

# **FEDERAL CIRCUIT REVIEW OF CLAIM CONSTRUCTION CASES (2005)**

**by the Litigation Committee of the  
Intellectual Property Law Association of Chicago (IPLAC)**

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# FEDERAL CIRCUIT REVIEW OF CLAIM CONSTRUCTION CASES (2005)

BY THE IPLAC LITIGATION COMMITTEE (2005-06)<sup>1</sup>

Edward D. Manzo, Editor-in-Chief

This report reviews the development of the law of patent claim construction in calendar year 2005 as established by the precedential decisions of the U.S. Court of Appeals for the Federal Circuit. We generally exclude any treatment in the cases other than claim construction. Some cases decided prior to 2005 are also covered here, particularly where helpful to give historical context or, if the Court did not touch upon an issue in 2005, to explain how the Court had previously dealt with that issue. This report and its predecessors for prior years are available at the bar association's web site: <http://iplac.org> under the "Articles and Resources" tab.

Part I of this report first provides a general overview of claim construction principles. Part II addresses specific, substantive, topical issues, starting with the treatment of claim language. Part III was added this year to discuss the several cases on claim indefiniteness, which is intertwined with claim construction. Part IV focuses on procedural issues. Parts V and VI present various statistical information showing how the Court disposed of summary judgments in the reviewed cases and identifying the majority opinion authors.

On July 21, 2004, the Federal Circuit decided to reconsider *en banc* the panel decision in *Phillips v. AWH Corp.*<sup>2</sup> The Court invited bar associations and others to address seven specific questions dealing with how patent claims ought to be interpreted and the standard of review. The resulting *en banc* decision<sup>3</sup> in July 2005 resolved a major conflict in the Court's jurisprudence and is the only *en banc* claim construction decision of the year.

In this decision, the Court deemphasized the role of dictionaries and underscored the importance of the patent specification in determining the meaning of the claims. In the preceding few years, a corpus of jurisprudence had evolved stressing the "plain meaning" of claim language. Several judges of the Court had indicated that the plain meaning could be determined

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<sup>2</sup> 363 F.3d 1207 (Fed. Cir. 2004) *vacated by* 376 F.3d 1382 (Fed. Cir., July 21, 2004).

<sup>3</sup> 415 F.3d 1303 (Fed. Cir. 2005), cert. den. 164 L. Ed. 2d 49 (2006).

from dictionaries. Such definitions would apply, these decisions held, unless the inventor had given a specific redefinition of the language in question in the patent specification. In contrast, other Federal Circuit judges had agreed that claim language should be construed according to its “plain meaning” but denied that dictionaries should be the primary tool of patent claim construction or that the onus should fall on the inventor to provide a superseding definition in the patent document. This made it somewhat challenging to determine what law to apply to a given claim construction problem.<sup>4</sup>

## I. Overview of Claim Construction Principles

### A. Substantive Overview

The Court addressed the question of the nature of claim construction in several 2005 rulings. It explained that construction of claims is simply a way of elaborating normally terse claim language in order to understand and explain, but not change, the scope of the claims. *Terlep v. The Brinkmann Corp.*, 418 F.3d 1379 (Fed. Cir. 2005). Further, a court cannot rewrite claims, but in clarifying the meaning of claim terms, courts are free to use words that do not appear in the claim, so long as the resulting claim interpretation accords with the words chosen by the patentee. *Pause Technology v. Tivo*, 419 F.3d 1326 (Fed. Cir. 2005). The resulting “Markman order is an explanation to the parties of the reasoning behind [the district court’s] claim construction.” *MercExchange, LLC v. eBay, Inc.*, 401 F.3d 1323, 1329 (Fed. Cir. 2005).

Claim construction is not meant to be an academic exercise in which a court pronounces the meaning of every aspect of a patent claim at issue. Instead, “Claim construction is a matter of resolution of *disputed* meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy.” *NTP v. Research in Motion*, 418 F.3d 1282 (Fed. Cir. 2005) citing *U.S. Surgical v. Ethicon*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) [emphasis added].

“Claim interpretation is not always an exact science, and it is not unusual for parties to offer competing definitions of even the simplest claim language.” *Q-Pharma, Inc. v. The Andrew*

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<sup>4</sup> The law of the Federal Circuit is that in the event of a conflict in its precedents, the *earlier* one controls unless overruled by an *en banc* Court *Nystrom v. Trex Co.*, 374 F.3d 1105 (Fed. Cir. 2004); *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).

*Jergens Co.* (2004).<sup>5</sup> The Court generally holds that when there is a dispute between the parties over the claim meaning,<sup>6</sup> then claim construction is required before determining certain issues such as infringement,<sup>7</sup> anticipation,<sup>8</sup> obviousness,<sup>9</sup> invalidity over alleged on-sale activity,<sup>10</sup> compliance with the written description requirement,<sup>11</sup> and inventorship.<sup>12</sup>

This requirement for claim construction has minor exceptions. In 2003, the Court decided one appeal from an interference conducted in the PTO without giving a conclusive ruling on the meaning of the claim terms.<sup>13</sup> In 2004, in dealing with an issue of joint inventorship, the Court declared that the defendant had waived its right to request a construction of one claim, thereby conceding “implicitly ... that the meanings of the terms in [that claim] are clear and not in need of construction.”<sup>14</sup> The Court noted that “claim construction is required only ‘when the meaning or scope of technical terms and words of art is unclear and in dispute and requires resolution to determine’ the issue before the court.”<sup>15</sup>

A claim that is not amenable to construction is invalid as indefinite under 35 U.S.C §112, ¶ 2.<sup>16</sup> A claim is not indefinite merely because it may present a difficult claim construction issue;

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<sup>5</sup> 360 F.3d 1295 (Fed. Cir. 2004).

<sup>6</sup> *PSC Computer Products, Inc. v. Foxconn Int'l, Inc.*, 355 F.3d 1353 (Fed. Cir. 2004) offered no claim construction issue. Plaintiff conceded that there was no literal infringement, but asserted equivalency. The infringement issue involved the disclosure-dedication rule, which was applied to affirm a summary judgment of non-infringement. In this decision, the Court determined the scope of the invention without construing the (uncontested) claims.

<sup>7</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>8</sup> See e.g., *Akamai Techs., Inc. v. Cable & Wireless Internet Services, Inc.*, 344 F.3d 1186, 1192 (Fed. Cir. 2003).

<sup>9</sup> *Id.* at 1195; *State Constructing & Eng., v. Condotte America*, 346 F.3d 1057, 1067 (Fed. Cir. 2003).

<sup>10</sup> *Dana Corp. v. American Axle & Mfg., Inc.*, 279 F.3d 1372 (Fed. Cir. 2002).

<sup>11</sup> *Bilstad v. Wakalopoulos*, 386 F.3d 1116, 1121 (Fed. Cir. 2004).

<sup>12</sup> *Eli Lilly & Co. v. Aradigm Corp.*, 376 F.3d 1352, 1360 (Fed. Cir. 2004); *Trovan, Ltd. v. Sokomat SA.*, 299 F.3d 1292 (Fed. Cir. 2002).

<sup>13</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 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 deciding whether there was truly an interference. Basically, the Board found that the claim construction was not outcome-determinative. Whether the claim was to be construed broadly or narrowly, the result was the same – that there was no “interference in fact.” The Federal Circuit affirmed, with considerable discussion concerning the broad deference due to an administrative agency in applying its own rules, in this case a patent interference rule.

<sup>14</sup> *Eli Lilly & Co. v. Aradigm Corp.*, 376 F.3d 1352, 1360 (Fed. Cir. 2004).

<sup>15</sup> *Id.*, citing *United States Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997).

<sup>16</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* (footnote ctd. next page)

rather it is indefinite if the claim is insolubly ambiguous. *Bancorp Services, L.L.C. v. Hartford Life Ins. Co.*<sup>17</sup> See also, *Metabolite Laboratories, Inc. v. Laboratory Corp. of America Holdings*;<sup>18</sup> and *Smithkline Beecham v. Apotex, Inc.* (claims need not be plain on their face; must be amenable to construction, however difficult).<sup>19</sup> A determination of claim indefiniteness is a legal conclusion that arises from or is drawn from the court's performance of its duty as the construer of patent claims.<sup>20</sup>

Generally, when construing patent claims, the Court relies heavily on the public record, paying heed to the public notice function of claims and other intrinsic evidence.<sup>21</sup> It relies on intrinsic evidence and extrinsic evidence for determining what claim terms mean to the ordinarily skilled artisan. The Court relies on the bedrock principle of patent law that the claims define the invention and follows the Supreme Court mandate that claims have primary importance, giving "plain import" to the terms of the patent. *Phillips*, 415 F.3d at 1312. However, claims do not stand alone but as part of a "fully integrated written document." *Id.* at 1315. The Court relies on the claim language and determines its ordinary meaning, not in a vacuum, but in the context of the intrinsic evidence as viewed by the ordinarily skilled artisan. The Court reviews the intrinsic evidence to determine, for example, context, what was invented and whether the patent applicant had placed special meanings on terms or otherwise disclaimed the plain meaning with reasonable clarity and deliberateness. Extrinsic evidence also is considered but generally cannot be used to contradict the intrinsic evidence. The Court gave its overview of the claim construction process in the *en banc Phillips* opinion:

It is a "bedrock principle" of patent law that "the claims of a patent define the invention to which the patentee is entitled the right to exclude." ... That principle has been recognized since at

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*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>17</sup> 359 F.3d 1367 (Fed. Cir. 2004).

<sup>18</sup> 370 F.3d 1354, 1366 (Fed. Cir. 2004).

<sup>19</sup> 365 F.3d 1306, 1314 (Fed. Cir. 2004).

<sup>20</sup> *Default Proof Credit Card System Inc. v. Home Depot USA Inc.*, 412 F.3d 1291, 1298 (Fed. Cir. 2005) (Claim indefiniteness is a legal conclusion, thus it is a question of law like claim construction and should be reviewed *de novo.*); *BJ Services Co. v. Halliburton Energy Services, Inc.*, 338 F.3d 1368, 1372 (Fed. Cir. 2003).

<sup>21</sup> See, e.g., *Springs Window Fashions v. Novo Industries, L.P.*, 323 F.3d 989, 995 (Fed. Cir. 2003).

least 1836, when Congress first required that the specification include a portion in which the inventor "shall particularly specify and point out the part, improvement, or combination, which he claims as his own invention or discovery." Act of July 4, 1836, ch. 357, §6, 5 Stat. 117, 119. In the following years, the Supreme Court made clear that the claims are "of primary importance, in the effort to ascertain precisely what it is that is patented." ...Because the patentee is required to "define precisely what his invention is," the Court explained, it is "unjust to the public, as well as an evasion of the law, to construe it in a manner different from the plain import of its terms." ...

We have frequently stated that the words of a claim "are generally given their ordinary and customary meaning." ...We have made clear, moreover, that the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application. ...

The inquiry into how a person of ordinary skill in the art understands a claim term provides an objective baseline from which to begin claim interpretation. ...That starting point is based on the well-settled understanding that inventors are typically persons skilled in the field of the invention and that patents are addressed to and intended to be read by others of skill in the pertinent art....

Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification. This court explained that point well in *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1477 (Fed. Cir. 1998):

It is the person of ordinary skill in the field of the invention through whose eyes the claims are construed. Such person is deemed to read the words used in the patent documents with an understanding of their meaning in the field, and to have knowledge of any special meaning and usage in the field. The inventor's words that are used to describe the invention--the inventor's lexicography--must be understood and interpreted by the court as they would be understood and interpreted by a person in that field of technology. Thus the court starts the decisionmaking process by reviewing the same

resources as would that person, viz., the patent specification and the prosecution history.<sup>22</sup>

*Phillips* involved the interpretation of the word “baffles” in claim 1.<sup>23</sup> The issue was whether claim 1 should be interpreted to impose a restriction on the angle of the “baffle.” Finding that “every textual reference in the specification and its diagrams show baffle deployment at an angle other than 90 [degree] to the wall faces,” the district court construed claim 1 so that the baffle must “extend inward from the steel shell walls at an oblique or acute angle to the wall face.” Phillips could not prove infringement under that claim construction, so the district court granted summary judgment of noninfringement. On appeal, a majority of a three-judge panel also construed the claim to include this limitation.<sup>24</sup> Sustaining the summary judgment of noninfringement, the panel majority ruled that the patent used “baffles” restrictively and excluded structures that extend at a 90 degree angle. The specification repeatedly referred to the ability of the claimed baffles to deflect projectiles and describes the baffles as being “disposed at such angles that bullets which might penetrate the outer steel panels are deflected.” The patent did not disclose a baffle projecting from the wall at a right angle, and baffles oriented at 90 degrees to the wall were found in the prior art. A dissenting opinion stressed that nothing in the specification redefined “baffles” or disclaimed any scope from the ordinary meaning. The dissent noted that impact resistance was just one of several objectives of the invention, and there was no reason to alter the plain meaning of claim language with a limitation from the preferred embodiment. Hence the panel dissenter favored a general purpose dictionary definition for “baffle.”

On rehearing *en banc*, a majority of the Court agreed with the principle applied by the panel majority that the specification was the most important guide to determining claim meaning.

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<sup>22</sup> 415 F.3d at 1312-14 [citations omitted].

<sup>23</sup> The claim at issue, claim 1, provided:

1. Building modules adapted to fit together for construction of fire, sound and impact resistant security barriers and rooms for use in securing records and persons, comprising in combination,  
an outer shell . . . ,  
sealant means . . . and  
further means disposed inside the shell for increasing its load bearing capacity comprising internal steel baffles extending inwardly from the steel shell walls.  
[emphasis added]

<sup>24</sup> *Phillips v. AWH Corp.*, 363 F.3d 1207 (Fed. Cir. 2004) *vacated by* 376 F.3d 1382 (Fed. Cir., July 21, 2004).

It disagreed, however, with the panel's application of that principle. The *en banc* majority also agreed with the panel dissent that there was no reason to alter the plain meaning of the claim language, but it disagreed that a dictionary definition ought to provide the definition.

The majority opinion, penned by Judge Bryson, instructed that one should look to sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean. Those sources include the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art. It emphasized the context of the surrounding words of the claim and the context in which a term is used in the asserted claim. Other claims of the patent in question, both asserted and unasserted, can be valuable sources as to claim term meaning. Differences among claims can be a useful guide in understanding the meaning of particular claim terms. For example, the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim. Hence, a patent is a fully integrated written instrument, and one must read claims in view of the specification, of which they are a part. The specification is always highly relevant and usually is dispositive; it is the single best guide to the meaning of a disputed term. Words of the claims must be based on the description.

The *en banc* Court thus reaffirmed that the specification is the primary basis for construing the claims and that there is no magic formula for claim construction. The court is not barred from considering any particular sources or required to analyze sources in any specific sequence. The Court mentioned that a judge who encounters a claim term while reading a patent might indeed consult a general purpose or specialized dictionary to begin to understand the meaning of the term, before reviewing the remainder of the patent to determine how the patentee has used the term. The objective is to determine the invention as claimed.

Thus, dictionaries are still useful, especially for simple issues. However, the Court specifically disavowed using a dictionary and then looking for inconsistent statements in the intrinsic record.

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

## B. Intrinsic Evidence

Following *Phillips*, there is no question that the intrinsic evidence is the most important source for claim construction.<sup>25</sup> 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, *V-Formation, Inc. v. Benetton Group SPA*, 401 F.3d 1307, 1311 (Fed. Cir. 2005), and excludes prior art that “the examiner failed to consider.”<sup>26</sup> See Part II *infra* for a treatment of the intrinsic evidence.

While *Phillips* declared that there was no specific algorithm for claim construction, the Court does seem to apply a hierarchy. Claim language itself stands at the top of the intrinsic evidence hierarchy, followed by “the rest of the intrinsic evidence.”<sup>27</sup> Claim construction calls for looking at *all* of the intrinsic evidence (claim language, written description, and prosecution history),<sup>28</sup> with the claim language being most important.<sup>29</sup> Indeed, according to *Middleton v. 3M* (2002),<sup>30</sup> “the most important indicator of the meaning” of a disputed claim term “is its usage and context within the claim itself.”

In *PC Connector Solutions LLC v. Smartdisk Corp.*, 406 F.3d 1359 (Fed. Cir. 2005), the Federal Circuit reaffirmed that: “In interpreting claims, a court should look first to the intrinsic evidence of record, i.e., the patent itself, including the claims, specification and, if in evidence, the prosecution history.” 406 F.3d at 1362.

In *Liquid Dynamics v. Vaughan Co.* (2004), Judge Gajarsa explained his sequence for examining intrinsic evidence:<sup>31</sup>

We examine this intrinsic evidence seriatim. “We look first to the claim language itself, to define the scope of the patented invention. As a starting point, we give claim terms their ordinary and accustomed meaning as understood by one of ordinary skill in the art.” *Dow Chem. Co. v. Sumitomo Chem. Co.*, 257 F.3d 164,

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<sup>25</sup> *V-Formation, Inc. v. Benetton Group SAP et al.* 401 F.3d 1307, 1310 (Fed. Cir. 2005).

<sup>26</sup> *Tate Access Floors, Inc. v. Interface Architectural Resources, Inc.*, 279 F.3d 1357 (Fed. Cir. 2002) .

<sup>27</sup> *Advanced Cardiovascular v. Medtronic*, 265 F.3d 1294 (Fed. Cir. 2001).

<sup>28</sup> *E.g., Hockerson-Halberstadt v. Avia Group Int'l.*, 222 F.3d 951 (Fed. Cir. 2000).

<sup>29</sup> See, e.g., *Interactive Gift Express v. Compuserve*, 231 F.3d 859 (Fed. Cir. 2000), *opinion withdrawn* 256 F.3d 1323.

<sup>30</sup> 311 F.3d 1384, (Fed. Cir. 2002), rehearing and reh en banc denied, 2003 U.S. App. LEXIS 1322 (Fed. Cir. 2003)

<sup>31</sup> 355 F.3d 1361, 1368 (Fed. Cir. 2004)

1372 (Fed. Cir. 2001). We look to the written description for guidance “when the claim language itself lacks sufficient clarity to ascertain the scope of the claims.” *Deering [v. Vector Distribution Systems]*, 347 F.3d 1314 (Fed. Cir. 2003) . . .] at 1322. We also look at the written description “to determine whether the inventor has used any terms in a manner inconsistent with their ordinary meaning. The specification acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication.” *Vitronics*, 90 F.3d 1582. “The specification contains a written description of the invention which must be clear and complete enough to enable those of ordinary skill in the art to make and use it. Thus, the specification is always highly relevant to the claim construction analysis.” *Id.*

We look next to the prosecution history. When we use the prosecution history as source material, the prior art cited and the applicant’s acquiescence with regard to that prior art indicate the scope of the claims, or in other words, what the claims do not cover. *Autogiro Co. of Am. v. United States*, 181 Ct. Cl. 55, 65, 384 F.2d 391 (1967). Furthermore, “where the patentee has unequivocally disavowed a certain meaning to obtain his patent, the doctrine of prosecution disclaimer attaches and narrows the ordinary meaning of the claim congruent with the scope of the surrender.” *Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1324 (Fed. Cir. 2003).

*See also, Playtex Products, Inc. v. Procter & Gamble Co.*, 400 F. 3d 901, 906 (Fed. Cir. 2005) and *Alza Corp. v. Mylan Laboratories* (2004).<sup>32</sup>

### C. **Plain Meaning**

The claim construction jurisprudence of 2004 included many concurring or dissenting opinions because the judges on the Federal Circuit had divergent opinions on claim construction methodology. At least two separate lines of reasoning were applied by the Court, and these focused on the “plain meaning” of claim language. For example, the Court had previously said that to construe a disputed claim term, one must first ascertain its ordinary meaning, *See E-Pass Technologies v. 3Com* (2003),<sup>33</sup> citing *Texas Digital Systems v. Telegenix* (2002)<sup>34</sup>(unless

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<sup>32</sup> 391 F.3d 1365 (2004).

<sup>33</sup> *E-Pass Technologies, Inc. v. 3Com Corp.*, 343 F.3d 1364 (Fed. Cir. 2003); *Combined Systems Inc. v. Defense Technology Corp.*, 350 F3d 1207 (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).

compelled otherwise, give a claim term its full range of ordinary meaning as understood by persons skilled in art). Then one would look for disclaimers or disavowals of that ordinary meaning. If there were none, then the claim would be construed in accordance with its plain meaning.

In the 2005 *en banc* ruling in *Phillips*, the Court rejected the methodology of using a dictionary to start with a plain meaning definition and then determining whether such a meaning had to be narrowed in view of the intrinsic evidence. The Court ruled that instead the patent specification would be the primary source for claim construction. Subsequent rulings from the Court demonstrate that the “plain meaning” of claim language sometimes means the “plain vanilla” meaning while at other times has a special or limited meaning due to an interpretation of the specification.

The Court has been mindful of the importance of fair notice to the public of what a patent claim covers.<sup>35</sup> Opinions declare that one determines the 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>36</sup> However, the “plain meaning” is not the meaning that the general public would understand from reading the language but instead directed to the understanding of ordinarily skilled artisans, for “What the claim terms would mean to laymen is irrelevant.” *Searfoss v. Pioneer Consolidated Corp.* (2004).<sup>37</sup>

This “ordinary meaning” rule of construction has not led to total predictability in claim construction, but the subject matter is complex, and each patent presents its own set of facts and intrinsic evidence. Many post-*Phillips* claim construction cases apply clear “plain meaning” principles, but others seem to use the specification itself as a reason *not* to apply the plain meaning, stating that unless the specification justifies a broad (*i.e.*, plain language) interpretation, a special meaning will apply because that is what, in the opinion of the Court, the person of

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<sup>34</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>35</sup> See also, *Johnson & Johnston Assocs. v. R.E. Service Co.*, 285 F.3d 1046,1052 (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>36</sup> *Teleflex, Inc., v. Ficosa North America Corp.*, 299 F.3d 1313 (Fed. Cir. 2002), *rehearing and reh. en banc denied*, 2002 U.S. App. 19256 (Fed. Cir. 2002).

<sup>37</sup> 374 F.3d 1142, 1149 (Fed. Cir. 2004).

ordinary skill in the art would have understood. Many of these cases are reviewed *infra* under Part II (D) “Written Description – 1. General Applications.”

