IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

FLATWORLD INTERACTIVES LLC, Plaintiff, v. SAMSUNG ELECTRONICS CO., LTD., et al., Defendants.	:	C.A. No. 12-804-LPS

FLATWORLD INTERACTIVES LLC, Plaintiff, v. LG ELECTRONICS, INC., et al., Defendants.	:	C.A. No. 12-964-LPS

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MEMORANDUM OPINION

December 31, 2014
Wilmington, Delaware

STARK, U.S. District Judge:

Presently before the Court is the issue of claim construction of various disputed terms of U.S. Pat. No. RE43,318 ("the '318 patent").

I. BACKGROUND

Plaintiff FlatWorld Interactives LLC ("Plaintiff") filed these patent infringement actions on June 22, 2012 against defendants Samsung Electronics America Inc., Samsung Electronics Co. Ltd., and Samsung Telecommunications America LLC (C.A. No. 12-804-LPS D.I. 1) and on July 20, 2012 against defendants LG Electronics Inc., LG Electronics Mobilecomm U.S.A. Inc., and LG Electronics U.S.A. Inc. (collectively, "Defendants") (C.A. No. 12-964-LPS D.I. 1), alleging infringement of the '318 patent.[1] The '318 patent is entitled, "User interface for removing an object from a display" and relates to a system for manipulating images on a display using a touch-sensitive screen. In particular, the patent-in-suit discloses a system that removes an image from a screen display by the gesture of "throwing" it from the screen. The '318 patent is a reissue of U.S. Patent No. 6,920,619 ("the '619 patent").

The parties initially completed their claim construction briefing on October 15, 2013. (D.I. 55, 57, 67, 73)[2] In addition to the briefs, the parties submitted technology tutorials. (D.I. 65, 66) The Court held a *Markman* hearing on November 15, 2013. (D.I. 101) (hereinafter "Tr.") Almost immediately after the hearing, on November 19 and 22, 2013, Plaintiff and Defendants, respectively, wrote the Court letters attempting to clarify the meaning of statements

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[1]On December 13, 2012, the Court ordered the parties in both cases to confer and submit a joint scheduling order. (C.A. No. 12-804-LPS D.I. 15; C.A. No. 12-964-LPS D.I. 12)

[2]The Court will refer to the "D.I." number in C.A. No. 12-804-LPS for the remainder of the opinion, unless otherwise indicated.

made during the hearing. (*See* D.I. 97, 99)

On January 3, 2014, the Honorable William H. Orrick of the United States District Court for the Northern District of California issued a claim construction ruling in the case of *FlatWorld Interactives LLC v. Apple Inc.*, 2014 WL 31392 (N.D. Cal. Jan. 3, 2014) (hereinafter, "*Apple*"). *Apple* involves the same '318 patent which is the patent-in-suit here. The Court ordered and received supplemental briefs from the parties addressing the impact, if any, of the *Apple* Court's construction on the disputes pending here. (*See* D.I. 107, 108, 109, 110, 111, 113, 114, 120) As the parties appear to agree, while the *Apple* Court's construction of the same disputed claim terms is not binding on this Court, it can and should be considered persuasive authority. *See, e.g.*, *Biovail Labs. Int'l v. Intelgenx Corp.*, 2010 WL 5625746 (D. Del. Dec. 27, 2010); *see also* D.I. 113 at 2-3; D.I. 114 at 6-7.[3]

On June 2, 2014, the Supreme Court issued its opinion in *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120 (2014), relating to indefiniteness. As the disputes pending before the Court include Defendants' contentions that certain claim terms are invalid as indefinite, the Court ordered and received supplemental briefing on the impact of *Nautilus*. (*See* D.I. 121, 122, 123, 125, 126)

II. LEGAL STANDARDS

"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). Construing the claims of a patent presents a

[3]While the Court has considered the *Apple* Court's construction on all terms, and finds its reasoning persuasive on many disputed terms, the Court has reached its own conclusion on each term, and, as will be seen, in some instances it is a different conclusion than in *Apple*.

question of law. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 977-78 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370, 388-90 (1996). "[T]here is no magic formula or catechism for conducting claim construction." *Phillips*, 415 F.3d 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. Conceptronic, 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." *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004) (internal quotation marks omitted), *aff'd*, 481 F.3d 1371 (Fed. Cir. 2007).

In addition to the specification, a court "should also consider the patent's prosecution history, if it is in evidence." *Markman*, 52 F.3d at 980. 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.*

A court also may rely on "extrinsic evidence," which "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 ordinary 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.

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." *Osram GmbH v. ITC*, 505 F.3d 1351, 1358 (Fed. Cir. 2007).

