

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

VALMONT INDUSTRIES, INC.,

Plaintiff,

v.

LINDSAY CORPORATION and  
LINDSAY SALES & SERVICES, LLC,

Defendants.

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C.A. No. 15-42-LPS

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**MEMORANDUM OPINION**

November 14, 2018  
Wilmington, Delaware



**STARK, U.S. District Judge:**

On January 14, 2015, Plaintiff Valmont Industries, Inc. (“Valmont” or “Plaintiff”) filed suit against Lindsay Corporation and Lindsay Sales & Services, LLC (“Lindsay” or “Defendants”), alleging infringement of U.S. Patent No. 7,003,357 C2 (D.I. 66-1) (“the ’357 patent” or “the patent”). (D.I. 1 ¶ 1) The ’357 patent has been subject to an *inter partes* review (“IPR”) and two *ex parte* reexaminations, which have resulted in the replacement of the original claims with 72 new claims. (D.I. 87 at 1) Plaintiff filed a second amended complaint on April 23, 2018, asserting the revised ’357 patent. (D.I. 66) The patent is generally directed to the use of graphical user interfaces (“GUIs”) on a handheld device to remotely monitor and control irrigation equipment using wireless telemetry.

Presently before the Court is the issue of claim construction. The parties submitted claim construction briefs (D.I. 87, 89, 92, 95) and the Court held a claim construction hearing on September 14, 2018 (D.I. 100) (“Tr.”).

## **I. LEGAL STANDARDS**

The ultimate question of the proper construction of a patent is a question of law. *See Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 837 (2015) (citing *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 388-91 (1996)). “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) (internal quotation marks omitted). “[T]here is no magic formula or catechism for conducting claim construction.” *Id.* at 1324. Instead, the court is free to attach the appropriate weight to appropriate sources “in light of the statutes and policies that inform patent law.” *Id.*

“[T]he words of a claim are generally given their ordinary and customary meaning . . . [which 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.” *Id.* at 1312-13 (internal citations and quotation marks omitted). “[T]he ordinary meaning of a claim term is its meaning to the ordinary artisan after reading the entire patent.” *Id.* at 1321 (internal quotation marks omitted).

The patent 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.” *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). While “the claims themselves provide substantial guidance as to the meaning of particular claim terms,” the context of the surrounding words of the claim also must be considered. *Phillips*, 415 F.3d at 1314. Furthermore, “[o]ther claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment . . . [b]ecause claim terms are normally used consistently throughout the patent . . . .” *Id.* (internal citation omitted).

It is likewise true that “[d]ifferences among claims can also be a useful guide . . . . For example, the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.” *Id.* at 1314-15 (internal citation omitted). This “presumption is especially strong when the limitation in dispute is the only meaningful difference between an independent and dependent claim, and one party is urging that the limitation in the dependent claim should be read into the independent claim.” *SunRace Roots Enter. Co., Ltd. v. SRAM Corp.*, 336 F.3d 1298, 1303 (Fed. Cir. 2003).

It is also possible that “the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor’s lexicography governs.” *Phillips*, 415 F.3d at 1316. It bears emphasis that “[e]ven when the specification describes only a single embodiment, the claims of the patent will not be

read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction.” *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1372 (Fed. Cir. 2014) (quoting *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004)) (internal quotation marks omitted).

In addition to the specification, a court “should also consider the patent’s prosecution history, if it is in evidence.” *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995), *aff’d*, 517 U.S. 370 (1996). The prosecution history, which is “intrinsic evidence,” “consists of the complete record of the proceedings before the PTO [Patent and Trademark Office] and includes the prior art cited during the examination of the patent.” *Phillips*, 415 F.3d at 1317. “[T]he prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.” *Id.*

