

United States District Court,
E.D. Texas, Marshall Division.

CHARLES E. HILL ASSOC., INC,

v.

AMAZON.COM.

No. Civ.A. 2:02-CV-186

Oct. 7, 2005.

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MEMORANDUM OPINION AND ORDER

WARD, J.

The court issues this memorandum opinion and order to resolve the parties' various claim construction disputes.

1. Introduction.

The plaintiff, Charles E. Hill & Assoc., Inc. ("Hill"), asserts various claims of three patents against defendants, operators of Internet-based shopping sites. The patents, related as parent, child, and grandchild,

include United States Patent No. 5,528,490 ("the '490 patent"), United States Patent No. 5,761,649 ("the '649 patent") and United States Patent No. 5,604,142 ("the '142 patent"). Before the court construes the terms in dispute, the court will provide an overview of the technology at issue and discuss the pertinent claim construction principles.

2. Overview of the Technology.

The technology at issue in this case has been described in various Federal Circuit and district court decisions. *See* Charles E. Hill & Assocs., Inc. v. CompuServe Interactive Services, Inc., 33 Fed. Appx. 527 (Fed.Cir.2002); Charles E. Hill & Assocs., Inc. v. CompuServe, Inc., 65 F.Supp.2d 924 (S.D.Ind.1999); *Charles E. Hill & Assocs., Inc. v. CompuServe, Inc.*, IP 97-0424-C-M/S, (S.D.Ind. August 29, 2003)(Order on Claim Construction); *Charles E. Hill & Assocs., Inc. v. CompuServe, Inc.*, IP 97-0434-C-M/S (S.D.Ind. September 26, 2003)(Order on Defendants' Motion for Summary Judgment of Noninfringement). The patents-in-suit relate to an electronic catalog system and method and share essentially the same specifications.

In general, the '490 patent describes an electronic catalog system that uses software on both the customer's and vendor's computer to provide the customer with updated catalog information each time the system is used. The Federal Circuit has described the invention of the '490 patent as using two types of data: "variable data" and "constant data." Variable data is data that is stored on the vendor's computer and which can change at any time. Constant data is stored on both the customer's and the vendor's computer. Constant data changes less frequently, and when it does, the updated version is assigned a revision number. A customer seeking information about a particular product in the catalog selects the product from a list on the customer's computer. Software on the customer's computer causes the system to compare the revision status of the constant data on the customer's computer with the revision status of the constant data on the vendor's computer. If the constant data is outdated, the vendor's computer automatically updates it. After the updating, the vendor's computer transmits the variable data related to the selected product to the customer's computer, along with instructions that allow the customer's computer to integrate the constant and variable data. The customer's updated constant data and the incoming variable data are combined to create a data sheet containing the most current information about the desired product.

The '649 and '142 patents issued from applications in the direct line of the '490 patent. In general, the claims of the '649 patent involve accessing product information data by storing product data, including graphics data and textual data related to a plurality of products in a memory of a main computer. The '649 patent claims require the storage of a subset of product data, including graphics data, at a remote computer. A user selects one product at the remote computer, and the remote computer transmits a data request query to the main computer, which uses the query to identify a second subset of product data including graphics and textual data stored in memory of the main computer. The main computer transmits the textual data and updated graphics data to the remote computer and combines the data at the remote computer so it may be displayed as complete product information at the remote computer.

The '142 patent claims an apparatus and method for displaying product information data. The '142 patent claims use constant and variable data to create updated product information at a remote computer, and they involve the transmission of display information from the main computer to the remote computer. The display information indicates a format of the variable data and a display location of the constant data relative to the variable data. The complete product information is displayed on a monitor coupled to the remote computer.

3. Legal Principles Governing Claim Construction.

"A claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using or selling the protected invention." *Burke, Inc. v. Bruno Indep. Living Aids, Inc.*, 183 F.3d 1334, 1340 (Fed.Cir.1999). Claim construction is an issue of law for the court to decide. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970-71 (Fed.Cir.1995) (en banc), *aff'd*, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996).

To ascertain the meaning of claims, the court looks to three primary sources: the claims, the specification, and the prosecution history. *Markman*, 52 F.3d at 979. Under the patent law, the specification must contain a written description of the invention that enables one of ordinary skill in the art to make and use the invention. A patent's claims must be read in view of the specification, of which they are a part. *Id.* For claim construction purposes, the description may act as a sort of dictionary, which explains the invention and may define terms used in the claims. *Id.* "One purpose for examining the specification is to determine if the patentee has limited the scope of the claims." *Watts v. XL Sys., Inc.*, 232 F.3d 877, 882 (Fed.Cir.2000).

