

UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF NEW HAMPSHIRE

East Coast Sheet Metal  
Fabricating Corp., d/b/a  
EastCoast CAD/CAM

v.

Civil No. 12-cv-517-LM  
Opinion No. 2014 DNH 055

Autodesk, Inc.

O R D E R

East Coast Sheet Metal Fabricating Corp. ("EastCoast") has sued Autodesk, Inc. ("Autodesk") in six counts. EastCoast's claims include one for patent infringement. Autodesk, in turn, has asserted several affirmative defenses to EastCoast's infringement claim and has also asserted several patent-related counterclaims. The parties disagree about the construction of three terms used in the patents-in-suit. They have briefed their positions, and on March 11, 2014, the court conducted a claim-construction hearing in accordance with [Markman v. Westview Instruments, Inc.](#), 517 U.S. 370, 388 (1996). In this order, the court construes the three disputed claim terms.

**Background**

EastCoast claims that Autodesk has infringed all five claims of U.S. Patent No. 7,499,839 B2, the sole claim in U.S. Patent No. 7,917,340 B2, and all eleven claims of U.S. Patent

No. 8,335,667 B2. Each of the patents-in-suit claims a method and apparatus for importing data into program code, and as a general matter, the invention involves using computer programs to transform a visual representation of something such as a ventilation system into manufacturing blueprints. Every independent claim in each of the three patents-in-suit includes the three terms that are construed in this order: (1) "components of the [imported] geometrical information"; (2) "as a function of"; and (3) "fabrication information."

### **The Legal Standard**

The construction of terms used in patent claims is a question of law for the court. See [Markman](#), 517 U.S. at 390. "It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude." [Aventis Pharms. Inc. v. Amino Chems. Ltd.](#), 715 F.3d 1363, 1373 (Fed. Cir. 2013) (quoting [Phillips v. AWH Corp.](#), 415 F.3d 1303, 1312 (Fed. Cir. 2005)). A court construing a patent claim must bear in mind that "[t]here is a heavy presumption that claim terms are to be given their ordinary and customary meaning." [Aventis](#), 715 F.3d at 1373 (citing [Phillips](#), 415 F.3d at 1312-13; [Vitronics Corp. v. Conceptronic, Inc.](#), 90 F.3d 1576, 1582 (Fed. Cir. 1996)).

Therefore, “[c]ourts are required . . . to ‘look to the words of the claims themselves . . . to define the scope of the patented invention.’” [Aventis](#) (quoting [Vitronics](#), 90 F.3d at 1582; citing [Toro Co. v. White Consol. Indus., Inc.](#), 199 F.3d 1295, 1299 (Fed. Cir. 1999)).

In a recent opinion, Judge Laplante elaborated upon the principles a court is obligated to apply when looking to the words of a patent claim to determine the scope of the invention:

To ascertain th[e] meaning [of a patent claim], the court must first examine the intrinsic evidence, which includes the claim[] [itself], the specifications, and any prosecution history submitted by the litigants. E.g., [Goldenberg v. Cytogen, Inc.](#), 373 F.3d 1158, 1164 (Fed. Cir. 2004) (citing [Vitronics Corp. v. Conceptronic, Inc.](#), 90 F.3d 1576, 1582 (Fed. Cir. 1996)). The court starts with the actual language of the claim. E.g., [Int’l Rectifier Corp. v. IXYS Corp.](#), 361 F.3d 1363, 1370 (Fed. Cir. 2004); [3M Innovative Props. Co. v. Avery Dennison Corp.](#), 350 F.3d 1365, 1370 (Fed. Cir. 2003). “If the claim language is clear on its face, then [the] consideration of the rest of the intrinsic evidence is restricted to determining if a deviation from the clear language of the claims is specified.” [Interactive Gift Express, Inc. v. Compuserve Inc.](#), 256 F.3d 1323, 1331 (Fed. Cir. 2001); see also [Int’l Rectifier](#), 361 F.3d at 1370; [Anchor Wall Sys., Inc. v. Rockwood Retaining Walls, Inc.](#), 340 F.3d 1298, 1306-1307 (Fed. Cir. 2003).

