United States District Court,
N.D. California.

HEWLETT-PACKARD CO,
Plaintiff.
v.
INTERGRAPH CORP,
Defendant.

No. C 03-2517 MJJ

Jan. 3, 2005.

Morgan Chu, David Isaac Gindler, Elliot Brown, Jason Dean Linder, Rachel Marie Capoccia, Irell & Manella LLP, Los Angeles, CA, for Plaintiff.

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CLAIM CONSTRUCTION ORDER

MARTIN J. JENKINS**, District Judge.**

INTRODUCTION

Before the Court is the parties' proposed construction of disputed terms contained in three of Plaintiff Hewlett-Packard Company's ("HP") patents. The patents-in-suit involves inventions related to computer software in the fields of computer graphics, computer aided design ("CAD"), remote access to networked resources, and user interface design.

FACTUAL BACKGROUND

This case concerns the alleged infringement of U.S. Patent Number 5,297,241 (the "'241" patent) entitled "Automated Re-Layout With Dimensional Associativity," U.S. Patent Number 6,105,028 (the "'028" patent) entitled "Method and Apparatus For Accessing Copies of Documents Using a Web Browser Request Interceptor," and U.S. Patent Number 4,635,208 (the "'208" patent) entitled "Computer-Aided Design of Systems." The issue before the Court is the construction of disputed terms contained in the patents.

The '241 patent, owned by HP, claims methods for using a CAD design system to model objects in three dimensional space ("3D"), and then to generate two dimensional ("2D") drawings from the 3D model. The claimed method allows a designer to work in both 3D and 2D spaces in which changes made to a 3D model are automatically reflected in the 2D drawings of the model.

The '208 patent, owned by HP, discloses a computer-aided design system that implements "object-oriented" programming techniques. The stated purpose of the "object-oriented" programming technique is to allow users to make changes in a design easily and quickly, and without extensive changes in the programming.

The '028 patent, owned by HP, describes computer software used for remotely accessing documents over a network, and providing the ability to access a local copy of the remote document if the network connection is lost. The '028 patent describes a method whereby the user sends a browser request from the client computer through a device known as an "interceptor." The interceptor determines if the client computer is connected to a network. If the client computer is connected to a network, the browser sends the request to a remote server and downloads a copy of the requested document from the remote server onto the client computer. If the client computer is not connected to the network, the browser request is diverted by the interceptor and a previously stored copy of the requested document, if available, is retrieved from the client computer's own memory.

LEGAL STANDARD

The construction of a patent claim is a matter of law for the Court. Markman v. Westview Instruments, Inc., 517 U.S. 370, 372, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). The Court must conduct an independent analysis of the disputed claim terms. It is insufficient for the Court to simply choose between the constructions proposed by the adversarial parties. Exxon Chem. Patents v. Lubrizol Corp., 64 F.3d 1553, 1555 (Fed.Cir.1995). To determine the meaning of a patent claim, the Court considers three sources: the claims, the specification, and the prosecution history. Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed.Cir.1995) (*en banc*), *aff'd,* Markman, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577.

The Court looks first to the words of the claims. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996). "Although words in a claim are generally given their ordinary and customary meaning, a patentee may choose to be his own lexicographer and use terms in a manner other than their ordinary meaning, as long as the special definition of the term is clearly stated in the patent specification or file history." *Id*. (citation omitted). "A technical term used in a patent document is interpreted as having the meaning that it would be given by persons experienced in the field of the invention, unless it is apparent from the patent and the prosecution history that the inventor used the term with a different meaning." Hoechst Celanese Corp. v. BP Chems. Ltd., 78 F.3d 1575, 1578 (Fed.Cir.1996). The doctrine of claim differentiation creates the presumption that limitations stated in dependent claims are not to be read into the independent claim from which they depend because different language used in separate claims is presumed to indicate that the claims have different meanings and scope. Tandon Corp. v. U.S. International Trade Com., 831 F.2d 1017, 1023 (Fed.Cir.1987).

Second, it is always necessary to review the specification to determine whether the inventor has used any terms in a manner inconsistent with their ordinary meaning. Vitronics, 90 F.3d at 1582. The specification can act as a dictionary when it expressly or impliedly defines terms used in the claims. *Id*. Because the specification must contain a description of the invention that is clear and complete enough to enable those of ordinary skill in the art to make and use it, the specification is the single best guide to the meaning of a disputed term. *Id*. The written description part of the specification itself does not delimit the right to exclude, however; that is the function and purpose of claims. Markman, 52 F.3d at 980.

Third, the court may consider the prosecution history. Vitronics, 90 F.3d at 1582. "Although the prosecution

history can and should be used to understand the language used in the claims, it too cannot enlarge, diminish, or vary the limitations in the claims." Markman, 52 F.3d at 980 (internal quotation marks deleted) (citations omitted). However, a concession made or position taken to establish patentability in view of prior art on which the examiner has relied, is a substantive position on the technology for which a patent is sought, and will generally generate an estoppel. In contrast, when claim changes or arguments are made in order to more particularly point out the applicant's invention, the purpose is to impart precision, not to overcome prior art. Such prosecution is not presumed to raise an estoppel, but is reviewed on its facts, with the guidance of precedent. Pall Corp. v. Micron Separations, Inc., 66 F.3d 1211, 1220 (Fed.Cir.1995) (citations omitted).

