IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ST. CLAIR INTELLECTUAL PROPERTY CONSULTANTS, INC., Plaintiff, v. ACER, INC.; ACER AMERICA CORPORATION; DELL INC.; GATEWAY INC.; LENOVO (UNITED STATES) INC.; GATEWAY COMPANIES, INC.; APPLE, INC.; TOSHIBA CORPORATION; TOSHIBA AMERICA INFORMATION SYSTEMS, INC.; TOSHIBA AMERICA INC.; and INTEL CORPORATION, Defendants.	:	C.A. No. 09-354-LPS C.A. No. 09-704-LPS **CONSOLIDATED CASES**
MICROSOFT CORPORATION, Plaintiff, v. ST. CLAIR INTELLECTUAL PROPERTY CONSULTANTS, INC. Defendant.	:	C.A. No. 10-282-LPS

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MEMORANDUM OPINION

August 7, 2012
Wilmington, Delaware

STARK, U.S. District Judge:

Pending before the Court is the issue of claim construction of fifteen disputed terms found in U.S. Patent Nos. 5,710,929 (the "'929 patent"); 5,758,175 (the "'175 patent"); 5,892,959 (the "'959 patent"); 6,079,025 (the "'025 patent"); 5,630,163 (the "'163 patent); 5,613,130 (the "'130 patent"); and 5,961,617 (the "'617 patent") (collectively, the "patents-in-suit").

I. BACKGROUND

A. Procedural History

Plaintiff St. Clair Intellectual Property Consultants, Inc. ("St. Clair" or "Plaintiff") filed a patent infringement action against defendants Acer, Inc., Acer America Corporation, Dell Inc., Gateway Inc., and Lenovo (United States) Inc. on May 15, 2009, alleging infringement of the patents-in-suit. (D.I. 1)[1] On September 18, 2009, St. Clair filed a second lawsuit against defendants Apple, Inc., Toshiba Corporation, Toshiba America Information Systems, and Toshiba America, Inc. alleging infringement of the patents-in-suit. (C.A. No. 09-704, D.I. 1) Subsequently, on November 24, 2009, the Court consolidated the two lawsuits.[2] (*See* D.I. 40)

On April 7, 2010, Microsoft Corporation ("Microsoft") filed a lawsuit against St. Clair seeking a declaratory judgment that it did not infringe any of the patents-in-suit. (C.A. No. 10-282 and, hereinafter, "the Microsoft Action," D.I. 1) On April 9, 2010, Intel Corporation ("Intel") moved to intervene in the St. Clair Action to seek a declaratory judgment that its customers did not infringe the '617 patent. (D.I. 115) The Court granted Intel's motion to

[1]Unless otherwise indicated, all citations to the docket refer to C.A. No. 09-354-LPS.

[2]The consolidated cases will be referred to collectively as the "St. Clair Action."

intervene on June 4, 2010. (*See* D.I. 178) St. Clair subsequently filed counterclaims against Intel and Microsoft. (*See* D.I. 191; C.A. No. 10-282, D.I. 8)

Claim construction briefing was consolidated in the St. Clair Action and the Microsoft Action. (*See* D.I. 189)[3] The parties completed briefing on claim construction on February 11, 2011. (*See* D.I. 324) The Court held a *Markman* hearing on March 15, 2011. *See Markman* Hr'g Tr., Mar. 15, 2011 (D.I. 357) (hereinafter "Tr."). After the *Markman* hearing, the Court ordered supplemental claim construction briefing from the parties regarding certain disputed terms. (*See* D.I. 346) This supplemental briefing was completed on March 25, 2011. (*See* D.I. 354)

B. Overview of Technology

The patents-in-suit relate to ways in which a computer system can utilize various techniques to achieve improved power conservation. The '929, '959, '025, and '175 patents (collectively, the "Fung Power Management Patents")[4] relate to a power conservation system involving a plurality of modes of operation and are directed to power management and conservation for computer systems. The '163 patent claims a system bus communication architecture that maximizes computer performance and reduces power consumption by enabling multiple devices, which may have multiple communication protocols, to communicate over a common bus. (*See* '163 patent col.3 ll.46-48) The '130 patent is directed to power control for pluggable expansion cards for personal computers that allow the computer system to interact

[3]The Court will cite to the briefing filed in C.A. No. 09-354-LPS even though claim construction briefing was filed separately in the St. Clair Action and the Microsoft Action.

[4]The Fung Power Management Patents all stem from the same parent patent, U.S. Patent No. 5,296,635, share the same specification, and name Henry Tat-Sung Fung as the inventor.

with various peripheral devices, such as wireless internet or cellular cards. (*See* '130 patent abstract) The '617 patent is directed at conserving power by data transfer operations during periods of system inactivity. (*See* '617 patent col.3 ll.14-16)

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 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. Int'l Trade Comm'n*, 505 F.3d 1351, 1358 (Fed. Cir. 2007).

III. CONSTRUCTION OF DISPUTED TERMS[5]

A. "activity value"[6]

Plaintiff's Proposed Construction: "A numeric value associated with an activity."

Defendants'[7] Proposed Construction: "A predetermined numeric value assigned to a specific activity of the computer."

Court's Construction: "A numeric value associated with an activity."

The parties agree that the activity value must be expressed as a number. (*See* D.I. 313 at 19; D.I. 315 at 4) Defendants contend that the activity value must also be "predetermined" and associated with a "specific" activity, whereas Plaintiff contends there are no such limitations. Additionally, the parties disagree over whether the activity value is "associated with" an activity or "assigned to" an activity.

First, the Court concludes that the activity value does not need to be predetermined. Every time that the term activity value is used in the claims, except for claim 13 of the '175 patent, the term is already preceded by the word "predetermined." (*See, e.g.*, '929 patent col.39

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[5]Many of Defendants' arguments relate to the doctrine of prosecution history disclaimer. At the *Markman* hearing, Defendants emphasized that prosecution history can also be used to simply aid in the interpretation of a claim term. (Tr. at 33 ("Really, there are two avenues in my view to the use of prosecution history. One is through a disclaimer. . . . But there is also the use of the prosecution history, just as a construction aid, to give definition to a term that is otherwise lacking in a definition of a claim.")) In construing the disputed terms, the Court has considered both uses of prosecution history.

[6]This disputed term appears in claim 6 of the '929 patent, claim 1 of the '959 patent, and claims 1, 8, 13, 17, 20, 23, and 28 of the '175 patent.

