United States District Court,
S.D. Texas, Houston Division.

FISHER-ROSEMOUNT SYSTEMS, INC,
Plaintiffs.
v.
CONTROL SYSTEMS INTERNATIONAL, INC,
Defendant.

Dec. 19, 2007.

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MEMORANDUM OPINION AND ORDERS

KENNETH M. HOYT**, District Judge.**

I. INTRODUCTION

This patent infringement suit is brought by Fisher-Rosemount Systems, Inc., FN1 the plaintiff, against Control Systems International ("CSI"), the defendant, wherein Fisher-Rosemount contends that CSI is infringing its patent, No. 5,594,858 ("the '858 patent"). Thus, Fisher-Rosemount contests the validity of CSI's patent No. 5,812,394 ("the '394 patent). CSI, in turn, filed a counterclaim against Fisher-Rosemount asserting that claim 21 of the ' 858 patent infringes its, ' 394 patent.

FN1. Fisher-Rosemount is a subsidiary of Emerson Electric Co., and is part of a family of companies that are recognized as leaders in developing advance technology and systems for the process control system.

The matters for determination before the Court include motions and briefs on both claim construction and the parties' competing positions on the validity of both patents. In both respects, the Court has reviewed the voluminous record provided as well as the briefs and arguments presented, and herewith submits its determinations. The Court will address the parties' claims in separate sections. Section One (1) will address claim construction, the '858 and '394 Patents; Section Two (2) will address the motions for summary judgment on the validity of the patents and/or claims.

II. DESCRIPTION OF '858 and '394 PATENTS INVENTIONS AND CLAIMS

A. The Fisher-Rosemount '858 Patent

An overview of the Fisher-Rosemount's '858 patent teaches an innovative approach to how a user of a computerized system can implement control of, for example, a manufacturing process, using "control templates." The control template offers multiple views to the user in order that the user of the control system can view different process information relevant particularly to his respective station and job. The invention boast of a plurality of control templates where each control template includes, among other information, a "conversation set" associated with the process control function information and the attribute information in a manner specified by a selected control template view. The process control system also includes a control template generator that includes instructions that automatically generate control templates in response to the control template information input by a user.

The '858 patent consists of 41 claims. Claim 1, an independent claim together with dependent claims 2 through 14, are directed to "a process control system." Independent claim 15, together with dependent claims 16 through 19, are directed to "a memory including a control template." Independent claim 20, together with dependent claims 21 through 33, are directed to "a method of creating or editing control templates." Independent claim 34, together with dependent claims 35 through 39, are directed to "a method for creating a process control solution." Independent claims 40 and 41 are directed to "a computer system for generating control templates" and "a method for generating control templates," respectively.

CSI takes the position that independent claims 1, 15, 20 and 34 of the '858 patent are invalid because the term "conversation-set" is undefined in the specification; hence, they are fatally indefinite. However, CSI admits that the parties do not hold violently opposed views regarding the remaining terms of the claims. In this regard, CSI agrees that all terms contained in the '858 patent glossary are based on the common usage of terms in the claims, save that of "conversation set." Therefore, CSI does not dispute that Fisher-Rosemount's construction of other terms is consistent with how a person of ordinary skill in the art would understand them in the context of the intrinsic evidence. *See Markman v. Westview Instruments, Inc.,* 52 F.3d 997, 979 (Fed.Cir.1995) *en banc,* aff'd ((S.Ct.(1996)). Hence, the term "conversation set" is the only term for construction at issue in the '858 patent.

B. The CSI '394 Patent

An overview of CSI's '394 patent reveals, among other things, an object-oriented development system for developing control schemes for process or manufacturing facilities, including a diagramming component for describing the physical description and logical definition of a control scheme for a facility. The '394 patent is presented in "means plus function" form. Hence, claim 1 of the '394 patent states that the invention includes a "means for selecting device symbols" and a "means for interrelating in a graphical manner the selected device symbols."

The '394 patent consists of 32 claims. Claim 1 is an independent claim followed by dependent claims 2 through 9 and are directed at "an object-oriented development system for developing control schemes for facilities." Independent claim 10, together with dependent claims 11 through 13, are directed at a "method for developing an object-oriented user-configurable control scheme for facilities." Independent claim 14 and dependent claims 15-20, teach "an object-oriented development system for developing control schemes for facilitator." Independent claim 21, and dependent claims 22 through 25, teach "a development system for developing control schemes for facilities." And, independent claim 26, and dependent claims 27 through 32,

teach a "an object-oriented computer program stored on a computer-readable memory device for directing operation of a computer for developing graphical user interface control schemes for a facility." In summary, claims 10 and 26, reveals a method for "developing control schemes, while independent claims 1, 14 and 21 are directed at a "development system."