Although the court must . . . construe the claims in light of the specifications, it must take care not to read limitations from the specifications into the claims. [Innova/Pure Water \[Inc., v. Safari Water Filtration Sys.,\]](#) 381 F.3d [1111,] 117 [(Fed. Cir. 2004)]; [Liebel-Flarsheim Co. v. Medrad, Inc.](#), 358 F.3d 898, 904 (Fed. Cir. 2004). “If the meaning of the

claim limitations is apparent from the totality of the intrinsic evidence, then the claim has been construed.” [Interactive Gift](#), 256 F.3d at 1332. If, and only if, a “genuine ambiguity” still persists, the court may turn to extrinsic evidence, such as expert testimony, to interpret the claim. [Intel Corp. v. VIA Techs., Inc.](#), 319 F.3d 1357, 1367 (Fed. Cir. 2003) (citing [Vitronics](#), 90 F.3d at 1582); see also, e.g., [Sunrace Roots Enter. Co. v. SRAM Corp.](#), 336 F.3d 1298, 1307 (Fed. Cir. 2003).

[Best Mgmt. Prods., Inc. v. N.E. Fiberglass, L.L.C.](#), Civ. No. 07-151-JL, 2008 WL 2037349, at \*1-2 (D.N.H. May 12, 2008).

### **Discussion**

As noted, the parties have asked the court to construe three terms. As an example of the manner in which those terms are used in the patents-in-suit, the court points to the '839 patent, which claims, among other things:

1. A computer-readable medium having computer executable instructions for designing a ventilation system that when executed by a processor performs the following steps comprising

obtaining a visual representation of one or more components of the ventilation system,

assigning one or more property values to each of the components of said ventilation system using a first program code,

exporting geometrical information representing said visual representation and said property values of each component to a data file using the first program code,

importing said data file into a second software application, and

using the second software application for

mapping all components of the imported geometrical information to a plurality of standard fittings as a function of (1) standards information including (1A) information specific to each of the plurality of standard fittings and (1B) fabrication information of each of the plurality of specific standard fittings, (2) the imported geometrical information, and (3) the assigned property values, and

generating a manufacturing blueprint comprising the standard fittings,

the fabrication information, and

a three-dimensional representation of the visual representation,

whereby each of the one or more components of the visual representation have been mapped to standard fittings and include fabrication information in the manufacturing blueprint, thus, eliminating a need to redraw every component of an architectural drawing before coordination, fabrication, and installation of the system[.]

Compl., Ex. 14 (doc. no. 1-17), at 9 (emphasis added).<sup>1</sup> Having described the manner in which the disputed claim terms are used in the patents-in-suit, the court turns its attention to each of those three terms.

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<sup>1</sup> U.S. Patent No. 7,499,839 B2 col.7 ll.10-43 (filed Sept. 29, 2005).

A. "components of the [imported] geometrical information"

EastCoast argues that this term need not be construed because its meaning is readily evident. In the alternative, it argues that "components of the [imported] geometrical information" means "'pieces' or 'elements' of the geometrical information." Autodesk contends that the term is too ambiguous to be construed and, as a result, is fatally indefinite. In response, EastCoast argues that it is premature to consider the issue of indefiniteness, which should be resolved at summary judgment rather than in the context of claim construction.

Based upon the reasoning of [O2 Micro International Ltd. v. Beyond Innovation Technology Co.](#), 521 F.3d 1351, 1360 (Fed. Cir. 2008), and [Phillips](#), 415 F.3d at 1312-13, the court is sympathetic to EastCoast's argument that the term "components of the [imported] geometrical information" requires no construction. Indeed, this seems to be a case in which "the ordinary meaning of [the] claim language . . . [is] readily apparent even to lay judges." [O2 Micro](#), 521 F.3d at 1360 (citation omitted). That said, the court will, out of an abundance of caution, construe the disputed claim term. That task is complicated by the fact that while EastCoast proposes a construction, Autodesk does not, contending that the term is

nonsensical and, therefore, “insolubly ambiguous.” The court cannot agree.

Claim 1 of the '839 patent speaks of “mapping all components of the imported geometrical information to a plurality of standard fittings . . . .” Compl., Ex. 14 ([doc. no. 1-17](#)), at 9.<sup>2</sup> The specification teaches that “[t]he geometrical information that exists for each component of the design may include centerline coordinates, inlet coordinates, outlet coordinates, and orientation of the fitting.” Id. at 8.<sup>3</sup> Thus, “centerline coordinates” are a piece or an element of the geometrical information. Inlet coordinates are a piece or an element of the geometrical information. And so on. Given that at least four different items fall within the category of “geometrical information,” each individual item is a piece or an element of the geometrical information. Thus, the court construes “components of the [imported] geometrical information” to mean “‘pieces’ or ‘elements’ of the geometrical information.”

Autodesk’s attempts to identify ambiguity in the disputed claim term are unavailing. In its opening Markman brief, Autodesk argues that EastCoast’s proposed construction “is not at all supported, and . . . makes no sense in the context of the

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<sup>2</sup> '839 Patent col.7 ll.25-26.

