**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

IP INNOVATION, LLC and	§	
TECHNOLOGY LICENSING	§	
CORPORATION,	§	
	§	
Plaintiffs	§	**CASE NO. 2:07 CV 447**
	§	
vs.	§	
	§	
RED HAT, INC., and NOVELL, INC.	§	
	§	
Defendants	§	

MEMORANDUM OPINION AND ORDER

Before the Court is Red Hat, Inc. and Novell's (collectively "Defendants") Motion for Partial

Summary Judgment on the issues of indefiniteness (Docket No. 78). After considering the briefing

and oral argument, the Court **DENIES** Defendants' motion for summary judgment for the reasons

explained below. This opinion also construes the disputed terms in U.S. Patent Nos. 5,072,412 (the

"'412 patent"), 5,394,521 (the "'521 patent"), and 5,533,183 (the "'183 patent).

BACKGROUND

The '412, '521, and '183 patents are similarly entitled "User Interface With Multiple

Workspaces For Sharing Display System Objects." The patents generally describe a computer based

graphical user interface that spans across multiple workspaces. Within a workspace is a collection

of display objects, called "tools," that have visually distinguishable features (e.g., icons or windows).

The display objects can be shared between workspaces. When a user switches between workspaces

to perform different tasks, the display objects or tools that are common among the workspaces are

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displayed in the new workspace. The patents are based on the same disclosure and share a specification. On September 9, 2007 IP Innovation, LLC and Technology Licensing Corporation (collectively "IPI") filed this action against Defendants alleging infringement of the three patents. The parties now seek construction of disputed claim terms.

APPLICABLE LAW

"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) (quoting *Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). In claim construction, courts examine the patent's intrinsic evidence to define the patented invention's scope. *See id.*; *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 861 (Fed. Cir. 2004); *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). This intrinsic evidence includes the claims themselves, the specification, and the prosecution history. *See Phillips*, 415 F.3d at 1314; *C.R. Bard, Inc.*, 388 F.3d at 861. Courts give claim terms their ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the entire patent. *Phillips*, 415 F.3d at 1312–13; *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003).

The claims themselves provide substantial guidance in determining the meaning of particular claim terms. *Phillips*, 415 F.3d at 1314. First, a term's context in the asserted claim can be very instructive. *Id.* Other asserted or unasserted claims can also aid in determining the claim's meaning because claim terms are typically used consistently throughout the patent. *Id.* Differences among the claim terms can also assist in understanding a term's meaning. *Id.* For example, when a

dependent claim adds a limitation to an independent claim, it is presumed that the independent claim does not include the limitation. *Id*. at 1314–15.

"[C]laims 'must be read in view of the specification, of which they are a part.'" *Id*. (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc)). "[T]he 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.'" *Id*. (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). This is true because a patentee may define his own terms, give a claim term a different meaning than the term would otherwise possess, or disclaim or disavow the claim scope. *Phillips*, 415 F.3d at 1316. In these situations, the inventor's lexicography governs. *Id*. Also, the specification may resolve ambiguous claim terms "where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone." *Teleflex, Inc.*, 299 F.3d at 1325. But, "'[a]lthough the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims.'" *Comark Commc'ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988)); *see also Phillips*, 415 F.3d at 1323. The prosecution history is another tool to supply the proper context for claim construction because a patent applicant may also define a term in prosecuting the patent. *Home Diagnostics, Inc., v. Lifescan, Inc.*, 381 F.3d 1352, 1356 (Fed. Cir. 2004) ("As in the case of the specification, a patent applicant may define a term in prosecuting a patent.").

Although extrinsic evidence can be useful, it is "'less significant than the intrinsic record in determining the legally operative meaning of claim language.'" *Phillips*, 415 F.3d at 1317 (quoting *C.R. Bard, Inc.*, 388 F.3d at 862). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but technical dictionaries and treatises may provide definitions that are too broad or may not be indicative of how the term is used in the patent. *Id*. at 1318. Similarly, expert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert's conclusory, unsupported assertions as to a term's definition is entirely unhelpful to a court. *Id*. Generally, extrinsic evidence is "less reliable than the patent and its prosecution history in determining how to read claim terms." *Id*.

The patents in suit also contain means-plus-function limitations that require construction. Where a claim limitation is expressed in "means plus function" language and does not recite definite structure in support of its function, the limitation is subject to 35 U.S.C. § 112, ¶ 6. *Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997). In relevant part, 35 U.S.C. § 112, ¶ 6 mandates that "such a claim limitation 'be construed to cover the corresponding structure . . . described in the specification and equivalents thereof.'" *Id*. (citing 35 U.S.C. § 112, ¶ 6). Accordingly, when faced with means-plus-function limitations, courts "must turn to the written description of the patent to find the structure that corresponds to the means recited in the [limitations]." *Id*.