Ordinarily, the Court should not rely on expert testimony to assist in claim construction, because the public is entitled to rely on the public record of the patentee's claim (as contained in the patent claim, the specification, and the prosecution history) to ascertain the scope of the claimed invention. Vitronics, 90 F.3d at 1583. "[W]here the public record unambiguously describes the scope of the patented invention, reliance on any extrinsic evidence is improper." *Id*. Extrinsic evidence should be used only if needed to assist in determining the meaning or scope of technical terms in the claims, and may not be used to vary or contradict the terms of the claims. *Id*. (quoting Pall Corp., 66 F.3d at 1216); Markman, 52 F.3d at 981.

The Court is free to consult technical treatises and dictionaries at any time, however, in order to better understand the underlying technology and may also rely on dictionary definitions when construing claim terms, so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents. Vitronics, 90 F.3d at 1584 n. 6. The Court also has the discretion to admit and rely upon prior art proffered by one of the parties, whether or not cited in the specification or the file history, but only when the meaning of the disputed terms cannot be ascertained from a careful reading of the public record. Id. at 1584. Referring to prior art may make it unnecessary to rely on expert testimony, because prior art may be indicative of what all those skilled in the art generally believe a certain term means. *Id*. Unlike expert testimony, these sources are accessible to the public prior to litigation to aid in determining the scope of an invention. *Id*.

Disputed claim terms are construed consistently across all claims within a patent. Southwall Techs., Inc. v. Cardinal IG Co., 54 F.3d 1570, 1579 (Fed.Cir.1995). Where patents-in-suit share the same disclosures, common terms are construed consistently across all claims in both patents. Mycogen Plant Sci., Inc. v. Monsanto Co., 252 F.3d 1306, 1311 (Fed.Cir.2001) (*overruled on other grounds*).

"The subjective intent of the inventor when he used a particular term is of little or no probative weight in determining the scope of a claim (except as documented in the prosecution history)." *Markman,* 50 F.3d at 985 (citation omitted). "Rather the focus is on the objective test of what one of ordinary skill in the art at the time of the invention would have understood the term to mean." *Id*. at 986.

DISPUTED CLAIM TERMS

The following is a list of fifteen terms identified by the parties in the October 15, 2004 Supplemental Joint Statement of Terms To Be Construed:

1) **2D documentation package**

2) **solid modeler**

3) **projection format information**

4) **2D representation**

5) **data objects**

6) **high order commands**

7) **linked**

8) **hierarchy of primitive elements in said system**

9) **server remote from the client computer system**

10) **web browser**

11) **computer usable medium**

12) **means for intercepting a browser request to access the document**

13) **means for ascertaining if the client computer is connected to the network**

14) **means for determining, from the browser request, the address of the copy of the document in the client computer system when the client computer system is not connected to the network**

15) **means for retrieving, when the client computer system is not connected to the network, the copy of the document in the client computer system**

ANALYSIS

I. The '241 Patent

A. *2D documentation package* (Claims 1 and 11)

HP contends that the term means "software that can produce 2D representations of 3D objects." Intergraph states that the term means "a software package that enables a user to add annotations and/or dimensions to a 2D drawing, thereby quantifying the 2D representations."

HP bases it proposed construction on the text of the claims and specification of the patent. Specifically, HP directs the Court to language in the specification that states that a 2D documentation package "provides two dimensional (2D) representations of objects which are projections of object features onto a viewing plane." '241 patent, col. 3:65-67. It is this definition that HP primarily relies upon for its proposed construction.

Intergraph argues that there is nothing in the '241 patent or in the prosecution history that gives the term "2D documentation package" a precise meaning. Intergraph further argues that the plain language of claims 1 and

11 make clear that the 2D documentation package is a separate package distinct from the solid modeler. In order to defend its proposed construction, Intergraph directs the court to language in the specification that states as follows: "The 2D documentation package typically contains a group of tools to both annotate a 2D drawing and to quantify different aspects of the planar projections used to depict an object ..." '241 patent, col. 2:4-8.

HP counters that the specification provides that the 2D documentation package may "typically" provide such functions as annotation, but such functions are not required in every instance.

In essence, the parties' fundamental disagreement revolves around whether the 2D documentation package is a separate "package" from the 3D objects being modeled. HP's proposed definition clearly attempts to blur the line between the 3D object (solid model) and the 2D documentation package, and could easily lead a person to believe that the 2D documentation package is the actual software that produces the 2D representation of 3D objects. But the patent claims (1, 11) make clear that it is the "automated re-layout process," not the "2D documentation package," that produces the 2D representation of 3D objects. FN1 Hence, HP's proposed construction is overly broad.

FN1. "The process of passing the 3D model features into the 2D documentation package will be referred to herein as 'laying out' the solid model or the 'layout process.' " '241 patent, col. 2:1-3.

Intergraph's proposed construction is also significantly flawed. The specification states that "[t]he 2D documentation package *typically* contains a group of tools to both annotate a 2D drawing and to quantify different aspects of the planar projections used to depict an object ..." '241 patent, col. 2:4-8 (emphasis added). The use of the word "typically" is important, and leads to Court to conclude that the 2D documentation package does not necessarily have to include dimensioning or annotation features. Furthermore, it is important to note that first four claims of the patent do not mention dimensions or annotations. Accordingly, Intergraph has not persuaded the Court that the 2D documentation package must be a separate software program distinct from the solid modeler and the re-layout process.

