IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

LITL LLC, Plaintiff, v. HP INC., Defendant.	Civil Action No. 23-120-RGA
MICROSOFT CORPORATION, Intervenor-Plaintiff, v. LITL LLC, Intervenor-Defendant.	
LITL LLC Intervenor-Defendant/Counterclaim Plaintiff in Intervention, v. MICROSOFT CORPORATION, Intervenor-Plaintiff / Counterclaim Defendant in Intervention.	

LITL LLC, Plaintiff, v. DELL TECHNOLOGIES INC. and DELL INC., Defendants.	Civil Action No. 23-121-RGA
MICROSOFT CORPORATION, Intervenor-Plaintiff, v. LITL LLC, Intervenor-Defendant.	
LITL LLC Intervenor-Defendant / Counterclaim Plaintiff in Intervention, v. MICROSOFT CORPORATION, Intervenor-Plaintiff / Counterclaim Defendant in Intervention.	

LITL LLC, Plaintiff, v. ASUSTEK COMPUTER INC. and ASUS GLOBAL PTE. LTDL, Defendants.	Civil Action No. 23-122-RGA
MICROSOFT CORPORATION, Intervenor-Plaintiff, v. LITL LLC, Intervenor-Defendant.	
LITL LLC Intervenor-Defendant / Counterclaim Plaintiff in Intervention, v. MICROSOFT CORPORATION, Intervenor-Plaintiff / Counterclaim Defendant in Intervention.	

MEMORANDUM OPINION

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ANDREWS, U.S. DISTRICT JUDGE:

Before me is the issue of claim construction of one or more terms in U.S. Patent Nos. 8,289,688 ("the '688 patent"); 9,563,229 ("the '229 patent"); 10,289,154 ("the '154 patent"); 9,003,315 ("the '315 patent"); 9,880,715 ("the '715 patent"); 10,564,818 ("the '818 patent"); and 8,612,888 ("the '888 patent") (collectively, the "Asserted Patents"). The parties submitted a Joint Claim Construction Brief (D.I. 100)[1], and I heard oral argument on October 10, 2024. (D.I. 117).

I. BACKGROUND

LiTL filed complaints (D.I. 1) and amended complaints (D.I. 20) against three sets of Defendants, alleging infringement of the eight patents listed above. The Asserted Patents are "directed to various aspects of computing devices that can be used in multiple display modes." (D.I. 100 ¶ 17). All the asserted patents are descended from the '688 patent. (D.I. 20 ¶ 30). The '688 patent claims priority to a provisional application filed April 1, 2008. ('688 patent, 1:6–10).

II. LEGAL STANDARD

"It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (internal quotation marks omitted). "'[T]here is no magic formula or catechism for conducting claim construction.' Instead, the court is free to attach the appropriate weight to appropriate sources 'in light of the statutes and policies that inform patent law.'" *SoftView LLC v. Apple Inc.*, 2013 WL 4758195, at *1 (D. Del. Sept. 4, 2013) (alteration in original) (quoting *Phillips*, 415 F.3d at 1324). When construing patent claims, a court considers

[1] References to docket entries in this opinion are from *LiTL LLC v. HP Inc.*, No. 23-120-RGA (D. Del).

the literal language of the claim, the patent specification, and the prosecution history. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 977–80 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996). Of these sources, "the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." *Phillips*, 415 F.3d at 1315 (internal quotation marks omitted). "While claim terms are understood in light of the specification, a claim construction must not import limitations from the specification into the claims." *Deere & Co. v. Bush Hog, LLC*, 703 F.3d 1349, 1354 (Fed. Cir. 2012) (citing *Phillips*, 415 F.3d at 1323).

"[T]he words of a claim are generally given their ordinary and customary meaning. . . . [This is] the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Phillips*, 415 F.3d at 1312–13 (citations and internal quotation marks omitted). "[T]he ordinary meaning of a claim term is its meaning to [an] ordinary artisan after reading the entire patent." *Id.* at 1321 (internal quotation marks omitted). "In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words." *Id.* at 1314.

When a court relies solely upon the intrinsic evidence—the patent claims, the specification, and the prosecution history—the court's construction is a determination of law. *See Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 331 (2015). The court may also make factual findings based upon consideration of extrinsic evidence, which "consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises." *Phillips*, 415 F.3d at 1317–19 (quoting *Markman*, 52 F.3d at

980). Extrinsic evidence may assist the court in understanding the underlying technology, the meaning of terms to one skilled in the art, and how the invention works. *Id.* Extrinsic evidence, however, is less reliable and less useful in claim construction than the patent and its prosecution history. *Id.*

III. CONSTRUCTION OF AGREED-UPON TERMS

I adopt the following agreed-upon constructions:

Claim Term	Claims	Construction
"keyboard is inoperable to receive input from the operator"	'715 patent, claims 1, 17 '818 patent, claims 1, 11	"keyboard is unable to receive input from the operator, which is different and distinct from the keyboard being physically oriented so that it is inaccessible to the operator"
"means for rotating"	'229 patent, claim 9	Subject to 35 U.S.C. § 112 ¶6. **Function**: rotating the display component along the longitudinal axis relative to the base to transition the portable computer for viewing in the frame mode **Structure**: the hinge assembly having a single axis or multiple parallel axes as described at 2:12-20; 2:37-39; 2:65-3:3; 3:9-19; 4:6-13; 4:57-61; 4:64-65; 5:3-14; 5:53- 60; 6:32-40; 6:52-63; 9:22-10:7; 10:24-11:18; FIGs. 1, 2, 4, 7A-10, 25-27 and its equivalents
"means for rotating"	'688 patent, claim 11	Subject to 35 U.S.C. § 112 ¶6. **Function**: rotating the display component in a single direction relative to the base

		to configure the portable computer between a laptop mode and an easel mode **Structure**: the hinge assembly having a single axis or multiple parallel axes as described at 1:64-2:6; 2:22-24; 2:49-54; 2:60-3:2; 3:57-64; 4:40-44; 4:47-48; 4:53-64; 5:33-39; 6:10-17; 6:28-38; 8:62-9:45; 9:61-10:53; FIGs. 1, 2, 4, 7A-10, 25-27 and its equivalents
"determining a display mode"	'688 patent, claims 17, 29–32	"determining a display mode by distinguishing among all the portable computer's display modes"
"views"	'715 patent, claims 1, 2, 4, 14, 15, 17, 20 '315 patent, claims 1, 2, 4, 6–8, 24, 27, 28, 54, 57 '818 patent, claims 1, 4, 11, 14 '888 patent, claim 1	"ways of organizing visual representations of computer content (as distinct from, for example, merely changing the display orientation)"
"I/O profile"	'888 patent, claim 1 '315 patent, claims 1, 27, 28	"a set of input/output devices"

IV. CONSTRUCTION OF DISPUTED TERMS

The parties agree that the following claims are representative for the purpose of claim construction. Those claims state:

11. A portable computer comprising:

a base;

a display component rotatably coupled to the base;

means for rotating the display component in a single direction relative to the base to configure the portable computer between a laptop mode and an easel mode;

a ***display orientation module*** configured to automatically orient content displayed on the display component responsive to at least a transition between the laptop mode and the easel mode, wherein the ***display orientation module*** is further configured to orient the content displayed between a first display orientation and a second display orientation, the first and second display orientations being 180 degrees relative to each other; and

means for detecting an orientation of the base relative to the display component, wherein the ***means for detecting*** is further configured to identify the transition between the laptop mode and the easel mode based on a stored threshold orientation.

('688 patent, claim 11) (disputed terms bolded and italicized).