III. CONSTRUCTION OF DISPUTED TERMS[4]

A. "dragged" [claims 1, 3, 18]

Plaintiff's Proposed Construction	"caused to move in response to the touched point or to track location inputs"
Defendants' Proposed Construction	plain and ordinary meaning
Court's Construction	plain and ordinary meaning

Plaintiff contends the term "dragged" should be construed as "***caused to*** move in response to the touched point or to track location inputs." (D.I. 57 at 9) (emphasis added) Defendants contend that the term is readily understandable and should be construed in accordance with its plain and ordinary meaning. (D.I. 55 at 12-13) The Court agrees with Defendants.

The words of a claim should generally be construed in accordance with their plain and ordinary meaning, unless an exception applies, such as where the specification includes a special definition or the inventor intentionally narrows the meaning of the claim term. *See Phillips*, 415 F.3d at 1312-16 (internal citations omitted). In support of its proposed construction, Plaintiff cites claim 1, which is the only independent claim that includes the term "dragged." Claim 1 states expressly that there must be a "computer causing the images to be manipulated in response to location inputs." ('318 patent at 15:4-5) Thus, when "the image is being ***dragged*** in response to location inputs," the plain language of the claim makes clear it is the ***computer specifically***

[4]At the Markman hearing, the parties agreed "removed/removing" is properly construed as "eliminating the image from the screen." (*See* Tr. at 159) The Court finds this construction consistent with the intrinsic evidence and adopts it.

that is ***causing*** the movement of the image inside the screen, in response to touch inputs on the exterior of the screen. (*See id.* at 15:8-9) Plaintiff's proposed construction, by contrast, would appear to indicate that the touch (e.g., of a user's finger) is actually causing the image to be moved.

"[A]bsent contravening evidence from the specification or prosecution history, plain and unambiguous claim language controls the construction analysis." *REckitt Benckiser Inc. v. Watson Labs., Inc.*, 430 F. App'x 871, 875-76 (Fed. Cir. 2011) (citing *DSW, Inc. v. Shoe Pavilion, Inc.*, 537 F.3d 1342, 1347 (Fed. Cir. 2008)). Plaintiff identifies no such evidence here. Accordingly, the Court rejects Plaintiff's "caused to" language and construes "dragged" to have its plain and ordinary meaning.

B. "continually moved" [claim 15]

Plaintiff's Proposed Construction	"a movement that causes an image to be dragged across the screen"
Defendants' Proposed Construction	"moved without interruption"
Court's Construction	"when the point being touched is moving without interruption"

C. "continuing touch" [claim 7]

Plaintiff's Proposed Construction	"a touch that causes an image to be dragged across the screen"
Defendants' Proposed Construction	"touching without interruption"
Court's Construction	"a touch [that moves the image] that remains in existence without interruption"

Plaintiff argues "continually moved"/"continuing touch" should be construed as "a

movement/touch that causes an image to be dragged across the screen." (D.I. 57 at 16) Defendants propose "moved/touching without interruption" because, they contend, it is "more reasonable." (D.I. 55 at 13; *see also* D.I. 67). The Court is unpersuaded by both sides. Instead, the Court will adopt the constructions given by Judge Orrick in *Apple*.

The claim language here is highly instructive. *See generally Phillips*, 415 F.3d at 1312 ("[T]he claims of a patent define the invention to which the patentee is entitled the right to exclude."). Claim 7 discloses a system for manipulating a movable image comprising (1) a touch-sensitive screen and (2) a computer coupled to the screen. ('318 patent at 15:35-39) An additional limitation in the claim describes the events that cause the computer to execute a "throw" operation, in which two distinct entities are being "continually moved." (*Id.* at 15:43-48) First, in the earlier part of the claim, the "point" or "touch" of the user's finger or other pointing device contacts the surface of the screen. (*Id.* at 15:43-45) ("***the point*** being touched is being continually moved") (emphasis added) Second, in the latter part of the claim, the "image" represented on the screen is being continually moved. (*Id.* at 15:46-48) ("the ***image*** being continually moved is removed from the screen . . . ") (emphasis added) Linking the two, the claim states "***the computer***" is what is "causing the image to be manipulated when the touch screen is touched," not the touch itself. (*Id.* at 15:37-39) Therefore, Plaintiff's "caused to move" construction – suggesting that the exterior touch is what causes the image within the display to continually move – is not faithful to the surrounding claim language. Plaintiff does not point to any part of the specification or prosecution history that suggests otherwise. As a result, a person of ordinary skill in the art, after reading the specification and prosecution history, would understand that it is ***not the touch itself*** that moves the image, but rather ***the computer in***

response to the touch.

Similarly, claim 15 discloses (1) a touch screen and (2) a computer coupled to the touch screen, and further claims "the computer respond[s] to a continuing touch ***that moves*** the image across the touch screen." (*Id.* at 16:16-19) (emphasis added) Based on the claim language, it is inaccurate to say that all that is necessary is that the touch causes an image to be dragged; rather, a person of ordinary skill in the art would understand that the touch causes the computer to respond, and the computer causes an image to be dragged across the screen.

