United States District Court,
E.D. Michigan, Southern Division.

Peter A. HOCHSTEIN, et al,
Plaintiff.
v.
MICROSOFT CORPORATION,
Defendant.

June 22, 2009.

John S. Leroy, Marc Lorelli, Thomas A. Lewry, Mark A. Cantor, Brooks Kushman, Southfield, MI, for Plaintiff.

Robert J. Franzinger, Dykema Gossett, Detroit, MI, William F. Kolakowski, III, Dykema Gossett, Bloomfield Hills, MI, for Defendant.

ORDER (1) GRANTING MICROSOFT'S MOTION FOR CONSTRUCTION OF CLAIM 39; AND (2) ADOPTING IN ENTIRETY THE SPECIAL MASTER'S MAY 16, 2009 REPORT AND RECOMMENDATION

PAUL D. BORMAN**, District Judge.**

Before the Court are: 1) Microsoft's Motion for Construction of Claim 39 (Doc. No.342); 2) Microsoft's Motion Objecting to the Special Master's Report and Recommendation (Doc. No. 414); and 3) Plaintiffs' Motion to Adopt the Special Master's Report and Recommendation (Doc. No. 416).

The parties having consented to the appointment of a Special Master, on April 16, 2009 the Court appointed Richard Grauer to serve as Special Master, and referred Microsoft's Motion for Construction of Claim 39 to Special Master Grauer. (Doc. No. 349). Special Master Grauer issued his Report and Recommendation on May 16, 2009. Thereafter, the parties filed their respective motions pertaining to the Special Master's R & R.

Having reviewed the record, the Court:

1) **GRANTS** Microsoft's Motion for Construction of Claim 39 (Doc. No. 342);

2) **DENIES** Microsoft's Motion Objecting to the Special Master's Report and Recommendation (Doc. No. 414); and

3) **GRANTS** Plaintiffs' Motion to Adopt the Special Master's Report and Recommendation (Doc. No. 416)

SO ORDERED.

SPECIAL MASTER'S REPORT AND RECOMMENDATION ON CONSTRUCTION OF PATENT CLAIM 39

RICHARD D. GRAUER, Special Master.

INTRODUCTION

Background

This Report and Recommendation is pursuant to the Court's Order of Appointment and Reference to me as Special Master, dated April 16, 2009 (Docket No. 349), concerning Defendant Microsoft Corporation's ("Microsoft") Motion for Construction of Claim 39 of U.S. Patent No. 5,292,125 (the "'125 Patent"). The specific claim terms for which construction is sought are: "video game communication circuit;" "microprocessor;" "player port logic circuits;" and "communication couplers."

Initially, Plaintiffs (collectively, "Hochstein") assert that Microsoft's motion should be denied in its entirety as a violation of the Court's Order of February 7, 2005 (Docket No. 25). In that Order, the Court denied Microsoft's motion to modify the Scheduling Order to include a *Markman* (claim construction) hearing, holding that "it is beneficial to consider the claim construction process within the larger context of all the issues to be addressed in the parties' [subsequent] dispositive motions." *Id*. at p. 2.

Later, Microsoft did file a motion for summary judgment of non-infringement and invalidity of claims 15, 37 and 39 of the '125 Patent (Docket No. 73, dated July 20, 2005). Concerning claim 39, Microsoft sought construction of "a voice over data circuit" and "switch," asserting that the accused XBox product did not infringe those properly construed claim terms. Microsoft also asserted that the claim was fatally indefinite in its recitation of "a voice over data circuit (134) for filtering voice signals from communication signals and for transmitting both to said modem circuit (114)." In that motion, Microsoft did not seek construction of any other terms in claim 39. Microsoft filed a supplemental brief in support of that summary judgment motion, asserting the additional defense that claim 39 was invalid over the prior art if it were to be construed to cover the accused Xbox, but again seeking no further claim term constructions (Docket No. 159, dated July 13, 2006). Special Master Paul M. Janicke's Report and Recommendation, insofar as it related to claim 39, recommended denial of Microsoft's motions (Docket No. 257, dated January 26, 2007), and the Court adopted that Report (Docket No. 241, dated October 25, 2007). FN1

FN1. A Supplemental Report by Special Master Janicke (Docket No. 287, dated July 24, 2008) and the Court's Opinion and Order partially accepting and partially rejecting such Report (Docket No. 321, dated September 2, 2009) did not directly relate to claim 39, other than to conclude that "claim 39 will proceed to trial." *Id*. at p. 17.

Summary of Recommendations

1. Hochstein's overall challenge to the propriety of Microsoft's present motion is without merit.
2. Microsoft's proposed construction of "*video game communication circuit*" in claim 39 should be denied, and that claim phrase should be construed to mean: "A circuit operatively associated with a local video game and at least one remote video game, without limitation as to such circuit's physical location or attachment to the local video game."

3. Microsoft's proposed construction of "microprocessor" in claim 39 should be denied, and that claim term should be construed to mean: "An electronic computer central processing unit made from miniaturized transistors and other circuit elements on a single semiconductor integrated circuit, without limitation as to how it is programmed."

4. Microsoft's proposed construction of "player port logic circuits" in claim 39 should be denied, and such claim phrase should be construed to mean: "Logic circuits operatively associated with the player ports, without limitation as to what type of logic they perform."

5. Microsoft's proposed construction of "communication couplers" in claim 39 should be denied, and such claim phrase should be construed to mean: "Any components capable of transferring electrical communication energy from one circuit segment to another, while providing protection against transference of power surges."

DISCUSSION

The Propriety of the Present Motion

As stated above, Hochstein challenges the present motion as (1) a violation of the Court's February 7, 2005 Order (quoted above), because Microsoft's request to construe additional terms of claim 39 is not in the context of a dispositive motion, and cites no new law or facts warranting this "late filing;" and (2) an attempt to "undo the Court's previous rulings in this case." Opp. Br. at p. 4.