The parties have identified four (4) terms that impact the invention claimed in the '394 patent. The key claim construction terms are: "development system," "device objects," "device symbols," or "physical representations," and "device diagrams." The parties do not have a dispute concerning the definition of the term "device." That term is defined as "a physical or logical entity used in a facility." However, the parties do dispute how the term "device" should be interpreted in relationship with other terms such as "objects," "symbols", and "diagrams."

III. CLAIM CONSTRUCTION STANDARDS

The interpretation and construction of patent claims, which define the scope of the patentee's rights under the patent, is a matter of law exclusively for the Court. *Markman,* 52 F.3d at 970-71. Hence, claim construction is the first step in determining whether an accused devices is an infringing device. In determining the meaning of terms in a claim, a court looks first to the patent's claims and specification. *Id*. Claims are to be read in the context of the entire patent. This means that the claim is to be read not only in the context of the particular claim but also in the context of the entire patent, including the specification. Cook Biotech, Inc. v. Acell, Inc., 460 F.3d 1365, 1373 (F.2d Cir.2006).

The parties agree that claim construction often involves an examination of both the intrinsic and extrinsic evidence surrounding an invention. Phillips v. AWH Corp., 415 F.3d 1303 (Fed.Cir.2005). Intrinsic evidence refers to the claims, the specification, and the prosecution history. Bell Atl. Network Servs., Inc. v. Covad Comm'ns Group, Inc., 262 F.3d 1258, 1268-69 (Fed.Cir.2001). Extrinsic evidence includes all sources outside the application and prosecution history, such as treatises, technical dictionaries, expert reports and testimony. Id. at 1269. While both intrinsic and extrinsic evidence may be utilized by the Court to establish proper claim construction, case law dictates that the process must begin with the intrinsic evidence and rely on extrinsic evidence only when necessary, but never to contradict the intrinsic evidence. Phillips, 415 F.3d at 1318. Usually, the specification is dispositive because it is the single guide to the meaning of disputed terms. Id. at 1315.

A patent holder should know what he owns. And in speaking to his invention, the public should know what the patent holder does not own. *Festo Corp. v. Shoketsu Kinzoku Kogyo Katushiki Co.,* 35 U.S. 722, 731 (2002). Therefore, an inventor may create his own glossary of terms and attribute a meaning to a term different from the meaning that that term might otherwise possess. In these instances, the inventor's lexicography governs. Phillips v. AWH Corp., 415 F.3d 1303, 1316 (Fed.Cir.2005); *see also* Ballard Med. Prods. v. Allegiance Healthcare Corp., 268 F.3d 1352, 1359 (Fed.Cir.2001). (An inventor may also use the specification to define his invention, particularly in distinguishing it from prior art.). With these legal parameters in place, we move first to the ' 858 patent.

IV. SECTION ONE (1) CLAIM CONSTRUCTION

A. The Claim Language Dispute: The '858 Patent

1. The Term "Conversation Set"

The "Uniform Control Template Generating System and Method for Process Control Programming" relates to process monitoring and control systems in the automation of industrial processes. The control system provides multiple "views" by which employees at different stations along the process monitoring path, and having different assignments within an industrial plant, may monitor assigned aspects of a particular process. The system also permits employees at the various assigned stations to adjust the industrial process peculiar to their needs through local interaction.

Fisher-Rosemount has submitted a glossary listing proposed construction of various terms. One of the terms that appears in its glossary and that is used in both the dependant claims and the independent claims is the term "conversation-set." Claims 40 and 41 do not contain the "conversation-set" limitation and are not addressed in this discussion. The sole term for which significant dispute remains between the parties then is the term "conversation-set". As observed earlier, CSI does not dispute that other proposed constructions in the '858 patent glossary are based on the usage of the terms consistent with the claims.

Each independent claim describes the role of "conversation-set" as follows:

A 'conversation-set' associated with the process control function information and the attribute information which enables a user to interact with the attribute information in a manner specified by a selected control template view.