17. A method of automatically orienting content in a ***plurality of display modes*** displayed on a portable computer comprising a body, the body having a single display component including a display screen and a base including an integrated keyboard, the method comprising:

rotating the single display component of the portable computer about a longitudinal axis running along an interface between the single display component and the base of the portable computer;

detecting a degree of rotation of the single display component relative to the base;

providing a signal representative of the degree of rotation of the single display component;

comparing the degree of rotation with respect to a threshold degree of rotation;

determining a ***display mode*** based, at least in part, on the act of comparing the degree of rotation with respect to the threshold degree of rotation;

generating a visual display of the content for the display screen;

orienting the visual display shown on the display screen of the single display component towards an operator for operation of the portable computer in each of the ***plurality of display modes***, wherein the ***plurality of display modes*** includes a laptop mode with the integrated keyboard and display oriented towards the operation and an easel mode with the display oriented towards the operator and the keyboard oriented away from the operator; and

automatically configuring a content orientation, relative to the longitudinal axis, of the visual display on the display screen of the portable computer responsive to the signal and the determined ***display mode***, wherein the act of automatically configuring includes acts of:

displaying the visual display in a first content orientation of the content for the degree of rotation that is less than the threshold degree of rotation and the portable computer is determined to be configured in the laptop mode, and

displaying the visual display in a second content orientation of the content for the degree of rotation that is greater than the threshold degree of rotation and the portable computer is determined to be configured in the easel mode, the second content orientation being at 180 degrees relative to the first orientation.

('688 patent, claim 17) (disputed terms bolded and italicized).

1. A portable computer configurable between a ***plurality of display modes*** including at least a laptop mode, a frame mode, and an easel mode, the portable computer comprising:

a display component;

a base;

an accelerometer configured to generate orientation information indicative of a current display mode among the plurality of display modes of the portable computer;

a display manager configured to display computer content on the display component and vary the computer content displayed responsive to the orientation information indicating a transition between at least the laptop and easel modes, wherein the display manager is further configured to enlarge the computer content displayed on the display component responsive to a transition from the laptop mode to the easel mode;

an interface between the display component and the base defining a longitudinal axis running along the display component and the base about which the display component and the base are rotatable;

wherein the interface is constructed and arranged such that rotating either the display component or the base about the longitudinal axis up to approximately 180 degrees from a closed mode configures the portable computer into the laptop mode, wherein in the laptop mode the display

component is oriented towards an operator and a keyboard disposed within the base is oriented to receive input from the operator;

wherein the interface is constructed and arranged such that rotating either the display component or the base about the longitudinal axis beyond approximately 270 degrees from the closed mode transitions the portable computer for viewing in the frame mode or the easel mode, wherein during operation in the frame mode the display component is positioned toward the operator, the base contacts a substantially horizontal surface, and the keyboard is directed towards the substantially horizontal surface, and wherein during operation in the easel mode the display component is oriented facing the operator with the keyboard oriented away from the operator; and

wherein the portable computer is configured to detect a transition to at least the easel mode and the frame mode based on the orientation information, automatically determine a display orientation of content, and ***disable the keyboard when the portable computer is in the frame mode***.

('229 patent, claim 1) (disputed terms bolded and italicized).

11. A portable computer configurable between a ***plurality of display modes*** comprising a first mode, a second mode, and a third mode, the portable computer comprising:

a display component comprising a surface;

a display screen disposed in the surface of the display component;

a camera disposed in the surface of the display component;

a base comprising a first surface and a second surface;

a keyboard disposed in the first surface of the base;

a touchpad disposed in the first surface of the base;

a power button disposed in the second surface of the base;

a central processing unit disposed in the base;

hinge [sic] assembly that rotatably couples the base to the display component, the hinge assembly being configured to permit the display component to rotate relative to the base up to at least 270 degrees from a closed position where the surface of the display component faces the first surface of the base;

an orientation sensor configured to generate orientation information indicative of an orientation of at least part of the portable computer; and

a display manager configured to detect a current ***display mode*** from among the ***plurality of display modes*** based at least in part on the orientation information, display content in a first orientation when the current ***display mode*** is the first mode or the third mode, display content in a second orientation that is rotated 180 degrees relative to the first orientation when the current ***display mode*** is the second mode, and enlarge at least some computer content displayed on the display screen when the current ***display mode*** transitions from the first mode to the second mode.

('154 patent, claim 11) (disputed terms bolded and italicized).

1. 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 on a display component of the computer system, the user interface comprising:

at least one processor;

a ***map based graphical user interface***, executing on the at least one processor operatively connected to a memory of the computer system, the ***map based graphical user interface***, when executing, is configured to display information on the display component of the computer system, wherein the map based user interface is further configured to:

display a plurality of views of a plurality of visual representations of computer content on the computer system, wherein the computer content includes at least one of selectable digital content, executable computer applications, configurable computer settings, selectable computer operations and passive digital content;

display the plurality of visual representations of computer content rendered on the display component, wherein the plurality of visual representations of computer content include an association to a first home view of the plurality of views, the first home view including a display of the computer content, and wherein the each of the plurality of visual representations is responsive to focus and execution, wherein execution includes selecting the visual representation, and wherein the first home view is a first organizational view of at least one application and computer content displayed responsive to activation of the system; and

an execution component, executing on the at least one processor, configured to:

identify at least a first and a second computer system configuration based on sensor input indicating a position of the display component relative to a base component;

select, responsive to the sensor input, a first home view from the plurality of views for the first computer system configuration, wherein the first home view is configured to organize a first set of the plurality of visual representations;

filter the first set of visual representations to present content that is optimized for viewing in the second system configuration at least in part by identifying content to filter, removing the identified content from the first set of visual representations, and generating a second set of visual representations based on the filtered first set of visual representations, wherein the second set of visual representations includes at least one different member than the first set of visual representations; and

transition, automatically in response to the sensor input, the display component between at least the first home view of the plurality of views and a second default content view of the plurality of views, wherein the second default content view is configured to organize the second set of visual representations, wherein the second default content view is a second organizational view of at least one application and computer content, and wherein the sensor input indicates a transition to the second computer system configuration.

('315 patent, claim 1) (disputed terms bolded and italicized).

1. A method for accessing and managing digital media libraries on a ***streamlined computing device*** with a plurality of selectable I/O profiles, the method comprising:

displaying a graphical user interface on ***the computing device***, wherein the graphical user interface comprises at least a plurality of views of digital media content;

providing for transition between the plurality of views in response to selection of an I/O profile;

providing for transition between the plurality of views in response to activation of a view selector component configured to permit a user to select one of the plurality of views, wherein providing for the transition between the plurality of views in response to selection of the I/O profile includes:

permitting the user to rotate a display component of ***the computing device*** about a longitudinal axis running along an interface between the display component and a base of the ***streamlined computing device***;

wherein rotating the display component about the longitudinal axis from a closed mode to a first physical orientation configures ***the computing device*** into a laptop mode having a first physical configuration of the display component and the base, with one of the plurality of views as a default display; and

wherein rotating the display component about the longitudinal axis from the closed mode to a second physical orientation configures ***the computing device*** into another ***display mode*** having a second physical configuration of the display component and the base, with another one of the plurality of views as the default display;

associating at least one of a plurality of visual representations with digital media content;

executing the association with the at least one of the plurality of visual representations with digital media content in response to selection;

transitioning a display on ***the computing device*** to a view of the digital media content in response to the act of executing the association; and

providing for display of user digital media content and referenced digital media content in the view of the digital media content.

('888 patent, claim 1) (disputed terms bolded and italicized).[2]

1. **"display mode" ('688 patent, claims 17, 27, 29, 30; '229 patent, claims 1, 3, 16, 18, 20, 25; '154 patent, claims 1, 3, 4, 7, 11, 14; '315 patent, claim 29; '888 patent, claim 23)**

	LiTL's proposed construction	**Defendants' proposed construction**	**Court's construction**
Disputed Term: "display mode"	"the overall physical configuration of (1) the display relative to the base and (2) the	"the particular physical configuration of the [portable computer / streamlined computing device]"	"particular physical configuration of the [portable computer / streamlined computing device]"

[2] In this claim, I assume "the computing device" and "the streamlined computing device" are the same thing. The parties do not discuss it, and it does not appear therefore to be relevant to their dispute.

	display or base relative to gravity"		

LiTL contends that defining "display mode" with reference to both "(1) the display relative to the base and (2) the display or base relative to gravity" will help avoid juror confusion by clarifying the term's meaning. (D.I. 100 at 11–12). Defendants counter that their construction is taken from LiTL's representations to the Examiner during re-examination and that LiTL's construction would lead to redundancy and confusion. (D.I. 100 at 15–17). This is a difficult dispute to resolve, because "display mode" is a term that it appears the inventors coined, and "display mode" is best understood as being a category that is just the sum of its parts, namely, other coined terms such as "easel mode," "laptop mode," "frame mode," "flat mode," "closed mode," and perhaps others. None of the other "modes" are the subject of claim construction disputes. I think a reasonable argument could be made that "display mode" does not need to be construed. Or, if it were to be construed, that it is simply a generic description of the various more specific "modes" disclosed in the patents. No one is arguing for that, however.