[7]"Defendants" will be used to refer to the following parties collectively: Acer, Inc., Acer America Corporation, Dell Inc., Gateway Inc., Lenovo (United States) Inc., Apple, Inc., Toshiba Corporation, Toshiba America Information Systems, Toshiba America, Inc., Intel, and Microsoft.

ll.7-10 ("a means for . . . associating each of said plurality of activities with a ***predetermined*** activity value") (emphasis added)) Accepting Defendants' proposal for activity value would result in a "predetermined predetermined activity value," which is a redundant reading of the claim language that the Court concludes is not correct. Additionally, the fact that all except one of the claims using the term activity value explicitly contain a predetermined limitation implies that omission of the word "predetermined" in claim 13 was intentional, as "when the inventor wanted to restrict the claims . . . he did so explicitly." *Kara Tech. Inc. v. Stamps.com Inc.*, 582 F.3d 1341, 1347 (Fed. Cir. 2009) (refusing to import limitation into term when some claims expressly included "cryptographic key" and others did not).

Second, the Court concludes that the activity value does not need to be associated with a "specific" activity. The claim language itself does not mention "specific" activities; rather, the claims recite "associating each of said plurality of activities with a predetermined activity value." ('929 patent col.39 ll.9-10) Defendants have not provided persuasive evidence that the claims contemplate a specific limitation for the term activity value and, thus, the Court declines to impose the limitation Defendants propose.

Finally, the Court concludes that the activity value is associated with an activity. Each of the claims describes an activity value as being "associated with" an activity of the computer, and none of the claims use the words "assigned to." Although the specification, in describing one embodiment, refers to activity values as being "assigned" to various computer activities (*see id.* at col.3 ll.6-10; *id.* at col.11 ll.28-33), there is no "clear and unmistakable disavowal" in the specification that compels importing the word "assigned" to narrow the scope of the claims, *see i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 842-44 (Fed. Cir. 2010).

B. "activity count"[8]

Plaintiff's Proposed Construction: This term does not require construction. However, if the Court does construe this term, it should be construed as "a numeric accumulation of activity values."

Defendants' Proposed Construction: "A running sum of activity values."[9]

Court's Construction: "A running total of activity values."

As an initial matter, the Court concludes that it must construe this term because the parties do not agree on its meaning and their dispute appears to be material. *See O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co., Ltd.*, 521 F.3d 1351, 1361 (Fed. Cir. 2008) (stating sometimes "the 'ordinary' meaning of a term does not resolve the parties' dispute, and claim construction requires the court to determine what claim scope is appropriate in the context of the patents-in-suit").

The Court's construction is supported by the plain language of the claims. Claim 6 of the '929 patent and claim 20 of the '175 patent explicitly use the word "adding" when discussing accumulation of the activity count.[10] (*See* '929 patent col.39 ll.15-20; '175 patent col.93 ll.47-51) Additionally, claim 13 of the '175 patent recites "accumulating an activity count as the ***sum*** of said activity values." ('175 patent col.90 ll.40-42) (emphasis added)

The Court's construction is also supported by the specification, which indicates that the

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[8]This disputed term appears in claim 6 of the '929 patent, claim 1 of the '959 patent, and claims 1, 8, 13, 17, 20, 23, and 28 of the '175 patent.

[9]At the *Markman* hearing, Defendants indicated that a construction that provided a running "total" would be acceptable. (Tr. at 40 ("But running total I think would be fine. . . .))

[10]The Court's determination that accumulating involves adding is supported by the dictionary definition of accumulating, which defines accumulating as involving addition. *See* IEEE STANDARD DICTIONARY OF ELECTRICAL AND ELECTRONICS TERMS (3d ed. 1984) at 17.

numeric activity values are combined in an ongoing fashion. (*See* '929 patent col.3 ll.11-16 ("The power management software monitor forms an activity measurement as a running total of the function call numbers as the function calls are made. Whenever a function call is made (either active or conservation), the power management software monitor algebraically adds the function call number to accumulated value . . . .")).

The Court's construction is also supported by the prosecution history. During prosecution of the '959 patent, the inventor distinguished the claimed invention from prior art by stating that the claimed invention "maintains a stored activity count and adds ***and subtracts*** values from the stored activity count in response to events in the computer system." (D.I. 288, Ex. 28 at 10) (emphasis in original) The inventor further elaborated that adding function call values with positive and negative signs is the equivalent of adding and subtracting these values. (*See id.* at 9-10)

C. "monitors/monitoring the activity level [of the] computer system"[11]

Plaintiff's Proposed Construction: No construction necessary. The Court should apply the plain and ordinary meaning, which is "monitoring or observing the activity level of the computer."

Defendant's Proposed Construction: "Estimates whether the CPU and other circuits are active or inactive based on a proxy or proxies for CPU and system activity."

Court's Construction: No construction necessary. Plain and ordinary meaning.

The Court agrees with St. Clair that these terms should receive their plain and ordinary meaning, as there has been no inventor lexicography, disavowal, or disclaimer that would justify

[11]These disputed terms appear in claims 1, 6, 8, 9, 10, and 11 of the '929 patent, claims 1, 8, 12, 13, 16, 20, 23, and 28 of the '175 patent, claims 2, 7, and 17 of the '959 patent, and claims 1, 30, 33, 38, 42, 43, and 45 of the '025 patent.

a departure from the plain meaning as understood by a person having ordinary skill in the art. *See Thorner v. Sony Computer Entertainment Am. LLC*, 669 F.3d 1362, 1365-66 (Fed. Cir. 2012). The meaning of monitor, activity level, and computer activity would all be readily understandable to a jury and no further explanation of these terms is necessary. *See Funai Elec. Co., Ltd. v. Daewoo Electronics Corp.*, 616 F.3d 1357, 1366 (Fed. Cir. 2010) ("The criterion is whether the explanation aids the court and the jury in understanding the term as it is used in the claimed invention.").

