

# **FEDERAL CIRCUIT REVIEW OF *MARKMAN* ISSUES (2003)**

by the Litigation Committee (2003-04) of the  
Intellectual Property Law Association of Chicago (IPLAC)

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# FEDERAL CIRCUIT REVIEW (2003) OF *MARKMAN* ISSUES

BY THE IPLAC LITIGATION COMMITTEE (2003-04)<sup>1</sup>

This report reviews the development of the law concerning patent claim construction in calendar year 2003 as established by the cases of the U.S. Court of Appeals for the Federal Circuit. Aspects of the cases other than claim construction are not covered herein, nor are non-precedential decisions. After reviewing the substantive law, various statistical information is presented showing how the Court disposed of summary judgments in the reviewed cases, identifying the majority opinion authors, and indicating the cases that arose from (IPLAC's home in) Illinois.

In 2003, the Court reaffirmed its strong preference for using the plain, ordinary and customary meaning of words in claims, established by dictionaries, unless that meaning has been redefined or surrendered in the intrinsic documents. In numerous cases, the Court framed the claim construction issue as whether the presumption that the ordinary meaning was intended had been overcome.

Additionally, the Court spoke several times this year about using terms in the proper context. The meaning of claim language continues to be with reference to the ordinarily skilled artisan. The Court addressed whether preamble language was a claim limitation, various Section 112 Paragraph 6 issues, and the usual issues of whether the specification or file history imposed new meanings or limitations on the claim language.<sup>2</sup>

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<sup>1</sup> This review was prepared by members of the Litigation Committee of the Intellectual Property Law Association of Chicago (IPLAC). The editor acknowledges and thanks the contributors to this project. This writing is not offered as the opinion of the Association, the listed contributors, or the editor.

<sup>2</sup> The Federal Circuit is developing the law of claim construction, but the reader should remember the caveat that if there is a conflict between precedents in the Federal Circuit, the *earlier* decision controls unless the later decision is an *en banc* ruling. *Newell Cos. v. Kenney Mfg. Co.*, 864 F.2d 757 (Fed. Cir. 1988), *cert. denied* 110 S.Ct. 62 (1989); *YBM Magnex, Inc. v. U. S. Int'l. Trade Comm'n.*, 145 F.3d 1319 n.2 (Fed. Cir. 1998).

## **Standard of Review**

Numerous cases declare that claim construction is an issue of law that the Federal Circuit reviews *de novo* and without deference.<sup>3</sup> The *de novo* review is “plenary.” *Omega Engineering v. Raytek Corp.*<sup>4</sup>

This *de novo* review applies to all claim types. For example, in addressing means-plus-function claims, the Court in *ACTV v. Walt Disney Co.* stated that “[t]he determination of the claimed function and corresponding structure of a means-plus-function claim limitation is a question of law, reviewed *de novo*.”<sup>5</sup>

Clearly the Court has authority to change claim constructions on appeal as a matter of law. There are signs, however, that the Court sometimes exercises its jurisdiction simply to *review* claim constructions on appeal and affirm when the claim construction has support in the record. Hence, Judge Rader in *LNP Engineering Plastics v. Miller Waste Mills* (2001)<sup>6</sup> indicated that the Court’s review is without deference but then seemed to apply a different standard (“[T]he record supports the district court’s interpretation”). This continued in 2002 with *Bowers v. Baystate Technologies* (2002)<sup>7</sup> (“the specification supports the trial court’s interpretation”) and *Minnesota Mining (3M) v. Chemque*<sup>8</sup> (“no reason to conclude that the district court erred in not including this limitation in its construction”). He stated likewise in 2003 in *Utah Medical Products v. Graphic Controls*<sup>9</sup> (finding that the specification and prosecution support the trial court’s rulings).<sup>10</sup> However, Judge Rader does sometimes review without deference.<sup>11</sup>

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<sup>3</sup> See e.g., *Cybor v FAS Technologies*, 138 F.3d 1448, 1456 (Fed. Cir. 1998) (*en banc*); *Ecolab v. Paraclype*, 285 F.3d 1362, 1369 (Fed. Cir. 2002); *Frank’s Casing Crew & Rental Tools, Inc. v. PMR Technologies, Ltd.*, 292 F.3d 1363, 1373 (Fed. Cir. 2002); *Brookhill-Wilk I, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 (Fed. Cir. 2003).

<sup>4</sup> *Omega Engineering, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1321, 1327 (Fed. Cir. 2003); see also, *ACCO Brands, Inc. v. Micro Security Devices, Inc.*, 346 F.3d 1075, 1077 (Fed. Cir. 2003) (“We give plenary review to the district court’s claim construction . . . .”)

<sup>5</sup> *ACTV v. Walt Disney Co.*, 346 F.3d 1082, 1087 (Fed. Cir. 2003); see also *Lockheed Martin Corp. v. Space Systems/Loral, Inc.*, 324 F.3d 1308, 1318 (Fed. Cir. 2003).

<sup>6</sup> *LNP Engineering Plastics v. Miller Waste Mills*, 275 F.3d 1347 (Fed. Cir. 2001).

<sup>7</sup> *Bowers v. Baystate Technologies, Inc.*, 302 F.3d 1334 (Fed. Cir. 2002), *pet. for reh. granted and decision vacated* 320 F.3d 1316 (Fed. Cir. 2003), *modified* 320 F.3d 1317 (Fed. Cir. 2003); *cert. den.* 156 L. Ed 2d 606 (2003).

<sup>8</sup> *Minnesota Mining and Manufacturing Company v. Chemque, Inc.*, 303 F.3d 1294, 2002 U.S. App. LEXIS 17962, 64 U.S.P.Q.2d 1270 (Fed. Cir. 2002) *rehearing and reh. en banc denied*, 2002 U.S. App. LEXIS 24346 (Fed. Cir. 2002), *cert. denied* 2003 U.S. LEXIS 2919 (2003) (“no reason to conclude that the district court erred in not including this limitation in its construction . . .”).

<sup>9</sup> *Utah Medical Products, Inc. v. Graphic Controls Corp.*, 350 F.3d 1376 (Fed. Cir. 2003).

<sup>10</sup> Judge Rader has publicly stated his personal view on this, namely that the mandate given to the Federal Circuit by Congress was to harmonize the application of the patent laws, and, as to claim construction,

The prevailing articulation of the standard of review on appeal concerning claim constructions is not whether the specification (or other parts of the record) supports the district court's claim interpretation. Sustaining a claim interpretation on such a basis seems out of step with a *de novo* review that is conducted *without deference*.

Further addressing the standard of review, the Court also reviews *de novo* the issue of whether a claim passes muster for definiteness under 35 U.S.C. §112, ¶2. This is a legal conclusion drawn from the Court's performance of its claim construction duty. *See e.g., Omega Engineering v. Raytek Corp., supra*,<sup>12</sup> and *BJ Services Co. v. Halliburton Energy Services, Inc.*<sup>13</sup> This review is without deference. *Utah Medical Products v. Graphic Controls, supra*.

### **Substantive Overview**

Claim construction is *required* before determining certain issues such as infringement,<sup>14</sup> anticipation,<sup>15</sup> obviousness,<sup>16</sup> invalidity over alleged on-sale activity,<sup>17</sup> and inventorship.<sup>18</sup> It is a rare occasion when claim construction is not required in a patent case, but in 2003 the Court did decide one appeal from an interference<sup>19</sup> conducted in the PTO without giving a conclusive ruling on the meaning of the claim terms.<sup>20</sup>

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the Court has developed the law extensively during its tenure. Now the time is approaching when it is more appropriate for the Court to adopt a role of finding prejudicial error as opposed to declaring the law. Address, PriceWaterhouseCoopers Leadership Conference (Feb. 21, 2004, Scottsdale, AZ).

<sup>11</sup> Judge Rader does not equate the appellate review of claim construction with determining whether the construction finds support in the record. Thus, in *Middleton, Inc. v. Minnesota Mining and Manufacturing Company*, 311 F.3d 1384, 66 U.S.P.Q.2d 1138 (Fed. Cir. 2002), *rehearing and reh en banc denied*, 2003 U.S. App. LEXIS 1322 (Fed. Cir. 2003), he stated clearly that claim construction is reviewed without deference. Reversing a summary judgment, the Court did *not* indicate that the ruling *lacks* "support in the record."

<sup>12</sup>*See, e.g., Oakley, Inc. v. Sunglass Hut Int'l*, 316 F.3d 1331, 1341 (Fed. Cir. 2003) (The determination of definiteness requires a construction of the claims according to the familiar canons of claim construction). In this case, the Court affirmed the district court's claim construction in its analysis of claim definiteness. The Court reiterated its legal precedent that a patentee need not define his invention with mathematical precision in order to comply with the definiteness requirement.

<sup>13</sup>*BJ Services Co. v. Halliburton Energy Services, Inc.*, 338 F.3d 1368, 1372 (Fed. Cir. 2003).

<sup>14</sup>*Apex Inc. v. Raritan Computer, Inc.*, 325 F.3d 1364, 1370 (Fed. Cir. 2003) (Determination of infringement is a two-step analysis. First the Court determines the scope and meaning of the claims. Second, the properly construed claims are compared to the accused device.)

<sup>15</sup>*See e.g., Akamai Techs., Inc. v. Cable & Wireless Internet Services, Inc.*, 344 F.3d 1186, 1192 (Fed. Cir. 2003).

<sup>16</sup>*Id.* at 1195; *State Constructing & Eng., v. Condotte America*, 346 F.3d 1057, 1067 (Fed. Cir. 2003).

<sup>17</sup>*Dana Corp. v. American Axle & Mfg., Inc.*, 279 F.3d 1372, 61 U.S.P.Q.2d 1609 (Fed. Cir. 2002).

<sup>18</sup>*Trovan, Ltd. v. Sokomat SA.*, 299 F.3d 1292 (Fed. Cir. 2002).

<sup>19</sup>An interference is a proceeding conducted administratively before the PTO Board of Appeals & Interferences to determine which of two or more inventors is entitled to the patent.

<sup>20</sup>*Eli Lilly & Co. v. Board of Regents of the University of Washington*, 334 F.3d 1264 (Fed. Cir. 2003) reviewed a ruling from the Patent and Trademark Office (PTO) in an interference. The Board had dismissed the

If the Court determines that a claim is not amenable to construction, the claim is invalid as indefinite under 35 U.S.C § 112, ¶ 2.<sup>21</sup> The determination of an indefiniteness issue arises out of the court's performance of its duty to construe claims.<sup>22</sup>

Generally, the Court relies heavily on the public record, paying heed to the public notice function of claims and other intrinsic evidence.<sup>23</sup> The intrinsic evidence usually suffices, and reliance on extrinsic evidence (other than dictionaries and technical treatises) is seldom approved, save for determining what claim terms mean to the ordinarily skilled artisan. The Court relies on claim language and its plain meaning most often, frequently emphasizing its meaning to the ordinarily skilled artisan. Nevertheless, the Court always reviews the rest of the intrinsic evidence to determine, for example, whether the patent applicant had placed special meanings on terms or otherwise disclaimed the plain meaning with reasonable clarity and deliberateness.

A typical description by the Court in 2003 of the proper analysis of the intrinsic record appears in *Prima Tek II, LLC v. Polypap*:

Claim construction begins with the words of the claim. Generally, terms in a patent claim are given their plain, ordinary, and accustomed meaning to one of ordinary skill in the relevant art. After identifying the plain meaning of a disputed claim term, the Court examines the written description and the drawings to determine whether use of that term is consistent with the ordinary meaning of the term. This heavy presumption in favor of the

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case, finding no “interference in fact,” and it also had dismissed a motion to redefine the interfering subject matter. Appellant Lilly faulted the Board for not construing the claim before applying a test involving whether there was truly an interference. Basically, the Board avoided announcing a definitive claim construction by finessing the issue. It tested both of Lilly's contentions about claim 1 of the University's '529 patent, *i.e.*, whether it was to be construed broadly or narrowly. The Board found that in either case, the result was the same – that there was no “interference in fact.” Hence, the Board found it unnecessary to determine conclusively the scope of that claim. Though Federal Circuit affirmed, note that this case contains considerable discussion concerning the broad deference due to an administrative agency in applying its own rules, in this case a patent interference rule.

<sup>21</sup> *Novo Industries, I.P. v. Micro Molds Corp.*, 350 F.3d 1348, 2003 U.S. App. LEXIS 24458, \*12 (Fed. Cir. 2003), citing *Honeywell Int'l, Inc. v. Int'l Trade Comm'n*, 341 F.3d 1332, 1338 (Fed. Cir. 2003) (quoting *Exxon Research & Eng'g Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001)). In this case, the Court held that a district court can correct a patent only if (1) the correction is not subject to reasonable debate based on consideration of the claim language and the specification, and (2) the prosecution history does not suggest a different interpretation of the claims. *Id.* at \*22. Because the nature of the error was not apparent from the face of the patent and the proper correction of the patent was subject to reasonable debate, the Court ruled that the present case did not fall within the district court's authority to correct patents. The Court held the claim at issue invalid for being indefinite in its present form. *Id.* at \*23. Finally, the Court did not remand the case to the district court.

<sup>22</sup> *BJ Services Co. v. Halliburton Energy Services, Inc.*, 338 F.3d 1368, 1372 (Fed. Cir. 2003).

<sup>23</sup> See, e.g., *Springs Window Fashions v. Novo Industries, L.P.*, 323 F.3d 989, 995 (Fed. Cir. 2003).

ordinary meaning of claim language as understood by one of ordinary skill in the art is overcome: (1) where the patentee has chosen to be his or her own lexicographer by clearly setting forth an explicit definition for a claim term; or (2) where the term chosen by the patentee so deprives the claim of clarity that there is no means by which the scope of the claim may be ascertained from the language used. Similarly, the examination of the written description and drawings is necessary to determine whether the patentee has disclaimed subject matter or has otherwise limited the scope of the claims.

Notwithstanding the fact that the claim language must be examined in light of the written description, limitations may not be read into the claims from the written description. Similarly, the mere fact that the patent drawings depict a particular embodiment of the patent does not operate to limit the claims to that specific configuration. We have recognized that there is sometimes a fine line between reading a claim in the specification, and reading a limitation into the claim from the specification.

After examining the written description and the drawings, the same confirmatory measure must be taken with the prosecution history, since statements made during the prosecution of a patent may affect the scope of the invention. In some cases, this may take the form of an express disclaimer of a particular claim construction. In other cases, the statements may offer interpretative assistance to the Court in construing a particular claim.<sup>24</sup>

### **Intrinsic Evidence**

The Court relies heavily on the intrinsic evidence for construing the claims and considers extrinsic evidence in various instances discussed *infra*. The intrinsic evidence comprises the language of the claim sought to be construed, the other claims, the remainder of the patent document, and the prosecution history (if in evidence). The intrinsic evidence also includes the prior art cited in the prosecution history and excludes prior art that “the examiner failed to consider.” *Tate Access Floors v. Interface Architectural Resources* (2002).<sup>25</sup>

Previously, the Court confirmed that claim language itself stands at the top of the intrinsic evidence hierarchy, followed by “the rest of the intrinsic evidence.”<sup>26</sup> Claim construction calls for looking at *all* of the intrinsic evidence (claim language, written description,

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<sup>24</sup> 318 F.3d 1143, 1148-1149 (Fed. Cir. 2003) (internal citations omitted).

<sup>25</sup> *Tate Access Floors, Inc. v. Interface Architectural Resources, Inc.*, 279 F.3d 1357 (Fed. Cir. 2002).

<sup>26</sup> *Advanced Cardiovascular v. Medtronic*, 265 F.3d 1294 (Fed. Cir. 2001).

and prosecution history), e.g., *Hockerson-Halberstadt v. Avia Group* (2000),<sup>27</sup> with the claim language being most important.<sup>28</sup> Indeed, according to *Middleton v. 3M* (2002), *supra*, “the most important indicator of the meaning” of a disputed claim term “is its usage and context within the claim itself.”

Given that patent claims are required to be “supported” by the specification, some skepticism naturally arises when a proposed claim construction does not “read on” the preferred embodiment of the patent. Claim constructions that exclude the preferred embodiment are strongly disfavored. *See, e.g., NeoMagic v. Trident Microsystems* (2002)<sup>29</sup> (rarely correct and requires highly persuasive evidentiary support); and *Bowers v. Baystate* (2002), *supra*.

However, cases do arise where unambiguous claim language excludes the preferred embodiment,<sup>30</sup> and in such cases the Court declares that it is not a judicial function to refashion the claim to express what a court or ordinarily skilled artisan thinks the inventor meant to say. For example, in *Allen Engineering Corp. v. Bartell Industries, Inc.* (2002),<sup>31</sup> the Court followed the clear claim language, notwithstanding that the skilled artisan would have seen it as incorrectly describing the preferred embodiment.<sup>32</sup> Likewise, in *Rheox v. Entact* (2002)<sup>33</sup> the Court found highly persuasive evidentiary support to exclude parts of the preferred embodiment from the claim meaning.

But it is far more typical for the Court to reject a construction that excludes an embodiment disclosed in the written description. *Lacks Industries, Inc. v. McKechnie Vehicle Components USA, Inc.*<sup>34</sup> is a good illustration. There, the appellant argued that the trial court had misconstrued the plain meaning of the claim term “axial peripheral lip.” The Court rejected appellant’s preferred construction because it would require the Court to conclude that either

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<sup>27</sup> *Hockerson-Halberstadt v. Avia Group Int’l.*, 222 F.3d 951, 55 U.S.P.Q.2d 1487 (Fed. Cir. 2000).

<sup>28</sup> *See, e.g., Interactive Gift Express v. Compuserve*, 231 F.3d 859, 56 U.S.P.Q.2d 1647 (Fed. Cir. 2000), *opinion withdrawn* 256 F.3d 1323.

<sup>29</sup> *NeoMagic Corp. v. Trident Microsystems, Inc.*, 287 F.3d 1062, 62 U.S.P.Q.2d 1482 (Fed. Cir. 2002); *accord, Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336 (Fed. Cir. 2001); *Pandrol USA, LP v. Airboss Railway Prods., Inc.*, 2001 U.S. App. LEXIS 5293 (Fed. Cir. 2001) (not published).

<sup>30</sup> *Elektro Instrument v. O.U.R. Scientific International*, 214 F.3d 1302 (Fed. Cir. 2000).

<sup>31</sup> *Allen Engineering Corp. v. Bartell Industries, Inc.*, 299 F.3d 1336 (Fed. Cir. 2002).

<sup>32</sup> In *Allen Engineering*, it was obvious that several claims mistakenly used the word “perpendicular” instead of “parallel” to describe an aspect of a gearbox. However, the Court held that the error could not be overlooked during an invalidity analysis because, “semantic indefiniteness of claims ‘is not rendered unobjectionable merely because it could have been corrected.’” As such, the claims were infirm for not speaking to what Allen regarded as its invention.

<sup>33</sup> *Rheox, Inc. v. Entact, Inc.*, 276 F.3d 1319, 61 U.S.P.Q.2d 1368 (Fed. Cir. 2002).

<sup>34</sup> 322 F.3d 1335 (Fed. Cir. 2003).