For these reasons, as well as the reasons set forth by the Court in *Apple*, 2014 WL 31392, at *9, the Court construes "continually moved" to mean "when the point being touched is moving without interruption," and "continuing touch" to mean "a touch [that moves the image] that remains in existence without interruption."

D. "threshold velocity" [claims 1, 7, 15]

Plaintiff's Proposed Construction	"a velocity (the speed of motion in a given direction) that if exceeded is a condition to change the meaning of the gesture from a drag to a throw"
Defendants' Proposed Construction	"a velocity that when exceeded changes the meaning of the gesture from a drag to a throw"
Court's Construction	"a velocity that, if the system detects is exceeded, causes the system to change the meaning of the gesture from a drag to a throw"

Several of the disputed terms in the following sections involve the same underlying issue: do the claims require that the system always execute a throw if the image being dragged exceeds a threshold velocity, or (instead) is exceeding a threshold velocity only one condition for executing the throw? Plaintiff contends "threshold velocity" means "a velocity (the speed of

motion in a given direction) that if exceeded is a condition to change the meaning of a gesture from a drag to a throw." (*See* D.I. 57 at 10) That is, Plaintiff takes the view that exceeding the threshold velocity is only one condition for executing a throw. By contrast, Defendants take the position that "threshold velocity" means "a velocity that when exceeded changes the meaning of the gesture from a drag to a throw." (D.I. 55 at 11) In Defendants' view, then, each time the threshold velocity is exceeded the gesture will be a throw.

Because neither sides' construction fairly accounts for the context of the surrounding claim language, the Court concludes that neither proposed construction properly construes the claim term. *See Phillips*, 415 F.3d at 1314 ("[T]he context of the surrounding words of the claim also must be considered in determining the ordinary and customary meaning of those terms.") (internal quotation marks omitted). Based on the surrounding claim language of claims 1 and 7, a "threshold velocity" is a velocity that, once ***the system detects*** is exceeded, causes the system to change the meaning of the gesture from a drag to a throw. (*See* '318 patent at 15:8-12, 15:44-46; *see also id.* at 16:19-20 (Claim 15: "when the ***computer detects*** that the velocity of the touch exceeds a predetermined threshold") (emphasis added)) Thus, exceeding the threshold velocity is sufficient to make the gesture a throw each time, but only if the system detects that this velocity has been exceeded.

Plaintiff contends that because claim 1 is an open ("comprising") claim, the claim covers embodiments that require other conditions in addition to a threshold velocity to be satisfied before a throw is executed. (D.I. 57 at 10-11) Open claim language, however, cannot operate to eviscerate the clear limitations of a claim. *See Dippin' Dots, Inc. v. Mosey*, 476 F.3d 1337, 1343 (Fed. Cir. 2007) ("'Comprising' is not a weasel word with which to abrogate claim

limitations.") (internal quotation marks omitted). Here, Claim 1 includes three main limitations: (1) a screen for displaying images ('318 patent at 15:3), (2) a computer coupled to the screen that causes the images to be manipulated in response to location inputs from a pointing device (*id.* at 15:4-6), and a requirement that (3) "when the image is being dragged in response to the location inputs and ***the system detects*** that the velocity with which the image is being dragged exceeds a threshold velocity, the system responds by removing the image" (*id.* at 15:8-13) (emphasis added). The open claim language cannot be used to abrogate the last of these claim limitations, i.e., that once a threshold velocity is detected, a throw must occur. Therefore, other conditions cannot be required after the system detects a threshold velocity.

The specification reinforces this conclusion. The preferred embodiment in Figure 13 discloses a sequence for how the system "detects" a "threshold velocity" has been reached. As Plaintiff observes, the source code of Portion 1301 describes that the "drag" operation "repeats forever" until the system detects the "mouse is up," at which point the algorithm "exit[s] repeat."[5] (*Id.* at Fig. 13; *see also id.* at 11:66-67, 12:1-8) If the "exit repeat" command is given, the system then detects whether a threshold velocity has been exceeded by comparing the x- and y-coordinates of "OldPosition." (*Id.* at 12:12-16) ("OldPosition is set a little more than two clock ticks before CurrPosition; consequently, the velocity with which a component is moved can be determined from the distance between the position specified in OldPosition and the position specified in CurrPosition.") In this embodiment, "the velocity threshold" is 2 distance units, and if "the distance between the position variables is greater than that, ***a throw has***

[5]Accordingly, so long as the touch remains on the screen, the image will never be thrown no matter how fast it is dragged. (*See* D.I. 67 at 7) (Defendants agreeing)

occurred." (*Id.* at 12:16-20) (emphasis added) Consequently, Figure 13 is consistent with the Court's construction that "threshold velocity" is a velocity that, when detected by the system, always acts as a sufficient condition for the system to execute a throw.