Defendants' proposed construction improperly attempts to import limitations from the specification into the claim language. *See MBO Labs., Inc. v. Becton, Dickinson & Co.*, 474 F.3d 1323, 1333 (Fed. Cir. 2007) (noting that "import[ing] limitations onto the claim from the specification . . . is fraught with 'danger'"). Defendants argue that the patent's disclosure of two separate components to monitor the computer activity level – a software monitor to track the function calls and a hardware monitor to watch the bus to determine data transfer activity over certain ranges (*see* '929 patent col.2 ll.47-48; *id.* at col.5 ll.44-63) – demonstrates that the system is not actually directly monitoring the computer's system activity, but instead relies on proxies (the function calls and the bus) to estimate whether the computer is active or idle. However, simply because the power management system uses two different types of monitors that monitor two different kinds of computer activities does not mean that the system therefore monitors "indirectly" or through the use of "proxies," as Defendants suggest. The system directly monitors function calls and directly monitors data transfers over the bus, both of which are "computer activities."

D. "activity monitor"[12]

Plaintiff's Proposed Construction: "Computer hardware and/or software configured to monitor or observe activity of the computer."

Defendants' Proposed Construction: "Computer hardware or software, functionally and structurally distinct from the CPU that observes activity of the computer."

Court's Construction: "Computer hardware and/or software configured to monitor or observe activity of the computer."

The parties agree that the construction of this term should include "computer hardware" or "software" and that the computer hardware and/or software should be used to "observe activity" of the computer. The parties disagree, however, as to whether the activity monitor must be "functionally and structurally distinct" from the CPU. Defendants contend it must be distinct, whereas Plaintiff contends this distinction is unsupported.

In order to support their construction, Defendants rely on statements that the inventor made during prosecution of the '175 patent.[13] (*See* D.I. 315 at 9-10; D.I. 323 at 7-8; *see also* D.I. 289, Ex. 38 at 13 (wherein inventor distinguished present invention from prior art by noting that "activity monitor" in prior art was "structurally and functionally within the CPU")) However, the Court concludes that the prosecution history of the '175 patent does not rise to the level of an explicit disclaimer of computer hardware or software located outside of the CPU for all of the Fung Power Management Patents, as each of these patents disclose different levels of specificity

[12]This disputed term appears in claim 1 of the '959 patent, claims 1, 6, 8, 9, and 11 of the '929 patent, and claims 1, 8, 17, and 28 of the '175 patent.

[13]Although in some instances Defendants have argued that the prosecution history may not rise to the level of an explicit disclaimer, here, Defendants insist that they can meet the higher burden of a disclaimer. (*See* Tr. at 45-46)

concerning the claimed activity monitor. (*See* Tr. at 17-18 ("[T]he words 'activity monitor' was used in a different context from one patent to another.")) Specifically, in the '929 patent, the disclosed activity monitor is generic and does not specify whether it includes either a hardware monitor or software monitor. ('929 patent col.37 ll.14-15) On the other hand, claim 1 of the '175 patent provides for an activity monitor that identifies an activity as "idle" or "active" – indicating that this claim at least includes a software monitor. (*See* '175 patent col.87 ll.14-28) Thus, although the statements made in prosecution of the '175 patent may be relevant[14] to understanding the meaning of the term "activity monitor" in all the Fung Power Management Patents, such statements are not tantamount to a clear and unmistakable disclaimer broadly applicable to every claim of each of the patents in light of the differing level of detail provided regarding the claimed activity monitor. (A disclaimer has not been demonstrated even with respect to the '175 patent itself.) Thus, Defendants have failed to meet the high standard for establishing a prosecution disclaimer. *See Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1325-26 (Fed. Cir. 2003) (stating that disclaimer "requires that the alleged disavowing actions or statements made during prosecution be both clear and unmistakable").

E. "powered modes"/"powered states"[15]

Plaintiff's Proposed Construction: "A mode or state wherein the computer receives some amount or level of power."

Defendants' Proposed Construction: "A mode or state that affects the power supply in a way other than power adjustments via clock control."

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[14]*See, e.g., Microsoft Corp v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1349 (Fed. Cir. 2004) ("[T]he prosecution history of one patent is relevant to an understanding of the scope of a common term in a second patent stemming from the same parent application.") (internal citations omitted).

[15]These disputed claim terms appear in claims 1, 6, 8, 9, and 11 of the '929 patent.

Court's Construction: "A mode or state wherein the computer receives some amount or level of power."

The parties' dispute is focused on whether the claims include power adjustments via clock control. The Court agrees with Plaintiff that clock control is not disclaimed.

The Court's construction is supported primarily by the specification, which indicates that the power adjustments may in some instances be based on clock signals. The specification explicitly provides: "This clock control allows the user to save power, for example, when running non-computationally intensive applications . . . ." (*Id.* at col.15 ll.64-65) Similarly, the specification states that there are "timers" and that "[i]f enabled, certain timers are triggered by the transition to the ON state . . . . The DOZE timer is programmable from 1 to 15 seconds." (*Id.* at col.17 ll.61-67) The abstract of the '929 patent describes the invention as using "coupling of circuit power and clock signals . . . to control power consumption." (*Id.*, abstract) The specification indicates that the claimed invention reduces power consumption during periods of inactivity "by reducing clock speeds or removing clocks." (*Id.* at col.3 ll.61-64)

The Court concludes that the inventor did not expressly disclaim power adjustments via clock control. During prosecution of the '929 patent, in distinguishing the present invention from the Smith patent, the inventor noted that Smith "merely reduces the clock rate to various computer system components" in the "slow mode." (D.I. 288, Ex. 20 at 18) The inventor then clarified that his discussion was targeted at demonstrating that Smith is an "all or nothing" system with no "intermediate power states," whereas the invention claimed in the '929 patent simply does not disclose "turning all of the computer system components on or off at the same time." (*Id.*) Unlike Smith, in which power is "applied to essentially all components," the inventor indicated that his claimed intermediate powered states contemplate turning off power to

specific computer components. (*Id.*) The inventor did not indicate that his system did not also use clock signals. A system in which the "intermediate" power supply mode is based solely on clock signals is different than a system based on clock signals ***as well as*** other power management techniques including, for example, turning the power off to a certain group of devices. Because Fung did not relinquish the scope of his claims, Defendants' prosecution disclaimer argument is unavailing.[16]

F. "a power switching circuit"[17]

Plaintiff's Proposed Construction: "Electrical circuitry configured to switch power modes, states, or levels."

Defendants' Proposed Construction: "A plurality of memory cells associated with each power mode connected to a switch through a multiplexer."

Court's Construction: "Electrical circuitry configured to switch power modes, states, or levels."