Given these considerations, the clearest reading of "2D documentation package" is *software that operates on a two dimensional representation of a 3D object, and may support dimensioning, text, and other annotation features*.

B. *Solid Modeler* (Claims 1 and 11)

HP contends that the term means "a computer representational system for describing objects in 3D space." Intergraph states that the term means "a software package for representing solid objects, which, unlike wireframe and surface modeling, ensures that all surfaces meet properly and that the object is geometrically correct."

HP states that its proposed construction is consistent with the explicit definition of "solid modeler" found in the specification. Specifically, HP relies upon language in the section entitled "Background of the Invention" in which "solid modeling" is described as "a computer representational system for describing objects in three-dimensional space. '241 patent, col. 1:12-14; *see also* '241 Patent, col. 3:61-63 ("A method is described for interfacing between a solid modeler system which describes objects in three-dimensional (3D) space ...").

Intergraph supports its proposed construction by citing specification language which provides that "[s]olid models are commonly constructed either with primitive or boundary definition, which permit modeling the solid nature of the object, though the models often appear on the output device in a similar manner as wire frame representations." '241 patent, col. 1:16-20. Intergraph relies upon this language to support its conclusion that wireframe modelers and surface modelers are functionally different from solid modelers and the inventors clearly made this distinction in the '241 patent.

The parties disagreement stems from whether "solid modeling" as used in the claim is distinct from "wireframe modeling" and "surface modeling." After examining the claims, it is far from clear that the inventors intended to exclude "wireframe modeling" or "surface modeling" from their claims. The claims do not require that a solid model be created. Rather, the claims describe using a "solid modeler" to create "an original 3D analytical model," and throughout the claims the term "3D model" is used. Accordingly, although the specification language cited by Intergraph could lead to the inference that "wire frame" and "solid" modeling are distinct processes, such a conclusion is certainly not compelled by the claim language. *See* Ekchian v. Home Depot, Inc., 104 F.3d 1299, 1303 (Fed.Cir.1997) (cautioning "against limiting the claimed invention to preferred embodiments or specific examples in the specification"). Thus, Intergraph's proposed construct cannot be correct.

Rather, the Court adopts HP's proposed construction in light of the fact that the Court's analysis must "remain centered on the language of the claims themselves." Vitronics, 90 F.3d at 1582. The claims state that a solid modeler "describes objects in a three-dimensional [ ] space." (Claim 1 and 11). The Court relies heavily upon this language in defining a "solid modeler" as *a computer representational system for describing objects in three-dimensional (3D) space*.

C. *Projection Format Information* (Claims 1, 3, 11, 13)

HP contends that the term means "information sufficient to reproduce later the same view of a 3D model, such as data representing, but not limited to, the orientation, distance, and view angle with respect to the 3D model." In contrast, Intergraph proposes that the term means "data that represents the orientation, near depth, far depth, distance and view angle, of the viewer with respect to the 3D model."

HP's proposed construction attempts to take into account that there are numerous methods available to generate a projection of a 3D model into a 2D view. HP states that two of the most well known methods of projection include "parallel" and "perspective," and each method requires different data or information. HP argues that the '241 patent does not limit the types of projections (and thus information) that can be used to generate its 2D drawings. *See* '241 patent, col. 6:33-57.

Intergraph's proposed construction purportedly reflects that in order to reproduce a certain view, it is necessary for the projection information to include the "orientation" and "view angle" with respect to the 3D model. Intergraph states that in certain other projections, other data, such as distance, near depth, and far depth will be required. Therefore, Intergraph's proposed construction attempts to encompass the projection information needed for any possible projection.FN2

FN2. As noted by HP, Intergraph's argument here seems self-defeating. Intergraph states that in order to reproduce a view, only the "orientation and view angle" are necessary. Intergraph also states that such data as "distance, near depth, and far depth" will be required in certain other projections. If Intergraph is correct,

and the "orientation and view angle" are the only information necessary to reproduce a certain view, then Intergraph's proposed construction which include information such as "distance, near depth, and far depth" is clearly too broad.

The problem with Intergraph's proposed construction is quite clear. While Intergraph's proposed construction attempts to encompass the projection format information required for each possible type of projection, the '241 Patent does not require one particular type of projection. The "exemplary embodiment" of the '241 Patent states that project format information needed for each type of view will be different. *See* '241 Patent, col. 6:33-57. Accordingly, it would be a mistake for the Court to limit the term "project formation information" to any particular set of parameters. The Court construes "projection data information" as *the data necessary to permit a particular 2D representation of a 3D model to be reproduced*.

D. *2D representation* (Claims 1, 2, 4, 5, 11, 12, 14, 15)

HP contends that the term means "a projection of one or more features of a 3D model onto a viewing plane." Intergraph states that the term means "the 2D geometric data which consists of 2D coordinates that are projections of features of a 3D model onto a viewing plane."