Nonetheless, it is the function of the claims, not the specification, to set forth the limits of the patentee's claims. Otherwise, there would be no need for claims. *SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed.Cir.1985) (en banc). The patentee is free to be his own lexicographer, but any special definition given to a word must be clearly set forth in the specification. *Intellicall, Inc. v. Phonometrics*, 952 F.2d 1384, 1388 (Fed.Cir.1992). And, although the specification may indicate that certain embodiments are preferred, particular embodiments appearing in the specification will not be read into the claims when the claim language is broader than the embodiments. *Electro Med. Sys., S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 1054 (Fed.Cir.1994).

This court's claim construction decision must be informed by the Federal Circuit's recent decision in *Phillips v. AWH Corporation*, 415 F.3d 1303, 2005 WL 1620331 (Fed.Cir. July 12, 2005)(en banc). In *Phillips*, the court set forth several guideposts that courts should follow when construing claims. In particular, the court reiterated that "the *claims* of a patent define the invention to which the patentee is entitled the right to exclude." 415 F.3d 1303, 2005 WL 1620331 at *4 (emphasis added)(*quoting* *Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111, 1115 (Fed.Cir.2004)). To that end, the words used in a claim are generally given their ordinary and customary meaning. *Id.* at *5. The ordinary and customary meaning of a claim term "is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e. as of the effective filing date of the patent application." *Id.* This principle of patent law flows naturally from the recognition that inventors are usually persons who are skilled in the field of the invention. The patent is addressed to and intended to be read by others skilled in the particular art. *Id.*

The primacy of claim terms notwithstanding, *Phillips* made clear that "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." *Id.* Although the claims themselves may provide guidance as to the meaning of particular terms, those terms are part of "a fully integrated written instrument." *Id.* at ----6-7 (*quoting* *Markman*, 52 F.3d at 978). Thus, the *Phillips* court emphasized the specification as being the primary basis for construing the claims. *Id.* at ----7-8. As the Supreme Court stated long ago, "in case of doubt or ambiguity it is proper in all cases to refer back to the descriptive portions of the specification to aid in solving the doubt or in ascertaining the true intent and

meaning of the language employed in the claims." *Bates v. Coe*, 98 U.S. 31, 38, 25 L.Ed. 68 (1878). In addressing the role of the specification, the *Phillips* court quoted with approval its earlier observations from *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed.Cir.1998):

Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction.

Consequently, *Phillips* emphasized the important role the specification plays in the claim construction process.

The prosecution history also continues to play an important role in claim interpretation. The prosecution history helps to demonstrate how the inventor and the PTO understood the patent. *Phillips*, 415 F.3d 1303, 2005 WL 1620331 at *9. Because the file history, however, "represents an ongoing negotiation between the PTO and the applicant," it may lack the clarity of the specification and thus be less useful in claim construction proceedings. *Id.* Nevertheless, the prosecution history is intrinsic evidence. That evidence is relevant to the determination of how the inventor understood the invention and whether the inventor limited the invention during prosecution by narrowing the scope of the claims.

Phillips rejected any claim construction approach that sacrificed the intrinsic record in favor of extrinsic evidence, such as dictionary definitions or expert testimony. The *en banc* court condemned the suggestion made by *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed.Cir.2002), that a court should discern the ordinary meaning of the claim terms (through dictionaries or otherwise) before resorting to the specification for certain limited purposes. *Id.* at ---13-14. The approach suggested by *Texas Digital*-the assignment of a limited role to the specification-was rejected as inconsistent with decisions holding the specification to be the best guide to the meaning of a disputed term. *Id.* According to *Phillips*, reliance on dictionary definitions at the expense of the specification had the effect of "focus[ing] the inquiry on the abstract meaning of words rather than on the meaning of the claim terms within the context of the patent." *Id.* at *14. *Phillips* emphasized that the patent system is based on the proposition that the claims cover only the invented subject matter. *Id.* What is described in the claims flows from the statutory requirement imposed on the patentee to describe and particularly claim what he or she has invented. *Id.* The definitions found in dictionaries, however, often flow from the editors' objective of assembling all of the possible definitions for a word. *Id.*