As its authority for filing the present claim construction motion, Microsoft relies upon the Court's approval of such a filing during the August 21, 2008 hearing. While discussing Hochstein's need for additional discovery into the operation of the accused Xbox 360, Hochstein's lawyer stated that "there are some open issues on claim construction" and "we want to have a hearing" on a date to be determined. Tr. at 47:5-13, attached as Exh. A to Microsoft's Main Brief. The Court responded:

Okay. Will you keep me up on the claim construction matter. So you don't want to file yet, but after you get the preliminary discovery, **then file claim construction proposals.** To the extent you agree, that's wonderful. To the extent you disagree, we'll have to come back .... **Not just for the new but for all of them.**

Id. at 47: 19-25 (emphasis added).

Hochstein presents no rebuttal to this explicit endorsement by the Court of Microsoft's present Motion, except to cite the Court's much earlier February 2005 Order, and to also allege that Microsoft's presently proposed claim constructions are a "re-hash" of previously rejected arguments. Opp. Br. at pp. 1-2. To the contrary, the claim terms now in issue are not the specific ones previously construed, although some of the claimed circuit functions may be similar. FN2

FN2. The details of the parties' positions on the claim terms in issue are discussed in the following sections.

Therefore, **Hochstein's overall opposition to Microsoft's present Motion is unpersuasive, and I recommend that the Motion be considered on the merits of the four specific requested claim**

constructions.

Basic Guidelines for Patent Claim Construction

The Court "has the power and obligation to construe as a matter of law the meaning of language used in a patent claim" Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed.Cir.1995) (*en banc*), *aff'd* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). The words of a claim "are generally given their ordinary and customary meaning" that they would have to a person of ordinary skill in the art at the time of the effective filing date of the patent application. Phillips v. AWH Corporation et al, 415 F.3d 1303, 1312-13 (Fed.Cir.2005) (*en banc*).

The primary sources to be considered for claim construction are found in the "intrinsic" evidence, which consists of the patent claims themselves and the specification and prosecution history of the patent. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996). "Extrinsic" evidence, which includes expert and inventor testimony, dictionaries and learned treatises, "may be helpful to explain scientific principles, the meaning of technical terms and terms of art that appear in the patent and prosecution history." Markman, 52 F.3d at 980. Although extrinsic evidence may be used to aid the court's understanding of the patent, it may not be used to vary or contradict the clear meaning revealed by the intrinsic evidence. Id. at 981; Vitronics, 90 F.3d at 1584-85.

Among the types of extrinsic evidence, preference should be accorded to technical dictionaries as an aid in construing technical terms. Phillips, 415 F.3d at 1318. See also, Vitronics, 90 F.3d at 1580 n. 6 ("Although technical treatises and dictionaries fall within the category of extrinsic evidence, as they do not form a part of an integrated patent document, they are worthy of special note"), and AFG Industries, Inc. v. Cardinal IG Co., Inc., 239 F.3d 1239, 1247-8 (Fed.Cir.2001) ("A general dictionary definition is secondary to the specific meaning of a technical term as it is used and understood in a particular technical field").

Brief Description of the Subject Matter

The '125 Patent discloses a video game that permits two or more players to play the game together, without being located at the same site. Conventional video games commonly comprise a single video game computer having one or more ports into which player input controllers are plugged, and from which video and audio signals are sent to a video display, such as a TV set. See, *e.g.,* Figure 1 of the '125 Patent. Thus, all participating players must be located at the site of the video game computer.

The system disclosed in the '125 Patent adds a "communicator" or "communications assembly" in electrical communication between one (local) player input controller and the local video game computer. This communicator performs several functions: (1) it receives command signals from the local player input controller and sends them to the local video game controller; (2) it converts those command signals into communication signals to be sent over telephone lines to a second similar communicator connected to a remote video game computer, which has its own remote player input controller; and (3) it receives communication signals from the remote player's controller and communicator and converts them into command signals representing the remote player's input commands, for transmission to the local video display. The communicators include voice over data circuitry allowing both communication signals and voice signals to be sent over the interconnecting telephone line simultaneously.

Analysis of the four claim construction issues follows.

Issue No. 1: "Video Game Communication Circuit"

Asserted claim 39, the complete text of which is provided in an addendum to this Report, begins with the following preamble (emphasis added):

A video game communications circuit for communicating command signals between a local video game having at least two player ports (A, B), at least one set of player controls (20), and at least one remote video game (30) in a medium capable of transmitting plurality of data signals and voice signals, said circuit comprising: ....

Microsoft requests that the Court construe this claim language as follows:

The claimed 'video game communication circuit' and its components listed in the body of the claim are *separate and distinct* from the video game computer, to which the video game communication circuit is attached.

Main Br. at p. 1 (emphasis added).

Although presented almost as an afterthought by Hochstein, perhaps the first question to be resolved is whether the preamble of claim 39, or any part of it, is a limitation on the scope of the claim. Opp. Br. at p. 7. He correctly notes that the term "video game construction circuit" appears only in the preamble, and not the body, of claim 39. Hochstein therefore contends that "[t]he preamble is not limiting in this case because claim 39 'defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention.' " Id., quoting from Rowe v. Dror, 112 F.3d 473, 478 (Fed.Cir.1997).

To the contrary, I agree with Microsoft's response that this particular preamble is limiting because the claim drafter "cho[se] to use both the preamble and the body to define the subject matter of the claimed invention." Bicon, Inc. v. Straumann Co., 441 F.3d 945, 952 (Fed.Cir.2006) (internal quotations and citation omitted). In claim 39, several terms appearing in the body of the claim appear first in the claim preamble, namely, "one set of player controls (20)," "two player ports (A, B)," and "medium [of communication]." Thus, the preamble of claim 39 does more than "state a purpose or intended use for the invention" (*Rowe, supra*); its content is closely intertwined with the body of the claim. Therefore, the terms found in the preamble are limitations on the claim, and must be construed by the Court if their meaning is disputed.

