that I caused to be served on counsel for Patent Owner a true and correct copy of the foregoing Petition for *Inter Partes* Review Under 35 U.S.C. § 312 and 37 C.F.R. §§ 42.104 on March 22, 2024 by delivering a copy to the attorneys of record for Patent Owner as follows:

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