Defendants' proposed construction excludes a preferred embodiment, which is "rarely, if ever, correct." *Osram GmbH v. Int'l Trade Comm'n*, 505 F.3d 1351, 1358 (Fed. Cir. 2007) (citing *Hoechst Celanese Corp. v. BP Chemicals*, 78 F.3d 1575, 1581 (Fed. Cir. 1996)); *see also REckitt Benckiser*, 430 F. App'x at 876 ("To narrow the scope of claim language, a prosecution history disclaimer must be 'clear and unambiguous.'"). Defendants support this conclusion by identifying what they view as a prosecution history disclaimer. Specifically, Defendants argue that, in spite of the preferred embodiment of Figure 13, the applicant for the '318 patent disavowed "throwing" after a finger is lifted by disclaiming this embodiment when distinguishing the invention from the prior art Henckel reference. (D.I. 67 at 4-6)

To distinguish Henckel, the applicant initially argued, "[t]here is absolutely no suggestion . . . that the ***speed with which the finger is moved*** in a swipe has any effect on the semantics of the page turning operation . . . [T]here is no disclosure whatever in Henckel that the speed of movement of a touch affects the semantics of any of Henckel's operations." (D.I. 68, Declaration of John Handy ("Handy Decl.") Ex. C (Jan. 26, 2003 Office Action) at 8)) (emphasis added) The examiner found this argument "not persuasive" because "the examiner could not find corresponding limitations anywhere in Applicant's actual claim language." (*Id.*) In response to the examiner's statement in the Final Office Action, the applicant added such a limitation, and remarked:

> [T]he amended description of the limitation is intended to make it clear that when the image is being dragged faster than the threshold

> velocity, the semantics of the drag operation changes: instead of simply moving faster, the image vanishes. ***None*** of the operations in Henkel [sic] changes its semantics when the speed with which it is performed passes a threshold velocity. In particular, Henkel's swipe operation, which Examiner cites as an example of an operation which changes when the speed with which it is performed passes a threshold velocity, does not have this property. Instead, as is clear from the description at col. 3, lines 5-19, the swipe operation done at any speed works as follows:
>
> > 1. When the user touches the screen on the image of the page and begins moving his finger in the direction that the page turns, the page begins turning.
> >
> > 2. When the user keeps his finger on the image and stops moving it, the page turning operation pauses.
> >
> > 3. When the user begins moving his finger in the direction that the page turns and then takes his finger off the image of the page, the page turning operation runs to completion.

(*See* Joint Claim Construction Chart ("JCCC") Ex. D-2 (Mar. 22, 2004 Response to Final Office Action) at 6) (emphasis in original) The applicant concluded by explaining, of Heckel: "when the turning operation is begun and the finger is removed from the image of the page, a number of fast, short swipes cause a number of pages to be turned quickly. Making ***fast, short swipes does not, however, change the page turning operation***; it merely speeds it up." (*Id.* at 8-9) (emphasis added)

Thus, the applicant's basis for overcoming Henckel was not that in the claimed invention the finger remains down, while in Henckel the finger is lifted. Instead, the applicant distinguished Henckel on the basis that in Henckel the velocity of the drag simply had no effect on the throw operation. That is, the distinction is the claimed invention's use of a threshold velocity. The applicant was silent as to whether the finger needed to be down or up; what is

required in the patent-in-suit is that the semantic has to change once the threshold velocity is reached and detected by the system. Thus, even if there is support in the prosecution history for limiting the claims to a requirement that the finger remain down, there is no ***clear and unambiguous*** disavowal of embodiments in which the finger does not remain down. *See Creative Integrated Sys., Inc. v. Nintendo of Am., Inc.*, 526 F. App'x 927, 934 (Fed. Cir. June 3, 2013) ("[A]n alleged disavowal of claim scope will not limit the scope of a claim if the disavowal is ambiguous.").[6]

E. "when" [claims 1, 3, 7, 9, 15, 16]

Plaintiff's Proposed Construction	"in view of the fact that; in the event that; if"
Defendants' Proposed Construction	"at or during"
Court's Construction	"in view of the fact that; in the event that; if"

The parties' dispute is whether "when" means the image is thrown ***while*** it is being dragged or whether, instead, the image could also be thrown ***after*** the dragging ends. More precisely, in Defendants' view, "when" imposes a temporal limitation, whereby the throw must occur in that same instant and cannot occur after the dragging ends. Plaintiff takes the view that "when" imposes only a conditional limitation, compelling a result at some point but not necessarily at that same precise moment. The Court agrees with Plaintiff.