The Court's construction is supported by the plain language of the claims. Apart from four claims in the '175 patent, the other claims in the Fung Power Management Patents do not contain any reference to memory cells.[18] Defendants attempt to incorporate claim limitations from certain claims of the '175 patent into the claims of the other Fung Power Management Patents in violation of the doctrine of claim differentiation. *See generally Kara Tech.*, 582 F.3d

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[16]Defendants also make the same argument with respect to the Harper prior art reference. (Tr. at 53-54 ("Mr. Fung tells us that the applicant has carefully examined Harper, and finds any possible relevant teachings in Harper are clearly limited to clock control and not to power control.")) As with the Smith reference, the distinguishing factor is that Harper's power management system is based only on reducing the clock signal, whereas Fung's system contemplates turning power off to various components in different power modes.

[17]This disputed claim term appears in claims 1-4, 6, 8, 9, 11, and 12 of the '929 patent, claims 2, 3, 5, 6, 8, 9, 11 and 12 of the '175 patent, and claims 5 and 6 of the '959 patent.

[18]Claims 2, 3, 4, 6, and 7 of the'175 patent include the term "memory cells."

at 1347 (determining that under doctrine of claim differentiation, different claim terms appearing in related patents should be given different meanings).

Defendants' prosecution disclaimer argument is unavailing. Defendants insist that during prosecution, in order to overcome the patent examiner's objection that the specification did not support the power switching circuit limitation in the claims, Fung explained that the power switching circuit was a specific structure that included "a plurality of memory cells associated with each power mode connected to a switch through a multiplexer." (D.I. 313 at 15; *see also* D.I. 288, Ex. 21 at 11-13) Indeed, Fung indicated that "in the disclosed embodiment," the power switching circuit functioned by controlling switches to open or close the power supply to the different computer components based on the different modes or states of computer activity. (*See* D.I. 288, Ex. 21 at 11-12) While some embodiments include a multiplexer or a plurality of memory cells (*see, e.g.*, '929 patent col.37 ll.42-63 ("Power switching circuit comprises . . . a power control signal multiplexer circuit.")), there is nothing in the prosecution history that indicates that the term "power switching circuit" must be a plurality of memory cells. Thus, the Court finds in the prosecution history no clear unmistakable disavowal of claim scope. *See Omega*, 334 F.3d at 1325-26.

G. "predetermined group of the computer system devices/circuits"[19]

Plaintiff's Proposed Construction: No construction necessary. Plain and ordinary meaning.

Defendants' Proposed Construction: "Group of computer components to be coupled to the power supply as selected by the power switching circuit."

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[19]These disputed claim terms appear in claims 1, 6, 8, 9, 10, and 11 of the '929 patent and claims 5 and 6 of the '959 patent.

Court's Construction: No construction necessary. Plain and ordinary meaning.

The Court agrees with St. Clair that these terms should receive their plain and ordinary meaning, as there has been no inventor lexicography, disavowal, or disclaimer that would justify a departure from the plain meaning. *See Thorner*, 669 F.3d at 1365-66.

Defendants submit that the power switching circuit and, "in particular, its power registers," select the computer components in a particular predetermined group. (D.I. 315 at 16) Defendants' argument is based on the prosecution history, although Defendants do not contend that the statements Fung made rise to the level of a disclaimer. (Tr. at 60 ("Again, it's not a disclaimer, but it tells us what this predetermined group ought to be.")) Specifically, Defendants rely on a statement that Fung made to the PTO distinguishing his invention from the prior art: "The eight bit power registers ***select*** which predetermined group of devices will be active in the associated power mode." (D.I. 288, Ex. 20 at 16-17) (emphasis added) Defendants contend that this proves that the registers – which are allegedly a part of the power switching circuit – "select" which computer devices will be within the predetermined groups. Additionally, Defendants assert that this statement also indicates that "a structure is necessary to create a predetermined group of computer devices." (D.I. 315 at 16)

The Court finds Defendants' arguments unavailing. Fung's statement was made as part of a much longer colloquy with the PTO, during which he distinguished his invention on the basis that, unlike the prior art, his invention disclosed three powered modes of operation, wherein each mode corresponded to a different predetermined group of computer devices being connected to the power supply. (*See* D.I. 288, Ex. 20 at 18-20) Fung's one statement during prosecution is "far too slender a reed to support the judicial narrowing" of this claim term. *N. Telecom Ltd. v.*

Samsung Elecs. Co., 215 F.3d 1281, 1294 (Fed. Cir. 2000).

H. "operating modes"[20]

Plaintiff's Proposed Construction: No construction necessary as the term "operating modes" is defined by each claim itself.

Defendants' Proposed Construction: "Power modes that have a plurality of operating states."

Court's Construction: No construction necessary. Plain and ordinary meaning.

The Court agrees with St. Clair that this term should receive its plain and ordinary meaning, as there has been no inventor lexicography, disavowal, or disclaimer that would justify a departure from the plain meaning. *See Thorner*, 669 F.3d at 1365-66.

Defendants' construction seeks to differentiate between modes and states; however, the Court finds that the Fung Power Management Patents use the term "mode" and "state" interchangeably and, thus, the two terms have the same meaning. In support of their argument that there is a meaningful difference between "modes" and "states," Defendants cite to the following portion of the prosecution history: "Therefore, a mode may refer to any one of several states, and a state is a specific condition within the mode." (D.I. 288, Ex. 21 at 11) However, the cited portion of the prosecution history (which is also contained in the specification) relates to the "power conservation mode." (*See* '929 patent col.5 ll.64-65) The term in dispute is not "power conservation mode" but, instead, "operating mode." When Fung discussed the operating mode in the prosecution history, he said: "***states or modes*** are described in the [s]pecification in hierarchical manner in that there is a progression of power saving or energy conservation

[20]This disputed term appears in claims 1, 30, 33, 37, 38, 42, 43, 45, and 48 of the '025 patent and claims 2, 7, and 17 of the '959 patent.

progressing from the ON state and the OFF state." (D.I. 288, Ex. 21 at 10) (emphasis added) Thus, the prosecution history demonstrates that Fung used the terms modes and states interchangeably when referring to the different conditions in which the system could operate.