<sup>3</sup> '839 Patent col.5 ll.60-62.

claims.” Def.’s Opening Br. (doc. no. 63) 8. In so arguing, Autodesk rejects EastCoast’s reliance upon language in the specification referring to “[t]he geometrical information that exists for each component of the design,” noting that the specification refers to components of the design, not components of the geometrical information. Indeed, the specification does refer to components of the design, but it also says that geometrical information may consist of at least four different kinds of information and, as the court has already indicated, each kind of information is a piece or an element or a component of the larger category “geometrical information.” In short, EastCoast’s proposed construction is supported by the specification.

In its rebuttal brief, Autodesk makes the following argument:

The proposed meaning eventually offered by East Coast merely exacerbates the indefiniteness. Specifically, East Coast’s proposed construction simply replaces the word “components” with “pieces or elements.” East Coast Br. at 2. In asserted support for this word swap, East Coast relies on claim 9 of the ’667 patent to conclude that geometrical information is “information about the geometry of the components.” Id. at 3. Incorporating that word swap into the disputed claim term would transform it into “components of the information about the geometry of the components” – which is utterly confusing and confirmatory that the disputed claim term is indeed insolubly ambiguous and thus indefinite.

Def.'s Rebuttal Br. ([doc. no. 64](#)) 1-2. There is nothing at all confusing about a reference to components of geometrical information co-existing in the same phrase with a reference to components of a design. A design can have multiple parts, just as the geometry of any one of those multiple parts can have - or must have - multiple parts.

Finally, Autodesk raised a third argument at the Markman hearing. That argument rests upon two principles: (1) "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," [Phillips, 415 F.3d at 1313](#) (citations omitted); and (2) "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. In reliance upon those principles, Autodesk argues that EastCoast's proposed construction fails because: (1) the disputed claim term appears in the context of a step calling for "mapping all components of the imported geometrical information to a plurality of standard fittings," Compl., Ex. 14 ([doc. no. 1-17](#)), at 9;<sup>4</sup> and (2) that

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<sup>4</sup> '839 Patent col.7 ll.25-26.

step is unsupported by the specification, which does not mention mapping geometrical information to standard fittings, but speaks only of mapping non-standard fittings to standard fittings.

Autodesk's argument is not persuasive. First off, it is not at all clear that the mapping aspect of the mapping step is unsupported by the specification. While the specification does not use the phrase "mapping all components of the imported geometrical information to a plurality of standard fittings," Compl., Ex. 14 (doc. no. 1-17), at 9,<sup>5</sup> it does refer to "[t]he stored standards information [being] used to assign standard fittings to the geometrical information," id. at 8.<sup>6</sup> Conceptually, it is difficult to see how the latter does not support the former. But whether or not the mapping step is supported by the specification is a question for another day.

The larger problem with Autodesk's argument is that by focusing on support for the mapping aspect of the mapping step, Autodesk has moved from construing the disputed claim term, "components of the [imported] geometrical information," to making a full-fledged indefiniteness argument, and one that is based upon something more than the claim term at issue. The court appreciates that "[i]ndefiniteness is a matter of claim

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<sup>5</sup> '839 Patent col.7 ll.25-26.

<sup>6</sup> '839 Patent col.6 ll.14-16.

construction.” [Praxair, Inc. v. ATMI, Inc.](#), 543 F.3d 1306, 1319 (Fed. Cir. 2008). But, at the same time, the mere fact that claim construction is a necessary prerequisite to determining whether a claim is indefinite does not, by itself, compel a court undertaking claim construction, under [Markman](#), to address the question of invalidity due to indefiniteness. [Cf. Koninklijke Philips Elecs. N.V. v. Zoll Med. Corp.](#), 914 F. Supp. 2d 89, 100-01 (D. Mass. 2012) (declining to construe disputed claim term and deferring question of indefiniteness to summary judgment). Here, given that Autodesk’s indefiniteness argument involves more than the claim term that the court has construed in this order, the better course is to defer the question of indefiniteness raised in Autodesk’s third argument to the summary-judgment stage.

So, to restate, the court construes the term “components of the geometrical information” to mean “‘pieces’ or ‘elements’ of the [imported] geometrical information,” and the court defers ruling on Autodesk’s indefiniteness argument until summary judgment.

B. “as a function of”

EastCoast argues that “as a function of” means “using” while Autodesk contends that the term means “using executable instructions influenced by.” In a nutshell, EastCoast’s

position is that Autodesk's construction results in a disfavored redundancy, while Autodesk contends that EastCoast's construction, while perhaps correct in the abstract, fails to account for the context in which the term is used. EastCoast has the stronger argument.

