

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MICROSOFT CORPORATION,
HP INC., DELL INC., DELL TECHNOLOGIES INC.,
ASUSTEK COMPUTER INC., ASUS GLOBAL PTE. LTD.,
Petitioners

v.

LITL LLC,
Patent Owner.

IPR2024-00458

U.S. Patent No. 10,564,818

**PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 10,564,818**

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EXHIBIT LIST

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1001	U.S. Patent No. 10,564,818 (“the ’818 patent”)
1002	File History of the ’818 patent
1003	Declaration of Dr. Henry Houh in Support of Petition (“Houh Decl.”)
1004	Dr. Henry Houh CV
1005	U.S. 90/014,958 Ex Parte Reexamination File History
1006	German Patent Application Publication DE10331185A1 (“Pröll”) with certified translation
1007	U.S. Patent 6,137,468 (“Martinez”)
1008	Joan Preppernau & Joyce Cox, <i>Step By Step Windows Vista</i> , Microsoft Press (Jan. 3, 2007) (“Preppernau”)
1009	U.S. Patent 5,847,698 (“Reavey”)
1010	RESERVED
1011	RESERVED
1012	RESERVED
1013	RESERVED
1014	RESERVED
1015	Declaration of June Munford
1016	Complaint, <i>LiTL LLC v. ASUSTeK Computer Inc.</i> , No. 23-cv-00122 (D. Del. Feb. 1, 2023)
1017	Complaint, <i>LiTL LLC v. Dell Techs. Inc.</i> , No. 23-cv-0121 (D. Del. Feb. 1, 2023)
1018	Complaint, <i>LiTL LLC v. HP Inc.</i> , No. 23-cv-00120 (D. Del. Feb. 1, 2023)
1019	Order Granting Microsoft Intervention, <i>LiTL LLC v. HP Inc.</i> , No. 23-cv-00120 (D. Del. Oct. 16, 2023)

Exhibit	Reference
1020	Scheduling Order, <i>LiTL LLC v. HP Inc.</i> , No. 23-120 (D. Del. Jan. 11, 2024), ECF No. 44
1021	Foley, James D., et al., <i>Computer Graphics Principles and Practice</i> , Second Edition in C (July 1997)
1022	RESERVED
1023	Maintenance & Service Guide, <i>HP Pavilion dv1600 Entertainment Notebook PC</i> (June 2006)
1024	Complaint, <i>LiTL LLC v. Lenovo (United States), Inc.</i> , No. 20-cv-00689 (D. Del. May 22, 2020)
1025	Stipulation of Dismissal, <i>LiTL LLC v. Lenovo (United States) Inc.</i> , No. 20-cv-00689 (D. Del. Feb. 3, 2023)
1026	File History of U.S. Patent No. 9,880,715
1027	Fujitsu LifeBook T3000 Tablet PC review: Fujitsu LifeBook T3000 Tablet PC, available at https://www.cnet.com/reviews/fujitsu-lifebook-t3000-tablet-pc-review/
1028	HP Compaq Tablet PC TC1100 review: HP Compaq Tablet PC TC1100, available at https://www.cnet.com/reviews/hp-compaq-tablet-pc-tc1100-review/
1029	Acer TravelMate C110 review: Acer TravelMate C110, available at https://www.cnet.com/reviews/acer-travelmate-c110-review/
1030	OLPC XO-1 (One Laptop Per Child) review: OLPC XO-1 (One Laptop Per Child), available at https://www.cnet.com/reviews/olpc-xo-1-one-laptop-per-child-review/
1031	Microsoft Indemnity Request
1032	RESERVED
1033	RESERVED
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1035	Q&A Microsoft Unveils Details for Ultra-Mobile Personal Computers
1036	Australia Patent Application Publication AU2001100022A4
1037	RESERVED
1038	RESERVED

LISTING OF CHALLENGED CLAIMS

Reference	Claim Limitation
Claim 1	
1[pre]	At least one non-transitory computer-readable storage medium storing processor-executable instructions that, when executed by at least one processor in a computer system comprising a display and a keyboard and being configurable between a plurality of computer system configurations, cause the at least one processor to perform a method comprising:
1[a]	displaying a plurality of views of a plurality of visual representations of computer content;
1[b]	detecting a current computer system configuration from at least a first computer system configuration of the plurality of computer system configurations where the keyboard is operable to receive input from an operator of the computer system to control the computer system and a second computer system configuration of the plurality of computer system configurations where the keyboard is inoperable to receive input from the operator of the computer system to control the computer system;
1[c]	selecting one of the plurality of views for display on the computer system in response to the detected current computer system configuration;
1[d]	transitioning to the selected one of the plurality of views; and
1[e]	displaying the selected one of the plurality of views.
Claim 2	
2	The at least one non-transitory computer-readable storage medium of claim 1, wherein each of the first and second computer system configurations comprise a physical positioning of the display relative to the keyboard.

Reference	Claim Limitation
Claim 3	
3	The at least one non-transitory computer-readable storage medium of claim 1, wherein the first computer system configuration is a laptop mode where the keyboard is oriented to be accessible to the operator and wherein the second computer system configuration is an easel mode or a frame mode where the keyboard is oriented to be inaccessible to the operator.
Claim 4	
4	The at least one non-transitory computer-readable storage medium of claim 1, wherein the plurality of views includes a home view and wherein the method further comprises displaying the home view.
Claim 11	
11[pre]	At least one non-transitory computer-readable storage medium storing processor-executable instructions that, when executed by at least one processor in a computer system comprising a display and a keyboard and being configurable between a plurality of computer system configurations, cause the at least one processor to perform a method comprising:
11[a]	displaying a plurality of views of a plurality of visual representations of computer content;
11[b]	detecting a current computer system configuration from at least a first computer system configuration from the plurality of computer system configurations where the keyboard is positioned to receive input from an operator of the computer system and a second computer system configuration from the plurality of computer system configurations where the keyboard is not positioned to receive input from the operator of the computer system;

Reference	Claim Limitation
11[c]	selecting one of the plurality of views for display on the computer system in response to the detected current computer system configuration; and
11[d]	transitioning the display component to the selected one of the plurality of views.
Claim 12	
12	The at least one non-transitory computer-readable storage medium of claim 11, wherein each of the first and second computer system configurations comprise a physical positioning of the display relative to the keyboard.
Claim 13	
13	The at least one non-transitory computer-readable storage medium of claim 11, wherein the first computer system configuration is a laptop mode where the keyboard is oriented to be accessible to the operator and wherein the second computer system configuration is an easel mode or a frame mode where the keyboard is oriented to be inaccessible to the operator.
Claim 14	
14	The at least one non-transitory computer-readable storage medium of claim 11, wherein the plurality of views includes a home view and wherein the method further comprises displaying the home view.

I. INTRODUCTION

Microsoft Corporation (“Microsoft”); HP Inc. (“HP”); Dell Inc. and Dell Technologies Inc. (collectively, “Dell”); and ASUSTeK Computer Inc. and Asus Global Pte. Ltd. (collectively, “ASUS”) (all of which are collectively referred to herein as “Petitioners”) request *inter partes* review (“IPR”) of claims 1–4 and 11–14 (“Challenged Claims”) of U.S. Patent 10,564,818 (“the ’818 patent”; EX-1001). LiTL (“PO”) has never served Microsoft with a complaint alleging infringement of the ’818 patent. PO sued HP, Dell, and ASUSTeK on February 1, 2023, alleging infringement of eight patents including the ’818 patent. EX-1016, 1017, 1018. PO explicitly identified Windows functionality as a basis for its infringement allegations, and so Microsoft intervened in those district court suits in October 2023. Less than four months after that intervention, Petitioners filed this Petition, showing that all Challenged Claims of the ’818 patent are unpatentable as obvious.¹

¹ Petitioner submits the declaration of Henry Houh (Ex. 1003), an expert in the field of the ’818 Patent. *See* Houh Decl., ¶ 36 (summary of opinions); *see also id.*, ¶¶ 1-19 (discussing his background and qualifications), ¶ 23 (materials considered).

II. GROUNDS FOR STANDING

Petitioners certify the '818 patent is available for IPR and Petitioners are not barred or estopped from requesting IPR on the grounds herein. Petitioners file this Petition within one year of service on HP, Dell, and ASUS of PO's district court complaints (*see* EX-1016, 1017, 1018), and Microsoft has never been served with a complaint.

III. IDENTIFICATION OF CHALLENGE

A. Prior Art

Petitioners respectfully request review and cancellation under 35 U.S.C. §311 of the Challenged Claims in view of:

Prior Art
"Pröll" ² (German Patent Application Publication DE10331185A1), filed on October 7, 2003, published on March 2, 2005; prior art under at least 35 U.S.C. §102(b) ³ (EX-1006)
"Martinez" (U.S. Patent 6,137,468), filed on October 15, 1996, issued on October 24, 2000; prior art under at least 35 U.S.C. §102(b) (EX-1007)
"Preppernau," Joan Preppernau and Joyce Cox, <i>Step By Step Windows Vista</i> , Microsoft Press, (Jan. 3, 2007), prior art under at least 35 U.S.C. §102(a) (EX-1008) ⁴

² EX-1006 includes a certified translation of Pröll, and citations in this Petition are to that certified translation.

³ All references to 35 U.S.C. §§102, 103 are to the pre-AIA statutory framework.

⁴ Preppernau was first publicly accessible as of January 9, 2007. EX-1015, ¶8.

B. Grounds for Challenge

Ground		Claims	Prior Art
1	103	1–4, 11–14	Pröll, Martinez
2	103	1–4, 11–14	Pröll, Preppernau

IV. '818 PATENT OVERVIEW

At the time of the '818 patent, numerous computing devices existed on the market with a variety of display screens. Houh Decl., ¶¶ 37-38. Thus, POSITAs understood the need to customize user interfaces based on the specific configuration of a computing device. *Id.*, ¶ 39.

A. Specification

The '818 patent is titled “System and method for streamlining user interaction with electronic content” and issued from Application 15/858,955 (“’955 application”), filed on December 29, 2017. *See also* Houh Decl., ¶ 40-43. The '955 application is a continuation of the application that led to U.S. Patent 9,880,715 (“the '715 patent”), which itself claims priority to a series of continuation and

continuation-in-part applications, with the earliest being a provisional application filed April 1, 2008.⁵

The '818 patent is “directed to a graphical user interface [(‘GUI’)] that organizes interface elements into modes of content for presentation to a user” and includes “a customized user interface for a computer system with a plurality [of] selectable I/O profiles configured to present computer operations to a user in a format configured to a selected I/O profile.” EX-1001, 2:49–51, 2:63–67. In one embodiment, the plurality of views includes a “home view configured to organize a plurality of content modes.” *Id.*, 4:6–9. Figure 2 is one example of a GUI showing a home view:

⁵ Petitioner contends all references identified in this Petition are prior art, assuming the '818 patent is entitled to a priority date of April 1, 2008; Petitioner reserves the right to further address priority if PO asserts entitlement to an earlier priority date.

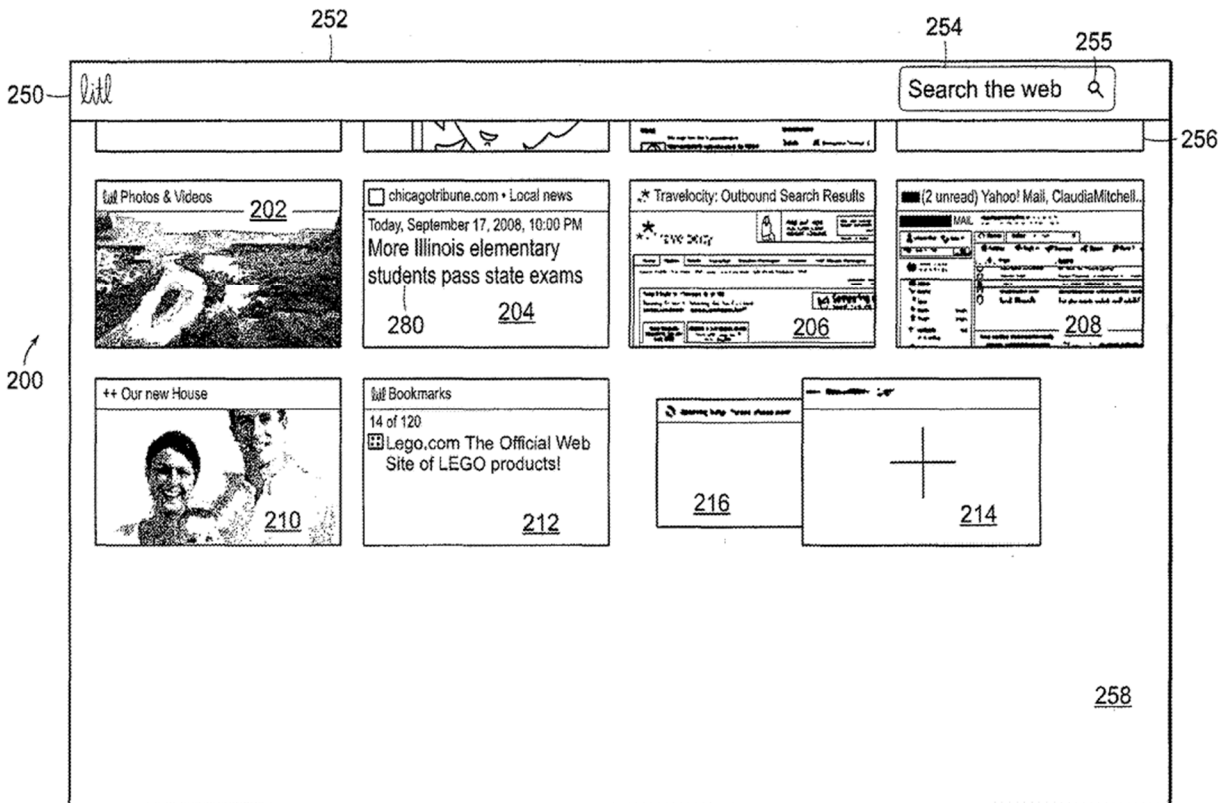


FIG. 2

In another embodiment, the interface is implemented on a “portable computer configurable between a plurality of display modes including a closed mode, a laptop mode[,] and an easel mode.” *Id.*, 6:43–46. In laptop mode, the keyboard is accessible to the user, as shown in Figure 1:

