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United States District Court, E.D. Texas, Marshall Division. TRILOGY SOFTWARE, INC.

v.
SELECTICA, INC.
Civ.A. No. 2:04-CV-160.

Dec. 20, 2005.

Background: Owner of patents for product configuration and pricing software sued competitor for infringement. Competitor counterclaimed for infringement of its own patents.

Holdings: Construing claims, the District Court, Ward, J., held that:

- (1) product and part "relationships" were not limited to tables and bit vectors described in preferred embodiment;
- (2) "organizational groups" were groups of purchasing organizations where each group had characteristic;
- (3) means-plus-function claim was invalid for indefiniteness; and
- (4) "light client" was standalone Internet-capable device having relatively less bandwidth capability than desktop computer.

Claims construed.

West Headnotes

[1] Patents 291 \$\infty\$ 314(5)

291 Patents

291XII Infringement 291XII(C) Suits in Equity 291k314 Hearing

291k314(5) k. Questions of law or

fact. Most Cited Cases

Patent claim construction is issue of law for court to decide.

[2] Patents 291 \$\infty\$=165(3)

291 Patents

291IX Construction and Operation of Letters Patent

291IX(B) Limitation of Claims

291k165 Operation and Effect of Claims

in General

291k165(3) k. Construction of language of claims in general. Most Cited Cases

Patents 291 \$\infty\$167(1)

291 Patents

291IX Construction and Operation of Letters Patent

291IX(B) Limitation of Claims

291k167 Specifications, Drawings, and

Models

291k167(1) k. In general. Most Cited

Cases

Patents 291 \$\infty\$ 168(2.1)

291 Patents

291IX Construction and Operation of Letters Patent

291IX(B) Limitation of Claims

291k168 Proceedings in Patent Office in

General

291k168(2) Rejection and Amendment

of Claims

291k168(2.1) k. In general. Most

Cited Cases

To ascertain meaning of patent claims, court looks to three primary sources: claims, specification, and prosecution history.

[3] Patents 291 \$\infty\$=167(1)

291 Patents

291IX Construction and Operation of Letters Patent

291IX(B) Limitation of Claims 291k167 Specifications, Drawings, and

Models

291k167(1) k. In general. Most Cited

Cases

Patent's claims must be read in view of specification, of which they are part.

[4] Patents 291 \$\infty\$=165(2)

291 Patents

291IX Construction and Operation of Letters Patent

291IX(B) Limitation of Claims

291k165 Operation and Effect of Claims in General

291k165(2) k. Claims as measure of patentee's rights. Most Cited Cases

Patents 291 \$\infty\$ 167(1.1)

291 Patents

291IX Construction and Operation of Letters Patent

291IX(B) Limitation of Claims

291k167 Specifications, Drawings, and

Models

291k167(1.1) k. Specification as limiting or enlarging claims. Most Cited Cases

It is function of claims, not specification, to set forth the limits of patentee's claims.

[5] Patents 291 \$\infty\$=162

291 Patents

291IX Construction and Operation of Letters Patent

291IX(A) In General

291k162 k. Contemporaneous construction of inventor. Most Cited Cases

Patentee is free to be his or her own lexicographer, but any special definition given to word must be clearly set forth in specification.

[6] Patents 291 🖘 167(1.1)

291 Patents

291IX Construction and Operation of Letters Patent

291IX(B) Limitation of Claims

291k167 Specifications, Drawings, and

Models

291k167(1.1) k. Specification as limit-

ing or enlarging claims. Most Cited Cases

Although patent specification may indicate that certain embodiments are preferred, particular embodiments appearing in specification will not be read into claims when claim language is broader than embodiments.

[7] Patents 291 \$\infty\$=157(1)

291 Patents

291IX Construction and Operation of Letters Patent

291IX(A) In General

291k157 General Rules of Construction

291k157(1) k. In general. Most Cited

Cases

Words used in patent claim are generally given their ordinary and customary meaning, i.e., meaning that words would have to person of ordinary skill in art in question on effective filing date of patent application.

[8] Patents 291 \$\infty\$ 167(1)

291 Patents

291IX Construction and Operation of Letters Patent

291IX(B) Limitation of Claims

291k167 Specifications, Drawings, and

Models

291k167(1) k. In general. Most Cited

Cases

It is proper in all cases to refer back to descriptive portions of patent specification to aid in solving doubt or in ascertaining true intent and meaning of language employed in claims.

[9] Patents 291 @== 168(2.1)

291 Patents

291IX Construction and Operation of Letters Patent

291IX(B) Limitation of Claims

291k168 Proceedings in Patent Office in

General

291k168(2) Rejection and Amendment

of Claims

291k168(2.1) k. In general. Most

Cited Cases

Prosecution history is relevant to determination of how inventor understood invention and whether inventor limited invention during prosecution by narrowing scope of patent claims.

[10] Patents 291 \$\infty\$=159

291 Patents

291IX Construction and Operation of Letters Patent

291IX(A) In General

291k159 k. Extrinsic evidence in general.