In some cases, “the district court will need to look beyond the patent’s intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period.” *Teva*, 135 S. Ct. at 841. Extrinsic evidence “consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Markman*, 52 F.3d at 980. For instance, technical dictionaries can assist the court in determining the meaning of a term to those of skill in the relevant art because such dictionaries “endeavor to collect the accepted meanings of terms used in various fields of science and technology.” *Phillips*, 415 F.3d at 1318. In addition, expert testimony can be useful “to ensure that the court’s understanding of the technical aspects of the patent is consistent with that of a person of skill in

the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field.” *Id.* Nonetheless, courts must not lose sight of the fact that “expert reports and testimony [are] generated at the time of and for the purpose of litigation and thus can suffer from bias that is not present in intrinsic evidence.” *Id.* Overall, while extrinsic evidence “may be useful” to the court, it is “less reliable” than intrinsic evidence, and its consideration “is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence.” *Id.* at 1318-19. Where the intrinsic record unambiguously describes the scope of the patented invention, reliance on any extrinsic evidence is improper. *See Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1308 (Fed. Cir. 1999) (citing *Vitronics*, 90 F.3d at 1583).

Finally, “[t]he construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.” *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998). It follows that “a claim interpretation that would exclude the inventor’s device is rarely the correct interpretation.” *Osrham GmbH v. Int’l Trade Comm’n*, 505 F.3d 1351, 1358 (Fed. Cir. 2007) (quoting *Modine Mfg. Co. v. U.S. Int’l Trade Comm’n*, 75 F.3d 1545, 1550 (Fed. Cir. 1996)).

## II. CONSTRUCTION OF DISPUTED TERMS

### A. “hand-held display”<sup>1</sup>

<b>Plaintiff</b> any device having a display and designed to be operated while being held in a user’s hand, not including a laptop computer
<b>Defendants</b> a personal digital assistant, cell phone, smart phone, or similar device of compact size, including a display and designed to be operated while being held in a user’s hand
<b>Court</b> a personal digital assistant, cell phone, smart phone, or similar device of compact size, including a display and designed to be operated while being held in a user’s hand

This dispute centers on the size of the claimed “hand-held” device.<sup>2</sup> Both sides suggest the other has reversed its position from that which it advocated in the IPR. During the IPR, Defendants proposed a construction encompassing laptop computers (*see* D.I. 95-2 at 5-6; Tr. at 11-12), while Plaintiff sought a narrower construction, calling out only “a personal digital assistant, cell phone, smart phone, or similar device of compact size, including a display and designed to be operated while being held in a user’s hand.” (D.I. 86-1 at JA 022; Tr. at 23-24) In the IPR, the parties’ arguments were directed to the broadest reasonable interpretation (“BRI”) of the claims, a different standard than applies here. (*See* Tr. at 23-24) The Patent Trial and Appeal Board (“PTAB”) adopted as the BRI a construction that expressly excluded only laptops, seemingly, therefore, still including tablet computers. (*See* D.I. 87 at 8 n.3)

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<sup>1</sup>This term appears in claims 1, 19, 25, and 28.

<sup>2</sup>Many pages of briefing, as well as much time at the hearing, were devoted to whether the patent claims include an embodiment involving a tablet computer. (*See* D.I. 89 at 8-12; D.I. 95 at 1-5; Tr. at 12-18, 23-29, 31-35, 109-10) The parties dispute, for instance, whether the hand-held device is limited to devices that can be operated effectively only by using both hands or while seated. Ultimately, however, the parties agreed that whether a larger tablet computer is within the scope of the claims (and the related question of what tablet computers existed at the pertinent date) presents a factual dispute to be resolved later in this case, and is not a matter for claim construction. (*See* Tr. at 13, 18, 26-27)

The parties agree that the hand-held display must be designed to be operated while being held in a user's hand but disagree on what is included within the category of hand-held. To support its broader construction, Plaintiff contends that its "construction is necessary to distinguish between displays that *can be held* in the hand and displays *designed* to be used while held in the hand." (D.I. 89 at 9; *see also* Tr. at 16-17) For support, Plaintiff points to an image of an irrigation operator holding in one hand a tablet displaying Defendants' software. (*See* D.I. 89 at 10) Plaintiff compares this image to Figure 1 of the '357 patent, suggesting the handheld device in the patent's image is about the same size as the image relating to Defendants' software. (*See id.* at 12) Although Plaintiff suggested that the patent's Figure 1 may be drawn to scale, it also acknowledged that the device in the Figure "looks bigger than [the man's] head," undermining its suggestion as to scale. (Tr. at 34) As Defendants correctly observe, "the law requires if the scale is important . . . , that it has got to be said in the patent." (*Id.* at 35)