Phillips does not preclude all uses of dictionaries in claim construction proceedings. Instead, the court assigned dictionaries a role subordinate to the intrinsic record. In doing so, the court emphasized that claim construction issues are not resolved by any magic formula. The court did not impose any particular sequence of steps for a court to follow when it considers disputed claim language. *Id.* at *16. Rather, *Phillips* held that a court must attach the appropriate weight to the intrinsic sources offered in support of a proposed claim construction, bearing in mind the general rule that the claims measure the scope of the patent grant. The court now turns to a discussion of the claim construction disputes.

4. Terms in Dispute.

1. Graphics data

Although Hill contends that this term needs no construction, the defendants point to the specification and

contend the term means "displayable data in a .BID format." The defendants reference an example in the specification under the description of a preferred embodiment-'490 patent col. 20, ll. 19-20. ("[t]he display files must be in one of two forms, either graphical ([File].BID) or textual ([File].TXT"). The court rejects this narrow construction of the term "graphics data." The court defines the term "graphics data" as "data related to computer-generated pictures produced on a screen. Graphics range from simple line or bar graphs to colorful and detailed images."

2. Textual data

Again, Hill contends the term needs no construction. The defendants contend that this term means "displayable data in a .TXT format." The defendants rely on the same passage as in the previous term to arrive at this definition. The court construes "textual data" as "data related to computer-generated words, letters, or numbers produced on a screen."

3. Revision level

The '490 patent includes limitations which require the storage of a "revision status" which indicates the "revision level" of programs or data stored on the main computer and the remote computer. Hill contends the term "revision level" needs no construction. The defendants contend that the term means "a step on an incremental scale that identifies the order and number of changes made." The argument is that the definition of "level" suggest a relative position or a position in any scale. The defendants also point to the specification at col. 18, ll. 47-59, wherein the patent uses the use of an integer system for identifying each incremental update and the file names affected. The specification explains more generally in the context of constant data, that "[t]his revision level indicates which portions of the constant data have been updated." '490 patent, col. 5, ll. 48-50.

Although the specific example in the preferred embodiment uses an integer system, as Judge McKinney observed, the revision level appears to contemplate a type of designation that indicates the version of the data or program that has been changed. After considering the parties' arguments, the court construes "revision level" as "a designation which indicates the version of the data or program which has been changed."

4. Updating

The next group of terms in dispute are the "updating" limitations. Various claims of the patents in suit require the "updating" of certain data. The parties dispute whether all of the claims require the transmission of "only" updated data and whether the claims require the transmission of "all" updated data.

The language of the claims does not, standing alone, compel the limitations sought by the defendants. With respect to the term "only," claim 1 of the '490 patent uses the phrase "updating constant data stored in the memory of the remote computer with constant data maintained in the memory of the main computer that is different from the constant data stored in the memory of the remote computer." '490 patent, claim 1. By contrast, claim 1 of the '649 patent uses the phrase "transmitting only updated graphics data from the second subset of product data that is different from the graphics data in the first subset of product data from the main computer to the remote computer." '649 patent, claim 1.

Despite the claim language, during the prosecution of both the '490 patent and the '142 patent, the applicant emphasized that his invention was patentable over the prior art because the system transmitted "only" the

updated constant data to the remote computer. To illustrate, the applicant urged, in the context of the '142 patent, that the invention was distinguishable over the Yaksich reference because "[t]he present invention transmits only the updated or different portions of the constant data to the remote computer. " '142 patent, Response Paper 6, mailed June 1, 1999, at 4. As such, the patentee urged that the invention (including limitations relating to updating constant data) involved systems or methods which transmitted only the updated constant data from the main computer to the remote computer. The court agrees with the defendants that the updating limitations should be construed in light of the statements in the prosecution history. The statements must, however, be read in context. What the patentee appears to have been arguing was that only updated constant data (as opposed to all of the constant data) would be transmitted to the remote computer. As such, the court construes these limitations to mean that "the updated constant data is transmitted from the main computer to the remote computer without the transmission of the constant data which has not been updated."