The problem with LiTL's proposed construction is that it is not definitional, and, to the extent it is definitional, it is not the right definition, as illustrated by its occasional redundancy with other express limitations. Defendants' construction appears to be harmless except possibly for the word "particular." If "particular" is simply referring to one of the disclosed modes, then Defendants' construction is pretty close to what I think is right.

To illustrate their point, Defendants turn to claim 29 of the '688 patent, which has the limitation, "determining a display mode responsive to the physical configuration of the single display component relative to the base." It would then result in the following limitation: "determining a[n] [overall physical configuration of (1) the *display relative to the base* and (2) the display or base relative to gravity] responsive to the physical configuration of the single *display component relative to the base*." ('688 patent, claim 29) (emphasis added). To the extent this reading makes any sense,

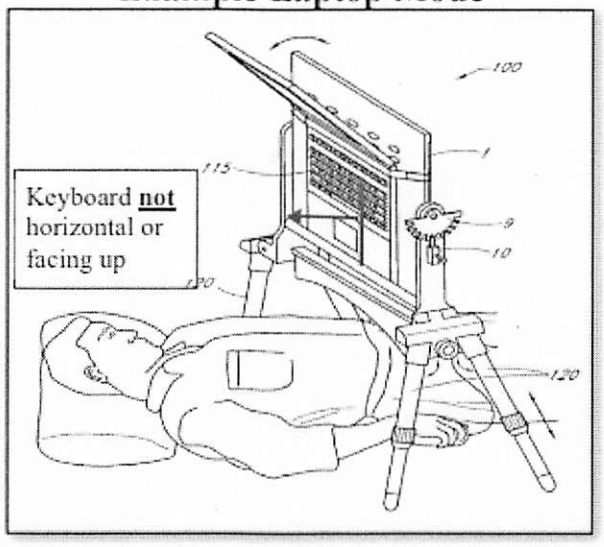
it appears to introduce redundancy. LiTL offers no satisfactory explanation to support its reading in this context.

LiTL protests that its construction is necessary to provide meaning to "display mode" because it supplies the actual "criteria by which display modes are distinguished from one another." (D.I. 100 at 17). In support, LiTL contrasts easel mode and frame mode, arguing that "because [the two modes] have the same display-to-base angle range, [information regarding the base or display relative to gravity] is also needed to differentiate these modes." (*Id.* at 14).

I reject this argument for two reasons. First, because the potential display modes are themselves defined in the specifications of the '688 patent, I find it unnecessary to over-specify to the jury which factors distinguish one display mode from another. (*See* '688 patent, 2:29–32, 4:40–42, FIG. 1 (laptop mode); 5:38–39, 16:20–25, FIG. 27 (flat mode); 2:28–29, 4:43–44, FIG. 2 (closed mode); 2:32–35, 4:47–50, FIGs. 4, 5 (easel mode); 5:35-37, 16:5–8, FIG. 26 (frame mode)). When pressed on this point in oral argument, counsel for LiTL suggested that providing specific criteria is important for categorizing other display modes in the prior art—for example, a display mode for which "the keyboard is detached from the laptop or from the screen." (D.I. 17 at 8:3–12). It eludes me, however, why resort to LiTL's construction is necessary for distinguishing prior art or characterizing as-yet-unconceived display modes—a computer whose keyboard is detached from its screen clearly has a different "physical configuration" than a computer that does not.

Second, LiTL's proposed construction seems ill-suited to its own task. Including information on "the display or base relative to gravity" is useless for distinguishing between most display modes, like laptop or closed mode, making LiTL's construction unnecessarily confusing. In fact, applying this definition to laptop mode, for instance, would yield strange results: as LiTL itself demonstrated in the course of distinguishing prior art, a computer can be in laptop mode regardless of the configuration of either the display or base relative to gravity.

Example Laptop Mode



Considering the above, I adopt Defendants' construction. The applicants, in their response to a Non-Final Office Action, wrote, "Different display modes correspond to different physical configurations of the computer—e.g., closed mode, laptop mode, easel mode, frame mode, and flat mode." (D.I. 85-2 at 96 of 240). I think Defendants' construction is consistent with this.

2. "plurality of display modes" ('688 patent, claims 17, 29, 30; '229 patent, claims 1, 16, 18; '154 patent, claims 1, 11; '315 patent, claim 29)[3]

	LiTL's proposed construction	**Defendants' proposed construction**	**Court's construction**
Disputed Term: "plurality of display modes"	No construction necessary. In the alternative: The plain and ordinary meaning of the phrase is "two or more of the display modes."	"all of the display modes supported by the portable computer" Dell: "all of the display modes supported by the portable computer, including at least,	No construction necessary.

[3] Initially, Dell proposed that "claims 1, 6, and 18 of the '229 patent in which this term appears [are] limiting" (D.I. 100 at 18), and LiTL's proposed construction argued the opposite (*id.*). Dell has since withdrawn this argument. (D.I. 117 at 20:14–23). Separately, the parties initially disputed whether claim 10 of the '844 patent was limiting. (D.I. 100 at 18). LiTL has since dismissed any assertion of that claim. (D.I. 106 at 2).

		closed mode, laptop mode, flat mode, easel mode, frame mode, and tablet mode"	

"Plurality" has a well-understood meaning under Federal Circuit precedent: "the state of being plural," *York Prod., Inc. v. Cent. Tractor Farm & Fam. Ctr.*, 99 F.3d 1568, 1575 (Fed. Cir. 1996), or, put another way, "two or more items." *Dayco Prod., Inc. v. Total Containment, Inc.*, 258 F.3d 1317, 1328 (Fed. Cir. 2001). The parties dispute whether statements made by LiTL in post-grant proceedings constitute a disclaimer of this construction, and whether, as a result, "plurality" must be construed to mean "all." I agree with LiTL.

In the course of distinguishing prior art (Lane), LiTL argued that claim 1 of the '229 patent, which recites "an accelerometer configured to generate orientation information indicative of a current display mode among the plurality of display modes of the portable computer" ("Limitation 1[c]"), required differentiating among all display modes: "Lane's 'accelerometer' 38 is not configured to generate 'unique' information that differentiates among *all* of Lane's display modes[.]" (D.I. 85-2 at 185 of 240) (emphasis added). Or, as LiTL stated more fully,

> Under the proper construction of claim 1, to meet Limitation [1c] the Petition needed to establish that Lane's "accelerometer" 38 is "configured to generate orientation information indicative of a current display mode among the plurality of display modes of [Lane's] portable computer." The Petition's failure to address some of the "plurality of display modes of [Lane's] portable computer" (flat mode and tablet mode) in mapping Lane to Limitation [1c] is fatal under the proper construction of claim 1.

(D.I. 85-2 at 212 of 240). LiTL's argument makes sense—it would be impossible for an accelerometer to generate orientation information of a current display mode without being able to distinguish between every display mode. As LiTL argues, "[Detecting which among the possible modes is the current one] require[s] distinguishing among all the display modes—but the mere phrase 'plurality of display modes' does not alone require doing so." (D.I. 100 at 28).

Consistent with its argument in the post-grant proceeding, LiTL has proposed a construction of the claims concerning the generation of orientation information that requires differentiating between all display modes. (See the discussion of the term "an accelerometer. . ." below). Defendants, however, push further, arguing that "plurality of display modes" should be read to mean "all display modes" in every instance in which "plurality of display modes" appears. (D.I. 100 at 23–26). Defendants' argument is based on the principle that "unless otherwise compelled . . . the same claim term in the same patent or related patents carries the same construed meaning." *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1334 (Fed. Cir. 2003).