Most Cited Cases

Role of dictionary definitions when construing patent claim terms is subordinate to intrinsic record.

[11] Patents 291 © 167(1.1)

291 Patents

291IX Construction and Operation of Letters Patent

291IX(B) Limitation of Claims

291k167 Specifications, Drawings, and

Models

291k167(1.1) k. Specification as limiting or enlarging claims. Most Cited Cases

Product and part "relationships," called for in patent for product configuration software, were not limited to tables and bit vectors described in preferred embodiment.

[12] Patents 291 \$\infty\$ 101(2)

291 Patents

291IV Applications and Proceedings Thereon 291k101 Claims

291k101(2) k. Construction in general.

Most Cited Cases

"Product relationship," called for in patent for

product configuration software, was association between product and one or more parts, with product representing left-hand side of relationship, and set of parts representing right-hand side of the relationship.

[13] Patents 291 \$\infty\$ 101(2)

291 Patents

291IV Applications and Proceedings Thereon 291k101 Claims

291k101(2) k. Construction in general.

Most Cited Cases

"Part relationships," called for in patent for product configuration software, were associations that existed between first set of parts and second set of parts, with first set representing left-hand side of relationship and second set representing right-hand side of relationship.

[14] Patents 291 @== 101(2)

291 Patents

291IV Applications and Proceedings Thereon 291k101 Claims

291k101(2) k. Construction in general.

Most Cited Cases

"Includes classification," called for in patent for product configuration software, was classification in which second set of one or more elements was included when all members of first set of one or more elements existed in configuration.

[15] Patents 291 \$\infty\$ 101(2)

291 Patents

291IV Applications and Proceedings Thereon 291k101 Claims

291k101(2) k. Construction in general.

Most Cited Cases

"Configuration state," referred to in patent for product configuration software, was status of elements in current configuration.

[16] Patents 291 \$\infty\$=101(2)

291 Patents

291IV Applications and Proceedings Thereon 291k101 Claims

291k101(2) k. Construction in general.

Most Cited Cases

"Includes relationship," called for in patent for product configuration software, was relationship that caused elements on right-hand side of relationship to be included in configuration when all elements of left-hand side of relationship were already included.

[17] Patents 291 \$\infty\$ 101(2)

291 Patents

291IV Applications and Proceedings Thereon 291k101 Claims

291k101(2) k. Construction in general.

Most Cited Cases

"Excludes relationship," called for in patent for product configuration software, was relationship that caused elements of right-hand side of relationship to be excluded when all elements of left-hand side were already included.

[18] Patents 291 \$\infty\$ 101(2)

291 Patents

291IV Applications and Proceedings Thereon 291k101 Claims

291k101(2) k. Construction in general.

Most Cited Cases

"Requires choice relationship," called for in patent for product configuration software, was relationship in which number of elements had to be chosen from second set of elements on right-hand side of relationship when all elements of left-hand side were already included.

[19] Patents 291 \$\infty\$ 101(2)

291 Patents

291IV Applications and Proceedings Thereon 291k101 Claims

291k101(2) k. Construction in general.

Most Cited Cases

"Removed relationship," called for in patent for

product configuration software, was relationship that caused elements of right-hand side of relationship to be removed when all elements of left-hand side were already included.

[20] Patents 291 \$\infty\$ 101(2)

291 Patents

291IV Applications and Proceedings Thereon 291k101 Claims

291k101(2) k. Construction in general.

Most Cited Cases

"Optional relationship," called for in patent for product configuration software, was relationship in which number of elements could be chosen from second set of elements on right-hand side of relationship when all elements of left-hand side were already included.

[21] Patents 291 @== 101(2)

291 Patents

291IV Applications and Proceedings Thereon 291k101 Claims

291k101(2) k. Construction in general.

Most Cited Cases

"Active relationship," called for in patent for product configuration software, was relationship in which all elements on left-hand side of relationship were selected.

[22] Patents 291 \$\infty\$ 101(2)

291 Patents

291IV Applications and Proceedings Thereon 291k101 Claims

291k101(2) k. Construction in general.

Most Cited Cases

"NotActivatable relationship," called for in patent for product configuration software, was relationship in which selection of certain left-hand side items resulted in invalid configuration state.

[23] Patents 291 \$\infty\$ 101(2)

291 Patents

291IV Applications and Proceedings Thereon

291k101 Claims

291k101(2) k. Construction in general.

Most Cited Cases

Corresponding structure for "means for obtaining user input," called for in patent for product pricing software, was general purpose computer, including keyboard or mouse. 35 U.S.C.A. § 112, ¶ 6.

[24] Patents 291 \$\infty\$ 101(2)

291 Patents

291IV Applications and Proceedings Thereon 291k101 Claims

291k101(2) k. Construction in general.