Next, the parties dispute whether the claims require the transmission of all of the updated data. The defendants rely on language from Judge McKinney's claim construction opinion which suggests that the claims and specification require that whenever updated data is transmitted to the remote computer, the patents require that "all" of the updated files be transmitted to the remote computer, absent an express indication in the claim language to the contrary. Despite some of the language of Judge McKinney's opinion, he did not import the limitation of "all" into the definition of "updating." It is true that he suggested that "all" might be required in the context of a construction of some of the claims; however, to this court's knowledge, he did not ever adopt that construction. Given that Judge McKinney did not adopt this construction, it is this court's view that importing the limitation of "all" into the definition of updating would be improper. The language of the claims does not require this limitation, and the court rejects it.

5. First subset of product data/second subset of product data

These terms appear in the '649 patent. The defendants contend that, under the disclosure of the patent, the term "first subset of product data" refers to "the portion of product data that is constant data related to the plurality of products." With respect to "second subset of product data," the defendants contend that the term means "the portion of product data that is variable data and updated constant data." Although the defendants have proposed modified definitions, the dispute is whether the first subset of product data must necessarily include constant data and whether the second subset must include both updated constant data and variable data.

Principally, the defendants rely on the Federal Circuit's description of the invention of the '490 patent to presuppose two distinct categories of data-variable and constant, based on the frequency with which the data is likely to change. The defendants thus argue that a division of data into different sets necessarily implies a division into either variable or constant data sets. According to the defendants, nothing in the specification or file history teaches a division of data into sets on any basis other than the frequency of change. According to the defendants, any other construction would lead to an invalidity challenge, because the applicant introduced new matter to the '649 application.

Despite the defendants arguments to the contrary, the court rejects their proposed construction. The plain language of the claims does not import any requirement that the "first subset of product data" include at least some "constant data" and likewise does not compel the conclusion that the "second subset of product data" must contain the variable data and the updated constant data. Moreover, the doctrine of claim differentiation strongly counsels against the defendants' argument, as claim 16 of the '649 patent expressly

requires the step of "storing a first subset of product data *including constant data* related to at least one of the plurality of products in a memory of the remote computer." (emphasis added). The language of the claims of the '649 patent does not require the limitations sought by the defendants, and the court rejects them. Without expressing any opinion on the new matter argument, the court concludes that the terms "first subset of product data" and "second subset of product data" need no construction.

6. Data request query

The next term for construction is "data request query." "Data request query" appears in the '649 patent. The defendants argue that "data request query" is a term of art. The defendants contend that it means, in the context of the patent, a "statement for extracting data from a database without providing customer access to browse through data on the main computer." The first part of the definition "statement for extracting data from a database" is the defendants' proposed definition for *query*. The second half of the definition, "without providing customer access to browse through data on the main computer," is derived from the prosecution history. During prosecution, the patentee stated:

In the method of the present invention, only a data request query is transmitted from the remote computer to the main computer. The customer at the remote location does not have access to the vendor's computer system to browse through data on the main computer.

'649 patent, Amendment and Reply, Paper 10, July 2, 1996. The court is not persuaded that the defendants' requested limitation is called for by the cited portion of the prosecution history. Read in context of the patent, it appears that the applicant was addressing the automatically establishing/automatically disconnecting features of the patented invention, not the characteristics of the data request query. These features are claimed in dependent claims of the '649 patent. The court defines "data request query" as "a request for information from a database."

7. Selecting a product from the memory of the remote computer

There are three limitations written in similar terms. These are referred to collectively as the "selecting limitations." The plaintiff contends that the terms need no construction. The dispute concerning these terms is similar to the one raised above with respect to data request query. The defendants contend that the court should limit the terms with the phrase "without the customer browsing the vendor's main computer memory to select product information." In addition, the defendants contend that the selection of a product must be from those stored on the remote computer.

Although the defendants' position has some force in light of statements made in the prosecution history and the specification, the court agrees with the plaintiff that the relevant claim language requires only that selecting occur from products stored in memory at the remote computer and that the selection must occur at the remote computer. In the '490 patent, the relevant language of claims 2 and 15 require "selecting a product *from the memory* of the remote computer." (emphasis added). Likewise, in the '649 patent, the relevant language of claims 1, 8, and 16 require "selecting at least one product *at the remote computer*." (emphasis added). There is nothing in the claim language which necessarily precludes or disavows coverage of a system which permits the customer to browse main computer memory before or after making a product selection, so long as the claim limitations are otherwise met.