Defendants argue that the surrounding language of the claim shows that "when"

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[6]The Court declines to follow the construction for "threshold velocity" reached by the Court in *Apple*. Among other things, the parties in *Apple* did not focus on the impact of the "system detects" language throughout the intrinsic record, as the Court has done here.

contains an inherent time-based limitation, in that each instance of the term describes the throw as occurring "when" the image "***is being*** dragged" (claim 1), "***is being*** continually moved" and "***is*** moving" (claim 7), and during "a continuing touch" (claim 15). (D.I. 55 at 4) (emphasis added) However, Defendants overlook the fact that in all of these cited instances, the dragging concerns the dragging of ***the image inside the screen.*** (*See* '318 patent at 15:4-6) (computer is "causing the images to be manipulated") There is no suggestion that the system's response to the touch on the surface of the screen must be instantaneous, at a precise moment, or during a particular window. Instead, the claims allow for a user to drag her finger across the screen, and for the computer to respond by dragging the image displayed on the screen at a later time. Read in context then, the claim term "is being dragged" is a condition for ***how*** the image inside the screen is moving – by the computer "in response to the location inputs" – not a specific time limitation on ***when*** exactly it is being dragged. (*Id.* at 15:8-11) ("[W]hen the image is being dragged in response to the location inputs and the system detects that the velocity with which the image is being dragged exceeds a threshold velocity, the system responds by removing the image . . .")

Claim 3, which also includes the term "when," states "when the image that is being removed is dragged in a first direction, the removed image is replaced with a different image of the same class . . ." (*Id.* at 15:20-22) Imposing a temporal limitation here of "during or at," as Defendants suggest, would mean that the image is both "replaced" and is still "being dragged" at the very same moment. This paradox is avoided by construing "when" as simply a conditional statement.

The specification also uses "when" to describe what the computer does if the conditions

in the preferred embodiment of FIG. 13 are met, without specifying a particular window in which the code must be executed. (*See id.* at 12:28-29) ("The code that is executed when these conditions are raised is shown in FIG. 15 . . .")

As a result, the proper construction of "when" is its broader, conditional meaning, as proposed by Plaintiff.

F. "image" [claims 1, 7, 15]

Plaintiff's Proposed Construction	"a displayed or drawn representation on the display that can be manipulated as a unit in response to touch or location inputs"
Defendants' Proposed Construction	"the object in the display that is manipulated in response to touch or location inputs"
Court's Construction	"the object in the display that is manipulated in response to touch or location inputs"

Both sides agree that an "image" is displayed in or on the screen and is manipulated in response to touch or location inputs. Their primary dispute is whether an "image" must also be construed to be manipulated "as a unit," as Plaintiff insists. For the same reasons articulated by the Court in *Apple*, 2014 WL 31392, at *2-3 (describing Plaintiff's concession that phrase "as a unit" appears nowhere in patent-in-suit and how Plaintiff is attempting to limit claim to preferred embodiment), the Court agrees with Defendants that the proper construction of "image" should not include "as a unit." Accordingly, the Court adopts Defendants' construction.

G. "ordered set" [claims 18, 19, 20]

Plaintiff's Proposed Construction	"a sequence of images"

Defendants' Proposed Construction	"a group [of images] each of which having a specified position within the group"
Court's Construction	"a group [of images] each of which having a specified position within the group"

The parties dispute whether an "ordered set" can encompass ***a random sequence of images*** or must be a ***set of images with a specified position*** for each image. Plaintiff contends that because an ordered set merely "requires a removed image to have an image that 'precedes' it in the set, and another image that 'follows' it in the set," any sequence of images, even a random sequence, is covered by the term. (D.I. 57 at 24) Defendants, on the other hand, argue that each of the images in an "ordered set" must have a fixed position. (D.I. 55 at 25) The Court agrees with Defendants.

The term "ordered set" appears in claims 18, 19, and 20. Claim 18, which is representative, describes "the removed image" and the "other image" as belonging to "an ordered set thereof;" the claim states that "if the removed image was dragged in a first direction, the other image precedes the removed image in the ordered set," and "if the removed image was dragged in a second direction, the other image follows the removed image in the ordered set." (*Id.* at 16:41-45) It follows that the actual arrangement of the set of images cannot be random. To find otherwise would render these other claim terms – which require that another image "precedes" or "follows" "the other image" – meaningless, since the "other image" would just be randomly selected anew. *See Merck & Co. v. Teva Pharm. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005) ("A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so.").