The specification describes "conversation-set" as defining the "... users interactions ... [that] include definitions of soft keys, windows, fields, and the like, which enable the user to communicate with the template and insert new attribute values or modify old ones in the function." Fisher-Rosemount argues that the correct construction of "conversation-set" is "a system's interaction with a user" whereby the "conversation-set" defines and structures that interaction in a manner such as a dialog." See [Expert Report, Prof. Thomas Edgar]. Professor Edgar limits "conversation-set" to interactions associated with a process control function that affect all screen display views of the process control function. He goes on to describe "conversation-set" as dynamic and, therefore, customized so that it associates with customized control templates. Hence, the process monitoring and control system operates from a "plurality of conversation-sets."

CSI presents two contentions in rebuttal to Fisher-Rosemount's claim that ' 858 patent invents something new. First, CSI asserts that a number of disclosures in the prior art disclose "conversations" and "conversation-set" because the prior art discloses both the "dialog box" for user interaction and the structured interaction. CSI cites prior disclosures, such as the X11 and Windows 3.0 as examples of concepts that are well understood by one of ordinary skill in the art and that they were understood as such at the time that Fisher-Rosemount filed the '858 patent.

As its second assertion, CSI argues that the term "conversation-set" is not amenable to a proper construction. Therefore, CSI argues that because the term is not amenable to construction, it is hopelessly indefinite and fails due to the "law of indefiniteness." To demonstrate its indefiniteness claim, CSI questioned several of Fisher-Rosemount's witnesses concerning whether they understood the term "conversation-set." In all instances, CSI contends it was told that the term or related terms have no meaning that is attributed to them.

Professor Ananth Grama, CSI's expert, offered his opinion that "a "conversation-set" was a structured, user

interaction with a control system with the objective of manipulating attribute information. Further, he opined that this method of interaction is consistent with the specification associated with the selected control template view." Based on this testimony, Fisher-Rosemount argues that Professor Grama's opinion is consistent with that of Professor Edgar's and represents a proper construction of the term, albeit a more limited construction. The evidence further shows that Professor Grama would limit the field of "persons of ordinary skill in the art" to those who also have a degree in Computer Science because the '858 patent deals with software development.

(2) *Conclusion-"Conversation Set"* '858 Patent

The Court is of the opinion that CSI's claim of indefiniteness fails. As a first point, the Court returns to Professor Grama's opinion concerning the meaning of the term "conversation-set." Professor Grama's argument is clear, "conversation-set" is associated with the data type(s) that insure that attribute information (data) is manipulated in particular ways. For example, a real value attribute is never assigned a Boolian value FN2. Nor are pre-specified bounds of a real value exceeded. Hence, the Court concludes that CSI's assertion, that the term "conversation-set" is insolubly ambiguous and not amenable to construction, fails. CSI's indefiniteness argument also fails because the inventor assigned a meaning to the term "conversation-set" that governs. *See* Phillips, 415 F.3d at 1316. Moreover, that assigned meaning is consistent with its use in the specification. *See* Ballard Med. Prods., 268 F.3d at 1359.

FN2. George Boole, an English mathematician and logician developed the science of symbols denoting logical propositions and their combination according to certain rules which correspond to the law of logic as opposed to numbers with "real" value.

CSI's assertion that the '858 patent fails to invent, because the term "conversationset" is disclosed in the prior art also fails. CSI argues that because both the use of the dialog box for user interaction and the structured interaction are disclosed nothing new is invented. In its papers, CSI and Professor Grama reference the disclosure of the X11 and Windows 3.0, as examples. These examples do not advance their argument because XII and Windows 3.0 are associated with software programs for functions unrelated to a "control system" associated with the automation of an industrial process. Without doubt, the invention uses the science of the computerized system that uses control templates or screens so that functions and alterations may be viewed. However, the '858 patent does not seek to invent a computerized system. Instead, it utilizes a computerized system to invent a "process control system."

There is yet another reason that the term "conversation-set" is not disclosed by the prior art. CSI's expert, Professor Grama testified that it is not disclosed. Specifically, he testified that the term "conversation-set" "is not defined in prior art and is not understood by one of ordinary skill." He then goes on, in his testimony, to define the term, with limited exception(s), consistent with the definition adopted by Professor Edgar's.

Finally, the evidence proffered by Fisher-Rosemount reveals that during the prosecution, the patent examiner and the inventor discussed the term "conversation-set." In this interview, the summary documents of the patent prosecution reveal the following comment from the patent examiner:

Inventor discussed the conversation set feature in detail, and Examiner agreed that said feature, along with the automatic generation of control templates, appears novel.