Construing a means-plus-function limitation involves multiple inquiries. "The first step in construing [a means-plus-function] limitation is a determination of the function of the means-plus-function limitation." *Medtronic, Inc. v. Advanced Cardiovascular Sys., Inc.*, 248 F.3d 1303, 1311

(Fed. Cir. 2001). Once a court has determined the limitation's function, "the next step is to determine the corresponding structure disclosed in the specification and equivalents thereof." *Id*. A "structure disclosed in the specification is 'corresponding' structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim." *Id*. Moreover, the focus of the "corresponding structure" inquiry is not merely whether a structure is capable of performing the recited function, but rather whether the corresponding structure is "clearly linked or associated with the [recited] function." *Id*.

APPLICATION

"appears to the user to be the same tool," "perceptible as the same tool/display object," & "not including a display object that is perceptible as the same tool"

The term "appears to the user to be the same tool" appears in claims 9 and 10 of the '412 patent. The term "perceptible as the same display object" appears in independent claim 8 of the '412 patent, and the term "perceptible as the same tool" appears in claims 1, 24, 38, 44, 49-52, 56, and 59 of the '412 patent, claims 1 and 8 of the '521 patent, and claims 1, 3, and 12 of the '183 patent.[1] Claim 19 of the '412 patent contains the related term "not including a display object that is perceptible as the same tool." The parties agree that the term needs no further construction beyond defining "perceptible as the same tool." The parties have agreed on the definitions for "tool" and "display object." Therefore, the true terms in contention are "perceptible as" and "appears to the user to be the same." IPI argues that these terms as a whole should be defined as "requiring the phenomenon of object constancy, under which two successively displayed objects are perceived as the same tool/display object, even if the objects have some different positions, sizes, and contexts.

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[1] For ease of reference these terms will collectively be referred to as the "appearing" terms.

Object constancy can result from many cues including similarities of position, size, context, contents, labels, text, and/or history." Defendants respond that the terms mean "generated to achieve object constancy such that changes made to shared features of a tool appearing in one workspace, e.g. content, data, etc. are reflected in features of tools in other workspaces."

IPI's construction is taken directly from the specification describing Figures 1a and 1b. Those Figures show two different windows containing different objects, and the specification explains that the Figures "illustrate the phenomenon of object constancy." '412 Patent at 10:31-31. Some of the objects in the two figures "appear to be the same object despite having different characteristics." *Id.* at 10:35-36. As IPI's proffered definition suggests, the specification gives examples of various characteristics that may be different while maintaining object constancy. *Id.* at 10:36-37 ("postitions, sizes, and contexts"). As an additional example, the specification explains that "[o]ther shared features which can result in object constancy include sharing of an application, such as an editor; sharing of data; sharing of the state of the application as applied to the data; sharing of a history of continuous operation without interruption." *Id.* at 10:43-47.

However, while "object constancy" serves as a guide for defining these terms, the claim terms themselves are phrased as a matter of "perception" by "the user." Because of this phrasing, Defendants' proposed construction must be rejected. Defendants attempt to define how a computer might achieve object constancy rather than in terms of what perceptible features result in object constancy. Their inclusion of the word "generated" is unsupported by the specification. Though Defendants opine that a "display system object" may "generate" the same tool in multiple workspaces, this portion of the specification has nothing to do with what is perceived by a user. *See id.* at 8:22-45. Thus, these claim terms do not require, as Defendants argue, that a tool/display object

be generated or stored in a certain way. Adding such a limitation to the definition of the "appearing" terms would improperly limit the claims. Further, while the specification describes that object constancy is achieved through "shared features," Defendants' construction seems to suggest that features must share a data structure to meet the limitation. Nothing in the specification's description of object constancy requires tools/objects to share a data structure. The claim terms only speak to the "appearance" of objects in two workspaces and not how the data structures comprising tools/display objects are organized.

One skilled in the art would understand that the "appearing" terms refer to object constancy as described by IPI. However, as "object constancy" itself is a specialized term, to include it in the definition of the disputed terms would not assist the jury. But, as described above, the essential characteristic of object constancy is recognition, by the user, of a tool/display object despite some different characteristics. Accordingly, the "appearing" terms mean "recognized as the same tool [display object], even if the objects have some different display characteristics, including different positions, sizes, and contexts."

Thus, the term "not including a display object that is perceptible as the same tool" means "not including a display object that is recognized as the same display object, even if the objects have some different display characteristics, including different positions, sizes, and contexts."