Using the restrictive phrase "separate and distinct," Microsoft seeks a claim construction requiring that the "communications circuit" be "a *structure* separate and distinct from the video game computer" (Main Br. at p. 8, emphasis added), *i.e.,* that it be *physically* separate from it. Obviously, as admitted by Microsoft, this circuit must be *electrically* connected to the video game computer in order to perform its described and claimed functions. *Id.* at p. 3, lines 3-7. However, Microsoft stresses that the patentees' original prototype was a separately housed device enclosing the operative communications circuitry that was in turn plugged into (*i.e.,* electrically connected to) the game controllers and the video game console. *Id.* at pp. 2-3. Microsoft goes on to make numerous claim-based and specification-based arguments to support its conclusion "that the claimed 'video game communications circuit' is something separate and distinct from the video game computer that runs video game software, and that the various components listed in the body of claim 39 are part of that *physically separate* circuit and are not part of the video game." *Id.* at pp. 4-5 (emphasis added). See also, *Id.* at p. 5, line 19 ("physically separate"); p.6 at line 11 ("physically distinct");

and p. 8, lines 12 and 15 ("physical connection" and "physical nature of the connection," respectively).

As Microsoft correctly states, the starting point for determining the proper construction of a claim term is the language of the claim itself. Cat Tech LLC v. TubeMaster, Inc., 528 F.3d 871, 884 (Fed.Cir.2008). Nothing in claim 39 explicitly states *where* the "communications circuit" is physically located or *in what* it is housed. As I read the claim preamble, its key language states that (1) the "video game communication circuit" is "***for*** *communicating command signals* ***between*** *a local video game* having [certain specified elements] ***and*** *at least one remote video game,*" and (2) the command signals are being communicated "*in a medium* capable of transmitting plurality of data signals and voice signals ..." (emphasis added). Particularly important to my interpretation is the language stating that the referenced command signals are being communicated "***in a medium*** capable of transmitting plurality of data signals and voice signals." That "medium," again recited at the end of the claim body as "the medium of communication," necessarily refers to the only "medium" described in the patent, namely, the preferred telephone lines or alternative radio waves. See, col. 4, lines 1-17, and col. 8, lines 50-58. Significantly, that particular telephone or radio wave-medium capability is only required *between* the local and remote video games, not *within* the local video game.

I also find significance in the fact that the "Summary of the Invention" section of the '125 Patent states that "[t]he local video game *includes* at least two player ports, at least one set of player controls, and at least two operating modes." Col. 2, lines 20-23 (emphasis added). The similarity of this language, which sets forth the components of "the local video game," to that of claim 39's preamble illuminates the meaning of the preamble, namely, that the claimed "communications circuit" is "for communicating command signals between a local video game having [listed elements A, B and 20, but not necessarily excluding others] and at least one remote video game."

Addressing this preamble interpretation question, both parties resort to editorial revisions to its text to advance their respective interpretations. Microsoft omits "having at least two player ports (A, B)" and substitutes an ellipsis (Main Br. at p. 5, line 4), to which Hochstein vigorously takes issue. Hochstein, in turn, inserts "[and]" after "ports (A, B)" (Opp. Br. at p. 5, six lines from the bottom), to which Microsoft similarly takes issue. Although I believe that the claim drafter intended to include "and" where Hochstein seeks to insert it, I find the meaning of the claim evident enough without its presence, for the reasons explained above. FN3 Therefore, I do not find the parties' arguments regarding their claim alterations of the claim helpful.

FN3. Furthermore, my interpretation is reinforced by the content of the preamble of all of the other independent claims (claims 1, 15, 28, 36 and 40, as well as that of the "Summary of the Invention" at col. 2, lines 18-20. These sources reveal a pattern of describing the signals being communicated between a local video game (having a varying list of components) and the remote video game. From this pattern, I infer that a similar use of "and" was intended by the claim drafter where Hochstein attempts to insert it. As stated, however, I do not rely upon these other sources because I consider the claim as written sufficiently clear to support my conclusion.

Microsoft contends that the preamble requires that the "communication circuit" be physically separate from the video game simply because it is claimed to communicate command signals "between" the video game and certain other specified elements. Main Br. at p. 5. That conclusion does not logically follow. It is implicit that the signals are communicated or transmitted in some manner between the *electrical* circuitry

components of those elements, in order to effect some desired electrical operation. And it is common experience that electrical signals can be communicated between components *within* a single physical structure as well as between components placed in physically separate structures. A familiar example is found in desktop computers (which comprise a physically separate and distinct keyboard, central processing unit and display monitor) and laptop computers (which contain all three components within a single physical enclosure). In both configurations, similar electrical signals are sent between the components to perform similar functions. And in both cases, the "communications circuit" is located somewhere between the point of signal origin and the point of signal reception and effect. The circuit's ability to perform its functions is independent of its physical location within or outside of an enclosure; it depends only upon the circuit's proper electrical connections to the points of signal origin and signal destination.

Thus, it is my opinion that the quoted claim preamble language is not itself restrictive as to where, or in what kind of physical enclosure, the "communications circuit" must be physically located.

Microsoft next states that the conventional "comprising" transition between the preamble and body of claim 39 requires that the subsequently listed elements are part of the "video game communications circuit." Id. at pp. 5-6. That statement is correct, but Microsoft proceeds to the further unsupported conclusion that the presence of "comprising" reinforces the argument that such circuit must be separate from the "local video game." There is no merit to this argument. All that "comprising" contributes is that the circuit includes at least the subsequently listed elements; it tells us nothing about *where* the circuit is or *in what* it must be housed.

Microsoft next relies on many examples from the specification and drawings of the '125 Patent to support its restrictive construction of this claim preamble language. It has been held that "[the patent specification] is the single best guide to the meaning of a disputed term." Phillips, 415 F.3d at 1315. The parties' opposing interpretations of the specification require a careful balancing of two basic claim construction guidelines:

On the one hand, claims must be read in view of the specification, of which they are a part. On the other hand, it is improper to read a limitation from the specification into the claims. Although parties frequently cite one or the other of these axioms to us as if the axiom were sufficient, standing alone, to resolve the claim construction issues we are called upon to decide, the axioms themselves seldom provide an answer, but instead merely frame the question to be resolved.

Liebel-Flarsheim Co. et al v. Medrad, Inc., 358 F.3d 898, 904 (Fed.Cir.2004). *Liebel-Flarsheim* provides another important guideline:

[T]his court has expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment .... The claims should not be limited to the preferred embodiment unless there is a clear intention to so limit, using words or expressions of manifest exclusion or restriction.