To support its proposed construction, HP relies upon the definition of "2D representation" provided in claim 1 of the patent-"projections of features of said objects onto a viewing plane." A similar definition is found in the patent specification. *See* '241 patent, col. 1:25-27 ("Two dimensional (2D) representations of objects are projections of object features onto a viewing plane, typically embodied in 2D drawings.").

Intergraph's proposed construction also relies heavily upon language in the specification. Specifically, Intergraph notes that the specification states that "[i]n addition to geometric elements, the 2D drawings may also contain text, dimensions and other supporting information[.]" '241 Patent, col. 1:27-29. Intergraph relies upon this language to support its conclusion that the inventors of the '241 patent explicitly defined two-dimensional representations as including geometric data, and hence the inclusion in its proposed construction of the term "2D coordinates." Interestingly, HP reads this identical language to mean only that 2D drawings may contain a number of items including "geometric elements," "text," and "dimensions."

In essence, the disagreement between the parties becomes an issue of parsing the relevant sentence. *See* '241 patent, col. 1-27:29. After evaluating each parties interpretation of the sentence, the Court concludes Intergraph's interpretation is more reasonable and is more consistent with specification language generally. Accordingly, "geometric elements" must be included in the Court's construction of 2D representation. However, Intergraph has failed to persuade the Court that the 2D geometric data must be expressed using 2D coordinates. The specification does not support such a limiting definition. Therefore, the Court construes "2D representation" as *the 2D geometric data that are projections of one or more features of a 3D model onto a viewing plane*.

II. The '208 Patent

A. *Data Objects* (Claims 8, 10, 11)

HP contends that the term means "data records and their associated manipulative programs." Intergraph states that the term means "a data record containing at least one other data record and a link to the other data

record's manipulative programs."

HP's proposed construction relies heavily on the definitions of "data objects" found in the '208 specification. The specification states that "[a] data-object is a data record that has a link to its manipulative programs." '208 Patent, col. 4:65-67. The specification also states that "each data record and its manipulative programs ... still function as a data-object." '208 Patent, col. 5:11-12. HP contends that the '208 Patent inventors clearly intended to act as a lexicographer and give express definition to the term "data objects."

Intergraph's proposed construction relies heavily upon the language in Claim 8 of the '208 Patent. Claim 8 states that a computer graphics program for designing a system includes "a plurality of data objects, each having data records representing primitive elements in said system and a plurality of manipulative programs linked to each data record ..." Based on this language, Intergraph concludes that a data object must contain multiple data records and that a "link" must exist between a data record and its corresponding manipulative program.

The Court disagrees with Intergraph's interpretation that a data object must contain more than one data record. Contrary to Intergraph's argument, this interpretation is not supported by the claim or specification language. The specification often refers to a data object as manipulative programs that are linked to a single, as opposed to multiple, data records. *See* '208 Patent, col. 1:67-68 ("... includes data objects programming in which a plurality of manipulative programs are linked to each data record...."); '208 Patent, col. 2:14-17 ("The manipulative programs linked to a particular data record contain only the coding which directly manipulate that data record."). Additionally, the Court finds that HP's attempt to read the term "link" out of the proposed construction of "data object" is unpersuasive. The specification language clearly states that "[a] data-object is a data record that has a link to its manipulative programs," '208 Patent, col. 4:65-67. Furthermore, Fig. 8B does not support HP's construction as that figure discloses a link between the data record and the manipulative programs. Therefore, the Court construes "data objects" as *data records and their linked manipulative programs*.

B. *Linked* (Claims 1, 8, 9, 10)

HP asserts that the ordinary meaning of "linked" is "associated with, related to, or connected to." *See e.g.,* Ex. 5, *Webster's Third* at 1317 (1986) (defining "link" as "to form a connection or association"). Intergraph argues that "linked" should be defined as "connected for execution by a chain of pointers."

To support its proposed construction, Defendant cites the specification and an IEEE dictionary. The 1992 IEEE dictionary describes a [data management] link as "(A) See: pointer, (B) To establish a pointer; for example, to link two items in a hierarchy." *See* Glore Decl., Ex. C4, at 726-27; *see also* '208 Patent, col. 5:7-10 ("This allows the pointer to be fetched once and used with each data record ..."). The Court recognizes that "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." Hoechst Celanese Corp. v. BP Chemicals Ltd., 78 F.3d 1575, 1580 (Fed.Cir.1996).

However, the IIEE dictionary definition urged upon the Court by Intergraph is not at odds with the dictionary definition proposed by HP. While the IIEE dictionary reference is indicative of the ordinary meaning of a claim term, the reference to pointer in the definition provided by Intergraph, when read in context, is not at odds with the definition proposed by HP. Moreover, the word "pointer" or the phrase "chain of pointers" is found nowhere in the patent claims, which instead use the broader term "link." HP

does not deny that the preferred embodiment sometimes uses the term "pointer" to refer to "links." However, the Federal Circuit's teaching on this issue is clear, "particular limitations or embodiments appearing in the specification will not be read into the claims." *Loctite Corp.,* 781 F.2d at 867. The Court finds that the more accurate construction of the term "linked" as used in the '208 Patent is that offered by HP. As such, the Court construes the term "linked" as *associated with, related to, or connected to*.