"display"

The term "display" is used in claims 1, 21, 24, 38, 44, 49, 56, and 59 of the '412 patent, claims 1 and 8 of the '512 patent, and claims 1, 3, and 12 of the '183 patent. IPI defines the term as "an image that includes a collection of display objects together with spatial display relations between them." Defendants suggest that the term means "device that can be attached to a computer

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in order present images." The parties agree that the term should have the same definition in all three patents. The principal dispute is whether "display" refers to an "image" or a "device."

The patents' claims contain conclusive evidence that the term "display" refers to a physical device. Most notably, claim 1 of the '183 patent calls for "a data processor that receives input signals from the user input device and provides output signals to the display; the output signals causing the display to present images that include display objects." '183 Patent at 43:62-65. An "image" cannot "present images" nor can it receive "output signals."

Nevertheless, IPI argues that a "display" is akin to a visual representation of a workspace that, in turn, can contain other "displays." IPI justifies this theory by pointing to Figure 5, element 100, which shows essentially a desktop filled with different workspaces. *See* '412 Patent at Figure 5; 6:39-40. Further, there are instances within the specification that use the word "display" to mean an image. *See* '412 Patent at 30:36-52 ("the implementation of exit workspace procedure 204 described above updates the workspace data structure to include data necessary for regenerating substantially the same display at a later time"). IPI suggests that this usage evidences the patentee's overall intention to use "display" consistently throughout the claims as meaning an "image."

The patents' various usages of the word "display" does not support this conclusion. First, the specification confusingly uses the word "display" as a noun, an adjective, and a verb. In addition, the word "display" is combined with other words to create a variety of different specialized terms such as "display system object," "display object," and "workspace display." Given the wide and varying uses of the term, the patentee clearly had no intention of using the term "display" consistently throughout the specification. As noted, the claims themselves do not support IPI's

definition. Accordingly, consistent with the usage of "display" in the claims, the Court defines the term as a "device that can be attached to a computer in order to present images."

"input device" & "input means"

Claims 1, 3, and 12 of the '183 patent contain the term "user input device for receiving signals from a user" and claims 21, 24, 56, and 59 of the '412 patent contain the term "input means for receiving signals from a user." IPI suggests that the term "input device" means "a keyboard, mouse, or other pointer control device," and Defendants argue the term is restricted to a "mouse or keyboard." IPI further contends that "input means" should be construed the same as "input device," while Defendants urge that the term is a means-plus-function limitation with a function of "receiving signals from a user" and a structure consisting of a "mouse or keyboard, and their equivalents."

IPI first contends that "input" connotes sufficient structure to remove the term "input means" from 35 U.S.C. § 112 ¶ 6. Essentially, IPI argues that since the phrase "input signals for receiving signals from a user" is understood by one skilled in the art, that the related phrase "input means for receiving signals from a user" should be construed similarly.

There is a presumption that terms containing the word "means" are governed by § 112 ¶ 6. *TriMed, Inc. v. Stryker Corp.*, 514 F.3d 1256, 1259 (Fed. Cir. 2008). IPI provides no intrinsic evidence overcoming this presumption. The simple fact that the patentee included a similar phrase in a different patent does not constitute evidence of inherent structure. Additionally, as Defendants note, IPI's reliance on *Verizon California Inc. v. Ronald A. Katz Technology Licensing, L.P.* is misplaced. *See* 326 F. Supp. 2d 1060, 1086-87 (C.D. Cal. 2003). There, the parties agreed that the term "digital input means" was not governed by § 112 ¶ 6 and the court was not clearly presented with the issue disputed here. There is nothing in the claims or the specification to suggest that "input

means for receiving signals from a user" inherently discloses sufficient structure to remove it from § 112 ¶ 6. Thus, the Court construes the term under § 112 ¶ 6.

The parties further disagree over whether the definition of an "input means" and "input device," should include "other pointer control devices." In addition to a keyboard and a mouse, the specification clearly discloses "other pointer control devices" as a way that a user interacts with the computer. *See* '412 Patent at 1:23-28; 34:38-41. Defendants' only argument for excising this phrase from the definition of the disputed terms is that the scope of the phrase is already captured by § 112 ¶ 6 equivalence.[2] However, the applicability of § 112 ¶ 6 requires that a means-plus-function term be given the full scope of the structure described in the specification. 35 U.S.C. § 112 ¶ 6 ("such claim shall be construed to cover the corresponding structure, material, or acts described in the specification"). In addition, principals of claim construction generally require courts to give effect to the full scope of the invention described in the specification. *Home Diagnostics, Inc. v. LifeScan, Inc.*, 381 F.3d 1352, 1357 (Fed. Cir. 2004). Accordingly, "input means" is governed by § 112 ¶ 6 with a function of "receiving signals from a user" and a structure of "a keyboard, mouse, or other pointer control device, and their equivalents." The term "input device" is defined as "a keyboard, a mouse, or other pointer control device."