I disagree with Defendants that "plurality" should mean "all" even in claims having nothing to do with the generation of orientation information. *Johnson Worldwide Associates, Inc. v. Zebco Corp.* is instructive. In that case, the Federal Circuit considered whether, during prosecution, the patentee had ascribed a special meaning to the term "heading signal." 175 F.3d 985, 991 (Fed. Cir. 1999). The defendant in *Johnson Worldwide* argued that the patentee's statement in prosecution that "'the heading signal . . . is dependent solely on the heading of the motor, and totally independent of the orientation of the vessel'" limited the definition of "heading signal" to the direction of the thrust motor in *every instance* in which the term "heading signal" appeared. *Id.* The Federal Circuit rejected that argument, noting that "the claims referred to in that passage . . . expressly included an additional limitation: that the compass be 'in a substantially fixed relationship to said propulsion device[.]'" Because the patentee's argument in prosecution was focused exclusively on claims involving additional limitations, it would make little sense to import the same argument in claims where those limitations were not present. *See id.* I find the present case to be closely analogous to *Johnson Worldwide*; in both

cases, the patentee's prosecution statement focused on a term as it was used alongside an additional limitation not found elsewhere in the patent. In both cases, it would be inappropriate to apply that statement where the additional limitation was absent. Therefore, I agree with LiTL that it has not made a "clear and unmistakable" disclaimer of its construction of "plurality of display modes." *Omega Eng'g,* 334 F.3d at 1326. For the same reasons that I disagree with Defendants' construction, I also disagree with Dell's construction.

3. "means for detecting" ('688 patent, claim 11)

	LiTL's proposed construction	**Defendants' proposed construction**	**Court's construction**
Disputed Term: "means for detecting"	Subject to 35 U.S.C. § 112 ¶ 6. **Function**: detecting an orientation of the base relative to the display component and identify the transition between the laptop mode and the easel mode based on a stored threshold orientation **Structure**: the orientation sensor or mode sensor as described at 2:28–54; 3:19–25; 6:10–17; 8:7–61; 9:19–45 and their equivalents[4]	Subject to 35 U.S.C. § 112 ¶ 6. **Function**: detecting an orientation of the base relative to the display component and identify the transition between the laptop mode and the easel mode based on a stored threshold orientation **Structure**: detent incorporated into the hinge assembly to detect movement of the hinge assembly and to translate the movement into information about the relative orientation of the display component 102 and the base component 104 and their equivalents	Subject to 35 U.S.C. § 112 ¶ 6. **Function**: detecting an orientation of the base relative to the display component and identifying the transition between the laptop mode and the easel mode based on a stored threshold orientation **Structure**: the orientation sensor or mode sensor as described at 8:7–61, 9:19–45 and their equivalents

[4] At oral argument, LiTL struck one additional passage it had previously proposed. (D.I. 117 at 43–44.

The parties agree that "means for detecting" is subject to 35 U.S.C. § 112 ¶ 6, and agree on the claimed function, but dispute the scope of the corresponding structure. LiTL argues that the structure includes the orientation sensor or mode sensor[5] as described in its five cited passages; Defendants argue that only one embodiment of the orientation sensor, a detent incorporated into the computer's hinge assembly, provides sufficient structure, and references to other means of orientation sensing, such as accelerometers, should be excluded. I adopt LiTL's construction.

For the purposes of means-plus-function language, structure in the specification of a patent qualifies as corresponding structure "if the intrinsic evidence clearly links or associates that structure to the function recited in the claim." *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1352 (Fed. Cir. 2015). The disclosure of corresponding structure must be adequate to achieve the claimed function. *See id.* "If a person of ordinary skill in the art would be unable to recognize the structure in the specification and associate it with the corresponding function in the claim, a means-plus-function clause is indefinite." *Id.*

Here, LiTL offers several passages from the '688 specification that mention a "mode sensor" or "orientation sensor." (D.I. 100 at 34). Most relevant to the parties' dispute is 8:7–61, which provides, in part, "In one example, the orientation sensor includes an accelerometer whose output is fed to the computer operating system (or to dedicated logic circuitry) which then triggers a display inversion as appropriate." '688 patent, 8:31–34. The passage continues with an explanation of how accelerometers' use in the '688 patent differs from that of other inventions. *Id.* at 8:35–48.

[5] The parties agree that "orientation sensor" and "mode sensor" mean the same thing. (D.I. 117 at 43:10–17 (LiTL); D.I. 100 at 35 n.6 (Defendants)).

The passage discloses sufficient structure. The '688 specification teaches the use of an accelerometer to detect orientation—it is hard to imagine a much clearer "link" than that. Nor is there any dispute between the parties that accelerometers can perform the required function.

Defendants disagree. Their first argument is that the '688 patent only discloses a single accelerometer, which is not adequate structure. As both parties agree, a single accelerometer on its own, located in either the base or the display, would not be capable of detecting orientation. (D.I. 100 at 36). In support, Defendants point to one passage from the specification providing, "The orientation sensor may be incorporated into the base component . . . or into the display component. In one example, locating the orientation sensor in the display component 102, rather than the base 104, may provide more robust detection. . . ." Defendants read this passage to suggest that the orientation sensor is "incorporated into the base or the display, but not both." (D.I. 100 at 35). Even if the orientation sensor were read to include multiple accelerometers, Defendants argue further, "they would all be located in either the base or the display[.]" (D.I. 100 at 36).

I am not convinced by Defendants' interpretation. Critically important is passage 6:10–17, which, while not itself providing corresponding structure, informs my interpretation of "orientation sensor" and "accelerometer" as they appear in the patent. Because 6:10–17 provides, "Any references to embodiments or elements or acts of the systems and methods herein referred to in the singular may also embrace embodiments including a plurality of these elements," I reject Defendants' argument that the structure is limited to a single accelerometer or a single orientation sensor. While Defendants point to the "may be incorporated into the base component . . . or into the display component" language in the specification as evidence to the contrary, that language is best interpreted through the lens of the drafter's lexicography. It is a cardinal rule that "[w]hen the patentee acts as its own lexicographer, that definition governs." *Cont'l Cirs. LLC v. Intel Corp.*, 915

F.3d 788, 796 (Fed. Cir. 2019). Defendants' addition of "but not both" conflicts with the lexicography provided by the patent.

Defendants' second argument is that even if the '688 patent discloses multiple accelerometers, it does not disclose an algorithm that translates the accelerometers' data into the relative angle between the base and display of the computer. (D.I. 100 at 39). In support of their argument, Defendants rely on *Aristocrat v. Int'l Game Tech.*, 521 F.3d 1328 (Fed. Cir. 2008), which held that the computer-implemented means-plus-function limitations of the claim at issue in that case lacked sufficient disclosure absent an algorithm.

I am not convinced that *Aristocrat* extends to this case. In that case, the Federal Circuit relied on the following reasoning:

> For a patentee to claim a means for performing a particular function and then to disclose only a general purpose computer as the structure designed to perform that function amounts to pure functional claiming. Because general purpose computers can be programmed to perform very different tasks in very different ways, simply disclosing a computer as the structure designated to perform a particular function does not limit the scope of the claim to "the corresponding structure, material, or acts" that perform the function, as required by section 112 paragraph 6.

Aristocrat Techs., 521 F.3d at 1333. I interpret this excerpt to stand for a common-sense principle: computers can do anything, and absent special instruction (an algorithm), it is not sufficient structure to say simply "use a computer."

In contrast, accelerometers exist for a narrowly-defined set of purposes: namely, "measuring acceleration or . . . detecting and measuring vibrations." *Accelerometer*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/accelerometer (last visited November 6, 2024). Because accelerometers do not share general purpose computers' near-limitless capabilities, I find that they do not pose the same risk of "pure functional claiming" with which the *Aristocrat* court was concerned. *Aristocrat Techs.*, 521 F.3d at 1333. With that risk absent, I have little trouble concluding that a POSITA "would be [able] to

recognize the structure in the specification and associate it with the corresponding function in the claim." *Williamson*, 792 F.3d at 1352. Accelerometers were well-known devices in 2008, *see, e.g.*, Patrick L. Walter, *Review: Fifty Years Plus of Accelerometer History for Shock and Vibration (1940–1996)*, TCU Mary Couts Burnett Library (June 9, 1999), https://repository.tcu.edu/handle/116099117/11462, and using them to calculate relative angles is a matter of "simple vector algebra." (D.I. 85-2 at 87 of 240). I find that "means for detecting" has sufficient structure.