Sometimes the common, lay meaning applies. Consider the case where the words used in the claims are not found in the intrinsic documents. For example, in *Golden Blount, Inc. v. Robert H. Peterson Co.* (2004),<sup>38</sup> one claim element held one part “in a raised level relative to” another part. The Federal Circuit affirmed the district court interpretation of “raised level” that used the plain language meaning, stating:

The plain language of the claim is relatively straightforward, and the district court correctly gave the claim term its ordinary and customary meaning. The only dispute comes from the reference point used to determine if the primary burner tube is at a raised level. Typically, when measuring whether something is higher than, or at a raised level with respect to, another object, the tops of the two items at issue are compared. There is nothing to indicate that persons skilled in the art would attribute any other or different meaning. Thus, the ordinary meaning of "raised level" in claim 1 refers to the top of the primary burner tube being at a raised level with respect to the top of the secondary burner tube. The written description and prosecution history provide no limitation or illumination on this issue.<sup>39</sup>

The topic of “plain meaning” is developed *infra* as already indicated, particularly with reference to the written description.

### **1. The “Heavy Presumption of Ordinary and Customary Meaning”**

In *Johnson Worldwide Assocs. v. Zebco Corp.* (1999),<sup>40</sup> *CCS Fitness, Inc. v. Brunswick* (2002),<sup>41</sup> *Texas Digital Systems, Inc. v. Telegenix, Inc.* (2002),<sup>42</sup> and several 2004 decisions, the Court referred to a “heavy presumption” that a claim term will be given its ordinary and customary meaning as viewed by the ordinarily skilled artisan.<sup>43</sup> None of these were *en banc*

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<sup>38</sup> 365 F.3d 1054 (Fed. Cir. 2004).

<sup>39</sup> *Id.* at 1059.

<sup>40</sup> 175 F.3d 985, 989 (Fed. Cir. 1999).

<sup>41</sup> 288 F.3d 1359, 1366 (Fed. Cir. 2002).

<sup>42</sup> 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>43</sup> See *Apex v. Raritan Computer, supra*; *Prima Tek II v. Polypap, supra* (same); *Sunrace Roots Enterprise Company Ltd. v. SRAM Corporation*, 336 F.3d 1298, 1302, 1305 (Fed. Cir. 2003).; *Bowers v. Bay State Technologies, Inc.*, 320 F.3d 1316 (Fed. Cir. 2003); *3M Innovative Properties Co. v. Avery Dennison Corp.*, 350 F.3d 1365 (Fed. Cir. 2003) citing *CCS Fitness v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002);

(footnote ctd. next page)

rulings. The application of the presumption was not uniform. Some cases equated “ordinary and customary” as the plain meaning of the words, while in other cases, it was used to implicate that intrinsic evidence and more. Moreover, this “heavy presumption” was limited or watered down in a number of 2004 cases. It was generally not spoken of in the 2005 post-*Phillips* cases.

In one pre-*Phillips* decision of 2005, the Federal Circuit in *PC Connector Solutions LLC v. Smartdisk Corp., et al.*, 406 F.3d 1359 (Fed. Cir. 2005) reiterated that: “Unless it appears from the specification or the file history that they were used differently by the inventor, the words of a claim are generally accorded “their ordinary and accustomed meaning.” 406 F.3d at 1369. Additionally, the Court held that the ordinary and customary meaning is to be determined at the time the application is filed, particularly for terms that are time dependent such as “normally,” “conventional,” “traditionally,” and “standard.”

In another pre-*Phillips* case, *Asyst Technologies Inc. v. Emtrak Inc.* 402 F.3d 1188 (Fed. Cir. 2005), the accused infringer, Jenoptik, asserted that “mounted thereon” should be given its ordinary meaning of “fastened into position” or “fixed securely to a support.” The Federal Circuit agreed with Jenoptik’s interpretation of the ordinary meaning of “mounted thereon.” The Court found that Asyst did not provide any intrinsic evidence that overcame the ordinary meaning of “mounted thereon.” Asyst had provided a conclusory affidavit from its expert to argue in support of a broader interpretation of “mounted on,” and the Court held this was insufficient. A single statement from the patentee’s expert is not enough to establish that a person of ordinary skill in the art would have interpreted “mounted on” in such a broad manner at the time the application was filed. More was required, because Asyst’s broader interpretation is a significant departure from the ordinary meaning of those terms.

## **2. Changing the Plain Meaning**

As noted above, prior to *Phillips*, there were two diverse lines of cases. In one of them, the Court focused on the ordinary meaning and narrowed that ordinary meaning under specific conditions only. In the other, the “ordinary” meaning was subordinate to meanings indicated by the intrinsic evidence. *Phillips* emphasized that claim meaning must be understood in the context

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*Resqnet.com, Inc. v. Lansa, Inc.*, 346 F.3d 1374 (Fed. Cir. 2003) (accustomed meaning in relevant community at relevant time); *E-Pass Technologies v. 3Com*, 343 F.3d 1364, 1368 (citing *Sunrace Roots v. SRAM* and *CCS Fitness v. Brunswick*); and *Resonate, Inc. v. Alteon Websystems, Inc.*, 338 F.3d 1360, 1365 (Fed. Cir. 2003).

of the specification, and several post-*Phillips* panel decisions have explained that it is improper to give a broad meaning to claim language absent “something” in the intrinsic evidence justifying such a reading. *E.g.*, *Nystrom v. Trex, supra*:

What *Phillips* now counsels is that in the absence of something in the written description and/or prosecution history to provide explicit or implicit notice to the public--i.e., those of ordinary skill in the art--that the inventor intended a disputed term to cover more than the ordinary and customary meaning revealed by the context of the intrinsic record, it is improper to read the term to encompass a broader definition simply because it may be found in a dictionary, treatise, or other extrinsic source.<sup>44</sup>

On the other hand, just as many post-*Phillips* cases rejected efforts to change the plain meaning of claim language for reasons based on the specification. *E.g.*, in *Callicrate, supra*, 427 F.3d 1361, the Court ruled that a “lever pivotally mounted” did not call for extra limitations of a fulcrum or perpendicularity, as might be found in preferred embodiments described in the written description. Likewise, in *Sorensen v. ITC*, 427 F.3d 1375 (Fed. Cir. 2005), the claim language of “different characteristics” was not changed by anything in the specification (or claim).

### **3. 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>45</sup> Thus, for example, in *3M Innovative Properties Co. v. Avery Dennison Corp.* (2003),<sup>46</sup> the Court declared:

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<sup>44</sup> 424 F.3d 1136 at \_\_\_\_, 2005 U.S. App. LEXIS 19748 at \*21.

<sup>45</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 (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>46</sup> 350 F.3d 1365, 2003 U.S. App. LEXIS 24207, at \*22 (Fed. Cir. 2003).

... 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>47</sup>

The evidence showed that the patentee had departed from the ordinary meaning of “embossed” by acting as his own lexicographer. The specification of the patent set 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>48</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>49</sup>

Likewise, in *Abbott Laboratories v. Novopharm Ltd.* (2003),<sup>50</sup> the Federal Circuit found no error in reading the patentee's explicit definition of a new term, “co-micronization,” into the claim.<sup>51</sup>

Notwithstanding the requirement that the non-ordinary meaning must be set forth clearly, there is no requirement that the inventor must use a rigid form such as, “I define \_\_\_\_\_ to mean \_\_\_\_\_” in order to restrict his claim scope beyond the scope of ordinary meaning. On the contrary, the inventor's alternative definition may be implicit, so long as it is clear. *Astrazeneca AB v. Mutual Pharmaceutical Company*<sup>52</sup> is a good illustration. There the parties agreed that persons of ordinary skill would understand the term “solubilizer” to embrace these distinct types of chemicals: (1) surfactants, (2) co-solvents, and (3) complexation agents. Relying on the parties' agreement and general-usage dictionary definitions, the district court held that “solubilizer” included all three types of chemicals.

Reversing, the Federal Circuit held that the inventor had acted as his own lexicographer in the written description and had limited “solubilizer” to surfactants only. The description of the invention stated that suitable solubilizers according to the invention “are defined below” and thereafter states that the suitable solubilizers are “surface active agents” *i.e.* surfactants. Further,

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<sup>47</sup> 350 F.3d 1365, 2003 U.S. App. LEXIS 24207 at \*12-13.

<sup>48</sup> 2003 U.S. App. LEXIS 24207, at \*22.

<sup>49</sup> *Id.*

<sup>50</sup> 323 F.3d 1324 (Fed. Cir. 2003)

<sup>51</sup> *Id.* at 1330.

<sup>52</sup> 384 F.3d 1333 (2004).

the written description twice described micelle structures as a feature of the invention. It was undisputed that surfactants were the only solubilizers believed to form micelle structures in watery environments. Further still, the written description criticized other solubilizers as leading to undesirable precipitation. Thus, reasoned the Court, the inventor had acted as his own lexicographer to limit his definition of solubilizer to mean only surfactants.<sup>53</sup>

In *Golight, Inc. v. Wal-Mart Stores, Inc.* (2004),<sup>54</sup> the Federal Circuit affirmed the judgment after trial of the district court finding Wal-Mart had infringed. A patentee may become his own lexicographer if he defines a specific term used in the invention with “reasonable clarity, deliberateness and precision.” Such a definition may appear either in the written description or in the prosecution history. Redefinition of a term may occur during prosecution. Wal-Mart attempted to attach a special meaning to the term “rotating” regarding a portable search light mounted on the outside of the vehicle and remotely controlled from either the inside or outside the vehicle. The Court rejected Wal-Mart’s interpretation, stating that the term “rotating” was subject to multiple reasonable interpretations in the prosecution history, and that therefor the term’s “ordinary meaning” would control.

Similarly, in *Gemstar-TV Guide International, Inc. v. ITC* (2004),<sup>55</sup> the Federal Circuit found that the patent had not “disavowed or disclaimed scope of coverage by using words or expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.” The parties agreed that the disputed term, “visual identification,” was not a term of art or explicitly used in the written description. The Federal Circuit rejected the notion that the term “visual identification” was limited to only the single preferred embodiment disclosed in the specification. Since no technical definition was established, the Court consulted a standard English language dictionary as the proper source of ordinary meaning.

In 2003, the Court reiterated that the inventor could act as a lexicographer by defining terms either explicitly or implicitly. *Moba v. Diamond Automation*,<sup>56</sup> *Bowers v. Baystate Technologies*,<sup>57</sup> *Invitrogen v. Biocrest*.<sup>58</sup>

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<sup>53</sup> The Court also stated that just as a lexicography need not be formal, neither must a disavowal. The Court does *not* require a disavowal to take the form of “My invention does not include \_\_\_\_\_.” 384 F.3d 1333, 1340.

<sup>54</sup> 355 F.3d 1327 (Fed. Cir. 2004)

<sup>55</sup> 383 F.3d 1352 (Fed. Cir. 2004)

<sup>56</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)

In *ASM America Inc., v. Arthur Sherman*, 401 F.3d 1340 (Fed. Cir. 2005), the Federal Circuit reaffirmed the principle that a patentee can act as his own lexicographer by providing an explicit and clear meaning for claim terms within the specification. The Court stated that the term “reaction space” was expressly defined in the specification.

In *Merck & Co. v. Teva Pharmaceuticals Inc.*, 395 F.3d 1364 (Fed. Cir. 2005), another pre-*Phillips* case, the Federal Circuit restated that in redefining the meaning of particular claim terms away from their ordinary meaning, the patentee must clearly express that intent in the written description. A statement within the written description must be clear enough to put a person of ordinary skill in the art on notice that the inventor intended to redefine the claim term. Without an express intent to impart a novel meaning, the claim term will be given its ordinary meaning. The intrinsic evidence must demonstrate the patentee’s intent to redefine the claim terms with reasonable clarity, deliberateness and precision before it will affect the claim. The Court went to opine that the patentee’s specification and prosecution history permit two reasonable and alternative interpretations of “about,” thus it is ambiguous.

The *Merck* court stated the term “about” could be interpreted to mean that one should administer enough milligrams of the derivative compound, such that the end result is that the patient is administered “exactly” 70 or 35 mg of alendronic acid. However, the term “about” could be interpreted to modify either the derivative or active compound. If “about” modifies the active compound, then it could be consistently interpreted with its ordinary meaning of “approximately.” The two alternative interpretations demonstrate an ambiguity in how the patentee had used the term “about.” This ambiguity led the Court conclude that the patentee did not clearly an express intent to redefine “about” away from its ordinary meaning with reasonable clarity, deliberateness and precision.

In *Boss Control Inc. v. Bombardier Inc.*, 410 F.3d 1372 (Fed. Cir. 2005), the pre-*Phillips* Court analyzed another patent to determine if the patentee had acted as his own lexicographer with respect to the term “interrupt.” The Court noted that generally, words are given their ordinary meaning, but a patentee may have acted as his own lexicographer and used terms in a

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<sup>57</sup> *Bowers v. Baystate Technologies, Inc.*, 320 F.3d 1317, 1328 (Fed. Cir. 2003), cert. denied 156 L. Ed.2d (2003).

<sup>58</sup> *Invitrogen v. Biocrest, supra.*, 327 F.3d 1364 at 1367.

manner other than their ordinary meaning. As long as the special definition of the term is clearly stated in the patent specification or file history, a patentee can act as is his own lexicographer.

In this case, the summary of the invention provided a special meaning for the term “interrupt.” It distinguished the patentee’s invention from the prior art by using “interrupt” to describe the invention’s ability to retain power while in the “interrupt” or “locked” mode. This feature allows the operation of the machine’s auxiliary electrical equipment while the invention is in stage one of the interrupt mode. The specification distinguished between simple on-off interruption of electrical power and interruption of electrical power that occurs in two stages. In the invention’s first stage of the “interrupt” mode, it retains auxiliary electrical power and continues to operate. In the second stage, the electrical power is completely shut off in response to the current exceeding a preset limit. In this way, the specification clearly set forth a definition of “interrupt” that is more detailed than a simple on/off control. The Court also found that the preferred embodiments are consistent with this definition of “interrupt.”

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

Issues had arisen 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. Before 2005, the Court had made inconsistent pronouncements on this point.<sup>59</sup> However, the *en banc* Court in *Phillips* indicated that the reference date is the effective filing date of the patent application.<sup>60</sup>

Earlier in 2005, the Court decided *PC Connector Solutions, LLC v. Smartdisk Corp., et al.*, 406 F.3d 1359 (Fed. Cir. 2005), which dealt specifically with how particular terms whose

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<sup>59</sup> For example, in *Plant Genetic Systems, N.V. v. DeKalb Genetics Corp.*, 315 F.3d 1335, 1345 (2003), the Court said it was proper to determine the plain meaning of the claims as understood at the time the patent application was filed. 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]. *Id. citing Kopykake Enterprises, Inc. v. Lucks Co.*, 264 F.3d 1377, 1383 (Fed. Cir. 2001)). In *Resqnet.com v. Lansa*, 346 F.3d 1374, (Fed. Cir. 2003) 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]. 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*, 334 F.3d 1294 (Fed. Cir. 2003), the Court criticized some reference materials considered by the district court because they were not 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*. *Id.* at 1299.

<sup>60</sup> *Phillips*, 415 F.3d at 1313 citing *Innova/Pure*.

meanings vary as technology advances. In *PC Connector*, two independent claims involved the use of a coupler which coupled a computer with an end user peripheral device without using a conventional computer input/output port. The patent application filed in 1988 used the terms “normally connectible,” “conventional,” “traditionally connectible,” and “standard” to describe the coupling arrangement. The accused products were diskette-shaped, sleeve-like adaptors for flash memories and smartcards that allowed such media to be accessed through a diskette drive. The district court interpreted the disputed terms as fixing the peripherals and computer I/O ports described by such terms to be those *in existence at the time of filing in 1988*. The district court rejected the patentee’s assertion that the disputed terms were to be redefined as specifically referring to a dedicated computer I/O port. In affirming the district court’s summary judgment for the defendant, the Federal Circuit stated, “We conclude that the record is unable to support this departure from the ordinary meanings of those words, whose descriptive properties are implicitly time dependent. A claim cannot have different meanings at different times; its meaning must be interpreted as of its effective filing date...” Thus, unlike the word “dedicated,” the word “conventional” necessarily has a meaning specific to the time of filing.<sup>61</sup> Judge Lourie quoted approvingly the Federal Circuit’s prior decision in *Kopykake Enterprises, Inc. v. Lucks Co.*, 264 F.3d 1377, 1383 (Fed. Cir. 2001) for the proposition that when a claim term that initially had a narrow meaning at the time the patent application was filed subsequently acquires a broader meaning, the claim meaning for purposes of determining infringement is limited to the meaning that was understood at the time the application was filed.

#### **E. Context**

Even before the *en banc* decision in *Phillips*, the Court had indicated the importance of context as a useful and important tool for claim construction. Starting with the context provided by claim language, in 2005 the Court in *Pause Technology v. Tivo, supra*, 419 F.3d 1326, declared that the district court erred in construing the claim phrase “circular storage buffer” without reference to further clauses in the claim describing how that device must function.

The context of language in other claims is important. Thus, in *Medrad, Inc. v. MRI Devices Corp.*, 410 F.3d 1313 (Fed. Cir. 2005), a pre-*Phillips* decision written by Judge Bryson

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<sup>61</sup> 406 F.3d at 1363-64.

(who also wrote the majority opinion in *Phillips*), the Court squarely rejected a claim construction contention by Medrad. That asserted contention, if accepted, would have made it impossible to read claim 1 and its dependent claim 2 together, while maintaining the asserted definition. Hence, “We must not interpret an independent claim in a way that is inconsistent with a claim which depends from it.”<sup>62</sup>

The Court often discusses the meaning of claim terms in the context of the specification. These cases are discussed *infra* under “Written Description.”

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

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.<sup>63</sup> Following the *en banc* decision in *Phillips*, the Court has focused extensively on claim language and context. The Court reaffirmed the “bedrock principle” that the claims define the invention. *NTP (2005)*, *supra*, citing *Phillips*. However, the Court in many cases treated the claim language as the place to begin – not to end. *See* cases discussed under “Context” and “Written Description – 1. General Applications.”

#### **G. Other Bases for Claim Construction**

The district court in *Abbott Laboratories v. Baxter Pharmaceutical Products (2003)*<sup>64</sup> construed the claims in light of information in an Information Disclosure Statement (“IDS”) which disclosed a sale of a certain product 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. 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

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<sup>62</sup> 401 F.3d 1313, 1317, citing *Wright Med. Tech., Inc. v. Osteonics Corp.*, 1221 F.3d 1440, 1445 (Fed. Cir. 1997).

<sup>63</sup> *e.g.*, *Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004); *Brookhill-Wilkl, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294 (Fed. Cir. 2003).

<sup>64</sup> 334 F.3d 1274 (Fed. Cir. 2003).

express disavowal of the claim scope in the IDS.<sup>65</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>66</sup>

The Federal Circuit in *Goldenberg v. Cytogen, Inc.* (2004)<sup>67</sup> rejected the attempt to limit a claim based on the prosecution history of a continuation-in-part application related to the patent-in-suit. The Federal Circuit held that the statements made in the C-I-P application were made in the context of the new material added which could not be used to limit the meaning of the terms in the original application. “In the absence of an incorporation into the intrinsic evidence, this Court’s precedent takes a narrow view on when a related patent or its prosecution history is available to construe the claims of a patent at issue and draws a distinct line between patents that have a familial relationship and those that do not.”

In *Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.* (2004),<sup>68</sup> the Court held that the trial court erred in construing the term “operatively connected” as limited to “a tenacious means of affixing resulting in a unitary structure.” The trial court’s construction was erroneous notwithstanding that each of the several disclosed embodiments featured a tenacious means of affixing a filter tube to a bottle creating a unitary structure. According to the Court, “operatively connected” is a general descriptive (phrase) often used in patent claiming to describe a functional relationship. Absent an express limitation, such language is to be given its full range of meaning. In this case, the full range of meaning could include the accused device which featured a filter tube that could be affixed to a bottle by twisting a lid into place at the top of the bottle. Thus, the Court vacated the summary judgment for the defendant and remanded for further proceedings.

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<sup>65</sup> *Id.* at 1277-79.

<sup>66</sup> *Id.* at 1282.

<sup>67</sup> 373 F.3d 1158 (Fed. Cir. 2004)

<sup>68</sup> 381 F.3d 1111 (2004)

## H. The Ordinarily Skilled Artisan

The ordinarily skilled artisan has generally been central to claim construction. For example, in 2002 the Court in *Leggett & Platt v. Hickory Springs*<sup>69</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>70</sup> [emphasis added]. Expressions in 2003 were similar: *Rambus v. Infineon* (“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>71</sup> See also, *Moba v. Diamond Automation*<sup>72</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*<sup>73</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>74</sup>

In *Merck & Company, Inc. v. Teva Pharmaceuticals USA* (2003),<sup>75</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 clearly evident from the patent and prosecution history that the inventor imbued the term with a different meaning.

In *Smithkline Beecham Corp. v. Apotex Corp.*, 403 F.3d 1331 (Fed. Cir. 2005), a claimed compound (“crystalline paroxetine hydrochloride hemihydrate”) was produced in trace amounts as a by-product of related chemical reactions in trace amounts. In order to avoid the invalidating effect of these earlier public uses, the patent claim had been limited by the district court to cover “commercially significant” amounts of PHC hemihydrate. The Federal Circuit, however, held that the claimed compound had an unambiguous structural definition to one of skill in the art that could not be modified to avoid invalidity.

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<sup>69</sup> *Leggett & Platt, Inc. v. Hickory Springs Mfg. Co.*, 285 F.3d 1353 (Fed. Cir. 2002).

<sup>70</sup> *Id.* at 1357; cf. *Tate Access Floors, supra*, 279 F.3d at 1370.

<sup>71</sup> *Rambus, Inc. v. Infineon Techs. AG*, 318 F.3d 1081, 1088 (Fed. Cir. 2003), *rehearing denied* 2003 U.S. App. LEXIS 8845.

<sup>72</sup> *Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1315 (Fed. Cir.), *cert. denied*, 124 S.Ct. 464 (2003).