"workspace data" & "workspace data structure"

Claims 1, 24, 38, and 44 of the '412 patent and claim 1 of the '521 patent contain the term "workspace data structure," and claim 8 of the '521 patent contains the term "workspace data." The parties agree on the definition of "workspace" and "data structure." Rather, the dispute surrounds

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[2] Defendants' briefing discusses that the scope of "other pointer control devices" is captured by the doctrine of equivalents. However, as the doctrine of equivalents pertains to the issue of direct infringement, the Court assumes that Defendants are referring to § 112 ¶ 6 equivalence.

whether "workspace data" and "work space data structure" require a "one-to-one relationship" between a data structure and a particular workspace. Defendants urge that the terms require a single corresponding data structure for every workspace. IPI contends that the claims do not require such a "one-to-one relationship."

There is no question that the specification refers to specific embodiments of the invention with a one-to-one relationship between a data structure and a workspace. *See* '412 Patent at Fig. 1 (disclosing a particular data structure for each workspace, e.g., workspace A, workspace B, workspace C). However, nothing in the patent's specification disclaims the possibility that a single data structure can contain multiple workspaces. *See Conoco, Inc. v. Energy & Envtl. Int'l L.C.*, 460 F.3d 1349, 1357 (Fed. Cir. 2006) (holding that patentee must clearly disclaim the scope of otherwise broad claim language). In fact, the claim language itself supports IPI's position that the terms do not inherently contain a one-to-one restriction. For example claim 1 of the '512 patent requires "first and second workspace data structures relating respectively to first and second workspaces." '512 Patent at 45:62-63. As claim 1 specifically calls for a "respective" relationship between a workspace and a workspace data structure, the term "workspace data structure" does not inherently embody such a relationship.

Defendants also argue that a co-inventor, Stuart Card, has testified to an inherent one-to-one relationship. In fact, the portion of Mr. Card's deposition that Defendants provided does not squarely address the issue of a one on one relationship. Mr. Card simply agrees that "there are data structures associated with each particular workspace" and not that each workspace only had one data structure associated with it. *See* Card Depo. Tr., Docket No. 79, Ex. D at 120:16-19. There is no evidence that the specification or the claims necessarily tethers a "workspace data structure" to one

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and only one workspace. As a result, IPI is correct, and the terms "workspace data structure" and "workspace data" do not require definition beyond what has already been agreed to by the parties.

"control means"

Claims 1, 38, 49, and 56 of the '412 patent each contain slightly different "control means" limitations. The parties agree that the various limitations are subject to § 112 ¶ 6 and that the function of each of the terms is set forth in the claim language. Generally, the various functions performed by the control means limitations are: 1) accessing workspace data structures to cause the display to present the workspace; 2) accessing linking data structures to cause the display to present the workspace; 3) accessing display characteristic data while accessing linking data strictures to cause the display to present the display object; 4) responding to the signal requesting a switch from first workspace to second workspace by causing the display to cease presenting the first workspace and to begin presenting the second workspace; 5) causing a display to present a set of display objects; and 6) responding to the switch request signal by storing data indicating display characteristics of the display object before causing the display to cease presenting that set of display objects. The principal dispute surrounds what the specification discloses as the corresponding structure. IPI urges that the corresponding structure for all the "control means" limitations "is a pop up menu and its associated boxes and/or icons and their equivalents." Defendants urge that "control means" is governed by *WMS Gaming, Inc. v. International Game Technology*, and thus must be an algorithm. 184 F.3d 1339, 1349 (Fed. Cir. 1999). Thus, Defendants' proposed structures reference box-diagrams and pseudo-code describing various processes within the invention. However, as Defendants concede, none of the referenced diagrams are specifically directed at describing a "control means." Thus, the parties raise two issues. First, whether *WMS Gaming* requires that

"control means" have an algorithmic structure. Second, if so, whether Defendants' proposed

structure sufficiently corresponds to a "control means."

For the purposes of discussion, claim 1 of the '412 patent calls for a "control means for

accessing the first workspace data structure to cause the display to present the first workspace

including the first display object; the control means further being for accessing the second workspace

data structure to cause the display to present the second workspace including the second display

object." The specification describes this feature of the invention by describing the user's interaction

with icons and pop-up menus within the computer program. For example, when describing Figures

1a and 1b, the specification explains that "[p]ointer 18 is currently pointing at door icon 16, and if

the user provides a select signal at this time, door icon 16 will be selected as a unit, without regard

to the position of pointer 18 within the icon. The user may then invoke a door opening operation,

causing workspace display 10 to disappear and workspace display 20 to appear, as shown in FIG.