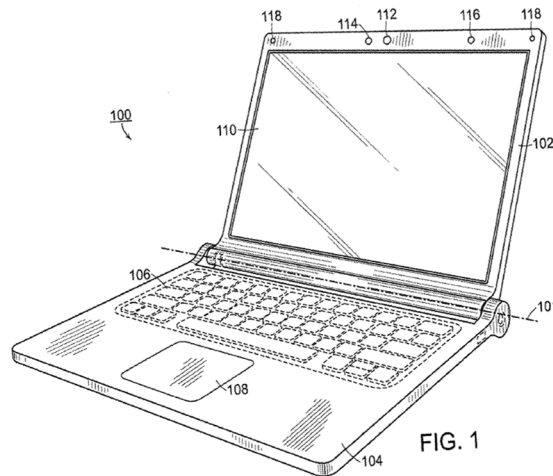


FIG. 1

In easel mode and frame mode, the laptop is pivoted so the keyboard is “concealed and not easily accessible” to the user, as shown below:

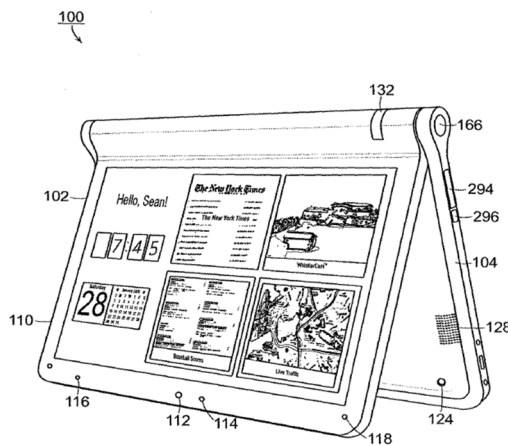


FIG. 4

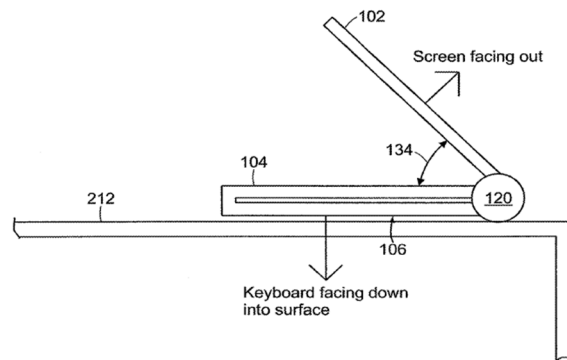


FIG. 26

Id., Figs. 4 (Easel Mode), 26 (Frame Mode), 25:1–3.

B. Prosecution History

1. '955 application

The '955 application had limited prosecution with no prior art-based rejections. *See* EX-1002; *see also* Houh Decl., ¶ 44-50 (discussing file history of '818 and related '715 patents). The Examiner rejected the pending claims on the

basis of double patenting in light of the '715 patent claims. EX-1002, 317. In doing so, the Examiner explained that the independent claims “have no 102/103 rejection because they are very similar to independent claim 1 of the allowed parent case,” referring to the '715 patent. *Id.*, 319. The applicant filed a terminal disclaimer, and the Examiner allowed the '818 patent to issue. *Id.*, 396/495, 408/495.

2. '715 patent prosecution

The '715 parent patent was allowed after a single office action. EX-1026. In that office action, the Examiner rejected pending independent claim 1 as obvious over “Creating a Digital Home Entertainment System with Windows Media Center” (“Miller”) in view of U.S. Patent Publication No. 2008/0059888 (“Dunko”). *Id.*, 333, 342. The Examiner found that Miller taught a “plurality of views of a plurality of visual representations of computer content” because Windows Media Center has a start screen that displays all categories of content and an online spotlight that displays only online content. *Id.*, 342–43.

The applicant amended claim 1 to add the underlined limitations: “detect a current computer system configuration from at least a first computer system configuration where the keyboard is operable to receive input from an operator of the computer system to control the computer system and a second computer system configuration where the keyboard is inoperable to receive input from the operator of the computer system to control the computer system.” *Id.*, 392. The applicant

argued the prior art failed to teach these limitations because Dunko's device identified whether it was in portrait or landscape mode and not whether the keyboard was operable or inoperable. *Id.*, 399.

The Examiner then allowed the '715 patent, maintaining that Miller taught a plurality of views of content and explaining that Miller and Dunko did not teach the independent claims as a whole (which recited configurations with an operable or inoperable keyboard). *Id.*, 413, 418–21.

C. Prior '715 Patent Office Proceedings

The '818 patent has not been subject to any prior post-grant proceedings (IPR or ex parte reexamination ("EPR")), and PO did not assert the '818 patent in any district court litigation until February 2023.

1. IPR2021-00786

PO asserted the '715 parent patent in district court litigation against Lenovo, almost three years before it filed any district court litigation asserting the '818 patent. EX-1024. Lenovo subsequently filed an IPR petition challenging claims 1-20 of the '715 patent. *Lenovo (United States) Inc. v. LiTL LLC*, IPR2021-00786 ("-786 IPR"), Paper 1 (May 4, 2021). That petition named only Lenovo entities as real parties-in-interest (*id.*, 2), and asserted two obviousness challenges based on references not relied upon in this Petition (*id.*, 3).

In the POPR, PO argued for a construction of “plurality of views” as recited in the ’715 independent claims as “a plurality of ways of organizing displayed content.” -786 IPR, Paper 5, 24, 27-45. PO argued that Lenovo’s grounds did not meet that construction because Lenovo’s references taught only transitioning between different orientations and not between different organizations of displayed content. *See id.* Lenovo did not file a preliminary reply.

On October 21, 2021, the Board denied institution. -786 IPR, Paper 6. For purposes of its decision, the Board agreed with PO’s proposed construction of “plurality of views” as “referring to a plurality of ways of organizing visual representations of computer content” and found that that limitation “is distinct from merely providing a plurality of ways of displaying content (by, for example, changing display orientation, color, resolution, etc.).” *Id.*, 13-16.

The Board found Lenovo had not shown a reasonable likelihood of success as to independent claims 1 and 20 because Lenovo relied on the references’ teachings of different orientations of the same organization of displayed content, rather than different ways of organizing the content as the Board’s construction required. *Id.*, 23-26. Lenovo had included another reference (Pogue) in its unpatentability ground for claims 2-19 and argued that reference disclosed the specific views (“home view” and “channel view”) recited in dependent claim 2. *Id.*, 28. The Board, however, found Lenovo had not relied on those teachings to meet the independent claims’

requirement of a “plurality of views”: “Even if Pogue teaches a plurality of views (within the claim construction we provide above), [Lenovo] does not rely on Pogue to meet the [plurality of views] recitation.” *Id.*, 29. Thus, the Board determined Lenovo had not satisfied its burden on institution. *Id.*, 30.

2. Ex Parte Reexamination 90/014,958

On February 16, 2022, Lenovo filed an EPR request, again challenging claims 1-20 of the '715 patent, based on four obviousness challenges. EX-1005, 947, 1249. The Office ordered a reexamination, finding that all four obviousness grounds raised a substantial new question of patentability (SNQ) (*id.*, 1408-30), and the Examiner subsequently issued a non-final office action rejecting claims 1-20 based on one of the SNQs.⁶ *Id.*, 1445–89.

An Examiner interview was then held (*id.*, 1494), and following that interview, PO filed a response to the office action (*id.*, 1517-61). Of note, PO argued (1) “the keyboard being inoperable to receive input means the keyboard is *disabled*, which is different from the keyboard being oriented so it is inaccessible”; and (2) “a

⁶ The Examiner noted the other three SNQs were “highly material and relevant” but never further applied them, even after finding PO overcame the single rejection during reexamination.

plurality of views of a plurality of visual representations” was not met by different content being displayed. *Id.*

On December 20, 2022, the Examiner issued a notice of intent to issue a reexamination certificate (NIRC), confirming claims 1-20 of the ’715 patent. *Id.*, 1675. In doing so, the Examiner agreed with (2) above, finding “the changing of content alone is not sufficient to meet the interpretation that has been established of a ‘plurality of views’ as ‘organizing visual representations of content differently.’” *Id.*, 1679-81.

The reexamination certificate issued on January 19, 2023. *Id.*, 1707.

V. DISCRETIONARY DENIAL WOULD BE INAPPROPRIATE

A. Status of Co-Pending Litigation

The ’715 parent patent was the subject of a prior litigation in the District of Delaware against Lenovo, with the complaint filed on May 22, 2020. EX-1024.⁷ That suit asserted infringement by Lenovo of six patents. *Id.* Of those, Lenovo requested indemnity from Microsoft only as to U.S. Patent No. 8,577,957 (the ’957 patent). EX-1031. Microsoft filed an IPR petition challenging claims 1-36 of

⁷ As discussed above, the prior litigation against Lenovo did not assert the ’818 patent. *LiTL LLC v. Lenovo (United States), Inc.*, No. 1-20-cv-00689 (D. Del. May 22, 2020).

the '957 patent. *Microsoft Corp. v. LiTL LLC*, IPR2021-01011, Paper 1 (May 25, 2021). PO subsequently disclaimed all challenged claims of the '957 patent, and the Board denied institution because all challenged claims had been disclaimed. *Id.*, EX-2008, Papers 8-9. Lenovo did not request indemnity from Microsoft for any other patent involved in the litigation against Lenovo, and Microsoft had no involvement in the IPRs Lenovo filed against the other five patents (IPR2021-00681, -786, -800, -821, -822), including the IPR Lenovo filed challenging claims of the '715 parent patent.

PO and Lenovo ultimately stipulated to dismissal with prejudice of the litigation against Lenovo, which was ordered on February 3, 2023. EX-1025.

Two days prior to that dismissal (on February 1, 2023), PO asserted eight patents, including the '818 patent, against HP, Dell, and ASUS in the District of Delaware. EX-1016, 1017, 1018. On October 13, 2023, Microsoft filed a complaint in intervention for each of those suits, seeking a declaratory judgment of non-infringement, and on October 16, 2023, the district court permitted Microsoft's intervention. EX-1019. The district court issued a scheduling order on January 11, 2024. EX-1020. Under that Order, preliminary infringement contentions are due on April 1, 2024; preliminary invalidity contentions are due on May 1, 2024; a Markman hearing is set for October 10, 2024; and four trial dates set for January 20, 2026, February 17, 2026, March 16, 2026, and April 20, 2026. *Id.*, 8, 13, 16.

B. *General Plastic*

The '818 patent has not been subject to a prior IPR. Thus, this Petition is not a serial petition challenging the same patent as a prior petition and *General Plastic* is inapplicable. See *Bayerische Motoren Werke Aktiengesellschaft v. Paice LLC*, IPR2020-01299, Paper 10, at 37-38 (Jan. 15, 2021) (determining that a petition was not a serial petition when the prior petition involved related patents but not the same patent).

C. *Fintiv*

Petitioners expect PO will not raise *Fintiv* here because the earliest trial date set by the district court is January 20, 2026 (EX-1020), well after the expected FWD deadline in this IPR (likely August 2025).

D. Section 325(d)

The Board should likewise not exercise its discretion under §325(d) to deny institution. *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8, 17–18 (PTAB Dec. 15, 2017) (precedential); *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6, 9–11 (PTAB Feb. 13, 2020) (precedential). Here, only Martinez was before the Examiner during prosecution, and Martinez was cited only in an IDS and never applied by the Examiner. EX-1002, 193, 372; EX-1026, 239, 388.

Considering the first part of the *Advanced Bionics* framework, including *Becton, Dickinson* factors (a), (b), and (d), although one of the same references was before the Office, the same or substantially the same art or arguments were not previously presented to or considered by the Office. During prosecution, the Examiner did not consider Pröll—which forms the basis for all of the unpatentability challenges in this Petition—at all, much less Pröll in combination with Martinez. Additionally, the Examiner did not consider Pröll or Preppernau, which render all Challenged Claims obvious, as discussed in Section VIII. Thus, substantially the same art or arguments were not previously before the Office.

Section 325(d) is inapplicable to the grounds raised in this Petition.

VI. LEVEL OF ORDINARY SKILL

A person of ordinary skill in the art (“POSITA”) would have had a bachelor’s degree in electrical engineering, computer engineering, computer science, or a similar field, plus two years of work experience in designing GUIs for computing devices. Houh Decl., ¶ 20-22. More education could substitute for experience and vice versa. *Id.*

VII. CLAIM CONSTRUCTION

As discussed above, in the -786 IPR (involving the ’715 parent patent), for purposes of its institution decision, the Board construed a “plurality of views of a plurality of visual representations of computer content” as “referring to a plurality

of ways of organizing visual representations of computer content,” and the Board found that that limitation “is distinct from merely providing a plurality of ways of displaying content (by, for example, changing display orientation, color, resolution, etc.).” -786 IPR, Paper 6, 13-16. Because the Board denied institution, it did not further consider that construction based on a full trial record. *See id.* During the EPR (also involving the ’715 parent patent), the Examiner also clarified that the “plurality of views” limitation does not encompass merely changing to entirely different content. EX-1005, 1680.

This Petition shows that the Challenged Claims are unpatentable under the Board’s construction of “plurality of views,” as clarified during the EPR. *See also* Houh Decl., ¶ 51-53. Otherwise, Petitioners believe the Challenged Claims have their plain and ordinary meaning, and Petitioners do not believe express claim construction is needed to demonstrate the Challenged Claims are unpatentable. *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)) (explaining Board “need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy’”).