<sup>73</sup> 334 F.3d 1294 (Fed. Cir. 2003).

<sup>74</sup> 342 F.3d 1361, 1368 (Fed. Cir. 2003).

<sup>75</sup> 347 F. 3d 1367 (Fed. Cir. 2003).

The Court has actually remanded cases so that the trial court can consider the ordinarily skilled artisan. For example, the Court in *Bayer v. Biovail* (2002)<sup>76</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 Concepts v. Brown* (1991)<sup>77</sup> and *Fonar v. Johnson & Johnson* (1987)<sup>78</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.* (2003).<sup>79</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* (2002)<sup>80</sup> (meaning depends on usage of skilled artisans); *Neomagic v. Trident Microsystems* (2002)<sup>81</sup> (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).

In *PC Connector Solutions LLC v. Smartdisk Corp., et al.*, 406 F.3d 1359 (Fed. Cir. 2005), the Federal Circuit quoted approvingly its decision in *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 986 (Fed. Cir. 1995) (*en banc*), affirmed 517 U.S. 370, 134 L.Ed. 2d 577, 116 S.Ct. 1384 (1996) that: “The focus is on the objective test of what one of ordinary skill in the art at the time the invention would have understood the term to mean.”

*Arthrocare Corp. v. Smith & Nephew, Inc.*, 406 F.3d 1365 (Fed. Cir. 2005) held that what a person of ordinary skill in the art would understand to be present in the teachings of a prior art reference could be relied upon to invalidate a patent. In *Arthrocare*, the patent in suit was directed to an electrosurgical system which employs high frequency electrical current to cut or

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<sup>76</sup> *Bayer AG and Bayer Corp. v. Biovail Corp.*, 279 F.3d 1340 (Fed. Cir. 2002).

<sup>77</sup> *Unique Concepts, Inc. v. Brown*, 939 F.2d 1558, 1561 (Fed. Cir. 1991).

<sup>78</sup> *Fonar Corp. v. Johnson & Johnson*, 821 F.2d 627, 631 (Fed. Cir. 1987), *overruled in part*, 508 U.S. 83, 90.

<sup>79</sup> *Apex Inc. v. Raritan Computer Inc.*, 325 F.3d 1364, 1374 (Fed. Cir. 2003).

<sup>80</sup> 311 F.3d 1384, (Fed. Cir. 2002), *rehearing and reh en banc denied*, 2003 U.S. App. LEXIS 1322 (Fed. Cir. 2003)

<sup>81</sup> 287 F.3d 1062 (Fed. Cir. 2002).

ablate body tissue. The object of the patent was to direct carefully the flow of electrical current to hit the target tissue and avoid damage to other bodily tissue. The patentee argued that the asserted prior art reference did not identify explicitly the point where the wires would exit the probe and therefore did not anticipate the claims in suit. While acknowledging this to be true, the Federal Circuit held that a person of ordinary skill in the art would understand that the wires would be attached to the power source after exiting the back of the probe. As such, the claims of the patent in suit were invalid as being anticipated over the prior art reference.

Subsequently, the Court decided *Phillips en banc* and again emphasized the importance of the ordinarily skilled worker in claim construction. This appears in several different passages where the Court showed that it tries to focus on the understanding of the person of ordinary skill in the art in understanding the claim meaning:

We have made clear, moreover, that the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application. See *Innova*, 381 F.3d at 1116 ("A court construing a patent claim seeks to accord a claim the meaning it would have to a person of ordinary skill in the art at the time of the invention."); *Home Diagnostics, Inc. v. LifeScan, Inc.*, 381 F.3d 1352, 1358 (Fed. Cir. 2004) ("customary meaning" refers to the "customary meaning in [the] art field"); *Ferguson Beauregard/Logic Controls v. Mega Sys., LLC*, 350 F.3d 1327, 1338 (Fed. Cir. 2003) (claim terms "are examined through the viewing glass of a person skilled in the art"); see also *PC Connector Solutions LLC v. SmartDisk Corp.*, 406 F.3d 1359, 1363 (Fed. Cir. 2005) (meaning of claim "must be interpreted as of [the] effective filing date" of the patent application); *Schering Corp. v. Amgen Inc.*, 222 F.3d 1347, 1353 (Fed. Cir. 2000) (same).

The inquiry into how a person of ordinary skill in the art understands a claim term provides an objective baseline from which to begin claim interpretation. See *Innova*, 381 F.3d at 1116. That starting point is based on the well-settled understanding that inventors are typically persons skilled in the field of the invention and that patents are addressed to and intended to be read by others of skill in the pertinent art. [citations omitted]

Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification. This court

explained that point well in *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1477 (Fed. Cir. 1998):

It is the person of ordinary skill in the field of the invention through whose eyes the claims are construed. Such person is deemed to read the words used in the patent documents with an understanding of their meaning in the field, and to have knowledge of any special meaning and usage in the field. The inventor's words that are used to describe the invention--the inventor's lexicography--must be understood and interpreted by the court as they would be understood and interpreted by a person in that field of technology. Thus the court starts the decisionmaking process by reviewing the same resources as would that person, viz., the patent specification and the prosecution history.

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Nonetheless, because extrinsic evidence can help educate the court regarding the field of the invention and can help the court determine what a person of ordinary skill in the art would understand claim terms to mean, it is permissible for the district court in its sound discretion to admit and use such evidence.

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The resulting definitions therefore do not necessarily reflect the inventor's goal of distinctly setting forth his invention as a person of ordinary skill in that particular art would understand it.

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However, the line between construing terms and importing limitations can be discerned with reasonable certainty and predictability if the court's focus remains on understanding how a person of ordinary skill in the art would understand the claim terms.

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The underlying goal of our decision in *Vitronics* was to increase the likelihood that a court will comprehend how a person of ordinary skill in the art would understand the claim terms.<sup>82</sup>

## I. Interpreting Claims to Sustain Validity

A question arises whether claims should be construed one way or another to preserve their validity. The Court discussed this in 2004 in *Liebel-Flarsheim Co. v. Medrad*,<sup>83</sup> noting that

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<sup>82</sup> 415 F.3d 1303, *passim* [emphasis added].

there is a “familiar axiom” that claims ought to be construed to sustain their validity.<sup>84</sup> However, the Court was quick to note that it has also cautioned *against* judges rewriting claims to preserve validity. To harmonize these competing statements, the Federal Circuit ruled that unless a court, after applying all available tools of claim construction, concludes that a claim is still ambiguous, the axiom regarding construction to preserve validity does not apply.<sup>85</sup>

In *Housey Pharmaceuticals v. Astrazeneca* (2004),<sup>86</sup> the Federal Circuit rejected arguments that the claim should be given a narrower construction to preserve its validity for two reasons. First, there was no showing that the claim term was ambiguous. Second, the patentee’s stipulation that the broader construction would render the claim invalid was not sufficient to invoke this canon of construction, where neither the district court nor the Federal Circuit was asked to review validity.<sup>87</sup>

In 2005, this arose in the *Phillips en banc* case, where the Court reaffirmed that this axiom has only limited applicability, stating:

Invoking the principle that "claims should be so construed, if possible, as to sustain their validity," *Rhine v. Casio, Inc.*, 183 F.3d 1342, 1345 (Fed Cir. 1999), argues that the term "baffles" should be given a restrictive meaning because if the term is not construed restrictively, the asserted claims would be invalid.

While we have acknowledged the maxim that claims should be construed to preserve their validity, we have not applied that principle broadly, and we have certainly not endorsed a regime in which validity analysis is a regular component of claim construction. See *Nazomi Communications*, 403 F.3d at 1368-69. Instead, we have limited the maxim to cases in which "the court concludes, after applying all the available tools of claim construction, that the claim is still ambiguous." *Liebel-Flarsheim*, 358 F.3d at 911; see also *Generation II Orthonics Inc. v. Med. Tech. Inc.*, 263 F.3d 1356, 1365 (Fed. Cir. 2001) ("Claims can only be construed to preserve their validity where the proposed claim

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<sup>83</sup> 358 F.3d 898 at 911 citing *Rhine v. Casio, Inc.* 183 F.3d 1342, 1345 (Fed. Cir. 1999).

<sup>84</sup> 358 F.3d 898 at 911 citing *Rhine v. Casio, Inc.* 183 F.3d 1342, 1345 (Fed. Cir. 1999).

<sup>85</sup> The court cited *Texas Instruments v. U.S. International Trade Commission*, 871 F.2d 1054 (Fed. Cir. 1989) where the ITC, to preserve claim validity, construed the claim to be limited to the meaning it had prior to an amendment. The Federal Circuit reversed the Commission, noting that while ambiguous claims when possible should be construed to preserve validity, that rule of construction does not justify reading a limitation into the claim that it does not contain and which the patentee deleted from the claim during prosecution.

<sup>86</sup> 366 F.3d 1348, 1352 (Fed. Cir. 2004).

<sup>87</sup> *Housey Pharmaceuticals, Inc. v. Astrazeneca UK Ltd.*, 366 F.3d 1348, 1352 (Fed. Cir. 2004).

construction is 'practicable,' is based on sound claim construction principles, and does not revise or ignore the explicit language of the claims."); *Elekta Instrument S.A. v. O.U.R. Scientific Int'l, Inc.*, 214 F.3d 1302, 1309 (Fed. Cir. 2000) ("having concluded that the amended claim is susceptible of only one reasonable construction, we cannot construe the claim differently from its plain meaning in order to preserve its validity"); *E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 1434 (Fed. Cir. 1988) (rejecting argument that limitations should be added to claims to preserve the validity of the claims). In such cases, we have looked to whether it is reasonable to infer that the PTO would not have issued an invalid patent, and that the ambiguity in the claim language should therefore be resolved in a manner that would preserve the patent's validity.

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In this case, unlike in *Klein* [*v. Russell*, 86 U.S. (19 Wall.) 433, 466, 22 L. Ed. 116 (1873)], and other cases in which the doctrine of construing claims to preserve their validity has been invoked, the claim term at issue is not ambiguous. Thus, it can be construed without the need to consider whether one possible construction would render the claim invalid while the other would not. The doctrine of construing claims to preserve their validity, a doctrine of limited utility in any event, therefore has no applicability here.<sup>88</sup>

In *Smithkline Beecham Corp. v. Apotex Corp.*, 403 F.3d 1331 (Fed. Cir. 2005), the Federal Circuit construed a claim for "crystalline paroxetine hydrochloride hemihydrate." After the patent was issued, it was discovered that this substance was produced as a byproduct of related chemical reactions in trace amounts and had apparently been first produced in such a manner prior to the priority date of the patent. In order to avoid the invalidating effect of these earlier public uses, the patent claim had been limited by the district court to cover "commercially significant" amounts of PHC hemihydrate. The Federal Circuit held that the claimed compound had an unambiguous structural definition to one of skill in the art that could not be modified to avoid invalidity. Thus, it rejected the assertion that portions of the patent specification emphasizing the favorable characteristics of PHC hemihydrate defined the claimed compound so as to avoid trace amounts of compound produced by the prior art method.

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<sup>88</sup> 415 F.3d at 1327-28.

The district court had also held that a claim construction that read on trace amounts of PHC hemihydrate as caused by the earlier process would produce an absurd result and not serve any policy of patent law. The Federal Circuit rejected this argument stating that claim construction is not a policy-driven inquiry, but rather a contextual interpretation of language, and that the scope of patent claims can neither be broadened nor narrowed based on abstract policy considerations regarding the effect of a particular claim meaning.

Likewise, in *Seachange Int'l., Inc. v. C-Cor, Inc.*, 413 F.3d 1361 (Fed. Cir. 2005), the Court declined the invitation to import a limitation to preserve validity where the claim was not found to be ambiguous.

A similar case is *Chef America, Inc. v. Lamb-Weston, Inc.* (2004),<sup>89</sup> which involved erroneous but clear claim language stating, "heating ... dough to a temperature in the range of about 400 degrees F. to 850 degrees F." One issue was whether the claim meant what it said literally, as the district court held, or whether it meant heating the dough in an *oven* heated to that temperature range, *i.e.* heating *at* that temperature. It was clear that if dough were heated *to* that temperature, it would be burned. The Court rejected the request to construe the claim to preserve its validity, stating:<sup>90</sup>

This court, however, repeatedly and consistently has recognized that courts may not redraft claims, whether to make them operable or to sustain their validity. [citations omitted] Even "a nonsensical result does not require the court to redraft the claims of the ['290] patent. Rather, where as here, claims are susceptible to only one reasonable interpretation and that interpretation results in a nonsensical construction of the claim as a whole, the claim must be invalidated." [citations omitted]. "Where, as here, the claim is susceptible to only one reasonable construction, the canons of claim construction cited by [Chef America] are inapposite, and we must construe the claims based on the patentee's version of the claim as he himself drafted it." *Id.*

Thus, in accord with our settled practice we construe the claim as written, not as the patentees wish they had written it. As written, the claim unambiguously requires that the dough be heated to a temperature range of 400 degrees F. to 850 degrees F.

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<sup>89</sup> 358 F.3d 1371 (Fed. Cir. 2004).

<sup>90</sup> *Id.* at 1374.

The Court went on to rule that the patentees in this case had not defined “to” to mean “at” in the patent or file history.

#### **J. Construction Of Claims In The Patent and Trademark Office**

The Patent and Trademark Office construes claims to give them their broadest meaning in light of the specification.<sup>91</sup> The broad construction during examination or re-examination is said not to be unfair to the applicant because the applicant still has the ability to amend the claims.<sup>92</sup> Nevertheless, this “ordinary meaning must be determined from the standpoint of a person of ordinary skill in the relevant art,”<sup>93</sup> and while the PTO must give claims their broadest reasonable interpretation, it must be consistent with the interpretation of persons skilled in the art.<sup>94</sup> It is error for the PTO to use the same mode of claim interpretation that courts use in litigation over issued patents that are imbued with a presumption of validity.<sup>95</sup>

In *In re Alberto Lee Bigio* (2004), the Federal Circuit refused to limit the term “hairbrush” to hairbrushes for the scalp.<sup>96</sup> The claim at issue called for a “hair brush,” and the PTO had rejected the claims over prior art directed to *tooth brushes*. The PTO Board declined to interpret the claim language to comport with statements in the objects of the invention that the brush was an “anatomically correct hairbrush” for brushing scalp hair. The Board ruled that the claim addressed scalp hair, facial hair, eyebrow hair, pet hair, and more. Affirming, the Federal Circuit stated that during prosecution, a patent applicant has the “opportunity and responsibility” to remove any ambiguities in claim language. Here, using “hair” in front of “brush” was not enough to limit the claim to brushes for *scalp* hair. “Absent claim language carrying a narrow meaning, the PTO should only limit the claim based on the specification or prosecution history when those sources expressly disclaim the broader definition.”<sup>97</sup>

In *Bilstad v. Wakalopulos* (2004),<sup>98</sup> the Federal Circuit considered whether the PTO Board of Appeals and Interferences had correctly construed the claim term “plurality” and

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<sup>91</sup> *In re Crish*, 393 F.3d 1253, 1257 (Fed. Cir. 2004); *In re American Academy of Science Tech Center*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

<sup>92</sup> *In re American Academy of Science Tech Center*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

<sup>93</sup> *Id.* at 1368, citing *Teleflex v. Ficosa*, 299 F.3d 1313, 1325 (Fed. Cir. 2002).

<sup>94</sup> *Id.* citing *In re Cortright*, 165 F.3d 1353, 1358 (Fed. Cir. 1999).

<sup>95</sup> 367 F.3d at 1369.

<sup>96</sup> *In re Alberto Lee Bigio*, 381 F.2d 1320 (Fed. Cir. 2004).

<sup>97</sup> *Id.*, citing *Liebel-Flarsheim*.

<sup>98</sup> *Bilstad v. Wakalopulos*, 383 F.3d 1116 (Fed. Cir. 2004).

whether Bilstad’s patent application met the written description requirement of Section 112 for the construction given by the Board for that term. Bilstad and Wakalopoulos had argued, respectively, that “plurality” means “two or more items” and “a large number; multitude.” Concluding from the dictionary definitions that the ordinary meaning encompassed both parties’ proposed definitions and that both were consistent with the written description, the Board had rejected both as incomplete and construed the term to encompass both those meanings -- an indefinite range bounded by two and infinity. The Court found no error in the Board’s construction of “plurality.”<sup>99</sup>

## II. Claim Language and Other Evidence

### A. Preambles

The general rule established in 1951 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>100</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>101</sup>

Preambles were addressed in 2005. In one case, the Court ruled that a preamble generally limits the claimed invention if it recites essential structure or steps, or if it is necessary to give life, meaning, and vitality to the claims. Moreover, if it helps to determine the scope of the patent claim, then it is construed as part of the claimed invention. *NTP v. Research in Motion*, 418 F.3d 1282, 1305 (Fed. Cir. 2005). In *NTP*, the preamble provided antecedent basis and was needed to provide context. The Federal Circuit found that it limited the claim. *NTP* at 1306.

Similarly, in *Seachange Int’l, Inc. v. C-Cor, Inc.*, 413 F.3d 1361 (Fed. Cir. 2005), the Court said that if a preamble helps to determine the scope of the claim, then it is construed as part of the claimed invention. *Id.* at 1376.

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<sup>99</sup> *Id.* at 1122.

<sup>100</sup> *Kropa v. Robie*, 38 C.C.P.A. 858, 187 F.2d 150, 152 (CCPA 1951).

<sup>101</sup> *Allen Engineering v. Bartell Industries*, 299 F.3d 1336 (Fed. Cir. 2002).

In a 2004 case, *Poly-America, L.P. v. GSE Lining Technology, Inc.*,<sup>102</sup> the Federal Circuit construed the preamble phrase “blown film” as a substantive claim limitation. The Court reviewed the basic principles as follows:

“Whether to treat a preamble as a limitation is a determination resolved only on review of the entire[] . . . patent to gain an understanding of what the inventors actually invented and intended to encompass by the claim.” *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257 (Fed. Cir. 1989). “No litmus test defines when a preamble limits claim scope.” *Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002). On the one hand, a preamble is a claim limitation if it recites essential structure or steps, or if it is “necessary to give life, meaning, and vitality” to the claim. *Pitney Bowes [v. Hewlett Packard Co.]*, 182 F.3d 1298 (Fed. Cir. 1999) at 1305. On the other hand, a preamble is not limiting “where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention.” *Rowe v. Dror*, 112 F.3d 473, 478 (Fed. Cir. 1997). “Further, when reciting additional structure or steps underscored as important by the specification, the preamble may operate as a claim limitation.” *Catalina Mktg.*, 289 F.3d at 808.

Applying these principles, and noting that references to the invention as a “blown-film” liner were contained in the title to the patent, the “Summary of the Invention,” descriptions of the preferred embodiments, and in the preamble of each of the patent’s claims, the Court concluded that “blown-film” disclosed a fundamental characteristic of the claimed invention.<sup>103</sup>

The 2004 Court came to the opposite result in *Intirtool, Ltd. v. Texar Corp.*,<sup>104</sup> reversing a district court determination. The preamble called for a “hand held punch pliers for . . . punching *and connecting* overlapping sheet metal . . .” Texar urged that the prosecution history contained instances where the patent applicant had characterized the invention as hand held pliers which simultaneously punch and connect overlapping sheet metal ceiling tile grids. Texar appealed to the precedents that clear reliance on the preamble during prosecution to distinguish the invention from prior art transforms the preamble into a claim limitation.<sup>105</sup> The Federal Circuit, however, disagreed that the facts of the case supported that conclusion. First, the body of the claim at issue described a “structurally complete invention such that deletion of the preamble phrase does not

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<sup>102</sup> 383 F.3d 1303 (Fed. Cir. 2004).

<sup>103</sup> *Id.* at 1310.

<sup>104</sup> 369 F.3d 1289 (Fed. Cir. 2004).

<sup>105</sup> *Catalina Marketing, Int’l. v. Coolsavings.com*, 289 F.3d 801, 808-09 (Fed. Cir. 2002).

affect the structure or steps of the claimed invention,” citing *Pitney Bowes, Inc. v. Hewlett-Packard Co.*<sup>106</sup> The body of this claim described the tool “in complete and exacting structural detail,” and the preamble did not recite any additional structure or steps underscored as important by the specification.

The Court also rejected Texar’s contention that the prosecution history contained clear reliance on this connecting feature. Instead, the Court found that the statements in the file history could be interpreted as not relying on the simultaneously punching and connecting language of the preamble, but rather on the specific structural limitations in the claim body. In short, the Court found that the preamble simply recited results or benefits of the invention, without relying on those benefits or features as patentably significant.

In *Eaton v. Rockwell* (2003)<sup>107</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]:

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

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<sup>106</sup> 182 F.3d 1298, 1305 (Fed. Cir. 1999).

<sup>107</sup> *Eaton Corp. v. Rockwell International Corp.*, 323 F.3d 1332 (Fed. Cir. 2003).

manipulating particular structures that were identified and set forth in the preamble only. Hence, the Court found this to be 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>108</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.* (2003),<sup>109</sup> the Court ruled that the term “improved competence” in the preamble was limiting. 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>110</sup>

*Jansen v. Rexall Sundown, Inc.* (2003)<sup>111</sup> dealt with a similar situation. There, after nearly 20 years of unsuccessful prosecution, the applicant obtained issuance of his claims by adding the 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.* (2003)<sup>112</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

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<sup>108</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>109</sup> 327 F.3d 1364, 1367 (Fed. Cir. 2003).

<sup>110</sup> *Id.* at 1370.

<sup>111</sup> 342 F.3d 1329 (Fed. Cir. 2003).

<sup>112</sup> 320 F.3d 1339 (Fed. Cir. 2003).

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.

Some preamble language was limiting, and some was not, in *Storage Technology Corp. v. Cisco Systems, Inc.* (2003).<sup>113</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 required something to be cached, it explicitly recited that as a 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.

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>114</sup>

Preamble language was not found limiting in *Altiris, Inc. v. Symantec Corp.* (2003),<sup>115</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

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<sup>113</sup> 329 F.3d 823, 851 (Fed. Cir. 2003).

<sup>114</sup> *Id.* at 835.

<sup>115</sup> 318 F.3d 1363 (Fed. Cir. 2003).

be performed in the order written, and nothing in the claim or the specification directly or indirectly required a narrow construction.