The plain language of the claims also supports the Court's conclusion that the term "mode" and "state" are used interchangeably. Claim 1 of the '929 patent and claim 1 of the '025 patent bear strong similarities: the phrases "powered modes of operating" and "operating modes" are similar, both in terms of the language they use and the three levels of power conservation that the claims recite. (*Compare* '025 patent col.53 ll.6-11 (stating that invention has "at least three operating modes including a first-mode having a first power consumption level, a second-mode having a second power consumption level less than said first power consumption level, and a third-mode having a third power consumption level less than said second power consumption level"), *with* '929 patent col.37 ll.20-23 ("a state controller that has ***three powered modes of operating***, including a ***first state, a second state, and a third state***") (emphasis added)) It appears that "this is simply a case where the patentee used similar words to express similar concepts." *See Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1120 (Fed. Cir. 2004); *see also Inpro II Licensing, S.A.R.L. v. T-Mobile USA, Inc.*, 450 F.3d 1350, 1355 (Fed. Cir. 2006) ("[D]escribing claim elements or limitations in different words does not invariably change the scope of the claim.").

I. "idle threads"[21]

Plaintiff's Proposed Construction:[22] "The smallest or most elemental executable code segments used in monitoring activity."

Defendants' Proposed Construction:[23] "The smallest or most elemental executable code segments that receive function calls to the operating system that indicate inactivity."

Court's Proposed Construction: "The smallest or most elemental executable code segments that indicate inactivity."

Defendants' initial proposed construction limited idle threads to a DOS environment. (*See* D.I. 315 at 18 (proposing construction of "independently executing software subroutines that receive DOS idle function calls")) The Court has determined that idle threads are not limited to a DOS environment based on the plain language of claim 9 of the '025 patent, which contemplates selection of operating systems other than just DOS. (*See* '025 patent col.53 ll.58-61 ("wherein said operating system is selected from the group consisting of a multi-tasking operating system, Microsoft Windows, Microsoft DOS, and combinations thereof")) Defendants' initial construction improperly attempted to import a limitation of a DOS environment from the specification (*see id.* at col.3 ll.3-9) into the claims of the '025 patent, without any evidence that patentee "intend[ed] for the claims and embodiments in the specification to be strictly coextensive." *JVW Enters., Inc. v. Interact Accessories, Inc.*, 424 F.3d 1324, 1335 (Fed. Cir. 2005).

Based on the assumptions that the Court would conclude that idle threads are not limited

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[21]This disputed term appears in claims 42 and 48 of the '025 patent.

[22]Plaintiff proposed this construction in its post-hearing supplemental brief. (*See* D.I. 349 at 1)

[23]Defendants proposed this construction in their post-hearing supplemental brief. (*See* D.I. 350 at 1)

to the DOS environment, and that the term "thread" should be construed as the "smallest or most elemental executable code segment,"[24] the Court requested supplemental briefing from the parties regarding the proper construction of the term "idle threads." (*See* D.I. 346) The parties' revised proposed constructions are shown above.

The Court's construction is supported by the plain language of the claims. (*See* '025 patent col.56 ll.26-60; *id.* at col.57 l.40-col.58 l.39) The claim language does not require that the idle threads receive function calls to the operating system, and, thus, the Court declines to limit the claim scope as Defendants propose. However, the Court agrees with Defendants to the extent that "indicate inactivity" is a proper way to define "idle," and, thus, the Court includes "indicate inactivity" in its construction of this term.

J. "clocking said CPU at a second frequency less than said first frequency or by not maintaining clocking of said CPU"[25]

Plaintiff's Proposed Construction: "Operating the CPU at a second frequency that is less than the first frequency or by not maintaining the clocking of the CPU such that the frequency is substantially reduced to zero."

Defendants' Proposed Construction: "Providing a clock signal to the CPU at a second frequency that is less than the first frequency, or not providing a clock signal to the CPU."

Court's Construction: "Providing a clock signal to the CPU at a second frequency that is less than the first frequency, or not providing a clock signal to the CPU."

The Court's construction is supported by the claim language (*see* '025 patent, col.53 ll.32-35; *id.* at col.56 ll.11-14) and specification (*see id.* at col.3 ll.62-63; *id.* at col.8 ll.1-2; *id.*

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[24]The Court's construction of the term "thread" is consistent with how the patentee defined this term during prosecution of the '959 patent.

[25]This disputed claim term appears in claims 1, 38, and 42 of the '025 patent and claims 2 and 7 of the '959 patent.

Fig. 3).

St. Clair expressed concern that Defendants' construction improperly mandated that the clock signal be external to the CPU when, in St. Clair's view, the invention contemplates operating the CPU "via an external or internal clock signal." (D.I. 324 at 18) However, Defendants represent that their construction simply aims to clarify that "clocking" means providing a clock signal regardless of whether the signal is generated internally or externally to the CPU. (*See* D.I. 323 at 19) Thus, in the Court's view, Defendants' concession moots St. Clair's concern.

K. "special purpose buses each connected to the processor and to one of the external devices and each operating at a different bus bandwidth corresponding to the bus bandwidth associated with the bus device to which it is connected"[26]

Plaintiff's Proposed Construction:[27] "Buses connected to the processor and to a corresponding external device through the common bus. Each bus transfers signals through the common bus using a bus bandwidth associated with its corresponding external device."

Defendants' Proposed Construction:[28] "Buses connected to the processor and to a corresponding external device through the common bus. Each bus transfers signals through the common bus using a bandwidth specific to its corresponding external device."

Court's Construction: "Buses connected to the processor and to a corresponding external device through the common bus. Each bus transfers signals through the common bus using a bus bandwidth associated with its corresponding external device."

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[26]This disputed term appears in claims 1, 13, and 27 of the '163 patent.

[27]Plaintiff proposed this revised construction in its post-hearing supplemental reply brief. (*See* D.I. 353 at 2-3)

[28]Defendants proposed this revised construction in their post-hearing supplemental brief. (*See* D.I. 350 at 3)

This disputed claim term raises four different issues: (1) whether the "processor" necessarily refers to the computer system's CPU, (2) whether the special purpose buses communicate with the external devices "through" the common bus, (3) whether the special purpose buses are separate and distinct, and (4) whether the term "bus bandwidth" would be clear to a jury. The Court will address each issue in turn.[29]

1. Processor

Both parties effectively agree that a CPU is a particular type of processor. (D.I. 324 at 19) Defendants, however, argue that because St. Clair used the term processor interchangeably with the CPU, processor must refer to the CPU. (D.I. 315 at 22; D.I. 323 at 21) The claim language does not support Defendants' proposed limitation. Defendants point to the following statement in the '163 patent: "Processor 21 is functionally like static versions of conventional CPU's such as Intel 80CXXX processors . . . ." ('163 patent col.6 ll.63-65) However, this statement is referring to the "engine 10," which the patent later explains this way: "One preferred embodiment of the engine 10 is based upon the components identified above . . . . However, other components can be utilized in the present invention . . . for other system compatibility." (*Id.* at col.7 ll.26-30) Thus, the specification does not limit the embodiments to instances where the processor refers solely to the CPU. Nor does the Court find Defendants' prosecution history disclaimer argument persuasive.