Figure 5 or Figure 3 of the patent was incorrect, whereas the district court’s construction avoided that problem.<sup>35</sup>

In an earlier case, the Court stated that it would look beyond claim language only if it were unclear.<sup>36</sup> In 2003, however, the Court stated in *Combined Systems v. Defense Technology* that the written description “must be examined in every case, because it is relevant not only to aid in the claim construction analysis, but also to determine if the presumption of ordinary and customary meaning is rebutted.”<sup>37</sup>

### **Plain Meaning**

To construe a disputed claim term, the Court first ascertains its ordinary meaning, *See E-Pass Technologies v. 3Com*,<sup>38</sup> citing *Texas Digital Systems v. Telegenix* (2002)<sup>39</sup> (unless compelled otherwise, Court will give a claim term its full range of ordinary meaning as understood by persons skilled in art). The Court is clearly mindful of the importance of fair notice to the public of what a patent claim covers.<sup>40</sup> It determines the ordinary meaning of a claim term by reviewing various sources – the claims themselves, the written description, prosecution history, dictionaries, and treatises. *Teleflex v. Ficosa North America* (2002).<sup>41</sup>

#### **A. Heavy Presumption of Ordinary and Customary Meaning**

As a general rule, there is a “heavy presumption” that a term found in a claim will be given its ordinary and customary meaning as viewed by the ordinarily skilled artisan. *See Apex v.*

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<sup>35</sup> 322 F.3d at 1343. *But see* Judge Clevenger’s dissent, 322 F.3d at 1354-56.

<sup>36</sup> *KCJ v. Kinetic Concepts*, 223 F.3d 1351 (Fed. Cir. 2000).

<sup>37</sup> *Combined Systems Inc. v. Defense Technology Corp.*, 350 F.3d 1207 (Fed. Cir. 2003), quoting *Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 (Fed. Cir. 2003).

<sup>38</sup> *E-Pass Technologies, Inc. v. 3Com Corp.*, 343 F.3d 1364 (Fed. Cir. 2003); *Combined Systems Inc. v. Defense Technology Corp.*, 350 F.3d 1207, 68 U.S.P.Q.2d 1933 (Fed. Cir. 2003) (“in the absence of compelling evidence to the contrary in the written description or prosecution history,” the language of the claim recitation itself, “inserting said formed folds,” foreclosed folds formed after or during insertion).

<sup>39</sup> *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed. Cir. 2002), *rehearing and reh. en banc denied*, 2002 U.S. App. LEXIS 27412 (Fed. Cir. 2002), *cert. denied* 123. S.Ct. 2230 (2003).

<sup>40</sup> On the subject of giving notice to the public of what is patented, *see also*, *Johnson & Johnston Assocs. v. R.E. Service Co.*, 285 F.3d 1046,1052, 62 U.S.P.Q.2d 1225 (Fed. Cir. 2002) (*en banc*); *Bell Atlantic Network Services, Inc. v. Covad Communications Group, Inc.*, 262 F.3d 1258 (Fed. Cir. 2001); *Dayco Products, Inc. v. Total Containment, Inc.* 258 F.3d 1317 (Fed. Cir. 2001), *rehearing en banc denied*, 2001 U.S. App. LEXIS 21101 (Fed. Cir. 2001); *Superior Fireplace Co. v. Majestic Products Corp.*, 270 F.3d 1358 (Fed. Cir. 2001), *rehearing and reh. en banc denied*, 2002 U.S. App. LEXIS 2623 (Fed. Cir. 2002).

<sup>41</sup> *Teleflex, Inc., v. Ficosa North America Corp.*, 299 F.3d 1313, 63 U.S.P.Q.2d 1374 (Fed. Cir. 2002), *rehearing and reh. en banc denied*, 2002 U.S. App. 19256 (Fed. Cir. 2002).

*Raritan Computer, supra; Prima Tek II v. Polypap, supra* (same). *Accord, Sunrace Roots Enterprise Company Ltd. v. SRAM Corporation*,<sup>42</sup> *Bowers v. Bay State Technologies, Inc.*,<sup>43</sup> *3M Innovative Properties Co. v. Avery Dennison Corp.*<sup>44</sup> (citing *CCS Fitness v. Brunswick Corp.*<sup>45</sup>), *Resqnet.com, Inc. v. Lansa, Inc.*<sup>46</sup> (accustomed meaning in relevant community at relevant time), *E-Pass Technologies v. 3Com, supra*,<sup>47</sup> and *Resonate, Inc. v. Alteon Websystems, Inc.*<sup>48</sup>

## **B. Reference Date For Determining The Claim Meaning**

Issues can arise as to the *reference date* for construing claim terms, *viz.* whether the meaning should be determined as of (1) the date of the invention, (2) the patent application filing date, or (3) the issue date. The Court has made inconsistent pronouncements on this point. For example, in *Plant Genetic Systems, N.V. v. DeKalb Genetics Corp.*, the Court said it was proper to determine the plain meaning of the claims as understood at the time the patent application was filed.<sup>49</sup> The very next sentence of the opinion, however, referred to determining the meaning “as of the time of the invention.” The 2001 precedent cited by the Court for that proposition, however, stated that the literal scope of the term is “limited to what it was understood to mean at the time of filing.” [emphasis added].<sup>50</sup>

In *Resqnet.com v. Lansa, supra*, the Court referred to the time of the invention, stating, “[a] fundamental principle for discerning a term’s usage is the ordinary and accustomed meaning of the words amongst artisans of ordinary skill in the relevant art at the time of invention.” [emphasis added].<sup>51</sup>

These cases thus call for determining the meaning of claim language prior to the issue date of the patent. On the other hand, in *Brookhill-Wilk v. Intuitive Surgical*,<sup>52</sup> the Court criticized some reference materials considered by the district court because they were not

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<sup>42</sup> *Sunrace Roots Enterprise Company Ltd. v. SRAM Corporation*, 336 F.3d 1298, 1302, 1305 (Fed. Cir. 2003).

<sup>43</sup> 320 F.3d 1316 (Fed. Cir. 2003).

<sup>44</sup> 350 F.3d 1365 (Fed. Cir. 2003).

<sup>45</sup> *CCS Fitness v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002).

<sup>46</sup> *Resqnet.com, Inc. v. Lansa, Inc.*, 346 F.3d 1374 (Fed. Cir. 2003).

<sup>47</sup> 343 F.3d 1364, 1368 (citing *Sunrace Roots v. SRAM* and *CCS Fitness v. Brunswick*).

<sup>48</sup> *Resonate, Inc. v. Alteon Websystems, Inc.*, 338 F.3d 1360, 1365 (Fed. Cir. 2003).

<sup>49</sup> See e.g., *Plant Genetics Sys., N.V. v. Dekalb Genetics Corp.*, 315 F.3d 1335, 1345 (Fed. Cir. 2003).

<sup>50</sup> 315 F.3d 1335 at 1345 (citing *Kopykake Enterprises, Inc. v. Lucks Co.*, 264 F.3d 1377, 1383 (Fed. Cir. 2001)).

<sup>51</sup> 346 F.3d 1374, 2003 U.S. App. LEXIS 20962 at \*8.

<sup>52</sup> *Brookhill-Wilk I, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294 (Fed. Cir. 2003).

contemporaneous with the patent. They did not reflect the meanings that the words in dispute would have to persons of ordinary skill *as of the date of the patent grant*.<sup>53</sup>

### C. Context

In 2003, the Court often emphasized the context in which the claim language is used. For example, the patent-in-suit in *E-Pass Technologies, supra*, used the phrase “electronic multi-function card” in its preamble. First, to establish the ordinary meaning of the term, the Court consulted ordinary (non-technical) dictionary definitions of “card” which revealed that a card is “a flat, rectangular piece of stiff material.” Then the Court looked to the context of the disputed claim term, *i.e.*, the word “card” is part of a larger phrase *in the claim itself*. This context imposed no further limitation on the ordinary meaning. The Court next considered whether the written description changed the plain meaning.

The Court discussed context in *Ferguson Beauregard v. Mega Systems*.<sup>54</sup> It noted the general principles that absent an intent to use a “novel meaning,” the words “take on the full breadth of the *ordinary and customary* meanings attributed to them by those of ordinary skill in the art” [emphasis added]. These ordinary and customary meanings may be determined by reviewing various sources, such as the claims, reference works such as dictionaries and treatises, and the written description, drawings, and prosecution history. However, the words “must be considered in context.” In this case, (1) dictionaries indicated that “normal plunger performance” meant performance that is standard or regular and not in need of correction, and (2) the written description is consistent with and supports this construction “in the context of this invention.” The district court erred when it departed from this meaning and (implicitly) read a requirement into the claim that “assigning first values” representing such normal performance meant that the user must be able to assign the upper and lower values. However, the Court noted, “there is

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<sup>53</sup> *Id.* at 1299.

<sup>54</sup> *Ferguson Beauregard/Logic Controls v. Mega Systems, LLC*, 350 F.3d 1327 (Fed. Cir. 2003). The invention concerned an improvement method for pumping an oil well. One claim called for assigning “first values . . . which represent normal plunger performance.” Another independent method claim called for “assigning select values . . . which represent predetermined plunger performance.” The district court had found no infringement because the accused product allowed the user to assign one “first value” and the product would automatically add one minute to define a window. Testimony indicated that a one minute window was suitable only for oil wells at the one specific depth of 2,400 feet. Thus, reasoned the district court, the method practiced in the accused product bore no relationship to “normal plunger performance.”

nothing in the language of the claims, the written description, or the prosecution history to specify that the upper and lower values be separately settable . . . .”

Judge Rader’s concurring opinion noted that the phrase often used by the Court, “ordinary and customary,” implies the use of proper context. Thus, dictionaries give several definitions of terms, varying from one resource to the next and varying over time as language evolves. He noted that unless a Court uses the proper context in selecting a dictionary definition, it could err by importing an improper limitation:

Thus, when a Court relies on a dictionary definition, it must include additional reasoning to substantiate its choice amongst many possible definitions in many possible dictionaries at many possible times.<sup>55</sup>

Likewise, *Invitrogen Corp. v. Biocrest Mfg., L.P.*<sup>56</sup> warns that the ordinary meaning rule is not a formula, but depends for its meaning upon the context in which words are used:

While this “ordinary meaning” rule is expressed as a pat formula, the context supplied by the field of invention, the prior art, and the understanding of skilled artisans generally is key to discerning the normal usage of words in any claim.<sup>57</sup>

The Court also spoke of context in *Brookhill–Wilk v. Intuitive Surgical, supra*, noting that the term in dispute, “remote location,” must be viewed in the context of the whole phrase in the claim, namely, “remote location beyond a range of direct manual contact.” The disputed term involved a system and method for performing robotic surgery from remote locations. The issue was how far the surgeon had to be from the patient to be considered a “remote location.”<sup>58</sup>

#### **D. Focus Remains on Claim Language**

The *Brookhill-Wilk*<sup>59</sup> Court held that in construing claims, the analytical focus must begin and remain centered on the language of the claims themselves, for that is the language that the patentee chose to use to particularly point out and distinctly claim the subject matter he regards as his invention. Unless an inventor expressly states that he wants to impart a novel meaning to

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<sup>55</sup> 350 F.3d 1327, 2003 U.S. App. LEXIS 24417 at \*52-53.

<sup>56</sup> *Invitrogen Corp. v. Biocrest Mfg., L.P.*, 327 F.3d 1364 (Fed. Cir. 2003).

<sup>57</sup> *Id.* at 1367.

<sup>58</sup> The Court cited *Brookhill-Wilk* later in 2003 for the proposition that “[t]he context of the surrounding words in a claim also must be considered in determining the ordinary and customary meaning of a disputed claim term limitation.” *Arlington Industries v. Bridgeport Fittings*, 345 F.3d 1318, 1325 (Fed. Cir. 2003).

<sup>59</sup> 334 F.3d 1294 (Fed. Cir. 2003).

the claim terms, “the words are presumed to take on the ordinary and customary meanings attributed to them by those of ordinary skill in the art.”<sup>60</sup>

#### **E. Changing the Plain Meaning**

The Court will narrow the ordinary meaning in appropriate circumstances. What those circumstances comprise, however, is subject to some variation. For example, in 2002 Judge Michel identified the following four occasions:

- (1) if the patentee acted as his own lexicographer and clearly set forth a definition of the disputed claim term in either the specification or prosecution history;
- (2) “if the intrinsic evidence shows that the patentee distinguished that term from prior art on the basis of a particular embodiment, expressly disclaimed subject matter, or described a particular embodiment as important to the invention;”
- (3) “if the term ‘chosen by the patentee so deprives the claim of clarity’ as to require resort to the other intrinsic evidence for a definite meaning;” or
- (4) through use of Section 112 paragraph 6.

*CCS Fitness v. Brunswick*.<sup>61</sup>

Judge Dyk, however, in *Inverness Medical v. Princeton*<sup>62</sup> stated just two situations when the ordinary meaning would not control:

- (1) when the patentee becomes his own lexicographer and uses terms “in a manner other than their ordinary meaning, as long as the special definition of the term is clearly stated in the patent specification ...” and
- (2) “when the prosecution history limits the interpretation of claim terms ... to exclude any interpretation that was disclaimed during prosecution.”

This second approach corresponds to the discussion in *Texas Digital Systems, supra*, by Judge Linn, stating that the dictionary meaning applies unless: (1) the patentee was his own

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<sup>60</sup> *Id.* at 1298.

<sup>61</sup> *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359 (Fed. Cir. 2002).

<sup>62</sup> *Inverness Medical Switzerland GmbH v. Princeton Biomeditech Corp.*, 309 F.3d 1365, 64 U.S.P.Q.2d 1926 (Fed. Cir. 2002), *rehearing and reh. en banc denied* 2002 U.S. App. LEXIS 27509 (Fed. Cir. Dec. 2002). This case indicates also that a broader definition may be disclaimed, for example, where the examiner adopts a narrow definition and the applicant does not object, citing precedent that a failure to respond to an examiner's statement of reasons for allowance functioned as a disavowal of a different interpretation of the claim. In this case, the Court used the plain meaning, finding that it was unambiguous and was not contradicted by either the specification or the prosecution history.

lexicographer, or (2) the Court finds a clear and manifest disavowal or disclaimer of claim subject matter.<sup>63</sup>

Judge Gajarsa stated a third formulation in *Tate Access Floors v. Interface Architectural*, *supra*, tracking two of the items stated *supra* in discussing *CCS Fitness*, namely (1) patentee as own lexicographer and (3) the term deprives claim of clarity without resort to other evidence.

#### **F. Patentee as Lexicographer**

Occasionally, the patent document itself sets forth a meaning of a claim term. This is commonly known as the patentee acting as a lexicographer. The Court for years has required that if a term is to be redefined in the specification, an express intent must be presented there. If the presumption of ordinary and customary meaning of a claim term is to be rebutted by a definition in the specification, that definition must be set forth *clearly*.<sup>64</sup>

The Court also addressed the patentee acting as a lexicographer again in *3M Innovative Properties Co. v. Avery Dennison Corp.*<sup>65</sup> The Court noted that a term's ordinary meaning must be considered in the context of all intrinsic evidence, and that while limitations in a patent specification must not routinely be imported into the claims,

... a definition of a claim term in the specification will prevail over a term's ordinary meaning if the patentee has acted as his own lexicographer and clearly set forth a different definition ...<sup>66</sup>

The evidence showed that the patentee in this case had departed from the ordinary meaning of “embossed” by acting as his own lexicographer. The specification of the patent set

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<sup>63</sup> This approach is illustrated in *Arlington Industries v. Bridgeport Fittings*, 345 F.3d 1318 (Fed. Cir. 2003). There, Judge Linn began by giving the claim term in question (“flex”) its ordinary meaning and then reviewed the intrinsic record to “determine whether anything in that record overcomes the presumption that ‘flexing’ has [its] broad ordinary meaning.” 345 F.3d at 1326. In turn, the Court found that nothing in the claim language, written description or prosecution history rebutted the presumption that “flexing” takes its ordinary meaning. 345 F.3d at 1326-30.

<sup>64</sup> *Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1299 (Fed. Cir. 2003) *citing In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) and *Intellicall, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1387-88 (Fed. Cir. 1992). Also, in *Bell Atlantic v. Covad Communications*, *supra*, and *Intermatic v. Lamson & Sessions*, 273 F.3d 1355, 61 U.S.P.Q.2d 1075 (Fed. Cir. 2001), *rehearing and reh. en banc denied* 2002 U.S. App. LEXIS 3049 (2002), *vacated* 154 L.Ed.2d 423, 123 S.Ct. 549, 2002 U.S. App. LEXIS 6756 (2003), the Court reminded that an express intent must be given in the specification if a term is to be redefined therein. *See also, Prima Tek II v. Polypap*, *supra*, 318 F.3d 1143 at 1148 (quoted *supra* under “Substantive Overview”); *Anchor Wall Systems, Inc. v. Rockwood Retaining Walls, Inc.*, 340 F.3d 1298, 1306 (Fed. Cir. 2003); *Sunrace v. SRAM*, *supra*, 336 F.3d 1298 at 1303; *ACTV v. Walt Disney Co.*, *supra*, 346 F.3d 1082 at 1091.

<sup>65</sup> 350 F.3d 1365, 2003 U.S. App. LEXIS 24207, at \*22 (Fed. Cir. 2003).

<sup>66</sup> 350 F.3d 1365, 2003 U.S. App. LEXIS 24207 at \*12-13.

forth several *express definitions* of terms used in claim 1, including the terms “embossed” and “multiple embossed” (“‘Embossed’ means a topography ...” “‘Multiple embossed’ means two or more embossing patterns are ...”)<sup>67</sup> The Court stated that “[b]ecause 3M had expressly acted as its own lexicographer by providing a definition of embossed in the specification, the definition in the specification controls the meaning of embossed, regardless of any potential conflict with the term's ordinary meaning as reflected in technical dictionaries.”<sup>68</sup>

Likewise, in *Abbott Laboratories v. Novopharm Ltd.*,<sup>69</sup> the Federal Circuit found no error in reading the patentee’s explicit definition of a new term, “co-micronization,” into the claim.<sup>70</sup>

The situation was less clear in *E-Pass Technologies v. 3Com*, *supra*. After establishing the plain meaning of the claim language, the Court considered whether language in the specification imposed a definition on the disputed term (because the patentee may have been his own lexicographer or “disavowed or disclaimed scope of coverage, by using words or expressions of manifest exclusion or restriction” (*citing Texas Digital Systems, supra*)). The Court noted the difficulty of this issue:

Interpretation of descriptive statements in a patent’s written description is a difficult task, as an inherent tension exists as to whether a statement is a clear lexicographic definition or a description of a preferred embodiment. The problem is to interpret claims “in view of the specification” without unnecessarily importing limitations from the specification into the claims.

The specification stated that the object of the invention was to substitute a single electronic multifunction card for multiple credit cards.<sup>71</sup> To determine whether a statement in a specification was intended to “be lexicographic” or merely “to describe a preferred embodiment,” the Court examined further statements in the patent. In particular, the patentee had noted that card sizes vary from the industry standard. Such statements, according to the Court, suggest that the description was for a preferred aspect of the invention “rather than a precise definition.” Further, the Court also dealt with the district court’s application of “common sense” which decreed that the oversized accused product could not be a functional replacement for a

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<sup>67</sup> 2003 U.S. App. LEXIS 24207, at \*22.

<sup>68</sup> *Id.*

<sup>69</sup> 323 F.3d 1324 (Fed. Cir. 2003)

<sup>70</sup> *Id.* at 1330.