The defendants cite to portions of the specification and, more specifically, to the prosecution history to support their position. When the patentee makes clear and unmistakable arguments during prosecution

limiting the meaning of a claim term in order to overcome a rejection, the courts limit the relevant claim term to exclude the disclaimed matter. *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1324 (Fed.Cir.2003) ("[W]here the patentee has unequivocally disavowed a certain meaning to obtain his patent, the doctrine of prosecution disclaimer attaches and narrows the ordinary meaning of the claim congruent with the scope of the surrender."); *Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448, 452 (Fed.Cir.1985) ("[T]he prosecution history (or file wrapper) limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance."). The touchstone, however, is that there must be a clear and explicit disavowal of claim scope. The court discerns none from the cited portions of the prosecution history. Moreover, although the Summary of the Invention explains that "[t]he customer's computer automatically connects itself to the vendor's computer and automatically requests the needed information *only after* the desired product has been selected from data on the customer's computer," '490 patent, col. 2, ll. 52-55 (emphasis added), this passage does not amount to a disavowal of claim scope with respect to the selecting limitations. It is true, as the defendants argue, that these passages describe some features of the claims; however, the statements do not amount to clear and explicit disclaimers of claim scope such that the negative limitation proposed by the defendants is appropriate. This is not to say that the selection of product may be performed directly from the vendor's main computer memory. The language of the claims plainly requires that the selection be from products "from the memory of the remote computer," '490 patent, claim 2, or "at the remote computer," '649 patent, claim 1. Under both scenarios, the product selection must be from products stored in memory on the remote computer.

8. Automatically connecting the remote computer to the main computer/automatically establishing a data link between the remote computer and the main computer/automatically disconnecting

Hill contends that the first of these terms need not be defined. With respect to the second phrase, which uses the term "data link," Hill contends that the term means "automatically establishing a communication link suitable for transmission of data between the remote computer and the main computer." For their part, the defendants define the first two terms consistently-"originating, without human intervention, a physical link between the remote and main computers, including logging on the main computer."

The court agrees with Hill that the first two terms should not be construed consistently. The reference to "connecting" is broader than the reference to "establishing a data link." The court does not believe, moreover, that the words "connecting" or "disconnecting" need construction. The court agrees, however, with the defendants that under Hill's own dictionary definitions, the term "automatically" refers to the concept of initiating a connection "without human intervention." The specification is consistent with this view, as it describes an invention in which software controls the connection and disconnection features. Therefore, the court construes "automatically connecting" and "automatically disconnecting" to mean "connecting, without human intervention" and "disconnecting, without human intervention," respectively.

With respect to the term "data link," the court is persuaded that the term "data link" refers to the physical communications link. The court rejects Hill's arguments that the use of the words "physical link" in the definition suggests that the data link would exclude wireless communications links. One of skill in the art would recognize otherwise. The court also rejects the defendants' efforts to impose a "log on" limitation to the definition of "connecting." The court therefore defines data link to mean "the physical connection through which information is transmitted from one device to another."

9. Map

The next disputed term is the "map" limitation. In the context of the claims, the vendor's computer generates a map which tells the remote computer how to arrange the data. The plaintiff proposes a construction for this term to mean "instructions to integrate or combine data on the remote computer." The defendants define map to mean "[a]n ASCII text file that includes (1) X and Y coordinates of the lower left corner and (2) X and Y coordinates of the upper right had corner for each collection of text and/or graphics data for display." The plaintiff disputes the definition proposed by the defendants as incorporating too many limitations from the preferred embodiment. The defendants urge that the patentee explicitly defined map in the '490 patent, col. 20, ll. 15-18, as they have defined it.

Although column 20, ll. 15-18 provides a definition of the preferred embodiment of the map file, the court is not convinced that the details of this example should be read into the claims as limitations. Instead, in the context of the claims, the term "map" means "instructions to integrate or combine data on the remote computer which establish the relative positions of, or the spatial relations or distributions of data to be displayed on the remote computer."

10. Transmitting the variable data and display information from the main computer to the remote computer, the display information indicating a format of the variable data and a display location of the constant data relative to the variable data.