Most Cited Cases

Corresponding structure for "means for analyzing at least one selected element," called for in patent for product pricing software, was general purpose computer programmed to perform steps of algorithm disclosed by relevant flow diagram. 35 U.S.C.A. § 112, ¶ 6.

[25] Patents 291 \$\infty\$ 101(2)

291 Patents

291IV Applications and Proceedings Thereon 291k101 Claims

291k101(2) k. Construction in general.

Most Cited Cases

"Organizational groups," called for in patent for product configuration software, were groups of purchasing organizations where each group had characteristic.

[26] Patents 291 \$\infty\$ 101(6)

291 Patents

291IV Applications and Proceedings Thereon 291k101 Claims

291k101(6) k. Ambiguity, uncertainty or

indefiniteness. Most Cited Cases

Claim in patent for product configuration software was invalid for indefiniteness, where specification failed to disclose sufficient structure corresponding to its "means for arranging" limitation; disclosed screen shot was insufficient representation of relevant algorithm. 35 U.S.C.A. § 112, ¶¶ 2, 6.

[27] Patents 291 \$\infty\$ 101(2)

291 Patents

291IV Applications and Proceedings Thereon 291k101 Claims

291k101(2) k. Construction in general.

Most Cited Cases

"Application," called for in patent for product configuration software, was computer program that was designed to allow end-user to perform some specific task.

[28] Patents 291 \$\infty\$ 101(2)

291 Patents

291IV Applications and Proceedings Thereon 291k101 Claims

291k101(2) k. Construction in general.

Most Cited Cases

Claim in patent for product configuration software, calling for transportation of graphical user-interface (GUI) application from server platform to client platform, required transportation of GUI application without also transporting object model and configurator.

[29] Patents 291 \$\infty\$ 101(2)

291 Patents

291IV Applications and Proceedings Thereon 291k101 Claims

291k101(2) k. Construction in general.

Most Cited Cases

"Ordering," called for in patent for product configuration software, did not necessarily require purchasing.

[30] Patents 291 \$\infty\$ 101(2)

291 Patents

291IV Applications and Proceedings Thereon 291k101 Claims

291k101(2) k. Construction in general.

Most Cited Cases

"Applet," called for in patent for product configura-

tion software, was small program that was capable of being executed from within another application.

[31] Patents 291 \$\infty\$ 101(2)

291 Patents

291IV Applications and Proceedings Thereon 291k101 Claims

291k101(2) k. Construction in general.

Most Cited Cases

"Web-browser plug-in," called for in patent for product configuration software, was program module that was designed to directly interface with, and give additional capability to, web browser.

[32] Patents 291 \$\infty\$ 101(2)

291 Patents

291IV Applications and Proceedings Thereon 291k101 Claims

291k101(2) k. Construction in general.

Most Cited Cases

"Light client," referred to in patent for product configuration software, was standalone Internet-capable device having relatively less bandwidth capability than desktop computer.

Patents 291 \$\infty 328(2)

291 Patents

291XIII Decisions on the Validity, Construction, and Infringement of Particular Patents

291k328 Patents Enumerated

291k328(2) k. Original utility. Most Cited

Cases

5,825,651, 5,878,400, 6,233,609, 6,405,308, 6,460,077, 6,535,913, 6,553,350, 6,675,294. Construed.

Patents 291 \$\infty\$ 328(2)

291 Patents

291XIII Decisions on the Validity, Construction, and Infringement of Particular Patents

291k328 Patents Enumerated

291k328(2) k. Original utility. Most Cited

Cases

6,049,822. Cited.

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MEMORANDUM OPINION AND ORDER

WARD, District Judge.

1. Introduction.

The court issues this order to construe the claim terms at issue in the various patents in suit. The court will first provide a discussion of the rules which govern the claim construction process. Next, the court will provide an overview of the patents asserted by the plaintiff, Trilogy Software, Inc. ("Trilogy"), followed by a construction of the disputed terms in those patents. Finally, the court will provide an overview of the patents asserted by the defendant, counter-claimant, Selectica, Inc. ("Selectica"), followed by a construction of the disputed terms in those patents.

2. Claim Construction Principles.

[1] "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).

[2][3] 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).

[4][5][6] 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. *Intel*licall, 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).

*735 [7] 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 (Fed.Cir.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." *Id.* at 1312 (emphasis added)(*quoting Innova/Pure Water, Inc. v. Safari Water Filtration Sys., 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.* 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.*

[8] 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 1315 (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 1314-17. 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 lan-

guage 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.

[9] 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 at 1317. 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.

[10] 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 *736Texas Digital Sys., 308 F.3d Telegenix, Inc., (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 1319-24. 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 1321. 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 1323-25. 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.

3. Trilogy Patents.

Trilogy asserts various claims of five patents against the defendant. The technology involves the configuration and pricing of products. The parties refer to three of the patents collectively as the "Configuration Patents." The remaining two patents are referred to as the "Pricer Patents."