**1. Jepson Claims – “Wherein the Improvement Comprises ...”**

No decisions concerning Jepson style preambles were noted in 2005. However, in 2002, the Court had commented on them and confirmed in *Epcon Gas Systems v. Bauer Compressors*<sup>116</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.

**2. Transition Terms**

**a. “Comprising”**

In *Power Mosfet Techs., L.L.C. v. Siemens AG* (2004),<sup>117</sup> the Federal Circuit addressed the claim limitation “contacting . . . to form [an] interface” as construed by the special master and adopted by the district court. In affirming the special master’s construction that “interface” was “necessarily physical” instead of both electrical and physical, the Court did examine the transition language “comprising”, but relied upon the specification to limit “interface.” While the Court recognized that the limitation was “open to additional elements and layers due to the ‘comprising’ term . . . ‘interface’ is understandably confined to the structure actually described by the . . . patent.”<sup>118</sup> The Court further explained that “[c]omprising’, while permitting additional elements not required by a claim, does not remove the limitations that are present.”<sup>119</sup> Ultimately, the Court limited the term “interface” because of the disclosure in the specification.

In *Scanner Techs. Corp. v. Vision Sys. Corp.* (2004), the Federal Circuit found that “the very use of the transition ‘comprising’ in conjunction with the article ‘a’ or ‘an’ creates the presumption that the article is construed to mean one or more elements or steps, unless there is evidence of a clear intent to limit the claims.”<sup>120</sup> Finding no clear intent to limit the claim term

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<sup>116</sup> *Epcon Gas Systems, Inc. v. Bauer Compressors, Inc.*, 279 F.3d 1022 (Fed. Cir. 2002).

<sup>117</sup> 378 F.3d 1396, 1407-1408 (Fed. Cir. 2004).

<sup>118</sup> *Id.* at 1408.

<sup>119</sup> *Id.* at 1409.

<sup>120</sup> 365 F.3d 1299, 1305-1306 (Fed. Cir. 2004). *Compare, North American Vaccine, Inc. v. Cat Contacting, Inc.*, 7 F.3d 1571 (Fed. Cir. 1993) (construing the article ‘a’ in the singular.)

“a,” the court reasoned that the use of “comprising” itself establishes a presumption that those claims are “open.”<sup>121</sup>

In *Medichem SA v. Rolabo, S.L.* (2003),<sup>122</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.” Likewise, in *Invitrogen v. Biocrest* (2003),<sup>123</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.

**b. “Consisting Essentially Of”**

In *AK Steel v. Sollac* (2003), the Court construed the phrase “consisting essentially of aluminum,”<sup>124</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>125</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>126</sup> *See also, W.E. Hall v. Atlanta Corrugating*<sup>127</sup> (every claim limitation must be satisfied before additional elements examined under “consisting essentially of”).

**c. “Consisting Of”**

In *Norian Corporation v. Stryker Corporation* (2004),<sup>128</sup> the Court reversed a summary judgment, finding that the trial court had misconstrued the phrase “consisting of.” The trial court read it as a closed transition phrase which limited the scope of the claim to bone repair kits having only the enumerated elements, all of which were chemical components. Thus, because

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<sup>121</sup> *Id.* at 1306.

<sup>122</sup> 353 F.3d 928, 2003 U.S. App. LEXIS 26236 (Fed. Cir. 2003).

<sup>123</sup> 327 F.3d 1364, 1367 (Fed. Cir. 2003).

<sup>124</sup> *AK Steel Corp. v. Sollac*, 344 F.3d 1234, 1239 (Fed. Cir. 2003) (internal citations omitted).

<sup>125</sup> *Id.*

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

<sup>127</sup> 370 F.3d 1343, 1353 (Fed. Cir. 2004)

<sup>128</sup> 363 F.3d 1321 (2004)

the accused kits also included a spatula for applying the chemical components to a damaged bone, the trial court concluded that the kits did not infringe. Over a dissent, the Court reasoned that the phrase “consisting of” limited the scope of the claims only as to the chemical components. Thus, the presence of a mechanical component – *i.e.*, a spatula – in the accused kits did not avoid infringement. Hence, the Court’s decision in 2004 reversed a summary judgment of noninfringement with the Court ruling that the claim construction was unduly restrictive.

On remand, the district court entered another summary judgment based on its construction of a different claim limitation. That judgment was appealed and resulted in *Norian v. Stryker*, 432 F.3d 1356 (Fed. Cir. 2005). In that decision, the Court interpreted the word “a” in the singular, instead of meaning “one or more” for numerous reasons:

- The claim did not use open end transition phrase (“comprising”) but instead used closed end phrase “consisting of.”
- The claim used contrasting language: recited “at least one” twice for other components, but for the component at issue recited “a solution consisting of.” If the patentee had meant to claim “at least one,” it would have been simple to do so.
- Court precedent has interpreted “a” in the singular sense when used with closed end transitional phrase “consisting of.”
- Each of the examples in the specification used just one solute, but no combinations of solutes. Nothing in the specification points away from this (narrow) construction.
- In a series of amendments, the applicant narrowed the claim language, including changing the transition clause from open ended to close ended.
- The prosecuting attorney argued that the amendment limited this claim to a solution made from water and a *single* solute.
- The attorney also referenced the specification examples of single-solute solutions.
- No rule law limits the scope of surrender of subject matter to just what was necessary to distinguish over a cited reference. Instead, patentees frequently surrender more than necessary, and courts hold them to what they ultimately claimed.

### 1. **Markush Groups: “Selected From the Group Consisting Of”**

In *Abbott Laboratories v. Baxter Pharmaceutical Products* (2003),<sup>129</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>130</sup>

#### d. **“Containing”**

*Mars, Inc. v. H.J. Heinz Co.* (2004)<sup>131</sup> ruled that the word “containing” in a claim element is like “comprising.”

#### e. **“Including” or “Includes”**

In *SanDisk Corp. v. Memorex Products, Inc.*, 415 F.3d 1278 (Fed. Cir. 2005), the Court commented on the term “includes” in a preamble. Though not the transition term itself, the Court remarked that “As a patent law term of art, ‘includes’ means ‘comprising.’” *Id.* at 1284. Neither of these terms forecloses additional elements, and those further elements need not satisfy the stated claim limitations. *Id.*

### 3. **Other Terms**

On a somewhat related note, the Court noted that using the words “first” and “second” in the body of a 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* (2003).<sup>132</sup>

In *Metabolite Laboratories v. Laboratory Corporation of American Holdings* (2004), the Federal Circuit used the preamble as one input for construing the term “correlating” in the body of the claim.<sup>133</sup>

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<sup>129</sup> 334 F.3d 1274 (Fed. Cir. 2003)

<sup>130</sup> *Id.* at 1280-81.

<sup>131</sup> *Mars, Inc. v. H.J. Heinz Co.*, 377 F.3d 1369, 1375-76 (Fed. Cir. 2004).

<sup>132</sup> 350 F.3d 1365, 2003 U.S. App. LEXIS 24207.

<sup>133</sup> *Metabolite Laboratories, Inc. v. Laboratory Corporation of American Holdings*, 370 F.3d 1354, 1362 (Fed. Cir. 2004)

## B. Hybrid Claims

Section 101 of the patent statute enumerates the classes of patentable subject matter (“any ... process, machine, manufacture, or composition of matter, or any new and useful improvement thereof ...”) and states that the inventor “may obtain a patent *therefor* ...” Curiously, it does not say anything explicitly about *combinations* of classes. Does the “therefor” mean that an inventor can receive a patent only if the invention falls into one of those classes? Clearly the answer is no, for many patents have issued with both apparatus and method claims. However, what about a claim that uses both apparatus and method limitations, *i.e.*, a “hybrid” claim?

That issue came before the Court in 2005, an issue said to be of first impression in that Court. The issue specifically was whether a single patent claim that covers both an apparatus and a method of use of that apparatus passes muster under 35 USC §112, para. 2 (indefiniteness). Amazon won a summary judgment ruling of invalidity which the Federal Circuit affirmed in part in *IPXL Holdings, LLC v. Amazon.com, Inc.*, 430 F.3d 1377 (Fed. Cir. 2005). The claim at issue read:

25. The system of claim 2 [including an input means] wherein the predicted transaction information comprises both a transaction type and transaction parameters associated with that transaction type, and the user uses the input means to either change the predicted transaction information or accept the displayed transaction type and transaction parameters.

Claim 25 on its face is directed to a “system.” However, it also recites use steps (“the user uses the input means to ...change the predicted transaction information ...”) The Federal Circuit voiced concern that the public would not know when it would be infringing claim 25.

The metes and bounds of the claim were found to be too imprecise by the panel judges:

Thus, it is unclear whether infringement of claim 25 occurs when one creates a system that allows the user to change the predicted transaction information or accept the displayed transaction, or whether infringement occurs when the user actually uses the input means to change transaction information or uses the input means to accept a displayed transaction. Because claim 25 recites both a system and the method for using that system, it does not apprise a

person of ordinary skill in the art of its scope, and it is invalid under section 112, paragraph 2.<sup>134</sup>

This ruling raises various questions. Query whether the exact language of the Court imposes a *per se* prohibition on hybrid claims (“*because claim 25 recites both ...*”) which commingle statutory classes. Would that be enough of a basis to invalidate as indefinite a patent claim that mixes apparatus and method of use features if the claim clearly delineated when infringement would occur? If the Court intends a broad prohibition against mixing statutory classes of inventions in claims, would that rule also invalidate a method claim directed to using a particular apparatus?

The answer to the last question very likely “no.” In *SanDisk Corp. v Memorex Products, Inc.*, 415 F.3d 1278 (Fed. Cir. 2005), the Court dealt with a method claim having a significant preamble setting forth apparatus features of a computer system in which the claimed method is practiced. The method recitals of the claim expressly mentioned the apparatus.<sup>135</sup> On the other hand, *SanDisk* was decided before *IPXL* and, moreover, it is not clear that the issue was even raised in *SanDisk*. Nevertheless, if *IPXL* is interpreted broadly to forbid method claims from having any apparatus recitals, then many method claims will succumb. This seems unnecessary, for the salient question in *IPXL* was whether members of the public would know with reasonable certainty whether they could be charged with infringement. In the case of a method of operating recited apparatus, this question is less troublesome.

### C. 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

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<sup>134</sup> 2005 U.S. App. LEXIS 25120 at \*20-21.

<sup>135</sup> Relevant language in independent claims 1 and 10 provided: “A method of operating a computer system including a processor and a memory system, wherein the memory system includes an array of non-volatile floating gate memory cells partitioned into a plurality of sectors that individually include a distinct group of said array of memory cells that are erasable together as a unit, comprising:

“providing said memory array and a memory controller within a card that is removably connectable to the computer system, said controller being connectable to said processor for controlling operation of the array when the card is connected to the computer system, partitioning the memory cells within the individual sectors into at least a user data portion and an overhead portion ...”

Circuit, Chief Judge Markey characterized claim differentiation as an “immutable” rule of patent claim construction.<sup>136</sup> This rule has been said to raise a presumption of differing scope for differing words. *E.g.*, *Seachange International Inc. v. C-Cor Inc.*, 413 F.3d 1361 (Fed. Cir. 2005). The *Seachange* Court, however, noted that this is only a presumption and not a hard and fast rule of construction. It cannot, for example, broaden a claim beyond the correct scope determined in light of the intrinsic and applicable extrinsic evidence. Indeed, claims written in different words may cover substantially the same subject matter.

The doctrine of claim differentiation was applied in the *Phillips en banc* decision. There, the Court stated:

Differences among claims can also be a useful guide in understanding the meaning of particular claim terms. See *Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533, 1538 (Fed. Cir. 1991). For example, the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim. See *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004)

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The critical language of claim 1 of the '798 patent--"further means disposed inside the shell for increasing its load bearing capacity comprising internal steel baffles extending inwardly from the steel shell walls"--imposes three clear requirements with respect to the baffles. \*\*\*

The other claims of the '798 patent specify particular functions to be served by the baffles. For example, dependent claim 2 states that the baffles may be "oriented with the panel sections disposed at angles for deflecting projectiles such as bullets able to penetrate the steel plates." The inclusion of such a specific limitation on the term "baffles" in claim 2 makes it likely that the patentee did not contemplate that the term "baffles" already contained that limitation. See *Dow Chem. Co. v. United States*, 226 F.3d 1334, 1341-42 (Fed. Cir. 2000) (concluding that an independent claim should be given broader scope than a dependent claim to avoid rendering the dependent claim redundant). Independent claim 17 further supports that proposition. It states that baffles are placed "projecting inwardly from the outer shell at angles tending to deflect projectiles that penetrate the outer shell." That limitation would be unnecessary if persons of skill in the art understood that

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<sup>136</sup> *D.M.I. Inc. v. Deere & Co.*, 755 F.2d 1570, 1574 (Fed. Cir. 1985).

the baffles inherently served such a function. *See TurboCare*, 264 F.3d at 1123 (claim terms should not be read to contain a limitation "where another claim restricts the invention in exactly the [same] manner"). Dependent claim 6 provides an additional requirement for the baffles, stating that "the internal baffles of both outer panel sections overlap and interlock at angles providing deflector panels extending from one end of the module to the other." If the baffles recited in claim 1 were inherently placed at specific angles, or interlocked to form an intermediate barrier, claim 6 would be redundant.<sup>137</sup>

In a pre-*Phillips* case, *Business Objects, S.A. v. Microstrategy, Inc.*, 393 F.3d 1366 (Fed. Cir. 2005), the Court rejected a patentee's argument that a claim limitation was improperly imported from a first independent claim into a second independent claim, where the second claim contained a means-plus-function limitation. Since the second independent claim was limited to the corresponding structures described in the specification, it was the structural limitations of the corresponding structure that justified limiting the scope of the means plus function claim, rather than the construction of a claim limitation from the first claim.

In 2004, the Court in *Liebel-Flarsheim Co. v. Medrad*<sup>138</sup> reversed a summary judgment of non-infringement based on a narrow construction of the claims. In reversing, the Federal Circuit stated that the presence of a dependent claim which adds a particular limitation raises a presumption that the limitation is not found in the independent claim.

The Federal Circuit applied claim differentiation to a means-plus-function limitation in *Versa Corp. v. AG-Bag Intl. Ltd.* (2004) to support its conclusion that a flute structure was not necessary to perform the recited function of "creating air channels in the compost material in said bag to enhance the composting of the compost material."<sup>139</sup> The Court reasoned, "The difference in meaning and scope between claims is presumed to be significant 'to the extent that the absence of such difference in meaning and scope would make a claim superfluous.'"<sup>140</sup> Ultimately, the Court found that "because an interpretation of claim 1 requiring flutes would

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<sup>137</sup> 415 F.3d at 1314-15, 1327-28.

<sup>138</sup> 353 F.3d at 898 (Fed. Cir. 2004)

<sup>139</sup> 392 F.3d 1325, —, 2004 U.S. App. LEXIS 25766, at \*10-\*11 (Fed. Cir. 2004).

<sup>140</sup> 392 F.3d 1325, —, 2004 U.S. App. LEXIS 25766, at \*10-\*11.

render claim 2 superfluous, the doctrine of claim differentiation supports an interpretation that claim 1 does not require the flutes of claim 2.”<sup>141</sup>

The presumption of differing meaning was not overcome (and claim differentiation was applied) in *RF Delaware v. Pacific Keystone Technologies* (2003).<sup>142</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* (2003).<sup>143</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>144</sup>

The Federal Circuit considered the application of a slightly different, but related, doctrine in *Bancorp Services, L.L.C. v. Hartford Life Ins. Co.* (2004),<sup>145</sup> namely, that use of two different terms in close proximity in the same claim gives rise to an inference that a different meaning should be assigned to each.<sup>146</sup> The Court stated that even though it may be poor drafting, the inference is not conclusive. The Court further determined from the specification that “surrender value protected investment credits” had the same meaning as “stable value protected investment credits.” The Court reversed the district court’s holding that the claim limitation “surrender value protected investment credits” was indefinite, finding that although the phrase was not defined in the patent, components of the term had well-recognized meanings that allowed the reader to infer the meaning of the entire phrase with reasonable confidence.<sup>147</sup>

In *Sunrace Roots Enterprise Company Ltd. v. SRAM Corporation* (2003),<sup>148</sup> the Court applied claim differentiation in the patentee’s favor. The claim at issue concerned a method of downshifting a bicycle gearshift. Apparatus claims in the patent specified a cam, but method claim 16 did not. Nevertheless, the district court included it in construing the phrase “shift actuator” that appeared in the preamble and body of that claim. Reversing, the Court found that

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<sup>141</sup> 392 F.3d 1325, —, 2004 U.S. App. LEXIS 25766, at \*11.

<sup>142</sup> *RF Delaware, Inc. v. Pacific Keystone Technologies, Inc.*, 326 F.3d 1255, 2003 U.S. App. LEXIS 7450 (Fed. Cir. 2003).

<sup>143</sup> 344 F.3d 1234, 1242 (Fed. Cir. 2003).

<sup>144</sup> *Id.*

<sup>145</sup> 359 F.3d 1367 (Fed. Cir. 2004).

<sup>146</sup> *Id.* at 1373-74.

<sup>147</sup> *Id.* at 1372.

<sup>148</sup> 336 F.3d 1298 (Fed. Cir. 2003)

claim differentiation undermined 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.* (2003)<sup>149</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>150</sup> The Court observed in *Dayco II*,<sup>151</sup> however, that “[t]he 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>152</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>153</sup>

The doctrine of claim differentiation is not inflexible. In *Power Mosfet Techs., v. Siemens AG* (2004),<sup>154</sup> the Federal Circuit explained “[w]hile we often explained that we presume that there is ‘a difference in meaning and scope when different words or phrases are used in separate claims,’ the rule is not inflexible.<sup>155</sup> “Furthermore, while interpretations that render some portion of the claim language superfluous are disfavored, where neither the plain meaning nor the patent itself commands a difference in scope between two terms, they may be construed identically.”<sup>156</sup>

The Court also applies a rule of internal consistency. That is, when different claims of a patent use *the same* language, the Court gives such language the same effect in each claim.

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<sup>149</sup> 342 F.3d 1361 (Fed. Cir. 2003).

<sup>150</sup> See *Dayco Products, Inc. v. Total Containment, Inc.*, 329 F.3d 1358, 1371(Fed. Cir. 2003) (“*Dayco II*”).

<sup>151</sup> *Id.*

<sup>152</sup> *Id.*

<sup>153</sup> *Id.*

<sup>154</sup> 378 F.3d 1396, 1407-1408 (Fed. Cir. 2004) (affirming the Special Master’s construction of ‘interface’ to be ‘necessarily physical’).

<sup>155</sup> *Id.* at 1410 (internal citations omitted).

<sup>156</sup> *Id.*

*Innova/Pure v. Safari* (2004);<sup>157</sup> *Frank's Casing Crew v. Weatherford International* (2004).<sup>158</sup> Further, this principle of consistency extends to related claims, i.e., claims in patents with common ancestry. *Frank's Casing Crew*.

Another related principle is that all claim terms are presumed to have some meaning.<sup>159</sup>

#### **D. Written Description**

The first paragraph of Section 112 of the patent statute requires each patent specification to “contain a written description of the invention ...” The second paragraph of Section 112 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.” Parties often hold significantly different views on how to harmonize statements about the invention, its objects, or examples of the invention in the “written description” with the claim language, and one of the more difficult and most frequently-litigated issues of claim interpretation results from the inevitable differences between how the patentee described the invention in the written description as compared to the words of the claims. The number of cases dealing with this issue attests to the fertility of this topic in generating disputes.

Simply put, the “written description” is part of the 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. Only a fine line separates “reading a claim in the specification, and reading a limitation into the claim from the specification.” *Prima Tek II v. Polypap* (2003).<sup>160</sup> The Court has said, “It is axiomatic that without more the court will not limit claim terms to a preferred embodiment described in the specification.” *SanDisk Corp. v. Memorex Products, Inc.*, 415 F.3d 1278, 1286 (Fed. Cir. 2005).

To serve the public interest in having fair notice as to patent scope, the Court holds patentees to any negations made in the written description. Thus, the Court is loath to construe a claim to encompass subject matter that the inventor said is *not* his invention. Conversely, patentees are bound to any special definitions or meanings clearly set forth in the written description. The Court thus reviews the written description to determine whether the patentee has

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<sup>157</sup> 381 F.3d at 1119.

<sup>158</sup> 389 F.3d 1370.

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

<sup>160</sup> 318 F.3d 1143, 1148-49 (Fed. Cir. 2003).

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 in Part I *supra* in the discussion of “Plain Meaning,” especially under the subtopic, “Patentee as Lexicographer.”

The cases dealing with the interplay between the written description and the claims deal with (1) general applications, (2) disclaimers or disavowals, *i.e.*, negations (3) affirmations (where the patentee defines claim language implicitly or explicitly), (4) ambiguities, (5) describing the whole invention in the specification, (6) avoiding invalidity, (7) statements as to advantages of the invention, (8) excluding the preferred embodiment, (9) using the specification as a concordance, and (10) miscellaneous instances.

### **1. General Applications**

In the post-*Phillips* era, the Court is generally consistent in stating that the claims are to be read in the context of the specification of which they are a part. The results are inconsistent, however. Several cases found that a claim term meant something different than it might mean outside the context of the specification (or other claim language). In other cases, it found that there was no restriction on the claim meaning based on the written description.

Thus, in *Warner-Lambert v. Teva*, 418 F.3d 1326 (Fed. Cir. 2005), the Court affirmed a ruling that a claim term “discoloration” meant “*oxidative* discoloration” instead of just a “change in color.” That was the only type of discoloration referred to in the patent specification.

*CollegeNet v. ApplyYourself*, 418 F.3d 1225 (Fed. Cir. 2005) involved a forms engine allowing an applicant to fill out one form and have the entered data populate different forms, in different formats, of several different colleges. The claim language at issue was, “a format specified by the institution.” The district court construed this to require an *unlimited* number of formats, even though the claim had no express numeric limitation. The Federal Circuit ruled that the specification and claims use the word “format” in its customary sense to mean the arrangement of data for storage or display. The patent does not require support for an “unlimited” number of formats. The district court definition was too narrow.