<sup>71</sup> Because of this and other evidence, the district court ruled that the card according to the claim could not read on a “palm pilot” and granted summary judgment of non-infringement.

single purpose card. The Court rejected these contentions because the intrinsic evidence showed that the disclosed embodiment would not need a magnetic stripe, and because it incorporated projecting contacts, unlike a normal credit card. Hence:

The Court’s task is not to limit claim language to exclude particular devices because they do not serve a perceived “purpose” of the invention. Rather, the district court’s function is to interpret claims according to their plain language unless the patentee has chosen to be his own lexicographer in the specification or has clearly disclaimed coverage during prosecution.<sup>72</sup>

There are limits on redefining terms. For example, in *Kumar v. Ovonic*,<sup>73</sup> the Court acknowledged that while a patent applicant may act as a lexicographer in the specification, the

specification cannot support a definition that is contrary to the ordinary meaning of a claim term unless it communicates a deliberate and clear preference for this alternative definition.<sup>74</sup>

*See also Arlington Industries v. Bridgeport, supra.*

The Court also reiterated that the inventor could act as a lexicographer by defining terms either explicitly or implicitly. *Moba v. Diamond Automation*<sup>75</sup>; *Bowers v. Baystate Technologies*<sup>76</sup>; *Invitrogen v. Biocrest, supra.*<sup>77</sup>

## **G. Other Bases**

The district court in *Abbott Laboratories v. Baxter Pharmaceutical Products*<sup>78</sup> construed the claims in light of information in an Information Disclosure Statement (“IDS”) filed by the patent applicant. The IDS disclosed a sale of a certain product (“sevoflurane in glass bottles with a water content up to 131 ppm”) more than one year before the filing date of the patent. The district court construed the claims at issue so that the claimed “effective amount” and “amount sufficient” would avoid the range of the prior sale.

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<sup>72</sup> 343 F.3d 1364 at 1370.

<sup>73</sup> *Kumar v. Ovonic Battery Co., Inc.*, 351 F.3d 1364 (Fed. Cir. 2003)

<sup>74</sup> 351 F.3d at 1368.

<sup>75</sup> *Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1313 (Fed. Cir. 2003), *rehearing and reh. en banc denied* 2003 U.S. App. LEXIS 9623 (Fed. Cir. 2003), *certiorari denied* 124 S.Ct. 464 (2003)

<sup>76</sup> *Bowers v. Baystate Technologies, Inc.*, 320 F.3d 1317, 1328 (Fed. Cir. 2003), *cert. denied* 156 L. Ed.2d (2003).

<sup>77</sup> *Invitrogen v. Biocrest, supra.*, 327 F.3d 1364 at 1367.

<sup>78</sup> 334 F.3d 1274 (Fed. Cir. 2003).

Reversing, the Federal Circuit stated that merely citing something in an IDS was not a concession that it constituted prior art under PTO rules; that the “effective amount” was broadly described in the patent; and that there was no express disavowal of the claim scope in the IDS.<sup>79</sup> Moreover, the description of the embodiments of the invention did not state that the *invention as a whole* was limited to the range named by the district court, but instead referred to only narrow preferred embodiments. The record thus far, according to the Federal Circuit, established no need to construe the claims to a specific range. However, on remand, the district court might determine whether the prior sale affects the validity of the claims.<sup>80</sup>

### **The Ordinarily Skilled Artisan**

The ordinarily skilled artisan is important to claim construction. For example, in 2002 the Court in *Leggett & Platt v. Hickory Springs*<sup>81</sup> reiterated the general rule that terms in a patent claim “receive their plain, ordinary, and accepted meaning *within the community of those of ordinary skill in the relevant art.*”<sup>82</sup> [emphasis added]. Expressions in 2003 have been similar: “A claim term means what one of ordinary skill in the art at the time of the invention would have understood the term to mean.”<sup>83</sup> See also, *Moba v. Diamond Automation*<sup>84</sup> (best indicator of claim meaning is its usage in context as understood by one of skill in the art at the time of the invention); *Brookhill-Wilk v. Intuitive Surgical, supra*<sup>85</sup> (view words in claims from perspective of a person skilled in the art); *Alloc v. International Trade Comm.* (standard for assessing claim meaning is the understanding of one skilled in the art at the time of the invention).<sup>86</sup>

In *Merck & Company, Inc. v. Teva Pharmaceuticals USA*,<sup>87</sup> the Court reminded that patents are not written for laymen but instead for and by persons experienced in the field of the invention. A technical term used in a patent document should be interpreted as having the meaning that it would be given by persons experienced in the field of the invention, unless it is

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<sup>79</sup> *Id.* at 1277-79.

<sup>80</sup> *Id.* at 1282.

<sup>81</sup> *Leggett & Platt, Inc. v. Hickory Springs Mfg. Co.*, 285 F.3d 1353 (Fed. Cir. 2002).

<sup>82</sup> *Id.* at 1357; cf. *Tate Access Floors, supra*, 279 F.3d at 1370.

<sup>83</sup> *Rambus, Inc. v. Infineon Techs. AG*, 318 F.3d 1081, 1088 (Fed. Cir. 2003), *rehearing denied* 2003 U.S. App. LEXIS 8845.

<sup>84</sup> *Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1315 (Fed. Cir.), *cert. denied*, 124 S.Ct. 464 (2003).

<sup>85</sup> 334 F.3d 1294 (Fed. Cir. 2003).

<sup>86</sup> 342 F.3d 1361, 1368 (Fed. Cir. 2003).

<sup>87</sup> 347 F. 3d 1367 (Fed. Cir. 2003).

clearly evident from the patent and prosecution history that the inventor imbued the term with a different meaning.

*Medical Instrumentation and Diagnostics Corp. v. Elekta AB*<sup>88</sup> involved Section 112, paragraph 6. The Court held that whether a skilled programmer could write a program called for in the claims is not the relevant inquiry for claims written in “means plus function” language. Rather, the correct inquiry is whether the disclosure is sufficient for a person of ordinary skill in the art to understand.

This comports with prior caselaw confirming that a technical term in a patent claim has the meaning that the person of ordinary skill in the art would give it.<sup>89</sup> Such an ordinarily skilled person provides the vantage point for determining whether the specification set forth adequate structure to achieve a claimed function in a §112, ¶6 claim.<sup>90</sup> Further, the ordinarily skilled artisan determines whether, when the claims are read with the rest of the specification, he would understand the patent scope, per the definiteness requirement of §112, ¶2. *S3 v. nVIDIA*.<sup>91 92</sup> Indeed, the Court in 2001 admonished that a failure to consider such extrinsic evidence can be reversible error. *AFG Industries v. Cardinal*.<sup>93</sup>

The Court has remanded cases so that the trial court can consider the ordinarily skilled artisan. For example, the Court in *Bayer v. Biovail* (2002)<sup>94</sup> did not enter a specific ruling but instead remanded the case to the district court and reaffirmed the role of the ordinarily skilled artisan in claim construction. The Court ruled that to construe the meaning of a disputed term, the Court “must consider what was known to one of ordinary skill in this art ... at the time of filing, in addition to the claims, the specification, and the prosecution history” citing *Unique*

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<sup>88</sup> 344 F.3d 1205 (Fed. Cir. 2003).

<sup>89</sup> *Bell Atlantic Network Services, Inc. v. Covad Communication Group, Inc.*, 262 F.3d 1258 (Fed. Cir. 2001); *Dayco Products Inc. v. Total Containment, Inc.*, 258 F.3d 1317 (Fed. Cir. 2001); *Interactive Gift Express* (2001), *supra*; *Rexnord* (2001), *supra*.

<sup>90</sup> *Budde v. Harley-Davidson*, 250 F.3d 1369 (Fed. Cir. 2001).

<sup>91</sup> *S3 (SONICblue, Inc.) v. nVIDIA*, 259 F.3d 1364 (Fed. Cir. 2001).

<sup>92</sup> It would appear that a district court has to weigh certain evidence in the process of construing claims, if it receives extrinsic evidence on what the claim language means to such hypothetical persons. Query whether summary judgment can be granted if opposing experts disagree, as one might predict, on the hypothetical ordinarily skilled person, or on what claim language means. While this might seem to raise a procedural issue – when there is a dispute as to the meaning to such hypothetical person – the Supreme Court still seems to require the district court to decide the fact issue as part of the claim construction. *See, AFG Industries, Inc. v. Cardinal*, (quoting *Seymour v. Osborne*, 78 U.S. 516 (1870)) (undoubted error to reject the testimony); *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390, 116 S. Ct. 1384, 1395-96 (1996) (claim construction ceded to trial court notwithstanding evidentiary underpinnings).

<sup>93</sup> *AFG Industries, Inc. v. Cardinal IG Co.*, 239 F.3d 1239 (Fed. Cir. 2001).

<sup>94</sup> *Bayer AG and Bayer Corp. v. Biovail Corp.*, 279 F.3d 1340 (Fed. Cir. 2002).

*Concepts v. Brown*<sup>95</sup> and *Fonar v. Johnson & Johnson*<sup>96</sup> (“expert testimony, including evidence of how those skilled in the art would interpret the claims,” applies in claim construction). *Accord, Apex Inc. v. Raritan Computer Inc.*,<sup>97</sup> (appropriate to look to extrinsic evidence including dictionaries and expert testimony to assist the trier of fact in understanding the evidence; record should reflect the ordinary meaning of claim limitations as a whole and whether they suggest sufficiently definite structure to one ordinarily skilled in the art); *Middleton v. 3M, supra* (meaning depends on usage of skilled artisans); *Neomagic v. Trident Microsystems, supra* (remanded for evidentiary hearings, including expert testimony, on whether one of skill in the art would understand that a “power supply” is designed to provide a constant voltage to a circuit).

### **Preambles**

The general rule, established over 50 years ago by the Court of Customs and Patent Appeals, a predecessor to the Federal Circuit and whose jurisprudence was adopted as precedent by the Federal Circuit, is that preamble language acts as a limitation on the claim only when it is necessary to give life, meaning, and vitality to it. *Kropa v. Robie*.<sup>98</sup> This issue is determined on a case-by-case basis in light of “the overall form of the claim, and the invention as described in the specification and illuminated in the prosecution history.” *Allen Engineering v. Bartell Industries* (2002).<sup>99</sup> The Court dealt with the issue of preamble limitations again in 2003, finding them limiting in some cases and non-limiting in others.

First considering cases where preamble language was found limiting, in *Eaton v. Rockwell*<sup>100</sup> preamble language was not only limiting but also outcome-determinative. The claim concerned a method and was written in the form of a very extensive preamble setting forth structure followed by two much shorter paragraphs that “characterized” the method. The district court construed the preamble as non-limiting, and the jury found literal infringement. Reversing, the Federal Circuit reiterated the following general rules applicable to dealing with preamble language [citations omitted]:

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<sup>95</sup> *Unique Concepts, Inc. v. Brown*, 939 F.2d 1558, 1561 (Fed. Cir. 1991).

<sup>96</sup> *Fonar Corp. v. Johnson & Johnson*, 821 F.2d 627, 631 (Fed. Cir. 1987), *overruled in part*, 508 U.S. 83, 90.

<sup>97</sup> *Apex Inc. v. Raritan Computer Inc.*, 325 F.3d 1364, 1374 (Fed. Cir. 2003).

<sup>98</sup> *Kropa v. Robie*, 38 C.C.P.A. 858, 187 F.2d 150, 152, 88 USPQ 478, 480-81 (CCPA 1951).

<sup>99</sup> *Allen Engineering v. Bartell Industries*, 299 F.3d 1336 (Fed. Cir. 2002).

<sup>100</sup> *Eaton Corp. v. Rockwell International Corp.*, 323 F.3d 1332 (Fed. Cir. 2003).

1. A preamble limits the claim when it recites “essential structure or steps” or if it is necessary to “give life, meaning, and vitality” to the claim.
2. “A preamble has the import that the claim as a whole suggests for it.” When the claim uses text in both the preamble and the claim body to define the invention claimed, the invention as so defined is protected by the patent.
3. When limitations in the body of the claim rely upon and find their antecedents in the preamble, that preamble *may* act as a necessary component of the claimed invention.
4. However, if the body of the claim sets out the complete invention, then the preamble language *may* be superfluous.

In this case, the structure named in the preamble permitted the performance of the first step of the claimed method. Also, the method referred back to particular structure from the preamble, *e.g.*, “said vehicle master clutch (8).” The second step of the claimed method likewise called for manipulating particular structures that are identified and set forth in the preamble only. Hence, according to the Court, this is an example of the claim drafter choosing to use *both* the preamble and the body to define the claimed subject matter, and those recitations were limitations of the claim.<sup>101</sup> Note that this is similar to a “Jepson” style claim which recites the “old” portion of the claimed combination first, then adds a clause such as “wherein the improvement comprises,” and then recites the improvement.

In *Invitrogen Corp. v. Biocrest Mfg., L.P.*,<sup>102</sup> the issue arose of whether the term “improved competence” in the preamble was limiting. The Court ruled that it was. The applicant had relied on “improved competence” during prosecution to avoid prior art. Thus, the inventor cannot later “disavow the claim limitation of ‘improved competence’ because it was clearly essential for procuring the patent.”<sup>103</sup>

*Jansen v. Rexall Sundown, Inc.*<sup>104</sup> dealt with a similar situation. There, the applicant obtained issuance of his claims after nearly 20 years of unsuccessful prosecution by adding the

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<sup>101</sup> This case presents a vivid contrast to the decision in *Catalina Marketing International, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801 (Fed. Cir. 2002), where the Court found that the preamble language was not a claim limitation as it was not relied upon to define the invention, was not essential to understand the limitations or terms in the claim body, did not specify essential structure or steps, was not used to distinguish over prior art, and did not affect the structure of the invention.

<sup>102</sup> 327 F.3d 1364, 1367 (Fed. Cir. 2003).

<sup>103</sup> *Id.* at 1370.

<sup>104</sup> 342 F.3d 1329 (Fed. Cir. 2003).

phrase “treating or preventing macrocytic-megaloblastic anemia” to the preamble. The Court found that the prosecution history demonstrated that the preamble was limiting and that the claim was limited to only those who followed the claimed method with the purpose of treating macrocytic-megaloblastic anemia. Thus, defendant who sold a combination of folic acid and vitamin B12 only for the treatment of ordinary anemia did not infringe through inducement or contributorily. In addition, the Court found that the preamble phrase “a human in need ...” was not merely a statement of effect but a statement of intentional purpose for which the method must be performed.

*Boehringer Ingelheim Vet-Medica v. Schering-Plough Corp.*<sup>105</sup> stated that preamble language “will limit the claim if it recites not merely a context in which the invention may be used, but the essence of the invention without which performance of the recited steps is nothing but an academic exercise.” The Court recognized that this principle frequently holds true for method claims. In *Boehringer*, the terms “growing” and “isolating” in connection with an infectious virus were the basis for the claimed invention, not merely a description of when the invention would be useful. The effect of preamble language must be based on the claim as a whole. The Court in *Boehringer* adopted the plaintiff’s interpretation that a virus is “isolated” not only when the virus is cultured from the tissues of an infected animal, but also during subsequent serial passages of the virus when the virus is cultured from an aliquot of an infected cell culture.

The Court found that some of the preamble language was limiting and some was not in *Storage Technology Corp. v. Cisco Systems, Inc.*<sup>106</sup> As to one patent in suit, the trial court erred in finding the preamble terms “policy caching method” and “policy cache” to be limiting. The Court noted that in the written specification, these preamble terms in questions were consistently used as descriptions of the invention as a whole. It saw these phrases as convenient labels for the invention as a whole. Moreover, when a claim in the patent requires the instance of policy to be cached, it explicitly recited an “instance of policy cache” limitation in the body of the claim. Thus, the preamble language in this case simply referred to the invention set forth in the body of the claim, and it was improper for the district court to include further limitations based on the preamble language.

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<sup>105</sup> 320 F.3d 1339 (Fed. Cir. 2003).

<sup>106</sup> 329 F.3d 823, 851 (Fed. Cir. 2003).

On the other hand, as to a second patent in suit, the phrase “forwarding device” appeared in the preamble of all asserted claims. Here, the applicants had made arguments during prosecution as to this feature, and the Court of Appeals concluded that the applicants had considered the “forwarding processor” or “second processor” to be part of the forwarding device recited in the preamble. Hence, it operated as a limitation on the claims.<sup>107</sup>

Preamble language was not found limiting in *Altiris, Inc. v. Symantec Corp.*,<sup>108</sup> where a method claim recited a series of steps used to “boot up” a computer. The preamble indicated that the claimed method was performed prior to a normal boot, but the body of the claim did not explicitly dictate the order of the steps. One of the arguments for non-infringement was that the claim language dictated the order of steps, based on the language in the preamble. The Court did not discount the preamble, or indicate that it was not substantive, but rejected the defendant’s argument because the method steps in the body of the claim did not require that they be performed in the order written, and nothing in the claim or the specification directly or indirectly required a narrow construction.

#### **A. Jepson Claims**

In 2002, the Court had commented on Jepson style preambles and confirmed in *Epcon Gas Systems v Bauer Compressors*<sup>109</sup> that they are limiting. Citing precedent, the Court ruled that when the Jepson form is used, the preamble defines not only the context of the claimed invention, but also its scope.

#### **B. Transition Terms**

In *Medichem SA v. Rolabo, S.L.*,<sup>110</sup> the Court stated that the transition term “comprising” in the preamble of a method claim “indicates that the claim is open ended and allows for additional steps.” The Court agreed with plaintiff’s claim construction that if the claim were limited only to the elements presented, the transition term would have been “consisting of” rather than “comprising.”

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<sup>107</sup> *Id.* at 835.

<sup>108</sup> 318 F.3d 1363, 65 U.S.P.Q.2d 1865 (Fed. Cir. 2003).

<sup>109</sup> *Epcon Gas Systems, Inc. v. Bauer Compressors, Inc.*, 279 F.3d 1022, 61 U.S.P.Q.2d 1470 (Fed. Cir. 2002).

<sup>110</sup> 353 F.3d 928, 2003 U.S. App. LEXIS 26236 (Fed. Cir. 2003).

In *Invitrogen. v. Biocrest, supra*,<sup>111</sup> the Court stated that the transition term “comprising” in a method claim indicates that the claim is open-ended and allows for additional steps.

In *AK Steel v. Sollac*, the Court construed the phrase “consisting essentially of aluminum,”<sup>112</sup> explaining that this phrase in a patent claim “... represents a middle ground between the open-ended term 'comprising' and the closed-ended phrase 'consisting of.’”<sup>113</sup> The Court further stated that “[i]n view of the ambiguous nature of the phrase, it has long been understood to permit inclusion of components not listed in the claim, provided that they do not materially affect the basis and novel properties of the invention.”<sup>114</sup>

In *Abbott Laboratories v. Baxter Pharmaceutical Products*,<sup>115</sup> the Court dealt with a “Markush group” (which allows the claiming of a member “selected from the group consisting of . . .”). The Court ruled that without specific words contemplating the selection of multiple members of that group, the claim is limited to just one selected member of the group.<sup>116</sup>

### **C. Other Terms**

On a somewhat related note, the Court noted that using the words “first” and “second” in the body of the claim to identify two identical elements is common patent practice. Such usage provides no basis for calling the claim a product-by-process claim with a time sequence on these elements. *3M Innovative Properties v. Avery Dennison, supra*.<sup>117</sup>

### **Claim Differentiation – Other Claims**

Patent claims other than the one at issue are part of the intrinsic evidence and should therefore be considered. Litigants nearly always assert that language of one claim has to be construed a certain way in light of the language of other claims. In the early years of the Federal Circuit, Chief Judge Markey characterized claim differentiation as an immutable rule of patent claim construction.<sup>118</sup> This rule raises a presumption of differing scope. In 2003, claim differentiation received attention in several cases.

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<sup>111</sup> 327 F.3d 1364, 1367 (Fed. Cir. 2003).

<sup>112</sup> *AK Steel Corp. v. Sollac*, 344 F.3d 1234, 1239 (Fed. Cir. 2003) (internal citations omitted).