The Configuration Patents are designed to make it easier for sales personnel to define configured products and for customers to select from those definitions. The '651 patent is exemplary of the Configuration Patents, and it employs a graphical user interface ("GUI") which makes it easier to create and select from among various product offerings. From the vendor's perspective, the patents refer to a "maintenance user" as a person on the sales staff of the vendor who defines products and available parts options. The maintenance user's job is made easier by the Configuration Patents because the maintenance user does not need to learn a con-

figuration language to use the invention described in the '651 patent. Instead, he may configure systems through the GUI by dragging and dropping elements into categories representative of parts options for various product lines. The Configuration Patents use product and parts relationships such as "include," "exclude," "remove," and "requires choice" to allow the maintenance user to identify which parts are compatible with other parts to define a product. When the maintenance user completes the product definition, he saves it in memory.

Through the use of the GUI, the maintenance user sees an external representation of a product. A compiler or "translation unit" converts the external representation of the parts selected into an internal representation*737 suitable for processing. In the preferred embodiment, the internal representation of the product is stored in tables and bit vectors.

On the other side of the transaction, a "configuration user" is a potential customer who might use his or her computer to configure a product by selecting from among various options. The configuration user inputs a part selection and the system processes it. After processing, the system updates the configuration user's product to reflect the input, or, in the case of an invalid selection, the system notifies the user that he or she has made an invalid selection, based on the state of the configuration or the product definition provided by the maintenance user.

Trilogy also asserts various claims of two additional patents. These are referred to as the Pricer Patents, and they enable a salesperson to create and apply a company's pricing policy to a particular customer by organizing, grouping, and prioritizing the pricing applicable to given products and customers. The invention permits pricing rules to be based on group characteristics, rather than on individual customers. When a salesperson selects a particular customer using the invention described in the Pricer Patents, the system automatically identifies all groups to which that particular customer belongs. In doing so, the system identifies all pricing adjust-

ments for which each group is eligible. The invention sorts the various price adjustments applicable to a particular product offered to a particular purchasing organization based on several criteria. After sorting, the system applies pricing adjustments in a sequence which results in the final price for which a particular product can be sold to a particular purchasing organization.

A. Configuration Patents

[11] The court will first address the Configuration Patents. One basic dispute drives the parties' positions with respect to these patents. The language of the claims requires certain product and parts "relationships." As indicated above, during a configuration session, the user views an external relationship of the product being configured. A compiler translates the external representation into an internal representation. See '651 patent, Fig. 7. In the preferred embodiment, the patents describe a tabular approach using bits in bit vectors for storing the internal representation of the configuration. See '651 patent, Figs. 8A and 8B.

Selectica would limit all of the claims to the preferred embodiment. *See* Selectica's Response Brief, at 7 ("generating product and parts relationships is accomplished exclusively through the use of tables and vectors."). In particular, Selectica points to the '651 patent, col. 3, which provides:

During configuration, the invention maintains runtime information that is stored in tables and vectors. To achieve greater processing efficiency, the system represents elements in a configuration (e.g. product, part, and group) as a bit in a bit vector.

'651 patent, col. 3, ll. 12-16 (emphasis added). Under Selectica's claim construction proposals, relationships are generated in the invention exclusively through the use of tables having a left-hand side and a right-hand side. Likewise, in its brief, Selectica defines "left-hand side of said relationship" to

mean "the left-hand side of a runtime table used to store relationship information, the left-hand side comprising a bit vector containing a bit that corresponds to elements." *See* Selectica's Response Brief, at pp. 27-28.

Trilogy urges a broader construction and relies heavily on the doctrine of claim *738 differentiation. Several unasserted dependent claims explicitly use the terms "left hand side" or "right hand side." As a result, Trilogy urges the court not to impose those limitations in the asserted claims-as the language of the asserted claims does not require it. According to Trilogy, one novel aspect of the invention is the manner, referred to as the external representation, in which the relationships are expressed through the use of a GUI. Trilogy characterizes the use of tables and bit vectors as the preferred way to store the internal relationships in memory-not as limitations to the claims of the patent directed toward the external representation features of the invention.

The court has carefully reviewed the patents, the specifications, and the cited portions of the prosecution history. Although this question is close, it appears that the patentee viewed the term "relationships" similar to the way one would view associations between the entries on the left-hand side of an equation with the results on the righthand side of the equation. In this regard, Selectica correctly observes that the patents, read as a whole, imply the existence of a left-hand and a right-hand side to the various relationships. Dependent claim 4 refers to "the elements specified in the left-hand side of said relationship" and assumes the existence of a left-hand side to the relationship from which the claim depends. Moreover, as Selectica's counsel urged at oral argument, this view of "relationships" is the same even when the patent describes the external representation of the relationships.