VIII. DETAILED EXPLANATION OF GROUNDS

A. Ground 1: Obviousness over Pröll and Martinez (Claims 1-4, 11-14)

1. Pröll

Pröll is directed to a “[m]obile data processing device,” such as a laptop, with two housing halves (one with a screen and one with an input unit, such as a keyboard) connected by a hinge that can rotate 360 degrees. *See* Pröll, Title, Abstract, claims 1, 3, 5; *see also* Houh Decl. ¶¶ 54–56. Figure 1 of Pröll is reproduced below:

Fig. 1

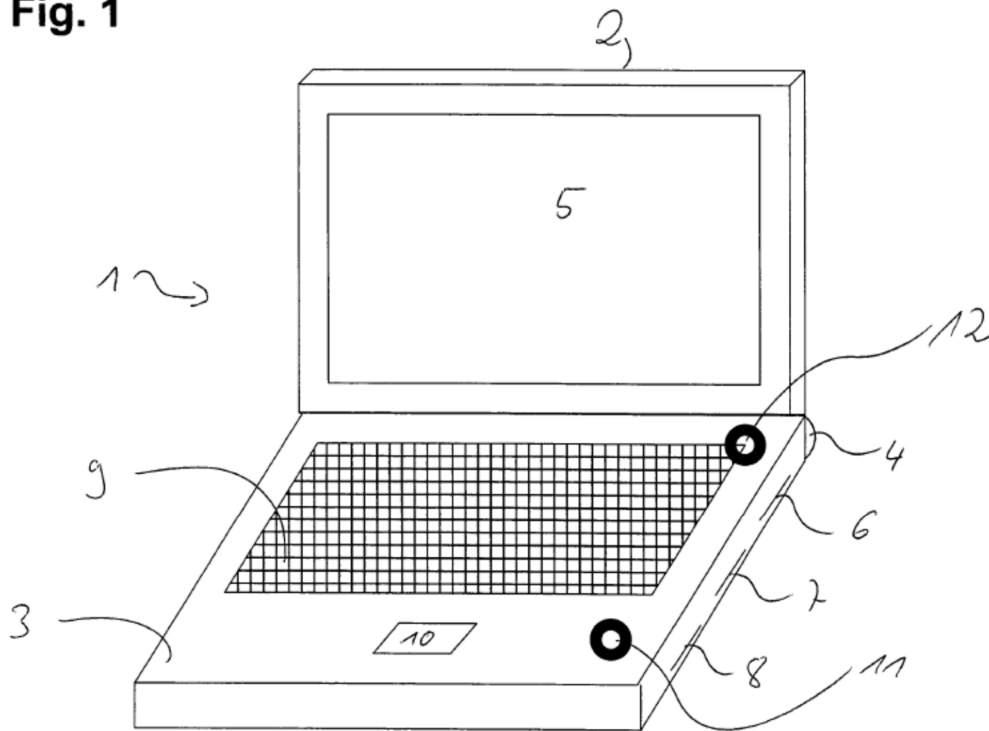


Figure 1 shows Pröll’s device in a laptop configuration where housing halves 2, 3 can rotate “almost 360° relative to one another” using pivoting device 4. *Id.*,

[0033]. Housing half 2 contains display device 5, and housing half 3 contains keyboard 9. *Id.* Other figures in Pröll show its device in other configurations. *E.g., id.*, Fig. 6 (360°), Fig. 7 (270°), Fig. 8 (360°). Pröll describes using its Figures 6-8 in mobile environments such as a moving vehicle. *Id.*, [0051]-[0057]; Houh Decl., ¶¶ 55. As two examples, Figures 4 and 7 (showing device 5 positioned on a seat tray) are reproduced below:

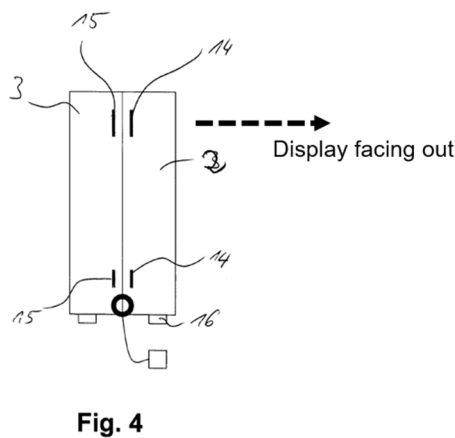
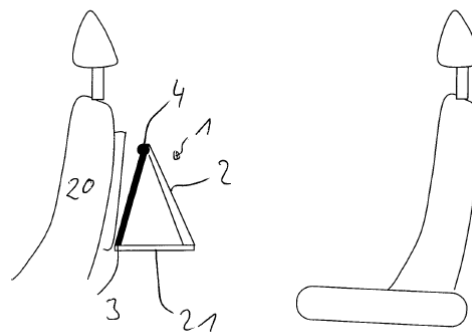


FIG. 7

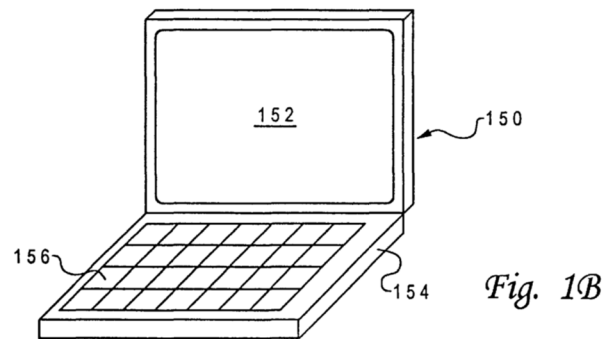


Pröll, Fig. 4 (annotated) (device rotated 360°), Fig. 7 (device rotated 270°, resting on seat tray).

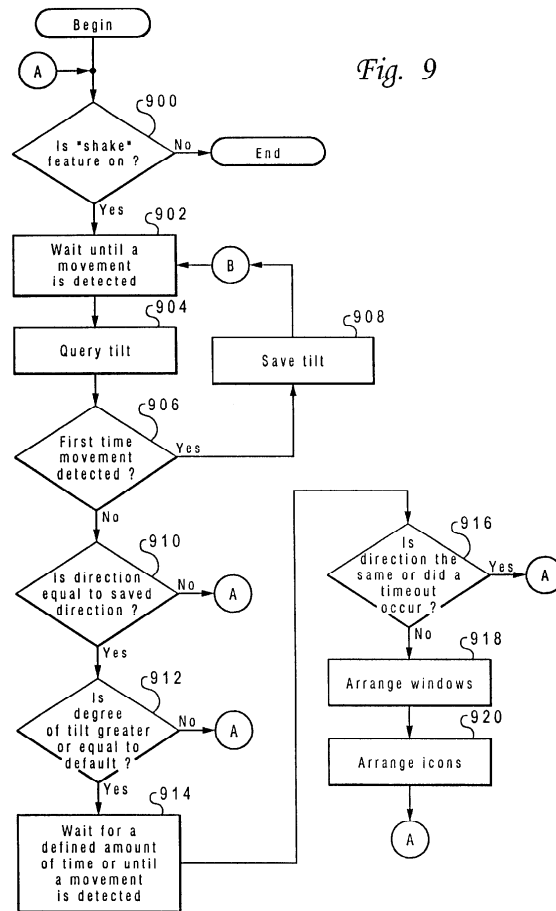
Pröll discloses that pivoting device 4 includes a switch to detect whether the housing half 2 has been pivoted towards housing half 3 by more than 180°; if so, the representation on the display device is rotated by 180° and the input devices, including keyboard 9, are automatically blocked. *Id.*, [0049]–[0050].

2. Martinez

Martinez is directed to “altering the display of an object on a display device in a data processing system.” Martinez, Abstract; *see also* Houh Decl. ¶¶ 57–59. Martinez depicts a similar laptop as Pröll in Fig. 1B reproduced below:



Martinez describes numerous ways it adjusts its display based on sensor input, one of which is in response to a “shake,” reflected in Martinez’s Figure 9:



In this process, Martinez detects a shake (i.e., shaking the device containing the sensor to the left and right relative to the user) in steps 902-916. *Id.*, 6:5–31. If a shake is detected, “the process then arranges the windows (step 918). For example, the windows could be arranged in a tile or cascading fashion. Next, the icons are arranged (step 920). The icons can be arranged in any preselected manner the user or programmer desires.” *Id.*, 6:32–37.

3. Motivation to Combine

Pröll's device displays a first computer content view for its laptop configuration that positions the display above a pivoting hinge and presents a second computer content view when the device rotates 180° and positions the hinge above the display. Pröll, Figs. 1, 7, [0049]-[0050]. Although Pröll discloses adjusting the text and graphics on its GUI in a plurality of ways, Pröll is not explicit about the organization of content on its GUI. A POSITA would have been motivated to combine Pröll with Martinez such that Pröll's GUI displays a different organization of content when its input devices are operable than when its input devices are inoperable. *See* Houh Decl., ¶ 60–61. Each of Pröll and Martinez predate the earliest priority date of the '818 patent by several years.

A POSITA would have found Martinez's teachings predictably improve the usability of Pröll's device's display by allowing views that include the reorganization of icons and windows. *Id.*, ¶ 62-64; Martinez, Figs. 9, 10, 6:32–36. Pröll and Martinez disclose similar systems with a laptop configuration of a computing device with display, keyboard, and processing components containing a hardware-based trigger that detects physical changes to the configuration or orientation of the device and responds to such changes with a different GUI display. Houh Decl., ¶ 66, 79; Pröll, [0034]; Martinez, 3:27–63. Rather than use Martinez's shake gesture, a POSITA would have been motivated to trigger Martinez's views

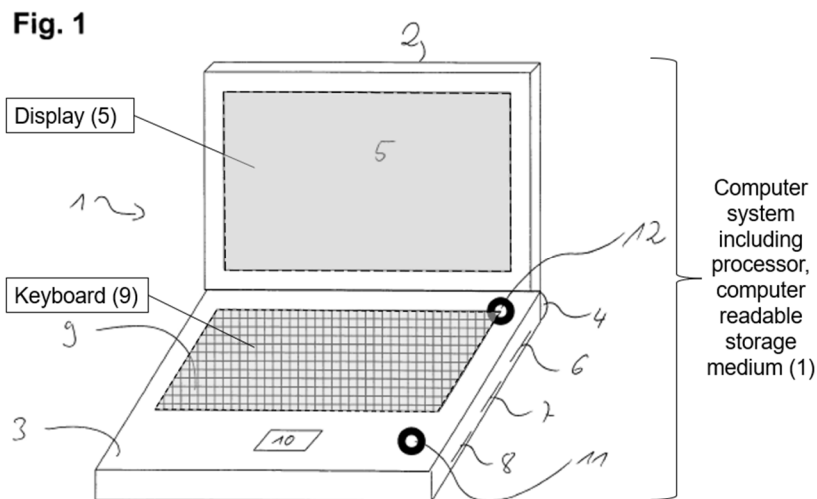
based on Pröll's switch indicating rotation of its two halves by more or less than 180°. Houh Decl., ¶ 66. Modifying Pröll by adding the teachings of Martinez would have been desirable to allow for a more user-friendly GUI organization when Pröll's keyboard is blocked (i.e., when Pröll's two halves are rotated by more than 180° relative to each other). *Id.*, ¶ 65.

A POSITA would have also recognized that doing so would have allowed Pröll's system to be more effectively used in different mobile environments, such as switching between cascading and tiled views (Martinez, 6:32-37) depending on the available precision of a user input from a keyboard at a stable, permanent work station (e.g., laptop mode) or touching a screen while riding in a moving car (e.g., frame mode) (Pröll, Figs. 6-8, [0048]-[0051], [0057]). Houh Decl., ¶¶ 65-66. Indeed, Pröll's configurations reflected in Figures 6-8 are designed to be used with a touchscreen in a mobile environment (including where use of a keyboard would be impractical, or even dangerous). *Id.* Such a modification would have been well within the programming skills of a POSITA. Houh Decl., ¶ 66-67.

4. Claim 1

- a. **1[pre]: “At least one non-transitory computer-readable storage medium storing processor-executable instructions that, when executed by at least one processor in a computer system comprising a display and a keyboard and being configurable between a plurality of computer system configurations, cause the at least one processor to perform a method comprising:”**

To the extent 1[pre] is limiting, Pröll discloses a laptop device that includes display device 5 (“a display”) and keyboard 9 (“a keyboard”). Pröll, Title, Abstract, claim 1, [0018], [0023], [0033]–[0034]; Houh Decl., ¶ 68. An annotated version of Pröll’s Figure 1 is reproduced below.



Pröll discloses the use of a “memory” and teaches the use of a “computing unit” contained within its “mobile data processing device.” *Id.*, [0034], claim 8. A POSITA would have thus understood that the laptop device disclosed in Pröll includes a processor and non-transitory computer-readable storage medium storing

processor-executable instructions. Houh Decl., ¶¶ 69–70. Having such a computer system with a processor connected to a memory was well-known at the relevant time. *Id.*; see also Martinez, Fig. 2 (item 202 (Pentium, i.e., processor), 206, 208, 210 (memory), connected through item 200 (system bus)), 3:34–59 (describing Direct Memory access controller for managing large input/output transfers from input/output devices—e.g., a keyboard—by “appropriat[ing] cycles from microprocessor 202” and reliance upon read only memory (ROM) and Random Access Memory (RAM) for controlling hardware operations according to system configuration information).

Pröll further discloses its device is configurable into a plurality of computer system configurations. Houh Decl., ¶¶ 71-72. For example, Pröll can detect whether the laptop device has been pivoted 180° or more and rotate its display 180° so that it is not upside down. Pröll, [0049]–[0050]; see also *id.*, [0052] (rotated 270°), [0059] (rotated 360°). Depending on the configuration of the Pröll device, the keyboard and other peripherals are disabled. *Id.*, [0050].

b. 1[a]: “displaying a plurality of views of a plurality of visual representations of computer content;”

The Pröll-Martinez combination teaches 1[a]. Houh Decl., ¶ 73. As discussed above, the Board previously construed a “plurality of views of digital media content” as “referring to a plurality of ways of organizing visual representations of computer

content”; this limitation does not encompass “merely changing the display’s orientation” or changing to wholly different content. *See* Section VII. In addition, the ’818 patent makes clear that “visual representations” can include cards (’818 patent, Figs. 2 and 16, 15:62–16:19), “hot keys,” and clickable graphics (*id.*, 48:6–26).