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[29]The parties' initial proposed constructions raised these issues. After the *Markman* hearing, the Court requested supplemental briefing from the parties regarding the proper construction of this term based on the assumptions – which the Court now adopts – that (1) the process recited in the claim term is not limited to the CPU, (2) each special purpose bus does not need to be "separate and distinct," and (3) that the phrase "bus bandwidth" did not require construction. (D.I. 346 at 2)

Accordingly, the Court's construction does not import Defendants' proposed CPU limitation.

2. "through the common bus"

Defendants also submit that the Court should import a limitation that the special purpose buses must go "through" the common bus. (D.I. 323 at 20) The Court agrees. The Court's construction is supported by the specification. (*See id.* at col.7 ll.42-45 ("The reduction in I/O pins is achieved for engine 10 of Fig. 1 by eliminating one or more special purpose buses that exist in conventional small systems and in place thereof providing a common bus 9 to serve all common bus devices.")) The Court's construction is also supported by the prosecution history of the '163 patent, during which the patentee distinguished prior art stating: "a distinguishing feature over the prior art was the use of different timing parameters on a common bus located ***intermediate*** the bus devices and corresponding special-purpose buses." (D.I. 289, Ex. 48 at 1 (emphasis added); *see also id.* at 6 ("The independent Claims 1 and 6 have been amended to specify that the common bus is located intermediate the bus devices and the special purpose buses.")) Thus, the Court's construction clarifies that the common bus is located between the external devices and the special purpose buses.

3. "separate and distinct"

Defendants contend that a special purpose bus must be a separate and distinct bus that is dedicated to a particular external device, while St. Clair contends there is no such requirement. Defendants rely on the specification, which purportedly demonstrates that each external device must have a "separate" bus. However, the sections of the specification on which Defendants rely are inapplicable to this dispute, as these statements apply to conventional small system

architecture (*see* '163 patent col.2 ll.63-66) whereas the patented invention is directed at improving upon the architecture in those conventional small systems.

Likewise, the prosecution history does not support Defendants' reading as it merely demonstrates that there may be separate special purpose buses internally on the chip (*see* D.I. 289, Ex. 48 at 4-5), which does not necessarily translate to each external device having a "separate and distinct" corresponding special purpose bus that connects the CPU to the external device.

Accordingly, the Court concludes that there is no requirement that the special purpose buses be separate and distinct.

4. "bus bandwidth"

The final dispute about this term relates to how information is transferred over the buses. The claims recite that each special purpose bus operates "at a different bus bandwidth corresponding to the bus bandwidth associated with the bus device to which it is connected." ('163 patent col.22 ll.35-38) The previous claim element provides that the external bus devices have different timing parameters that "include different information transfer rates associated with different bus bandwidths." (*Id.* at col.22 ll.32-33) Defendants seek to replace the words "bus bandwidth" in the claim term with the phrase "information transfer rates." (D.I. 323 at 21) However, when the patentee intended to use "different information transfer rates," he knew how to do so. Defendants have not provided any persuasive reason that their construction is easier for a jury to understand than bus bandwidth or otherwise helpful or more accurate.

Thus, the Court uses "bus bandwidth" in its construction.[30]

L. "common bus connecting the plurality of external bus devices to the plurality of special-purpose buses"[31]

Plaintiff's Proposed Construction: "A single common bus connecting the two or more external bus devices to the two or more special-purpose buses."

Defendants' Proposed Construction: "A set of signal lines connected between the external bus devices and the special purpose buses and shared by the external bus devices."

Court's Construction: "A set of signal lines connected between the external bus devices and the special purpose buses and shared by the external bus devices."

As an initial matter, the Court concludes that it must construe the word "bus" within the disputed term as "bus" is a technical term and, in light of the complex technology involved here, construction is appropriate to assist the jury in understanding the meaning of the patent claims it will be asked to consider. *See Funai*, 616 F.3d at 1366. The Court's construction of "bus" as "a set of signal lines" is supported by extrinsic evidence – namely, the definition of "bus" from a commonly used electrical terms dictionary. *See* IEEE STANDARD DICTIONARY OF ELECTRICAL AND ELECTRONICS TERMS (3d ed. 1984) at 112 (defining "bus" as "[a] signal line or set of signal lines used by an interface system to which a number of devices are connected and over which messages are carried"); *see also Rambus Inc. v. Infineon Techs., Ag.*, 318 F.3d 1081, 1094 (Fed. Cir. 2003) (construing term "bus" consistent with foregoing definition).

The Court's construction, which explicitly states that the common bus is "shared" by the

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[30]The only difference between St. Clair's and Defendants' revised construction is whether the bus bandwidth was "associated with" or "specific to" the corresponding external device. The claim language uses the phrase "associated with," and the Court sees no reason that "associated with" will be unclear to the jury.

[31]This disputed term appears in claims 1, 13, and 27 of the '163 patent.

external bus devices, is supported by the specification. The specification explains that having a common bus shared by several different bus devices is a critical point of the claimed invention. (*See* '163 patent col.5 ll.27-30 ("[T]he common bus 9 . . . operates to serve the needs of all bus devices without bus contention."); *id.* at col.6 ll.5-7 ("[T]he total available bandwidth of bus 9 is ***shared*** between video, DMA and the rest of the common bus devices.") (emphasis added)) The Court's construction is also supported by the prosecution history. (*See* D.I. 287, Ex. 5 at 16 ("In the present invention . . . the common bus 9 connected to all of the bus devices while no bus [in prior art reference] connects to all bus devices.")) Although Defendants assert that each device must communicate over the common bus ***one at a time*** (*see* Tr. at 85; D.I. 315 at 24) – which is evidently what Defendants intend to convey by their proposed construction – the Court does not agree that such a limitation is supported by the intrinsic record and does not intend, by its construction, to adopt such a limitation.