Id. at 906. See also, CCS Fitness, Inc. v. Brunswick Corporation, 288 F.3d 1359, 1366 (Fed.Cir.2002) (accused infringer cannot narrow claim term's ordinary meaning "simply by pointing to the preferred embodiment or other structures or steps disclosed in the specification or prosecution history.").

Microsoft stresses that the specification identifies element 100 as the "subject invention," and cites case law that such description limits the scope of the claimed invention. Main Br. at p. .6-7. Element 100 is shown "in

block form" in Figure 2, and in circuit form in Figure 3. Col. 3, lines 25-26 and col. 6, lines 64-65, respectively.

Microsoft also stresses that element 100 is illustrated in Figure 2 as positioned between the player input (the player controls), the local video game with ports A and B, a speaker/microphone and a telephone line (Main Br. at p. 7), as well as the fact that the specification states that "the subject invention 100 is physically connected" to the local video game 12. Col. 3, lines 45-48. Finally, Microsoft cites portions of the specification that the subject invention is independent from the video game itself and its software. Main Br. at p. 8. One of the latter citations negates, rather than supports Microsoft's position. Microsoft quotes the final sentence of the following paragraph of the specification:

It should be noted that the actual coding of the command signals into the communication signals is not part of the subject invention 100. The coding and decoding of the signals will be dependent upon the local video game 12 to which the subject invention 100 is connected. In the same vein, ***the actual connections of the subject invention 100 to the player input controls 20 and the input ports A, B will vary depending on the type of game used.***

Col. 4, lines 22-30 (emphasis added).

This excerpt, and the above-quoted excerpt that "the subject invention 100 is physically connected" to the local video game, appear to be the only statements in the patent that refer to a "connection" to or from element 100 that is not *explicitly* limited to an *electrical* connection or a "data linkage." For example, the Abstract states that the "video game communicator (100) is electrically connected between ...." The title of the invention is "Apparatus and Method for Electrically Connecting Remotely Located Video Games." Figures 2 and 3 symbolically show electrical-type interconnections between the components. The Figures surround various sub-assemblies of video communication assembly 100 with dotted rectangles that in and of themselves are not conclusive on the issue presented by Microsoft's contended claim construction. Figure 2 shows these dotted sub-assemblies as outside of, and electrically connected to, ports A, B of the block representing the local video game. However, this Figure is only a block or schematic diagram, and this type of diagram is not conventionally intended to represent details of packaging or physical mounting and attachment structure.

I also note that the patent specification uses several terms to describe element 100: "video game communicator," "video game communication assembly," and "the subject invention" Independent claims 1, 15, 28 and 36 all identify element 100 as "a video game communication *assembly*" (emphasis added). In contrast, claim 39 calls for "a video game communications *circuit*" (emphasis added). To the extent that Microsoft relies on the specification's use of "assembly" to connote a circuit that is physically separate from the local video game, that argument is undermined by the absence of that term from claim 39:

Other claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment as to the meaning of a claim term .... Differences among claims can also be a useful guide in understanding the meaning of particular claim terms.

Phillips, 415 F.3d at 1314.

Microsoft cites no explicit statement in the '125 Patent specification that the video game communication circuit must be located externally to the video game or otherwise "separate and distinct" there from, and I

found no such statement. FN4 The specification lists a single advantage of the subject invention: "the ability for two or more players playing the same video game to compete with each other without using the same physical video game which alleviates the necessity of proximity of the players." Col. 2, lines 39-43. That advantage is not dependent upon where the claimed communication circuit is physically located or how it is mounted, provided that it is *electrically* connected between the specified elements of the video game.

FN4. I do not find persuasive Microsoft's reliance (Main Br. at p. 7) on the statement that the "subject invention is physically connected" to the local video game 12. Col. 3, lines 45-50. The context of that statement is that such physical connection (or proximity) is why that video game is called the "local" video game, "whereas the other video game computers used by players not located near the local video game computer [and only connected thereto via telephone lines] will be referred to as the remote video game 30."

Finally, the USPTO prosecution history of the '125 Patent apparently contains nothing relevant to this, or any other, issue of claim construction. FN5

FN5. I have not seen the prosecution history, but Special Master Janicke's Report (adopted in its entirety by this Court) states that "[t]he claims were allowed on the first office action, and, as usual, the examiner gave no reasons for the allowance." Docket No. 257, Para. No. 23.

In the absence of "a clear intention to so limit, using words or expressions of manifest exclusion or restriction" (Liebel-Flarsheim, 358 F.3d at 906), it is improper to restrict the meaning of the claimed "video game communication circuit" as sought by Microsoft.

In light of the language of claim 39 (and other claims of the patent), the specification and the drawings of the '125 Patent, it is my recommendation that Microsoft's asserted construction of "video game communication circuit" be rejected. Hochstein offered no proposed construction of his own.

My recommendation is that "*video game communication circuit*" in claim 39 be construed to mean: "**A circuit operatively associated with a local video game and at least one remote video game, without limitation as to such circuit's physical location or attachment to the local video game.**"

Issue No. 2: "Microprocessor"

Claim 39 calls for "a first microprocessor (140) electrically connected to one set of player controls (20), two player ports (A, B) and an oscillating circuit (Y1, C2, C3, R2)." Microsoft seeks to have "microprocessor" construed as a "microprocessor programmed to convert parallel command signals from the game controller into serial communication signals and vice versa," namely, the function performed by that element according to the specification. Col. 4, lines 48-64. Any other construction would, Microsoft argues, make claim 39 invalid as indefinite.

At the outset, Hochstein asserts that claim construction for this term is both unnecessary and improper, because "microprocessor" has a well understood meaning to a person of ordinary skill in the art, and because the accused device admittedly has such an element. Opp. Br. at pp. 8-9. Both of those assertions, though perhaps factually correct, are legally insufficient or irrelevant to the present claim construction issue.