Pröll’s device displays a first view when operated as a “laptop” and a second view when rotated more than 180°. Pröll, [0049]. Pröll does not explicitly discuss different organizations of content, beyond changes to its orientation. A POSITA would have been motivated to look to Martinez for ways to display different organizations of content, including based on when its input devices are operable or not. *See* Houh Decl., ¶ 75-79.

Specifically, in its Figure 9 and associated description, Martinez teaches using a sensor to detect movement (in Martinez’s particular embodiment, a shake gesture) and, based on that movement, to arrange (i.e., organize) windows and/or icons in a preselected manner, such as “a tile or cascading fashion.” Martinez, Fig. 9, 5:66–6:37. Dr. Houh explains that a POSITA would have recognized “tile” fashion and “cascading” fashion as two different ways of organizing icons or windows (“visual representations of computer content”). Houh Decl., ¶ 76-77. In this way, Martinez teaches different organizations of the same content. *Id.*, ¶ 78. A POSITA would have been motivated to combine the teachings of Pröll and Martinez for the reasons

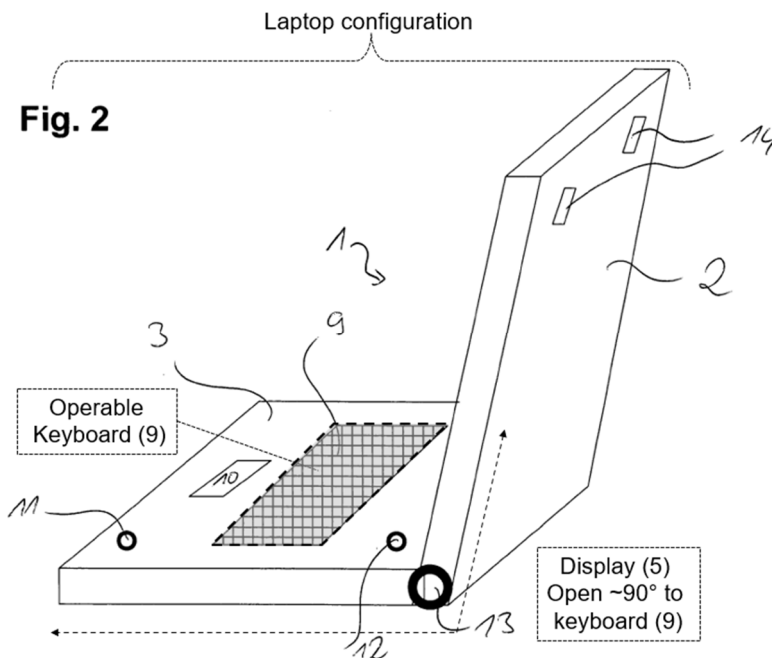
discussed in Section VIII.A.3 above, including for example, allowing for a more user-friendly GUI organization for the applicable environment (e.g., Pröll's keyboard is blocked when its two halves are rotated by more than 180° relative to each other). Houh Decl., ¶ 79.

- c. **1[b]: “detecting a current computer system configuration from at least a first computer system configuration of the plurality of computer system configurations where the keyboard is operable to receive input from an operator of the computer system to control the computer system and a second computer system configuration of the plurality of computer system configurations where the keyboard is inoperable to receive input from the operator of the computer system to control the computer system;”**

Pröll discloses or suggests 1[b]. Houh Decl., ¶ 80. Specifically, Pröll's device includes a switch in pivoting device 4 that detects whether housing half 2 has been pivoted towards housing half 3 by more than 180°; if so, keyboard 9 is “automatically blocked.” Pröll, [0049]–[0050]. Thus, Pröll discloses using its switch to detect a configuration where the halves are rotated less than 180° (e.g., the laptop configuration of Fig. 2) and keyboard 9 is not blocked (“a first computer system configuration where the keyboard is operable to receive input from an operator of the computer system”) and a configuration where the halves are rotated more than 180° (e.g., the configurations in Figures 6, 7, 8, or 10) and keyboard 9 is automatically blocked (“second computer system configuration of the plurality of

computer system configurations where the keyboard is inoperable to receive input from the operator of the computer system to control the computer system”). See Houh Decl., ¶ 80-81.

An annotated version of Pröll’s Figure 2, showing its laptop configuration with an operable keyboard, is reproduced below:



See also Houh Decl. ¶¶ 82-83 (discussing figures). Annotated versions of Pröll’s Figures 6–8, showing configurations where the device is rotated more than 180° such that the keyboard is inoperable (*id.*, [0049]–[0050]), are reproduced below.

FIG. 6

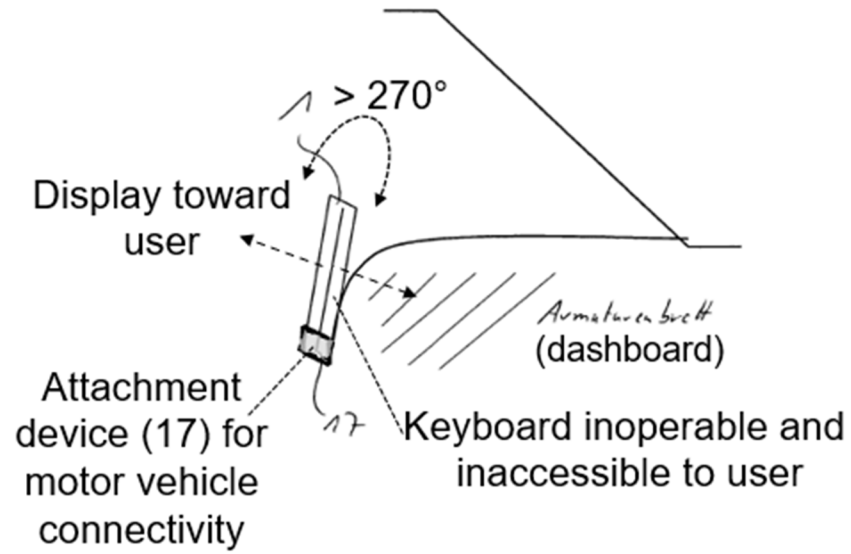


FIG. 7

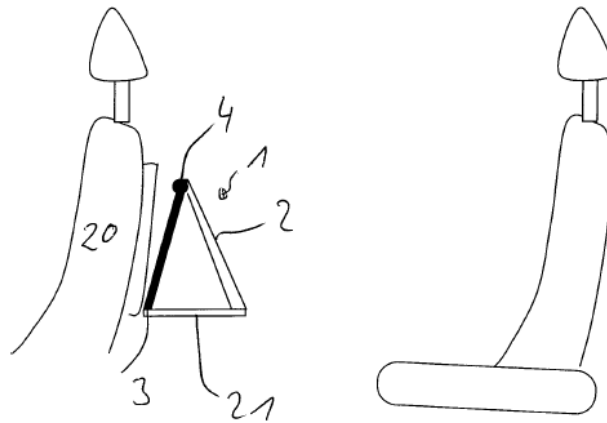
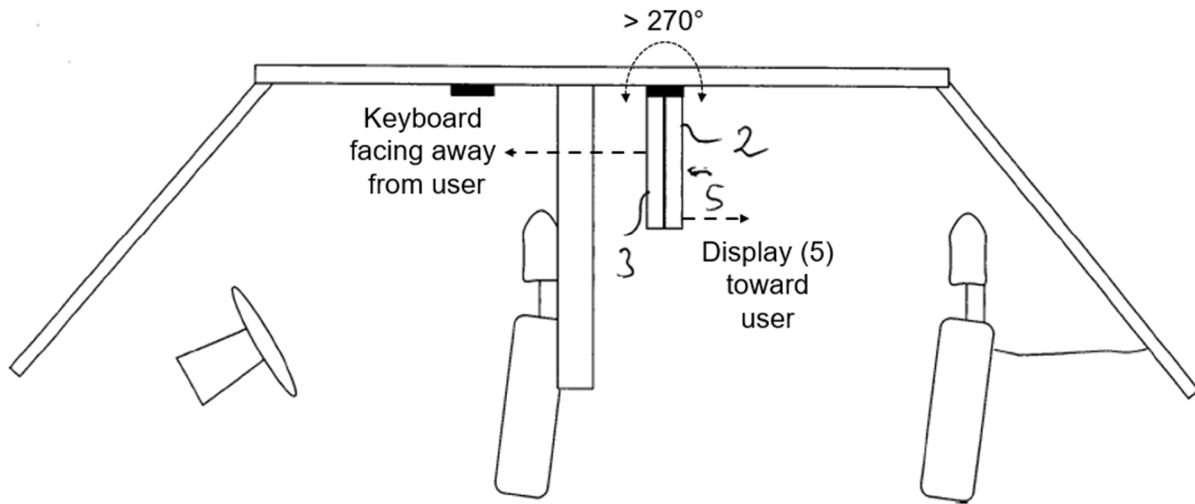


FIG. 8



- d. **1[c]: “selecting one of the plurality of views for display on the computer system in response to the detected current computer system configuration;”⁸**

The Pröll-Martinez combination teaches 1[c]. Houh Decl., ¶ 84. Pröll teaches changing the orientation of the display in response to the detected computer system configuration, and Martinez teaches changing to one of a plurality of views (e.g., organization of icons) based on detected motion of the computer system. As discussed in Section VIII.A.4.c for 1[b], Pröll discloses using a switch in pivoting device 4 that detects whether housing half 2 has been pivoted towards housing half 3 by more than 180°. Pröll, [0049], [0053] (“[I]n this state the display device 5 is

⁸ It is the “processor” of the “[a]t least one non-transitory computer-readable storage medium” that is “selecting” a view. See 1[pre].

displayed upside down, so the placement of the mobile data processing device 1 in this desired way must be detected by a switch and the display of the display device 5 must be rotated by 180° accordingly.”). Based on the results of this switch, Pröll not only automatically blocks keyboard 9 if the rotation is more than 180°, but Pröll also adjusts the display—rotated or not—accordingly (“selecting”), so that the display is not upside down based on the configuration of Pröll’s device. Pröll, [0049]–[0050], [0053]; *see* Houh Decl., ¶ 84.

In addition to rotating the display, a POSITA would have found it obvious to “select” one of the plurality of views taught in Martinez. *See* Houh Decl., ¶ 85. As discussed above in Section VIII.A.4, a POSITA would have been motivated to trigger the display of Martinez’s views (“selecting”) based on Pröll’s switch indicating rotation of Pröll’s two halves by more or less than 180°. For example, Martinez teaches that its icons and windows can be “arranged in any *preselected* manner the user or programmer desires” (Martinez, 6:32-36 (emphasis added)), and it would have been within the skill level of a POSITA to program the Pröll-Martinez device to display (“select”) the most-appropriate view from those preselected views based on whether the keyboard is or is not operable. *See* Houh Decl., ¶ 85. A POSITA would have been motivated to make this combination because it would predictably improve the usability of Pröll’s system by displaying different views that include reorganization of the icons and windows based on the configuration of the

laptop device, allowing Pröll's device to be used in mobile environments. *See, e.g.*, Houh Decl., ¶¶ 79, 85.

e. 1[d] and 1[e]: “transitioning to the selected one of the plurality of views; and displaying the selected one of the plurality of views.”

The Pröll-Martinez combination teaches 1[d] and 1[e]. Houh Decl., ¶ 86-87. As discussed in Section VIII.A.3.c for 1[b], Pröll teaches changing the orientation of the display in response to the detected computer system configuration, and Martinez teaches changing to one of a plurality of views (e.g., one organization of icons/windows) based on the detected rotation of the computer system that results in a specific computer configuration. When the Pröll device detects it has been rotated more than 180 degrees, it adjusts the display 180 degrees accordingly (“transitioning” and “displaying” the selected view). Pröll, [0049].

In addition to rotating the display, a POSITA would have found it obvious to select one of a plurality of views as suggested by Martinez. *See, e.g.*, Houh Decl., ¶ 87. For example, Martinez teaches that “windows could be arranged in a tile or cascading fashion” and that “icons can be arranged in any preselected manner the user or programmer desires.” Martinez, 6:32–36. As explained by Dr. Houh, Martinez thus teaches that content could be arranged into a plurality of views, and that in order to display that arrangement, the Pröll/Martinez device would select, transition to, and display that particular view to the user. *See* Houh Decl., ¶ 87.

Thus, claim 1 is unpatentable as obvious based on the Pröll-Martinez combination.