These limitations appear in claims 1 and 21 of the '142 patent. Hill contends that this phrase need not be defined. The defendants contend that this phrase means "sending the variable data and a map from the main computer to the remote computer, the map specifying the layout of the variable data (including X-Y coordinates) and the placement of the constant data in connection to the variable data." Hill disputes this definition and urges the court not to read in the word *map* (and its definition) into the definition of the "transmitting variable data and display information" clause. The plaintiff points out that certain dependent claims of the '142 patent (12 and 32) each recite that the "display information provides a scale factor and a positional offset for the constant data and the variable data which are used to generate the product information data during the integrating step." According to Hill, the defendants' argument moots these dependent claims by resulting in a construction of the independent claims which is actually more narrow than the dependent claims. The court agrees with Hill. These limitations need no construction other than that previously provided by the court and/or agreed to by the parties. In particular, the court declines the defendants' invitation to read in a "map" limitation to all of the asserted claims because to do so would essentially render dependent claims 12 and 32 redundant.

11. Main computer/vendor's main computer

The court construes the terms "main computer" and "vendor's main computer" to mean "the vendor's computing device."

12. Program

The court defines "program" as a "series of instructions that will cause a computer to process data." The court declines to require that the program be capable of being loaded and executed independently of other programs.

13. Identification data

The identification data terms relate to features of the invention that enable the system to guard against

software piracy. Hill contends that no construction is necessary. The defendants contend that the patent contains an explicit definition of the term "identification data." They point to the detailed description of the drawings section of the '490 patent wherein it states:

In the validation process, the identification data sent by customer's computer 18 *must contain both a serial number and a revision level* that matches the validation data file stored in the validation data file on vendor's computer 12.

'490 patent, col. 13, ll. 57-60 (emphasis added). Under this passage in the specification, the defendants contend that the term "identification data" means "data containing both a serial number and a revision level that matches the validation data stored in the validation data file on vendor's computer."

In the patent, the specification refers to a software registration and serialization process through which the customers of a vendor are provided with a copy of special purpose software on a diskette. '490 patent, col. 9, ll. 57-60. When customers install the software, they register and download a serialized copy of the catalog software from the vendor's computer. '490 patent, col. 9, ll. 60-62. When a customer logs on in the future, the serial number aids in validating a particular customer's request to the vendor's computer because the serial number indicates which particular copy of the software is asking for updated data. See '490 patent, col. 13, ll. 32-col. 14, ll. 21. Identification data thus indicates both the revision level of the software on the remote computer as well as the particular copy of the software installed on the remote computer. As such, the court construes the term "identification data" to mean "data which identifies both the revision level of the software and the particular copy of the software installed on the remote computer."

14. Storing

The plaintiff contends that "storing" means "recording in a storage device so that data can be obtained as needed." The defendants argue that the term means "data remains in the user's cache for a period long enough that it could be retrieved in accordance with the retrieval system described in the '490 patent." Although both sides support their construction with language from the Federal Circuit's opinion, the court is persuaded that the proper definition is "recorded in a storage device so that data can be obtained as necessary to perform the steps of the claimed method." This definition comports with the Federal Circuit's holding as well as that of Hill's own expert in the Indiana litigation, who drew a distinction between volatile and non-volatile memories. It also alleviates Hill's concerns, expressed in opposition to the defendants' proposed definition, with importing limitations from the preferred embodiment.

15. Generate/Generating/Generated

Hill contends that the term "generate" as used in the '490 and '142 patents means "to produce by performing specific operations." The defendants contend that the term means "to bring into existence; to create something new." The dispute is whether the term "generate" is used consistent with a definition of producing or creating something new. After reviewing the briefs and the arguments of counsel, the court is persuaded that the term "generate," as used in the '490 and '142 patents, is used in the context of "producing" rather than "creating something new." Accordingly, the court defines the term "generating" to mean "producing by performing specific operations."

16. Order of Steps

Judge McKinney construed the order of steps for claims 1 and 15 of the '490 patent as follows: "[T]he

method steps one through four must occur in the sequence recited in the claim. They also must occur prior to steps five through seven. Steps five and six must occur before step seven. Likewise, steps five and six must have occurred before step seven can be accomplished." The defendants urge this court to adopt that construction.

Hill concedes that some order is required by the steps listed in the '490 patent. Hill contends, however, that this court should modify Judge McKinney's construction to require that the step of transmitting variable data (step six) is limited only by being after the step of storing constant data (step 2) and before the step of integrating constant data (step 7). The court rejects this argument. Hill elected to dismiss with prejudice his Indiana litigation and, in doing so, waived any right to complain about the correctness of Judge McKinney's construction. With respect to claims 1 and 15 of the '490 patent, the court adopts the same order of steps in this case as Chief Judge McKinney adopted in the Indiana case.