<sup>113</sup> *Id.*

<sup>114</sup> *Id.*

<sup>115</sup> 334 F.3d 1274 (Fed. Cir. 2003) (summary judgment of noninfringement vacated and remanded)

<sup>116</sup> *Id.* at 1280-81.

<sup>117</sup> 350 F.3d 1365, 2003 U.S. App. LEXIS 24207.

<sup>118</sup> *D.M.I. Inc. v. Deere & Co.*, 755 F.2d 1570, 1574 (Fed. Cir. 1985).

The presumption of differing meaning was not overcome in *RF Delaware v. Pacific Keystone Technologies*.<sup>119</sup> In that case, the Court declined to read a limitation in a dependent claim into the independent claim, based on the doctrine of claim differentiation.

Likewise, the presumption was not overcome either in *AK Steel Corp. v. Sollac*.<sup>120</sup> The Court noted that "[i]f the dependent claims expressly recite 'up to 10% silicon,' then the independent claims, which must be at least as broad as the claims that depend from them, must include aluminum coatings with 'up to about 10% silicon.'" <sup>121</sup>

In *Sunrace Roots Enterprise Company Ltd. v. SRAM Corporation*,<sup>122</sup> the Court applied claim differentiation in the patentee's favor. The claim at issue concerned a method of downshifting a bicycle derailleur gearshift system. Apparatus claims in the patent specified a cam. Method claim 16, however, did not refer to the cam. Nevertheless, the district court included it in construing the phrase "shift actuator" that appeared in the preamble and body of that claim. Reversing the district court's judgment of non-infringement, the Federal Circuit framed the issue as determining whether the presumption that the ordinary meaning was intended has been overcome.<sup>123</sup> It then found that claim differentiation undermined the competitor's (Sunrace's) argument that the shift actuator should be construed more narrowly than its ordinary meaning suggests, finding that if Sunrace's contention were accepted, there would be no difference between claims 24 and 27.

Notwithstanding the doctrine of claim differentiation, the Court in *Alloc, Inc. v. Int'l. Trade Comm.*<sup>124</sup> read a feature of some independent claims ("play" between interlocking floor panels) into the other independent claims. As explained in the "Written Description" portion of this paper, *infra*, the Court had several reasons for this particular reading.

Because of the rule that if a claim term appears in more than one claim it should be construed the same in each, in the context of claim construction, identical language in different claims is properly grouped together.<sup>125</sup> The Court observed in *Dayco II*,<sup>126</sup> however, that "[t]he

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<sup>119</sup> *RF Delaware, Inc. v. Pacific Keystone Technologies, Inc.*, 326 F.3d 1255, 2003 U.S. App. LEXIS 7450 (Fed. Cir. 2003).

<sup>120</sup> 344 F.3d 1234, 1242 (Fed. Cir. 2003).

<sup>121</sup> *Id.*

<sup>122</sup> 336 F.3d 1298 (Fed. Cir. 2003)

<sup>123</sup> 336 F.3d at 1302.

<sup>124</sup> 342 F.3d 1361, 68 U.S.P.Q.2d 1161 (Fed. Cir. 2003).

<sup>125</sup> See *Dayco Products, Inc. v. Total Containment, Inc.*, 329 F.3d 1358, 1371, 66 U.S.P.Q.2d 1801 (Fed. Cir. 2003) ("*Dayco II*").

<sup>126</sup> *Id.*

grouping of recitations in different claims for the purpose of claim construction does not permit the grouping of claims, each independently possessing a presumption of validity, for disposition of their validity.”<sup>127</sup> Finding that the claims were not materially identical, the grant of summary judgment of invalidity in *Dayco II* was set aside as to claims not individually addressed by the district court.<sup>128</sup>

### **Written Description**

Section 112 of the patent statute requires the patent specification to “contain a written description of the invention . . . .”<sup>129</sup> It also requires the specification to “conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.”<sup>130</sup> Parties often hold significantly different views on how to harmonize statements about the invention in the “written description” with the claim language.

Statements in the “written description” are intrinsic evidence to be considered in construing the claim. This intrinsic evidence, even when it is not claim language, can have profound effects on claim construction. The Court acknowledges that only a fine line separates “reading a claim in the specification, and reading a limitation into the claim from the specification.” *Prima Tek II, supra*.<sup>131</sup>

The Court reviews the written description to determine whether the patentee has given any special meanings to claim terms, explicitly or implicitly, and to see whether the patentee has made a disclaimer or stated another limitation that bears on the claim scope. The “special meanings” issue is treated *supra* in the discussion of “Plain Meaning,” especially under the subtopic, “Patentee as Lexicographer.”

An example of disclaimers or other limitations is found in *SciMed v. Advanced Cardiovascular* (2001).<sup>132</sup> The Court in that case found that the written description of the patent-in-suit disclaimed a defendant’s configuration. The Court thus affirmed a narrow construction of the claims and finding of non-infringement. Judge Dyk’s concurring opinion in *SciMed* warned that the caselaw had not clarified when one should take guidance from the specification and

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<sup>127</sup> *Id.*

<sup>128</sup> *Id.*

<sup>129</sup> 35 U.S.C. §112 para. 1.

<sup>130</sup> 35 U.S.C. §112 para. 2.

<sup>131</sup> 318 F.3d 1148-49.

<sup>132</sup> *SciMed Life Systems, Inc. v. Advanced Cardiovascular Systems, Inc.*, 242 F.3d 1337 (Fed. Cir. 2001).

when one should not. Again in *Rexnord v. Laitram*,<sup>133</sup> the Court noted the general rule which suggests that one should look to the specification (and drawings) to see whether there has been a disclaimer.

*Biogen v. Berlex Laboratories*<sup>134</sup> illustrates a more aggressive approach in using the specification to limit the scope of the claim. The issue there was whether the claim was broad enough to cover both linked and unlinked methods of co-transformation (introducing a foreign gene which is accepted by a “host” cell). The claim language was ambiguous, and the written description disclosed only linked co-transformation. In limiting the scope of the claim to only the linked co-transformation method, the Court was influenced by the written description. Although there was no disavowal to cover un-linked co-transformation, the relative silence of the inventor on the subject of un-linked co-transformation weighed against the broader scope urged by the patentee. The Court also rejected the patentee’s argument that the interchangeability of linked and co-linked methods of co-transformation was known to one of ordinary skill: “. . . for complex biological processes a reference to known general techniques does not establish whether or how such techniques may be successfully adapted to a particular activity.”<sup>135</sup>

It is natural to read a document in proper sequence, and in the case of a patent, the claims *follow* the description of the preferred embodiment(s). In 2002, the Court in *Texas Digital Systems, supra*, had explained the danger of consulting the specification and file history *ahead of* discerning the ordinary and customary meanings of claim terms. The Court observed that such a procedure invites the error of importing limitations into the claims. This is evident, for example, where just one embodiment is described. One must take care to avoid limiting the claims to that single form or embodiment. Construing the claims *in light of* the specification is quite different from limiting the claims to the illustrated embodiment. Unless persons of skill in the art would limit the meaning of the words of the claims to just the described embodiment(s), it is error to read such limitations into the claims.

*Brookhill-Wilk v. Intuitive Surgical, supra*,<sup>136</sup> shows how using the written description led the district court into a claim construction error. The patent was for a surgical system permitting the surgeon to operate remotely from the patient. The fundamental issue was how “remote” the

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<sup>133</sup> *Rexnord v. Laitram*, 274 F.3d 1336 (Fed. Cir. 2001).

<sup>134</sup> *Biogen, Inc. v. Berlex Laboratories, Inc.*, 318 F.3d 1132 (Fed. Cir. 2003).

<sup>135</sup> 318 F.3d at 1136-37.

<sup>136</sup> 334 F.3d 1294 (Fed. Cir. 2003)

surgeon had to be.<sup>137</sup> In this case, (1) the patent claim contained broad language, (2) the dictionary contained multiple definitions for the claim term, some broad and some narrow, (3) the specification mentioned an object of the invention that comported with the narrower definition, and (4) the sole preferred embodiment was also consistent with the narrower definition. After the district court determined that dictionary definitions would not rule out either of the competing proposed claim constructions, it considered the objectives and advantages set forth in the written description and “determined that they would not be met unless the surgeon is located beyond the room in which the patient is located.” Furthermore, according to the district court, because only one preferred embodiment was set forth (where the surgeon was outside the operating room), this “necessarily limited” the claims to such situations. The lower court also found that the prosecution history pointed to the same result and accordingly ruled that “remote location” in the claims meant outside the operating room.<sup>138</sup> Thus, the district court granted summary judgment of non-infringement based on the claim construction because the accused system was for use within the operating room itself.

Reversing, the Federal Circuit found no reason to include features of the written description in the claims for the following reasons:

1. Dictionary definitions are only the starting point in construing disputed language in patent claims.
2. The context of the disputed term, “remote location,” *had* to be considered to identify which of the dictionary definitions is most consistent with the words used by the inventor. In this instance, the context did not point to the meaning espoused by either party.
3. The specification did not rebut the presumption of ordinary and customary meaning. The patentee did not *clearly* set forth a definition in the specification different from that meaning.
4. Similarly, the specification did not contain a *clear* disavowal of claim scope. The written description set forth no specific parameters as to the distance between surgeon and patient, but taught generally that the surgeon may operate without directly touching the patient, the endoscope, or the surgical instruments.

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<sup>137</sup> The claim specified “a remote location beyond a range of direct manual contact with said patient’s body and ... endoscopic instrument.”

<sup>138</sup> 334 F.3d at 1297.

5. Even though the “objects of the invention” contemplated surgeons operating “from all over the world,” the patent did not disavow the use of the invention within the same operating room as the patient.
6. The specification did not specify that the invention is useful *only* where the surgeon is located at a great distance from the operating room.
7. Advantages described in the body of the specification that are not included in the claims are not per se limitations on the claimed invention.
8. Absent a manifest exclusion or restriction limiting the claims in either the written description or prosecution history, the Court is “constrained” to follow the language of the claims and give the claim term its full breadth as understood by persons skilled in the relevant art.<sup>139</sup>

In *Pandrol v. Airboss*,<sup>140</sup> the Court used the broad, plain meaning of a claim term and stated that such meaning was proper in view of the specification, which includes both the abstract and the preferred embodiment.

Likewise in *Prima Tek II, supra*, the Court adopted a broad meaning for the term “floral holding material” and refused to read limitations from the specification into the claim. The Court noted that the specification taught the disputed term in open-ended examples and demonstrated the term in varied uses and thus did not describe with reasonable clarity, deliberateness, and precision the narrower definition sought by the defendants.<sup>141</sup>

As noted *supra* in discussing transition terms, the *AK Steel* Court construed the phrase “consisting essentially of aluminum.”<sup>142</sup> In addition, after closely examining the specification, the Court found that to not materially alter the basis and novel properties of the claim, the claims must be interpreted to permit no more than 0.5% silicon by weight in the aluminum coating. The Court also noted the differences between a specification teaching the inventor's theory by which the invention is believed to operate and the specification expressing statements that limit the claim. The Court found that the specification in this case did not teach a theory, but rather it was

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<sup>139</sup> *Id.* at 1301-02 (citing *Teleflex, supra*, 299 F.3d at 1328 and *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336 (Fed. Cir. 2001)).

<sup>140</sup> *Pandrol USA, LP v. Airboss Railway Products, Inc.*, 320 F.3d 1354 (Fed. Cir. 2003).

<sup>141</sup> 318 F.3d 1143, 1151 (Fed. Cir. 2003). The Court also applied the same reasoning to construe the term “substantially bonded.”

<sup>142</sup> *AK Steel Corp. v. Sollac*, 344 F.3d 1234, 1239 (Fed. Cir. 2003) (internal citations omitted).

"an expression speaking to the conditions under which the invention will or will not operate properly."<sup>143</sup>

The specification was not read into the claims in *Amgen, Inc. v. Hoechst Marion Roussel, Inc.*<sup>144</sup> The patent described the production of erythropoietin (EPO). The patent described an exogenous process in which human EPO was produced through transfection (introduction) of exogenous DNA into host Chinese hamster ovary cells. The defendant produced the EPO through an endogenous process, by taking the ordinarily unexpressed endogenous (or “native”) EPO gene in human cells and transfecting a viral promoter and certain other DNA that does not encode EPO. The other DNA was inserted into a chromosome at a predetermined target location upstream from the endogenous EPO gene, to produce “Gene Activated” EPO. None of the asserted claims contained either an “exogenous DNA” or “endogenous DNA” limitation, but an unasserted claim was limited to “exogenous DNA”. The Court did not limit the asserted claims to exogenous DNA, on the basis of claim differentiation and the lack of “clear disavowal” of subject matter.

Patents often include statements of advantages or purposes, and as such these form part of the intrinsic evidence. When a patent specification declares that an invention possesses several advantages or purposes, that does not limit the patent scope to structures that encompass *all* of them. Thus, the Court in *E-Pass Technologies v. 3Com, supra*, vacated a summary judgment of non-infringement and remanded for a determination of the infringement issue.<sup>145</sup>

Similarly, the Court in *Sunrace Roots v. SRAM, supra*,<sup>146</sup> declined to import a “cam” feature from the specification into one of the claims. The district court had relied on statements in the specification that an “object of the invention was to use a “... shifting system having a ... cam which defines the derailleur mechanism movements,” that an “important part” of the invention was programming the cam operating face, that each handgrip shift actuator contains such a cam, and that the “rotary cam member ... is the heart of the ... actuator.”<sup>147</sup> The Federal Circuit found these statements *insufficient* evidence of an intention to depart from the ordinary meaning of “shift actuator.” The first-cited statements simply detail *some* of the goals of *some*

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<sup>143</sup> *Id.* at 1240.

<sup>144</sup> 314 F.3d 1313, 65 U.S.P.Q.2d 1385 (Fed. Cir. 2003).

<sup>145</sup> See also, *Resonate, Inc. v. Alteon Websystems, Inc.*, 338 F.3d 1360, 67 U.S.P.Q.2d 1771 (Fed. Cir. 2003).

<sup>146</sup> 336 F.3d 1298 (Fed. Cir. 2003)

<sup>147</sup> *Id.* at 1304.

apparatus claims, but they were not the *only* goals of the invention. The third and fourth statements do not define the term “shift actuator” and do not constitute expressions of clear exclusion.

The Court in *Sunrace Roots* took the opportunity to explain some of its (often-cited) cases where limitations were read into the claims. This occurred where (1) the patent described the preferred embodiment *as the invention itself*;<sup>148</sup> (2) the patent distinguished the prior art on the basis that it lacked the relevant features;<sup>149</sup> and (3) all disclosed embodiments contain the element and the written description expressly distinguished the prior art as not including that element.<sup>150</sup> None of these factors applied to SRAM’s patent-in-suit. Hence, while “an accused infringer may overcome the heavy presumption of [ordinary meaning] and narrow a claim term’s ordinary meaning, he can not do so simply by pointing to the preferred embodiment or other structures or steps disclosed in the specification or prosecution history.”<sup>151</sup> Further, “Whether an invention is fairly claimed more broadly than the ‘preferred embodiment’ and the specification is a question specific to the content of the specification, the context in which the embodiment is described, the prosecution history, and if appropriate the prior art.”<sup>152</sup>

The Court in *Bowers v. Bay State Technologies, Inc.* (2003)<sup>153</sup> stated that “a claim construction that excludes from its scope a preferred embodiment is rarely, if ever, correct and would require highly persuasive evidentiary support.”

The Court in *Boehringer Ingelheim v. Schering-Plough Corp.*<sup>154</sup> held that while the ordinary and customary meaning of a claim term is strongly presumed to govern its construction, the patentee can overcome this presumption by presenting evidence from the specification or the prosecution history that the term was used inconsistently with its ordinary meaning. The Court found that the specification supported the broader definition of “isolation” offered by the patent holder rather than a more narrow definition offered by the accused infringer.

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<sup>148</sup> *Wang Labs, Inc. v. America Online, Inc.*, 197 F.3d 1377 (Fed. Cir. 1999).

<sup>149</sup> *SciMed Life Systems, Inc. v. Advanced Cardiovascular Systems, Inc.*, 242 F.3d 1337 (Fed. Cir. 2001).

<sup>150</sup> *O.I. Corp. v. Tekmar Co.*, 115 F.3d 1576, 1581-82 (Fed. Cir. 1997).

<sup>151</sup> 336 F.3d at 1305 citing *CCS Fitness Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002).

<sup>152</sup> *Id.* (citing *Teleflex v. Ficosa North America Corp.*, 299 F.3d 1313, 1327 (Fed. Cir. 2002) and *Wang Labs, supra*, 197 F.3d at 1383).

<sup>153</sup> 320 F.3d 1316 (Fed. Cir. 2003).

<sup>154</sup> 320 F.3d 1339 (Fed. Cir. 2003).

The Court in *Merck & Company v. Teva Pharmaceuticals USA*<sup>155</sup> held that a fundamental rule of claim construction is that “the terms in a patent document are construed with the meaning with which they are presented in the patent document.” The interpretation given to claim terms must be consistent with the meaning given to them in the specification.

The Court in *Minton v. National Association of Securities*<sup>156</sup> used the specification to interpret the phrase “between individuals” because the claim language was unclear. The Court held that the district court’s construction encompassed the embodiment of the invention disclosed in the specification, whereas the accused infringer’s interpretation excluded that embodiment.

In *Tehrani v. Hamilton Medical Inc.*,<sup>157</sup> the Court held that while claims are examined in light of the specification to determine what the claimed invention is, limitations from the specifications may not be read into the claims, unless the claim language itself requires such a reading.

In *Cordis Corp. v. Medtronic Ave, Inc.*,<sup>158</sup> the Court considered the written description and refused to narrow the claims of a CIP to exclude a particular embodiment not carried forward from a parent patent to the CIP. The parent patent had contained a figure showing a stent made of “continuous, stainless steel wire woven into a criss-cross tubular pattern.” This particular figure was not carried forward into the CIP application which matured into one of the patents-in-suit. The district court had based one of its rulings on this omission. The Federal Circuit disagreed with such reasoning, however, because other reasons may justify not carrying forward an embodiment. For example, it might not satisfy a limitation that was added in the CIP. This, however, does not limit the scope of protection of the CIP to the preferred embodiments that were carried forward.<sup>159</sup>

The Court in *Deering Precision Instruments*<sup>160</sup> relied on the ordinary meaning of “substantially” and the written description to construe the claim limitation “disposed substantially in an imaginary plane containing the fulcrum” as requiring a not insubstantial portion of a weight to intersect a plane containing the fulcrum. The specification supported the

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<sup>155</sup> 347 F.3d 1367 (Fed. Cir. 2003).

<sup>156</sup> 336 F.3d 1373 (Fed. Cir. 2003).

<sup>157</sup> 331 F.3d 1355 (Fed. Cir. 2003).

<sup>158</sup> 339 F.3d 1352, 1358, 67 U.S.P.Q.2d 1876 (Fed. Cir. 2003).

<sup>159</sup> *Id.*

<sup>160</sup> 347 F.3d 1314, 1324, 68 U.S.P.Q.2d 1716 (Fed. Cir. 2003).

finding that “substantially,” which the Court acknowledged is capable of multiple interpretations, as used in the claim was a term of magnitude as opposed to approximation.

In *Genzyme Corp. v. Transkaryotic Therapies, Inc.*,<sup>161</sup> the Court carefully considered several portions of the specification to determine that the "applicant consistently uses the term 'integrated' to refer to a foreign gene inserted into a host cell chromosome." Also, it noted that the “Summary of the Invention” explicitly described the “invention,” and not simply a preferred embodiment. The Court did not construe “chromosomally integrated” broadly. This construction was supported by statements in the prosecution history and by usage of the term in the extrinsic evidence.