5. Claim 2:

- a. “The at least one non-transitory computer-readable storage medium of claim 1, wherein each of the first and second computer system configurations comprise a physical positioning of the display relative to the keyboard.”**

The Pröll-Martinez combination teaches claim 1 (*see* Section VIII.A.4), and Pröll teaches the additional limitations of claim 2. Houh Decl., ¶ 88-89. As discussed in Section VIII.A.4.b for 1[a], Pröll teaches multiple configurations of the laptop based on the Pröll device’s rotation. Pröll, [0049]–[0050]. These same disclosures in Pröll teach “first and second computer system configurations compris[ing] a physical positioning of the display relative to the keyboard,” as recited in claim 2. For example, if the housing containing Pröll’s keyboard is rotated more than 180°, Pröll will change from its laptop configuration to one where the keyboard is disabled and the display is rotated 180°, as shown in Figures 2 and 8, respectively:

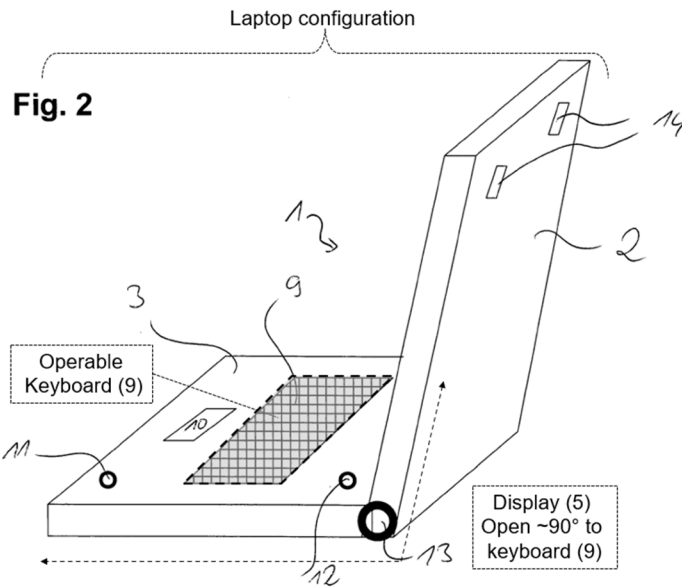
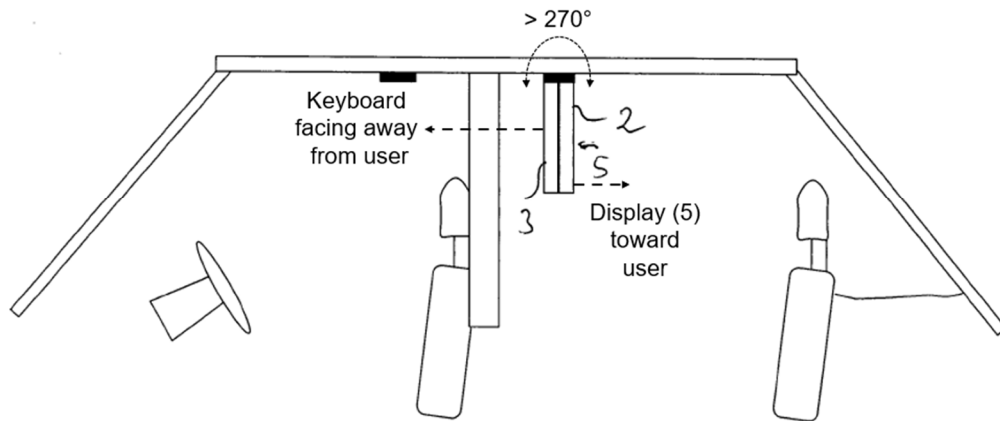


FIG. 8



Id., Figs. 2 and 8 (both annotated), [0049] (“if the interface devices are arranged on the mobile data processing device 1 in such a way that when used as a portable computer with an angle between the first and second housing halves 2, 3 of more than 180°,...the display on the display device must be rotated by 180°, since otherwise the display would be upside down”).

Pröll's teachings for the additional limitations of claim 2 are the same as discussed for claim 1, and a POSITA would have been motivated to combine those teachings with Martinez for the same reasons discussed above in Section VIII.A.4. Houh Decl., ¶ 89.

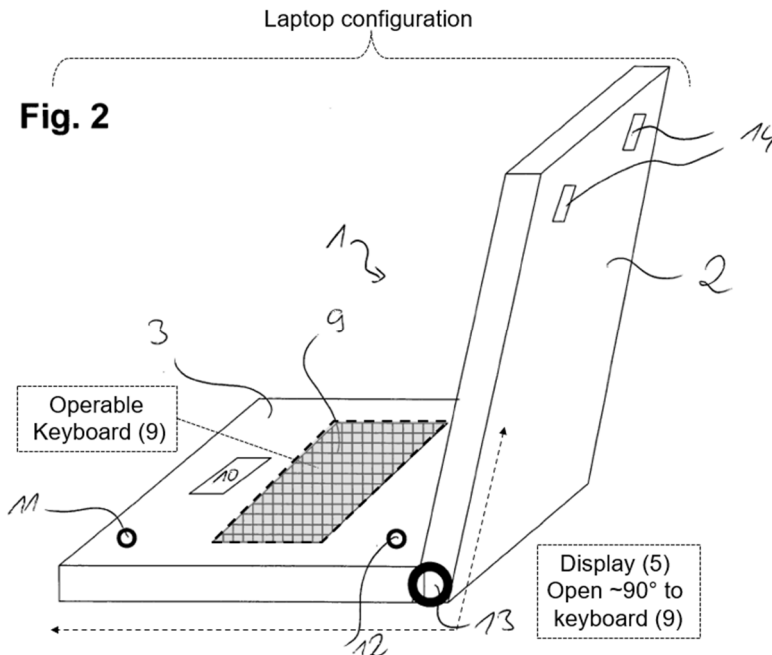
Thus, claim 2 is unpatentable as obvious based on the Pröll-Martinez combination.

6. Claim 3:

- a. “The at least one non-transitory computer-readable storage medium of claim 1, wherein the first computer system configuration is a laptop mode where the keyboard is oriented to be accessible to the operator and wherein the second computer system configuration is an easel mode or a frame mode where the keyboard is oriented to be inaccessible to the operator.”**

The Pröll-Martinez combination teaches claim 1 (*see* Section VIII.A.4), and Pröll teaches the additional limitations of claim 3. Houh Decl., ¶ 90-92. As discussed above in Section VIII.A.4.c for 1[b], Pröll teaches a first configuration where the device operates as a laptop and additional configurations—based on the orientation of the two housings—where the keyboard is inaccessible to the user. Pröll, [0050] (“If such a case is recognized, the input via the input units 9, 10, 11 is automatically blocked”); *see also id.*, [0034] (“A keyboard 9, a control pad 10, an input unit in the form of a ball 11, and an on button 12 are also present.”). For

example, an annotated version of Pröll's Figure 2, showing its laptop configuration with an accessible keyboard, is reproduced below:



Reproduced below are annotated versions of Pröll's Figures 7 (easel mode) and Figures 6, 8, and 10 (frame modes) that show configurations where the device is rotated more than 180° such that the device is in an "easel" or "frame" mode and the keyboard is inaccessible (*id.*, [0049]–[0050]).

FIG. 6

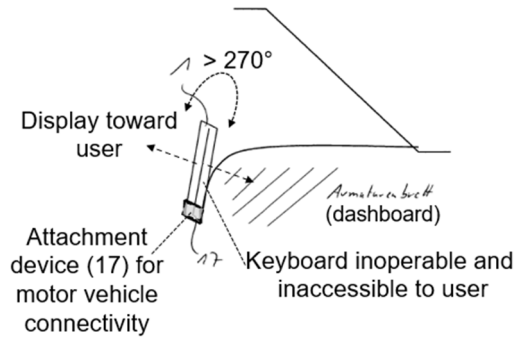


FIG. 7

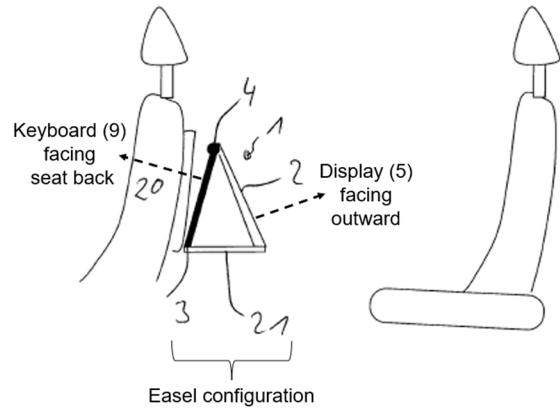


FIG. 8

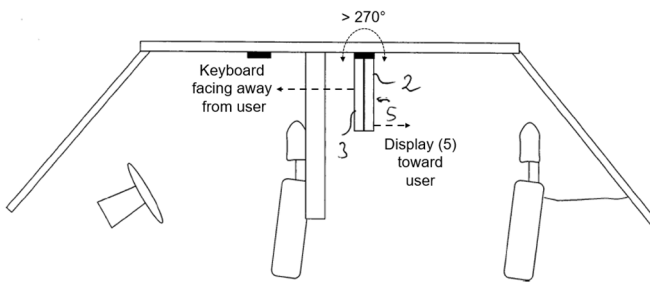
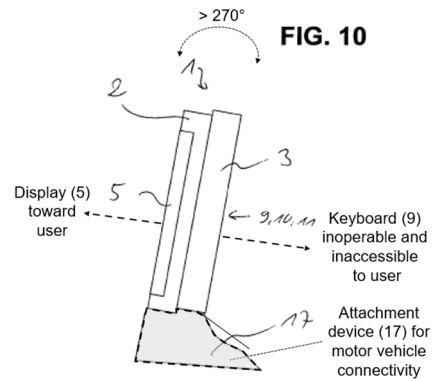


FIG. 10



Pröll's teachings for the additional limitations of claim 3 are similar to those discussed for claim 1, and a POSITA would have been motivated to combine those teachings with Martinez for the same reasons discussed above in Section VIII.A.4. Houh Decl., ¶ 92.

Thus, claim 3 is unpatentable as obvious based on the Pröll-Martinez combination.

7. Claim 4:

- a. “The at least one non-transitory computer-readable storage medium of claim 1, wherein the plurality of views includes a home view and wherein the method further comprises displaying the home view.”**

The Pröll-Martinez combination teaches claim 1 (*see* Section VIII.A.4), and that combination also teaches the additional limitations of claim 4. Houh Decl., ¶ 93-94. The ’818 patent does not explicitly define a “home view,” but it explains that a home view can be “configured to organize a plurality of content modes” or can “organiz[e] a plurality of visual representations of digital content.” *See, e.g.*, ’818 patent, 4:6–9, 4:47–51; *see also id.*, 4:58-60 (“[T]he home view comprises a header display and a body display.”).

Pröll automatically alters its display based on the rotation of its computer device, and Martinez teaches that it can rearrange its icons and windows based on sensing movement of the computer (shaking, etc.). *See* Houh Decl., ¶ 94; Section VIII.A.4.b.

Dr. Houh explains that a POSITA would have understood that the plurality of views discussed in Martinez include a “home view,” as discussed in the ’818 patent. *See* Houh Decl., ¶ 94. For example, rearranging windows in a tiled or cascading fashion is one way to organize windows of content for a user, so the user can see each of the windows that are available for viewing. *See id.* Such a view would “organiz[e] a plurality of visual representations of digital content” (’818 patent,

4:47–51), and thus be a “home view” consistent with the ’818 patent’s broad disclosure. A POSITA would have been motivated to combine Martinez’s views with Pröll for the same reasons discussed above in Section VIII.A.4.

Thus, claim 4 is unpatentable as obvious based on the Pröll-Martinez combination.

8. Claim 11

- a. **11[pre]: “11. At least one non-transitory computer-readable storage medium storing processor-executable instructions that, when executed by at least one processor in a computer system comprising a display and a keyboard and being configurable between a plurality of computer system configurations, cause the at least one processor to perform a method comprising:”**

See Section VIII.A.4.a for 1[pre]. Houh Decl., ¶ 95.

- b. **11[a]: “displaying a plurality of views of a plurality of visual representations of computer content;”**

See Section VIII.A.4.b for 1[a]. Houh Decl., ¶ 96.

- c. **11[b]: “detecting a current computer system configuration from at least a first computer system configuration from the plurality of computer system configurations where the keyboard is positioned to receive input from an operator of the computer system and a second computer system configuration from the plurality of computer system configurations where the keyboard is not positioned to receive input from the operator of the computer system;”**

See Section VIII.A.4.c for 1[b]. Houh Decl., ¶ 97. In addition, as discussed in Section VIII.A.5 for claim 2, Pröll’s laptop mode (Figure 2) has the keyboard positioned to receive input from an operator of the computer system and, for example, Pröll’s easel mode (Figure 7) has the keyboard not positioned to receive input from the operator of the computer system.

11[c]: “selecting one of the plurality of views for display on the computer system in response to the detected current computer system configuration; and”

See Section VIII.A.4.d for 1[c]. Houh Decl., ¶ 98.

- d. **11[d]: “transitioning the display component to the selected one of the plurality of views.”**

See Section VIII.A.4.e for 1[d] and 1[e]. Houh Decl., ¶ 99

Thus, claim 11 is unpatentable as obvious based on the Pröll-Martinez combination.

9. Claim 12:

- a. “The at least one non-transitory computer-readable storage medium of claim 11, wherein each of the first and second computer system configurations comprise a physical positioning of the display relative to the keyboard.”**

See Section VIII.A.8 for claim 11 and Section VIII.A.5 for claim 2, which mirrors the additional limitations of claim 12. *See also* Houh Decl., ¶ 100.

Thus, claim 12 is unpatentable as obvious based on the Pröll-Martinez combination.

10. Claim 13:

- a. “The at least one non-transitory computer-readable storage medium of claim 11, wherein the first computer system configuration is a laptop mode where the keyboard is oriented to be accessible to the operator and wherein the second computer system configuration is an easel mode or a frame mode where the keyboard is oriented to be inaccessible to the operator.”**

See Section VIII.A.8 for claim 11 and Section VIII.A.6 for claim 3, which mirrors the additional limitations of claim 13. *See also* Houh Decl., ¶ 101.

Thus, claim 13 is unpatentable as obvious based on the Pröll-Martinez combination.

11. Claim 14:

- a. “The at least one non-transitory computer-readable storage medium of claim 11, wherein the plurality of views includes a home view and wherein the method further comprises displaying the home view.”**

See Section VIII.A.8 for claim 11 and Section VIII.A.7 for claim 4, which mirrors the additional limitations of claim 14. *See also* Houh Decl., ¶ 102.

Thus, claim 14 is unpatentable as obvious based on the Pröll-Martinez combination.