C. *High Order Commands* (Claims 1, 11)

HP suggests the following construction of "high order commands": "commands that cause the performance of operations, such as, but not limited to, 'display,' 'write,' 'erase,' or 'read,' on the designated system." Intergraph proposes the following construction of the disputed phrase: "a message that has to be parsed, and once parsed, causes the performance of a necessary operation, such as display or write, on the entire design represented by the hierarchy."

HP's proposed construction relies upon language in the preferred embodiment which states that "[a]ccess to the tree of data records is through high order commands such as those indicated at 35-38 [in Fig. 8]. These ... perform operations, such as DISPLAY and WRITE, on the entire design which the designer has laid out." '208 patent, col. 5:62-65. HP explains that software applications implementing the '208 patent will include a set of "high order commands" unique to the particular system being designed, which invoke the various operations that are conducted on the primitive elements of the designed system.

Intergraph's proposed construction relies heavily upon language in the specification. Intergraph argues that the concept of parsing the high-level programs is prevalent throughout the '208 Patent. *See e.g.,* '208 Patent, col. 5:65-67 ("Note that only these high level programs need to be parsed to interpret the character string to determine what operation is to be performed."); *see also* col. 6:4-6 ("Only the high level commands, such as 35-38, require time for the interpretation of character strings.").

Once again, Intergraph has attempted to import a limitation from the preferred embodiment into the claims. Neither the term "message" nor the term "parsed" appear anywhere in the patent claims. Therefore, Intergraph's proposed construction is simply too narrow. Likewise, HP's proposed construction also relies too heavily upon language from the preferred embodiment by using such terms as "display" and "write." Most helpful to the Court is language from the specification that states "[a] series of high order, very simple, commands operate selected manipulative programs in the hierarchy." This language appears to mirror claim 1, which states that "high order commands. operate selected manipulative programs in said hierarchy." Likewise, claim 11 states that "high order commands ... provide access to the hierarchy of data objects." Based primarily on language of claims 1 and 11, along with the cited language in the specification, the Court construes "high order commands" as *commands which provide access to selected manipulative programs which cause the performance of operations on the designed system*.

D. *Hierarchy of Primitive Elements Which Represent Said System* (Claims 1, 9)

HP contends that the disputed term is defined as "a set of primitive elements arranged in an ordered series that represents the designed system." Intergraph contends that the term is limited to "a structure representing the system, made up of primitive elements that are linked to other primitive elements in the structure, so that each primitive element has a rank based on its position in hierarchy." Thus, the essential disagreement between the parties revolves around whether the '208 patent requires that the hierarchy of primitive elements include more than one level of primitive elements.

HP states that its proposed construction is consistent with contemporaneous technical definitions of hierarchy as "a series of items classified according to a rank or order." Ex. 11, Rudolf F. Graf, *Modern Dictionary of Electronics* at 456 (6th ed.1984). HP contends that the hierarchy may be a single level of primitive elements that are operated upon in an ordered sequence, rather than through a ranked structure of higher or lower entities.

While Intergraph apparently concedes HP's definition of "hierarchy" is generally correct, it contends that the ordinary meaning of "hierarchy was supplanted by the '208 Patent specification." Intergraph states that the primary emphasis and structure of the '208 Patent is to communicate via high order commands through the hierarchy to the various "lower" elements in the design. Intergraph's argument relies primarily upon language from the preferred embodiment. *See* '208 Patent, col. 5:46-62 (describing the entire structure in terms of "high order," "medium level," and "low-level"). Thus, Intergraph concludes that the "hierarchy" described in the '208 Patent must have more than one level of items.

There is no question that the particular embodiment cited by Intergraph supports its definition of the term "hierarchy." This, however, is not enough to overcome the "heavy presumption" in favor of the ordinary meaning of "hierarchy." *See Loctite Corp.,* 781 F.2d at 867 ("Generally, particular limitations or embodiments appearing in the specification will not be read into the claims."). As cited by HP, the ordinary meaning of "hierarchy" is "a series of items classified according to a rank or order." Ex. 11, Rudolf F. Graf, *Modern Dictionary of Electronics* at 456 (6th ed.1984). This definition takes into account that a "hierarchy" may encompass multiple level systems such as that described in the embodiment of the '208 Patent (see col. 5:46-62), or single level of primitive elements that are operated upon in an ordered sequence. Accordingly, the Court construes "hierarchy of primitive elements which represent said system" as *a set of primitive elements arranged in a ranked or ordered series that represent the designed system.*

III. The '028 Patent

A. *Computer Usable Medium* (Claim 14)

HP contends that the term means "a tangible medium, such as a computer readable media (for example, diskette, CD-ROM, ROM, or fixed disk) or a medium for transmission to a computer system via a modem or other interface device using communications lines (for example, optical or analog communication lines) or wireless techniques (for example, microwave, infrared or other transmission techniques)." Intergraph contends that the term means "material on which computer readable code is recorded for use by a computer."

HP's proposed construction is taken directly from language in the embodiment of the patent. *See* '028 Patent, col. 17:11-24. HP states that the term, as used in claim 14, refers to the medium on which or through which the computer readable program code comprising the computer is delivered. HP concludes that this delivery must be through a transmission, and should include physical media and transmission media.