1B." '412 Patent at 9:67-10:5. The specification further provides that "access to any other

workspace can be provided by a pop-up menu with a list of all existing workspace names." *Id.* at

15:8-10.

Figure 4 further shows a box-diagram for the process that a computer program executes when

entering a workspace. When referring to that drawing, the specification provides:

> In box 80, the workspace's data structure is accessed using an identifier of
> that workspace. *The workspace identifier may result from a user signal to enter that
> workspace. Upon accessing the workspace's data structure, its entry procedures are
> performed in box 82.* Those procedures may include providing a way to return to the
> previous workspace and storing this workspace's identifier in a location indicating
> it is the current workspace. In box 84, the system retrieves the data about display
> objects in this workspace from the placements associated with this workspace's data
> structure. The linked display objects are then made visible in accordance with that
> data in box 86, which includes moving them from the hiding place to a location

within the display. At this point, the system is ready to receive further user inputs.

'412 Patent 14:42-57 (emphasis added). As described, the computer process for accessing occurs after, and in response to, the user's interaction with a "control means for accessing." Thus, the specification describes that the structure for a "control means for accessing/responding/causing" is something contained within the executable program code that a user directly interacts with that results in the described function.

In contrast, Defendants' proposed structure for all the "control means" limitations is "procedures and data in the display system as shown in Figs. 2-4 and 6-22, as specified, including the accompanying textual descriptions in the specification, and Table 1 (at col. 21)." While the figures and descriptions generally explain how a program might access or accomplish various tasks initiated by the user, the Figures do not describe what "control means" the user may interact with in order to initiate these processes. Further, the "structure" identified by Defendants encompasses far more than is encompassed by the "control means" limitation. For instance, Figure 2 describes the data structure required for implementing the invention, rather than any part of the control means. *See* '412 Patent at 12:14-16.

Defendants' overly broad structure is a result of their struggle to find an "algorithm" as described by *WMS Gaming*. *WMS Gaming* requires an algorithm "[i]n a means-plus-function claim in which the disclosed structure is a computer, or a microprocessor." 184 F.3d at 1349. This is because "[a] general purpose computer, or microprocessor, programmed to carry out an algorithm creates a new machine, because a general purpose computer in effect becomes a special purpose computer once it is programmed to perform particular functions pursuant to instructions from program software." *Id.* at 1348 (internal quotation marks omitted). Thus, the term "means for

assigning" required an algorithmic structure when "a computer" or "microprocessor" performed the function of "assigning."

WMS Gaming and its progeny are inapplicable to this case. Here, the specified function is not performed through interaction of a programmed computer with external elements using the computer's input/output functionality (i.e, assigning numbers for rotating reels of a slot machine). Instead, the "control means" interacts with workspace data structures that are part of a program of code that is executable on a computer and performance of the specified function is not carried out through a computer's input/output functionality. This understanding is reinforced by claim 11, which adds the "input means" limitation and provides for interaction of the executable program with a user, which would involve a computer's input/output functionality.

Thus, the "means" specified in the patents calls for structure *within* the executable program that interacts with the workspace data structure in essentially switching between first and second workspace displays. Accordingly, IPI is correct that the corresponding structure for the "control means" limitations does not require an algorithmic structure as dictated by *WMS Gaming*. It is, of course, the user who makes a selection of workspace displays through the use of a pointer control device (such as a mouse). Thus, the "control means" must necessarily be those program components that facilitate the user's selection of a workspace. The mechanism for user selection of workspaces, via the pointer control device, are the displayed pop-up menus and icons. However, rather than being merely the displayed "pop up menus and icons," the structure actually interacting with the user-guided pointer control device is the corresponding code creating the interactive menus and icons. Therefore, the structure recited in the specification for the "control means" terms is "executable computer code implementing selectable graphical user interface pop-up menus and icons

and equivalents."

"display object means"

Claims 1 and 24 of the '412 patent contain the limitation "display object means for generating [a] display object." Additionally, claims 21, 38, 49, 56, and 59 of the '412 patent contain the limitation "display object means for generating a plurality of display objects." Defendants first argue that the term is indefinite because it fails to identify an "algorithmic" structure under *WMS Gaming* for a "display object means for generating."