M. "A data processing system comprising a processor, ... a plurality of special-purpose buses each connected to the processor, . . . and bus processing means"[32]

Plaintiff's Proposed Construction: "A data processing system that includes a processor, a plurality of special-purpose buses each connected to the processor, and bus processing means."

Defendants' Proposed Construction: "The CPU, special purpose buses, and bus processing means of claims 1 and 27 must be integrated on a single semiconductor chip."

Court's Construction: "A data processing system that includes a processor, a plurality of special-purpose buses each connected to the processor, and bus processing means."

The parties dispute whether the CPU, special purpose buses, and bus processing means

[32]This disputed claim term appears in claims 1 and 27 of the '163 patent.

must be integrated into a single semiconductor chip. The Court concludes that these components do not need to be integrated into a single chip.

The Court's construction is supported by the plain language of the claims. (*See* '163 patent col.22 ll.25-46; *id.* at col.23 ll.43-65; *id.* at col.26 ll.1-19) Claim 13, which depends from independent claim 1, adds to claim 1 the limitation that the processor, special-purpose buses, common bus, and bus processing means are all integrated on a common semiconductor chip. (*See id.* at col.23 ll.50-51 ("[A] plurality of components for integration on a common semiconductor chip, including . . . .")) Under the doctrine of claim differentiation, there is "a presumption that an independent claim should not be construed as requiring a limitation added by a dependent claim." *Curtiss-Wright Control Corp. v. Velan, Inc.*, 438 F.3d 1374, 1380 (Fed. Cir. 2006). Here, then, there is a presumption that independent claims 1 and 27 do not include the limitation contained in claim 13.

The Court's construction is also supported by the specification, which indicates that an integrated computer system may be comprised of "a small number of semiconductor chips or . . . a single semiconductor chip." (*See* '163 patent col.2 ll.42-46)

The Court's construction is further supported by the prosecution history. Defendants contend that during prosecution of the '163 patent, in order to overcome a prior art reference, the inventor expressly indicated that the distinguishing feature of his invention was that all of the elements – the CPU, the special purpose buses, and the bus processing means – were contained on a single chip. (D.I. 323 at 23; *see also* D.I. 289, Ex. 48 at 4) Defendants assert that this prosecution history overcomes the presumption of claim differentiation. *See Anderson v. Fiber Composites, LLC*, 474 F.3d 1361, 1370 (Fed. Cir. 2007) ("[T]he written description and

prosecution history overcome any presumption arising from the doctrine of claim differentiation."). However, the Court concludes that there was no explicit disclaimer or disavowal of claim scope during prosecution sufficient to overcome the presumption of claim differentiation. All of the prosecution history cited by Defendants involves the inventor distinguishing prior art from claim 13, which explicitly requires all the components to be contained on a single chip. (*See* D.I. 289, Ex. 48 at 7 ("As to claim 13, it was contended that it would have been obvious to integrate all the components onto a single chip.")) The patent examiner did not reject claims 1 or 27 as obvious, suggesting the examiner did not find these claims to contain the "single chip" limitation of claim 13.

Moreover, when the inventor was distinguishing his invention from the prior art, he never did so by stating that all the components in his invention were contained on a single chip; rather, the inventor distinguished his invention on the grounds that it contained a common bus, which resulted in a reduction in the number of semiconductor pins. During prosecution of the '163 patent the inventor stated:

> An important feature of the present invention and ***what distinguishes the present application from all of the above references*** is the fact that the ***special purposes buses*** . . . are ***subsequently all combined onto a single common bus*** . . . . Instead of having a separate set of bus lines for [special purpose buses,] a single set of bus lines is provided by common bus 9. . . . Thus the present invention provides a common bus capable of supporting a plurality of bandwidths.

(D.I. 287, Ex. 9 at 8) (emphasis added); *see also* D.I. 289, Ex. 48 at 1 ("[A] distinguishing feature over the prior art was the use of different timing parameters on a common bus located intermediate [to] the bus devices and corresponding special-purpose buses."); *id.* at 4 ("The present invention . . . provid[es] a unique solution to reduce the number of pins. The various

buses for the various external devices having different timing parameters, are connected ***internally*** to a common bus.") (emphasis in original)

N. "power switching means for selecting one of said supply voltages as said card voltage"[33]

Plaintiff's Proposed Construction:
Function: "Selecting one of said supply voltages as said card voltage."
Structure: "power switches"

Defendants' Proposed Construction:
Function: "Selecting either the first supply voltage or the second supply voltage as the card voltage."
Structure: "Power switches 12 configured to switch the selected supply voltage onto the VCC card line."

Court's Construction:
Function: "Selecting one of said supply voltages as said card voltage."
Structure: "power switches"

The parties agree that this term is a means-plus-function term within the meaning of 35 U.S.C. § 112 ¶ 6; however, the parties dispute the proper function and structure.

The Court's construction of the function is supported by the plain language of the claims. Each of the claims recites "a power supply for providing ***at least*** first and second supply voltages." (*See* '130 patent col.6 ll.31-32; *id.* at col.7 ll.6-7; *id.* at col.7 ll.26-27; *id.* at col.7 ll.52-53; *id.* at col.8 ll.7-8; *id.* at col.8 ll.29-30; *id.* at col.8 ll.64-65) Defendants' construction ignores the words "at least" and implies that the system could have only two voltages – the first supply voltage or the second supply voltage – which is contrary to the plain language of the claims. The Court's construction of the function is also supported by the specification. (*See id.* at col.3 ll.1-15) The specification provides that power voltage levels may include "5 V, 3.3 V

[33]This disputed term appears in claims 1, 6-10, and 12 of the '130 patent.

and x.x V." (*Id.* at col.3 ll.1-3) This "x.x" variable expressly contemplates a level of voltage different than either 5 or 3.3.[34] (*Id.* at col.1 ll.10-15)

The Court's construction of the structure is also supported by the specification. (*See id.* at col.1 ll.65-66; *id.* at col.2 l.65-col.3 l.20; *id.* at col.4 ll.25-27) The Court's construction captures the fact that there can be a plurality of power switches, and not just "power switch 12." (*See id.* Fig. 1 (showing plurality of power switches)) The specification "disclose[s] adequate defining structure to render the bounds of the claim understandable to an ordinary artisan." *Telcordia Techs., Inc. v. Cisco Sys.*, 612 F.3d 1365, 1376 (Fed. Cir. 2010) (finding black box figures to disclose sufficient structure for means-plus-function claim where "nothing in the figures describes the details of its inner circuitry").