Plaintiff cites to a portion of the specification which describes two possible

embodiments in which "[t]here may be a predetermined order of pictures" ***or*** "the next picture to be displayed may be selected at random from the group of pictures belonging to the same category." (*See* '318 patent at 9:10-14) However, the latter embodiment is not referring, as Plaintiff contends, to randomly ***generating an order*** that then remains fixed after it is established, but rather randomly ***selecting images from a set that has no order*** in the first place. In any event, despite Plaintiff's insistence, claims 18, 19, and 20 need not encompass this embodiment. "[A] claim need not cover all embodiments," as a "patentee may draft different claims to cover different embodiments." *Intamin Ltd. v. Magnetar Technologies, Corp.*, 483 F.3d 1328, 1337 (Fed. Cir. 2007).[7]

H. "representative thereof" [claims 1, 7, 15]; "representative of the removed image" [claim 15]

Plaintiff's Proposed Construction	"a depiction of at least a portion of the removed image"
Defendants' Proposed Construction	Indefinite. Alternatively, if the Court determines this term is amenable to construction: "a portrayal or symbol of the removed image"
Court's Construction	"a portrayal or symbol of the removed image"

Defendants originally contended that the disputed term "representative thereof" is indefinite because it is "insolubly ambiguous" and not "amenable to construction." (D.I. 55 at 17; *see also Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1250 (Fed. Cir. 2008))

[7]It may be, for example, that Claim 2 encompasses an embodiment in which the images are randomly selected from a group. ('318 patent at 15:15-16) (covering system of claim 1, wherein "the removed image is automatically replaced by another image") However, random selection of an image from a group is not within the scope of the "ordered set" limitation of the narrower claims 18, 19, and 20.

Recently, however, the Supreme Court restated the standard for indefiniteness in *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120 (2014). Applying *Nautilus*, Defendants maintain the term remains indefinite. The Court concludes that this claim term is not indefinite, and adopts as the proper construction the alternative offered by Defendants.

Indefiniteness, like claim construction, is a question of law. *See Atmel Corp. v. Info. Storage Devices, Inc.*, 198 F.3d 1374, 1378 (Fed. Cir. 1999). To the extent factual findings support a court's indefiniteness conclusion, they must be proven by clear and convincing evidence. *See Young v. Lumenis, Inc.*, 492 F.3d 1336, 1347 (Fed. Cir. 2007); 35 U.S.C. § 282; *see also Microsoft Corp. v. i4i Ltd. P'ship*, 131 S. Ct. 2238, 2242 (2011) (invalidity defenses require clear and convincing evidence); *Nautilus*, 134 S. Ct. at 2130 n.10 (remanding issue of whether factual findings subsidiary to ultimate definiteness determination existed to trigger clear and convincing standard)

Section 112, ¶ 2 requires that the specification "shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention." Under *Nautilus*, 134 S. Ct. at 2124, "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." "The certainty which the law requires in patents is not greater than is reasonable, having regard to their subject-matter." *Id.* (internal quotations omitted). However, it is not sufficient that "a court can ascribe ***some*** meaning to a patent's claims" or "any reasonable meaning." *Id.* (emphasis in original); *see also id.* at 2130 n.9 (citing *Hearing Components, Inc. v. Shure Inc.*, 600 F.3d 1357, 1366 (Fed. Cir. 2010)). Rather, "the definiteness inquiry trains on

the ***understanding of a skilled artisan*** at the time of the patent application, not that of a court viewing matters *post hoc*." *Id.* at 2130 (emphasis added).

The Court finds the claim term at issue is sufficiently definite. The claim language states that when the conditions for a throw are satisfied, "the system responds by removing the image from the display without leaving ***any*** representative thereof in the display." ('318 patent at 15:11-13, 46-48) (emphasis added) The specification makes clear that the throw operation "gets rid of the part being thrown" and makes no mention of a portion of the original image or an alternative representation of the image remaining. (*Id.* at 12:23-24, 14:40-42) Defendants have pointed to no portion of the intrinsic evidence, including the specification, suggesting that this broad but clear limitation somehow fails to inform a person of ordinary skill with "reasonable certainty" that no part of the image or any representative of that image remains.

The only expert testimony Defendants proffer as extrinsic evidence of the level of certainty a person of ordinary skill would have in assessing these claim terms is that of the inventor, Dr. Slavoljob Milekic, who commented that whether or not something was "representative thereof" depended on the user's physical ability to perceive the object. (D.I. 55 at 17-18) (citing to Milekic Samsung Dep. Tr. at 44:11 to 45:11) ("I would, as long as it was obvious to the user in terms of features of this, and so, it would depend on the size of the thumbnail and how much it was degraded, because thumbnails, by definition, are the thumb size, like, so they're smaller than the original.") Defendants mischaracterize Dr. Milekic's testimony as an admission that the term "representative thereof" is based on a user's subjective, conceptual "perception" of an image (which might leave a skilled artisan highly uncertain of the claim's scope). The cited portions of Dr. Milekic's testimony fall far short of demonstrating, by clear

and convincing evidence, that a person having ordinary skill in the art would not be reasonably certain of the scope of the invention. Accordingly, the claim term is not indefinite.

Turning, next, to the proper construction of the claim term, the primary dispute among the parties is whether, as Defendants contend, the "removed image" and the "representative thereof" are ***wholly distinct***, or, as Plaintiff asserts, the "removed image" and the "representative thereof" are ***the same***. On this point the Court agrees with Defendants and, therefore, construes the "representative" terms to mean "a portrayal or symbol of the removed image."