There is no separate evidence proffered by CSI that the claim term is ambiguous or indefinite, therefore, the Court concludes that no factual ambiguity exists. *Markman,* 52 F.3d at 986. The Court, therefore, adopts the construction proposed by Fisher-Rosemount and defines the term "conversation-set" as a system's interaction with a user which exchange defines and structures that interaction in a manner such as a dialog box.

B. *The Claim Language Disputes: The* '394 Patent

Claim 1 of the '394 patent encapsulates the terms that are in dispute. Claim (1) invents:

An object-oriented *development system* for developing control schemes for facilities, the development system utilizing a graphical user interface environment, the system comprising;

device programming means for describing a physical description of a facility and a logical definition of a control scheme for the facility, the device programming means including,

means for selecting device symbols representative of equipment or control functions used in facilities, the *device symbols* being *device objects,* and wherein certain types of device symbols relate to device objects containing logical instructions and configuration information related to the represented equipment or control functions, and means for interrelating in a graphical manner the selected device symbols and their corresponding device objects into one or more *device diagrams,* each of the device diagrams representing both the physical description of the facility or a portion of the facility and the logical definition of the control scheme for the facility or the portion of the facility; ...

Claims 1, 14 and 21 are addressed to an object-oriented "development system." CSI's expert defines "object-oriented" in relations to a "development system" as "a structuring or classification of a system wherein the system is viewed as a collection of objects and how the objects are interrelated." CSI distinguishes its invention from traditional prior art methods by integrating physical character information with the logic-hence, object-oriented because it encapsulates graphical images of physical equipment and the underlying control logic. Fisher-Rosemount disputes CSI's expression of the invention's focus asserting that the "real" invention is a "development system" composed of computer technology, hardware and software, that supports the construction of other software as an end product, all designed to control a particular manufacturing process. To make its point, Fisher-Rosemount points to the prosecution history, particularly the Hodorowski patent [5,530,643] and the Joseph patent [5,485,600] and the 77 distinguishing drawing sheets of the ' 394 patent.

During the prosecution history, CSI distinguished the '394 patent from both the Hodorowski and Joseph patents. Regarding the Hodorowski patent, CSI asserted that its '394 patent allows an "operator or developer to create new logic or modify existing logic to specify the desired device behavior." CSI pointed out that the Hodorowski patent did not disclose a tool, *i.e.,* a system, that permits "object-oriented creation and modification access to both the physical and logical definitions at the same time." Regarding the Joseph patent, CSI pointed out that it disclosed a "simulator system that can be used to develop operator interfaces ... for other types of software applications." And, while it "may be used to represent the physical description of a facility ... it has no capability to represent the logical definition of that facility." Hence, the '394 patent was presented as an improvement over both the Hodorowski and the Joseph patents.

1. The Term "Development System"

The dispute between the parties centers on whether the term "development system" should be directed toward an "object-oriented" user interface as opposed to a computer program written using object-oriented source code. The Court is of the opinion that when claim 1 speaks of an object-oriented development system, object-oriented modifies or defines the type of computer program that is invented. Therefore, "development system" refers to a control system project [computer program] consisting of the hardware and software that supports the construction of other software as an end product within a development as opposed to an operating environment. The Court is further of the opinion that "development system," as used in the preamble language, is consistent with the specification and prosecution history. *See* Catalina Mktg. Int'l, Inc. v. Coolsavings Com., Inc., 289 F.3d 801, 808 (Fed.Cir.2002).

2. The Term "Device Object"

Next, the parties dispute the definition and limitation of the term "device object." CSI defines "device objects" as a "software construct comprising the set of data associated with a "device" and the procedures used to manipulate that data." Fisher-Rosemount defines "device" as a physical or logical entity used in a facility. It defines "object" as a set of data encapsulated by a set of procedures that provides the only access to an allowable operation on that data. CSI contends that Fisher-Rosemount's definition fails because neither the claim language nor the specification supports the limitation that the "object" provides the sole access to a set of data.