I do not accept that passages 2:28–54, 3:19–25, and 6:10–17 disclose structure. Passage 2:28–54 mentions a "mode sensor" but only discusses a hinge assembly as it relates to rotating the display component—not means for detecting. '688 patent, 2:28–54. Passage 3:19–25 mentions neither accelerometers nor detents. *Id.* at 3:19–25. Passage 6:10–17 informs my analysis of passage 8:7–61 but does not itself mention accelerometers or detents.

4. "an accelerometer. . ." ('229 patent, claims 1, 16, 18)

	LiTL's proposed construction	**Defendants' proposed construction**	**Court's construction**
Disputed Terms: "an accelerometer configured to generate orientation information indicative of a current display mode among the plurality of display modes of the portable computer" "an accelerometer configured to generate orientation information indicative of a current mode of operation"	"one or more accelerometers configured to generate orientation information sufficient to differentiate between all display modes supported by the portable computer" ('229 patent, claims 1, 18)	"one or more accelerometers including a single accelerometer configured to generate orientation information sufficient to differentiate between all display modes supported by the portable computer" ('229 patent, claims 1, 18)	"one or more accelerometers configured to generate orientation information sufficient to differentiate between all display modes supported by the portable computer"

Disputed Term: "generating, by an accelerometer, orientation information indicative of an orientation of the device"	"generating by one or more accelerometers orientation information sufficient to differentiate between all display modes supported by the portable computer" ('229 patent, claim 16)	"generating by a single accelerometer orientation information sufficient to differentiate between all display modes supported by the portable computer. This construction does not preclude also having additional accelerometers in the portable computer" ('229 patent, claim 16)	"generating by one or more accelerometers orientation information sufficient to differentiate between all display modes supported by the portable computer"

The parties disagree over whether the above term requires that a *single* accelerometer be capable of differentiating between all display modes. I adopt LiTL's interpretation.

The Federal Circuit has "repeatedly emphasized that an indefinite article 'a' or 'an' in patent parlance carries the meaning of 'one or more' in open-ended claims containing the transitional phrase 'comprising.'" *Convolve v. Compaq Comput.*, 812 F.3d 1313, 1321 (Fed. Cir. 2016). Exceptions to this rule are "extremely limited: a patentee must evince a clear intent to limit 'a' or 'an' to 'one.'" *Id.* (cleaned up).

Defendants attempt to identify such an exception in their cite to *In re Varma*, 816 F.3d 1352 (Fed. Cir. 2016). In that case, the disputed claim phrase recited "a statistical analysis request corresponding to two or more selected investments." *Id.* at 1362. The Federal Circuit rejected a construction where the claim limitation of "a request" associated with the claimed two or more investments could be met by two separate requests. The Federal Circuit explained,

> Although the transitional term 'comprising' indicates that the claim is open-ended, the term does not render each limitation or phrase within the claim open-ended. . . . Thus, here, a claim-covered system may receive more than one request, but it must in particular be adapted to receive 'a request' that itself corresponds to two or more selected investments.

Id. The Federal Circuit elaborated with the following analogy: "For a dog owner to have 'a dog that rolls over and fetches sticks,' it does not suffice that he have two dogs, each able to perform just one of the tasks." *Id.* at 1363.

Defendants argue that this case is analogous to *Varma*, and that "LiTL's proposal is wrong because it would permit a device with two accelerometers ('two dogs') that each generates only part of the required information ('each able to perform just one of the tasks')."

I am not persuaded. First, and most importantly, the specification of the '229 patent explicitly defines singular elements to encompass a plurality of such elements: "Any references to . . . elements . . . herein referred to in the singular may also embrace embodiments including a plurality of these elements." '229 Patent, 6:32–35. *Varma* instructs that "context matters as to whether ['a'] [is non-restrictive as to number]," *Varma*, 816 F.3d at 1362, and well-established precedent teaches that the patent's definition of its own terms is usually controlling. In *ABS Glob., Inc. v. Cytonome/ST, LLC*, 84 F.4th 1034, 1041 (Fed. Cir. 2023), the Federal Circuit wrote,

> [Defining 'a' or 'an' to embrace the plural] reinforces . . . the applicability here of the 'one or more' general rule concerning 'a' or 'an.' It also brings into play the lexicography principle—that, with narrow exceptions, "[w]here the specification instructs as to the meaning of a claim term, 'the inventor's lexicography governs.'"

(citations omitted). Defendants' cite to *Harari v. Lee*, 656 F.3d 1331 (Fed. Cir. 2011), can be distinguished on the basis that there was no lexicography. Once the patent has instructed the reader as to its own interpretation of now-disputed language, there is little reason to depart from that interpretation.

Second, it is not clear that *Varma*, which considered a singular element that corresponded to multiple functional elements, *see* 816 F.3d at 1363, applies here. Unlike the language in that case, the '229 claims concern a single functional requirement: generating orientation

sufficient to differentiate between *all* display modes makes this a case of "roll[ing] over and fetch[ing] sticks," (D.I. 100 at 54), but the comparison lines up poorly—generating data is a single function, even if differentiating between display modes (the purpose to which the data is put) is not.[6]

Third, Defendants' interpretation runs headlong into serious enablement concerns. Per *AIA Eng'g Ltd. v. Magotteaux Int'l S/A*, 657 F.3d 1264, 1278 (Fed. Cir. 2011), "a construction that renders the claimed invention inoperable should be viewed with extreme skepticism." (citations omitted). As both parties essentially agree that one accelerometer is incapable of generating the necessary orientation information on its own (D.I. 100 at 36), Defendant's construction would require the impossible. The canon favoring constructions that preserve claim validity therefore counsels against Defendants' construction. *See Ansell Healthcare Prod. LLC v. Reckitt Benckiser LLC*, 2018 WL 620968, at *3 (D. Del. Jan. 30, 2018). Defendants argue that LiTL's construction also leads to an inoperable embodiment (one accelerometer working alone) (D.I. 100 at 45), but fails to offer a reason why *one* non-enabled embodiment warrants a construction that leaves *all* embodiments non-enabled. I will not throw the baby out with the bathwater.

To conclude in the style of *Varma*, the '229 patent requires that a dog play tug of war. As it turns out, one dog cannot play tug of war on its own—luckily for LiTL, principles of patent interpretation and the specification of the '229 patent both define "a dog" to mean "one or more dogs." Because two or more dogs can play tug of war without issue, I accept LiTL's construction.

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[6] Even differentiating between display modes might be considered a single function. Regardless, the point is that the language of the '229 claims at issue is a far cry from the explicit "two or more selected investments" language in *Varma*. 816 F.3d at 1363.

dogs." Because two or more dogs can play tug of war without issue, I accept LiTL's construction.

5. "display orientation module" ('688 patent, claims 11, 19; '229 patent, claim 3)

	LiTL's proposed construction	**Defendants' proposed construction**	**Court's construction**
Disputed Terms: "a display orientation module configured to automatically orient content displayed on the display component responsive to at least a transition between the laptop mode and the easel mode, wherein the display orientation module is further configured to orient the content displayed between a first display orientation and a second display orientation, the first and second display orientations being 180 degrees relative to each other" ('688 patent, claim 11)	No construction necessary In the alternative: The plain and ordinary meaning of "display orientation module" is "a combination of hardware and software that orients content on a display" Not subject to 35 U.S.C. § 112 ¶ 6 In the alternative: If the terms are subject to § 112 ¶ 6 **Function**: (i) automatically orient content displayed on the display component responsive to at least a transition between the laptop mode and the easel mode; (ii) orient the content displayed between a first display orientation and a second display orientation, the first and second display	Subject to 35 U.S.C. § 112 ¶ 6 **Function**: (i) automatically orient content displayed on the display component responsive to at least a transition between the laptop mode and the easel mode; (ii) orient the content displayed between a first display orientation and a second display orientation, the first and second display	Subject to 35 U.S.C. § 112 ¶ 6 **Function**: (i) automatically orient content displayed on the display component responsive to at least a transition between the laptop mode and the easel mode; (ii) orient the content displayed between a first display orientation and a second display orientation, the first and second display