Nevertheless, the court is not convinced that this way of viewing relationships requires the court to import the tables and bit vector limitations sought by the defendant. As suggested above, the patents

refer to the ideas of the left-hand and right-hand sides of a relationship in a broader sense in the context of the external representation of those relationships. Figure 6 of the patent demonstrates this. It is important to remember that Figure 6 is not a representation of tables and bit vectors, but instead is a representation of the GUI screen. According to the relevant portions of the specification:

"The maintainer can drag an element (or elements) from pane 602 into pane 610.... The element(s) dragged into pane 610 are referred to as the left-hand side of the relationship. The element(s) dragged into pane 614 are referred to as the right-hand side of the relationship."

'615 patent, at col. 8, 11. 41-48.

Thus, although Selectica's counsel correctly noted that the patent describes "external relationships," by using the terms "left-hand side" and "right-hand side," the language of the specification refers to these concepts in a more generic sense than Selectica's claim constructions will allow. The court is not persuaded that the cited portions of the specification operate to limit the scope of the invention to a system which maintains the information in the manner described by the preferred embodiment of the patent. Accordingly, the court will define the relationship terms as having elements on their left-hand and right-hand sides; however, the court will reject the argument that the patent is limited to the system of tables and bit vectors described in the preferred embodiment. Bearing this holding in mind, the court will now define the disputed terms of the Configuration Patents.

1. Product relationship.

[12] The term "product relationship" is used in claims 1, 20, 60, and 73 of the '651 patent and in claims 18 and 20 of the '308 patent. Trilogy contends that the court should define product relationship as "a *739 classification of the specific association that exists between a product and one or more

parts." Selectica contends that the court should define the term to mean "a relationship between a product on the left hand side of a table and a set of elements on the right hand side of a table." The court construes the term to mean "an association between a product and one or more parts, the association having a left-hand side and a right-hand side. The product represents the left-hand side of the relationship, and the set of elements represents the right-hand side of the relationship."

2. Part relationships

[13] Trilogy contends that this term means "a classification of a specific association that exists between a first set of one or more parts or groups and a second set of one or more parts or groups." Selectica contends that this term means "a relationship between a set of parts on the left hand side of a table and a set of parts on the right hand side of a table." The court defines "parts relationships" to mean "an association that exists between a first set of parts and a second set of parts, the association having a left-hand side and a right-hand side. The first set of parts represents the left-hand side of the relationship and the second set of parts represents the right-hand side of the relationship."

3. Includes classification

[14] Claims 1 and 20 of the '651 patent require that "said product relationships comprising an includes classification." Trilogy contends that the court should define "includes classification" as "a classification in which a second set of one or more elements is included when all members of a first set of one or more elements exist in a configuration." Selectica contends that the court should define the term to mean "a designation identifying elements that are included automatically in the configuration when a set of one or more elements are selected." After reviewing the briefs and the arguments of counsel, the court is persuaded that Trilogy's construction is correct. The term "includes classifica-

tion" means "a classification in which a second set of one or more elements is included when all members of a first set of one or more elements exist in a configuration."

4. Configuration state

[15] Claim 2 of the '651 patent imposes the limitation that the step of configuring further includes "receiving input from a configuration user" and "validating said input based on said definition, said set of relationships, and a current configuration state...." The parties dispute the meaning of "configuration state."

Trilogy defines "configuration state" as "the status of the elements in the current configuration." Selectica contends that "configuration state" is defined by three types of state information-"selected," "selectable" and "notSelectable"-that track the state of parts in the configuration. Selectica argues that the patent uses "current state" and "configuration state" interchangeably and that the patent explicitly defines "current state" at col. 10, line 25:

The current state is defined by three types of state information that track the state of parts in the configuration. The current state is visible to the user. The three state types are: selected, selectable, and notSelectable.

According to Selectica, all parts options necessarily fall within one of these configuration states. Those included in the current configuration are "selected" parts. Those which could be added to the current configuration are classified as "selectable" parts. Those which cannot be used in the *740 current configuration fall in the classification of "notSelectable." Selectica thus contends that its definition captures all of the logical options available for the "configuration state."

Selectica's construction imports too many limitations from the preferred embodiment. After considering the parties' positions, the court construes

"configuration state" to mean "the status of the elements in the current configuration."

5.IncludesRelationship/ExcludesRelationship/Removes Relationship/Requires Choice Relationship/Optional Relationship

The parties have grouped these terms together. The dispute is whether the "relationship" language requires a construction which imposes a "left-hand side" and "right-hand side" limitation to the terms. Trilogy contends that the term "includes relationship" means "a classification in which a second set of one or more elements is included when all members of a first set of one or more elements exist in a configuration." Selectica contends that the term "includes relationship" means "a relationship that causes the elements on the right-hand side of the relationship to be included in the configuration when all elements of the left-hand side of the relationship are already included."

In discussing the relationship terms, the patents state "[a] relationship relates a first set of parts with a second set of parts." '651 patent, col. 2, ll. 13-14. The patents also state:

Preferably, the part relationships are: included, excluded, removed, and requires choice. An included part is included automatically. A part is excluded from the configuration when it inclusion would result in an invalid configuration. A part may be removed when another part is added. Thus, when a first part exists in the configuration and a second part is added, the first part is removed from the configuration. The requires choice relationship is used to allow a set of choices to be made from a group of parts.