Generally, if the specification merely states a computer or microprocessor performs the claimed function, the specification does not disclose adequate structure and the claim is indefinite. *Aristocrat Techs. Austl. Pty Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1333-34 (Fed. Cir. 2008) (holding claim indefinite, as the specification did not disclose sufficient structure where disclosure stated one of ordinary skill in the art could program a computer with "appropriate programming" to perform a "control means" function); *Fisinar Corp. v. The DirecTV Group, Inc.*, 416 F. Supp. 2d 512, 518 (E.D. Tex. 2006) (Clark, J.) (holding claim that included "database editing means . . . for generating . . . and embedding . . ." limitation was indefinite where the specification merely restated that software performed the recited function); *Gobelli Research Ltd. v. Apple Computer, Inc.*, 384 F. Supp. 2d 1016, 1022–23 (E.D. Tex. 2005) (Ward, J.) (holding claim indefinite where patentee's proposed structure of "a microprocessor running a procedure call that sets aside resources, such as a memory area" did not set forth an algorithm for performing the claimed "reallocating processing resources as a function of task priority" function); *see also Biomedino LLC v. Waters Techs., Inc.*, 490 F.3d 946, 953 (Fed. Cir. 2007) (holding that claim that included "control means for automatically operating said valving" limitation was indefinite, as the specification merely disclosed

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a diagram with a box labeled "control" and a stated the invention "may be controlled automatically by known differential pressure, valving and control equipment"). Similarly, the specification does not disclose sufficient structure if it simply describes the outcome of the claimed function and does not disclose a computer programmed to execute a particular algorithm. *Aristocrat Techs.*, 521 F.3d at 1334-35.

Both parties point to the same portion of the specification to support their respective positions. That portion provides:

> The term "display system object" is defined herein to mean the means within an object-based display system for providing a corresponding independent display object set, meaning that the display system object provides the visible features of each of the display objects in that display object set and receives and responds to user signals relating to those display objects.

'412 Patent at 8:22-27. The specification goes on to provide that a display system object may include "one or more data structures and a number of procedures" and that "[a] display system object is one instance of the more general term signal source, meaning any means for generating data that a user can perceive." *Id.* at 8:28-45. Defendants essentially argue that because this explanation of "display system object" is not an algorithm, that the means-plus-function term must be indefinite. IPI argues that "display objects" have a very particular meaning to those skilled in the art and that meaning along with the definition of "display system object" is sufficient to communicate structure to one skilled in the art. *See* Zimmerman Decl., Docket No. 82-4 at ¶ 6 (noting that the term "object" refers to a data structure that can be manipulated).

Defendants respond that the Federal Circuit has recently proclaimed that "[a] patentee cannot avoid providing specificity as to structure simply because someone of ordinary skill in the art would be able to devise a means to perform the claimed function." *Blackboard, Inc. v. Desire2Learn, Inc.*,

___ F.3d ____, 2009 WL 2215107 at *14 (Fed. Cir. July 27, 2009). However the issue in *Blackboard*

is far removed from the one presented here. In *Blackboard*, the plaintiff argued that an algorithmic

means-plus-function claim was not indefinite because "a person skilled in the art could readily

fashion a computer based means for performing the claimed function." *Id.* The *Blackboard* court

instructed that

> "[t]he correct inquiry is to look at the *disclosure* of the patent and determine if one
> of skill in the art would have understood that *disclosure* to encompass software for
> [the claimed function] and been able to implement such a program, not simply
> whether one of skill in the art would have been able to write such a software
> program. . . It is not proper to look to the knowledge of one skilled in the art apart
> from and unconnected to the disclosure of the patent."

Id. (quoting *Med. Instrumentation & Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1212 (Fed. Cir.

2003)). Thus, the relevant inquiry is whether there is enough of a disclosure in the specification to

allow one skilled in the art to understand the disclosure encompassed a structure for a "display object

means" that performed the function of "generating display objects."

When read by one skilled in the art, the specification provides that a "display system object,"

an "object" being understood as a tool for data manipulation, creates "display objects," which have

their own specific meaning in the context of the patent. The specification goes on to explain that this

tool may include "one or more data structures and a number of procedures, and a data structure and

procedure such as an editor or other application could be called on by more than one display system

object." '412 Patent at 8:28-32. This language does not connote merely function, but structure.

Defendants' main complaint with this language seems to be that it does not describe particular code

for implementing the "generation" function. However, that level of specificity is not required in a

means-plus-function limitation in order to save its validity. *See Biomedino*, 490 F.3d at 950 ("While

the specification must contain structure linked to claimed means, this is not a high bar: all one needs to do in order to obtain the benefit of [§ 112, ¶ 6] is to recite some structure corresponding to the means in the specification, as the statute states, so that one can readily ascertain what the claim means and comply with the particularity requirement of [§ 112,] ¶ 2.") (internal quotation marks omitted). As with the term "control means," the "display object means" is not carried out through a computer's input-output functionality. Rather, the "display object means" is yet another module within the executable code described within entirety of the patent. The function of this code is to generate display objections. Given the understood meaning of "object" within the art, disclosure of a "display system object" provides sufficient structure for the claimed functionality.