"a display orientation module which orients the content displayed on the single display screen responsive to the physical orientation detected by the orientation sensor between at least a first content display orientation and a second content display orientation, the second content display orientation being 180 degrees relative to the first content display orientation; wherein the display orientation module is further configured to detect a change between a laptop mode, an easel mode, and a frame mode based on the detected physical orientation of the single display unit relative to the base unit" ('688 patent, claim 19)	**Function**: (i) orients the content displayed on the single display screen responsive to the physical orientation detected by the orientation sensor between at least a first content display orientation and a second content display orientation, the second content display orientation being 180 degrees relative to the first content display orientation; (ii) detect a change between a laptop mode, an easel mode, and a frame mode based on the detected physical orientation of the single display unit relative to the base unit (claim 19) **Structure**: hardware and/or software (e.g., central processing unit, memory, sensors, computer operating system, dedicated logic circuitry, and other components of the portable computer) programmed to orient the displayed content "right-way-up" in the display modes described in the '688 patent at 2:38-49; 3:19-25; 4:40-50;	**Function**: (i) orients the content displayed on the single display screen responsive to the physical orientation detected by the orientation sensor between at least a first content display orientation and a second content display orientation, the second content display orientation being 180 degrees relative to the first content display orientation; (ii) detect a change between a laptop mode, an easel mode, and a frame mode based on the detected physical orientation of the single display unit relative to the base unit (claim 19) **Structure**: None disclosed, claims indefinite under § 112 ¶ 2	**Function**: (i) orients the content displayed on the single display screen responsive to the physical orientation detected by the orientation sensor between at least a first content display orientation and a second content display orientation, the second content display orientation being 180 degrees relative to the first content display orientation; (ii) detect a change between a laptop mode, an easel mode, and a frame mode based on the detected physical orientation of the single display unit relative to the base unit (claim 19) **Structure**: None disclosed, claims indefinite under § 112 ¶ 2

	5:13-15; 5:35-40; 5:63-6:23; 6:38-42; 8:7-61; 9:19-45; 13:64-14:13; 16:1-50; 16:63- 17:7; FIGs. 1, 2, 4, 5, 17, 26, 27 and its equivalents		
Disputed Term: "display orientation module that displays content on the display screen in one of a plurality of content orientations relative to the longitudinal axis" ('229 patent, claim 3)	No construction necessary In the alternative: The plain and ordinary meaning of "display orientation module" is "a combination of hardware and software that orients content on a display"		
	Not subject to 35 U.S.C. § 112 ¶ 6	Subject to 35 U.S.C. § 112 ¶6	Subject to 35 U.S.C. § 112 ¶6
	In the alternative: If the term is subject to § 112 ¶ 6, LiTL proposes the following construction:		
	Function: displaying content on the display screen in one of a plurality of content orientations relative to the longitudinal axis	**Function**: displaying content on the display screen in one of a plurality of content orientations relative to the longitudinal axis	**Function**: displaying content on the display screen in one of a plurality of content orientations relative to the longitudinal axis
	Structure: hardware and/or software (e.g., central processing unit, memory, sensors, computer operating system, dedicated logic circuitry, and other	**Structure**: None disclosed, claims indefinite under § 112 ¶ 2	**Structure**: None disclosed, claims indefinite under § 112 ¶ 2

	components of the portable computer) programmed to orient the displayed content "right-way up" in the display modes described in the '229 patent at 2:54-65; 3:35-41; 4:57-67; 5:33-35; 5:55-60; 6:18-47; 6:63-67; 8:31-9:21; 9:46-10:7; 14:37-53; 16:44-17:28; 17:41- 52; FIGs. 1, 2, 4, 5, 17, 26, 27 and its equivalents		

The parties dispute two issues: first, whether "display orientation module" is subject to 35 U.S.C. § 112 ¶ 6; second, if "display orientation module" is subject to 35 U.S.C. § 112 ¶ 6, whether the specifications of the '688 and '229 patents disclose sufficient structure. I find that the term is subject to 35 U.S.C. § 112 ¶ 6 and that it lacks sufficient structure.

A § 112 ¶ 6 analysis proceeds in two steps. First, I address whether "display orientation module" is in means-plus-function form. If I find that the term recites a means-plus-function limitation, I "attempt to construe the disputed claim term by identifying the corresponding structure, material, or acts described in the specification to which the term will be limited." *Advanced Ground Info. Sys., Inc. v. Life360, Inc.*, 830 F.3d 1341, 1346 (Fed. Cir. 2016) (citation omitted).

First, the term is in means-plus-function form and is therefore subject to 35 U.S.C. § 112 ¶ 6. The first question to determine whether § 112 ¶ 6 applies to the claim limitation is whether the claim uses the word "means." If it does, it creates a rebuttable presumption that § 112 ¶ 6 applies. If it does not, it creates a rebuttable presumption that § 112 ¶ 6 does not apply.

Williamson v. Citrix Online, LLC, 792 F.3d 1339, 1348 (Fed. Cir. 2015). However, as the Federal Circuit noted in *Williamson*, courts should not elevate form over substance when evaluating whether a claim term is a means-plus-function term. "[T]he essential inquiry is not merely the presence or absence of the word 'means' but whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure." *Id.* (citing *Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1583 (Fed. Cir. 1996)). The presumption that a term is not a means-plus-function term may be overcome where "the challenger demonstrates that the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function." *Id.* (cleaned up).

Here, the claim term fails to recite sufficiently definite structure. The term "'[m]odule' is a well-known nonce word that can operate as a substitute for 'means' in the context of § 112 ¶ 6. . . . '[M]odule' is simply a generic description for software or hardware that performs a specified function." *Williamson*, 792 F.3d at 1350. Taking the nonce word "module" and combining it with "display orientation" is like saying "use software or hardware to orient the display." This does little more than recite the function of the claims, and it does not provide sufficient structure. *See, e.g.*, *Synchronoss Techs., Inc. v. Dropbox, Inc.*, 987 F.3d 1358, 1367 (Fed. Cir. 2021) (holding that "user identification module" did not disclose structure); *Rain Computing v. Samsung Elecs. Am.*, 989 F.3d 1002, 1006 (Fed. Cir. 2021) (same); *Grecia v. Samsung Elecs. Am., Inc.*, 780 F. App'x 912, 916 (Fed. Cir. 2019) (holding that "customization module" did not disclose structure).[7]

[7] To be sure, these cases are concerned with the second step in the means-plus-function analysis, not the first. That is not a meaningful basis, however, on which to ignore their reasoning.

LiTL argues that the claims disclose sufficient structure "[b]ecause the claim limitations themselves recite a sufficient description of the display orientation module's operation." (D.I. 100 at 53) (citations omitted). Specifically, LiTL asserts that "[a] POSITA would have understood '688 claim 11 to comprise an if-then algorithm: if the orientation sensor detects a change from laptop mode to easel mode (or vice versa), then invert the displayed content so that the displayed content appears right-way-up." (D.I. 100 at 52). Again, this does little more than recite the function of the claim. It does not instruct *how* to rotate the display or determine the correct orientation for laptop or easel mode. That is not sufficient structure.

Having determined that § 112 applies, I proceed to the second step of the § 112 analysis: identifying the corresponding structure described in the specification. Here, LiTL's many suggested sources of structure (D.I. 100 at 48–49) are all variations on a theme: hardware and/or software. As I noted above in my discussion of "module," however, vague references to generic hardware or software will not suffice to provide structure. "Display orientation module" is indefinite.

6. "disable the keyboard . . ." ('229 patent, claims 1, 16, 18)

	LiTL's proposed construction	**Defendants' proposed construction**	**Court's construction**
Disputed Terms: "disable the keyboard when the portable computer is in the frame mode" ('229 claim 1) "disable the keyboard when the portable computer is in the sideways v configuration" ('229 claim 16)	No construction necessary In the alternative: The plain and ordinary meaning of these phrases is the phrase, as written, without Defendants' addition of the term "only"	"disable the keyboard only when the portable computer is in the frame mode"	No construction necessary

"disable the keyboard in response to detecting the portable computer is in the frame mode" ('229 claim 18)			

While amending draft claims 20 and 21 in response to the Examiner's rejection for lack of written description, LiTL asserted to the Examiner that then-paragraph 85 of the '229 specification (now '229 patent, 16:36–61) could not be reasonably interpreted by a person of skill in the art "as teaching disabling the keyboard in other modes" apart from frame mode. (D.I. 101 at 419 of 608). Defendants argue that "other modes" means *all* other modes, including, for example, easel mode. (D.I. 100 at 61–65). LiTL argues that Defendants are taking its statement out of context. Because I think that Defendants are making a mountain out of a molehill, I reject their construction.