'651 patent, col. 2, ll. 23-31. For essentially the reasons discussed previously, the court adopts the following constructions of these terms:

[16] "includes relationship" means "a relationship that causes the elements on the right-hand side of the relationship to be included in the configuration when all elements of the left-hand side of the relationship are already included;"

[17] "excludes relationship" means "a relationship that causes the elements of the right-hand side of the relationship to be excluded when all elements of the left-hand side are already included;"

[18] "requires choice relationship" means "a relationship in which a number of elements must be chosen from a second set of elements on the right-hand side of the relationship when all elements of the left-hand side are already included;"

[19] "removed relationship" means "a relationship that causes the elements of the right-hand side of the relationship to be removed when all elements of the left-hand side are already included;" and

[20] "optional relationship" means "a relationship in which a number of elements may be chosen from a second set of elements on the right-hand side of the relationship when all elements of the left-hand side are already included."

6. Active Relationship/relationship is active

[21] Trilogy contends that the term "active relationship" is used to describe "a *741 relationship that is presently in effect." Selectica contends that a relationship is "active" when all parts on the left-hand side of the relationship are included in the configuration and all the parts on the right hand side of the relationship have been evaluated according to their classifications during the configuration.

Trilogy acknowledges that one portion of the specification supports Selectica's proposed construction. The specification provides that "a relationship is active when all of the items on the left-hand of the relationship are selected. A relationship is inactive until all of the parts on the left-hand side of the relationship are selected." '651 patent, col. 12, ll. 40-43. Trilogy urges, however, that the passage in the specification should be read as describing only features of the preferred embodiment, and that the

claim language (construed with regard to the doctrine of claim differentiation) supports a broader construction. Specifically, Trilogy contends that claim 3 recites the limitation of "determining whether a relationship in said set of relationships is active." Claim 4 depends from claim 3, and recites "the method of claim 3 wherein said step of determining whether a relationship is active further comprises the step of determining whether the elements specified in the left-hand side of said relationship are present in said configuration." Given the language of the specification, the court construes the term "active relationship" to mean "a relationship in which all elements on the left-hand side of the relationship are selected."

7. NotActivatable Relationship/Making Said Relationship NotActivatable

[22] Trilogy contends that these terms mean "a relationship that cannot be put into effect." Selectica contends that these terms mean "a relationship is notActivatable if the selection of certain left-hand side items results in an invalid configuration state." The patents explain that "[c]onfiguration system 212 also ensures that no relationship that will put the configuration into an invalid state can become active.... If a relationship will make a configuration invalid, it is made notActivatable." '651 patent, col. 13, 1l. 11-16. The court construes the term "NotActivatable/making said relationship NotActivatable" to mean "a relationship in which the selection of certain left-hand side items results in an invalid configuration state."

8. Means-plus-function issues

[23] Claim 32 of the '294 patent is written in means plus function language. The parties have two disputes concerning corresponding structure. With respect to the first dispute, after considering the briefs and the arguments of the parties, the court construes the "means for obtaining user input" as a general purpose computer including a keyboard or a

mouse. See '294 patent, col. 4, 11. 43-48.

[24] Second, the parties dispute the structure corresponding to the "means for analyzing the at least one selected element." The corresponding structure is a general purpose computer programmed to perform the steps of the algorithm disclosed in the flow diagram of Figure 10. The court rejects Trilogy's argument that Figure 9 adequately discloses an algorithm sufficient to perform the function of "analyzing" the selected element to determine if activating a set of element relationships associated with the at least one selected element will result in a valid product configuration under the product definition. As the specification explains, Figure 10 provides "an example of a relationship evaluation process flow according to an embodiment of the invention." '294 patent, col. 14, ll. 3-4. In the court's view, the *742 corresponding structure is limited to a general purpose computer programmed to perform the steps of the algorithm disclosed by the flow diagram of Figure 10.

B. Pricer Patents

[25] Trilogy's second group of patents are referred to as the Pricer patents. There is only one non-means-plus-function term remaining in dispute-"organizational groups." Trilogy contends that the term "organizational groups" means "one or more entities grouped together." Selectica contends the term means "a group of purchasing organizations where each group has a characteristic."

The '400 patent provides:

The invention operates under a simple paradigm of WHO (the purchasing organization) is buying WHAT (the product). In the invention the WHO is defined by creating an organizational hierarchy of purchasing organizations. A "purchasing organization" (also referred to as a customer) may be a single person.... A purchasing organization may also be a larger entity, such as a company. One or more customers (i.e. purchasing organiza-

tions) may be members of each organizational group and each customer may be a member of more than one organizational group. Similarly, one or more products may be members of each product groups and each product may be a member of more than one product group.

'400 patent, col. 6, ll. 3-16. In addition, the patent states:

In the invention the WHO is defined by creating an organizational hierarchy of organizational groups, where each group represents a characteristic of the organizational group.