In *Akamai Techs., Inc. v. Cable & Wireless Internet Services, Inc.*,<sup>162</sup> disputed issues of validity turned on one point—whether the placement of the load balancing software was at either the DNS servers or the origin server. The Court determined that while the "written description unquestionably contemplates the preferred location of the load balancing software, [the claims] do not expressly require its presence."<sup>163</sup> Finding also that the patentee did not expressly disclaim claim scope or impart a novel meaning in the specification, the Court reasoned that "the plain meaning of the claim language does not require any load balancing mechanism."<sup>164</sup> As a result of the Court's construction and pursuant to an agreement between the parties regarding this determination, the Court held that the subject patent was invalid.

The Court justified its reading of specification features into the claims in *Alloc. v. Int'l. Trade Comm.*<sup>165</sup> on several bases. First, the specification described the “invention” as a system of panels “where a play exists between the locking groove and a locking surface . . . .”<sup>166</sup> The patent in suit described a flooring system made of interlocking panels, and the specification described the panels as having “play.” Some, but not all, of the claims included a “play” limitation. The Court interpreted all of the claims to require “play,” including the claims that did not explicitly recite “play,” based on descriptions in the specification that the invention as a whole, not merely a preferred embodiment, provided for “play” in the positioning of the floor

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<sup>161</sup> 346 F.3d 1094, 1199-1100 (Fed. Cir. 2003).

<sup>162</sup> 344 F.3d 1186, 1193 (Fed. Cir. 2003).

<sup>163</sup> *Id.*

<sup>164</sup> *Id.* The *Akamai* Court also chose not to follow the testimony of the inventor.

<sup>165</sup> *Alloc, Inc. v. Int'l. Trade Comm.*, 342 F.3d 1361, 68 U.S.P.Q.2d 1161 (Fed. Cir. 2003).

<sup>166</sup> 342 F.3d at 1368-69.

panels. In addition, the specification criticized the prior art floor systems as not having play.<sup>167</sup> Further, all figures and embodiments disclosed or implied “play.”<sup>168</sup> The Court recognized that it must interpret *in light of* the specification and yet avoid *impermissibly* importing limitations from the specification. The balance “turns on how the specification characterizes the claimed invention.”<sup>169</sup> “Where the specification makes clear ... that the claimed invention is narrower than the claim might imply, it is entirely permissible and proper to limit the claims.” In this case, the majority of the panel found that the specification “read as a whole leads to the inescapable conclusion that the claimed invention must include play in every embodiment.”<sup>170</sup> Circuit Judge Schall filed a dissenting opinion.

### **Prosecution History**

When in evidence, the prosecution history is to be reviewed and can bear on claim construction, as disclaimers of certain interpretations or definitions of terms may be found there. Judge Bryson reviewed the general principles in *Honeywell v. Victor* (2002):

The district court erred in not according more weight to the inventor's definition. It is well settled that a patentee may define a claim term either in the written description of the patent or, as in the present case, in the prosecution history. [citation omitted] Frequently, a definition offered during prosecution is made in response to a rejection, and is entered in conjunction with a narrowing amendment. [citation omitted] Such a definition limits the scope of the claim, preventing the patentee from later recapturing what was previously surrendered. Although the inventor's definition does not have a narrowing effect, it is nonetheless relevant in indicating the meaning that the inventor ascribed to the term. [citations omitted]<sup>171</sup>

In that case, the Federal Circuit faulted the district court for not giving more weight to a definition that the inventor had provided during prosecution on the contested claim term “contiguous.”

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<sup>167</sup> *Id.* at 1369.

<sup>168</sup> *Id.* at 1370.

<sup>169</sup> 342 F.3d at 1370 *citing Sunrace Roots v. SRAM, supra.*

<sup>170</sup> *Id.*

<sup>171</sup> 298 F.3d 1317, 1323-24 (Fed. Cir. 2002), *rehearing denied*, 2002 U.S. App. LEXIS 20933. In this passage, the Court's statement that an inventor's definition “does not have a narrowing effect” seems questionable, as the prevailing law holds that the ordinary meaning applies absent disclaimers or disavowals in the written description or prosecution history (or other factors apply).

The Court in *Bowers v. Bay State Technologies*<sup>172</sup> cited statements made by the inventor in distinguishing over prior art to find the patent claim not infringed.<sup>173</sup> Specifically, the inventor distinguished over a prior art software program wherein the template did not satisfy the claim limitation because the main-menu groups including sub-menus did not represent working functions. The Court relied upon this interpretation to reverse the lower court and found that no reasonable jury could read the element in issue on the accused software program. No remand was required.

The Court in *Boehringer Ingelheim v. Schering-Plough, supra*,<sup>174</sup> held that a cited reference's use of "isolating" in a narrower sense did not prevent the claim term from encompassing the broader meaning also illustrated in the specification unless the patent expressly relied on the narrower meaning during prosecution.

The Court in *Brookhill-Wilk v. Intuitive Surgical, supra*,<sup>175</sup> noted that patentability was not attributed to the position of the surgeon outside the operating room. In determining the meaning of the term "remote location," the Court observed that the patentee argued before the Patent and Trademark Office that the cited prior art did not disclose nor suggest the automatic operation of the surgical instruments in response to actuator control signals and the manipulation of controls from an unspecified remote location. The term "remote location" was entitled to receive the full scope of its ordinary and customary meaning, including all locations that are "far apart, distant" or "greater than usual."

In *Sunrace v. SRAM, supra*,<sup>176</sup> the Court stated that "prosecution history may not be used to infer the intentional narrowing of a claim absent applicant's clear disavowal of claim coverage. To be given effect, such a disclaimer must be clear and unmistakable."

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<sup>172</sup> 320 F.3d 1316 (Fed. Cir. 2003).

<sup>173</sup> See also, *Oakley v. Sunglass Hut Int'l*, 316 F.3d 1331, 1345 (Fed. Cir. 2003). In this case, the Court relied in part on the prosecution history of the patent-in-suit to affirm the district court's grant of a preliminary injunction. The Court held that the alleged infringer's proposed construction of the phrase "vivid colored appearance" was based on an incorrect reading of the prosecution history. The Court cautioned, however, that its ruling was based on a preliminary and tentative claim construction, and that the district court need not retain this claim construction later at trial. The Court did not engage in full construction of the claims as this was an appeal from a grant of a preliminary injunction (see discussion, *infra*).

<sup>174</sup> 320 F. 3d 1339 (Fed. Cir. 2003).

<sup>175</sup> 330 F.3d 1294 (Fed. Cir. 2003).

<sup>176</sup> 336 F.3d 1298 (Fed. Cir. 2003).

Similarly, in *Springs Window Fashions v. Novo Industries*, the Court required any disclaimer to be stated with “reasonable clarity and deliberateness.”<sup>177</sup> In that case, the Court applied a disclaimer.

Judge Rader has cautioned that the prosecution history must be understood in its proper context. In *Invitrogen Corp. v. Biocrest Mfg. L.P.*, *supra*,<sup>178</sup> Judge Rader wrote for the Court in reversing a grant of summary judgment of non-infringement for the defendant. The trial court had misinterpreted the file history to conclude that the applicant had disclaimed all growth of *E. coli* cells occurring outside the range of 18° C to 32° C. However, when read properly in context, the applicant had only disclaimed growth of *E. coli* above 32° C that immediately precedes the step of rendering the *E. coli* cells competent. Because the applicant had not addressed *E. coli* growth at 37° C that occurs before the initiation of the claimed method, the trial court erred in concluding that defendant’s method of incubating *E. coli* cells at 37° C before initiation of the claimed method did not infringe.

Similarly, in *Cordis Corp. v. Medtronic AVE, Inc.*<sup>179</sup> the Court rejected the district court’s construction of “substantially uniform thickness” as requiring the thickness not to vary by more than 0.001 inch based upon statements in the prosecution history about a prior art device. The Court found that because “there was no clear and unmistakable disclaimer of any variation in thickness of 0.001 inch or more, the district court erred in imposing that numerical restriction” on this claim limitation. A statement made during reexamination that a prior art device is not smooth and that “the wall thickness . . . ‘varied at different points’ and ‘ranged from a minimum thickness of 0.0035 inches to a maximum thickness of 0.0045 inches’” was deemed insufficient to narrow the claims.<sup>180</sup>

Following the Supreme Court Decision in *Festo*, the Court of Appeals in *Talbert Fuel Systems Patents Company v. Unocal Corporation*<sup>181</sup> stated that the Supreme Court applied the principles of prosecution history estoppel to claims that had been narrowed by amendment. Estoppel prohibits the inventor from ignoring representations made during prosecution of his patent and to reasonable inferences drawn from such amendments. When the prior art covers the

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<sup>177</sup> *Springs Window Fashions LP v. Novo Industries, L.P.*, 323 F.3d 989, 994 (Fed. Cir. 2003).

<sup>178</sup> 327 F.3d at 1360.

<sup>179</sup> 339 F.3d 1352,1360-63, 67 U.S.P.Q.2d 1876 (Fed. Cir. 2003).

<sup>180</sup> *Id.*

<sup>181</sup> 347 F. 3d 1355 (Fed. Cir. 2003).

alleged equivalent, and the inventor narrowed his claims to avoid that equivalent, that subject matter was clearly foreseeable at the time of the amendment.

In some situations, the Court has not required that the disclaimer of scope to be clear and unmistakable. In *Biogen, Inc. v. Berlex Laboratories, Inc.*, *supra*,<sup>182</sup> the Court relied on the prosecution history (in addition to the written description discussed earlier) to find that the claims covered only linked co-transformation and not unlinked co-transformation. Although there was no express disavowal of the broader scope, the applicant had described his invention consistently in terms of linked co-transformation only. In affirming the district court's narrower construction, the Court noted the importance of the prosecution history to the public's understanding of the invention:

The Court correctly viewed the prosecution history not for the examiner's or applicant's subjective intent, but as an official record that is created in the knowledge that its audience is not only the patent examining officials and the applicant, but the interested public.<sup>183</sup>

*Inverness Medical v. Princeton* (2002), *supra*, noted that a failure *by the applicant* to respond to an examiner's statement of reasons for allowance functioned as a disavowal of a different interpretation of the claim.

The converse was not found to be true in 2003. In *Prima Tek II v. Polypap*, *supra*,<sup>184</sup> the Court refused to draw a negative inference from *the examiner's silence* during the prosecution history. The Court stated, "the examiner never stated that 'holding material' is equivalent to the 'floral holding material' claimed in the patent . . . [w]e note that drawing inferences of the meaning of claim terms from an examiner's silence is not a proper basis on which to construe a patent claim."<sup>185</sup>

In *3M Innovative Properties v. Avery Dennison*, *supra*,<sup>186</sup> the Court found that there was no clear disavowal of claim scope during the prosecution. At issue was whether a sequential creation of a "multiple embossed pattern" should be read into the claim. In an uncommon set of circumstances, the applicant had broadened its claims in response to an indefiniteness rejection

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<sup>182</sup> 318 F.3d 1132 (Fed. Cir. 2003).

<sup>183</sup> 318 F.3d at 1139.

<sup>184</sup> 318 F.3d 1143, 1151 (Fed. Cir. 2003).

<sup>185</sup> *Id.*; See also, *DeMarini Sports, Inc. v. Worth, Inc.*, 239 F.3d 1314, 1326 (Fed. Cir. 2001) (addressing silence in prosecution history).

<sup>186</sup> 350 F.3d 1365, 2003 U.S. App. LEXIS 24207, at \*17-\*22 (Fed. Cir. 2003).

and dropped the sequential limitation. The Court determined that although this situation is "perhaps unusual [] it is entirely permissible, and the plain meaning of the claim as issued must control."<sup>187</sup> The applicant also included an express definition in the specification.<sup>188</sup> As a result, the Court explained, "When the patentee has expressly defined a term in the specification and remarks made to distinguish claims from the prior art are broader than necessary to distinguish the prior art, the full breadth of the remark is not a clear and unambiguous disavowal of claim scope as required to depart from the meaning of the term provided in the written description."<sup>189</sup> The Court also addressed the applicant's silence in response to an examiner's statement, stating, "An applicant's silence in response to an examiner's characterization of a claim does not reflect the applicant's clear and unmistakable acquiescence to that characterization if the claim is eventually allowed on grounds unrelated to the examiner's unrebutted characterization." Thus, the Court refused to find that the claims contained a sequential embossment limitation.<sup>190</sup>

In *Storage Technology v. Cisco Systems, supra*,<sup>191</sup> the Court held that the patent applicant's inaccurate statement of the scope of his claim during prosecution did not limit claim scope absent claim language referring to the supposed limitation.

The prosecution history statement described generally the features of the claimed invention and erroneously suggests that the independent claims include a cache for the instance of network policy. The applicants' inaccurate statement cannot override the claim language itself, which controls the bounds of the claim.<sup>192</sup>

On the other hand, the Court in *ACCO Brands Inc. v. Micro Security Devices, Inc.*, held that the applicant limited his claim scope during prosecution.<sup>193</sup> In addressing the applicant's failure to respond to examiner's comments made in the Reasons for Allowance, the Court noted "[a]lthough there is no obligation to respond to an examiner's statement of Reasons for Allowance, and the statement of an examiner will not necessarily limit a claim, in this case the

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<sup>187</sup> 2003 U.S. App. LEXIS 24207, at \*17-\*18.

<sup>188</sup> The Court also noted that this expressed definition described "only the structural relationship between the embossing patterns . . . and even words of limitation that can connote with equal force a structural characteristic of the product or a process of manufacture are commonly and by default interpreted in their structural sense, unless the patentee has demonstrated otherwise." 2003 U.S. App. LEXIS 24207, at \* 15.

<sup>189</sup> 2003 U.S. App. LEXIS 24207, at \*20.

<sup>190</sup> 2003 U.S. App. LEXIS 24207, at \*21-\*22.

<sup>191</sup> 329 F.3d at 832.

<sup>192</sup> *Id.*

<sup>193</sup> 346 F.3d 1075, 1079 (Fed. Cir. 2003).

examiner simply repeated the arguments that the patentee had presented."<sup>194</sup> Thus, the Court applied the same construction to the 'pin' limitation to the amended claim 10 as it did to the unamended claim 1.

The district court erred in *Rambus, Inc. v. Infineon Techs. AG, supra*,<sup>195</sup> by placing too much emphasis on a single introductory comment in the prosecution history, and thus, improperly read into the claim two limitations not recited by the claim language. The *Rambus* Court reasoned that a general, incorrect statement in the prosecution history "does not govern the meaning of the claims . . . [and] consistent with *Intervet America, Inc. v. Kee-vet Laboratories, Inc.*,<sup>196</sup> the imprecise statement in the prosecution history does not limit claim 26."<sup>197</sup> The Court further noted that "[t]he claim language itself controls the bounds of the claim, not a facially inaccurate remark during prosecution."<sup>198</sup>

The Court in *Rambus* examined the totality of the prosecution and concluded that the applicant did not clearly disavow or disclaim the claim scope. The issue was whether a "bus" meant only a "multiplexing bus" or would include other type of buses. The Court thoroughly examined the prosecution history (as well as the specification) by reviewing the originally filed claims, various restriction requirements, and the examiner's comments. Ultimately, the Court was convinced that that the patentee "did not redefine 'bus' to be a multiplexing bus in the patents-in-suit . . . [n]one of [the patentee's] statements constitute a clear disclaimer or disavowal of claim scope."<sup>199</sup>

In *Omega Engineering v. Raytek*, the Court reaffirmed that limiting prosecution history statements in ancestor cases are perpetuated as limitations on progeny cases that use the same claim terms.<sup>200</sup>

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<sup>194</sup> *Id.*

<sup>195</sup> 318 F.3d 1081, 1089 (Fed. Cir. 2003), rehearing denied, 2003 U.S. App. LEXIS 8845.

<sup>196</sup> *Intervet America, Inc. v. Kee-vet Laboratories, Inc.*, 887 F.2d 1050 (Fed. Cir. 1989) (addressing an erroneous remark in the prosecution history).

<sup>197</sup> *Id.* at 1090.

<sup>198</sup> *Id.*

<sup>199</sup> 318 F.3d 1081, 1094-1095 (Fed. Cir. 2003), rehearing denied, 2003 U.S. App. LEXIS 8845.

<sup>200</sup> 334 F.3d at 1333.

## **Extrinsic Evidence**

Patent infringement cases generally involve many kinds of evidence, most of it extrinsic to the patents. Of course, much of this is not directed to the claim construction process. However, the courts are often required to consider how the extrinsic evidence bears on claim construction. Such extrinsic evidence includes dictionaries, technical references, other patents, inventor testimony, and expert testimony. The Federal Circuit has addressed each of these.

### **A. Dictionaries and Other Technical Resources**

The Federal Circuit refers to dictionaries as a special form of extrinsic evidence. Generally, they can be used to determine the ordinary meaning of the claims. Judge Linn gave extensive treatment to dictionaries in *Texas Digital Systems v. Telegenix, supra*, an often-cited case stating that, among other things, dictionaries may be referred to by the trial *or appellate* Court *at any time* (even if not offered into evidence). However, the dictionary (or other technical resource) must have been available when the patent issued. Further, the patentee is entitled to the full range of the definitions to the extent they are not inconsistent with the specification, and they avoid absurd results (and provided there is no disclaimer or redefinition, etc.). However, as noted *supra*, the Court mentioned in several cases that the definitions must be in the proper context. *See, e.g., Ferguson Beauregard v. Mega Systems, supra*.

Thus, to find “the ordinary and customary meaning” of the word “flange” in *Waner v. Ford Motor Co.*,<sup>201</sup> the Court followed the *Texas Digital Systems* process. It noted that “flange” was given no specific meaning in the intrinsic record. The Court found several definitions in a (non-technical) dictionary and, consulting the specification and drawings of the patent-in-suit, selected the one definition that “most adequately represents what the inventor intended to claim in his invention.”<sup>202</sup>

In *Moba v. Diamond Automation*,<sup>203</sup> the Court used the *Oxford English Dictionary* as well as the specification to help interpret the ordinary meaning of the infinitives “to hold” and

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<sup>201</sup> *Waner v. Ford Motor Co.*, 331 F.3d 851 (Fed. Cir. 2003), *reh. and reh. en banc denied*, 2003 U.S. App. LEXIS 14803 (Fed. Cir. 2003), *cert. denied*, 2004 U.S. LEXIS 59 (2004).

<sup>202</sup> 331 F.3d at 854.

<sup>203</sup> 325 F.3d 1306, 1315 (Fed. Cir. 2003).

“to urge.” Concerning the word “urge,” the Court chose a meaning that avoided excluding the preferred embodiment from the claims.<sup>204</sup>

Also following *Texas Digital Systems*, the Court in *Genzyme Corp. v. Transkaryotic Therapies, Inc.*<sup>205</sup> ascertained the accustomed usage of the term "chromosomally integrated" in the relevant community by considering technical dictionaries and publications. The Court cautioned, however, that “perhaps the best tool to put the claims in proper temporal and technical context is the patent specification itself.”<sup>206</sup>

In *Kumar v. Ovonic Battery Co.*,<sup>207</sup> the Court held that the ordinary dictionary definition of the term *amorphous* was “trumped” by a conflicting definition which could be found in a prior art reference that had been discussed extensively during prosecution.

In *Intellectual Property Development, Inc. v. UA-Columbia Cablevision of Westchester, Inc.*,<sup>208</sup> the issue was whether “high frequency” should be interpreted using an ordinary dictionary definition, which was very broad, or a technical dictionary definition, which was narrow and avoided infringement. The Court adopted the narrow definition, based in part on the description of “VHF” in the specification. Because “VHF” (very high frequency) was described as 30-300MHz, “high frequency” was defined as 3-30MHz, even though that definition was not in the specification.