Intergraph offers the Court very little argument to support its proposed construction of the term. Intergraph states that the term is defined in Claim 14 as "having computer readable program code thereon." '028 Patent, col. 19:10-11. Intergraph also directs the Court to a portion of the specification that provides that "the system may be implemented as a computer program product for use with a computer system. Such implementation may include a series of computer instructions fixed either on a tangible medium such as a computer readable media ... or transmittable to a computer system." '028 Patent, col. 17:12-18.

HP argues that Intergraph's proposed construction merely states what the computer usable medium contains-"computer readable code thereon." The Court agrees. Intergraph's proposed construction does not help explain the function or characteristics of the "computer usable medium." It is important to note that both parties direct the Court to a particular section of the specification-col. 17:12-18. It is well accepted that the specification can act as a dictionary when it expressly or impliedly defines terms used in the claims. In col. 17:13-23, it appears that the patentee has acted as a lexicographer and the Court will respect the meaning given to "computer usable medium" found therein. Therefore, the Court construes "computer usable medium" as *a tangible medium, such* as *a computer readable media (for example, diskette, CD-ROM, ROM, or fixed disk) or a medium for transmission to a computer system via a modem or other interface device using communications lines (for example, optical or analog communication lines) or wireless techniques (for example, microwave, infrared or other transmission techniques).*

B. *Web Browser* (Claims 1, 8, 14, 20, 26, 32, 38, 43, 48)

HP argues that the ordinary meaning of web browser is "software that can be used to retrieve information over a network, including, but not limited to, the Internet." Intergraph contends that the term should be defined as "a program within a client computer that utilizes Hypertext Transfer Protocol ("HTTP") to request services from a remote server connected via the Internet."

HP asserts that its proposed construction is consistent with the definitions found in technical dictionaries available at the time the '028 Patent was issued. *See* Ex. 19, Peter M B Walker, *Chambers Dictionary of Science and Technology* at 149 (1999) (defining "browser" as "Software used to retrieve information from the Internet ... or other network"); *see also* Ex. 20, *Dictionary of Computing* at 54 (4th ed. 1996) ("The term browser is used either to refer to a person who is browsing, or to the utility program that allows the user to locate and retrieve information from networked information services."). HP contends that the term "web browser" and "browser" are used interchangeably throughout the '028 Patent, and thus the ordinary meaning of "browser" should control the Court's construction.

Intergraph supports its proposed construction by citing language from the specification. Specifically, the specification provides that "the World Wide Web is a collection of servers on the Internet that utilize the Hypertext Transfer Protocol (HTTP)." '028 Patent, col. 1:23-24. The specification further states that "each local computer system may access the remote web sites with web browser software ..." '028 Patent, col. 3:56-57. Based on this language, Intergraph concludes that the term "web browser" must imply use of the Internet.

The parties dispute over the proper construction of "web browser" stems from the central disagreement between the parties with regards to the '028 patent-does the '028 patent have applicability to other networks besides the Internet? The Court's analysis must begin with the proposition that disputed terms in a claim "are generally given their ordinary and customary meaning." Vitronics, 90 F.3d at 1582. The Court agrees with HP, based on the provided dictionary definitions, that the term "browser" can be used to retrieve information over a network other than the Internet. The Court also agrees with HP's argument that the patent uses the terms "browser" and "web browser" interchangeably. *Compare* '028 Patent, col. 5:23 *with* col. 5:34-35 (referring to "browser 200" and "web browser 200," respectively). During oral argument, Intergraph argued that the patent's file history conclusively establishes that the invention was limited to internet applications. However, after reviewing the file history, the Court cannot agree with Intergraph that the patentee intended to limit the claim scope in this manner. *See* Inverness Med. Switz. GmbH v. Princeton Biomeditech Corp., 309 F.3d 1365, 1372 (Fed.Cir.2002) (statements made during prosecution history were

not a clear and unambiguous disclaimer of a claim scope). Finally, Intergraph argues that upon examining the diagrams of the preferred embodiments, it appears that whenever a client computer is connecting to a remote server, the Internet is being used. However, the Court should not "limit[ ] the claimed invention to preferred embodiments or specific examples in the specification." Ekchian, 104 F.3d at 1303. Accordingly, the Court adopts HP's proposed construction that defines "web browser" as *software that can be used to retrieve information over a network, including, but not limited to, the Internet*.

C. Server Remote From the Client Computer System (Claims 1, 8, 14)

HP proposes that this term be construed as "a computer or a program that can be connected to a network and that can respond to requests from one or more client computer systems and that is located at a distance from the client computer." Intergraph contends that the proper construction of the term is "a computer that responds to requests from the client computer system via the Internet." Once again, the parties disagreement focuses on whether the definition of a contested term incorporates the use of the Internet.

HP argues that its proposed construction is consistent with the ordinary meaning that the term would have to those of ordinary skill in the art. HP directs the Court to the following language in the specification: "Client computer 300 also includes a network adaptor 390 that allows the client computer 300 to be intercepted to a network 395 via a bus 391. The network 395, which may be a local area network (LAN), a wide area network (WAN), or the Internet, may utilize general purpose communication lines that interconnect a plurality of network devices." '028 Patent, col. 3:44-49. Based on this language, HP concludes that the client computer system and remote server are not restricted to the Internet.