*TAP Pharma. v. Owl Pharma.*, 419 F.3d 1346 (Fed. Cir. 2005) offers contrasting results. One claim called for “A ... polymer ... comprising a copolymer ... of ... lactic acid and ... glycolic acid ...” Both the district court and the Federal Circuit rejected Owl’s assertion that the

reference to copolymers required that they be made from lactic acid and glycolic acid as starting materials. Such a limitation on how the copolymer *is made* was rejected as not supported by language of the claim. The specification does not explicitly set forth the starting materials for making the copolymers. While examples did have lactic acid and glycolic acid as starting materials, the specification specifically said that the polymer could be “produced by any method.” In addition, treatises also showed that copolymers could be made by direct polymerization or “ring opening.”

The contrast comes from another claim at issue in *TAP* which called for “A prolonged release microcapsule for injection, which comprises particles containing a water-soluble drug, the particles being dispersed ...” The district court ruling, affirmed by the Federal Circuit, found that the “particles” must contain both a drug and some substance in which to retain the drug, even though *nothing* in the claim specifically refers to a drug-retaining substance. The Court gave several reasons for the limitation: (1) all 31 examples of specification describe the use of particles containing a drug and a drug-retaining substance; (2) the specification describes the drug-retaining substance as a benefit of the invention; and (3) in describing how to make the “microcapsule of the present invention,” the specification refers to the drug and a drug retaining substance.<sup>161</sup>

*Aquatex Industries v. Techniche Solutions*, 419 F.3d 1374 (Fed. Cir. 2005) also limited the claim scope on the basis of the specification (and other evidence). The claim called for “fiberfill batting material” in an invention for evaporative cooling garments. The claims offered no guidance re the composition of “fiberfill batting material.” Further, the written description said that the particular fiberfill was not critical and that any commercial fiberfill could be used so long as it did not adversely affect performance. The written description examples of commercial grade fiberfill were all comprised of synthetic materials only. Further, of three U.S. patents incorporated by reference re fiberfill, none discussed natural fibers for commercial fiberfill batting. The Court noted that technical dictionaries define fiberfill as a synthetic fiber or man-made material used as a filler for various items. In sum, according to the Court, an ordinarily skilled artisan would understand from the specification that commercial fiberfill batting material is made from synthetic or polyester fibers.

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<sup>161</sup> 419 F.3d at 1353-54.

*Research Plastics v. Federal Packaging*, 421 F.3d 1290 (Fed. Cir. 2005) used the specification to understand the claim. The invention concerned caulking tubes and claimed a tube with a hollow body extending from “a rear end” to a nozzle end. Ribs are inside the tube, and a plunger fits in the tube. The ribs are used to release trapped gases. The issue was whether the “rear end” was the outermost extreme point, as defendant asserted. The claim said the ribs extended to the rear end. The Court ruled that the ordinary and customary meaning applies, that is, the meaning a term would have to a person of ordinary skill in the art in the context of the entire patent, including the specification. The claim construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be the correct construction (citing *Phillips*). Here, the “rear end” must include the entire rear edge of the tube, including the point at the rear on the inside of the tube, the point on the rear end at the outside of the tube, and the area in between.

*Biagro Western Sales v. Grow More*, 423 F.3d 1296 (Fed. Cir. 2005) involved a claim for a “phosphorus fertilizer comprising ... a phosphorous-containing acid or salt thereof ...” Defendant lacked the acid or salt; Biagro asserted it had a chemical equivalent. Affirming a summary judgment of non-infringement, the Court emphasized that claim construction begins with and remains focused on language of the claims. Here, the claim language requires an amount of phosphorous-containing acid that is “present” in the fertilizer. The written description contains no discussion of chemical equivalents or that the amount is expressed as a chemical equivalent amount rather than the amount actually present in the fertilizer.

In *Nystrom v. Trex Co.*, 424 F.3d 1136 (Fed. Cir. 2005), the issue was the nature of a “board.” Claim 1 called for “A board for use in constructing a flooring surface for exterior use ...” Claim 16 required “a wood decking board ...” The Court ruled that the “board” of claim 1 is cut or obtained from a wood log. This case involved a question of claim differentiation, which the Court noted raises a presumed difference in meaning. However, the presumption does not end the matter. Different terms or phrases in separate claims may be construed to cover the same subject matter where the written description and file history indicate that such a reading is proper. In this case, the background of the invention framed the invention in the context of *wood* decking materials cut from logs. Further parts of the written description referred to growth rings of the log, and throughout the written description, Nystrom consistently used “board” to describe wood decking material cut from a log. The file history also pointed to this. One reference was

distinguished as “not concerned with materials made from wood...” Interestingly, the Court declared that it did not need to decide if this is a clear disavowal of claim scope because the context reflects Nystrom’s consistent use of the term “board” to refer to wood decking materials cut from a log. The Court also explained that under *Phillips*, absent something in the intrinsic evidence to provide notice to the public that the inventor intended a disputed term to cover *more than* the ordinary and customary meaning revealed by the context of the intrinsic record, it is improper to read the term to encompass the broader definition simply because it may be found in a dictionary, treatise, or other extrinsic source.

In *Sorensen v. ITC*, 427 F.3d 1375 (Fed. Cir. 2005), the claim called for injecting a second plastic material having “different characteristics” than a first plastic material. The claim did not explicitly limit the particular characteristics. The Court ruled that any difference in characteristics between two injected materials would satisfy claim language – including just a color change. This is consistent with the specification.

In *Callicrate v. Wadsworth Mfg.*, 427 F.3d 1361 (Fed. Cir. 2005) one claim called for “a lever pivotally mounted ... for deforming a grommet.” The district court construed this as a lever pivotally mounted to pivot about a fulcrum pin substantially perpendicular to other structure. The Federal Circuit disagreed and said this is straightforward mechanical technology and understandable claim language. It does not require a fulcrum pin nor the “perpendicular” limitation. These were improperly imported from the specification.

In *Dorel Juvenile Group v. Graco Children’s Products*, 429 F.3d 1043 (Fed. Cir. 2005), the patents-in-suit concerned a child’s car seat assembly having a retractable cup holder. One claim required “a seat ... removably secured to the base,” and another called for “a base removably attached and arranged to support the seat.” The accused seat had two parts “firmly held together by screws.” Neither party urged that any specialized meaning applied. The district court had ruled that this claim language did not require *easy* separation, but only that (1) the seat and base must be designed to come apart at some time, and (2) after separation, the seat would remain functional. Following *Phillips*, the Federal Circuit looked primarily to the specification for guidance on how to construe the plain language of the claim. However, the specification said next to nothing about the removability of the seat from the base: it spoke of “means for coupling” the seat bottom to the base and indicated that the “seat base is configured to releasably couple to the seat bottom.” The Court noted that the patent referred to putting a “cola” in the cup

holder in the seat and inferred from this that the cola would inevitably spill and occasional cleaning would be necessary, thus requiring an ability to separate, though not necessarily an easy separability. The Court specifically rejected the argument that the claims should be construed to call for easy separation, for that would require adding words to the claims, and nothing in the patent specification suggested ease of separation. Hence, the Court affirmed the plain language claim construction of the district court, which it found to comport with the specification.<sup>162</sup>

*Invitrogen v. Clontech*, 429 F.3d 1052 (Fed. Cir. 2005) had claims that generally concern the creation of genetically modified reverse transcriptase (RT). Dependent claim 3 specified “no detectable RNase H activity.” Dependent claim 4 referred to a “lack” of such activity. The Court ruled that these terms could not be understood without reference to the written description. The specification does not define these terms explicitly but “unmistakably teaches how one skilled in the art would determine” this. According to the written description, the skilled artisan would use a specific gel assay for this determination. The specification described it in detail. The Court ruled that this is “necessary and sufficient to measure RNase H activity for claims 3 and 4.” Hence, in the context of the specification, these claim terms were construed to embrace specific subject matter not mentioned specifically in the claims at issue.

Turning to pre-*Phillips* cases, in *V-Formation Inc. v. Bennetton Group SPA*, 401 F. 3d 1307, 1311 (Fed. Cir. 2005), the Court indicated that the portion of the patent specification which describes the invention is “the best source for discerning...proper context.” Similarly, in *Eolas Technologies Inc. v. Microsoft Corp*, 399 F. 3d 1325, 1336 (Fed. Cir. 2005), the Court indicated that specification must be consulted to determine if a claim term has a meaning different from the customary meaning.

The Court in *Medrad v. MRI Devices*, *supra*, 401 F.3d 1313, provides some comments that tacitly concern the context of the written specification. The Court squarely and emphatically rejected Medrad’s proposition that in performing a claim construction, a court may not look to how an invention functions. Quite to the contrary, the Court, presaging language later used in *Phillips*, said that the interpretation of a term “can be determined ... [only] with a full

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<sup>162</sup> The Federal Circuit nevertheless reversed the judgment, indicating that whether the parts of the accused products could be a seat and a base was a fact question that could not be decided on summary judgment.

understanding of what the inventors actually invented and intended to envelop with the claim.”<sup>163</sup> Hence it is wholly proper to consider the functions of an invention in seeking to interpret claim terms.

In *Hoffer v. Microsoft Corp.*, 405 F.3d 1326 (Fed. Cir. 2005), the patent at issue related to apparatus and method by which remote users of computer terminals could obtain data concerning economic activity from an index and interactively post and receive messages concerning economic topics. One element of the method claim concluded with a “whereby” clause which the district court and Federal Circuit held to require interactive data messaging, a claim limitation expressly required by the final paragraph of the claim. The plaintiff’s argument that interactive messaging was not a claim limitation was rejected by the Federal Circuit, which stated that the capability to “collectively engage in interactive data messaging is more than the intended result of the process step; it is part of the process itself.” Further, this interactive element was described in the specification -- particularly the summary of the invention -- as an integral part of the invention.

In *Business Objects, S.A. v. Microstrategy, Inc.*, 393 F.3d 1366 (Fed. Cir. 2005), the Federal Circuit construed a method claim for searching relational databases. Such relational databases only recognize commands written in query languages, which require knowledge of the database structure and query language syntax. Both the invention and the accused product related to programs that enabled users to create their own queries to generate reports describing the relationships of the chosen query terms. The patent claimed a new method for submitting queries in which the operator would create a new layer of user-defined business objects and the system would convert a query asking the correlation between two such objects with appropriate limiting parameters. In contrast, the accused product was a more sophisticated system that used three hierarchies and constructed queries based on what the system believes to be the most relevant data. As a result, none of the reports, filters, templates, metrics, attributes or facts is tied to any specific table of the physical database but instead each is associated with multiple schema tables. The primary issue that the Federal Circuit decided was whether a claim term for an “associating step” in the business object creation precluded dynamic semantics. In a query having dynamic semantics, the results produced by the query can change depending upon the

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<sup>163</sup> 401 F.3d at 1319, citing *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1234, 1250 (Fed. Cir. 1998).

other associated commands, and the accused product was designed in such a way as to preclude dynamic semantics. The Federal Circuit held that the claim term for an associated step included dynamic semantics and therefore the accused product did not infringe.

## **2. Disclaimers or Disavowals**

Cases pronouncing a specification disclaimer or disavowal are uncommon. In the 2005 cases, the Court mentioned the subject in various cases but did not find a disclaimer or disavowal.

Thus *Eolas Technologies Inc. v. Microsoft Corp.*, 399 F.3d 1325 reaffirmed (before *Phillips*) that absent a clear disclaimer in the specification, the embodiments in the specification do not limit broader claim language. 399 F.3d at 1336-37.

In *Gillette Co. v. Energizer Holdings, Inc.*, 405 F.3d 1367 (Fed. Cir. 2005), the patent at issue related to razors having multiple blades with progressive blade geometry. In particular, the Federal Circuit was asked to review a district court denial of a preliminary injunction based upon the district court's finding that Gillette was not likely to prevail on the merits, as its claims were limited to three-bladed razors and the Energizer product had four blades. The Federal Circuit reversed, because the patent claim was written in open language ("comprising") and therefore a razor having more than three blades could infringe.

The Federal Circuit rejected the argument that the claim used Markush terminology when it described a "a group of first, second, and third blades," holding that the absence of the limiting phrase "consisting of" precluded a finding that this was Markush language. Citing *3M Innovative Props. Co. v. Avery Denison Corp.*, 350 F.3d 1365 (Fed. Cir. 2003), the Federal Circuit further noted that the use of "first" and "second" designators is a common patent law convention to distinguish between repeated instances of an element and does not impose a serial limitation upon a claim including such designators. While the preferred embodiment of the invention had three blades, the specification referred to a plurality of blades, and therefore the invention could not be limited to the preferred embodiment. Further, in the absence of a disclaimer of more than three blades, the Federal Circuit refused to find a surrender or disclaimer of a four bladed razor and remanded for further proceedings. Finally, the Federal Circuit noted that in an opposition to a corresponding European patent application, Energizer had conceded

that the exact claim language could cover four blades. The Court held that this was a binding admission against Energizer.

An example of a disclaimer or other limitation is found in *SciMed v. Advanced Cardiovascular* (2001),<sup>164</sup> where the Court found that the written description in the patent-in-suit disclaimed a defendant's configuration. The Court thus affirmed a narrow construction of the claims and finding of non-infringement.

In *Pandrol v. Airboss* (2003),<sup>165</sup> the Court found no disclaimer and used the broad, plain meaning of a claim term. It 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 v. Polypap* (2003), 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>166</sup>

Similarly, the Court in *Sunrace Roots v. SRAM* (2003)<sup>167</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>168</sup> The Federal Circuit found these statements to be *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* 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 *Sunrace Roots* Court 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

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<sup>164</sup> *SciMed Life Systems, Inc. v. Advanced Cardiovascular Systems, Inc.*, 242 F.3d 1337 (Fed. Cir. 2001).

<sup>165</sup> *Pandrol USA, LP v. Airboss Railway Products, Inc.*, 320 F.3d 1354 (Fed. Cir. 2003).

<sup>166</sup> 318 F.3d 1143, 1151 (Fed. Cir. 2003). The Court also applied the same reasoning to construe the term "substantially bonded."

<sup>167</sup> 336 F.3d 1298 (Fed. Cir. 2003)

<sup>168</sup> *Id.* at 1304.

preferred embodiment *as the invention itself*;<sup>169</sup> (2) the patent distinguished the prior art on the basis that it lacked the relevant features;<sup>170</sup> and (3) all disclosed embodiments contain the element and the written description expressly distinguished the prior art as not including that element.<sup>171</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>172</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>173</sup>

In *Akamai Techs., Inc. v. Cable & Wireless Internet Services, Inc.* (2003),<sup>174</sup> disputed issues of validity turned on one point—whether the placement of 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>175</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>176</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.

No disavowal or claim language redefinition was found by the Federal Circuit in *Golight, Inc. v. Wal-Mart Stores, Inc.* (2004)<sup>177</sup> which had a narrower description of preferred embodiments than in the broadest claim, as the analytical focus for interpreting claims must

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<sup>169</sup> *Wang Labs, Inc. v. America Online, Inc.*, 197 F.3d 1377 (Fed. Cir. 1999).

<sup>170</sup> *SciMed Life Systems, Inc. v. Advanced Cardiovascular Systems, Inc.*, 242 F.3d 1337 (Fed. Cir. 2001).

<sup>171</sup> *O.I. Corp. v. Tekmar Co.*, 115 F.3d 1576, 1581-82 (Fed. Cir. 1997).

<sup>172</sup> 336 F.3d at 1305 citing *CCS Fitness Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002).

<sup>173</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>174</sup> 344 F.3d 1186, 1193 (Fed. Cir. 2003).

<sup>175</sup> *Id.*

<sup>176</sup> *Id.* The *Akamai* Court also chose not to follow the testimony of the inventor.

<sup>177</sup> 355 F.3d 1327 (Fed. Cir. 2004). In this case, Wal-Mart's sales were found to be willful infringement. This is notable since most of Wal-Mart's sales occurred before any notice of the patent was given. The Court found, however, that clear and convincing evidence established that Wal-Mart acted in disregard of the cease and desist letter when it finally received one. Wal-Mart continued to sell off its remaining inventory. Hence, there was no showing of a clearly erroneous finding.

begin and remain centered on the claim language itself. The Court, with one dissenting judge, held that: (1) the claims – not the specification – determine claim scope, and limitations from the specification may not be read into the claims; (2) the inventor is not required to put *all* of the features or advantages into *all* of the claims; (3) the disclosure of a single embodiment does not control claim scope; (4) the heavy presumption that a claim term carries its ordinary and customary meaning applies except when there is a clear and unmistakable departure from the ordinary meaning of a term in the intrinsic evidence before the ordinary meaning will not be used; and (5) if the intrinsic evidence renders a claim susceptible to multiple interpretations, the claim term will still be given its ordinary meaning, as such ambiguity does not “constitute a clear and unmistakable surrender.”

Likewise in *TI Group Automotive Sys., Inc. v. VDO North Am., L.L.C.* (2004), the Federal Circuit affirmed the district court’s construction of “fuel reservoir” and found that the written description fully supported the term’s ordinary meaning. It also found “. . . no indication that TI Group disclaimed or disavowed meaning or acted as its own lexicographer in giving the term another meaning.”<sup>178</sup>

Again, in *Gaus v. Conair Corp.* (2004),<sup>179</sup> the Federal Circuit found no disclaimer of claim scope. It construed the claim limitation “a pair of spaced-apart electrically exposed conductive probe networks” as limited to a pair of probe networks separate from the voltage carrying part of the apparatus. In so construing this phrase, the Court found that nothing in the specification suggested that the structures or functions of the electrical operating unit and the pair of probe networks overlap, but rather plainly described them as separate.<sup>180</sup> The Court also relied on the specification having described one of the principal advantages of the claimed invention in a way that excluded the electrical operating unit from serving as part of the pair of probe networks.<sup>181</sup>

### **3. Affirmations (Statements re What the Invention Comprises)**

The discussion in Part I *supra* concerning the patentee as lexicographer is applicable here. When a patentee explains what certain claim language means, that is part of the record on

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<sup>178</sup> 375 F.3d 1126, 1135 (Fed. Cir. 2004).

<sup>179</sup> 363 F.3d 1284 (Fed. Cir. 2004).

<sup>180</sup> *Id.* at 1288-89.

<sup>181</sup> *Id.* at 1289.

which the public may rely to know what it is prohibited from doing, and conversely what is permitted in view of the patent.

#### **4. Ambiguity and Non-Ambiguity**

One traditional justification for reliance on the specification is to resolve an ambiguity in the claim language. In *Arthrocare Corp. v. Smith & Nephew, Inc.*, 406 F.3d 1365 (Fed. Cir. 2005), the patentee sought to create an ambiguity in the interpretation of the claim language to avoid an invalidating prior art reference. In *Arthrocare*, one of the patents in suit was directed to an electrosurgical system in which all the asserted claims recited an electrosurgical probe “comprising a shaft having a proximal and a distal end, an electroterminal disposed near the distal end, and a connector near the proximal end of the shaft electrically coupling the electroterminal to the electrosurgical power supply.” Each of the claims also recited “an electrically conducting fluid supply for directing electrically conducting fluid to the target site such that the electrically conducting fluid generates a current flow path between the return electrode and the electroterminal.” The patentee argued that the prior art references did not teach either an electrically conducting fluid or an electrosurgical probe with a connector at the proximal end connecting the probe to the power supply. The patentee argued that there is a legally tenable distinction between a fluid that provides electrical conductance and “an electrically conducting fluid.” The patentee’s basis for that argument was that while all materials provide some electrical conductance, most do not possess a sufficiently high level of conductivity for a person of skill in the art to consider them “electrically conductive.”

In rejecting this argument, the Federal Circuit noted that the written description of the patent in suit explained that the conducting fluid provided a “current flow path between the target site and the return electrode.” This interpretation was affirmed by the inventor during trial. The Federal Circuit further noted that the description of the fluid in the patent indicated that “the conducting fluid facilitates the passage of current by providing a low electrical impedance current path between the two electrodes.”

The Federal Circuit in *Arthrocare* then relied upon the prosecution history of the prior art patent to hold that the fluid “providing electrical conductance recited in the claims of the Roos patent read on the “electrically conducting fluid” of the patent in suit. Rejecting the patentee’s argument, the Federal Circuit further noted that, “given enough voltage, an electrical current can

be made to flow through any substance, [so] it would be bizarre to say that a non-conductor was introduced to “provide electrical conductance.” 406 F.3d at 1371. The Federal Circuit reversed that portion of the judgment and found that patent invalid.

In *Howmedica Osteonics Corp. v. Tranquil Prospects, Ltd.* 401 F.3d 1367 (Fed. Cir. 2005), the Federal Circuit reversed a summary judgment of invalidity under §112 for indefiniteness. In *Howmedica*, the district court had found that the language, “transfers sectional dimensions,” for a method of surgical orthopedic implantation of an intramedullary prosthesis device used to replace the ball of the hip joint, and for a corresponding product claim, was ambiguous because the court was not able to determine whether the measurement of such dimension was intended to be a linear, one-dimensional measurement or a two-dimensional measurement. In reversing, the Federal Circuit cited numerous references in the written description of the patents that the “transfer sectional dimension” referred to a two-dimensional measurement. For example, the Federal Circuit quoted the patent abstract as follows: “This invention is based on selecting a prosthesis having a stem part which is shaped in size to correspond substantially to the geometry of the medullary canal...and then forming a complementary stem socket in the canal which will receive the selected prosthesis.” The Court also looked to the written description in the patents in suit to reverse the district court’s holding in the product patent that the term “coated stem” is met by an accused product which places the coating on the stem either before or after insertion. Again, quoting extensively from the written description, the Federal Circuit held that because the claims in issue are apparatus claims without process limitations, there was no difference in “coating” for a stem covered with bone cement before insertion and a stem covered with bone cement upon insertion into the stem socket.

In *Rhodia Chime v. PPG Indus. Inc.*, 402 F.3d 1371 (Fed. Cir. 2005), the Federal Circuit interpreted the claim limitation “dust-free and non-dusting” to be limited the level of dust produced in an example given in the claim. The Court decided that this term could not be read literally, which would limit the claim to methods that create no silica dust at all, because the test results discussed in the written description indicated that the invention itself produced some dust, though less than the prior art. Since the literal construction—“no dust cloud whatsoever”—would not read on the preferred embodiment, no ordinary person would have interpreted the term in this manner.