In support of his first point, that no claim construction is necessary where the term has a well understood meaning, Hochstein incorrectly interprets and applies *02* Micro Intern. Ltd. v. Beyond Innovation Technology Co., Ltd., 521 F.3d 1351 (Fed.Cir.2008). There, the issue was whether the claim term "only if" applied at all times without exception, or whether it applied only during "steady state operation" of the claimed circuitry. The Court of Appeals held that the district court had a duty to resolve the disputed *scope* of the claim, because the *Markman* case requires that both the "meaning and scope" of disputed patent claims are to be construed, citing Markman, 52 F.3d at 976. Contrary to Hochstein's assertion here, the Court there held that:

"In deciding that " 'only if needs no construction" because the term has a 'well-understood definition,' the district failed to resolve the parties' dispute because the parties disputed not the *meaning* of the words themselves, but the *scope* that should be encompassed by this claim language."

521 F.3d at 1361 (emphasis in original).

Hochstein's second reason why claim construction for "microprocessor" is unnecessary here is that there is no factual issue for the jury regarding infringement of this claim limitation, because Microsoft's Director of Hardware Development admitted that the accused device includes a microprocessor. Opp. Br. at p. 9, citing Exh.3. While that admission may ultimately be relevant to infringement of the properly construed "microprocessor" claim term, it is not a proper basis for the preliminary legal step of claim construction:

"A claim is construed in the light of the claim language, the other claims, the prior art, the prosecution history, and the specification, *not* in light of the accused device."

SRI Int'l v. Matsushita Elec. Corp. of Am., 775 F.2d 1107, 1118 (Fed.Cir.1985) (*en banc*) (emphasis in original).FN6

FN6. The logic of this rule may be shown by a simple example. Assume that a patent claim simply required a "fastener" to secure two elements together, but the USPTO prosecution history showed that the patentee specifically relied upon the disassembly/reassembly capability of the disclosed bolt and nut type of fastener to distinguish over the prior art. In a later infringement suit, evidence that the accused product admittedly had a fastener, but in the form of a *rivet* that cannot be removed without destroying it, would not properly aid in determining the proper scope of the claimed "fastener." Similarly, such an "admission" that the accused product's rivet was a type of fastener would not be probative of whether there was literal infringement of the properly construed "fastener" of the claim.

I turn now to Microsoft's contentions. Although Microsoft admits that claim 39's express recitation of a "microprocessor" is not in the form of a "means-plus-function" claim limitation under 36 U.S.C. s. 112/para. 6 (Reply Br. at p. 3), it argues that this claim limitation must be construed in the same restrictive manner as if it were expressed in means-plus-function form. FN7 If so construed, Microsoft argues that the particular type of microprocessor algorithm disclosed in the specification must be imported as a further limitation on the proper construction of the claimed microprocessor. In that hypothetical situation, *not* involved here, precedent holds that the specification's disclosure of a general purpose computer or microprocessor, without more, fails to satisfy s. 112/para. 6 because such elements can be programmed to perform very different tasks in very different ways. Aristocrat Technologies Australia Pty Ltd. v. Int'l Game Tech., 521 F.3d 1328, 1333 (Fed.Cir.2008). In *Aristocrat,* the disputed claim term was the means-plus-

function term "game control means arranged to [perform a stated function]," and the patentee argued that the corresponding structure in the specification that supported that claim term was a standard microprocessor-based gaming machine with "appropriate programming." No specific algorithm for performing the recited function was disclosed, and the Court therefore held such means-plus-function type claim invalid as indefinite under 35 U .S.C. s. 112para. 2. But *Aristocrat* has no relevance here, where the disputed claim term sets forth *structure* (a microprocessor) rather than "means" for performing a stated function. Phillips, 415 F.3d at 1311 ("Means-plus-function claiming applies only to purely functional limitations that do not provide the structure that performs the recited function").

FN7. In clear contrast to claim 39, all of the other independent apparatus claims in the '125 Patent (1, 15, 28 and 36) are written in means-plus-function form.

Recognizing that claim 39 does not implicate s. 112/para. 6, Microsoft instead cites ICU Med., Inc. v. Alaris Med. Sys., Inc., 558 F.3d 1368, 2009 WL 635630, at (Fed.Cir. March 13, 2009) for the proposition that "it is entirely proper to consider the functions of an invention in seeking to determine the meaning of particular claim language." That statement is nothing more that a rephrasing of the familiar principle that "claims must be read in view of the specification, of which they are a part," while ignoring the companion guideline that "it is improper to read a limitation from the specification into the claims." Phillips, 415 F.3d at 1315. Microsoft has failed to establish that the patentee demonstrated "a clear intention to so limit, using words or expressions of manifest exclusion or restriction." Liebel-Flarsheim, 358 F.3d at 906.

Microsoft also cites two cases for the unchallenged proposition that a claim is indefinite if a skilled artisan could not discern its boundaries.FN8 Beyond stating that proposition, neither case illuminates the question whether "microprocessor" is indefinite. And Microsoft offers only attorney argument to support its point. In fact, its point is contradicted by its submissions in its earlier motion for summary judgment of invalidity of claim 39. There, Microsoft not only did not challenge the definiteness of "microprocessor," but it submitted its own definition of the term:

FN8. Main Br. at p. 12. *Halliburton Energy Srvs., Inc. v. M-1 LLC,* 514 F.3d 144, 1249-50 (Fed.Cir.2008) (construing "fragile gel"), and Geneva Pharms. Inc. v. GlaxoSmithKline PLC, 349 F.3d 1373, 1384 (Fed.Cir.2003) (construing "synergistically effective amount").

"A microprocessor is an electronic computer central processing unit made from miniaturized transistors and other circuit elements on a single semiconductor integrated circuit."
Docket No. 73, p. 2, n. 4. See also the definition submitted by Microsoft's own expert, Dr. Macedonia, attached as Exh.3, p. 2, to Hochstein's Brief.
I find no merit to Microsoft's contention that "microprocessor" is indefinite or that it requires any more restrictive construction imported from the specification. Accordingly, adopting Microsoft's own previously submitted definition,FN9 I recommend that "microprocessor" in claim 39 be construed to mean: "**An electronic computer central processing unit made from miniaturized transistors and other circuit elements on a single semiconductor integrated circuit, without limitation as to how it is programmed.**"

FN9. As a confirmation of the appropriateness of Microsoft's earlier definition, I found the following definition in a technical dictionary readily available to me: "microprocessor (Comp., Electronics). A computer central processing unit (CPU) that is contained on one or a few integrated-circuit chips, using

large-scale integration (LSI) technology. A microprocessor can be used as part of an automatic control system or as the main element of a microcomputer." CAMBRIDGE DICTIONARY OF SCIENCE AND TECHNOLOGY 573, Cambridge University Press (1988).