Defendants' construction finds support in the specification, which reads: "The RUI 14 can be comprised of one or more components that are operatively connected to one another. One such component could be a personal digital assistant (PDA) or similar portable hand-held computer of a compact size." ('357 patent at 3:35-38) "The RUI" is used in the prior passage to refer to the handheld device. (Tr. at 29-30) ("The patent, at column 3, lines 25 and 26, says: 'The RUI is a hand-held device to enable the user to utilize the same in a convenient manner.'") Further, the patent references "the Sprint TP3000, Kyocera 6035, Samsung 1300 or similar device that would enable the user to monitor and control the subject equipment from virtually anywhere," all of which further support a finding that the contemplated device has a compact size. ('357 patent at 6:14-19 (cited in D.I. 87 at 7); *see also* Tr. at 25)

**B. “shape[d]”/ “change the shape of said plurality of GUIs . . .”**

**i. “shape[d]”<sup>3</sup>**

<b>Plaintiff</b> A bounded area
<b>Defendants</b> [having] the visible makeup characteristic of a particular item or kind of item
<b>Court</b> [having] the visible makeup characteristic of a particular item or kind of item

**ii. “change the shape of said plurality of GUIs . . .”<sup>4</sup>**

<b>Plaintiff</b> Alter the boundary of the area, not including a change in color, shading, or pattern.
<b>Defendants</b> A change in shape of the plurality of GUIs occurs when there is a change in pattern of the GUIs, such as in shading, color or perimeter.
<b>Court</b> A change in shape of the plurality of GUIs occurs when there is a change in pattern of the GUIs, such as in shading, color or perimeter.

The parties principally dispute whether shape, as used in the patent, refers only to the outer boundary of the image – so that a change in shape requires some change to the perimeter – or also includes changes to the pattern, shading, or color of the area within the outer boundary. The Court agrees with Defendants that, as used in the patent, changes in shape can include changes to the interior area of an image even if no changes are made to the outer perimeter of the image.

Plaintiff argues that claim differentiation suggests that shape be construed differently from color, because subsequent claims (11 and 12) use each respective term. (*See* D.I. 89 at 13-14; Tr. at 37-38) But Defendants’ construction does not treat shape the same as color. Nor is claim 12 dependent from claim 11, further weakening Plaintiff’s contention. (*See id.* at 38)

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<sup>3</sup>This term appears in claims 6, 10, 11, 19, 25, 28, 71, 81, and 84.

<sup>4</sup>This term appears in claim 11.



In arguing that shape is limited to boundaries, Plaintiff points to numerous instances in which the patent does, in fact, use “shape” to refer to an outer boundary. (*See* D.I. 89 at 14-15) (citing ’357 patent at Fig. 2, 4:11-13, 4:35-38) Plaintiff also cites instances in which the specification and prosecution history use color and shading separate from how they use outline. (*See* D.I. 89 at 15-16 (citing ’357 patent at 4:11-14, 4:23-29, 5:24-34); D.I. 86-1 at JA 122) However, as Defendants point out, the Federal Circuit as well as the specification support a much broader understanding of shape. (*See* Tr. at 45-46) The Federal Circuit found that “[u]nder the broadest reasonable construction standard, a change in shape occurs when there is a change in shading,” a point which the Circuit viewed as having been conceded by Plaintiff. (D.I. 86-1 at JA 146; *see also id.* at JA 145) Further, as Defendants observe, claims 6, 10, and 11 describe that the GUIs are “shaped to identify operating irrigation patterns” (D.I. 87 at 9) (quoting ’357 patent at claim 10), while the specification teaches that “changes in operating irrigation patterns” are denoted with more than just outline changes (*see id.* at 10) (citing ’357 patent at 4:10-30, 4:42-43, 5:4-6, 5:25-27, 5:25-34; Tr. at 49-51), which demonstrates that “shapes” can be modified by changing their patterns. All of this is supported by a statement Valmont’s own counsel made to the PTAB. (*See* D.I. 86-1 at JA 042:17-43:6, JA 043:7-21)