Judge McKinney did not, however, construe the order of steps in the asserted claims of the '649 patent. Claims 1, 8, and 16 are at issue. The general rule is that the steps of a method need not be performed in any particular order for a finding of infringement. However, a court construing the claims should impose an order of steps if "as a matter of logic or grammar," the steps must be performed in a particular order or the specification expressly or implicitly requires a particular order. *Altiris, Inc. v. Symantec Corp.*, 318 F.3d 1363, 1369-70 (Fed.Cir.2003). The plaintiff, although again agreeing that certain steps must be performed in a particular order, disagrees that the steps must necessarily all be performed in the order written. For their part, the defendants argue that the language of the '649 patent is similar to the language of the '490 patent and that Chief Judge McKinney's analysis is persuasive and should be followed with respect to the claims of the '649 patent. In addition, the defendants urge that steps 1-3 of the asserted claims of the '649 patent must occur before the remote computer is connected to the vendor's computer, even though the claims do not explicitly require the step of "connecting" to the vendor's computer. This latter argument is derived from various statements in the specification and the prosecution history.

The court has carefully reviewed the claim language in light of the specification and the prosecution history. The court is not persuaded to engraft another step into the sequence, as urged by the defendants. In particular, the court must read the prosecution history in light of the specification and the claims which actually issued. Dependent claim 4 of the '649 patent includes the step of "automatically establishing a data link between the remote computer and the main computer after the selecting step." Read as a whole, the intrinsic evidence counsels the court to reject the attempt to impose a requirement that certain steps must occur before the remote computer is connected to the vendor's computer.

Turning to the steps set forth in claim 1, the language of claim 1 requires the storing of product data related to a plurality of products in memory of the main computer. That claim also requires the storing of a first subset of product data on the remote computer. The defendants correctly point out that logic suggests that the subset of product data be a part of the overall product data comprising the electronic catalog. Moreover, the language of the second step suggests that it is relying on step one for antecedent basis. FN1 Next, the claim requires "selecting at least one product at the remote computer." The plaintiff appears to agree that this step occurs after the storing product data step. In the court's view, the claim language requires the product data to be stored before the product is selected. Next, the claim requires the transmission of a data request query "related to the at least one selected product...." Under this language, the product must have been selected before the data request query may be transmitted. Thereafter, the claim requires "identifying a second subset of product data ... based on the data request query." This language requires the data request query to be used to identify the second subset of product data stored on the main computer and implies that

this step occurs after the transmission of the query itself. Logic and/or grammar therefore dictate that, in claim 1 of the '649 patent, steps 1-5 must be performed in the order written.

FN1. The second step of claim 1 refers to "... graphics data related to at least one of *the* plurality of products...."

The next two steps involve the transmission of certain data. Step 6 addresses the transmission of textual data from the second subset of product data from the main computer to the remote computer. Step 7 involves transmitting only updated graphics data from the second subset of product data that is different from the graphics data in the first subset of product data from the main computer to the remote computer. These two steps are interchangeable, but, under the claim language, they must occur after step 5.

Step 8 involves storing the updated graphics data in the memory of the remote computer. This must necessarily occur after the transmission of the updated graphics data. Step 9 involves the combining of the textual and the graphics data stored at the remote computer. This step must occur after step 7, the transmission of the textual data, and step 8, the storing of the updated graphics data. Accordingly, the steps of claim 1 of the '649 patent must be performed in the following order: Steps 1-5 must be performed in the order written. Steps 6 and 7 are interchangeable, but must occur after step 5. Step 8 must occur after the completion of steps 6 and 7. Step 9 must occur after step 8.

For similar reasons, the steps of claim 8 of the '649 patent must occur in the following order: Steps 1-4 must occur in the order written. Step 5, which requires the generation of identification data at the remote computer, may occur at any time, as long as it is before Step 6, which requires the transmission of the identification data to the main computer. Steps 6-10 must occur in the order written, and must occur after the completion of Steps 1-5.

Finally, with respect to claim 16 of the '649 patent, the steps must occur in the following order: Steps 1-5 must be performed in the order written, steps 6 and 7 are interchangeable, but must follow step 5, and steps 8 and 9 must be performed in the order written and must follow steps 6 and 7.