'400 patent, col. 3, ll. 24-25 (emphasis added). The specification explains that the invention "allows pricing rules to be based on characteristics of each organizational group instead of basing the rules on a per-customer basis." '400 patent, col. 3, ll. 35-38 (emphasis added). Thus, considering the claim language in the context of the specification, the court adopts Selectica's construction and construes "organizational groups" to mean "groups of purchasing organizations where each group has a characteristic." See Selectica's Response Brief, at 31 (offering revised construction).

[26] Next, the court considers the meansplus-function issues. Although the parties have agreed on several of the means-plus-function terms, a few disputes remain. Those relate to clam 31 of the '350 patent. See Selectica's Response Brief, at 33-34. The first question presented is whether the patent discloses sufficient structure corresponding to the "means for arranging" limitations. The parties do not dispute that the disclosure must be in the form of an algorithm. Trilogy points to Figure 6 as its corresponding structure and urges, through the testimony of its expert, that this is sufficient disclosure. Figure 6 is a screen shot, not a depiction of a flow diagram. The court has considered the cited portions of Dr. Rhyne's deposition but concludes that Figure 6 is an insufficient disclosure of structure corresponding to the "means for arranging" limitations. That said, claim 31 is indefinite, and the court need not consider the remaining issues raised with respect to that claim.

4. Selectica Patents.

By way of a counter-claim, Selectica asserts various claims of three patents against the plaintiff. These patents also *743 relate to configuration technology. First, Selectica asserts various claims from the '609 and '077 patents. These patents are addressed to the use of configuration systems over networks. Prior to these patents, a consumer or client desiring to interact with configuration websites was required to download the knowledge base and the configuration software before he or she could configure a product. The '609 and '077 patents permit the user to download only a small portion of the software (the interface) to control the configuration of a product.

FN1. After the claim construction hearing, Selectica dropped its assertion of the '822 patent. Accordingly, the court has not construed terms such as "object model," "GUI object model," "non-binary text file," "multimedia files," "software engine," and "selecting and viewing" which were identified in the Second Amended Joint Claim Construction and Prehearing Statement as only applicable to the '822 patent.

An object model and a configurator are established at the vendor's platform. A GUI user-interface application, which is capable of manipulating the configurator over the network, is transported from the server platform to the client platform. The client uses the GUI user interface application to configure the object model from the client platform. The knowledge base and configuration software remain on the vendor's server, and the client simply downloads the interface to a remote location. By controlling the configuration in this way, the client saves time and resources that would otherwise be required to download the entire configuration software and knowledge base.

In addition to the asserted claims of the '609 and '077 patents, Selectica also asserts claims of the '913 patent. The '913 patent involves methods and apparatuses for enabling smaller, standalone Internet-capable devices to connect interactively with sales and service systems to allow them to configure products and services. These devices, referred to as light-clients or thin-clients, pose challenges because they have lower bandwidth capabilities and less user-interface capabilities than personal computers. The '913 patent claims inventions designed to allow these devices to interact with on-line sales and service configuration systems.

1. Application

[27] The term "application" is used in claims 1 and 5 of the '609 patent. Selectica contends that the term "application" means a "computer program that performs some desired function." Trilogy contends that the term means "a computer program, other than an operating system, a utility, or a language, that is designed to allow an end-user to perform some specific task." After considering the parties' positions, the court defines "application" to mean "a computer program that is designed to allow an end-user to perform some specific task."

2. Transporting, from the server platform to the client platform, a graphical user-interface ("GUI") user-interface application.

[28] Selectica contends that no construction of this phrase is required. Trilogy does not appear to contend that construction is required of any specific term; however, Trilogy contends that the court should construe the phrase as a whole to mean "transporting, from the server platform to the client platform, *only* a graphical user-interface ('GUI') user-interface application."

To support its construction, Trilogy cites a statement accompanying the final amendment to the '609 patent, which provides:

The Examiner has rejected claim 1 under 103(a) as being unpatentable over *744 Knowlton in view of Oberg. In the rejection the Examiner does not take notice of nor treat of the specific limitation that only a GUI interface is provided to the client, and that both the object model and the configurator remain at the server. This is an essential feature of the invention, as an important object of the invention is to avoid unnecessary downloading to the client, while still enabling the client to manipulate the configurator to configure the object model. Applicant takes notice that Knowlton specifically has the configurator and the GUI interface at the client side, and only the object model at the server side.

Trilogy's Exh. E2, Amendment D at 5. Trilogy reads this statement to mean that *only* the GUI interface application is transported to the client's side. This view is too restrictive. After considering the cited portion of the prosecution history, the court defines the phrase as a whole to mean "transporting, from the server platform to the client platform, a graphical user-interface ('GUI') user-interface application, without also transporting the object model and the configurator."