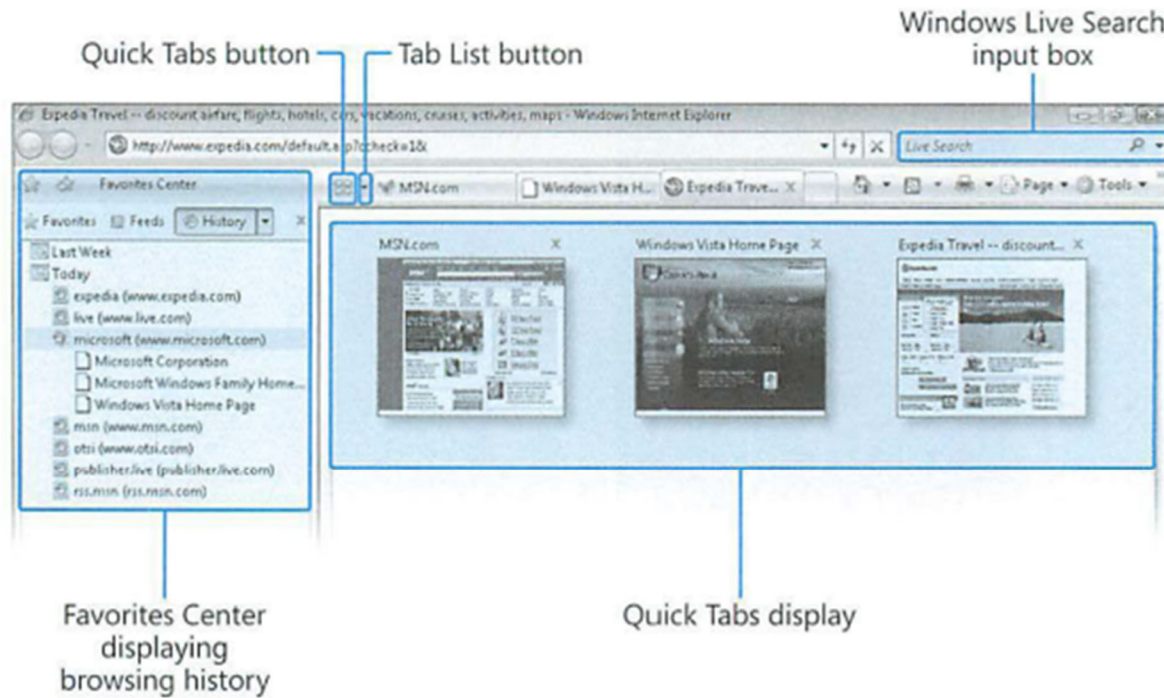
As discussed above, Pröll in view of Martinez demonstrates that Claims 1–4 and 11–14 are unpatentable as obvious.

B. Ground 2: Obviousness over Pröll and Preppernau (Claims 1–4 and 11–14)

1. Preppernau (EX-1008)

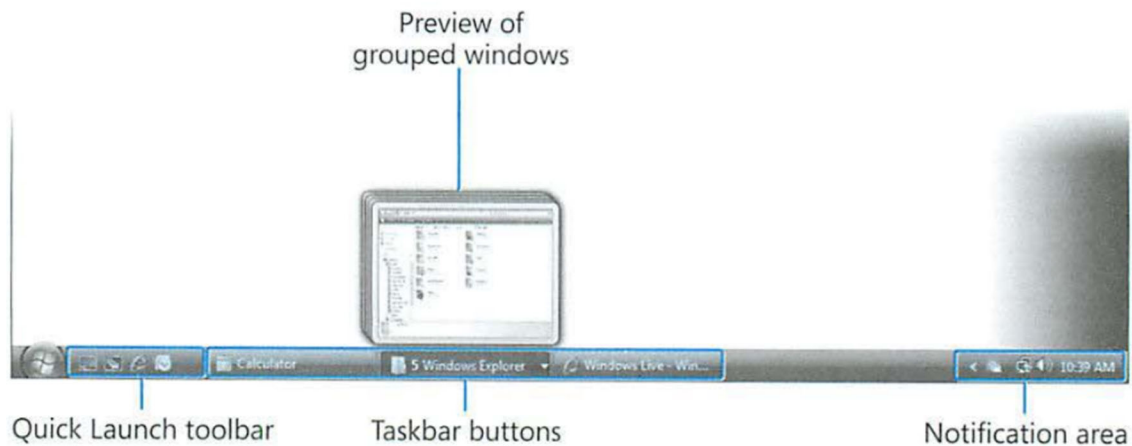
Preppernau is a January 2007 Microsoft publication, (*see* EX-1015), detailing step-by-step instructions for Windows Vista. Preppernau, Title, xi; *see also* Houh Decl., ¶ 103-06. In particular, Preppernau discloses tab-based internet browsing organized in multiple ways. Preppernau, 182. As one example, a figure from Chapter 6 is reproduced below.⁹

⁹ Throughout the Petition, all blue annotations in Preppernau figures are original; Petitioner’s annotations are made in separate color.



Id. As shown, Preppernau teaches the use of a “Favorites Center” that “contains [1] links you have saved to Web sites, folders, and files; [2] links to RSS feeds you have subscribed to; and [3] a record of your internet browsing history.” Preppernau, 182; *see also* EX-1001, 68:15-19 (“[V]isual representations of online content that are mapped to for example the most frequently accessed sites on the recipient’s home computer.”). Preppernau also teaches the use of a “Quick Tabs display” that “displays screenshots of all web pages currently open.” Preppernau, 182

In addition, Preppernau discloses interface tools in Windows Vista that help users navigate the applications on their computer, including a “taskbar” at the bottom of the user’s screen, shown below:



Id., 46. Preppernau teaches that the taskbar button “displays a thumbnail of the window (or windows) it represents,” allowing a user to:

- Display one window by clicking the taskbar button and then in the list, clicking the window you want to display.
- Display all the windows in the group by right-clicking the taskbar button and then clicking the arrangement you want:
- Cascade displays the windows on top of each other, with the title bar of each window visible and the contents of only the top window visible.
- Show Windows Stacked displays the content of all the windows arranged in a grid, with more windows stacked vertically than horizontally. For example, eight windows are arranged in two columns of four.
- Show Windows Side By Side displays the content of all the windows arranged in a grid, with more windows stacked horizontally than vertically. For example, eight windows are arranged in four columns of two.

Id., 47.

2. Motivation to Combine

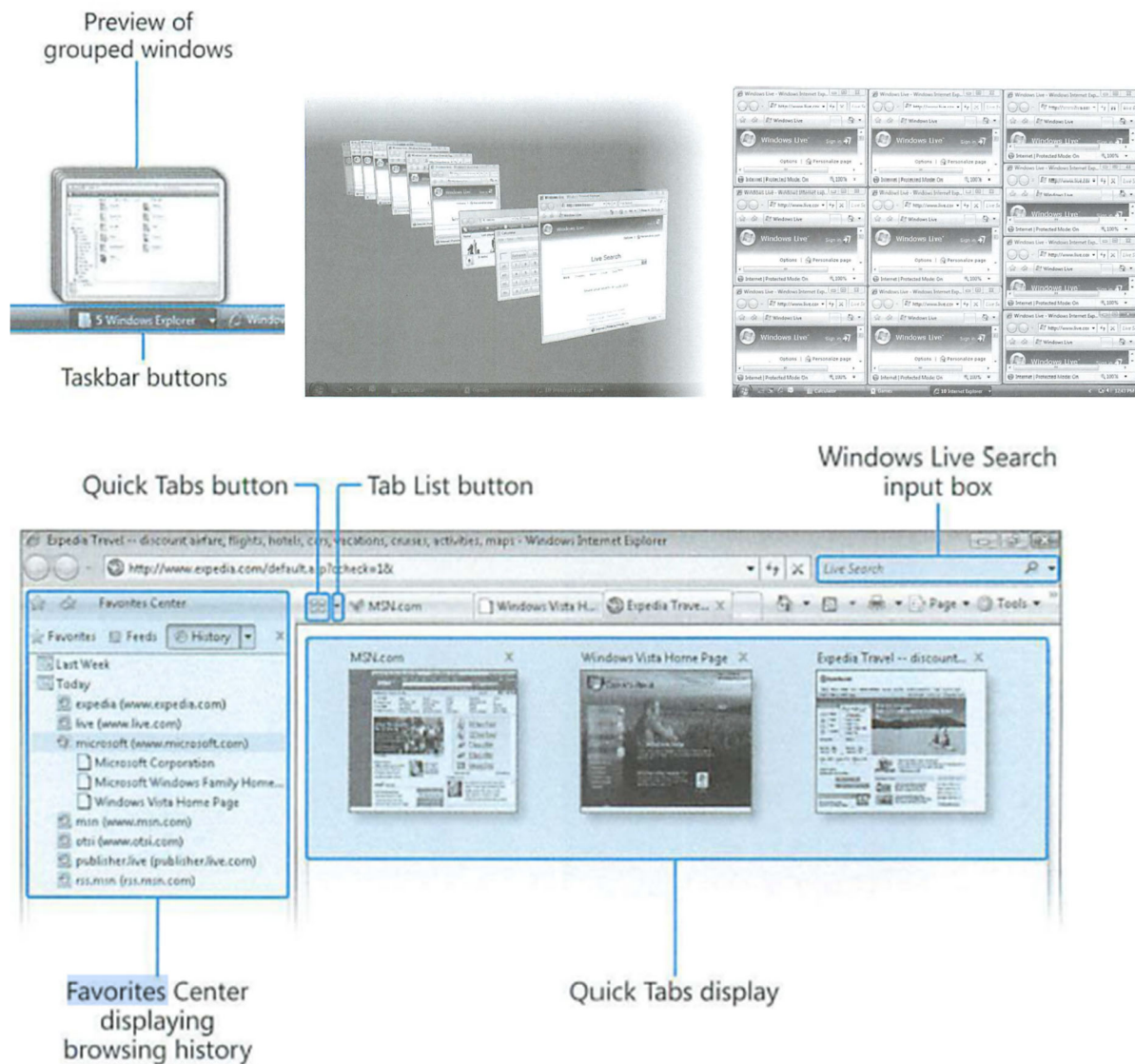
A POSITA would have been motivated to combine Pröll with the teachings of Preppernau, a 2007 manual discussing Microsoft Windows Vista. *See generally*

Preppernau; Houh Decl., ¶ 107-09. Windows Vista was a popular operating system for computers at the relevant time, and a POSITA would have found it obvious to use that operating system with the Pröll computer. *Id.* Pröll discloses how to change the GUI on a screen in response to the configuration of the computer device, and Preppernau teaches different ways of organizing content that a POSITA would have recognized as beneficial to implement in Pröll’s device. Houh Decl., ¶ 108. Both Pröll and Preppernau predate the earliest priority date of the ’818 patent by more than a year.

Preppernau teaches that Windows Vista is suitable for operation on tablet computers, including devices with displays that receive input via a user’s touch or pen. Preppernau, xiv, xxxiii, 142–47 (instructing how to configure Tablet PC options). As Dr. Houh explains, a POSITA would have been motivated to add the Windows Vista operating system from Preppernau to the Pröll device, including because the rotatable laptop disclosed in Pröll would have been considered a “tablet” computer that would have benefited from an operating system that could take advantage of its rotatable screens. Houh Decl., ¶ 109. Indeed, Preppernau—similar to Pröll—teaches how to change a Tablet PC’s orientation to facilitate writing with a pen/stylus. Preppernau, 143.

A POSITA would have been further motivated to combine Preppernau with the Pröll device to improve the usability of Pröll’s interface when its keyboard is

inoperable. Houh Decl., ¶ 108. Preppernau explains that Windows Vista includes numerous features to make it easier for a user to access files and applications. *See, e.g.,* Preppernau, 57 (“You can organize your icons and shortcuts manually, or if you are happy with simple arrangements, you can have Windows Vista arrange them for you.”); *see also id.*, 40 (“You don't even have to know precisely where things are stored, because Windows Vista provides a system of links that you can use to navigate directly to Windows Vista settings and tools, to programs, and to certain ‘buckets’ of information.”); *id.*, 62 (“No matter how organized you are, there will be times when you can’t remember where you stored a particular file. No problem!”); *id.*, 70 (“The Windows Explorer window is dynamic and changes to reflect the content you are viewing. You can also customize the window to suit the way you work.”). Preppernau teaches multiple ways to navigate and organize content on a user’s computer, including organizing websites into tabs or grouping websites according to “favorites” or recently visited websites, displaying currently open websites in a grid, or rearranging icons and windows on the device into various displays, including those shown below:



Preppernau, 46-47, 50-51, 182 (labels and annotations in original); Houh Decl., ¶ 108. A POSITA would have been aware of all of these methods of organizing content, and understood that each would have improved the usability of Pröll's display. Houh Decl., ¶ 108.

3. Claim 1

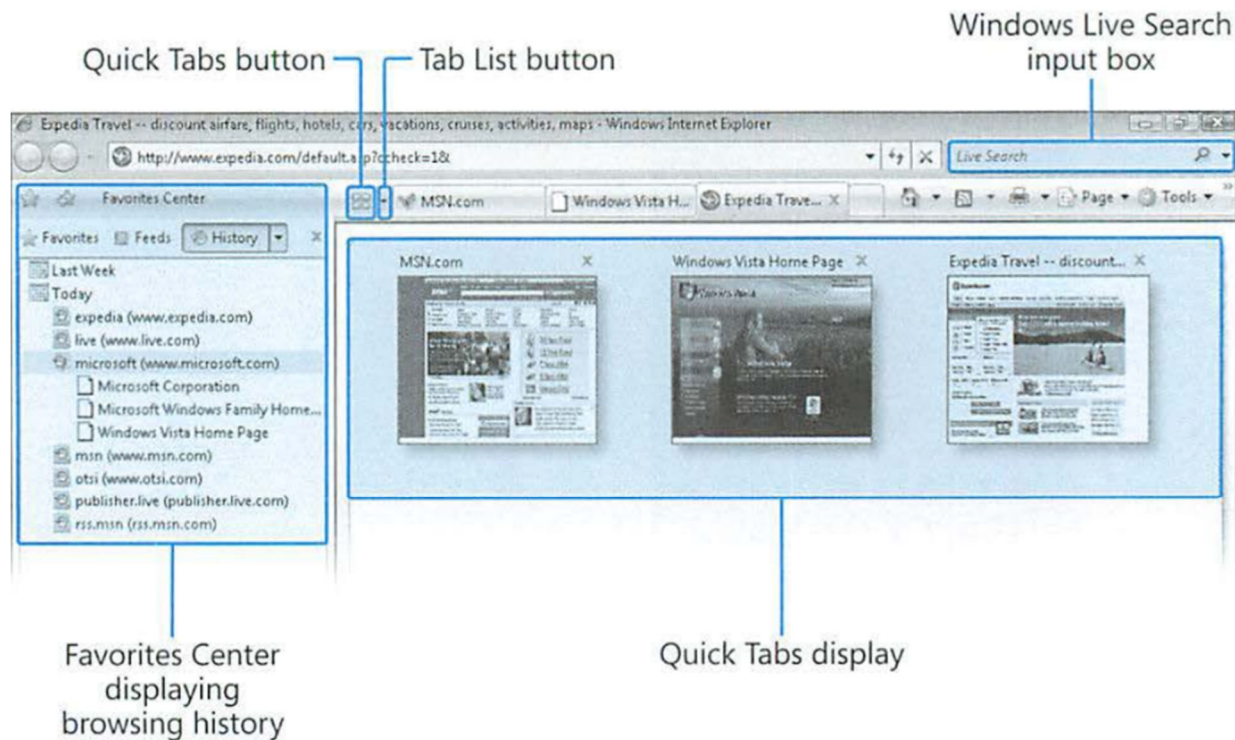
- a. 1[pre]: “At least one non-transitory computer-readable storage medium storing processor-executable instructions that, when executed by at least one processor in a computer system comprising a display and a keyboard and being configurable between a plurality of computer system configurations, cause the at least one processor to perform a method comprising:”**

To the extent the preamble is limiting, Pröll discloses 1[pre]. *See* Section VIII.A.4.a. Houh Decl., ¶ 110.