Issue No. 3: "Player Port Logic Circuits"

Claim 39 calls for "two player port logic circuits (108, 124) electrically connected between said first microprocessor (140) and the two player ports (A, B)."

Microsoft asks the Court to construe this claim element as limited to the specific elements 108, 124 that are part of the preferred embodiment of the specification, namely, "*shift registers*." Main Br. at pp. 12-14.

Microsoft acknowledges that "logic circuit" has an ordinary meaning in the field of electronics.FN10 However, it contends that "player port logic circuits" has no ordinary and regular meaning to one of ordinary skill in the art, and therefore the claim fails to identify what particular type of logic circuit is required. Main Br. at pp. 12-13, citing the conclusory statement of its technical expert, Michael R. Macedonia (Exh. G, para. 4). Because the specific logic circuits disclosed in the ' 125 Patent specification are shift registers (col. 6, line 68 to col. 7, line 3),FN11 Microsoft asserts that the allegedly inadequately defined "player port logic circuits" in claim 39 must be construed to be "shift registers."

FN10. Microsoft quotes the following definition from *Van Nostrand Reinhold Dictionary of Information Technology* 307 (3d ed. 1980) (Brief at p. 12, and Exh. H): "a circuit comprising one or more gates or flip flops that performs a particular logic function."

FN11. Microsoft explains that a "shift register" is a particular type of logic circuit, quoting a definition from *IEEE Standard Dictionary of Electrical and Electronic Terms* 831 (3d ed.1984): "a logic network consisting of a series of memory cells such that a binary code can be caused to shift into the register by serial input to only the first cell.". Main Br. at p. 13, and Exh. I.

Hochstein once again leads off his opposition by relying on testimony from Microsoft's Director of Hardware Development that Hochstein contends shows that (1) the accused device has "player port logic circuits," and (2) the witness understood the meaning of that four-word phrase. Opp. Br. at pp. 14-15. The first point is legally irrelevant, as explained above. SRI Int'l, 775 F.2d at 1118. And the second point does not survive scrutiny, because the witness never used, or was asked about, that four-word phrase in the cited testimony.

Starting with the admitted premise that "logic circuits" is a sufficiently definite term having a known meaning to a person of ordinary skill in the art, the issue presented is whether the modifier "*player port* logic circuits" renders the claim limitation unacceptably indefinite under 35 U.S.C. 112, para. 2. Significantly, the context of this limitation states that the "two player port logic circuits (108, 124)" are "electrically connected between said first microprocessor (140) and the two player ports (A, B)." Thus, claim 39 specifies that these two logic circuits are "electrically connected" *to* the "player ports." That claim limitation is fully consistent with the location of the disclosed shift registers 108, 124 in Figures 2 and 3, where the shift registers are illustrated immediately adjacent to player ports A and B, and electrically

connected thereto.

By arguing that "player port logic circuits" "has no ordinary and regular meaning to one of ordinary skill in the art," Microsoft wants the Court to view that claim phrase in a vacuum, divorced from the associated reference numerals which explicitly direct the reader to the corresponding structure of the disclosed preferred embodiment, divorced from the associated words of the claim that identify with which elements these logic circuits are electrically connected, and, most significantly, divorced from the specification of the patent. Main Br. at pp. 12-13. That is simply the wrong test:

Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.

Phillips, 415 F.3d at 1313.

Reading the entire claim sub-paragraph in light of the specification, it readily appears that the patentees chose to claim those two shift registers (108, 124) as logic circuits (which they admittedly are) that are *associated with* the respective player ports by virtue of the claimed electrical connection there between. The claim recites specific structure, and operatively connects it to other claimed structure Section 112, para. 2 of the patent statute requires nothing more. "Player port" is simply an adjectival phrase identifying with what elements the "logic circuits" of the claim are associated.

Moreover, the patentee used the optional claim-drafting technique of parenthetically including the reference numerals of the corresponding structure described in the preferred embodiment. With the explicit aid of those reference numerals, even a layman could read the claim and know precisely what structure was being described by the four-word "player port logic circuit" phrase.

Microsoft is inappropriately attempting to read the structure of the preferred embodiment into a claim that is already sufficiently precise and definite, contrary to Liebel-Flarsheim, 358 F.3d at 904, 906. Microsoft also incorrectly asserts that the specification "defines" the logic circuits in question as meaning "shift registers." Main Br. at p. 13. For the single disclosed embodiment to be considered a *definition* requiring that the claim be limited thereto, there must be "a clear intention to so limit, using words or expressions of manifest exclusion or restriction." Liebel-Flarsheim, 358 F.3d at 906. Although a patentee can act as his own lexicographer to specifically define terms of a claim contrary to their ordinary meaning, "the written description in such a case must clearly redefine a claim term 'so as to put a reasonable competitor or one reasonably skilled in the art on notice that the patentee intended to so redefine that claim term.' " Process Control Corp. v. HydReclaim Corp., 190 F.3d 1350, 1357 (Fed.Cir.1999). Microsoft has failed to show that such a clear *definition* or intent to limit the claim occurred here. The shift registers are nothing more than a non-limiting preferred embodiment.

It is my recommendation that "player port logic circuits" in claim 39 be construed to mean: **"Logic circuits operatively associated with the player ports, without limitation as to what type of logic they perform."**

Issue No. 4: "Communication Couplers"

The final sub-paragraph of claim 39 calls for:

"communication couplers (L1, L2) for connecting said voice over data circuit (134) to the medium of communication."

Microsoft contends that "communication couplers" must be construed as "inductors that physically connect the voice over data circuit to the means of communication." Main Br. at p. 17. This proposed construction would add two limitations to this portion of claim 39:(1) the claimed couplers must be "inductors," and (2) the claimed connection must be a "physical" connection.