The preamble to each independent claim speaks of an invention consisting of a "computer-readable medium" that performs a series of steps when a processor executes its, i.e., the medium's, computer executable instructions. Compl., Ex. 14 (doc. no. 1-17), at 9.<sup>7</sup> One of those steps is "mapping all components of the imported geometrical information to a plurality of standard fittings as a function of" various categories of information. Id. (emphasis added).<sup>8</sup> Under EastCoast's construction, the computer-readable medium performs its mapping step by using a processor to execute instructions that, when executed, use, or act upon, various categories of information. That construction is supported by the specification. See id. at 5.<sup>9</sup> Autodesk's construction, on the

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<sup>7</sup> '839 Patent col.7 ll.10-13.

<sup>8</sup> '839 Patent col.7 ll.25-32.

<sup>9</sup> '839 Patent fig.4 (characterizing the final step in the patented method this way: "Utilize standards information, geometrical information, and property values to generate a final design.").

other hand, appears to conflate the computer executable instructions with the mapping that results from their execution. Plainly, the mapping is influenced by the information used to generate it. But Autodesk has identified no intrinsic evidence to support the proposition on which its construction is based, i.e., that the instructions themselves, as opposed to the mapping they generate, are influenced by the information on which they act. Accordingly, the court construes the term "as a function of" to mean "using."

C. "fabrication information"

EastCoast argues that "fabrication information" means "information that is useful or necessary to fabricate a component or a system," while Autodesk contends that the term means "any information for construction." EastCoast points to several pieces of intrinsic evidence to support its construction while Autodesk challenges the quality of that evidence and asserts that EastCoast's construction both impermissibly narrows the claim and introduces an unmanageable subjective element to it. Again, EastCoast has the better argument.

The court begins by noting that the term "fabrication information" seems to fall fairly close to the line that separates terms that require construction from those that do not. And, while it would not take much to convince the court

that the disputed term does not require construction, neither party makes that argument, so the court will construe the term "fabrication information."

The two sides take slightly different approaches to the task at hand. For its part, EastCoast elaborates upon the claim term qualitatively, by indicating just what kind of information fabrication information is. Autodesk does the same thing, but more parsimoniously, letting the words "for construction" do the work that is done in EastCoast's interpretation by the words "useful or necessary to fabricate a component or a system." Autodesk also introduces a seemingly quantitative element by using the word "any," presumably to capture information for construction that is neither necessary nor useful. Therein lies the problem with Autodesk's approach.

Semantically, it is difficult to see how information that is neither necessary nor useful for construction (or fabrication) could qualify as fabrication information in the first place. In any event, such information could hardly qualify as information "for construction." Thus, there is no logical basis for Autodesk's attempt to expand the term "fabrication information" to include information that is neither useful to nor necessary for construction or fabrication. Moreover, while Autodesk argues that the words "useful" and

"necessary" incorporate an untenable subjective element into the term "fabrication information," the same may be said of the word "for" in Autodesk's preferred construction. Indeed, as a semantic matter, it would seem indisputable that information is "for construction" only if a person seeking to construct something would find that information useful or necessary. Information that is not useful or necessary is, necessarily, not information for construction.

Finally, EastCoast's construction of the disputed term is supported by the specification. The specification indicates that "the present invention can be used to provide information necessary for the fabrication of a fluid control system . . . ." Compl., Ex. 14 (doc. no. 1-17), at 6.<sup>10</sup> According to Autodesk, EastCoast's reliance upon that sentence is misplaced because it neither mentions information that is merely useful, nor limits the invention to providing information that is necessary or useful. On the other hand, however, there is nothing anywhere in the specification to suggest that the invention can be used to provide information that is neither useful nor necessary to fabricate a component or a system.

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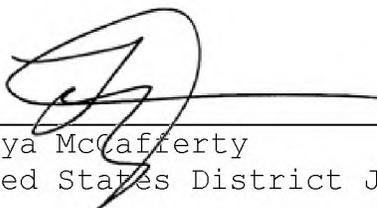
<sup>10</sup> '839 Patent col.2 ll.45-47.

Accordingly, the court construes the term "fabrication information" to mean "information that is useful or necessary to fabricate a component or a system."

### Conclusion

For the reasons detailed above, the term "components of the [imported] geometrical information" is construed to mean "'pieces' or 'elements' of the geometrical information," the term "as a function of" is construed to mean "using," and the term "fabrication information" is construed to mean "information that is useful or necessary to fabricate a component or a system."

SO ORDERED.

  
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Landya McCafferty  
United States District Judge

March 18, 2014

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