3. GUI user-interface application operating from a client platform

Claim 5 of the '609 patent recites the term "GUI user-interface application operating from a client platform capable of manipulating the configurator over the Internet network connected to the server platform by an Internet link." Once again, Selectica contends that no construction is required. Trilogy contends that the court should construe the phrase to require "an application executing on a client platform that generates a graphical user interface." After considering the briefs and the oral arguments, the court is not persuaded that the phrase as a whole needs construction. Even if, in the context of this claim language, the meaning of the word "executing" is no different from the meaning of the word "operating," it is not clear that Trilogy's con-

struction would provide more guidance to the jury than the language of the claim itself. As a result, the court rejects Trilogy's proposed construction.

4. Ordering/placing an order/order

These terms are found in claims 1 and 5 of the '609 patent, claims 6 and 12 of the '077 patent and claims 1 and 8 of the '913 patent. Selectica contends that ordering, in the context of these patents, needs no construction. Trilogy contends that the court should construe the term to mean "providing an instruction to buy something." The dispute between the parties is whether an "order" must include an instruction to purchase something.

[29] Selectica argues that the term "ordering" is broader than purchasing, and that a car, for example, may be ordered but that it need not be actually purchased until after delivery and acceptance. Selectica further contends that the trier of fact will understand the use of these terms and suggested at oral argument that in no disclosed embodiment does an actual purchase occur. After considering the parties' arguments, the court agrees with Selectica. The term "ordering" does not necessarily require purchasing, and a jury will understand the meaning of these terms.

5. Applet

[30] The term "applet" appears in claims 1, 4, 6, 7, 10, and 12 of the '077 patent and in claim 17 of the '913 patent. Selectica contends that the term means "a program intended to operate with another program or suite of programs that can be downloaded over the Internet and executed on the recipient's machine." Trilogy contends that the term means "a program *745 designed to be executed within another application. Unlike an application, applets cannot be executed directly from the operating system." After considering the briefs and the arguments of the parties, the court rejects the position that "applet" should be defined with reference to whether the program is capable of being down-

loaded over the Internet. Many programs are capable of being downloaded from the Internet, but the sheer size of some of these programs would exclude them from the ordinary meaning of the term. As Selectica's counsel stated at oral argument, an applet, as the name implies, is a small program. Oral Argument Tr. at 74. Accordingly, the court construes the term "applet" to mean "a small program that is capable of being executed from within another application."

6. WEB-browser plug-in

[31] Selectica contends that this term means "a program that can be installed in a web-browser." Trilogy asserts that this term means "a program module that is designed to directly interface with, and give additional capability to, a WEB browser." A "plug-in" is a computer program which can interact with another program to provide a specific, usually very limited, function. As a result, Trilogy's construction appears correct. The court defines this term to mean "a program module that is designed to directly interface with, and give additional capability to, a WEB browser."

7. Summary of the order/summary of an original configuration/summary of a configuration.

These terms appear in the '913 patent, in claims 1, 8, and 17. Claim 1, for example, includes the limitation of "a state component at the facility storing state data for the existing order at the facility, the state data including a summary of the order and information regarding allowable alterations and effects of alterations." Selectica contends that the terms need no construction. Trilogy contends that these terms mean "a condensed form of a previously submitted order that does not contain high bandwidth or memory-dependent aspects of that order." Trilogy supports its construction by citing to a passage in the specification describing the preferred embodiments. This passage provides:

Order summaries (or service configurations) and

additional information are stored in the portion labeled State Storage, which allows access to at least a summary of an original order preconfigured by a user operating from client domain 133. The use of the word summary *in this embodiment* means that high bandwidth and memory-dependant aspects of an original knowledgebase order are not present in a summary of such an order.

After reviewing the briefs and the arguments, the court agrees with Selectica that Trilogy's construction improperly imports limitations from the preferred embodiment. These terms need no construction.

8. Light client.

[32] The term "light client" is used in several of the claims of the '913 patent. Selectica contends that the term means "a standalone Internet-capable appliance." Trilogy contends that the term means "a portable communications device that has less user interface and bandwidth capabilities than a personal computer."

The specification provides some support for both parties' definitions. However, the patent draws a clear distinction between light clients and their relative bandwidth capabilities and "more powerful desktop computers" by stating:

*746 With the advent of standalone Internet-capable appliances, known in the art as light or thin clients, and supporting software conventions, it has become possible to perform many WEB-based operations heretofore only possible from a relatively more powerful desktop computer. With such a device, one might access a scaled-down (low-bandwidth) version of a functional Web page for example. Accomplishing changes to previously configured knowledge-based orders, however, typically requires the relatively powerful desktop computer and a complete re-order configuration as previously described.

'913 patent, col. 3, ll. 12-22 (emphasis added). Based on this portion of the specification, the court defines the term "light client" to mean "a standalone Internet capable device having relatively less bandwidth capability than a desktop computer."

9. Dedicated

This term needs no construction.

E.D.Tex.,2005. Trilogy Software, Inc. v. Selectica, Inc. 405 F.Supp.2d 731, 2005 Markman 3481372

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