Prosecution disclaimer must be "clear and unmistakable." *Omega Eng'g,* 334 F.3d at 1326. Defendants fall short of meeting that requirement. For one, "easel mode" did not exist in the relevant claims at the time LiTL made its statement to the Examiner. LiTL added that mode to the claims the following year. (D.I. 101 at 435 of 608). LiTL's statements were clearly addressed to the "other modes" that existed at the time it made the statements—and even if the scope of LiTL's statement was ambiguous, that would not rise to the level of "clear and unmistakable" disclaimer.

Defendants protest that easel mode was already recited in the '229 patent's draft claim 12, and that the disputed claim term was added in response to a prior art rejection. (D.I. 100 at 62). On the first point: LiTL's statements took place in the context of the Examiner's rejection of draft claims 20 and 21, neither of which recited easel mode at the time—I see no indication in

the record that LiTL or the Examiner had draft claim 12 in mind when LiTL mentioned "other modes." On the second point: draft claims 20 and 21 were rejected under § 112 for failure to comply with the written description requirement (D.I. 101 at 647 of 723), not on the basis of prior art.

Because "disable" and "keyboard" are well-understood words, and because Defendants have not convinced me that there is "clear and unmistakable" disclaimer, I find that no construction is necessary for this term.

7. '888 Patent and '315 Patent Preambles ('888 patent, claim 1; '315 patent, claims 1, 27, 28)

	LiTL's proposed construction	**Defendants' proposed construction**	**Court's construction**
Disputed Term: Preambles	The preambles are not limiting.	The preambles are limiting.	The preambles are not limiting.

The parties dispute whether the term "I/O profile" recited in the preambles of the '888 and '315 patent claims is limiting. (D.I. 100 at 71). I find that it is not.

Integra Lifesciences Corp. v. HyperBranch Med. Tech., Inc. summarizes the standard for determining whether language in a preamble is limiting:

> The question of whether language in a preamble constitutes a claim limitation is a question of law. *Rotatable Techs. LLC v. Motorola Mobility LLC*, 567 F.App'x 941, 943 (Fed. Cir. 2014). "While it is true that preamble language is often treated as nonlimiting in nature, it is not unusual for [the United States Court of Appeals for the Federal Circuit] to treat preamble language as limiting[.]" *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 952 (Fed. Cir. 2006). Generally, "a preamble limits the invention if it recites essential structure or steps, or if it is necessary to give life, meaning and vitality to the claim." *Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (internal quotation marks and citation omitted); *see also Intellectual Ventures I LLC v. AT & T Mobility LLC*, C.A. No. 12–193–LPS, 2015 WL 1393386, at *24 (D. Del. Mar. 24, 2015). A preamble may also be construed as limiting when the claim limitations in the body of claim "rely upon and derive antecedent basis from the preamble[.]" *Eaton Corp. v. Rockwell Int'l Corp.*, 323 F.3d 1332, 1339 (Fed. Cir. 2003). On the other hand, when the

> claim body recites a structurally complete invention and the preamble language is used merely to state the purpose or intended use of the invention, the preamble is generally not treated as limiting the scope of the claim. *Catalina*, 289 F.3d at 808.

2018 WL 430177, at *1 (D. Del. Jan. 16, 2018), *report and recommendation adopted*, 2018 WL 11190945 (D. Del. Mar. 9, 2018).

I turn first to the '888 preamble. Though the body of claim 1 of the '888 patent contains several references to "I/O profiles," it does not appear to rely on the preamble for antecedent basis. Claim 1 is drafted to introduce that term independently of the preamble. *See, e.g.*, '888 patent, 51:1–4 ("an I/O profile," only then followed by "the I/O profile"). The preamble does not appear to recite essential structure or steps, as the claim body "recites a structurally complete invention and the preamble language is used merely to state [its] purpose or intended use." *Integra Lifesciences*, 2018 WL 430177, at *1. It is not limiting.

The '315 claims do not use language from the preamble, and reading the claim bodies, I have no difficulty discerning a structurally complete invention for which the preamble merely states a purpose. *See Catalina*, 289 F.3d at 808. I find that the '315 preambles are not limiting.

Defendants argue that the preambles should be limiting for two reasons. First, Defendants point to passages from the specification that refer to I/O profiles and argue that "[c]haracterization of the invention as using the preamble term is another indication that the term should be limiting." (D.I. 100 at 72 (citing *Pacing Techs., LLC v. Garmin Int'l, Inc.*, 778 F.3d 1021, 1025 (Fed. Cir. 2015))). Defendants overstate *Pacing Techs*, which provided, "When a patentee 'describes the features of the 'present invention' *as a whole*,' he alerts the reader that 'this description limits the scope of the invention.'" *Pacing Techs.*, 778 F.3d at 1025 (emphasis added). Though there are several references in the specification to I/O profiles, most do not purport to describe the invention "as a whole," and are instead qualified with phrases like

"[a]ccording to one aspect of the present invention. . . ." ('315 patent, 2:51–55, 6:43–46, 9:3–5). One passage provides, "[A]daptations to the user interface layer that maintain consistency while permitting different I/O profiles should be viewed as part of the invention" (*id.* at 25:26–28), but I do not read this passage as suggesting that every embodiment of the invention must include different I/O profiles—merely that such adaptations to the user interface are claimed by the patent. The specification recites many embodiments, and it seems "unlikely that the inventor intended for each claim to be limited to all the many objects of the invention." *Pacing Techs.*, 778 F.3d at 1025.

Second, Defendants focus on claim 1 of the '888 patent and claim 27 of the '315 patent (D.I. 100 at 72, 74), which claim "[a] method for accessing and managing digital media libraries on a streamlined computing device with a plurality of selectable I/O profiles," '888 patent, claim 1, and "[a] method for presenting a customized user interface for a computer system with a plurality [of] selectable I/O profiles to a user." '315 patent, claim 27. Defendants cite to *Eli Lilly & Co. v. Teva Pharms. Int'l GmbH*, 8 F.4th 1331, 1341 (Fed. Cir. 2021): "our claim construction analysis of statements of intended purpose in methods of using apparatuses or compositions has tended to result in a conclusion that such preamble language is limiting." This approach makes sense—when a preamble is "not merely a statement of effect that may or may not be desired or appreciated," but is instead "a statement of the intentional purpose for which the method must be performed," *id.* at 1342 (internal citations omitted), it is appropriate to read the preamble as limiting. In such cases, the preamble provides the "raison d'être" of the claim, without which the method steps are reduced to an "academic exercise." *Boehringer Ingelheim Vetmedica, Inc. v. Schering-Plough Corp.*, 320 F.3d 1339, 1345 (Fed. Cir. 2003).

Notwithstanding *Eli Lilly*, I find that the preambles of claim 1 of the '888 patent and claim 27 of the '315 patent are not limiting. Claim 27 provides, "A method for presenting a customized user interface for a computer system with a plurality [of] selectable I/O profiles to a user," but it could just as easily provide the same method absent the plurality of selectable I/O profiles—"a method for presenting a customized user interface for a computer system to a user." Claim 27 would, on my reading, perform that function just as well, so it is not necessarily true that claim 27's "raison d'être," *Boehringer Ingelheim Vetmedica*, 320 F.3d at 1345, includes selectable I/O profiles. Similarly, claim 1 of the '888 patent could be re-written to exclude the "plurality of selectable I/O profiles"—simply, "A method for accessing and managing digital media libraries on a streamlined computing device[.]" '888 patent, claim 1. Nor would removing "I/O profile" from the preamble render either method claim an "academic exercise." *Boehringer Ingelheim Vetmedica*, 320 F.3d at 1345. The '315 and '888 preambles are not limiting.