While the Federal Circuit’s definition included shading but did not include color, the Federal Circuit also did not reject inclusion of color. (*See generally* Tr. at 37) (“It was addressed by the Federal Circuit in its opinion and, in particular, the Federal Circuit found that ‘shape’ could include pattern or color or shading.”)

**C. said plurality of GUIs are displayed based on structural characteristics of the [irrigation] equipment”<sup>5</sup>**

<b>Plaintiff</b> Plain and ordinary meaning
<b>Defendants</b> The GUIs displayed depict physical features of the corresponding irrigation equipment.
<b>Court</b> No construction necessary

Defendants’ proposed construction would require that the GUI must actually *depict* the piece of equipment, meaning that text-GUIs and other non-representative images are not within the scope of the claims. (*See* Tr. at 60; D.I. 87 at 20-21; D.I. 95 at 16-17 (citing ’357 patent at 5:37-48)) Defendants’ construction would mean, for instance, that a water drop representing whether water is running would not be covered. (*See* Tr. at 64) The Court does not find evidence to support Defendants’ narrow view and, therefore, rejects Defendants’ proposed construction. No construction is necessary.

**D. “starting/stop position of the irrigation equipment”<sup>6</sup>**

<b>Plaintiff</b> Positions at which wedge-based settings for the irrigation equipment start/stop applying
<b>Defendants</b> Plain and ordinary meaning
<b>Court</b> Positions at which control is exerted over the irrigation equipment to cause a change in a characteristic of said equipment

Although the parties’ positions appeared to strongly diverge in their briefs (*compare* D.I. 89 at 22-24 *with* D.I. 87 at 14-17), by the end of the hearing it appeared that both sides agreed with the following general understanding: “there needs to be actual control and some change in some characteristic in the real world[.] It could be on/off, it could be start/stop. It could be the

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<sup>5</sup>This term appears in claims 28, 29, 84, and 85.

<sup>6</sup>This term appears in claim 19.

change in the strength, for instance, of some characteristic. But if one knew where to look in the real world, [one] would see something change.” (Tr. at 80; *see also id.* at 78-79) Although the parties were unable to agree on an actual construction (*see* D.I. 101), the Court’s construction reflects what it understands to be the parties’ agreement with these concepts – and, more importantly, reflects the Court’s understanding of how a person of ordinary skill in the art would understand how the term is used in this patent.

**E. “The remote user interface of claim 72”<sup>7</sup>**

<b>Plaintiff</b>
The remote user interface of claim 73
<b>Defendants</b>
The remote user interface of claim 72
<b>Court</b>
The remote user interface of claim 73

Plaintiff contends that the claim term contains a typographical error, in that the patentee meant “claim 73” when writing, instead, “claim 72.” The Court may correct such an error if it is not “subject to reasonable debate.” *CBT Flint Partners, LLC v. Return Path, Inc.*, 654 F.3d 1353, 1358 (Fed. Cir. 2011). As Plaintiff persuasively shows, claims 72, 73, and 74 successively build off one another. (*See* D.I. 89 at 24-25; Tr. at 81-82) Claim 74 further characterizes the meaning of “receiving the user’s input of starting and ending positions of the wedge,” which appears in claim 73 but not in claim 72. The Court does not agree with Defendants that this is subject to reasonable debate. (*See* D.I. 87 at 17-18) (citing ’357 patent at Fig. 5 and 5:4-16)

**III. CONCLUSION**

An appropriate Order follows.

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<sup>7</sup>This term appears in claim 74.