The claim language, "representative thereof," appears on its face to be merely a reference to the "image" being removed, and not the image itself. ('318 patent at 15:11-13) Additionally, here there is a clear disclaimer. *See Purdue Pharma L.P. v. Endo Pharms. Inc.*, 438 F.3d 1123, 1136 (Fed. Cir. 2006) ("[A] patentee may limit the meaning of a claim term by making a clear and unmistakable disavowal of scope during prosecution."); *Elbex Video, Ltd. v. Sensormatic Elecs. Corp.*, 508 F.3d 1366, 1371 (Fed. Cir. 2007) ("[W]hen a patent applicant surrendered claim scope during prosecution before the PTO, the ordinary and customary meaning of a claim term may not apply."). The prosecution history demonstrates that the applicant expressly disclaimed claim scope such that both the original image ***and*** any representative thereof must disappear from the display.

The examiner's original rejection of the relevant claims as obvious over the Henckel reference was based on his view that the original image being manipulated as well as any subsequently-altered version of that image were two distinct objects. (*See* JCCC, Ex. D-2 at 7) Henckel disclosed a system for turning the pages of a book represented on a touch screen. (JCCC, Ex. D-6 (Henckel patent) at Fig. 2)) According to the examiner's rejection, when

Henckel's page turn operation occurred, the original page was removed and a separate representative – a page edge (vertical line) – was generated on the side of the display; the page itself did not remain on the screen the whole time and merely turn to a different position. (*See* Handy Decl. Ex. C at 7) On three separate occasions, the applicant tried to convince the examiner that Henckel never removes the page but "changes the form that the image of the page has" – and the examiner rejected this argument each time.[8] Finally, the applicant accepted that the removed image and the representation of it were two separate things and amended its claims to distinguish Henckel accordingly:

> In the telephonic interview, Examiner pointed out that in Henckel, the image of the page did in fact disappear, even though the page remained represented in the display by its edge. Applicants have ***now amended their independent claims to make it completely clear*** that not only ***the image***, but also ***any representative thereof***, disappeared from the display.[9]

The applicant's statement here is clear and unambiguous. There is no other reasonable interpretation of the applicant's statement, other than that it was disclaiming embodiments in which both the image and its representative are removed. *See 01 Communique Lab., Inc. v. LogMeIn, Inc.*, 687 F.3d 1292, 1297 (Fed. Cir. 2012) ("There is no 'clear and unmistakable' disclaimer if a prosecution argument is subject to more than one reasonable interpretation, one of which is consistent with a proffered meaning of the disputed term."); *SanDisk Corp. v. Memorex Products, Inc.*, 415 F.3d 1278, 1287 (Fed. Cir. 2005) ("An ambiguous disclaimer, however, does not advance the patent's notice function or justify public reliance, and the court will not use it to

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[8]*See* Handy Decl. Ex. A (Mar. 10, 2003 Office Action) at 8; *id.*, Ex. B (Aug. 19, 2003 Office Action) at 3; *id.*, Ex. C at 7.

[9]JCCC, Ex. D (Mar. 21, 2003 Response to Final Office Action) at 7 (emphasis added).

limit a claim term's ordinary meaning."). As a result of this prosecution history disclaimer, Defendants are correct that a "representative thereof" must be construed as wholly distinct from the image itself.

I. "class" [claims 3, 9, 16]

Plaintiff's Proposed Construction	"a category of images sharing common attributes"
Defendants' Proposed Construction	Indefinite. No proposed construction provided in the alternative.
Court's Construction	"a category of images sharing common attributes"

Defendants contend the disputed term "class" is indefinite. The Court is not persuaded the claim term, read in light of the specification and the prosecution history, "fail[s] to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus*, 134 S. Ct. at 2124.

The *Nautilus* Court emphasized that "[t]he certainty which the law requires in patents is not greater than is reasonable, having regard to ***their subject-matter***." *Id.* (emphasis added). In doing so, the Court cited its previous decision in *Minerals Separation v. Hyde*, 242 U.S. 261, 270-71 (1916), in which it rejected an indefiniteness challenge. In *Hyde*, the subject matter of the invention related to "the composition of ores," which the record showed "varies infinitely," making it "obviously impossible to specify in a patent the precise treatment which would be most successful and economical in each case." *Id.* at 271. *Hyde* stated: "The process is one for dealing with a large class of substances and the range of treatment within the terms of the claims, while leaving something to the skill of persons applying the invention, is clearly sufficiently definite to guide those skilled in the art to its successful application, as the evidence abundantly

shows." *Id.*

Here, Defendants' principal argument is that because some images can belong to different classes, the word "class" is indefinite. However, given the particular subject matter involved here – a user interface for manipulating images with a computer and touch sensitive display – listing every possible image class and every member of each image class (if even possible) is not necessary to inform those skilled in the art with reasonable certainty as to the scope of the claim. Just as the claimed process in *Hyde* was sufficiently definite despite the infinite variations in ore composition, here the term "class" is "sufficiently definite to guide those skilled in the art to its successful application," even though there may be an infinite number of classes that could be designed.