Addressing first the question of whether the claimed "communication couplers" must be inductors,FN12 we look first to the patent specification, as directed by *Phillips,* 415 F.3d 1315. The relevant portion of the preferred embodiment is illustrated in both Figures 2 and 3, and discussed in two places in the specification. The block diagram of Figure 2 shows a "line coupling" block 111, further described in the specification as "telephone line couplings and protection networks 111":

FN12. "Inductor" and "coupler" in the electrical engineering context are defined *infra*.

Telephone line ***couplings*** *and protection networks 111* are used to connect the subject invention 100 to the telephone lines 110 and *protect the subject invention 100 from any power surges* that may occur over the telephone lines 110.
Col. 4, lines 17-21 (emphasis added). The immediately preceding portion of the specification states that the preferred transmitting medium is the telephone system 110, but further observes that "it should be obvious to those skilled in the art that any medium of transmission, i.e., radio waves, would be suitable for the subject invention 100 ...." (*Id*. at lines 10-15).
The more detailed illustration of the preferred embodiment appears in the schematic circuit diagram of Figure 3, which specifically illustrates inductors L1 and L2 that the specification describes as "coupling" elements:

Capacitor C11 and C12 are connected to a first inductor L1 for ***coupling*** the line to the telephone 180 to the amplifying circuit. Capacitors C14 and C15 are connected to a second inductor L2 which ***couples*** the amplifying circuit to the phone line 110.

Col 8, lines 45-49 (emphasis added). While elements L1 and L2 are the specific "communication couplers" parenthetically cross-referenced in claim 39, that optional use of reference characters in the claims has "no effect on the scope of the claims:"

Reference characters corresponding to elements recited in the detailed description and the drawings may be used in conjunction with the recitation of the same element or group of elements in the claims. The reference characters, however, should be enclosed within parentheses so as to avoid confusion with other numbers or characters which may appear in the claims. **The use of reference characters is to be considered as having no effect on the scope of the claims.**

USPTO *Manual of Patent Examining Procedure,* s. 608.01(m) (emphasis added). See also, '125 Patent specification, Exh. B to Microsoft's Main Br., col. 9, lines 37-39.

Although the specification clearly states the *purpose* of the coupling elements, *i.e.,* to protect against power surges in the telephone lines, there is no "clear intention" to limit either the form of the "medium of

transmission" or the specific type of protection network or coupling elements to be used therewith. It would therefore be improper to restrict the claims to the preferred embodiment's use of inductors because the specification contains no "clear intention to so limit, using words or expressions of manifest exclusion or restriction." Liebel-Flarsheim, 358 F.3d at 906.

Microsoft's second contention, that the claimed connection must be a "physical" connection, is a puzzling one. Its main brief fails to explicitly state how "physical" further restricts or modifies "connection." Microsoft ignores the electrical circuitry context of the claimed connection, as well as the fact that the claimed couplers are "*communication*" couplers between the "voice over data circuit" and the "medium of communication" (i.e ., telephone lines in the preferred embodiment). Instead, it relies on several *general dictionary* definitions of "couple" and "coupling, as well as other non-circuitry sources, the theme of which is "linking" or "joining." Microsoft does not explain why these alternative, general-usage, words, even if relevant to the electric circuitry context, require "physically" to be added as a further restriction on the "connecting" limitation already present in the claim. More fundamentally, general dictionary definitions of technical terms are of very limited value in claim construction. Phillips, 415 F.3d at 1318; AFG Industries, Inc., 239 F.3d at 1247-8. Hochstein did not provide the Court with any definitions relevant to "communication couplers," nor did he provide any proposed construction of this disputed claim language.

The most relevant technical definitions that were readily available to me were in the RADIO SHACK DICTIONARY OF ELECTRONICS, by Rudolf F. Graf (4th ed.1974). It contains the following definitions

inductor-Also called inductance or retardation coil. A conductor used for introducing *inductance* into an electric circuit. The conductor is wound into a spiral, or coil, to increase its inductive intensity.

Id. at 284 (emphasis added).

Inductive coupling-1. The association of one circuit with another through inductance common to both. When used without modifying words, the term commonly refers to ***coupling*** by means of *mutual inductance,* whereas coupling by means of self-inductance common to both circuits is called direct inductive coupling. 2. In inductivecoordination practice, the interrelations of neighboring electric supply and communication circuits resulting from electric and/or magnetic induction.

Id. at 283-84 (emphasis added).

"coupling"-the association of two or more circuits or systems in such a way that power may be transferred from one to another.

Id. at 126.

"coupling transformer"-A transformer that couples two circuits together by means of its *mutual inductance*.

Id.

"isolation transformer"-A transformer designed to provide magnetic **coupling** (flux coupling) between one or more pairs of isolated circuits, without introducing significant coupling of any other kind between them-i.e., without introducing either significant conductive (ohmic) or significant electrostatic (capacitive) coupling.

Id. at 304

I also found the following relevant definitions in the CAMBRIDGE DICTIONARY OF SCIENCE AND TECHNOLOGY 207, Cambridge University Press (1988):

coupling coil (*Telecomm*.). One whose inductance is a small fraction of the total for circuit of which it forms a part; use for inductive transfer of energy to or from the circuit

"coupling element (*Telecomm*.). The component through which energy is transferred in a ***coupled*** system.

"coupling transformer *(Elec.Eng.)*. A transformer used as a ***coupling*** element.

I have included the definitions of "isolation transformer" and "coupling transformer," although those terms are not found in the '125 Patent, because that is what each of the opposed pairs of disclosed inductors L1, L2 in fact is. The combined interpretive sources of the specification's terminology, the conventional symbolic representation of the opposed inductors in Figure 3, and the technical dictionary definitions I have quoted verify that fact.FN13

FN13. As part of his argument on the "communication coupler" issue, Hochstein's Opposition Brief includes testimony of Microsoft's Director of Hardware Development (Mr. DelCastillo) and associated Microsoft product specification documents (Opp. Br. at pp. 17-18, citing Exhs. 1 and 6). To the extent that such evidence describes Microsoft's accused product, it should not be used for claim construction. SRI Int'l, 775 F.2d at 1118. While I do not rely upon it, I note that his testimony uses these technical terms consistently with the quoted technical dictionary definitions. See also, Opp. Br., Exh. 1 at 43:13-20.