The specification, prosecution history, and prior art contained no highly persuasive evidentiary support that would require such a conclusion. As such, the district court concluded that the term must mean that the level of dust is very low when compared to other silica forms. In order to quantify these levels, the district court looked at the written description and the results of ten tests discussed therein relating to the advantages of the invention. The dust formation in the ten examples was discussed with respect to the DIN 53 583 standard, and two of the examples discussed were products of the invention. The trial court then analyzed the amount of dust produced by the more dust-producing example, and since the only measurement of the dust produced by this example was articulated with respect to the DIN 53 583 standard, the district court incorporated the articulation of this construction into the claim term. The Federal Circuit held that this was proper because it reconciled the ambiguous claim language with the inventor's disclosure.

In earlier years, in *Biogen v. Berlex Laboratories* (2003)<sup>182</sup> the issue was whether the claim was broad enough to cover both linked and unlinked methods of a process called “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>183</sup>

Likewise, the Court found no ambiguity in *Brookhill-Wilk 1 v. Intuitive Surgical* (2003).<sup>184</sup> The patent was for a surgical system permitting the surgeon to operate remotely from the patient. The fundamental issue was how “remote” the surgeon had to be.<sup>185</sup> In this case, (1)

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<sup>182</sup> *Biogen, Inc. v. Berlex Laboratories, Inc.*, 318 F.3d 1132 (Fed. Cir. 2003).

<sup>183</sup> 318 F.3d at 1136-37.

<sup>184</sup> 334 F.3d 1294 (Fed. Cir. 2003)

<sup>185</sup> The claim specified “a remote location beyond a range of direct manual contact with said patient's body and . . . endoscopic instrument.”

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>186</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:

- a. Dictionary definitions are only the starting point in construing disputed language in patent claims.
- b. 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.
- c. 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.
- d. 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

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<sup>186</sup> 334 F.3d at 1297.

operate without directly touching the patient, the endoscope, or the surgical instruments.

- e. 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.
- f. The specification did not specify that the invention is useful *only* where the surgeon is located at a great distance from the operating room.
- g. Advantages described in the body of the specification that are not included in the claims are not per se limitations on the claimed invention.
- h. 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>187</sup>

The Court in *Minton v. National Association of Securities* (2003)<sup>188</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.

While the Court has stated in some opinions that it would look beyond claim language only if it were unclear,<sup>189</sup> that view clearly is not shared by all members of the Court. In 2004, in *On-Line Techs., Inc. v. Bodenseewerk Perkin-Elmer GMBH*,<sup>190</sup> the Federal Circuit looked beyond claim language to the intrinsic evidence “[b]ecause the phrase ‘substantially spherical . . . having a cylindrical component added thereto’ has no precise and generally understood meaning in the art as applied to reflective surfaces.” Moreover, in 2003, the Court stated in *Combined Systems v. Defense Technology*<sup>191</sup> that the written description “must be examined in every case,

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<sup>187</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>188</sup> 336 F.3d 1373 (Fed. Cir. 2003).

<sup>189</sup> *E.g.*, *KCJ v. Kinetic Concepts*, 223 F.3d 1351 (Fed. Cir. 2000).

<sup>190</sup> 386 F.3d 1133, 1138 (Fed. Cir. 2004) (citing *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1324-25 (Fed. Cir. 2002)); *see also*, *Genentech, Inc. v. Wellcome Found. Ltd.*, 29 F.3d 1555, 1563 (Fed. Cir. 1994).

<sup>191</sup> 350 F.3d 1207 (Fed. Cir. 2003).

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>192</sup>

*Liebel-Flarsheim v. Medrad* (2004)<sup>193</sup> reversed a ruling which had construed patent claims to include structure found in both the specification and various dependent claims but not in the independent claims at issue. The district court had found that a claim limitation was ambiguous with respect to the location of an opening. Examining the specification, the district court found that the opening in every embodiment was located at the front end of a pressure jacket. Further, the specification described *only* injectors that used a “pressure jacket” and contained *no description* of any injector without a pressure jacket. The district court resolved the alleged ambiguity by construing the claims to require the pressure jacket and granted summary judgment of non-infringement.

Reversing, the Federal Circuit noted that there is always tension between the two axioms that (1) claims must be read in view of the specification, and (2) it is improper to read a limitation from the specification into the claims. Citing its prior case law, the Court said:

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.<sup>194</sup>

The Court found no ambiguity in the term “opening” and nothing in the specification to support the district court’s finding thereon. Next, it found that none of the asserted claims state expressly or impliedly that the opening must have anything to do with a pressure jacket. The Court then explained the line of cases where features from the specification had apparently been brought into the claims, but rejected the general notion that where only a single embodiment is disclosed, that itself provides a basis for narrowing the claims. Thus, even when the specification discloses a single embodiment, claims will not be read restrictively unless the patentee demonstrates a clear intention to limit the claim’s scope using words or expressions of manifest exclusion or restriction.

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<sup>192</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>193</sup> 358 F.3d 898 (Fed. Cir. 2004)

<sup>194</sup> 358 F.3d 898, 904-05 citing *E-Pass Technologies Inc. v. 3 Com Corp.*, 343 F.3d at 1364, 1369 (Fed. Cir. 2003); accord, *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1204-05 (Fed. Cir. 2002)

No ambiguity was found in *Innova/Pure v. Safari* (2004), which reversed a district court claim interpretation that relied on the written description (preferred embodiments) to construe the claim. The invention concerned a filter assembly for use with a bottle. The independent claims called for a cap and a tube of filtering material, with the tube being “operatively connected” to a particular surface of the cap. The district court construed the claim to require the tube to be affixed to the cap by some tenacious means of physical engagement that results in a unitary structure. The Federal Circuit said the district court was correct to look to the ordinary meaning of “operatively” and “connect,” but it erred when it went beyond the plain meaning based on the examples of the specification which had a “physical engagement [between the tube and the cap] that results in a unitary structure.”<sup>195</sup> The district court consequently erred in granting summary judgment of no infringement where the accused product never affixed the tube to the cap by some tenacious means of physical engagement.

#### **5. Specification Describes the Whole Invention**

In some instances, courts find that the patent specification is written in a way that the whole invention is described, thus limiting the claims. A variation of this arose in 2005 where one claim at issue in *LizardTech, Inc. v. Earth Resource Mapping, Inc.*, 424 F.3d 1336 (Fed. Cir. 2005), did not recite certain features but the specification referred to them. The Court determined that a person ordinarily skilled in the art would conclude that the claim implicitly included the omitted features. The case involved electronic compression of image data. Some of the independent claims required a step of “maintaining updated sums of . . . DWT coefficients from said discrete tile image . . . to form a seamless DWT of said image and storing said sums . . .” but independent claim 21 omitted this and other language related to those sums. Further, the term “seamless” did not appear in claim 21. The district court held that the process in claim 21 did not lead to a seamless set of DWT coefficients for the whole image, and because the specification failed to describe a non-seamless DWT algorithm, independent claim 21 and its dependent claims were unsupported by the written description and invalid. The Federal Circuit affirmed the invalidity ruling but for a different reason. It agreed with LizardTech that the ordinarily skilled artisan reading the entire patent and prosecution history would understand the

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<sup>195</sup> 381 F.3d 1111 at 1118 (Fed. Cir. 2004).

data-compression process of claim 21 to create a seamless DWT of the image. This conclusion was drawn from statements in the specification referring to seamless compression. The passages cited by the Federal Circuit state, *e.g.*, “In accordance with the present invention, a method is provided for the seamless wavelet-based compression of very large contiguous images and for accessing arbitrary locations in the image at a variety of resolutions.” Further, the patent critiqued the prior art DWT processes which, according to the patent-in-suit, create “wavelet transform boundary conditions in the interior of the image data which could potentially result in compression artifacts” and that “implementation of a local multi-scale retrieval routine is complicated by these interior boundaries.” The Court, while acknowledging that not every advantage of the invention must appear in every claim, as noted in *Phillips*, nevertheless said “it would be peculiar for the claims to cover prior art that suffers from precisely the same problems that the specification focuses on solving.” Hence, while the specification did not state that seamless compression is an aspect of every embodiment of the invention, this seemed implicit to the Court, for doing otherwise would allow claims to read on the prior art which the specification explained as having problems that the invention focused on solving.<sup>196</sup>

In *Kinik Co. v. ITC* (2004), the claim at issue involved forming a “preform” from a “mixture” of a matrix material and a liquid binder. The claim said nothing explicitly about *how much* liquid to use compared to how much matrix material. The specification and prosecution, however, both indicated that the liquid volume substantially exceeded that of the matrix powder. Reversing the ITC claim construction (and the outcome), the Court explained that in the written description, *the invention* was described with specificity, and that specificity included excess volume of liquid binder over the matrix powder in the perform mixture. This was stressed in prosecution also and distinguished over prior art explained in the specification. Thus the Court used the meaning of the word “mixture” as understood from such intrinsic evidence:

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<sup>196</sup> The Court found further support in comments by the prosecuting attorney who, in argument before the PTO, had urged that the resulting stored DWT coefficients represent the entire image, not tile images, and without artifacts at tile boundaries. This meant that the independent claims recite algorithms form a seamless DWT. Further, the prosecution attorney argued that “the invention claimed by applicant as a whole” was to “provide a seamless stored array of compressed DWT coefficients.” In allowing the application, the Examiner stated reasons for allowance that the independent claims form a seamless discreet wavelet transformation of the image. Based on all of this, the Court concluded that a person ordinarily skilled in the art would recognize that the compression processes recited in claim 21 would create a seamless DWT of the image.

The Court went on to hold that claim 21 was generic and invalid under Section 112, paragraph 2, for insufficient “written description” and/or enablement.

The words of patent claims have the meaning and scope with which they are used in the specification and the prosecution history. *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1478 (Fed. Cir. 1998) ("The best source for understanding a technical term is the specification from which it arose, informed, as needed, by the prosecution history.").

The invention that was submitted for examination, and that was patented, explicitly requires an excess of liquid binder over powdered matrix. The word "mixture" in the claims has the scope given it in the specification, for it is clear that no broader scope was contemplated or intended.<sup>197</sup>

In *Genzyme Corp. v. Transkaryotic Therapies, Inc.* (2003,<sup>198</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.

The Court justified its reading of specification features into the claims in *Alloc. v. ITC.* (2003)<sup>199</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>200</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 panels. In addition, the specification criticized the prior art floor systems as not having play.<sup>201</sup> Further, all figures and embodiments disclosed or implied "play."<sup>202</sup> The Court recognized that it must interpret *in light of* the specification and yet avoid *impermissibly* importing limitations from the

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<sup>197</sup> 362 F.3d at 1365.

<sup>198</sup> 346 F.3d 1094, 1199-1100 (Fed. Cir. 2003).

<sup>199</sup> *Alloc, Inc. v. Int'l. Trade Comm.*, 342 F.3d 1361 (Fed. Cir. 2003).

<sup>200</sup> 342 F.3d at 1368-69.

<sup>201</sup> *Id.* at 1369.

<sup>202</sup> *Id.* at 1370.

specification. The balance “turns on how the specification characterizes the claimed invention.”<sup>203</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.*” [emphasis added]. 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>204</sup>

## **6. No Use to Avoid Invalidity Over Prior Art**

In April 2004 in *Smithkline Beecham v. Apotex*,<sup>205</sup> the Court declined to import specification features into the claim to save it from being invalidated over the patentee’s own public use. The patent claim at issue was exceedingly succinct – it had just four words directed to a crystalline “hemihydrate.” The patentee had developed this drug for use as an antidepressant and had experimental uses before the critical date. However, the clinical tests that measured the efficacy and safety of the claimed compound *as an antidepressant* did not involve *claimed features*. Hence, the clinical uses stood as invalidating prior art. Thus, the written description was not used to narrow the claim scope to save it from invalidity over the patentee’s own prior art.

In 2005 the Court reached the same conclusion in *Smithkline Beecham Corp. v. Apotex Corp.*, 403 F.3d 1331 (Fed. Cir. 2005), where a claimed compound (“crystalline paroxetine hydrochloride hemihydrate”) was produced in trace amounts as a by-product of related chemical reactions in trace amounts. In order to avoid the invalidating effect of these earlier public uses, the patent claim had been limited by the district court to cover “commercially significant” amounts of PHC hemihydrate. The Federal Circuit, however, held that the claimed compound had an unambiguous structural definition to one of skill in the art that could not be modified to avoid invalidity.

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<sup>203</sup> 342 F.3d at 1370 *citing Sunracer Roots v. SRAM, supra.*

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

<sup>205</sup> 365 F.3d 1306 (Fed. Cir. 2004).

## 7. Advantages of the Invention

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* (2003)<sup>206</sup> vacated a summary judgment of non-infringement and remanded for a determination of the infringement issue.<sup>207</sup> *Phillips (en banc)*, 415 F.3d at 1326-27 (not necessary for each claim to achieve every listed objective or advantage).

## 8. Excluding the Preferred Embodiment

Given that patent claims are required to be “supported” by the specification, considerable skepticism arises when a proposed claim construction does not “read on” the preferred embodiment of the patent. The Court strongly disfavors such claim constructions, declaring them “rarely correct.” *See, e.g., SanDisk Corp. v. Memorex Products, Inc.*, 415 F.3d 1278, 1285 (Fed. Cir. 2005) (citing *Vitronics*, 90 F.3d at 1583); *NeoMagic v. Trident Microsystems* (2002)<sup>208</sup> (rarely correct and requires highly persuasive evidentiary support); and *Bowers v. Bay State Technologies, Inc.* (2003)<sup>209</sup> (same).

One pre-*Phillips* decision in 2005 was guided by this principle. In *Nelcor Puritan Bennett Inc. v. Masimo Corp.*, 402 F.3d 1364 (Fed. Cir. 2005), the Federal Circuit vacated a summary judgment due to errors in the underlying claim construction. The invention measured blood oxygen saturation. The patented method was based upon a mathematical transform of measured signals that sought to minimize the effect of certain “aperiodic information” on a final value. The district court decided that the claim term “attenuated and filtered” meant that the aperiodic information must be *completely* eliminated from the calculation. On appeal, the patentee argued that “filtered” was improperly construed to require removal of the aperiodic signal data rather than simply *reducing* it in comparison to desired periodic signals.

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<sup>206</sup> 343 F.3d 1364 (Fed. Cir. 2003)

<sup>207</sup> *See also, Resonate, Inc. v. Alton Websystems, Inc.*, 338 F.3d 1360 (Fed. Cir. 2003).

<sup>208</sup> *NeoMagic Corp. v. Trident Microsystems, Inc.*, 287 F.3d 1062 (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>209</sup> 320 F.3d 1316 (Fed. Cir. 2003).

The Federal Circuit found that the background of the invention and summary of the invention supported the patentee's argument that such information was merely reduced rather than wholly eliminated, and it noted that if "filtered" were construed as meaning the outright removal of the aperiodic noise, that would have the effect of excluding all embodiments described in the specification. None of these embodiments actually removed the aperiodic noise from the data-using calculations.<sup>210</sup> The Federal Circuit concluded by finding that:

While it may be that, in hindsight, the patentees would have been wise to choose a word other than "filtered," it is clear that they meant for that term to describe the "relative reduction" processes set forth in the specification. The use of the term in that fashion is not at odds with the understanding of the term "filtered" in the pertinent art, and in the absence of a clear contrary directive in the patent, we decline to give that term a definition that would exclude the preferred embodiments from inclusion within the language of the claims.

*Id.* at 1369.

There are several examples of how this principle had been applied in previous years. For example, in *Glaxo Group Ltd. v. Apotex, Inc.* (2004)<sup>211</sup> the Federal Circuit rejected a proposed construction of the phrase "having a purity of at least 95%" that would have violated "the principle that claims should rarely, if ever, be construed to exclude a preferred embodiment."<sup>212</sup> The Federal Circuit found that the district court had properly construed the phrase to cover formulations with more than 5% of other ingredients, noting that the patent used the term impurities similar to its ordinary meaning as unwanted reaction products.<sup>213</sup>

In vacating a summary judgment, the Federal Circuit in *Globetrotter Software, Inc. v. Elan Computer Group, Inc.* (2004)<sup>214</sup> rejected that portion of the district court's claim interpretation which excluded the preferred embodiment. The Federal Circuit found the claim language ("a message preventing" an external program from running) to be ambiguous since it

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<sup>210</sup> The Federal Circuit first considered a technical dictionary published by the Institute of Electrical and Electronics Engineering (IEEE). This dictionary provided eight different meanings for the noun "filter," two of which were consistent with the patent specification. Since this ordinary and customary meaning did not preclude the patentee's interpretation, the Federal Circuit then looked at the specification for support for the claim term "attenuated and filtered."

<sup>211</sup> 376 F.3d 1339 (Fed. Cir. 2004).

<sup>212</sup> *Id.* at 1347.

<sup>213</sup> *Id.*

<sup>214</sup> 362 F.3d 1367 (Fed. Cir. 2004).

was unclear whether the message itself actively stopped the requesting program from running or whether the message could merely be a signal that kept the requesting program from running when the signal was received. The Court then looked to the intrinsic evidence to determine the meaning of the disputed term and concluded that the claim required only a message that results in a program being prevented from running. Active prevention was not required.

The Court rejected a construction that excluded an embodiment disclosed in the written description in *Lacks Industries, Inc. v. McKechnie Vehicle Components USA, Inc.* (2003).<sup>215</sup> 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 proffered claim construction because it would require the Court to conclude that either Figure 5 or Figure 3 of the patent was incorrect, whereas the district court’s construction avoided that problem.<sup>216</sup>

In contrast, cases do arise where clear claim language does not read on the preferred embodiment. In such cases the Court reminds 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>217</sup> the Court followed the clear claim language, notwithstanding that the skilled artisan would have seen it as incorrectly describing the preferred embodiment.<sup>218</sup> Likewise, in *Rheox v. Entact* (2002)<sup>219</sup> the Court found highly persuasive evidentiary support to exclude parts of the preferred embodiment from the claim meaning. *See also, Elekta Instrument v. O.U.R. Scientific International* (2000).<sup>220</sup>

In *Chef America, Inc. v. Lamb-Westin, Inc.* (2004),<sup>221</sup> the Federal Circuit refused to rewrite claim language even though the language rendered the claim inoperable. The patentee claimed a limitation of “heating the resulting batter-coated dough to a temperature in the range of about 400° F to 850° F for a period of time ranging from about 10 seconds to 5 minutes...” The patentee argued that heating the dough “to” 400-800° F would burn the dough completely, and

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<sup>215</sup> 322 F.3d 1335 (Fed. Cir. 2003).

<sup>216</sup> 322 F.3d at 1343. *But see* Judge Clevenger’s dissent, 322 F.3d at 1354-56.

<sup>217</sup> *Allen Engineering Corp. v. Bartell Industries, Inc.*, 299 F.3d 1336 (Fed. Cir. 2002).

<sup>218</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>219</sup> *Rheox, Inc. v. Entact, Inc.*, 276 F.3d 1319 (Fed. Cir. 2002).

<sup>220</sup> 214 F.3d 1302 (Fed. Cir. 2000).

<sup>221</sup> 358 F.3d 1371 (Fed. Cir. 2004)

this fact would be known to anyone of ordinary skill in the art. The Federal Circuit rejected this argument, stating that the word “to” is not the same as the word “at,” and that the Court is not empowered to rewrite a claim to render it operable. The Federal Circuit held: “Rather, where as here, claims are susceptible to only one reasonable interpretation and that interpretation results in a nonsensical construction of the claim as a whole, the claim must be invalidated.”<sup>222</sup>

Likewise, in *International Rectifier Corp. v. IXYS Corp.* (2004)<sup>223</sup> the Court refused to ignore or redefine the inventor’s chosen words.

## **9. Concordance**

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.” *Merck & Company v. Teva Pharmaceuticals USA* (2003).<sup>224</sup> The interpretation given to claim terms must be consistent with the meaning given to them in the specification. This rule was somewhat uncertain during the schism on the Court over whether the “plain meaning” meant what a dictionary said or what the specification said. However, the July 2005 *en banc* opinion in *Phillips* settled the question and reaffirmed that the patent specification is most appropriate for determining the meaning of claim language. The specification is regarded as the single best guide for determining the meaning of claim language. *See* cases reported *supra* under “General Applications.”

Looking at cases decided before *Phillips*, in May 2004, Judge Newman dissented from the majority opinion in *Housey Pharmaceuticals v. Astrazeneca*<sup>225</sup> and explained that the specification is the key document in understanding the claim language:

It is an established rule of the construction of legal documents that technical terms are presumed to have the meaning of the technical field of the document, not a "general meaning." Technical terms take their meaning from the technology and context in which they are used, not from general usages of the same word. Thus terms in patent claims are understood in the technical/scientific context of the specification; the presumption is that they have their technical meaning, not a general meaning.

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<sup>222</sup> *Id.* at 1374

<sup>223</sup> *Int’l. Rectifier Corp. v. IXYS Corp.*, 361 F.3d 1363, 1371 (Fed. Cir. 2004)

<sup>224</sup> 347 F.3d 1367 (Fed. Cir. 2003).

<sup>225</sup> 366 F.3d 1348, 1352 (Fed. Cir. 2004).

The decision in *Fuji Photo Film Co. v. International Trade Comm.* (2004) turned to the written description to construe claim terms “in the context of the specification of which they are a part.”<sup>226</sup> Construing the claim term “opening,” the Court noted how that term was used in the specification and particularly what structure it described.

## **10. Miscellaneous**

A case involving a patent drawing is *Cordis Corp. v. Medtronic AVE, Inc.* (2003).<sup>227</sup> 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 claim construction 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>228</sup> Thus the Court refused to narrow the claims of a continuation-in-part (“CIP”) patent to exclude a particular embodiment not carried forward from a parent patent into the CIP.

## **E. Prosecution History**

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

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. ... Frequently, a definition offered during prosecution is made in response to a rejection, and is entered in conjunction with a narrowing amendment. ... Such a definition limits the scope of the claim, preventing the patentee from later recapturing what was previously

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<sup>226</sup> 386 F.3d 1095, 1098 (Fed. Cir. 2004).