The Court concludes that a skilled artisan, after reading the specification[10] and prosecution history,[11] would understand that the claims require images to be grouped into categories, and also that the particular composition of those groups is left up to the designer to determine based on the image's attributes. Accordingly, Defendants' indefiniteness argument is unpersuasive.

Defendants do not propose an alternative construction. Consistent with the claim language and intrinsic evidence, the Court concludes that "class" means "a category of images sharing common attributes."

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[10]*See, e.g.*, '318 patent at 9:5-7 ("The pictures have been divided up into categories 'deer' . . . 'faces' . . . and 'outdoors.'").

[11]*See* D.I. 74, Declaration of Ryan Meyer ("Meyer Decl.") Ex. 1 at FW00010789 (examiner stating, "it was known in the art that manipulating graphical images in GUI is associated with various 'classes of images' such as type, property, shape, size, and position").

J. "image's content" [claims 3, 9, 16]

Plaintiff's Proposed Construction	"the attributes of the image"
Defendants' Proposed Construction	Indefinite. No proposed construction provided in the alternative.
Court's Construction	"the attributes of the image"

Defendants contend that "image's content" is indefinite. The Court is not persuaded that this claim term, considered in light of the specification and the prosecution history, fails to inform those skilled in the art about the scope of the invention with reasonable certainty. *See Nautilus*, 134 S. Ct. at 2124. Additionally, Defendants provide no expert testimony regarding how a person of ordinary skill would not be reasonably certain about the scope of this claim term. Defendants have failed to persuade the Court that the claim term is indefinite.

Claim 3, which is representative, states: "there is a plurality [of] images, each image belonging to a class of a plurality thereof according to the image's content." ('318 patent at 15:18-19) Depending on the direction of the drag used to execute a throw, the thrown image will either be replaced by an image from the same class or of a different class. (*Id.* at 15:20-25) The specification, when discussing how to make a system for the manipulation of images, emphasizes making the "content," or the visual "information" of the image, accessible to the user. ('318 patent at 4:25-27 ("making the information (content) manipulable, and . . . making the content structure compatible with the child's social environment"); *see also id.* at 4:16-25) The specification goes on to describe how this "information (content)" of an image is encoded. (*Id.* at 12:47-52) ("Within the class, the part has an ID number, and if it is a part that comes in pairs, it has an indication whether it is the left or right member of the pair. In the preferred embodiment,

this information about the part is encoded in the part's name. For instance, in the part name Leye5, eye indicates the class name, 5 the kind of eye, and L that the eye is a left eye.")

Consistent with the intrinsic evidence cited above, the Court is persuaded that "image's content" means "the attributes of the image" and therefore adopts Plaintiff's construction.

IV. CONCLUSION

The Court finds that, in light of the foregoing constructions, the disputes between the parties have been resolved. Construction of the remaining terms is not necessary given the remaining phrases are made up of the now-construed terms and only duplicate those same disputes.

For the foregoing reasons, the Court will construe the disputed claim terms of the '318 patent consistent with this Memorandum Opinion. An appropriate Order follows.

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

FLATWORLD INTERACTIVES LLC, Plaintiff, v. SAMSUNG ELECTRONICS CO., LTD., et al., Defendants.	:	C.A. No. 12-804-LPS

FLATWORLD INTERACTIVES LLC, Plaintiff, v. LG ELECTRONICS, INC., et al., Defendants.	:	C.A. No. 12-964-LPS

ORDER

At Wilmington this 31st day of December, 2014:

For the reasons set forth in the Memorandum Opinion issued this date,

IT IS HEREBY ORDERED that the disputed claim language of U.S. Pat. No. RE43,318 ("the '318 patent") shall be construed as follows:

1. "removed"/"removing" means "eliminating the image from the screen"
2. "dragged" is given its plain and ordinary meaning;
3. "continually moved" means "when the point being touched is moving without interruption"
4. "continuing touch" means "a touch [that moves the image] that remains in

existence without interruption"

5. "threshold velocity" means "a velocity that, if the system detects is exceeded, causes the system to change the meaning of the gesture from a drag to a throw"

6. "when" means "in view of the fact that; in the event that; if"

7. "image" means "the object in the display that is manipulated in response to touch or location inputs"

8. "ordered set" means "a group [of images] each of which having a specified position within the group"

9. "representative thereof"/"representative of the removed image" means "a portrayal or symbol of the removed image"

10. "class" means "a category of images sharing common attributes"

11. "image's content" means "the attributes of the image"

UNITED STATES DISTRICT JUDGE