In *Riverwood Int’l. Corp. v. R.A. Jones & Co., Inc.*,<sup>209</sup> the Court found that there was no dictionary definition for “flight bars” in packaging equipment, so the ordinary meaning was determined from the specification.

In *Altiris, Inc. v. Symantec Corp.*,<sup>210</sup> the dictionary definition of “automation” in the phrase “automation code” was so broad as to lack significant meaning. Because the patentee chose a phrase that deprived the claim of clarity, the Court resorted to the specification to interpret the phrase.

The Court in *Boehringer Ingelheim v. Schering-Plough Corp.*<sup>211</sup> reaffirmed that courts are free to consult dictionary definitions of disputed terms, even if such dictionary definitions are

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<sup>204</sup> *Id.* at 1316.

<sup>205</sup> 346 F.3d 1094, 1098 (Fed. Cir. 2003).

<sup>206</sup> *Id.*

<sup>207</sup> 2003 U.S. LEXIS 2490, at \*\*8-10 (Fed. Cir. 2003).

<sup>208</sup> 336 F.3d 1308, 67 U.S.P.Q.2d 1385 (Fed. Cir. 2003).

<sup>209</sup> 324 F.3d 1346, 66 U.S.P.Q.2d 1331 (Fed. Cir. 2003).

<sup>210</sup> 318 F.3d 1363, 65 U.S.P.Q.2d 1865 (Fed. Cir. 2003).

<sup>211</sup> 320 F.3d 1339 (Fed. Cir. 2003)

not offered into evidence at trial. The Court found the definition of “isolation” offered by the accused infringer to be unnecessarily narrow.

The Court in *Brookhill-Wilk v. Intuitive Surgical, supra*,<sup>212</sup> rejected the district court’s use of unrelated and non-contemporaneous authorities to interpret the disputed term “remote location.” “Because the references were not contemporaneous with the patent, they did not reflect the meanings that would have been attributed to the words in dispute by persons of ordinary skill in the art as of the date of the grant of the patent.” These references were not considered in the Court’s *de novo* claim construction analysis.

The Court in *Brookhill-Wilk* also noted that consulting dictionary definitions is simply a first step in the claim construction analysis. “While dictionaries and treatises are useful resources in determining the ordinary and customary meaning or meanings of disputed claim terms, the correct meaning of a word or phrase is informed only by considering the surrounding text.” To interpret claims correctly, a Court must always look to the surrounding text of the claims in question, the other claims, the written description, and the prosecution history. Abstract dictionary definitions alone are not determinative. The Court also stated that claim terms may encompass all definitions consistent with the intrinsic record.

On the other hand, in *Tehrani v. Hamilton Medical Inc.*,<sup>213</sup> the Court reaffirmed its prior holding that when a term has multiple dictionary definitions, a Court must consult the intrinsic record “to identify which of the different possible dictionary meanings of the claim terms in issue is the most consistent with the use of the words by the inventor.”<sup>214</sup>

In *Rambus v. Infineon, supra*, the Court considered two technical dictionaries, albeit in an analogous context, to construe the term “integrated circuit device.”<sup>215</sup> As to the term “bus”, however, the Court expressly considered a technical dictionary.

## **B. Other Reference Works**

Reference works other than dictionaries are also used. In *Glaxo Wellcome, Inc. v. Andrx Pharma*.<sup>216</sup>, the Court relied on the definition for HPMC (hydroxypropyl methylcellulose) defined in the *Handbook of Pharmaceutical Additives*.

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<sup>212</sup> 334 F.3d 1294 (Fed. Cir. 2003).

<sup>213</sup> 331 F.3d 1355 (Fed. Cir. 2003).

<sup>214</sup> *Id.* at 1361 (citing *Texas Digital Systems v. Telegenix*, 308 F.3d 1193, 1203 (Fed. Cir. 2002)).

<sup>215</sup> 318 F.3d 1081, 1091 (Fed. Cir. 2003), rehearing denied, 2003 U.S. App. LEXIS 8845.

A less commonly used but potentially helpful source of extrinsic evidence are publications produced by so-called standards-setting organizations. The Court in *ACTV, Inc. v. Walt Disney Co.* stated that “[it] should be understood, however, that there is no general prohibition on the use of publications from standards-setting organizations to aid in determining the ordinary and customary meaning of technical terms. Where such a document reflects common usage by those skilled in the relevant art, the document may indeed be an appropriate reference.”<sup>217</sup> Despite this precedent, the *ACTV* Court rejected considering RFC's (Request for Comments) from the W3C (World Wide Web Consortium) because “the documents of the [W3C] do not reflect common usage, but purport to select language to be used in the future elevation of these Requests for Comments to the same authoritative, unbiased level as dictionaries is improper.”<sup>218</sup>

### C. Subjective Intent and Inventor Testimony

In 2003, the Court reaffirmed that inventor testimony has little probative value for purposes of claim construction. *E-Pass Technologies v. 3Com*, *supra*, citing *Solomon v. Kimberly Clark* (2000).<sup>219</sup> The Court had addressed this in *Superior Fireplace v. Majestic Products* (2001)<sup>220</sup> and *Amazon.com v. Barnesandnoble.com* (2001).<sup>221</sup> In 2000, the Court had explained that while inventor testimony is rejected as probative of the claim meaning, extrinsic evidence may properly be received to educate the Court about the underlying technology, *Hockerson-Halberstadt*, *supra*, or to show the context or history of the invention, *Cortland Line v. Orvis* (2000)<sup>222</sup> and *Solomon v. Kimberly Clark* (2000), *supra*.

In 2003, the Court in *Akamai v. Cable & Wireless* confirmed these principles by rejecting the inventor's testimony that a claim term was understood to have a special meaning for the term “identifying” with respect to load balancing.<sup>223</sup> The Court explained that “[t]his extrinsic evidence is not the unequivocal evidence, indicating the term ‘identifying’ should take anything

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<sup>216</sup> 344 F.3d 1226, 1229 (Fed. Cir. 2003).

<sup>217</sup> 346 F.3d 1082, 1090 (Fed. Cir. 2003).

<sup>218</sup> *Id.*

<sup>219</sup> *Solomon v. Kimberly Clark*, 216 F.3d 1372, 55 U.S.P.Q.2d 1279 (Fed. Cir. 2000).

<sup>220</sup> *Superior Fireplace Co. v. Majestic Products Co.*, 270 F.3d 1358 (Fed. Cir. 2001), *rehearing and reh. en banc denied*, 2002 U.S. App. LEXIS 2623 (Fed. Cir. 2002).

<sup>221</sup> *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343 (Fed. Cir. 2001).

<sup>222</sup> *Cortland Line v. Orvis*, 203 F.3d 1351 (Fed. Cir. 2000).

<sup>223</sup> *Akamai Techs, Inc. v. Cable & Wireless Internet Services, Inc.*, 344 F.3d 1186, 1194 (Fed. Cir. 2003).

other than its ordinary and accustomed meaning.”<sup>224</sup> The Court stated further “[w]hile this possibly suggests that the inventors believed the ‘identifying’ step included a load balancing function, what the patentee subjectively intended his claims to mean is largely irrelevant to the claim’s objective meaning and scope.”<sup>225</sup>

Similarly, in *Sunrace Roots v. SRAM*, *supra*, the Court found that the intrinsic evidence resolved any ambiguity in the claim meaning and therefore rejected the competitor’s evidence of inventor testimony in prior litigation.<sup>226</sup>

#### **D. Other Extrinsic Evidence**

The Court in prior years declared in some cases that it will look beyond claim language only if it is unclear.<sup>227</sup> The Court also stated that *after* the intrinsic evidence is considered in claim construction, *if ambiguity remains*, then extrinsic evidence may be considered in determining the meaning or scope of technical terms in claims.<sup>228</sup>

On the other hand, other Federal Circuit cases declare that extrinsic evidence can or should have various roles in the claim construction process. Indeed, it may actually be *necessary* to consider extrinsic evidence to determine what the ordinarily skilled artisan understands.<sup>229</sup> The Court has remanded one case for consideration of extrinsic evidence.<sup>230</sup>

In *Apex v. Raritan Computer* (2003), the Court reviewed the relationship of intrinsic and extrinsic evidence in the claim construction process, stating that extrinsic evidence can be received but cannot be relied upon to vary clear meanings of terms in the claims:

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<sup>224</sup> *Id.* (citations omitted)

<sup>225</sup> *Id.* (citations omitted); *See also*, *Solomon v. Kimberly-Clark Corp.*, 216 F.3d 1372 (Fed. Cir. 2000).

<sup>226</sup> 336 F.3d 1298, 1307.

<sup>227</sup> *E.g.*, *KCJ v. Kinetic Concepts*, 223 F.3d 1351 (Fed. Cir. 2000). In *Vitronics v. Conceptronic*, 90 F.3d 1576, 1582 (Fed. Cir. 1996), the Court declared that if the intrinsic evidence alone would resolve any ambiguity in a claim term, it is improper to rely on extrinsic evidence.

<sup>228</sup> *Frank’s Casing Crew & Rental Tools, Inc. v. PMR Technologies, Ltd.*, 292 F.3d 1363, 1374 (Fed. Cir. 2002); *Pickholtz v. Rainbow Technologies, Inc.*, 284 F.3d 1365 (Fed. Cir. 2002); *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed. Cir. 2002), *rehearing and reh. en banc denied*, 2002 U.S. App. LEXIS 27412 (Fed. Cir. 2002), *cert. denied* 12 S.Ct. 2230 (2003) (where patent documents are unambiguous, no weight to be given to expert testimony regarding meaning of claim).

<sup>229</sup> *AFG Industries, Inc. v. Cardinal IG Co.*, 239 F.3d 1239, 57 U.S.P.Q.2d 1776 (Fed. Cir. 2001). Indeed, the *AFG Industries* Court said it could be reversible error not to consider it. Yet in another case decided by the Federal Circuit just seven days later, the Court did not mention even once the role, if any, of the ordinarily skilled artisan. *DeMarini Sports, Inc. v. Worth, Inc.*, 239 F.3d 1314, 57 U.S.P.Q.2d 1889 (Fed. Cir. 2001). *Cf. Cybor, supra* (*en banc* decision).

<sup>230</sup> *Advanced Cardiovascular v. SciMed Life Systems, Inc.*, 261 F.3d 1329 (Fed. Cir. 2001)

When construing the claims, we begin with an examination of the intrinsic evidence, *i.e.*, the claims, the other portions of the written description, and the prosecution history (if any, and if in evidence). Additionally, dictionary definitions may be consulted in establishing a claim term's ordinary meaning. In analyzing the intrinsic evidence, we start with the language of the claims and engage in a "strong presumption" that claim terms carry their ordinary meaning as viewed by one of ordinary skill in the art. Courts may also review extrinsic evidence to assist them in comprehending the technology in accordance with the understanding of skilled artisans and as necessary for actual claim construction. Extrinsic evidence may not be relied upon, however, to vary or contradict the clear meaning of terms in the claims.<sup>231</sup>

Early in 2003, the Court approved another (confirmatory) role for extrinsic evidence. In *Plant Genetic Systems v. DeKalb*, *supra*, the Court approved (or encouraged) the use of extrinsic evidence "to ensure that the claim construction ... is not inconsistent with clearly expressed, plainly apposite and widely held understandings in the pertinent technical field."<sup>232</sup> According to the Court, "such use of extrinsic evidence is permitted."

Extrinsic evidence was rejected, however, in *Brookhill-Wilk v. Intuitive Surgical*, *supra*.<sup>233</sup> The Court declined to consider extrinsic evidence when the plain language of the claims, the written description, and the prosecution history "fully support" the meaning given to the claim term at issue.

#### **E. Expert Testimony**

Expert testimony is one form of extrinsic evidence. By way of background, the Supreme Court touched upon the use of experts in patent cases in *Markman v. Westview Instruments, Inc.* (1996), stating:

In the main, we expect, any credibility determinations will be subsumed within the necessarily sophisticated analysis of the whole document, required by the standard construction rule that a term can be defined only in a way that comports with the instrument as a whole. \*\*\* Thus, in these cases a jury's capabilities \*\*\* are much less significant than a trained ability to evaluate the testimony in relation to the overall structure of the patent. The

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<sup>231</sup> *Apex v. Raritan Computer, Inc.*, 325 F.3d 1364, 1371 (Fed. Cir. 2003) (internal citations omitted).

<sup>232</sup> 315 F.3d 1335, 1346 (citing *Pitney Bowes, Inc. v. Hewlett Packard Co.*, 182 F.3d 1298, 1308 (Fed. Cir. 1999)).

<sup>233</sup> 334 F.3d 1294 (Fed. Cir. 2003).

decisionmaker vested with the task of construing the patent is in the better position to ascertain whether an expert's proposed definition fully comports with the specification and claims and so will preserve the patent's internal coherence.<sup>234</sup>

In the seminal case of *Vitronics Corporation v. Conceptronic, Inc.* (1996),<sup>235</sup> the Federal Circuit ruled that if an ambiguity remains after all of the intrinsic evidence has been considered, then the trial court should resort to extrinsic evidence, such as expert testimony. However, expert testimony which contradicts the intrinsic evidence is not entitled to any weight. It can, however, be used “only to help the court come to the proper understanding of the claims; [but] it may not be used to vary or contradict the claim language. \*\*\* Nor may it contradict the import of other parts of the specification.”

The Federal Circuit has been approving the use of experts in other ways, however. They are not just for trying to resolve ambiguities and for example have a role in establishing what the ordinarily skilled worker would understand about various language. In 2002, the Court in *Bayer AG v. Biovail Corp.* (2002)<sup>236</sup> embraced the use of expert testimony, citing *Fonar Corp. v. Johnson & Johnson* (1987),<sup>237</sup> (“expert testimony, including evidence of how those skilled in the art would interpret the claims,” applies in claim construction). Indeed, the Court in *NeoMagic v. Trident Microsystems* (2002), *supra*, remanded the case for evidentiary hearings including expert testimony on whether one of skill in the art would understand that a “power supply” is designed to provide a constant voltage to a circuit. In *Trintec Industries v. Top-U.S.A.* (2002),<sup>238</sup> the Court referred to expert testimony without commenting on why that should bear on claim construction.

In contrast, in *CCS Fitness v. Brunswick* (2002), *supra*, the Court seemed less than enthused about expert testimony in claim construction, stating:

Life Fitness also relies on expert testimony, but this testimony does not establish the assertion that "member" lacks clear meaning. First, we can resolve the ordinary meaning of the claimed "member" by resort to the intrinsic evidence and dictionary definitions only. Thus, we do not

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<sup>234</sup> *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 389-90, 116 S.Ct. 1384, 1395 (1996). It is not clear from this, however, that the Supreme Court was actually endorsing the use of expert witnesses to construe patent claims or, on the other hand, explaining why judges are in a position superior to juries to understand such testimony, should it come into the record.

<sup>235</sup> *Vitronics Corporation v. Conceptronic, Inc.*, 90 F.3d 1576 (Fed. Cir. 1996).

<sup>236</sup> *Bayer AG v. Biovail Corp.* 279 F.3d 1340 (Fed. Cir. 2002).

<sup>237</sup> *Fonar Corp. v. Johnson & Johnson*, 821 F.2d 627, 631 (Fed. Cir. 1987), overruled in part, 508 U.S. 83, 90.

<sup>238</sup> *Trintec Industries, Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 U.S.P.Q.2d 1597 (Fed. Cir. 2002).

need to examine expert testimony. Even doing so, however, we do not view this expert testimony as particularly helpful, since the inventor himself, presumably also an artisan of ordinary skill in the art, offered testimony that essentially contradicts the expert's assertion that "member" lacks an ordinary meaning. In other words, the battle between Life Fitness' expert testimony and CCS Fitness' inventor testimony is inconclusive. Unsurprisingly, the district court's infringement analysis did not rely on the testimony of either the expert witness or the inventor in reaching its claims construction conclusions. Neither do we.<sup>239</sup>

In 2003, the Court was sometimes critical of using experts but at other times it was supportive. Thus, in *Storage Technology v. Cisco Systems, supra*,<sup>240</sup> the Court was critical of the trial court's reliance on the declaration of an expert witness for two reasons. The Court cited *Vitronics v. Conceptronic* as authority that resort to extrinsic evidence is "appropriate only when an ambiguity remains after consulting the intrinsic evidence of record" — which was not the case here. Second, the trial court did not use the expert's declaration to define a claim limitation, but rather used it to limit claim scope based on the invention's purpose — which is impermissible.

*Omega Engineering v. Raytek* rejected expert witness declarations that sought to "clearly link the claimed function" with certain structure (as required in means-plus-function claims). While expert testimony would be useful to *confirm* that a construed meaning is consistent with how it is used in the art, it is not appropriate to use experts to rewrite the specification.<sup>241</sup>

The Court in *Merck & Company, Inc. v. Teva Pharmaceuticals USA*<sup>242</sup> credited expert testimony even though "evidence extrinsic to the patent documents cannot change the meaning of a term as used in the claim or the meaning with which it is used in the specification." Experts are permitted to explain the meaning of terms used in the patents and as they would be perceived and understood in the field of an invention. The Court explicitly stated that there is no prohibition against providing "opinions of experts to explain the meaning of terms as they are used in patents and as they would be perceived and understood in the field of an invention."<sup>243</sup> The Court concluded there was no reversible error in the district court's crediting of the

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<sup>239</sup> 288 F.3d at 1368.

<sup>240</sup> 329 F.3d at 832.

<sup>241</sup> 334 F.3d at 1332.

<sup>242</sup> 347 F.3d 1367 (Fed. Cir. 2003).

<sup>243</sup> *Id.* at \_\_\_ [HN5].

pharmacologist testimony, trade publications, the usages in the specification, and the view of the PTO, over the testimony of a chemist without experience in the specific field of the invention.

In *Plant Genetic Sys., N.V. v. Dekalb Genetics Corp.*, after having examined the specification and prosecution history, the Court consulted extrinsic evidence, *i.e.*, evidence on various transformation techniques and the chronology of scientific progress regarding monocot transformation—to “ensure that [the limitation's] interpretation of the claim language was not inconsistent with the understanding in the technical field as of the filing date of the patent.”<sup>244</sup>

In *Glaxo Wellcome, supra*, the Court considered expert testimony from several witnesses. While recognizing that the expert testimony was “facially in conflict,” the Court found that the intrinsic and extrinsic evidence lead to the conclusion that the disputed term HPMC was “not limited to a particular grade or molecular weight, provided only that the claimed limitations of release rate and plasma levels are met.”<sup>245</sup> The Court explained, “When a claim term has an accepted scientific meaning, that meaning is generally not subject to restriction to the specific examples in the specification.”<sup>246</sup> The Court chose not to limit the claims to the preferred embodiment or the examples given in the specification.<sup>247</sup>

Thus, the Court referred to expert testimony in *Apex v. Raritan Computer, supra*,<sup>248</sup> noting that it is appropriate to look to extrinsic evidence including dictionaries and expert testimony to assist the trier of fact in understanding the evidence and that the record should reflect the ordinary meaning of claim limitations as a whole and whether they suggest sufficiently definite structure to one ordinarily skilled in the art.

### **Section 112 Paragraph 6**

Special rules of claim construction are brought to bear when a patent claim element is found to come within the scope of 35 U.S.C. §112, ¶6.

#### **A. “means-plus-function”**

Several cases in 2003 dealt with §112, ¶6, which provides:

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<sup>244</sup> 315 F.3d 1335, 1346 (Fed. Cir. 2003)

<sup>245</sup> 344 F.3d 1226, 1230-1233 (Fed. Cir. 2003).