<sup>227</sup> 339 F.3d 1352, 1358 (Fed. Cir. 2003).

<sup>228</sup> *Id.*

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>229</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.”

However, the Federal Circuit in its 2005 *en banc Phillips* opinion seems to have slightly reduced the importance to be given to the file history, as it represents an “ongoing negotiation” between the applicant and the PTO rather than the final product. Thus, the *Phillips en banc* Court stated as follows concerning file histories:

In addition to consulting the specification, we have held that a court "should also consider the patent's prosecution history, if it is in evidence." *Markman*, 52 F.3d at 980; see also *Graham v. John Deere Co.*, 383 U.S. 1, 33, 15 L. Ed. 2d 545, 86 S. Ct. 684 (1966) ("An invention is construed not only in the light of the claims, but also with reference to the file wrapper or prosecution history in the Patent Office."). The prosecution history, which we have designated as part of the "intrinsic evidence," consists of the complete record of the proceedings before the PTO and includes the prior art cited during the examination of the patent. *Autogiro*, 384 F.2d at 399. Like the specification, the prosecution history provides evidence of how the PTO and the inventor understood the patent. See *Lemelson v. Gen. Mills, Inc.*, 968 F.2d 1202, 1206 (Fed. Cir. 1992). Furthermore, like the specification, the prosecution history was created by the patentee in attempting to explain and obtain the patent. Yet because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes. See *Inverness Med. Switz. GmbH v. Warner Lambert Co.*, 309 F.3d 1373, 1380-82 (Fed. Cir. 2002) (the ambiguity of the prosecution history made it less relevant to claim construction); *Athletic Alternatives, Inc. v. Prince Mfg., Inc.*, 73 F.3d 1573, 1580 (Fed. Cir. 1996) (the ambiguity of the prosecution history made it "unhelpful as an interpretive resource" for claim

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<sup>229</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).

construction). Nonetheless, the prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be. *Vitronics*, 90 F.3d at 1582-83; see also *Chimie v. PPG Indus., Inc.*, 402 F.3d 1371, 1384 (Fed. Cir. 2005) ("The purpose of consulting the prosecution history in construing a claim is to 'exclude any interpretation that was disclaimed during prosecution.'"), quoting *ZMI Corp. v. Cardiac Resuscitator Corp.*, 844 F.2d 1576, 1580 (Fed. Cir. 1988); *Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576 (Fed. Cir. 1995).<sup>230</sup>

### **1. Statements by the Inventor or Representative**

An applicant's arguments during prosecution worked a disclaimer of certain subject matter in *North American Container v. Plastipak*, 415 F.3d 1335 (Fed. Cir. 2005). The applicant distinguished a reference used by the examiner in an obviousness rejection by arguing that the reference had slightly concave inner walls. The inescapable consequence of the argument is that applicant's claims cannot cover inner walls that are "slightly concave." *Id.* at 1345.

Likewise, in *Sentry Protection Products, Inc. v. Eagle Mfg. Co.*, 400 F.3d 910 (Fed. Cir. 2005), the Court affirmed the district court ruling that in amending the claim and arguing how it distinguished over a reference during prosecution, the applicant had surrendered some of the scope of the claim. The Court stated:

By amending their claims to include the limitation "single unitary part" and arguing that this amendment "distinguishes the present invention from the multi-component impact protection assembly disclosed by Pease," the patentees gave up coverage of multipart impact protection components. For this reason, we affirm the district court's interpretation of this term as meaning "that the impact protection component is a single part, which is complete by itself without additional pieces."

\*\*\* By distinguishing their invention from Pease, the patentees disclaimed coverage of both separable and inseparable impact protection components, so long as the components include multiple parts.<sup>231</sup>

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<sup>230</sup> 415 F.3d 1303, 1317.

<sup>231</sup> 400 F.3d at 415.

In *Seachange Int'l., Inc. v. C-Cor, Inc.*, 413 F.3d 1361 (Fed. Cir. 2005), the Court found a file history argument to be sufficiently “clear and unambiguous” to narrow the scope of the claim. The Examiner had grouped certain claims together for an obviousness rejection. The applicant responded that it would in general treat a single claim as representative of the group. It then distinguished claim 1 and made no separate patentability argument during prosecution in favor of other claims in that group. The Federal Circuit deemed this sufficient to narrow the scope of the claims, stating that “it would be improper to now broadly construe claim 37 (40) not to contain those limitations.” *Id.* at 1373. Further, the fact that the Examiner did not indicate reliance on the argument in allowing the distinction urged by the applicant “is of no consequence,” for an argument “may lead to disavowal of claim scope even if the Examiner did not rely on the argument.” *Id.* at 1374.

In contrast, an argument in the prosecution history was found non-limiting in *SanDisk Corp. v. Memorex Products, Inc.*, 415 F.3d 1278 (Fed. Cir. 2005). In this pre-*Phillips* ruling, the Court adhered to the rule that an *ambiguous* disclaimer in the file history does not advance the patent’s notice function or justify public reliance; the Court will not use it to limit a claim term’s ordinary meaning. *Id.* at 1287. For an argument in the file history to limit the claim, the Court declared it necessary that argument be clear and unmistakable.

There are many pre-2005 decisions. In 2004, the Court in *Liebel-Flarsheim v. Medrad*<sup>232</sup> also referred to the prosecution history. Ordinarily, the prosecution history is reviewed to learn whether the patentee surrendered subject matter by indicating what the invention is *not*. In *Liebel-Flarsheim*, however, the prosecution history contained express statements about how the invention was *not* limited. Specifically, during prosecution, the patentee learned of its competitor’s product and sought to omit reference to a pressure jacket in the asserted claims so that they would encompass the competing product. It amended the claims and in prosecution remarks stated explicitly, “nor is there necessarily a pressure jacket.” The district court nevertheless construed the claims to require a pressure jacket and granted summary judgment of non-infringement. The Federal Circuit reversed, noting specifically that one alternative basis for its ruling was the prosecution history.

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<sup>232</sup> 358 F.3d 898 (Fed. Cir. 2004)

The Court in *Bowers v. Baystate Technologies* (2003)<sup>233</sup> cited statements made by the inventor in distinguishing over prior art to find the patent claim not infringed.<sup>234</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.

*Boehringer Ingelheim v. Schering-Plough* (2003)<sup>235</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.

*Brookhill-Wilk I v. Intuitive Surgical* (2003)<sup>236</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* (2003),<sup>237</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>233</sup> 320 F.3d 1317 (Fed. Cir. 2003).

<sup>234</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>235</sup> 320 F. 3d 1339 (Fed. Cir. 2003).

<sup>236</sup> 330 F.3d 1294 (Fed. Cir. 2003).

<sup>237</sup> 336 F.3d 1298 (Fed. Cir. 2003).

Similarly, in *Springs Window Fashions v. Novo Industries* (2003), the Court required any disclaimer to be stated with “reasonable clarity and deliberateness.”<sup>238</sup> In that case, the Court applied a disclaimer.

Judge Rader has cautioned that the prosecution history must be understood in its proper context. *Invitrogen Corp. v. Biocrest Mfg. L.P.* (2003)<sup>239</sup> reversed a grant of summary judgment of non-infringement. The trial court had misinterpreted the file history to conclude that the applicant had disclaimed all the growth of *E. coli* cells occurring outside the range of 18° C to 32° C. However, when read properly in context, the applicant had disclaimed the growth of *E. coli* only 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.* (2003)<sup>240</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>241</sup>

Likewise, in *Superguide Corp. v. Direct TV Enterprises, Inc.* (2004),<sup>242</sup> the Federal Circuit refused to limit the scope of one claimed invention based on the patentees’ distinguishing remarks made over two pieces of prior art. The remarks at issue concerned whether the “regularly received television signal” included both digital and analog signals. The *Superguide* court concluded that the “prosecution history does not preclude a construction of the asserted

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<sup>238</sup> *Springs Window Fashions LP v. Novo Industries, L.P.*, 323 F.3d 989, 994 (Fed. Cir. 2003).

<sup>239</sup> 327 F.3d at 1360.

<sup>240</sup> 339 F.3d 1352,1360-63 (Fed. Cir. 2003).

<sup>241</sup> *Id.*

<sup>242</sup> 358 F.3d 870, 881 (Fed. Cir. 2004)

claim as covering any particular type of signal format.”<sup>243</sup> “It is irrelevant that the patentees did not argue during prosecution . . . that ‘regularly received television signal’ also included digital technology because the absence of such an argument does not necessarily indicate a clear and deliberate disavowal.”<sup>244</sup> On the other hand, as to another patent, the Federal Circuit found that the patentee specifically disclaimed “extracting” from being covered by “directly electronically converting” when distinguishing over prior art cited during prosecution.<sup>245</sup>

Following the Supreme Court Decision in *Festo*, the Court of Appeals in *Talbert Fuel Systems Patents Company v. Unocal Corporation* (2003)<sup>246</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 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.* (2003),<sup>247</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

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<sup>243</sup> *Id.* at 881. The *Superguide* court also applied the same reasoning to the claim term “to perform a search” and reached the same result that the patentees did not clearly disavow the scope of searches covered by the claim.

<sup>244</sup> *Id.*; see also, *DeMarini Sports, Inc. v. Worth, Inc.*, 239 F.3d 1314, 1326 (Fed. Cir. 2001)(stating that silence cannot serve as a basis for prosecution history estoppel because “we can draw no inference from what [the patentees] did not argue.”)

<sup>245</sup> 358 F.3d at 892. Later in the same opinion, the distinguishing remarks over that same piece of prior art were found to limit the court’s construction of “automatically electronically converting.” *Id.* at 893.

<sup>246</sup> 347 F. 3d 1355 (Fed. Cir. 2003).

<sup>247</sup> 318 F.3d 1132 (Fed. Cir. 2003).

patent examining officials and the applicant, but the interested public.<sup>248</sup>

In *3M Innovative Properties v. Avery Dennison* (2003),<sup>249</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 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>250</sup> The applicant also included an express definition in the specification.<sup>251</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>252</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>253</sup>

In *Storage Technology v. Cisco Systems* (2003),<sup>254</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

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<sup>248</sup> 318 F.3d at 1139.

<sup>249</sup> 350 F.3d 1365, 2003 U.S. App. LEXIS 24207, at \*17-\*22 (Fed. Cir. 2003).

<sup>250</sup> 2003 U.S. App. LEXIS 24207, at \*17-\*18.

<sup>251</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>252</sup> 2003 U.S. App. LEXIS 24207, at \*20.

<sup>253</sup> 2003 U.S. App. LEXIS 24207, at \*21-\*22.

<sup>254</sup> 329 F.3d at 832.

policy. The applicants' inaccurate statement cannot override the claim language itself, which controls the bounds of the claim.<sup>255</sup>

On the other hand, *ACCO Brands Inc. v. Micro Security Devices, Inc.* (2003)<sup>256</sup> held that the applicant limited his claim scope during prosecution. 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 examiner simply repeated the arguments that the patentee had presented."<sup>257</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* (2003)<sup>258</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 Court reasoned that in general, an 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>259</sup> the imprecise statement in the prosecution history does not limit claim 26."<sup>260</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>261</sup> The Court 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. 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>262</sup>

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<sup>255</sup> *Id.*

<sup>256</sup> 346 F.3d 1075, 1079 (Fed. Cir. 2003).

<sup>257</sup> *Id.*

<sup>258</sup> 318 F.3d 1081, 1089 (Fed. Cir. 2003), rehearing denied, 2003 U.S. App. LEXIS 8845.

<sup>259</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>260</sup> *Id.* at 1090.

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

<sup>262</sup> 318 F.3d 1081, 1094-1095 (Fed. Cir. 2003), *rehearing denied*, 2003 U.S. App. LEXIS 8845.

In *Glaxo Wellcome, Inc. v. Impax Laboratories, Inc.* (2004)<sup>263</sup> the Federal Circuit held that claim 1 would receive the same treatment as claims that had been amended to recite a limitation in order to cure an enablement rejection. Claim 1 as originally filed recited the limitation added to the other claims.<sup>264</sup> The examiner had rejected the claims for lack of enablement claims that did not recite a certain limitation, and the applicant amended the rejected claims to recite the limitation.<sup>265</sup>

The Federal Circuit in *TI Group Automotive Sys., Inc. v. VDO North Am., LLC* (2004) declined to consider the prosecution statements made during foreign prosecution, noting that “the varying legal and procedural requirements for obtaining patent protection in foreign countries might render consideration of certain types of representations inappropriate for consideration in a claim construction analysis of a United States counterpart.”<sup>266</sup>

In *NTP, Inc. v. Research In Motion, Ltd.* (2004), the Federal Circuit explained that terms in patents which derive from the same patent application must be interpreted consistently across all asserted patents.<sup>267</sup> Likewise, in *Omega Engineering v. Raytek Corp.* (2003), 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>268</sup>

## **2. Statements by the PTO Examiner**

The usual prosecution history claim construction issue concerns statements made by the applicant or his representative. However, at times the examiner makes statements also, and these have been commented upon by the Federal Circuit.

In 2005, the Court in *Salazar v. Procter & Gamble*, 414 F.3d 1342 (Fed. Cir. 2005), refused to rule that an inventor disavowed claim scope by remaining silent after examiner statements of reasons for allowance. The Court considers the file history to see whether the *applicant* clearly and unambiguously disclaimed or disavowed any interpretation to achieve allowance. The PTO regulations then in force stated that a failure to file a statement in response to an Examiner’s Statement would not give rise to any implication of acquiescence with the

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<sup>263</sup> 356 F.3d 1348 (Fed. Cir. 2004).

<sup>264</sup> *Id.* at 1356-57.

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

<sup>266</sup> 375 F.3d at 1136 (construing the term ‘within’).

<sup>267</sup> *NTP, Inc. v. Research In Motion, Ltd.*, 392 F.3d 1336, 1346 (Fed. Cir. 2004).

<sup>268</sup> 334 F.3d 1314, 1333 (Fed. Cir. 2003).

examiner's reasoning. 37 CFR 1.109 (1996) [amended in 2003] *Accord, Eolas v. Microsoft, supra*, 399 F.3d 1325 at 1338.

In a pre-2005 case, the Court in *Inverness Medical v. Princeton* (2002) 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*,<sup>269</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>270</sup>

### **3. Miscellaneous Prosecution Events**

While not specifically related to claim construction but still concerning patent scope, the Federal Circuit *en banc* held that rewriting claims into independent form coupled with cancellation of the original independent claims creates a presumption of prosecution history estoppel. *Honeywell International Inc. v. Hamilton Sundstrand Corp.* (2004).<sup>271</sup>

### **F. 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 but rather to other issues. Generally, "extrinsic evidence . . . cannot be used to alter a claim construction dictated by a proper analysis of the intrinsic evidence."<sup>272</sup> Nevertheless, courts are often required to consider how the extrinsic evidence bears on claim construction. Such extrinsic

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<sup>269</sup> 318 F.3d 1143, 1151 (Fed. Cir. 2003).

<sup>270</sup> *Id.*; See also, *DeMarini Sports, Inc. v. Worth, Inc.*, 239 F.3d 1314, 1326 (Fed. Cir. 2001) (addressing silence in prosecution history).

<sup>271</sup> 370 F.3d 1131 (Fed. Cir. 2004).

<sup>272</sup> *On-Line Techs., Inc. v. Bodenseewerk Perkin-Elmer GMBH, Supra*, 386 F.3d at 1139; *Goldenberg v. Cytogen, Inc.*, 373 F.3d 1158, 1164 (Fed. Cir. 2004). see *Intel Corp. v. VIA Techs., Inc.*, 319 F.3d 1357, 1367 (Fed. Cir. 2003) ("When an analysis of intrinsic evidence resolves any ambiguity in a disputed claim term, it is improper to rely on extrinsic evidence to contradict the meaning so ascertained.")

evidence includes dictionaries, technical references, other patents, inventor testimony, and expert testimony.

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

The Federal Circuit refers to dictionaries as a special form of extrinsic evidence. Between the 2002 ruling in *Texas Digital Systems v. Telegenix*<sup>273</sup> and the *Phillips en banc* decision in July 2005, the weight to be given to dictionary definitions varied among the Federal Circuit judges. *Phillips* settled the primacy issue concerning the use of dictionaries in the claim construction process, holding that the specification is more appropriate than a dictionary for determining the meaning of claim language. That does not mean, however, that dictionaries have no role, and indeed, *Phillips* reaffirmed that dictionaries can be used, provided that they be given the proper weight. The *en banc* discussion in *Phillips* of dictionaries is reproduced fully below:

Although the principles outlined above have been articulated on numerous occasions, some of this court's cases have suggested a somewhat different approach to claim construction, in which the court has given greater emphasis to dictionary definitions of claim terms and has assigned a less prominent role to the specification and the prosecution history. The leading case in this line is *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed. Cir. 2002).

A

In *Texas Digital*, the court noted that "dictionaries, encyclopedias and treatises are particularly useful resources to assist the court in determining the ordinary and customary meanings of claim terms." 308 F.3d at 1202. Those texts, the court explained, are "objective resources that serve as reliable sources of information on the established meanings that would have been attributed to the terms of the claims by those of skill in the art," and they "deserve no less fealty in the context of claim construction" than in any other area of law. *Id.* at 1203. The court added that because words often have multiple dictionary meanings, the intrinsic record must be consulted to determine which of the different possible dictionary meanings is most consistent with the use of the term in question by the inventor. If more than one dictionary definition is consistent with the use of the words in the

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<sup>273</sup> 308 F.3d 1193 (Fed. Cir. 2002), cert. den. 538 U.S. 1058 (2003).

intrinsic record, the court stated, "the claim terms may be construed to encompass all such consistent meanings." *Id.*

The *Texas Digital* court further explained that the patent's specification and prosecution history must be consulted to determine if the patentee has used "the words [of the claim] in a manner clearly inconsistent with the ordinary meaning reflected, for example, in a dictionary definition." 308 F.3d at 1204. The court identified two circumstances in which such an inconsistency may be found. First, the court stated, "the presumption in favor of a dictionary definition will be overcome where the patentee, acting as his or her own lexicographer, has clearly set forth an explicit definition of the term different from its ordinary meaning." *Id.* Second, "the presumption also will be rebutted if the inventor has disavowed or disclaimed scope of coverage, by using words or expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope." *Id.*

The *Texas Digital* court explained that it advanced the methodology set forth in that opinion in an effort to combat what this court has termed "one of the cardinal sins of patent law--reading a limitation from the written description into the claims," *SciMed Life Sys.*, 242 F.3d at 1340. The court concluded that it is improper to consult "the written description and prosecution history as a threshold step in the claim construction process, before any effort is made to discern the ordinary and customary meanings attributed to the words themselves." *Texas Digital*, 308 F.3d at 1204. To do so, the court reasoned, "invites a violation of our precedent counseling against importing limitations into the claims." *Id.* Summarizing its analysis, the *Texas Digital* court stated:

By examining relevant dictionaries, encyclopedias, and treatises to ascertain possible meanings that would have been attributed to the words of the claims by those skilled in the art, and by further utilizing the intrinsic record to select from those possible meanings the one or ones most consistent with the use of the words by the inventor, the full breadth of the limitations intended by the inventor will be more accurately determined and the improper importation of unintended limitations from the written description into the claims will be more easily avoided.

*Id.* at 1205.

## B

Although the concern expressed by the court in *Texas Digital* was valid, the methodology it adopted placed too much reliance on extrinsic sources such as dictionaries, treatises, and encyclopedias and too little on intrinsic sources, in particular the specification and prosecution history. While the court noted that the specification must be consulted in every case, it suggested a methodology for claim interpretation in which the specification should be consulted only after a determination is made, whether based on a dictionary, treatise, or other source, as to the ordinary meaning or meanings of the claim term in dispute. Even then, recourse to the specification is limited to determining whether the specification excludes one of the meanings derived from the dictionary, whether the presumption in favor of the dictionary definition of the claim term has been overcome by "an explicit definition of the term different from its ordinary meaning," or whether the inventor "has disavowed or disclaimed scope of coverage, by using words or expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope." 308 F.3d at 1204. In effect, the *Texas Digital* approach limits the role of the specification in claim construction to serving as a check on the dictionary meaning of a claim term if the specification requires the court to conclude that fewer than all the dictionary definitions apply, or if the specification contains a sufficiently specific alternative definition or disavowal. See, e.g., *Texas Digital* 308 F.3d at 1202 ("unless compelled otherwise, a court will give a claim term the full range of its ordinary meaning"); *Nystrom v. TREX Co.*, 374 F.3d 1105, 1111-13 (Fed. Cir. 2004) (ascertaining the "full range" of the ordinary meaning of the term "board" through a collection of dictionary definitions, and stating that those candidate definitions should be removed from consideration only if they were "disclaimed" in the written description or prosecution history); *Inverness Med. Switz.*, 309 F.3d at 1379 (claim should be construed to encompass multiple dictionary meanings unless "the specification or prosecution history clearly demonstrates that only one of the multiple meanings was intended"). That approach, in our view, improperly restricts the role of the specification in claim construction.

Assigning such a limited role to the specification, and in particular requiring that any definition of claim language in the specification be express, is inconsistent with our rulings that the specification is "the single best guide to the meaning of a disputed term," and that the specification "acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication." *Vitronics*, 90 F.3d at 1582; *Irdeto Access, Inc. v. Echostar Satellite Corp.*, 383 F.3d 1295, 1300 (Fed. Cir. 2004) ("Even when guidance is not provided in explicit definitional

format, the specification may define claim terms by implication such that the meaning may be found in or ascertained by a reading of the patent documents.") (citations omitted); *Novartis Pharms. Corp. v. Abbott Labs.*, 375 F.3d 1328, 1334-35 (Fed. Cir. 2004) (same); *Bell Atl. Network Servs., Inc. v. Covad Communications Group, Inc.*, 262 F.3d 1258, 1268 (Fed. Cir. 2001) ("[A] claim term may be clearly redefined without an explicit statement of redefinition.").