Microsoft's next argument refers to the block diagram of Figure 2 and the electrical circuit diagram of Figure 3 and, without explanation, simply concludes that these confirm that the claimed connection must be a "physical" one. Main Br. at pp. 15-16. The only thing that Figure 2 confirms is that the schematically-illustrated "line coupling 111" is functionally interposed in the required location. And the only thing that Figure 3 confirms is that opposed inductive coils of each inductor pair L1 and L2 are physically *separated,* i.e., *unconnected* by any electrical conductor, as they must be to perform their mutual inductance-created transfer of data between the coils of each pair.

Microsoft's arguments in support of its "*physical* connection" claim construction stray from several guidelines of *Phillips, supra:*

-> Microsoft ignores the context of claim 39, which is a "communication circuit" comprising "*communication* couplers" (not mechanical parts) "for connecting said voice over data *circuit* to the *medium* of communication" (emphasis added). *Phillips* tells us that "the context of the surrounding words of the claim also must be considered in determining the ordinary and customary meaning of [particular claim terms]." 415 F.3d at 1314.

-> Microsoft quotes, but does not *apply,* the relevant portions of the specification ("telephone line *couplings* and *protection* networks 111 are used to connect the subject invention 100 to the telephone lines 110 and *protect* the subject invention 100 *from any power surges* that may occur over the telephone lines 110;" "first

inductor L1 for coupling;" and second *inductor L2 which couples*" (emphasis added). It also disregards the fact that the stated power surge- *protection* function results from the fact that the opposed windings of each inductor pair are (as shown in Figure 3), and must be, *physically unconnected* by any electrical conductor. *Phillips* tells us that the patent specification is "the single best guide to the meaning of a disputed term." 415 F.3d at 1321.

-> Microsoft places heavy reliance on *general* dictionary definitions of "coupler" and "coupling." *Phillips* tells us that "a general-usage dictionary cannot overcome art specific evidence of the meaning of a claim term." 415 F.3d at 1322.

From the dictionary definitions quoted above it should be evident that a "physical connection" in the form of an *electrical conductor* is not the type of connecting structure disclosed in the '125 Patent. As Hochstein observes, the disclosed "communication couplers" are designed to magnetically rather than physically connect the electrical components, to prevent electrical conduction of power surges. Opp. Br. at p. 19. Because a "physical" connection in the form of an electrical conductor would be incapable of providing the stated function of protecting the device from power surges, such a claim construction (if that is what Microsoft contended) must therefore be rejected.

Hochstein observes, correctly in my opinion, that "[i]t is unclear [from Microsoft's Main Brief] what Microsoft thinks a 'physical' connection is." Opp. Br. at p. 19. That uncertainty was cleared up by Microsoft's Reply Brief (Rep. Br. at p. 5). There, Microsoft confirms that its proposed claim construction does *not* require a "direct electrical connection." Instead, Microsoft contends that the plain meaning of "coupler," as supported by the patent specification, is that the voice over data circuit and medium of communication "are 'physically' connected in that the modular plug of the medium of communication (i.e., the plug of a telephone cord) is in physical contact with the port of the voice over data circuit (i.e., the telephone jack)."

I do not agree that Microsoft's now-clarified claim construction is either the plain meaning of "coupler" or that it is supported by the specification. The specification does not refer to any plug or port as being part of the claimed "communication couplers." Neither does it illustrate, symbolically or otherwise, a plug and port at that location in the block or circuit diagrams of Figures 2 and 3. The only structure described as associated with the couplers' "connecting" function is the "telephone line couplings and protection networks 111" (col. 4, lines 17-21, referencing Figure 2) and the "coupling" inductors L1 and L2 (col. 8, lines 45-49, referencing Figure 3). While a plug and port may be part of a telephone line coupling, claim 39 does not expressly restrict its "medium of communication" to telephone lines. Although telephone lines are the preferred medium, the patent also discloses "radio waves" as one example of an alternative medium of communication. Col. 4, lines 12-14. Microsoft has shown no basis for restricting the scope of the claim to either a telephonic medium of communication or to specific coupler details that are not even disclosed in the patent. Liebel-Flarsheim, 358 F.3d at 906.

Quite apart from any arguments presented by Microsoft, it is my opinion that "communication couplers" must be interpreted in a way that reflects the purpose of those elements that was clearly stated in the patent specification. That is, the '125 Patent specification states that the purpose of the "communication couplers" L1, L2 and the "protective networks 111" is to "protect the subject invention from any power surges (col. 4, lines 17-21). The use of "communication couplers" in claim 39 also stands in contrast with the frequent use, in the same claim, of "electrically connected" to describe connections that are in the form of electrically *conductive* connectors.

On the basis of the foregoing evidence and analysis, I recommend that the "communication couplers' of claim 39 be construed to mean: "**Any components capable of transferring electrical communication energy from one circuit segment to another, while providing protection against transference of power surges.**"

ADDENDUM

Claim 39. A video game communications circuit for communicating command signals between a local video game having at least two player ports (**A, B**), at least one set of player controls (**20**), and at least one remote video game (**30**) in a medium capable of transmitting plurality of data signals and voice signals, said circuit comprising:

a first microprocessor (**140**) electrically connected to one set of player controls (**20**), two player ports (**A, B**) and an oscillating circuit (**Y1, C2, C3, R2**);

two player port logic circuits (**108, 124**) electrically connected between said first microprocessor (**140**) and the two player ports (**A, B**);

a switch (**150**) connected to said first microprocessor (**140**) having at least two positions;

a modem circuit (**114**) electrically connected to said first microprocessor (**140**) for bilaterally transmitting communication signals to and from said first microprocessor (**140**);

a voice over data circuit (**134**) for filtering voice signals from communication signals and for transmitting both to said modem circuit (**114**); and

communication couplers (**L1, L2**) for connecting said voice over data circuit (**134**) to the medium of communication.

E.D.Mich.,2009.
Hochstein v. Microsoft Corp.

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