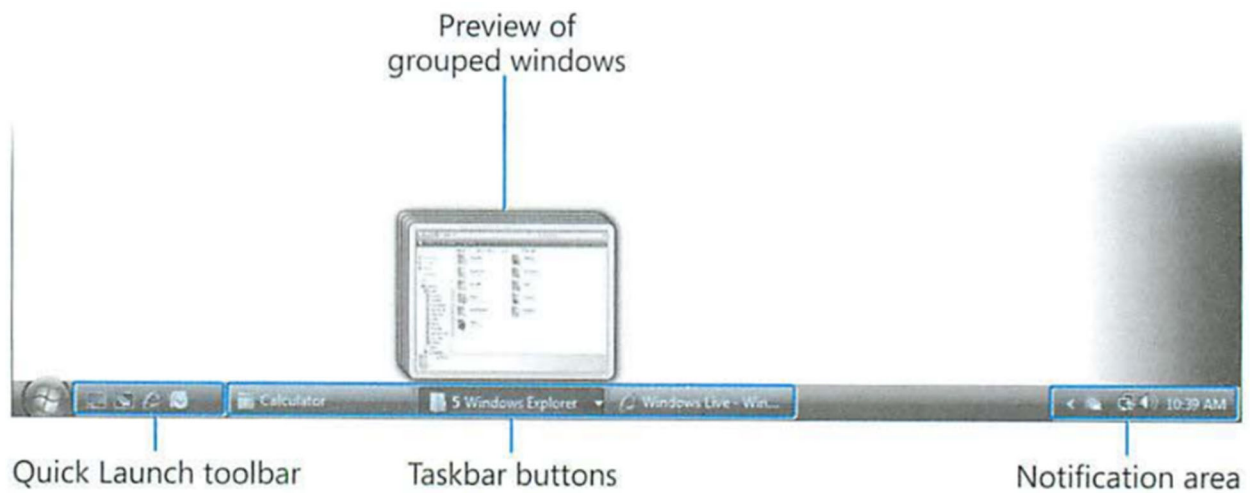
- b. 1[a]: “displaying a plurality of views of a plurality of visual representations of computer content;”**

The Pröll-Preppernau combination teaches 1[a]. Houh Decl., ¶ 111-15. As discussed above in Ground 1, Pröll’s device displays a first view when operated as a “laptop” and a second view when rotated more than 180°, but Pröll does not explicitly discuss the organization of content on its GUI. *See* Section VIII.A.4.b. A POSITA would have been motivated to look to Preppernau for ways to display different organizations of content, including to augment Pröll’s device when its keyboard is disabled. *See* Houh Decl., ¶ 112-15.

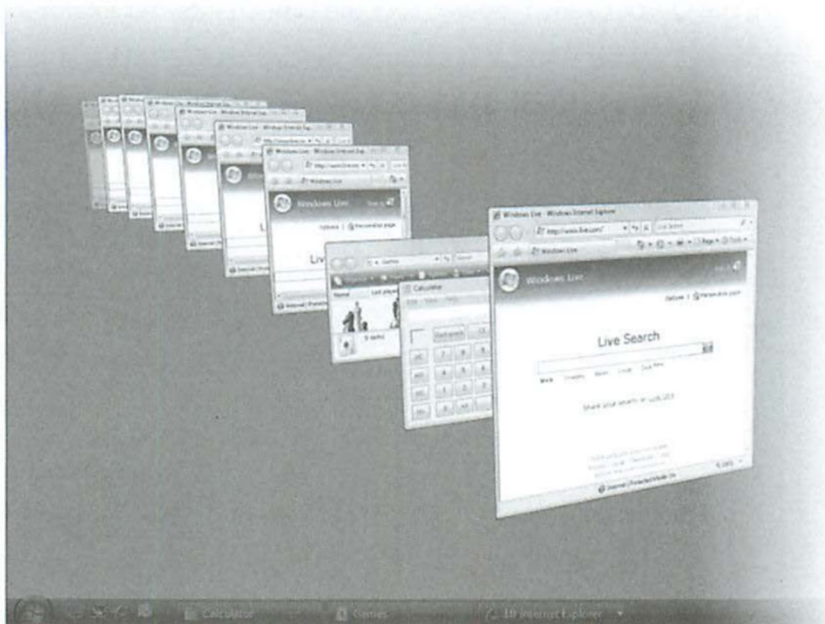
Preppernau teaches multiple ways to navigate and organize content (“visual representations of computer content”) on a user’s computer. For example, Preppernau documents Windows Internet Explorer at that time, as shown below:

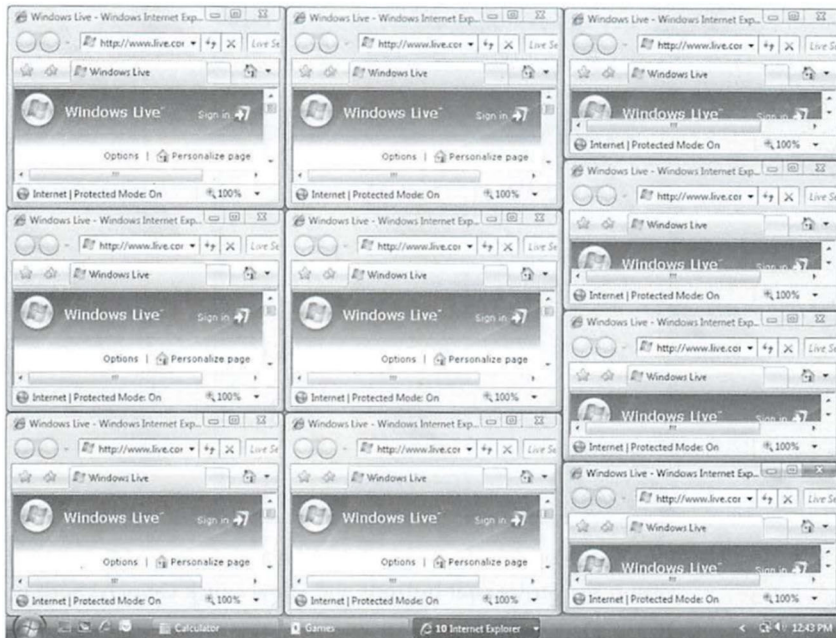


Preppernau, 182. Preppernau’s quick tabs feature displays a thumbnail of all web pages users are currently viewing, allowing them to easily select a particular page they may have misplaced. Preppernau, 182. Preppernau’s “Favorites Center” includes three ways—“Favorites,” “Feeds,” and “History” tabs—to organize websites a user frequents or follows. Preppernau, 182. As can be seen in the above image, digital content is represented in several ways, including by listing URLs, titles of web pages, and thumbnails (“visual representations of computer content”). *Id.*; Houh Decl., ¶ 113. And Preppernau’s taskbar permits a user to organize groups of windows in various ways, with one example shown below:



Preppernau, 46. Preppernau's taskbar allows a user to display all windows in a group of applications, cascade displays of windows, arrange windows in a grid, and/or arrange windows side-by-side. *Id.*, 46–47. As another example, Preppernau teaches the use of a “Quick Launch toolbar” that can display a user's active windows in various configurations, shown below:





Preppernau, 50, 51.

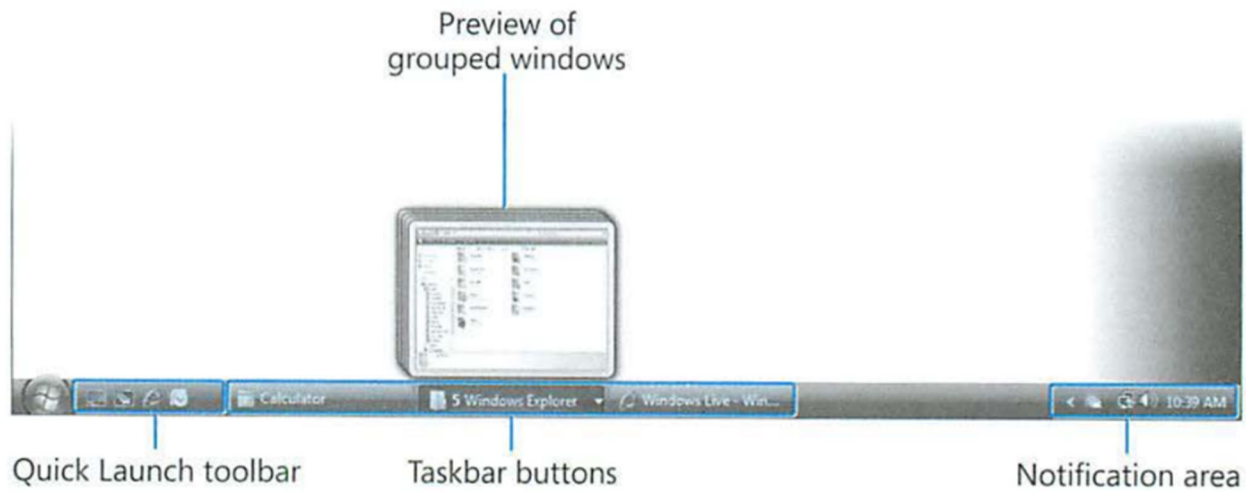
A POSITA would have been motivated to combine the teachings of Pröll and Preppernau for the reasons discussed in Section VIII.B.2 above, including, for example, to allow for a more user-friendly GUI organization when Pröll's keyboard is blocked (i.e., when Pröll's two halves are rotated by more than 180° relative to each other). Houh Decl., ¶ 107-09, 115. Thus, Pröll in combination with Preppernau teaches this limitation.

- c. **1[b]: “detecting a current computer system configuration from at least a first computer system configuration of the plurality of computer system configurations where the keyboard is operable to receive input from an operator of the computer system to control the computer system and a second computer system configuration of the plurality of computer system configurations where the keyboard is inoperable to receive input from the operator of the computer system to control the computer system;”**

Pröll discloses 1[b]. *See* Section VIII.A.4.c. Houh Decl., ¶ 116.

- d. **1[c]: “selecting one of the plurality of views for display on the computer system in response to the detected current computer system configuration;”**

The Pröll-Preppernau combination teaches 1[c]. Houh Decl., ¶ 117-119. As discussed above in Ground 1, Pröll teaches changing the orientation of the display in response to the detected computer system configuration. *See* Section VIII.A.4.a. A POSITA would have found it obvious to select one of the plurality of views taught in Preppernau. *See* Houh Decl., ¶ 118-19. As discussed above in Section VIII.B.3, a POSITA would have been motivated to trigger the display of Preppernau’s views (“selecting”), including based on the detection configuration of Pröll’s device via its switch indicating rotation of Pröll’s two halves by more/less than 180° with respect to each other. For example, Preppernau teaches that its taskbar can organize windows into multiple configurations, which is itself a “view” that is selected, as shown below:



Preppernau, 46. Preppernau teaches that a user can also select to “[d]isplay all the windows in the group,” “[c]ascade displays [of] the windows on top of each other,” “display[] the content of all the windows arranged in a grid, with more windows stacked vertically than horizontally” or “display[] the content of all the windows arranged in a grid, with more windows stacked horizontally than vertically.”

Preppernau, 47. A POSITA would have been motivated to combine Pröll and Preppernau to predictably improve the usability of Pröll’s system by displaying different views that reorganize the icons and windows, including based on the configuration of the laptop device. *See* Houh Decl., ¶ 119.

- e. **1[d] and 1[e]: “transitioning to the selected one of the plurality of views; and displaying the selected one of the plurality of views.”**

The Pröll-Preppernau combination teaches 1[d] and 1[e]. Houh Decl., ¶ 120. As discussed above in Ground 1, Pröll teaches changing the orientation of the display in response to the detected computer system configuration. *See* Section VIII.A.4.a.

As discussed for 1[a] and 1[c], a POSITA would have found it obvious to display one of the plurality of views taught in Preppernau when Pröll's device detects a change in its configuration. *See* Sections VIII.B.3.b and VIII.B.3.d. As explained by Dr. Houh, the Pröll/Preppernau device would select, transition to, and display a particular view in order to display it to the user. *See* Houh Decl., ¶ 117-20.

Thus, claim 1 is unpatentable as obvious based on the Pröll-Preppernau combination.

4. Claim 2:

- a. “The at least one non-transitory computer-readable storage medium of claim 1, wherein the first and second computer system configurations comprise a physical positioning of the display relative to the keyboard.”**

The Pröll-Preppernau combination teaches claim 1 (*see* Section VIII.B.3), and Pröll teaches the additional limitations of claim 2 (*see* Section VIII.A.5). Houh Decl., ¶ 121. Pröll's teachings for the additional limitations of claim 2 are the same as discussed for claim 1, and a POSITA would have been motivated to combine those teachings with Preppernau for the same reasons discussed above in Sections VIII.B.2 and VIII.B.3.