The specification teaches that a "device object" contains device symbols or physical representations, logical instructions and configuration information pertaining to each device. "Each device may be of its own unique type." Therefore, all device characteristics are encapsulated within the device. Viewing Figure 14, the Court concludes that a "device object" encapsulates device logic, device tag definitions, device diagram symbols and graphic screen symbols and dynamics. Hence, the encapsulation is the improvement, but it is also the limitation, providing the only access to the data set. Moreover, there is no indication in any claim or the specification that the term "device" has more than one meaning.

3. The Term "Device Symbols"

The parties also dispute the limitations of the term "device symbols." Here, CSI defines "device" separately from "symbol." CSI defines "device" as "a real world construct such as a value or pump" and "symbol" as "something which is used to represent something else." Fisher-Rosemount does not disagree with CSI's definition. However, it is of the opinion that CSI's definition does not go far enough. Specifically, it fails to include functional connection points. Hence, this is the heart of the parties' dispute as it relates to device symbol.

The Court is of the opinion that the specification reveals "device symbols" as equipment or control functions. Hence, it is a physical representation that also conveys logical information, thereby requiring connection points in order that a control engineer may make functional connections. "Device symbols" are shown as part of the device diagram-[a graphical representation of a control scheme]; therefore, it makes sense that "device symbols" have functional connection points, otherwise, there is no functionality in the facility.

This conclusion is supported by Figure 33, which teaches that "when a user clicks on [a] connection point and holds down, the connection drawing is started." And, the same function "completes the connection from

the tank to the pump ... [and] ... from the switch to the tank." As well, physical representations are device symbols that represent physical information.

The Court, therefore, rejects CSI's combined definition of "device" and "symbol" because its definition does not require that "device symbols" have specific connection points. These connection points are not cosmetic but "facilitate the interrelation of device symbols in a device diagram." In the Court's opinion, a person of ordinary skill in the art would read the claim to include specific connection. *See* Cook Biotech, Inc. v. Acell, Inc., 460 F.3d 1365, 1373 (Fed.Cir.2006).

4. The Term "Device Diagram"

Finally, the Court addresses the parties' dispute concerning the term "device diagram." CSI defines "device diagram" as "a graphical description of a control scheme, created using the device programming means, hence, [it is] a combined representation of the physical description [ ] and the logical definition of the facility." Fisher-Rosemount agrees with this definition with the caveat that the physical and logical information must appear on a single diagram.

CSI's expert does not define this term. However, Fisher-Rosemount's expert does. In his opinion the "device diagram" provides a combined representation of the physical description of the facility and the logical definition of the facility, consistent with CSI's description. The specification supports this definition. The result is that a control engineer, using a "device diagram" can understand both the definition of the physical facility, *i.e.*, what equipment is present and how it is connected, as well as the logical definition of control instructions that operate the interconnected equipment. *See* Specifications; (Col.15:17-21). The Court, therefore, adopts CSI's proffered definition with the proviso that both the physical and logical information appear on a single screen.

5. Conclusion On Terms For '394 Patent

The Court is of the opinion that claim construction of the '394 patent is accomplished by a review and application of the claims, specification and prosecution history that encapsulates graphical images of equipment so that there is a physical representation of a device. And, unlike the Hodorowski and Joseph patents, the claimed device diagrams of the '394 patent, permit the logical and physical representations of the facility to be displayed on a single screen. This is to say that the interrelatedness of the two does not result in two, separate, side-by-side drawings where neither drawing depicts both the physical description of the facility and the logical definition of the control scheme for the facility.

Finally, the Court concludes that the claim language is not broader than the specification or the preferred embodiments. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1583 (Fed.Cir.1996). And, while the Court has reviewed and relied upon the testimony and/or reports of expert witnesses, that reliance has been simply to confirm a proper interpretation of the claim language. A person of ordinary skill in the art, engineering and computer science, would read the claim language and specification to describe an object-oriented system and method for developing schemes for controlling a manufacturing process. Unlike traditional prior art methods of programming, this new paradigm provided a logical definition of a control strategy as explained to the PTO. And, the illustrations provided do not vary the Court's understanding of the claim language and specification.

Pursuant to the findings and conclusions stated heretofore, the Court GRANTS Fisher-Rosemount's motions for summary judgment on the claim construction aspect of this case. The Court delays ruling on the parties'

motions for summary judgment on various contentions within the suit for a period of 60 days, during which the parties are encouraged to mediate or otherwise reach agreement and resolve the remaining disputes. Failing, the Court will issue Section 2 of its Memorandum Opinion and Orders on or after February 25, 2008.

It is so **Ordered.**

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