O. "when the input data [at least a subset of the input data] has not been recently updated"[35]

Plaintiff's Proposed Construction: "When at least a part or portion of the input data has not been recently updated, where 'recently updated' is defined to be the end of a time duration or the reaching of another threshold value."[36]

Defendants' Proposed Construction: "In response to the input data not changing for a preset detection period, where the end of the period is defined to be the end of a time duration or the reaching of another threshold value."[37]

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[34]The specification explicitly contemplates a 3.3 voltage level, as well as future voltage levels that are below 3.3. The specification mentions an "emerging standard" wherein a "voltage less than 3.3 volts . . . has been proposed." ('130 patent col.1 ll.10-13)

[35]This disputed claim term appears in claims 1 and 17 of the '617 patent.

[36]Plaintiff proposed this revised construction in its reply supplemental claim construction brief. (*See* D.I. 353 at 3)

[37]Defendants proposed this revised construction in their supplemental claim construction brief. (*See* D.I. 350 at 4)

Court's Construction: "When the input data [at least a subset of the input data] has not been recently updated, based on a time duration or the reaching of another threshold value."

At the hearing, Defendants clarified some aspects of their proposed construction for this term. Thereafter, the Court asked the parties for revised constructions, taking into account the Defendants' representations at the hearing. (*See* D.I. 346 at 2) The parties' revised constructions raise two disputes: (1) whether the system compresses data "in response to" the inactivity of the display screen, and (2) whether the system requires a "preset detection period" or, instead, "recently updated" is sufficient. The Court concludes that the system does not necessarily compress data "in response" to inactivity and that "recently updated" accurately explains the triggering point at which the patented invention begins to compress data.

The Court's construction is supported by the plain language of the claims. (*See* '617 patent, col.11 l.62-col.12 l.12; *id.* at col.13 ll.26-36) The claims themselves use the words "when." The Court concludes that the meaning of "when" is unambiguous, would be easily understood by a lay juror, and, consequently, does not require construction. Additionally, the claims provide that when the input data has not been "recently updated," the system enters into a mode in which it compresses data to save power. (*See id.* at col.12 ll.4-8) The claims do not provide any limitation on how the system will determine whether or not the input data has been recently updated or if that determination must be based on a "preset" detection period. Thus, the Court declines to limit the claim language.

The Court's construction is also supported by the specification. The specification mentions a "detection period" only once and, there, it is specifically contemplated that the detection period may be set "adaptively" or "by users." (*See id.* at col.5 ll.26-30) Contrary to

Defendants' arguments, having a detection period that is "adaptive" means that the period is not preset but may change.

IV. CONCLUSION

For the foregoing reasons, the Court will construe the disputed claim terms in the patents-in-suit consistent with this Memorandum Opinion. An appropriate Order follows.

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ST. CLAIR INTELLECTUAL PROPERTY CONSULTANTS, INC.,	:	
Plaintiff,	:	
v.	:	C.A. No. 09-354-LPS
	:	C.A. No. 09-704-LPS
ACER, INC.; ACER AMERICA CORPORATION; DELL INC.; GATEWAY INC.; LENOVO (UNITED STATES) INC.; GATEWAY COMPANIES, INC.; APPLE, INC.; TOSHIBA CORPORATION; TOSHIBA AMERICA INFORMATION SYSTEMS, INC.; TOSHIBA AMERICA INC.; and INTEL CORPORATION,	:	**CONSOLIDATED CASES**
Defendants.	:	
MICROSOFT CORPORATION,	:	
Plaintiff,	:	
v.	:	C.A. No. 10-282-LPS
ST. CLAIR INTELLECTUAL PROPERTY CONSULTANTS, INC.	:	
Defendant.	:	

ORDER

At Wilmington this 7th day of August, 2012, for the reasons set forth in the Memorandum Opinion issued this same date,

IT IS HEREBY ORDERED that the claim language of U.S. Patent Nos. 5,710,929; 5,758,175; 5,892,959; 6,079,025; 5,630,163; 5,613,130; and 5,961,617 shall be construed as

follows:

1. The term "activity value" is construed to mean "a numeric value associated with an activity of the computer."
2. The term "activity count" is construed to mean "a running total of activity values."
3. The term "monitors/monitoring the activity level [of the] computer system" does not require construction.
4. The term "activity monitor" is construed to mean "computer hardware and/or software configured to monitor or observe activity of the computer."
5. The term "powered modes/powered states" is construed to mean "a mode or state wherein the computer receives some amount or level of power."
6. The term "power switching circuit" is construed to mean "electrical circuitry configured to switch power modes, states, or levels."
7. The term "predetermined group of the computer system devices/circuits" does not require construction.
8. The term "operating modes" does not require construction.
9. The term "idle threads" is construed as " the smallest or most elemental executable code segments that indicate inactivity."
10. The term "clocking said CPU at a second frequency that is less than the first frequency or by not maintaining clocking of said CPU" is construed as "providing a clock signal to the CPU at a second frequency that is less than the first frequency, or not providing a clock signal to the CPU."
11. The term "special-purpose buses each connected to the processor and to one of the

external devices and each operating at a different bus bandwidth corresponding to the bus bandwidth associated with the bus device to which it is connected" is construed as "buses connected to the processor and to a corresponding external device through the common bus. Each bus transfers signals through the common bus using a bus bandwidth associated with its corresponding external device."

12. The term "common bus connecting the plurality of external bus devices to the plurality of special-purpose buses" is construed as "a set of signal lines connected between the external bus devices and the special purpose buses and shared by the external bus devices."

13. The term "a data processing system comprising a processor, ... a plurality of special-purpose buses each connected to the processor, . . . and bus processing means" is construed as "a data processing system that includes a processor, a plurality of special-purpose buses each connected to the processor, and bus processing means."

14. The term "power switching means for selecting one of said supply voltages as said card voltage" is construed to have the function of "selecting one of said voltages as said card voltage" and the structure of "power switches."

15. The term "when the input data [at least a subset of the input data] has not been recently updated," is construed as "when the input data [at least a subset of the input data] has not been recently updated, based on a time duration or reaching another threshold value."

UNITED STATES DISTRICT JUDGE