Finally, Defendants have not provided any evidence that one skilled in the art would not understand that a "display system object" is a structure with an understandable scope. This lack of evidence is further reinforced by Defendants' alternative argument that a "display system object" and only a "display system object" is sufficient structure for the performed function. Thus, Defendants have failed to carry their burden of proving indefiniteness by clear and convincing evidence, and the Court denies Defendants' motion for summary judgment.

However, IPI further contends that "display object means" also must have a structure that provides a link to workspace data structure. For this proposition IPI points to language in claim 1 of the '412 patent that specifies a "display object means for generating first and second display objects; *the first workspace data structure being linked to the display object means so that the first display object is in the respective set of display objects of the first workspace*." '412 Patent at 45:47-50 (emphasis added). IPI argues that this language comprises part of the function of a "display object means," and thus requires a corresponding structure. However, the language is clearly not tied

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to the function of "display object means" for several reasons. First, it is physically separated from the means-plus-function claim language, "display object means for generating first and second display objects," with a semicolon. Moreover, the next paragraph of the claim defining the "control means" limitation teaches a "control means for accessing the first workspace . . . ; the control means further being for accessing the second workspace." *Id.* 45:55-59. The use of the phrase "further being for" allowed the patentee to distinguish the additional functionality of a "control means" from an additional limitation. Such language is absent in the limitations following the "display object means" limitation. Additionally, other claims besides claim 1 recite a "display object means for generating" without the additional language that IPI proposes is inherent to the function of "display object means." *See, e.g.*, '412 Patent at 56:16-17 (Claim 59).

Finally, in attempting to define the corresponding structure for the proposed "linking" function of the "display object means" limitation, IPI references statements in the specification indicating that a "display system object" has the ability to "link" to workspaces. *See* '412 Patent at Abstract ("a display system object can be linked to several workspaces by a placement"). The specification further provides that a "window registration system" can work with a "display system object" to generate a display object. *See id.* at 33:9-23. Because of these references, IPI suggests that the structure for "display object means" should include "window systems and/or user invoked file procedures and/or window registration systems and/or placements and their equivalents."

However, none of these examples are firmly connected to the claims' use of "display object means for generating." In fact, as the above examples suggest, the "display system object" creates "display objects," while other systems may support or add to its function. The additional structures are not clearly linked to the generation of "display objects," and thus IPI's additional proposed

structure is rejected. *See Texas Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1208 (Fed. Cir. 2002) ("Structure disclosed in the specification is "corresponding" structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim.") (internal quotation marks omitted). Accordingly, the "display object means" limitations have a function of "generating a [plurality of] display object[s]" and a corresponding structure of a "display system object and its equivalents."

"memory"

Claims 1 and 8 of the '512 patent contain the term "memory." IPI contends that the term is entitled to its ordinary meaning. Defendants contend that the term should be restricted to "primary memory in a computer." The parties agree that the neither the specification nor the claims provide any guidance regarding the specific type of memory required by the claims. To support its limitation of "memory" to primary memory, Defendants urge that the technical definition of "memory" refers only to "primary memory" as distinguished from "secondary" storage. *See* Prentice Hall's Illustrated Dictionary of Computing (1992) at 280. On the other hand, IPI suggests that the technical meaning of "memory" does not limit it solely to primary memory. *See* Oxford Dictionary of Computing (4th ed. 1996) at 299 (defining "memory" as "a device or medium that can retain information for subsequent retrieval").

Considering that the type of memory used to practice the claims is neither central to their scope or the context of the invention, importing an additional limitation of "primary" memory from discordant dictionary definitions is improperly limiting and unhelpful to the jury. *See Home Diagnostics*, 381 F.3d at 1358 (Fed. Cir. 2004) ("Absent a clear disavowal or contrary definition in the specification or the prosecution history, the patentee is entitled to the full scope of its claim

language."). Defendants' proposed definition is rejected. The term "memory" is entitled to its ordinary meaning, and no further definition is necessary.

CONCLUSION

For the foregoing reasons, the Court interprets the claim language in this case in the manner set forth above. Furthermore, Defendants' motion for summary judgment regarding the '412 patent is **DENIED**. For ease of reference, the Court's claim interpretations are set forth in Appendix A.

So ORDERED and SIGNED this 10th day of August, 2009.