8. "streamlined computing device" ('888 patent, claim 23)[8]

	LiTL's proposed construction	**Defendants' proposed construction**	**Court's construction**
Disputed Term: "streamlined computing device"	Not indefinite. The plain and ordinary meaning of "streamlined computing device" is "computing device providing a simplified user experience."	Indefinite.	Indefinite.

[8] The parties previously disputed the meaning of "streamlined computing device" as it appeared in other claims of the '888 patent. (D.I. 100 at 75). Following a disclaimer by LiTL regarding those claims in an IPR (*see* D.I. 105), only claim 23 of the '888 patent remains at issue in this case. (D.I. 117 at 89:8–90:20). Claim 23 doubly depends from claim 1.

LiTL proposes that the term "streamlined computing device" should be read in accord with its purported plain and ordinary meaning: "computing device providing a simplified user experience." (D.I. 115 at 1). Defendants argue that "streamlined" is indefinite. (D.I. 119 at 1). I agree with Defendants.

"[A] patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014). A showing of "[i]ndefiniteness must be proven by clear and convincing evidence." *Sonix Technology Co. v. Publications International, Ltd.*, 844 F.3d 1370, 1377 (Fed. Cir. 2017).

As a matter of English, I agree with LiTL that "streamlined" generally connotes "simplified." Given the context of the patent, I accept LiTL's construction that "the streamlined computing device" is a computing device with a "simplified user experience" is a suitable stand-in for "streamlined." The question is whether "simplified user experience" informs a POSITA of the scope of the invention with reasonable certainty. In my view, it does not. The parties (D.I. 115, 120 (LiTL); D.I. 119 (Defendants)) first argue over whether the patent provides an objective baseline—i.e., whether claim 23 is directed to a simplified user experience in comparison to some other computing device. LiTL points to 38:44–47 of the '888 Patent, which provides, "In one example, a streamlined hardware device provides for (in comparison to typical desktop and laptop systems) a reduced user input platform as a first I/O profile, comprising in one configuration a scroll wheel and a button interface." I am not convinced that this provides a clear baseline against which to measure whether a computing device is "streamlined." The

passage to which LiTL points qualifies itself by saying "[i]n one example," and its plain language suggests that the user input platform, rather than the "hardware device" itself, is reduced. In the absence of a firm point of comparison, then, Defendants argue persuasively that "streamlined" is an entirely subjective term. (D.I. 119 at 1 (citing to *Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1247 (Fed. Cir. 2008) ("easily" and "quickly"); *In re Walter*, 698 F. App'x 1022, 1026 (Fed. Cir. 2017) ("block-like"))).

Even if I were to accept that "streamlined" invites comparison to a typical 2008 desktop or laptop computer, there would remain the issue of what exactly makes one user experience "simplified" relative to another. That is a subjective question.

Illustrating my point: some of the passages to which LiTL points in the specification as providing a "simplified user experience" rely on reduced functionality—but by some measures, the "streamlined computing device" to which claim 1 of the '888 patent refers has *more* functionality than the standard laptop to which LiTL says I should compare it. The specification notes, for example, a reduced user input platform ('888 Patent, 38:44–47) and reduced storage capabilities/needs. ('888 Patent, 17:8–14, 20:37–43). These are both examples of a "simplified user experience." (D.I. 115 at 1–2). As I noted in oral argument, these passages indicate a theme of "simplification or reduction in capability." (D.I. 117 at 92:1–7). Claim 1's "streamlined computing device," on the other hand, includes a "plurality of selectable I/O profiles" and different physical orientations, each of which requires a different "view" of content for the user. '888 patent, claim 1. The claimed features do not seem to be simplified.

Even if I were to accept LiTL's argument that the proper point of comparison is a traditional laptop computer, the addition of multiple modes between which the computer can be switched runs counter to the general theme of simplification and reduced functionality. The

Even if I were to accept LiTL's argument that the proper point of comparison is a traditional laptop computer, the addition of multiple modes between which the computer can be switched runs counter to the general theme of simplification and reduced functionality. The examples do not provide any guideposts for determining what is or is not a simplified user experience.

I conclude that claim 23 does not inform a POSITA, with reasonable certainty, of the scope of the invention. The term is indefinite.

9. "map based graphical user interface" ('315 patent, claims 1, 27)

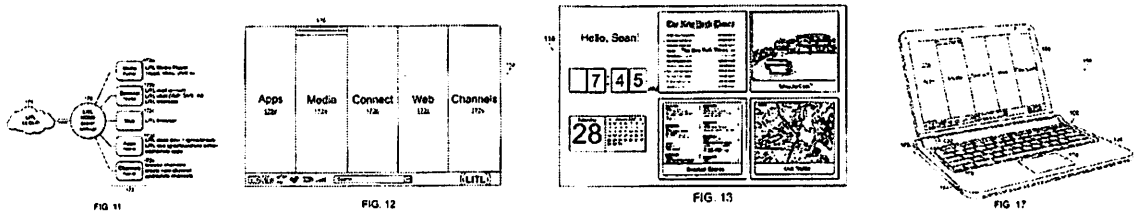
	LiTL's proposed construction	**Defendants' proposed construction**	**Court's construction**
Disputed Term: map based graphical user interface	Not indefinite. "A graphical user interface that displays groupings of content"	Indefinite.	Not indefinite. "graphical user interface that displays groupings of content"

At oral argument, LiTL proposed the construction "[a] graphical user interface that displays groupings of content." (D.I. 117 at 116:17–18).[9] Defendants argue that this construction would fail to capture disclosed features of the '315 patent and would exclude most disclosed embodiments. (D.I. 116 at 1–2). I side with LiTL.

LiTL's proposed construction is readily understandable and finds sufficient support in the '315 patent's specification. LiTL primarily points to 20:46–49, which refers to "one example" in FIG. 11 that illustrates the "architecture of the portable computer including a map user interface." Other figures, like FIGs. 12, 13, and 17, clearly display groupings of content, in line

[9] I rejected LiTL's proposed construction identified in the Joint Claim Construction Brief. (D.I. 117 at 111:18–24, referring to D.I. 100 at 81).

with LiTL's proposed construction, even if they do not refer to "map based graphical user interfaces" per se.



Defendants' arguments to the contrary prove LiTL's point. The GUI features to which Defendants point as not being captured by LiTL's construction—"nascent cards," "quick access views," "web cards," displaying multiple views, providing "a clear overview of the entire computing environment and searching capability within the environment," and being hierarchically-arranged—all seem perfectly amenable to the umbrella description of "a graphical user interface that displays groupings of content." Indeed, LiTL's construction, in my view, nicely synthesizes each of the features LiTL references.

Defendants' references to supposedly excluded embodiments suffers from the same issue. Defendants point to various "views" (e.g., "quick access" view, "bookmark" view, "home" view, etc.) disclosed in the '315 patent and argue that LiTL's proposed construction includes none. With respect to "quick access" view, for example, Defendants write, "'[Q]uick access' view [] has rectangles linking to various webpages, but no groupings of content." (D.I. 116 at 2). I fail to see, however, why displaying webpages in a grid is not considered "grouping content." Defendants' attempts at arguing that other embodiments are similarly excluded from the large umbrella of "displaying groupings of content" are similarly unpersuasive. (*Id.*)

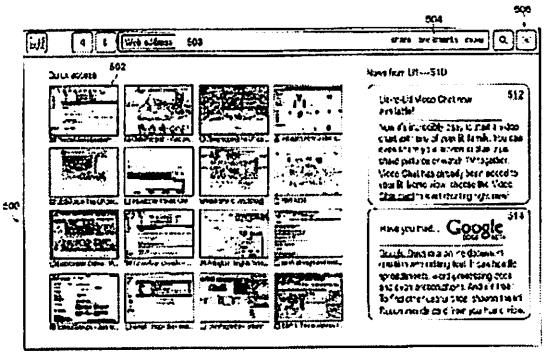


FIG. 5

Because "[a] graphical user interface that displays groupings of content" is a fair construction supported by the intrinsic evidence, I side with LiTL.

V. CONCLUSION

Within five days the parties shall submit a proposed order consistent with this Memorandum Opinion.