17. Means plus function terms

Certain terms in the '490 patent and the '142 patent are written in means plus function format. 35 U.S.C. s. 112 para. 6. Judge McKinney authored an extensive claim construction opinion concerning most of these terms. Nevertheless, there are two overriding disputes in this case relating to these limitations. First, as a part of the corresponding structure, Judge McKinney held that the patent disclosed certain hardware associated with the customer's computer "that is configured to operate under the control of a copyrighted communications software module available from CADDCENTERS in Indianapolis, Indiana, or its equivalent." The parties dispute whether Judge McKinney's holding with respect to the software refers to the title of the software or the actual software itself. This court holds that the corresponding structure includes the actual software itself, not simply the title. This is consistent with Judge McKinney's order, in which he stated: "Hill disputes that reference to this specific software is proper. However, as discussed in Section III.A.2, the Federal Circuit has held that such specificity is proper when the specification discloses a specific program...." August 29, 2003, Order on Claim Construction, at 40. Accordingly, the court agrees with the defendants that Judge McKinney's reference to "a copyrighted communications software module available from CADDCENTERS in Indianapolis, Indiana" refers to the actual software itself, and not simply the title

of the software. FN2

FN2. The defendants imply that the plaintiff may face a validity challenge if the plaintiff cannot produce evidence of the specific software itself. The court reserves these issues for another day.

The parties' second dispute relates to the plaintiff's attempt to add additional structure to Judge McKinney's identification of corresponding structure. In particular, the plaintiff points to various boxes in flow diagrams and attempts to argue that these boxes disclose structure in addition to that identified by Judge McKinney. This argument is rejected, for two reasons. First, it is inconsistent with Judge McKinney's holding. Second, the Federal Circuit has held, in a similar context, that a single box in a flow diagram which illustrates a step in a method claim is not a description of structure. *Medical Instrumentation and Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1212-13 (Fed.Cir.2003). This court recognizes that flow diagrams which disclose algorithms which are clearly linked to software embodiments are often included in patent specifications and that these disclose structure. *Medical Instrumentation* recognizes this principle, but emphasizes that such flow diagrams must actually disclose structure. *Medical Instrumentation*, 194 F.3d at 1212-13 ("This figure is described as illustrating the steps of the preferred *method* of the invention, not the structure of the apparatus that is the subject of the asserted claims.")(emphasis in original). In this court's view, the individual boxes identified by the plaintiff do not disclose structure and, for these reasons, the court rejects plaintiff's attempt to include them as corresponding structure. The court therefore adopts Judge McKinney's claim construction with respect to the means plus function terms contained in the '490 patent.

There are a few additional disputes concerning the '142 patent which the court, for the sake of completeness, will resolve. With respect to the means for storing limitation in claim 21 of the '142 patent, the court agrees with the defendants that the specification clearly links hard drive 36 to the performance of the claimed function. The specification discloses a hard drive and states that "constant data and identification data and revision data are stored on hard drive 36 of the customer's computer." *See* '142 patent, col. 8, ll. 54-58; 63-65. Accordingly, the means for storing is hard drive 36.

Next, claim 21 of the '142 patent includes a "means for displaying the product information data." The parties agree that the corresponding structure is the customer's computer configured to operate under the control of software programmed to perform the recited function. However, the parties disagree whether the court should additionally identify Block 368 of Figure 11B. As explained in the patent, Figure 11B is a "flow chart[] illustrating the steps performed by the electronic catalog system" '142 patent, col. 7, ll. 43-47. The defendants correctly note that the words in the block "Build Data Sheet Print File," describe a function and do not disclose any structure. As such, the court declines to include this block as corresponding structure. The court holds that the structure corresponding to the function is "the remote computer configured to operate under the control of software programmed to perform the recited function."

Finally, with respect to claim 39 of the '142 patent, the claim recites a "means for comparing the remote revision status with the main revision status maintained in the main computer." This limitation is essentially the same as the fourth limitation of claim 30 of the '490 patent, which was previously construed by Judge McKinney. Thus, the court adopts Judge McKinney's construction and construes this term consistently. The corresponding structure is "the vendor's computer and the data base log of changes or revision data base under the control of software programmed to perform the recited function."

E.D.Tex.,2005.

Charles E. Hill & Assoc., Inc. v. Amazon.com

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