<sup>246</sup> 344 F.3d at 1233.

<sup>247</sup> *Id.*

<sup>248</sup> *Apex Inc. v. Raritan Computer Inc.*, 325 F.3d 1364, 1374 (Fed. Cir. 2003).

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

Such elements are generally known as “means-plus-function” or “step-plus-function” limitations. Through the use of means-plus-function limitations, in a combination claim, one can claim an element functionally, without reciting structure in the claim for performing those functions.

### **1. Determining Whether §112, ¶6 Applies**

Frequently, the parties will disagree as to whether a claim falls within the ambit of §112, ¶6. For example, the patent claim may use the style of §112, ¶6 without actually reciting the word “means,” *i.e.*, combine a noun with a functional expression describing what the claimed item does, *e.g.*, “a wing for providing lift.” Typically, the alleged infringer asserts, and the patentee denies, that §112, ¶6 applies and presents this as a claim construction issue for the Court to decide.

That was the case in *Apex v. Raritan Computer, supra*.<sup>249</sup> There, the Court determined that the trial court erred in classifying certain claim terms as §112, ¶6 limitations when, in fact, they were not. The Court reiterated the general rule that a claim limitation that uses the word “means” raises a rebuttable presumption that §112, ¶6 applies.<sup>250</sup> By contrast, a claim term (in an apparatus claim) that does not use the word “means” is rebuttably presumed to fall outside §112, ¶6. In this case, because the claim did *not* recite the word “means,” the burden of persuasion was on the party advocating application of §112, ¶6. That party could rebut the presumption if it demonstrated, by a preponderance of evidence, that the claim term recited a function without reciting sufficient structure for performing that function.<sup>251</sup>

The Court discussed the procedural aspects of such a situation, noting that the presumption imposes the burden of going forward with evidence to rebut the presumption on the party challenging the presumption. However, the risk of nonpersuasion remains throughout the

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<sup>249</sup> 325 F.3d at 1371.

<sup>250</sup> *Id.*

<sup>251</sup> 325 F.3d at 1372 *citing CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002).

trial on the party originally bearing it, according to Fed. R. Evid. 301. Thus, Raritan, asserting that the claim elements which lacked the word “means” nevertheless were within the scope of §112, ¶6, had the burden to rebut the presumption if it could show that the claim term (1) fails to recite sufficiently definite structure, or (2) recites a function without reciting sufficient structure for performing that function. The burden can be met with a preponderance of the evidence.<sup>252</sup>

The presumption can collapse (*i.e.*, be rebutted) when a limitation lacking the term “means” nonetheless relies on functional terms rather than structure to describe performance of the claimed function. The *Apex* Court also noted that a claim can use the word “means” without properly coming within the scope of §112, ¶6. In such a case, “the focus is on whether the claim term recites no function corresponding to the means . . . .”

Next, to determine whether a claim term recites sufficient structure, the Court examines whether the term has an understood meaning in the art.<sup>253</sup> The Court inquires into whether the term, as the name for the structure, has an understood meaning in the art, though the term need not call to mind a single well-defined structure to fall within §112, ¶6. If the term calls to mind a well-understood meaning, then the term is not within §112, ¶6. The fact that a particular [term] is defined functionally is *not* sufficient by itself to convert a limitation into a means-plus-function limitation within §112, ¶6.<sup>254</sup>

Applying these principles, the *Apex* Court held that the trial court erred in finding the terms “circuit,” “interface,” “unit” and “switch” to be within the ambit of §112, ¶6. The claims did not recite the word “means,” and although there was a functional expression associated with each such word, the district court failed to consider the terms *in context*. The Federal Circuit said that the primary source of the district court’s error was its reliance on single words of the limitations as opposed to the limitations as a whole. For example, one claim element was not simply for a “circuit” but for an “interface circuit for receiving keyboard and cursor control device signals from [a] workstation.” The presumption against application of §112, ¶6 was not rebutted when the terms in questions have accepted meaning in relevant technical dictionaries

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<sup>252</sup> 325 F.3d at 1372.

<sup>253</sup> 325 F.3d at 1372 (*citing Watts v. IL Sys., Inc.*, 232 F.3d 877, 880-81 (Fed. Cir. 2000)).

<sup>254</sup> 325 F.3d at 1372 (*citing Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1583 (Fed. Cir. 1996)).

and the record otherwise was too undeveloped to show that the terms “do not connote sufficiently definite structure to one of ordinary skill in the art.”<sup>255</sup>

## 2. Methodology When §112, ¶6 Applies

Even when §112, ¶6 applies, the claim element at issue has to be construed. In 2002, Judge Gajarsa in *Cardiac Pacemakers v. St. Jude Medical*<sup>256</sup> reviewed numerous principles concerning §112, ¶6 claim elements:

- the claimed function is identified first;
- the function is limited to those recited in the claim language;
- the claim language is interpreted by ordinary principles of claim construction;
- such functions are not to be broadened or narrowed beyond the claim language;
- functions not recited in the means plus function claim, even if performed by the corresponding structure, are not to be included in the claim construction;
- the corresponding structure that performs that function is determined;
- the specification must link or associate structure with the function;
- if there is no disclosed structure to perform the function, the claim is invalid;
- the “corresponding structure” must include *all* the structure that performs the recited function;
- however, just as functions that are not recited in the claim language are not to be included in the claim construction, neither are structural features that do not actually perform the recited function properly included.

Several of these principles were reiterated in 2003 in *Medical Instrumentation and Diagnostics Corp. v. Elekta AB*.<sup>257</sup> The Court stated that identifying the particular function that is

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<sup>255</sup> 325 F.3d at 1375.

<sup>256</sup> *Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.*, 296 F.3d 1106, 63 U.S.P.Q.2d 1725 (Fed. Cir. 2002)

<sup>257</sup> *Medical Instrumentation and Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205 (Fed. Cir. 2003). The accused product was software which converted digital to digital images using a software program. The Federal

claimed is the first step in the construction of a means-plus-function claim element. The second step in the analysis is examining the specification and identifying the function that corresponds to that structure. Under this second step, “structure disclosed in the specification is ‘corresponding’ structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim.”

The Court in *Medical Instrumentation* held that Section 112, paragraph 6 was intended to allow the use of “means” expressions in patent claims so as to avoid the need to itemize all possible structures that could be used as means in the claimed apparatus. “However, the price that must be paid for use of that convenience is limitation of the claims to the means specified in the written description and equivalents thereof.”

### **3. Determining the Claimed Function**

One 2003 case, *Omega Engineering v. Raytek Corp.*, *supra*, involved determining the function and presented the following claim element: “means for causing [] at least one laser beam to strike the periphery of the energy zone for visibly outlining said entire energy zone.” The Court admonished that in identifying the claimed function, it must “stay[] true to the claim language and the limitations expressly recited by the claims” and “take great care not to impermissibly limit the function by adopting a function different from that explicitly recited in the claim.”<sup>258</sup> The district court had added a (negative) limitation that the laser could not, in performing this outlining function, strike the center of the energy zone, for this would, in the district court’s view, contradict an express element of the claim. The Federal Circuit disagreed, stating that the negative limitation was not supported by the express text of the claim, which did not forbid the laser beam from striking inside the energy zone. Nor did the claim word “periphery” justify the limitation. The Court referred to ordinary dictionaries to define that word (because it had no specialized meaning), and ruled that the plain words of the claim require simply that the beam must strike the periphery of the zone. Nor did the specification provide any express disclaimer. Hence, the “heavy presumption” that claim terms carry their full ordinary and customary meaning was not rebutted by the specification.

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Circuit reversed a jury finding of infringement, stating that while structure was disclosed for performing the conversion, there was no structure in the specifications for corresponding software to perform this conversion function.

<sup>258</sup> 334 F.3d at 1322.

The *Omega Engineering v. Raytek* Court also found a clear disavowal in the prosecution history but not one broad enough to support the summary judgment, and relied on the clear linking requirement.<sup>259</sup> It emphasized that disavowals must be “both clear and unmistakable.”

The sequence of determining the function and *then* identifying the corresponding structure is important. The *Omega Engineering* Court chastised the district court for doing the opposite, turning the rules “upside down.” Specifically, the district court started with a structure and defined the function in light of that structure. The Court admonished that (in the special case of means-plus-function claims), first one must identify the function, and *then* find the structure, clearly linked by the specification, to that function. In finding structure, the Court rejected some structure that might perform the function but was not clearly linked to that function by the specification.

Another 2003 case involving the function of this type of claim is *Lockheed Martin v. Loral, supra*.<sup>260</sup> In this case, the Court cautioned that a claimed function may not be narrowed or limited beyond the claim language. Nor is it proper to broaden the function by ignoring clear limitations in the claim language.<sup>261 262</sup>

#### **4. Determining The Corresponding Structure**

The structure which performs the identified function is the “corresponding structure,” *provided that the patent specification or prosecution history clearly links the structure to the function*. The linking requirement was reviewed in 2003 in *Utah Medical Products v. Graphic Controls*. The Court noted that structure in the specification is “corresponding structure *only if* the specification or prosecution history clearly links or associates that structure to the function recited in the claim.” The duty to link clearly is the *quid pro quo* for the convenience allowed by §112, ¶6. In this case, defendant Graphics Controls argued that the patent specification failed to link the stiffening function to the plastic cable cover, wherefore any “claim” allowing the cover to perform the function is indefinite. The trial court rejected this challenge and was sustained on

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<sup>259</sup> The disclaimer was that while the laser beam could strike within the energy zone, it could not add detectable heat to it.

<sup>260</sup> *Lockheed Martin Corp. v. Space Systems/Loral, Inc.*, 324 F.3d 1308 (Fed. Cir. 2003).

<sup>261</sup> *Id.* at 1319.

<sup>262</sup> In *Vulcan Engineering Co., Inc. v. Fata Aluminum, Inc.*, 278 F.3d 1366, 61 U.S.P.Q.2d 1545 (Fed. Cir. 2002), cert. denied 537 U.S. 814 (2002), the Court affirmed that it is improper to include extraneous functions in interpreting a means plus function claim element. Thus, it was irrelevant that an element has capabilities beyond that stated in the claim.

appeal: the Court did not allow a structure disclosed in the specification that was not linked to the function of the means claim to perform that function. The jury found that specific structure *beyond* a simple cable cover performed the function. Accordingly, the Court found the patent not invalid (as indefinite) but to the contrary found that it adequately informed one skilled in the art that a separate, permanent component of the cable means could perform the stiffening function.

In *ACTV, Inc. v. Walt Disney Co.*, the Court considered a variety of sources to construe the term “means for receiving . . . a uniform source locator,” *i.e.*, a URL.<sup>263</sup> First, the Court rejected using RFC's (Request for Comments) from the W3C (World Wide Web Consortium) to construe a URL because the RFC's did not reflect a “common usage but purport[ed] to select language to be used in the future . . . .”<sup>264</sup> Second, the Court considered the plain language by examining the context in which URL was used, and found a broad meaning. Next, the Court considered the written description to determine if the plain meaning was rebutted. After reviewing the abstract, summary of the invention, and the preferred embodiment, the Court found that the specification did not teach a limiting construction. Finally, the Court addressed the prosecution history and concluded that it “[did] not inform a definition other than the ordinary and customary meaning of the term URL, and further, does not disclaim or disavow any interpretation of the term URL.”<sup>265</sup>

In *Northrop Grumman Corp. v. Intel Corp.*,<sup>266</sup> the Court, in construing a §112, ¶6 claim element, also held that the “heavy presumption” that claim terms carry their ordinary and

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<sup>263</sup> 346 F.3d 1082 (Fed. Cir. 2003). The Court construed two additional limitation also including a URL, e.g., “means for decoding . . . the uniform resource locators . . .” and “controller means . . . for interpreting the uniform resource locators.”

<sup>264</sup> *Id.* at 1089-1090.

<sup>265</sup> *Id.* at 1092.

<sup>266</sup> 325 F.3d 1346, 1354 (Fed. Cir. 2003) (“We accord the term ‘bus interface unit’ its ordinary meaning.”). One of the issues in this case was claim construction of the claim term “bus interface unit.” The infringer argued that the term should be defined narrowly, according to an embodiment in the specification that implemented a particular protocol (MIL-STD-1553). The Court disagreed and cited numerous examples in the specification of using protocols other than the MIL-STD-1553 standard. The Court stated that the disclosure taught to eliminate certain aspects of MIL-STD-1553 and considered additional communication message and data transfer algorithms. Based on this evidence, the Court held that the patent did not rest upon a mere “boilerplate” suggestion. Therefore, the Court could not narrow the term “bus interface unit” according to the specific communications protocol but instead gave the term its broad ordinary meaning, thus reversing the district court.

This decision was unlike the one reached in *Alloc, Inc. v. ITC*, 342 F.3d 1361 (Fed. Cir. 2003), where the Court used the specification and especially the prosecution file history to construe the patent claims to require play, which was defined as space between a locking groove on a first panel and the locking element of a panel adjacent to the first panel of flooring. Unlike *Northrop Grumman*, the *Alloc* case involved extensive

customary meaning was not rebutted by the specification. The Court reversed and remanded the judgment of the district court and held that the district court unduly restricted the claims by erroneously including additional elements as part of the “corresponding structure” which was unnecessary to perform the claimed function.<sup>267</sup> In interpreting the corresponding structure of a claimed function, the Court looked to the plain meaning of the words in the claim and the language of the written description. The Court stated, “Absent a clear disclaimer of a particular subject matter, the fact that the inventor may have anticipated that the invention would be used in a particular way does not mean that the scope of the patent is limited to that context.”<sup>268</sup>

The Court in *Tehrani v. Hamilton Medical Inc.*<sup>269</sup> held that the term “means for processing” is “written in means-plus-function form which recites a function to be performed and is construed to cover the corresponding structure, materials or acts described in the specification and equivalents thereof.” In a means-plus-function claim in which a computer program is the described structure employed to effect an algorithm, the described structure is the special purpose computer program which the performed the disclosed function, not an off-the-shelf computer.

## **B. “step-plus-function”**

No precedential cases involving the “step plus function” aspect of §112, ¶6 were noted in 2003. However, the Court had addressed that subject earlier and found no such claim element in the patent in *Epcon Gas Systems v. Bauer Compressors* (2002), *supra*. It stated that this section is implicated for a method claim, “... only when steps plus function without acts are present” but that, “Merely claiming a step by itself, or a series of steps, without recital of a function does not trigger the application of §112, paragraph 6.”<sup>270</sup> Moreover, just because the patent also contains

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prosecution file history, where the patentee augmented the importance of “play” to the invention and thus narrowed the meaning of the claims.

<sup>267</sup> *Northrop Grumman*, 325 F.3d at 1352-1353. In this case, the Court construed the corresponding structures of a “means for monitoring” function. The Court noted that the signals that are monitored by the “means for monitoring” cannot be part of the structure that does the monitoring. *Id.* at 1352 (*citing O.I. Corp. v Tekmar Co.*, 115 F.3d 1576,1581 (Fed. Cir. 1997)), rehearing *en banc* denied, granted in part, 1997 U.S. App. LEXIS 22282.

<sup>268</sup> *Id.* at 1355.

<sup>269</sup> *Tehrani v. Hamilton Medical Inc.*, 331 F.3d 1355 (Fed. Cir. 2003).

<sup>270</sup> The patent statute provides that “an element for a combination may be expressed as a ... step for performing a specified function without the recital of ... acts in support thereof, and such claim shall be construed to cover the corresponding ... acts described in the specification and equivalents thereof.” 35 U.S.C. §112, ¶6.

an apparatus claim that falls under §112, ¶6, even when the method claim has limitations similar to such apparatus claims, that does not mean that the method claim is necessarily subject to §112, ¶6. The Court reminded that each claim has to be reviewed independently to determine whether §112, ¶6 governs it. In this case it does not, and, according to the Court, method claim 2 “is a garden variety process claim.”

In *Masco Corp. v. United States* (2002),<sup>271</sup> the Court had reversed a ruling that a method claim element (“transmitting a force...”) was in “step plus function” form under §112, ¶6. The Court of Federal Claims had determined that the claim element did not recite an act. The Federal Circuit disagreed. First, a recital of the words, “steps for” would indicate an intent to be governed by §112, ¶6. However, a second condition for the statute to apply is that the clause must describe steps-plus-function *without* reciting “acts.” Analyzing the claim element at issue, the Federal Circuit confirmed the absence of the phrase, “step for.” The claims at issue were for a method, comprising several steps, *of* controlling a lock. The fourth step called for “transmitting” without reciting any “step *for*” language. Hence, these claim limitations could *not* be presumed to invoke §112, ¶6.

Nevertheless, the lower court had determined that the phrase, “transmitting a force ...” set forth a “function” rather than an “act” because the claim element did not explain *how* the force is transmitted, drawing on an analysis by Judge Rader in a 1999 concurring opinion.<sup>272</sup> The Federal Circuit disagreed with this holding. The Court said it was unwilling to subject a method claim element to §112, ¶6 “without a showing that the limitation contains nothing that can be construed as an act.”<sup>273</sup> The Court found that the limitations do contain an act, noting that the phrase, “transmitting a force” describes how a lever is driven into a cam.

The Court in *Minton v. National Association of Securities Dealers*<sup>274</sup> held that a “whereby clause” in a method claim “is not given weight when it simply expresses the intended

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<sup>271</sup> 303 F.3d 1316, 64 U.S.P.Q.2d 1182 (Fed. Cir. 2002)

<sup>272</sup> Judge Rader in a concurring opinion in *Seal-Flex, Inc. v. Athletic Track and Court Construction*, 172 F.3d 836, 50 U.S.P.Q.2d 1225 (Fed. Cir. 1999) had drawn the following distinction between acts and functions under §112, ¶6: “The ‘underlying function’ of a method claim element corresponds to *what* that element ultimately accomplishes in the relationship to what the other elements of the claim and the claim as a whole accomplish. ‘Acts,’ on the other hand, correspond to *how* that function is accomplished.”

<sup>273</sup> Furthermore, the Court reasoned that method claims are commonly drafted by reciting “steps of” followed by a list of actions and an application of §112, ¶6 would render the scope of the coverage of these method claims uncertain and disrupt patentees’ settled expectations regarding the scope of their claims.

<sup>274</sup> 336 F.3d 1373 (Fed. Cir. 2003).

result of a process step positively recited.” The term in question, “efficiently,” is one that praises the outcome of the executing step.

### **Design Patents**

Claim construction is required in a design patent, even though there is only one claim, and its language is fairly uniform. Design patent cases coming before the Federal Circuit are few in number, and the Court does not publish all of its decisions in this area. There were no precedential rulings in 2003 concerning the construction of a design patent. In 2001, however, the Court construed design patents in three cases: *Door-Master v. Yorktowne*,<sup>275</sup> *Five Star v. Ram Lite* (not published),<sup>276</sup> and *Precor v. Life Fitness* (not published).<sup>277</sup> In each of these cases, the patent claim was construed to avoid functional features.

The Court addressed the construction of design patents in 2002 in three precedential decisions: *Catalina Lighting International, Inc. v. Lamps Plus, Inc.*,<sup>278</sup> *supra*, *Contessa Food Products v. ConAgra, Inc.*<sup>279</sup> and *Rosco Inc. v. Mirror Lite Co.*<sup>280</sup> In *Catalina Lighting*, claim construction was not raised as an issue on appeal. The Court affirmed an infringement finding by a jury as supported by substantial evidence (which was the product in question). Moreover, the design patentee offered expert testimony. The Court also rejected the argument that infringement under the points of novelty test was unsupported by substantial evidence. Functionality was asserted as a defense, but the inventor testified on how the placement of functional elements made the device (a lamp) aesthetically pleasing. The Court affirmed the district court judgment because this evidence was enough to sustain the verdict.