Intergraph argues that the term "network" is used interchangeably with the term "Internet." Intergraph illustrates this point by stating that the figure number 395 assigned to designate "Internet" has been used to denote the term "network" in a number of figures. *See* Figs. 1, 2, 15 R.I. 243, 3 A., 3B, 3C, and 9. Intergraph also notes that Fig. 13 clearly depicts a client computer that is enabled to transmit a request to access and download a web page from the Internet.

HP concedes, as it must, that the Internet is obviously one example of a network that can be used with the systems of the '028 Patent. Indeed, the preferred embodiments of the patent often use the Internet as the "network" connection in the designed system. However, as previously noted, the Court should not "limit[ ] the claimed invention to preferred embodiments or specific examples in the specification." Ekchian, 104 F.3d at 1303. As noted by HP, the claims of the patent consistently use the word "network," and not "Internet." Therefore, Intergraph's attempt to limit the claims to server requests "via the Internet" is ultimately unpersuasive. The Court construes "server remote from the client computer system" as *a computer that responds to requests from the client computer system through a network connection*.

D. Means-Plus-Function Limitation

A "means-plus-function" claim is a special type of claim provided for in 35 U.S.C. s. 112, paragraph 6, which provides:

An element in a claim for a combination may be expressed as a means or a step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

35 U.S.C. s. 112, para. 6. Under this provision, an inventor can describe an element of the invention by the result accomplished or the function served, rather than by describing the item or element to be used. Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co., 520 U.S. 17, 27, 117 S.Ct. 1040, 137 L.Ed.2d 146 (1997). When using means-plus-function language, "[t]he applicant must describe in the patent specification some structure which performs the specified function." Valmont Industries, Inc. v. Reinke Manufacturing Co., Inc., 983 F.2d 1039, 1042 (Fed.Cir.1993). A structure disclosed in the specification is only deemed to be "the corresponding structure" if the specification clearly links or associates that structure to the function recited in the claim. Kahn v. General Motors Corp., 135 F.3d 1472, 1476 (Fed.Cir.1998). The duty to link or associate structure in the specification with the function is the quid pro quo for the convenience of employing the means-plus-function format. *Id*.

An accused device with a structure that is not identical to the structure described in the patent will literally infringe the patent if the accused device performs the identical function required by the means-plus-function claim with a structure identical or equivalent to that described in the patent. Cybor Corp. v. FAS Technologies, Inc., 138 F.3d 1448, 1457 (Fed.Cir.1998) (en banc); Kahn, 135 F.3d at 1476. "Thus, the statutory provision prevents an overly broad construction by requiring reference to the specification, and at the same time precludes an overly narrow construction that would restrict coverage solely to those means *expressly* disclosed in the specification." Symbol Technologies, Inc. v. Opticon, Inc., 935 F.2d 1569, 1575 (Fed.Cir.1991) (citations omitted).

In this case, the parties agree that the disputed terms are written in means-plus-function format. The parties also generally agree regarding the functions being performed in the disputed claims. The parties disagree, however, with respect to the determination of corresponding structures.

1. Means for Intercepting a Browser Request to Access the Document (Claim 8)

HP states that the function for this claim term is "intercepting a browser request to access the document." Intergraph states that the proper function recited for this term is "intercepting a browser request." Since there is essentially no disagreement between the parties regarding the proper function of this claim term, the Court adopts HP's proposed construction.

HP contends that the corresponding structure for this claim term is "hardware and/or software in the client computer system, including an interceptor 394." Intergraph asserts that the corresponding structures are "hardware and software in the client computer system, comprising an interceptor 394, URL, browser 200, and network stack 393."

To support their respective contentions, HP and Intergraph both refer to the specification, which states: "FIG. 3C shows a preferred embodiment of the system. Specifically, an interceptor 394 is added to the client computer 300 to intercept transmissions between the browser 200 and the network stack 393. Such transmissions may be a request by the browser 200 to access a web page on a remote server." '028 Patent, col. 4:23-26.

In identifying the corresponding structure set forth in the written description that performs the particular function set forth in the claim, the Court must not "permit incorporation of structure from the written description beyond that necessary to perform the claimed function." Micro Chem., Inc. v. Great Plains Chem. Co., 194 F.3d 1250, 1257-58 (Fed.Cir.1999). "Structural features that do not actually perform the recited function do not constitute corresponding structure and thus do not serve as serve as claim

limitations." Asyst Tech., Inc. v. Empak, Inc., 268 F.3d 1364, 1370 (Fed.Cir.2001); *see also* B. Braun Med., Inc. v. Abbott Labs., 124 F.3d 1419, 1424 (Fed.Cir.1997) ("[S]tructure disclosed in the specification is 'corresponding' structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim.").

Here, the corresponding structure of the disputed term is the interceptor 394, browser 200, and the network stack 393. *See* '028 Patent, col. 4:25-27. The Court does not agree with Intergraph's assertion that a URL is a necessary element in performing the function of intercepting a browser request to access a document. The specification does not mention "URL" until (or if) the client computer is connected to the network, and therefore the "URL" is not clearly linked to the function of the disputed claim. *See* '028 Patent, col. 4:38-40.