LEONARD DAVIS
UNITED STATES DISTRICT JUDGE

APPENDIX A

U.S. Patent Nos. 5,072,412; 5,394,521; and 5,533,183	
Disputed Claim Term	**Court's Construction**
a . . . request	[AGREED] - a demand invoked by a signal
a . . . signal	[AGREED] - plain and ordinary meaning, an electrical quantity that can be used to transmit information. An example of such a signal is the quantity or value generated by a mouse or keyboard when a button is pressed.
container	[AGREED] - display object which may contain other display objects within its boundaries
display object	[AGREED] - visually distinguishable display feature or set of feature which is coherent, in the sense of sticking together in a display
display system	[AGREED] - system for managing or controlling a display
icon	[AGREED] - display object that does not have the characteristic of distinct internal locations, but which is relatively small and visually suggestive of its function
location sensitive	[AGREED] - such that a user selectable display feature within it may be selected by user signals indicating the location of that feature
perceptible as a miniature door	[AGREED] - a switching display object which looks like a miniature door
tool	[AGREED] - any user interface object, including display objects, audible objects or entities, mechanical gesturing objects, tactile objects or objects providing any other signal perceptible by the user
tool display object	[AGREED] - visually distinguishable display feature or set of features which is coherent, in the sense of sticking together in a display
workspace	[AGREED] - display system entity that includes a collection of display objects together with spatial display relations between them
appears to the user to be the same tool '412 Patent Claim 9-10	recognized as the same tool, even if the objects have some different display characteristics, including different positions, sizes, and contexts

control means for accessing . . . workspace data structure to cause the display to present the . . . workspace (including control means "further being for," as specified) '412 Patent Claims 1, 8-10, 19	This is a means-plus-function limitation Function: accessing . . .workspace data structure to cause the display to present the . . .workspace (including control means "further being for," as specified) Structure: executable computer code implementing selectable graphical user interface pop-up menus and icons and equivalents
control means for accessing the . . . workspace data structure and the . . . linking data structure to cause the display object means to generate the . . . display object when the workspace is presented (including control means "further being for," as specified) '412 Patent Claim 38	This is a means-plus-function limitation Function: accessing the . . . workspace data structure and the . . . linking data structure to cause the display object means to generate the . . . display object when the workspace is presented (including control means "further being for," as specified) Structure: executable computer code implementing selectable graphical user interface pop-up menus and icons and equivalents
Control means for causing the display to present a . . . set of the display objects (including control means "further being for," as specified) '412 Patent Claims 49, 52, 56	This is a means-plus-function limitation Function: causing the display to present a . . . set of the display objects (including control means "further being for," as specified) Structure: executable computer code implementing selectable graphical user interface pop-up menus and icons and equivalents
display '412 Patent Claims 1, 8-10, 19, 21, 24, 38, 44, 49, 56, 59 '521 Patent Claims 1, 8 '183 Patent claims 1, 3, 12	device that can be attached to a computer in order to present images
display object means for generating [a] display object '412 Patent Claims 1, 8-10, 19, and 24	This is a means-plus-function limitation Function: generating [a] display object Structure: display system object and its equivalents
display object means for generating a plurality of display objects '412 Patent Claims 21, 38, 44, 49, 52, 56, 59	This is a means-plus-function limitation Function: generating a plurality of display objects Structure: display system object and its equivalents

input means for receiving signals from a user '412 Patent Claims 21, 24, 49, 52, 56, 59	This is a means-plus-function limitation Function: receiving signals from a user Structure: a keyboard, mouse, or other pointer control device, and their equivalents
not including a display object that is perceptible as the same tool '412 Patent Claim 19	not including a display object that it recognized as the same display object, even if the objects have some different display characteristics, including different positions, sizes, and contexts
perceptible as the same display object '412 Patent Claim 8	recognized as the same display object, even if the objects have some different display characteristics, including different positions, sizes, and contexts
perceptible as the same tool '412 Patent Claim 1, 8-10, 19, 21, 24, 38, 44, 49, 56, 59 '183 Patent Claims 1, 3 '521 Patent Claims 1, 8	recognized as the same tool, even if the objects have some different display characteristics, including different positions, sizes, and contexts
workspace data structure '412 Patent Claim 1, 8-10, 19, 21, 24, 38, 44 '521 Patent Claim 1	no construction necessary, see definition of "workspace"
memory '521 Patent Claim 1, 8	no construction necessary
workspace data '521 Patent Claim 8	no construction necessary, see definition of "workspace"
user input device for receiving signals from a user '183 Patent Claims 1, 3	a keyboard, mouse, or other pointer control device