In *Contessa Food Products, supra*, the Court reaffirmed the requirement that design patents be construed. The scope of a design patent encompasses the design’s visual appearance as a whole, and that design as a whole must be used in the ordinary observer test. A separate and distinct test for infringement is the point of novelty test, which requires a showing that the accused design appropriates the novelty that distinguishes the patented design from the prior art.

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<sup>275</sup> *Door-Master Corp. v. Yorktowne, Inc.*, 256 F.3d 1308 (Fed. Cir. 2001), *rehearing and rehearing en banc denied*, 2001 U.S. App. LEXIS 21104 (Fed. Cir. 2001).

<sup>276</sup> *Five Star Mfg. Inc. v. Ram Lite Mfg., Inc.*, 4 Fed. Appx. 922 (Fed. Cir. 2001) (not published).

<sup>277</sup> *Precor Inc. v. Life Fitness*, 13 Fed. Appx. 913 (Fed. Cir. 2001) (not published).

<sup>278</sup> *Catalina Lighting International, Inc. v. Lamps Plus, Inc.*, 289 F.3d 801 (Fed. Cir. 2002).

<sup>279</sup> *Contessa Food Products, Inc. v. ConAgra, Inc.* 282 F.3d 1370 (Fed. Cir. 2002).

<sup>280</sup> *Rosco, Inc. v. Mirror Lite Company*, 304 F.3d 1373, 64 U.S.P.Q.2d 1676 (Fed. Cir. 2002), *rehearing and rehearing en banc denied*, 2002 U.S. App. LEXIS 27299 (Fed. Cir. 2002).

It is error to combine those two tests. One reason for reversing the summary judgment of infringement was because the district court failed to consider all of the views of the patent.

*Rosco v. Mirror Lite, supra*, reversed a ruling that the design patent was functional and indicated that the standard for that ruling is clear and convincing evidence. A design of a useful article is deemed functional where “the appearance of the claimed design is ‘dictated by’ the use or purpose of the article,” citing *L.A. Gear v. Thom McAn*.<sup>281</sup> Also, “When there are several ways to achieve the function of an article of manufacture, the design of the article is more likely to serve a primarily ornamental purpose.”

### **Procedure and Timing**

As for procedure and the timing of claim construction, district courts typically hold *Markman*<sup>282</sup> hearings before trial, although “hearings” *per se* seem not to be required. Indeed, the Federal Circuit confirmed the wide latitude given to the district court in complying with the *Markman* requirement, which “does not require a district court to follow any particular procedure in conducting claim construction. It merely holds that claim construction is the province of the Court, not a jury.” *Ballard Medical v. Allegiance Healthcare* (2001).<sup>283</sup> In one case, the district court offered a tentative claim construction, then held a *Markman* hearing, invited further briefing, and delivered its claim construction after trial but before jury deliberations. *See Medtronic v. Advanced Cardiovascular* (2001).<sup>284</sup> In a 2003 case, the Federal Circuit approved a district court’s revision of its prior claim construction. *Utah Medical Products v. Graphics Controls, supra*. That is, the district court had made one claim construction but during oral argument on pre-trial motions revised its construction.

In a 2003 (non-precedential) ruling, the Court in *J.G. Peta, Inc. v. Club Protector, Inc.*<sup>285</sup> addressed *Markman* formalities and declared that it “... has never held that district courts must conduct evidentiary hearings as part of the claim construction process. To the contrary, district courts are not required to follow any particular procedure in conducting claim construction... .” In this instance, the Court found that the technology was so simple and straightforward that there

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<sup>281</sup> *L.A. Gear, Inc. v. Thom McAn Shoe Co.*, 988 F.2d 1117, 1123 (Fed. Cir. 1993).

<sup>282</sup> *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995)(*in banc*), affirmed, 517 U.S. 370 (1996).

<sup>283</sup> *Ballard Medical Products v. Allegiance Healthcare Corp.*, 268 F.3d 1352 (Fed. Cir. 2001).

<sup>284</sup> *Medtronic v. Advanced Cardiovascular Systems, Inc.*, 248 F.3d 1303 (Fed. Cir. 2001).

<sup>285</sup> 2003 U.S. App. Lexis 9783, No. 02-1127 (Fed. Cir. May 2003)

was no need for a *Markman* hearing with expert testimony. Furthermore, there was no need for extrinsic evidence, so the district court was correct to decline a hearing to consider it.

#### **A. Special Masters and Magistrates**

In several cases, the claim construction has come from special masters. *See e.g., AK Steel v. Sollac, supra; Ferguson Beauregard v. Mega Systems, supra; Northrop Grumman Corp. v. Intel Corp., supra; Crystal Semiconductor v. Tritech (2001);*<sup>286</sup> and *Datapoint v. Standard Microsystems (2002).*<sup>287</sup> For magistrates, *see e.g., Day International v. Reeves (2001);*<sup>288</sup> *Sandt Technology v. Resco (2001);*<sup>289</sup> and *Smith & Nephew v. Ethicon (2001).*<sup>290</sup>

#### **B. Jury Issues**

In *Sulzer Textil A.G. v. Picanol N.V.*,<sup>291</sup> the Court ruled that it was error to withhold from the jury instructions any mention of the court's claim constructions. Trial courts must inform jurors of the court's claim constructions and their obligation to adopt and apply the court's determined meanings of disputed claim terms in the jury's deliberation of the facts.

In no case should claim construction, even to a minimal degree, slip into the realm of the jury. In *Moba v. Diamond Automation*,<sup>292</sup> the Court reversed a district court's denial of a JMOL. The case involved a patent on a method of processing eggs. In this case, the district court interpreted the method claims of the patent-in-suit but left undetermined whether the claim required sequential performance of the steps. The trial court reasoned that the jury could have determined from the testimony presented that sequential performance is a necessary characteristic of the steps of the claim. The Federal Circuit ruled that, "in essence, the district court allowed the jury to add an additional limitation to the district court's construction of

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<sup>286</sup> *Crystal Semiconductor Corp. v. Tritech Microelectronics, Int'l. Inc.*, 246 F.3d 1336 (Fed. Cir. 2001).

<sup>287</sup> *Datapoint Corp. v. Standard Microsystems Corp.*, 31 Fed. Appx. 685, 2002 WL 243431 (Fed. Cir. 2002) (not published).

<sup>288</sup> *Day International, Inc. v. Reeves Brothers, Inc.*, 260 F.3d 1343 (Fed. Cir. 2001).

<sup>289</sup> *Sandt Technology, Ltd. v. Resco Metal and Plastics Corp.*, 264 F.3d 1344 (Fed. Cir. 2001), rehearing and reh. *en banc* denied, 2001 U.S. App. LEXIS 24253 (Fed. Cir. 2001).

<sup>290</sup> *Smith & Nephew, Inc. v. Ethicon, Inc.*, 276 F.3d 1304 (Fed. Cir. 2001), rehearing and reh. *en banc* denied, 2002 U.S. App. LEXIS 7058 (Fed. Cir. 2002).

<sup>291</sup> *Sulzer Textil A.G. v. Picanol N.V.*, 351 F.3d 1120, 2003 U.S. App. LEXIS 24719 (Fed. Cir. 2003), vacated in part, 2004 U.S. App. LEXIS 2529 (Fed. Cir. 2004) (as to equivalency).

<sup>292</sup> 325 F.3d 1306, 1313-1314 (Fed. Cir. 2003)

‘guiding steps.’”<sup>293</sup> The Court held that by allowing the jury to import an additional limitation into the claims, the district court fundamentally altered the verdict. Hence, the district court erred in not granting JMOL on this issue.

### C. Waiver Issues

One interesting development in 2002 concerning procedure arose in *Ecolab v. Paracclipse, supra*. The patentee had fully briefed its proposed claim constructions, which were rejected by the district court. Subsequently, in the trial stage of the case, the patentee did not object to jury instructions containing the allegedly erroneous claim constructions. Fed. R. Civ. Pro. 51 states that no party may assign as error the giving or failure to give an instruction unless that party objects thereto before the jury retires to consider its verdict, stating distinctly the matter objected to and the grounds of the objection. On appeal, the alleged infringer asserted that the patentee had waived the objection. The Federal Circuit noted the general rule that excuses a litigant from making a futile objection. However, it appears that the Eighth Circuit, in which this trial occurred, did not subscribe to the general rule. The Federal Circuit ruled that while regional circuit law determines the requirements of Rule 51, there was no error, and thus the Court did not have to decide whether an error had been waived.

The waiver issue was addressed in 2003 in *Hewlett-Packard Co. v. Mustek Systems, Inc.*<sup>294</sup> Without reference to regional law, the Court held that parties cannot reserve issues of claim construction for the post-trial motions stage. The Court also declined to consider a refined claim construction that was presented for the first time in a post-trial motion. “[W]here the parties in the district court elect to provide the jury only with the claim language itself, and do not provide an interpretation of the language in the light of the specification and the prosecution history, it is too late at the JMOL stage to argue for or adopt a new and more detailed interpretation of the claim language and test the jury verdict by that new and more detailed

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<sup>293</sup> *Id.* at 1313.

<sup>294</sup> *Hewlett-Packard Co. v. Mustek Systems, Inc.*, 340 F.3d 1314 (Fed. Cir. 2003). *See also, Moba v. Diamond Automation*, 325 F.3d 1306, 1314 (Fed. Cir. 2003). In reversing the district court’s denial of a JMOL, the Court held that the patentee did not waive its argument that the claimed method steps were improperly construed by the trial judge. The Court stated that, “application of waiver in this case would essentially render unreviewable the district court’s error [of letting the jury to add a limitation to th district court’s construction of ‘guiding steps’].”

interpretation. The verdict must be tested by the charge actually given and by giving the ordinary meaning of the language of the jury instruction.”<sup>295</sup>

In *Alfred Dana III v. E.S. Originals, Inc.*,<sup>296</sup> the Court vacated, among other things, an order of partial summary judgment of infringement under the doctrine of equivalents based on the application of offensive collateral estoppel. Although agreeing with the district court that the issues presented on claim construction and infringement were the same as in a prior action against a different defendant, the Court remanded and directed the district court to focus on the ease with which the defendant could have joined in the prior action.<sup>297</sup>

In *Nystrom v. Trex Co.*,<sup>298</sup> the Court dismissed the appeal stemming from the grant of a partial summary judgment. In this case, the district court granted a motion for summary judgment as to the invalidity of some, but not all, claims. The district court kept the invalidity and unenforceability counterclaim as to the remaining claims, pending appeal, and reserved this counterclaim as a stayed claim. The Federal Circuit reiterated that a stay is not a final decision for the purposes of 28 U.S.C. §1295. Without a final decision by the district court, the appellate court declined to entertain the appeal from claim construction rulings, the grant of summary judgment of non-infringement based thereon, and the grant of summary judgment of invalidity of some claims.<sup>299</sup>

In *Oakley v. Sunglass Hut Int’l, supra*, the Court affirmed the grant of a preliminary injunction in favor of the patentee, Oakley. In a concurring opinion, Judge Dyk, citing past Federal Circuit decisions, noted that the trial court had no obligation to interpret a claim conclusively during a preliminary injunction proceeding and that there was no error on the part of the district court in failing to provide an explicit formal claim construction.<sup>300</sup>

#### **D. Form of Claim Construction Rulings**

The district courts seem to have wide latitude in the form of claim constructions. In 2000, the Federal Circuit seemed to say that the district court could give its claim construction

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<sup>295</sup> 340 F.3d at 1321.

<sup>296</sup> 342 F.3d 1320, 68 U.S.P.Q.2d 1138 (Fed. Cir. 2003).

<sup>297</sup> 342 F.3d at 1327.

<sup>298</sup> 339 F.3d 1347 (Fed. Cir. 2003)

<sup>299</sup> *Id.* at 1349.

<sup>300</sup> *Oakley*, 316 F.3d at 1348 (citing *Sofamor Danek Group, Inc. v. DePuy-Motech, Inc.*, 74 F.3d 1216, 1221 (Fed. Cir. 1996)).

explicitly or implicitly. *Optical Disc v. Del Mar Avionics* (2000).<sup>301</sup> However, in 2001 a different panel stated that a “critical” requirement is for trial courts to set forth an *express* claim construction of the material terms in dispute, which is a “necessary foundation of meaningful appellate review.”<sup>302</sup> Hopefully, the Court will eventually set forth a clear rule of law on what it expects from the district courts on the form of their claim construction rulings.

**E. Appellate Procedure**

When the Federal Circuit changes a claim construction, this “generally necessitates a remand ... to resolve any new factual issues raised by the new claim construction...” The stated exception is the “rare instance” when the record on appeal leaves no genuine issues of material fact and the movant is entitled to JMOL. *Storage Technology v. Cisco, supra.*<sup>303</sup>

**Summary Judgments**

The *Markman* requirement calling for the district court to construe the claims as a matter of law has clearly reduced the number of patent infringement cases that reach trial. In dozens of cases, the claim construction permitted a full or partial summary disposition. The following tables show the dispositions of these summary judgments at the Federal Circuit in 2003.<sup>304</sup>

<b>SJ non-infringement</b>	
<b>reversed or vacated</b>	<b>Affirmed</b>
<i>3M Innovative Properties</i>	<i>ACCO Brands</i>
<i>Abbott (Baxter)</i>	<i>Abbott (Novopharm)</i>
<i>ACTV</i>	<i>AK Steel</i>
<i>Altiris</i>	<i>Combined Systems</i>
<i>Brookhill-Wilk</i>	<i>*Deering Precision</i>
<i>CFMT</i>	<i>Genzyme Corp.</i>
<i>Cordis</i>	<i>IP Development</i>
<i>*Deering Precision</i>	<i>Jansen</i>
<i>E-Pass Technologies</i>	<i>Minton</i>
<i>Glaxo Wellcome</i>	<i>Phonometrics v. Westin Hotel</i>

<sup>301</sup> *Optical Disc Corporation v. Del Mar Avionics*, 208 F.3d 1324, 1334 n. 4 (Fed. Cir. 2000) (vacate if opinion absolutely devoid of any discussion of claim construction).

<sup>302</sup> *AFG Industries Inc. v. Cardinal IG Co.*, 239 F.3d 1239 (Fed. Cir. 2001).

<sup>303</sup> 329 F.3d 823, 834 (citing *Electro Scientific Industries, Inc. v. Dynamic Details, Inc.*, 307 F.3d 1343, 1350 (Fed. Cir. 2002)).

<sup>304</sup> The asterisks (\*) in the tables denote that the case is listed in more than one category.

<b>SJ non-infringement</b>	
<b>reversed or vacated</b>	<b>Affirmed</b>
<i>Omega Engineering</i> <i>Prima Tek II</i> <i>Rambus</i> <i>RF Delaware</i> <i>*Storage Technology Corp</i>	<i>Plant Genetic Sys.</i> <i>Springs Window Fashions</i> <i>*Storage Technology Corp.</i>

<b>SJ infringement</b>	
<b>reversed or vacated</b>	<b>Affirmed</b>
	<i>Pandrol</i> <i>Plant Genetic Sys.</i> <i>Tehrani</i>

<b>SJ invalidity</b>	
<b>reversed or vacated</b>	<b>Affirmed</b>
<i>Dayco Products</i> <i>IP Development</i> <i>Omega Engineering</i> <i>Torpharm</i>	<i>Nystrom</i> <sup>305</sup>

### **Opinion Writers**

The judges who penned the majority decisions of the cases involving claim construction are as follows:

<b>Judge</b>	<b>#</b>	<b>Case</b>
<i>Per Curiam</i>	3	<i>Moba, Phonometrics v. Westin Hotel</i> (February), <i>Staalkat &amp; FPS Food Processing</i> ,
Archer, S. J.	1	<i>Waner</i>
Bryson	7	<i>Alfred Dana III, Cordis, Northrop Grumman, Springs Window Fashions, State Contracting, Sunrace Roots, Tehrami</i>
Clevenger	6	<i>3M Innovative Properties, Boehringer Ingelheim, Medical Instrumentation, Omega Engineering, Torpharm, University of West Virginia</i>
Dyk	7	<i>Dayco Products, Dow Chemical Co., E-Pass Technologies, Hewlett-Packard, Kumar, Novo Industries, Pandrol,</i>
Gajarsa	9	<i>Akamai Techs., Anchor Wall, Apex, Deering Precision, Eli</i>

<sup>305</sup> *Nystrom v. Trex Co.*, 339 F.3d 1347, 1349 (Fed. Cir. 2003) (Court dismissed the appeal for lack of jurisdiction and never ruled on the merits).

Judge	#	Case
		<i>Lilly, Lockheed Martin, Medichem S.A., Prima Tek II, University of Colorado Foundation</i>
Linn	8	<i>ACTV, Arlington Industries, Brookhill-Wilk, Ferguson Beauregard, Honeywell v. ITC, Nystrom, Riverwood, Sulzer Textil A.G.</i>
Lourie	6	<i>Abbott (Novopharm), AK Steel, Ericsson, Jansen, Minton, Oakley</i>
Mayer, C. J.	1	<i>BJ Services</i>
Michel	9	<i>Altiris, Amgen, Combined Systems, Intel, Lacks, Phonometrics v. Economy Inns, Phonometrics v. Westin Hotel (November), Plant Genetic, RF Delaware</i>
Newman	4	<i>ACCO Brands, Biogen, Glaxo Wellcome Merck, Talbert Fuel</i>
Plager, S.C.J.	2	<i>Resonate, Storage Technology Corp.</i>
Prost	1	<i>Eaton,</i>
Rader	10	<i>Abbott (v. Baxter), Alloc, Bowers, CFMT, Genzyme, Integra, Invitrogen, Rambus, Resqnet, Utah Medical Products</i>
Schall	1	<i>Intellectual Property Development</i>

No opinions on claim construction were noted by Senior Judges Cowen or Friedman.

### **Illinois Cases**

The 2003 Federal Circuit cases concerning claim construction include the following appeals:

#### **A. From the Northern District of Illinois:**

*Abbott Laboratories v. Baxter Pharmaceutical Products, Inc.*, 334 F.3d 1274 (Fed. Cir. 2003) (summary judgment of noninfringement vacated and remanded);

*Abbott Laboratories v. Novopharm Ltd.*, 323 F.3d 1324 (Fed. Cir. 2003) (summary judgment of noninfringement affirmed);

*Deering Precision Instruments, LLC v. Vector Distribution Systems, Inc.*, 347 F.3d 1314 (Fed. Cir. 2003) (affirmed in part, vacated in part, and remanded);

*Glaxo Group Ltd. v. Apotex*, 64 Fed. Appx. 751, 2003 U.S. App. LEXIS 7596 (Fed. Cir. 2003) (not published) (affirmed);

*Ziarno v. The American National Red Cross*, 55 Fed. Appx. 553, 2003 U.S. App. LEXIS 234 (Fed. Cir. 2003) (not published) (affirmed)

#### **B. From the Central District of Illinois:**

*Deere & Co. v. The Toro Co.*, 57 Fed. Appx. 442, 2003 U.S. App. LEXIS 1999 (Fed. Cir. 2003) (not published) (reversed and remanded);

*The Libman Company v. Quickie Mfg. Corp.*, 74 Fed. Appx. 900, 2003 U.S. App. LEXIS 18016 (Fed. Cir. 2003) (not published) (affirmed)

**C. From the Southern District of Illinois:**

*Prima Tek II, LLC v. Polypap*, 318 F.3d 1143 (Fed. Cir. 2003) (vacated and remanded).