2. *Means For Ascertaining if the Client Computer is Connected to the Network* (Claim 8)

HP and Intergraph agree that the function for this claim term is "ascertaining if the client computer is connected to the network," HP contends that the corresponding structure for this claim term is "hardware and/or software on the client computer system, including an interceptor 394, a mechanism for ascertaining if the client computer 300 is connect[ed] to the network 395." HP also asserts that the interceptor 394 may include a redirector 1400 and a connection manager 1402 for determining if the client computer 300 is connected to the network 395. Intergraph states that the corresponding structures are the "interceptor 394, a redirector 1400, a connection manager 1402/1502, client computer system 300, remote server 100, and Internet 295/395." Thus, the parties disagreement focuses on whether the Internet 295/395 is a necessary structure to perform the function of ascertaining the status of the client computer 300's connection to the network 395.

The Court does not agree with Intergraph's assertion that the Internet is a necessary structure to perform the function of "ascertaining if the client computer is connected to the network." Intergraph wants the Court to assume that the "network 395" must be analogous to "the Internet." However, neither the specification or FIG. 3C mention the term "Internet." Since the "Internet 295" is not clearly linked or associated that with the function recited in the claim, it cannot be considered a corresponding structure. The Court construes the corresponding structures of the recited function as *the interceptor 394, a redirector 1400, a connection manager 1402/1502, client computer system 300, remote server 100, and Network 395*.

3. Means for Determining, From the Browser Request, the Address of the Copy of the Document in the Client Computer System When the Client Computer System is Not Connected to the Network (Claim 8)

HP states that the function for this claim term is "determining, from the browser request, the address of the copy of the document in the client computer system." Intergraph states that the proper function recited for this term is "for determining, from the browser request, the address of the copy of the document in the client computer system when the client computer system is not connected to the network." The Court adopts Intergraph's proposed function of the claim term as it more accurately tracks the language of the specification.

HP contends that the corresponding structure for this claim term is software and hardware on the client computer system, including a mechanism for locating a document in the memory of the client computer 300 if the document has already been downloaded to the RAM 310, diskette drive 342, CD ROM drive 347, or the fixed disk drive 352 with client computer 300. HP states that the mechanism for locating a document in the memory of the client computer operates using the directory creating and accessing process as depicted in

FIGs. 7C, 7D, and 7E. HP also asserts that certain embodiments described in the '028 Patent have corresponding structure that include a redirector 1400 and mapping table 1406. Intergraph agrees with HP's proposed corresponding structures, but also adds the corresponding structure interceptor 394.FN3

FN3. Intergraph terms some corresponding structures differently; *e.g.* diskette drive 341, CD ROM drive 346 and/or fixed disk drive 351.

HP's attempt to not include "interceptor 394" as a corresponding structure is ultimately unpersuasive. The specification clearly states that the "interceptor 394" plays an essential role in determining if the client computer 300 is connected to the network 395. *See* '028 Patent, col. 4:22-37. It appears from the specification that the interceptor 394 responsively ascertains whether the local computer is connected to a network and, if disconnected, locates the document in the local computer system. This step must take place before the disputed function can take place. Thus, the interceptor 394 is necessary to perform the disputed function. Therefore, the Court construes the corresponding structures of the recited function as *the interceptor 394, client computer 300, RAM 310, diskette drive 342, CD ROM drive 347, or the fixed disk drive 352 with client computer 300 a redirector 1400, and a mapping table 1406*.

4. Means for Retrieving, When the Client Computer System is Not Connected to the Network, the Copy of the Document in the Client Computer System (Claim 8)

HP states that the function for this claim term is "retrieving the copy of the document in the client computer system." Intergraph states that the proper function recited for this term is "for retrieving, when the client computer is not connected to the network, the copy of the document in the client computer system." The Court adopts Intergraph's proposed function for this claim term as it, once again, more accurately tracks the language of the specification.

The parties disagreement once again regards whether the Interceptor 394 is a corresponding structure for this claim term. HP contends that the corresponding structure for this claim term is identical to the term (# 3) just discussed, including software and hardware on the client computer system, including a mechanism for locating a document in the memory of the client computer 300 if the document has already been downloaded to the RAM 310, diskette drive 342, CD ROM drive 347, or the fixed disk drive 352 with client computer 300. HP states that the mechanism for locating a document in the memory of the client computer operates using the directory creating and accessing process as depicted in FIGs. 7C, 7D, and 7E. HP also asserts that certain embodiments described in the '028 Patent have corresponding structure that include a redirector 1400 and mapping table 1406. Intergraph agrees with HP's proposed corresponding structures, but also adds the corresponding structure interceptor 394.FN4

FN4. Intergraph terms some corresponding structures differently; *e.g.* diskette drive 341, CD ROM drive 346 and/or fixed disk drive 351.

The Court again agrees with Intergraph's proposed construction and refers the parties to the preceding discussion in Section 3. Accordingly, the Court construes the corresponding structures of the recited function as *the interceptor 394, client computer 300, RAM 310, diskette drive 342, CD ROM drive 347, or the fixed disk drive 352 with client computer 300 a redirector 1400, and a mapping table 1406*.

CONCLUSION

For the foregoing reasons, the Court construes the disputed terms as discussed above.

IT IS SO ORDERED.

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Hewlett-Packard Co. v. Intergraph Corp.

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