Thus, claim 2 is unpatentable as obvious based on the Pröll-Preppernau combination.

5. Claim 3:

- a. “The at least one non-transitory computer-readable storage medium of claim 1, wherein the first computer system configuration is a laptop mode where the keyboard is oriented to be accessible to the operator and wherein the second computer system configuration is an easel mode or a frame mode where the keyboard is oriented to be inaccessible to the operator.”**

The Pröll-Preppernau combination teaches claim 1 (*see* Section VIII.B.3), and Pröll teaches the additional limitations of claim 3 (*see* Section VIII.A.6). Houh Decl., ¶ 122. Pröll’s teachings for the additional limitations of claim 3 are similar to those discussed for claim 1, and a POSITA would have been motivated to combine those teachings with Preppernau for the same reasons discussed above in Sections VIII.B.2 and VIII.B.3.

Thus, claim 3 is unpatentable as obvious based on the Pröll-Preppernau combination.

6. Claim 4:

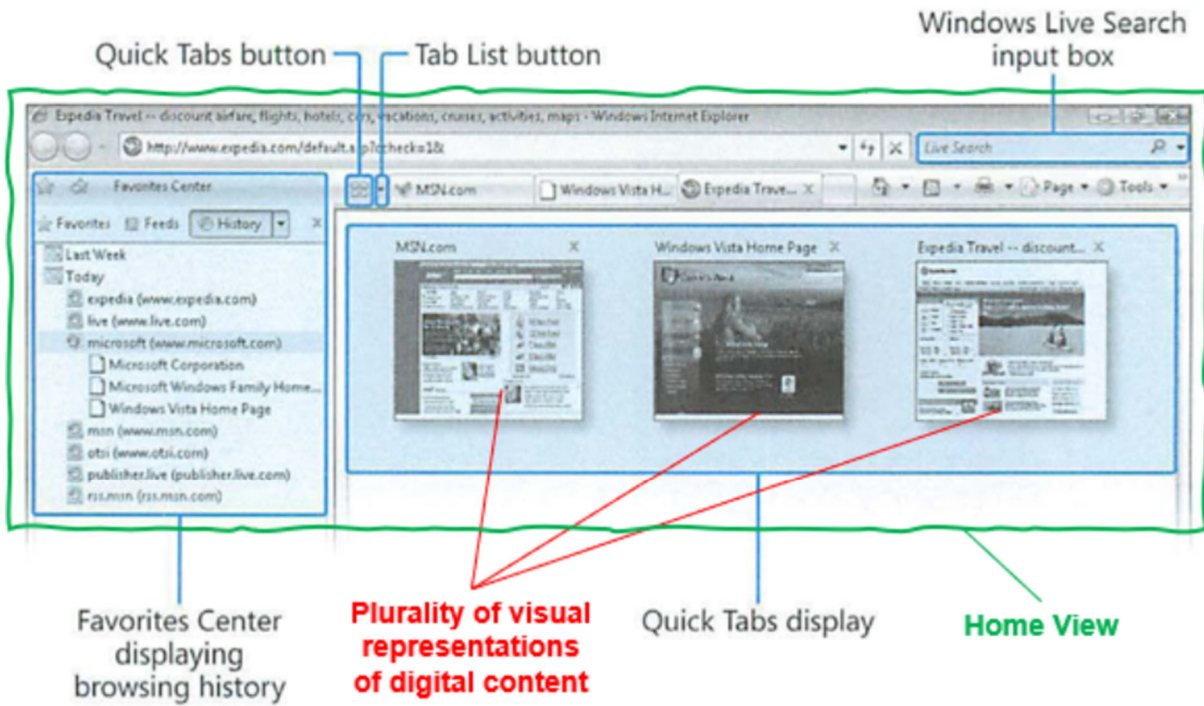
- a. “The at least one non-transitory computer-readable storage medium of claim 1, wherein the plurality of views includes a home view and wherein the method further comprises displaying the home view.”**

The Pröll-Preppernau combination teaches claim 1 (*see* Section VIII.B.3), and that combination also teaches the additional limitations of claim 4. Houh Decl., ¶ 123-27. The ’818 patent does not explicitly define a “home view,” but it explains

that a home view can be “configured to organize a plurality of content modes” or can “organiz[e] a plurality of visual representations of digital content.” *See, e.g.,* ’818 patent, 4:6–9, 4:47–51; *see also id.*, 4:58-60 (“[T]he home view comprises a header display and a body display.”).

Pröll automatically alters its display based on the rotation of its computer device, and Preppernau teaches multiple ways to organize content, including through the use of a home view that displays other groupings of content. *See* Houh Decl., ¶ 124; Section VIII.B.3.

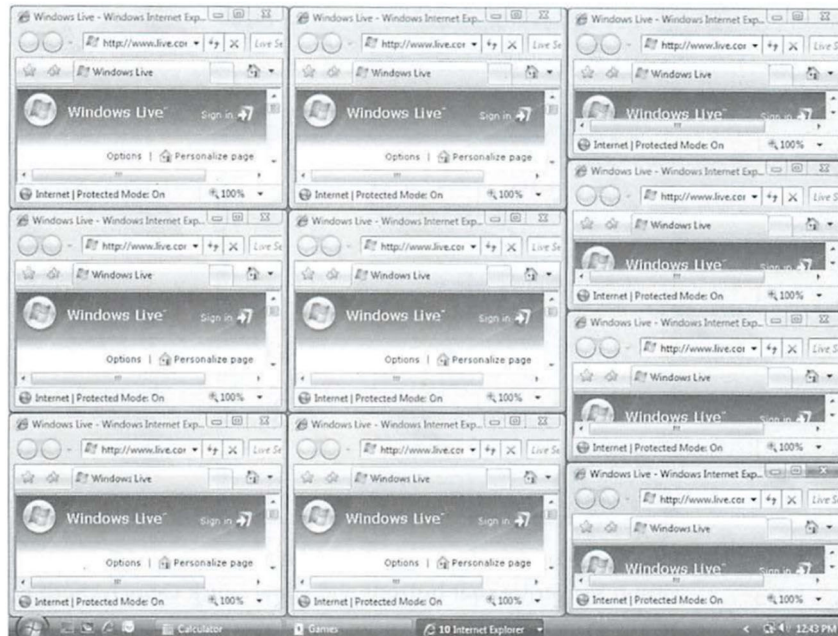
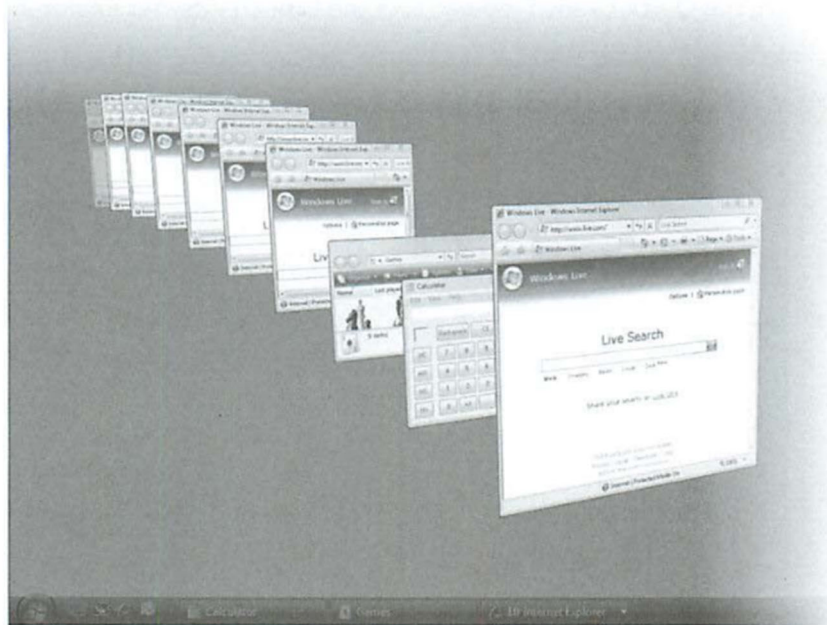
In addition, the Windows Vista operating system user interface includes a **“Quick Tabs display” below tool bars and tools** that arranges current, open web page-linked **thumbnail screenshots** in a grid-type layout (both being “home views”) on a user’s computer screen (“displaying the home view”). Preppernau, 182. This is shown in the annotated figure reproduced below.



Id., 182. Preppernau also teaches that its taskbar can display various groupings of windows, shown below:



Id., 46-47. Preppernau also teaches the use of a “Quick Launch toolbar” that can display a user’s windows in various configurations, shown below:



Preppernau, 50–51. Each of these ways of organizing content disclosed in Preppernau teaches a “home view” that a POSITA would have found obvious to

incorporate into Pröll. *See* Houh Decl., ¶ 127. A POSITA would have been motivated to combine Preppernau’s views with Pröll for the same reasons discussed above in Sections VIII.B.2 and VIII.B.3.

Thus, claim 4 is unpatentable as obvious based on the Pröll-Preppernau combination.

7. Claim 11

- a. 11[pre]: “At least one non-transitory computer-readable storage medium storing processor-executable instructions that, when executed by at least one processor in a computer system comprising a display and a keyboard and being configurable between a plurality of computer system configurations, cause the at least one processor to perform a method comprising:”**

See Section VIII.B.3.a for 1[pre]. Houh Decl., ¶ 128.

- b. 11[a]: “displaying a plurality of views of a plurality of visual representations of computer content;”**

See Section VIII.B.3.b for 1[a]. Houh Decl., ¶ 129.

- c. **11[b]: “detecting a current computer system configuration from at least a first computer system configuration from the plurality of computer system configurations where the keyboard is positioned to receive input from an operator of the computer system and a second computer system configuration from the plurality of computer system configurations where the keyboard is not positioned to receive input from the operator of the computer system;”**

See Section VIII.B.3.c for 1[b]. Houh Decl., ¶ 130. In addition, as discussed in Section VIII.B.4 for claim 2, Pröll’s laptop mode (Figure 2) has the keyboard positioned to receive input from an operator of the computer system and Pröll’s easel mode (Figure 7) has the keyboard not positioned to receive input from the operator of the computer system.

- 11[c]: “selecting one of the plurality of views for display on the computer system in response to the detected current computer system configuration; and”**

See Section VIII.B.3.d for 1[c]. Houh Decl., ¶ 131.

- d. **11[d]: “transitioning the display component to the selected one of the plurality of views.”**

See Section VIII.B.3.e for 1[d] and 1[e]. Houh Decl., ¶ 132.

Thus, claim 11 is unpatentable as obvious based on the Pröll-Preppernau combination.

8. Claim 12:

- a. “The at least one non-transitory computer-readable storage medium of claim 11, wherein each of the first and second computer system configurations comprise a physical positioning of the display relative to the keyboard.”**

See Section VIII.B.7 for claim 11 and Section VIII.B.4 for claim 2, which mirrors the additional limitations of claim 12. *See also* Houh Decl., ¶ 133.

Thus, claim 12 is unpatentable as obvious based on the Pröll-Preppernau combination.

9. Claim 13:

- a. “The at least one non-transitory computer-readable storage medium of claim 11, wherein the first computer system configuration is a laptop mode where the keyboard is oriented to be accessible to the operator and wherein the second computer system configuration is an easel mode or a frame mode where the keyboard is oriented to be inaccessible to the operator.”**

See Section VIII.B.7 for claim 11 and Section VIII.B.5 for claim 3, which mirrors the additional limitations of claim 13. *See also* Houh Decl., ¶ 134.

Thus, claim 13 is unpatentable as obvious based on the Pröll-Preppernau combination.

10. Claim 14:

- a. “The at least one non-transitory computer-readable storage medium of claim 11, wherein the plurality of views includes a home view and wherein the method further comprises displaying the home view.”**

See Section VIII.B.7 for claim 11 and Section VIII.B.6 for claim 4, which mirrors the additional limitations of claim 14. *See also* Houh Decl., ¶ 135.

Thus, claim 14 is unpatentable as obvious based on the Pröll-Preppernau combination.

As discussed above, Pröll in view of Preppernau demonstrates that Claims 1–4 and 11–14 are unpatentable.

IX. CONCLUSION

Inter Partes Review of the Challenged Claims is respectfully requested.

X. MANDATORY NOTICES

A. Real Party in Interest

Petitioners identify themselves, as real parties in interest.

B. Related Matters

To the best of Petitioners’ knowledge, the ’818 patent has been involved in the following district court litigation:

- *LiTL LLC v. HP Inc.*, 1-23-cv-00120 (D. Del. Feb. 01, 2023)
- *LiTL LLC v. Dell Technologies Inc. et al.*, 1-23-cv-00121 (D. Del. Feb. 01, 2023)

- *LiTL LLC v. ASUSTeK Computer Inc. et al.*, 1-23-cv-00122 (DDE) (D. Del. Feb. 1, 2023)

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¹⁰ For purposes of this IPR, the Petitioner parties have designated a lead counsel as a commitment to act as a single entity in the proceeding. Counsel for each party will coordinate and act through the designated lead counsel. This designation is not a representation of an attorney-client relationship.

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Date: January 30, 2024

CERTIFICATE OF WORD COUNT UNDER 37 CFR §42.24(d)

Pursuant to 37 C.F.R. §42.24(a), Petitioner hereby certifies that portions of the above-captioned Petition for *Inter Partes* Review of U.S. Patent 10,564,818, in accordance with and 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 9,262. Pursuant to 37 C.F.R. §42.24(a), this word count is in compliance and 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. This word count was prepared using Microsoft Word.

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that true copies of the Petition for *Inter Partes* Review of U.S. Patent No. 10,564,818 and supporting materials (Exhibits and Power of Attorney) were served via overnight delivery on the Patent Owner at the correspondence address of record as listed on PAIR:

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