The main problem with elevating the dictionary to such prominence is that it focuses the inquiry on the abstract meaning of words rather than on the meaning of claim terms within the context of the patent. Properly viewed, the "ordinary meaning" of a claim term is its meaning to the ordinary artisan after reading the entire patent. Yet heavy reliance on the dictionary divorced from the intrinsic evidence risks transforming the meaning of the claim term to the artisan into the meaning of the term in the abstract, out of its particular context, which is the specification. The patent system is based on the proposition that claims cover only the invented subject matter. As the Supreme Court has stated, "it seems to us that nothing can be more just and fair, both to the patentee and the public, than that the former should understand, and correctly describe, just what he has invented, and for what he claims a patent." *Merrill v. Yeomans*, 94 U.S. at 573-74. The use of a dictionary definition can conflict with that directive because the patent applicant did not create the dictionary to describe the invention. Thus, there may be a disconnect between the patentee's responsibility to describe and claim his invention, and the dictionary editors' objective of aggregating all possible definitions for particular words.

Although the *Texas Digital* line of cases permit the dictionary definition to be narrowed in some circumstances even when there is not an explicit disclaimer or redefinition in the specification, too often that line of cases has been improperly relied upon to condone the adoption of a dictionary definition entirely divorced from the context of the written description. The problem is that if the district court starts with the broad dictionary definition in every case and fails to fully appreciate how the specification implicitly limits that definition, the error will systematically cause the construction of the claim to be unduly expansive. The risk of systematic overbreadth is greatly reduced if the court instead focuses at the outset on how the patentee used the claim term in the claims, specification, and prosecution history, rather than starting with a broad definition and whittling it down.

Dictionaries, by their nature, provide an expansive array of definitions. General dictionaries, in particular, strive to collect all

uses of particular words, from the common to the obscure. By design, general dictionaries collect the definitions of a term as used not only in a particular art field, but in many different settings. In such circumstances, it is inevitable that the multiple dictionary definitions for a term will extend beyond the "construction of the patent [that] is confirmed by the avowed understanding of the patentee, expressed by him, or on his behalf, when his application for the original patent was pending." *Goodyear Dental Vulcanite Co. v. Davis*, 102 U.S. 222, 227, 26 L. Ed. 149, 1881 Dec. Comm'r Pat. 131 (1880). Thus, the use of the dictionary may extend patent protection beyond what should properly be afforded by the inventor's patent. See *Smith v. Snow*, 294 U.S. 1, 14, 79 L. Ed. 721, 55 S. Ct. 279, 1935 Dec. Comm'r Pat. 757 (1935) ("if the claim were fairly susceptible of two constructions, that should be adopted which will secure to the patentee his actual invention") (emphasis added). For that reason, we have stated that "a general-usage dictionary cannot overcome art-specific evidence of the meaning" of a claim term. *Vanderlande Indus. Nederland*, 366 F.3d at 1321; see also *Renishaw*, 158 F.3d at 1250, quoting *Liebscher v. Boothroyd*, 46 C.C.P.A. 701, 258 F.2d 948, 951, 1958 Dec. Comm'r Pat. 437 (CCPA 1958) ("Indiscriminate reliance on definitions found in dictionaries can often produce absurd results. . . . One need not arbitrarily pick and choose from the various accepted definitions of a word to decide which meaning was intended as the word is used in a given claim. The subject matter, the context, etc., will more often than not lead to the correct conclusion.").

Even technical dictionaries or treatises, under certain circumstances, may suffer from some of these deficiencies. There is no guarantee that a term is used in the same way in a treatise as it would be by the patentee. In fact, discrepancies between the patent and treatises are apt to be common because the patent by its nature describes something novel. See *Autogiro*, 384 F.2d at 397 ("Often the invention is novel and words do not exist to describe it. The dictionary does not always keep abreast of the inventor. It cannot.").

Moreover, different dictionaries may contain somewhat different sets of definitions for the same words. A claim should not rise or fall based upon the preferences of a particular dictionary editor, or the court's independent decision, uninformed by the specification, to rely on one dictionary rather than another. Finally, the authors of dictionaries or treatises may simplify ideas to communicate them most effectively to the public and may thus choose a meaning that is not pertinent to the understanding of particular claim language. See generally Ellen P. Aprill, *The Law of the Word: Dictionary Shopping in the Supreme Court*, 30 *Ariz.*

*St. L.J.* 275, 293-314 (1998). The resulting definitions therefore do not necessarily reflect the inventor's goal of distinctly setting forth his invention as a person of ordinary skill in that particular art would understand it.

As we have noted above, however, we do not intend to preclude the appropriate use of dictionaries. Dictionaries or comparable sources are often useful to assist in understanding the commonly understood meaning of words and have been used both by our court and the Supreme Court in claim interpretation. *See Exhibit Supply Co. v. Ace Patents Corp.*, 315 U.S. 126, 134, 86 L. Ed. 736, 62 S. Ct. 513, 1942 Dec. Comm'r. Pat. 738 (1942) (relying on dictionaries to construe the claim term "embedded"); *Weber Elec. Co. v. E.H. Freeman Elec. Co.*, 256 U.S. 668, 678, 65 L. Ed. 1162, 41 S. Ct. 600, 1921 Dec. Comm'r. Pat. 363 (1921) (approving circuit court's use of dictionary definitions to define claim terms); *Renishaw*, 158 F.3d at 1247-53 (approving the use of dictionaries with proper respect for the role of intrinsic evidence). A dictionary definition has the value of being an unbiased source "accessible to the public in advance of litigation." *Vitronics*, 90 F.3d at 1585. As we said in *Vitronics*, judges are free to consult dictionaries and technical treatises

at any time in order to better understand the underlying technology and may also rely on dictionary definitions when construing claim terms, so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents.

*Id.* at 1584 n.6.

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In *Vitronics*, this court grappled with the same problem and set forth guidelines for reaching the correct claim construction and not imposing improper limitations on claims. 90 F.3d at 1582. The underlying goal of our decision in *Vitronics* was to increase [\*\*58] the likelihood that a court will comprehend how a person of ordinary skill in the art would understand the claim terms. See *id.* at 1584. In that process, we recognized that there is no magic formula or catechism for conducting claim construction. Nor is the court barred from considering any particular sources or required to analyze sources in any specific sequence, as long as those sources are not used to contradict claim meaning that is unambiguous in light of the intrinsic evidence. See *id.* at 1583-84; *Intel Corp. v. VIA Techs., Inc.*, 319 F.3d 1357, 1367 (Fed. Cir. 2003). For example, a judge who encounters a claim term while reading a

patent might consult a general purpose or specialized dictionary to begin to understand the meaning of the term, before reviewing the remainder of the patent to determine how the patentee has used the term. The sequence of steps used by the judge in consulting various sources is not important; what matters is for the court to attach the appropriate weight to be assigned to those sources in light of the statutes and policies that inform patent law. *Vitronics*, 90 F.3d at 1582. In *Vitronics*, we did not attempt to provide a rigid algorithm for claim construction, but simply attempted to explain why, in general, certain types of evidence are more valuable than others. Today, we adhere to that approach and reaffirm the approach to claim construction outlined in that case, in *Markman*, and in *Innova*. We now turn to the application of those principles to the case at bar.

415 F.3d at 1319-23 [emphasis added]. Hence, this passage supports the following rules:

- Dictionary use is not precluded, but its use must be proper. A dictionary may be used by the court to begin to understand the invention even before reviewing the intrinsic steps.
- The sequence of steps used by a court is not important.
- It is important, however, for the court to give appropriate weight to the various sources.
- The methodology adopted in *Texas Digital Systems* placed too much emphasis on extrinsic reference materials and too little on the intrinsic evidence.
- The function of the specification is not relegated to placing a check on dictionary definitions. The specification is more important, and dictionary definitions do not have primacy over the specification.
- The main problem with heavy reliance on dictionaries is that it focuses the claim construction inquiry on the abstract meaning of words rather than the meaning of the claim terms in the context of the patent.

There were a few post-*Phillips* claim construction decisions in 2005 that discussed dictionaries.

In *Free Motion Fitness v. Cybex*, 423 F.3d 1343 (Fed. Cir. 2005), the claim at issue used the word “adjacent.” There was no suggestion that intrinsic evidence defines this term or that it has any specialized meaning in the art. The parties and the district court had looked to dictionaries for definitions to assist determining the meaning to one skilled in the art. The

Federal Circuit ruled that *Phillips* had rejected the view that dictionary definitions govern unless contradicted by intrinsic evidence. Courts can still use dictionaries, but they must ensure that any reliance on them accords with the intrinsic evidence. One must not presume that a claim term is entitled to the broadest dictionary definition. The task is to scrutinize the intrinsic evidence in order to determine the most appropriate definition. The specification here is most consistent with the meaning of “not distant.”

Another post-*Phillips* decision is *Pfizer v. Teva, supra*, 429 F.3d 1364, where the district court was found not to have erred by referencing dictionary definitions of “saccharides.” Judges may rely on dictionary definitions when construing claims, so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents (citing *Phillips*).

Also, in *Terlep v. Brinkmann, supra*, 418 F.3d 1379, the claim called for an LED lamp with a clear plastic tubular holder. The issue was the meaning of “clear.” The text of the claim and other claims offered little guidance. The specification used word “clear” – which was of no help in deciding what “clear” meant. However, the “Summary of the Invention” indicated that the LED lamp does not use a diffusion lens over the LEDs. This implied that there was a distinction between lenses or holders that diffuse or scatter light and those that transmit light without obstruction. Turning to the dictionary, the Court found that *Webster’s* defines “clear” as “giving free passage to light or sight: easily seen through: not cloudy, turbid, or opaque.” It lists “transparent” and “translucent” as synonyms but gives an express distinction between them. “Transparent” stresses a complete absence of obstruction to vision. “Translucent” applies to that which permits light to pass but bars clear and complete vision. The Court focused on this distinction, ruling that “clear” meant transparent or transmitting light without appreciable scattering so that bodies lying beyond are seen clearly. The Court said that the district court had given appropriate weight to dictionary definitions in the context of the intrinsic evidence, in accordance with *Phillips*.

The 2005 edition of this report (directed to 2004 cases) covered cases dealing with dictionaries, and the reader may refer thereto for discussions of those earlier rulings, including *C. R. Bard, Inc. v. United States Surgical Corp.* (2004) (dictionary definitions do *not* trump or

override the intrinsic record),<sup>274</sup> *Novartis v. Eon Labs Mtg.* (2004),<sup>275</sup> *Nystrom v. Trex Company* (2004),<sup>276</sup> *NTP v. Research in Motion, Ltd.* (2004),<sup>277</sup> *Searfoss v. Pioneer Consolidated Corp.* (2004),<sup>278</sup> *TI Group Automotive Sys., Inc. v. VDO North Am., LLC* (2004),<sup>279</sup> *Vanderlande Industries Nederland BV v. ITC*,<sup>280</sup> *Waner v. Ford Motor Co.* (2003),<sup>281</sup> *Moba v. Diamond Automation* (2003),<sup>282</sup> *Genzyme Corp. v. Transkaryotic Therapies, Inc.* (2003),<sup>283</sup> *Kumar v. Ovonic Battery Co.* (2003),<sup>284</sup> *Intellectual Property Development, Inc. v. UA-Columbia Cablevision of Westchester, Inc.* (2003),<sup>285</sup> *Riverwood Int'l. Corp. v. R.A. Jones & Co., Inc.* (2003),<sup>286</sup> *Altiris, Inc. v. Symantec Corp.* (2003),<sup>287</sup> *Boehringer Ingelheim v. Schering-Plough Corp.* (2003),<sup>288</sup> *Brookhill-Wilk I v. Intuitive Surgical* (2003),<sup>289</sup> *Tehrani v. Hamilton Medical Inc.* (2003),<sup>290</sup> and *Rambus v. Infineon* (2003).<sup>291</sup>

**a. Dictionaries and “Means-Plus-Function” Claims**

The Court approves dictionaries in another context. Issues arise on whether a claim element falls within the ambit of § 112, ¶6 (means-plus-function) where the words of the claim, while not explicitly stating “means,” nevertheless use a noun that is very broad, coupled with a function or operation. The Court turns to dictionaries to determine whether the noun has become sufficiently recognized as denoting structure.

Thus, in *Linear Technology Corp. v. Impala Linear Corp.* (2004),<sup>292</sup> the Court held that claim language such as “a first circuit for monitoring a signal from the output terminal to

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<sup>274</sup> 388 F.3d 858, 862 (Fed. Cir. 2004).

<sup>275</sup> 363 F.3d 1306 (2004).

<sup>276</sup> 374 F.3d 1105 (2004).

<sup>277</sup> 392 F.3d 1336 (Fed. Cir. 2004).

<sup>278</sup> 374 F.3d 1142, 1149 (Fed. Cir. 2004).

<sup>279</sup> 375 F.3d 1126 (Fed. Cir. 2004).

<sup>280</sup> 366 F.3d 1311 (Fed. Cir. 2004).

<sup>281</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>282</sup> 325 F.3d 1306, 1315 (Fed. Cir. 2003).

<sup>283</sup> 346 F.3d 1094, 1098 (Fed. Cir. 2003).

<sup>284</sup> 351 F.3d 1364, (Fed. Cir. 2003).

<sup>285</sup> 336 F.3d 1308 (Fed. Cir. 2003).

<sup>286</sup> 324 F.3d 1346 (Fed. Cir. 2003).

<sup>287</sup> 318 F.3d 1363 (Fed. Cir. 2003).

<sup>288</sup> 320 F.3d 1339 (Fed. Cir. 2003).

<sup>289</sup> 334 F.3d 1294 (Fed. Cir. 2003).

<sup>290</sup> 331 F.3d 1355 (Fed. Cir. 2003).

<sup>291</sup> 318 F.3d 1081, 1091 (Fed. Cir. 2003), *rehearing denied*, 2003 U.S. App. LEXIS 8845.

<sup>292</sup> 379 F.3d 1311 (Fed. Cir. 2004).

generate a first feedback signal” was not in means-plus-function form, because “circuit” has an understood meaning in the art and the operation of the circuit was sufficiently detailed to suggest structure to the ordinarily skilled artisan. The Court relied at least in part on definitions from the *Dictionary of Computing* (4th ed., 1996), which defined “circuit” as “the combination of a number of electrical devices and conductors that, when interconnected to form a conducting path, fulfill some desired function.”<sup>293</sup>

Likewise, in *Lighting World, Inc. v. Birchwood Lighting, Inc.* (2004),<sup>294</sup> the Court approved this use of dictionaries, stating,

In *Greenberg* and subsequent cases, we have looked to the dictionary to determine if a disputed term has achieved recognition as a noun denoting structure, even if the noun is derived from the function performed. See *Greenberg*, 91 F.3d at 1583 ("Dictionary definitions make clear that the noun 'detent' denotes a type of device with a generally understood meaning in the mechanical arts, even though the definitions are expressed in functional terms."); *Linear Tech. Corp.*, 371 F.3d at 1371 (technical dictionary makes clear that "circuit" is structural); *CCS Fitness*, 288 F.3d at 1369 (dictionary definitions consulted to determine that an artisan of ordinary skill would understand the term in question to have an ordinary meaning); *Personalized Media Communs.*, 161 F.3d at 704 (same).<sup>295</sup>

## 2. Other Reference Works

Reference works other than dictionaries have also been used in claim construction. In *Glaxo Wellcome, Inc. v. Andrx Pharma.*,<sup>296</sup> the Court relied on the definition for HPMC (hydroxypropyl methylcellulose) defined in the *Handbook of Pharmaceutical Additives*. In *On-Line Techs., Inc. v. Bodenseewerk Perkin-Elmer GMBH*, the Federal Circuit relied, albeit for secondary support, on *The Principles of Ophthalmic Lenses* (3rd ed. 1977), *Introduction to Classical & Modern Optics* (3rd ed. 1989), and other reference works to ascertain the meaning of the limitation “toroidal.”<sup>297</sup>

Less commonly used but potentially helpful sources of extrinsic evidence are publications produced by standards-setting organizations. The Court in *ACTV, Inc. v. Walt*

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<sup>293</sup> 379 F.3d at 1320.

<sup>294</sup> 382 F.3d 1354 (Fed. Cir. 2004).

<sup>295</sup> *Id.* at 1360-61.

<sup>296</sup> 344 F.3d 1226, 1229 (Fed. Cir. 2003).

<sup>297</sup> 386 F.3d at 1139.

*Disney Co.* (2003) 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>298</sup> Despite this precedent, the *ACTV* Court rejected considering RFC's (Request for Comments) from the World Wide Web Consortium because “the documents of the [consortium] 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>299</sup>

### **3. Subjective Intent and Inventor Testimony**

The Court has declared that inventor testimony has little probative value for purposes of claim construction. *E-Pass Technologies v. 3Com* (2003),<sup>300</sup> citing *Solomon v. Kimberly Clark* (2000).<sup>301</sup> The Court also addressed this in *Superior Fireplace v. Majestic Products* (2001)<sup>302</sup> and *Amazon.com v. Barnesandnoble.com* (2001).<sup>303</sup> In 2000, the Court 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 v. Avia Group Int'l.*,<sup>304</sup> or to show the context or history of the invention, *Cortland Line v. Orvis* (2000)<sup>305</sup> and *Solomon v. Kimberly Clark* (2000), *supra*.

The district court did, however, receive inventor testimony in *Goldenberg v. Cytogen, Inc.* (2004).<sup>306</sup> The case involved a method for detecting and localizing a tumor, and the patent claims used a term that was not known to the ordinarily skilled artisan, namely, “intracellular marker substance.” After the district court concluded its review of the intrinsic evidence, which it found to provide “only an amorphous interpretation of the disputed term,” it also considered two

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<sup>298</sup> 346 F.3d 1082, 1090 (Fed. Cir. 2003).

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

<sup>300</sup> 343 F.3d 1364 (Fed. Cir. 2003)

<sup>301</sup> *Solomon v. Kimberly Clark*, 216 F.3d 1372 (Fed. Cir. 2000).

<sup>302</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>303</sup> *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343 (Fed. Cir. 2001).

<sup>304</sup> 222 F.3d 951 (Fed. Cir. 2000)

<sup>305</sup> *Cortland Line v. Orvis*, 203 F.3d 1351 (Fed. Cir. 2000).

<sup>306</sup> 373 F.3d 1158 (Fed. Cir. 2004).

expert witness depositions and, ultimately, the deposition testimony of the inventor (Dr. Goldenberg). The Federal Circuit did not criticize the district court for this, but cautioned that extrinsic evidence cannot be used to vary the meaning disclosed in the patent document itself.<sup>307</sup>

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>308</sup> The Court explained that “[t]his extrinsic evidence is not the unequivocal evidence, indicating the term ‘identifying’ should take anything other than its ordinary and accustomed meaning.”<sup>309</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>310</sup>

Similarly, in *Sunrace Roots v. SRAM*, 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>311</sup>

#### **4. Expert Testimony**

Expert testimony is one form of extrinsic evidence. The Federal Circuit has spoken on expert witnesses in many cases over the years, and this report does not seek to review that entire history. It is worth noting, however, that in its *en banc* opinion in *Markman v. Westview Instruments* (1995),<sup>312</sup> the Federal Circuit noted that expert evidence is “permissible, and often necessary, to receive . . .,” citing Supreme Court case law. The Court reaffirmed that trial judges have “sole discretion” to decide whether to have an expert’s assistance in understanding a patent, and that the Court would not disturb that discretionary decision except in the clearest case.

Subsequently, in *Vitronics Corporation v. Conceptronic, Inc.* (1996),<sup>313</sup> the Federal Circuit ruled that if an ambiguity remains after all of the intrinsic evidence has been considered,

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<sup>307</sup> *Id.*

<sup>308</sup> *Akamai Techs, Inc. v. Cable & Wireless Internet Services, Inc.*, 344 F.3d 1186, 1194 (Fed. Cir. 2003).

<sup>309</sup> *Id.* (citations omitted)

<sup>310</sup> *Id.* (citations omitted); *See also, Solomon v. Kimberly-Clark Corp.*, 216 F.3d 1372 (Fed. Cir. 2000).

<sup>311</sup> 336 F.3d 1298, 1307 (Fed. Cir. 2003).

<sup>312</sup> *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995) (*en banc*), *aff'd*, 517 U.S. 370, 116 S.Ct. 1384 (1996).

<sup>313</sup> *Vitronics Corporation v. Conceptronic, Inc.*, 90 F.3d 1576 (Fed. Cir. 1996).

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.”

Subsequent cases have often been at least tolerant of expert testimony. In 2002, the Court in *Bayer AG v. Biovail Corp.*<sup>314</sup> embraced the use of expert testimony, citing *Fonar Corp. v. Johnson & Johnson* (1987),<sup>315</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)<sup>316</sup> 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>317</sup> the Court referred to expert testimony without commenting on why that should bear on claim construction.

The Court in *Merck & Company, Inc. v. Teva Pharmaceuticals USA* (2003)<sup>318</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>319</sup> The Court concluded there was no reversible error in the district court’s crediting of the 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 *Glaxo Wellcome v. Andrx* (2003), 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 led to the conclusion that the disputed term HPMC

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<sup>314</sup> *Bayer AG v. Biovail Corp.* 279 F.3d 1340 (Fed. Cir. 2002).

<sup>315</sup> *Fonar Corp. v. Johnson & Johnson*, 821 F.2d 627, 631 (Fed. Cir. 1987), overruled in part, 508 U.S. 83, 90.

<sup>316</sup> 287 F.3d 1062 (Fed. Cir. 2002)

<sup>317</sup> *Trintec Industries, Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292 (Fed. Cir. 2002).

<sup>318</sup> 347 F.3d 1367 (Fed. Cir. 2003).

<sup>319</sup> *Id.* at \_\_\_ [HN5].

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>320</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>321</sup> The Court chose not to limit the claims to the preferred embodiment or the examples given in the specification.<sup>322</sup>

The Court referred to expert testimony in *Apex v. Raritan Computer* (2003),<sup>323</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.

*Goldenberg v. Cytogen, Inc.* (2004)<sup>324</sup> reaffirmed that extrinsic evidence may be used to aid in construing claim terms as they would be understood in the relevant art but not to vary the meaning disclosed in the patent itself. The Court rejected arguments that no extrinsic testimony from an expert could be taken. Finding that the district court's interpretation was consistent with the intrinsic evidence, and that the district court was permitted to hear expert testimony, the Federal Circuit explained:

In addition to the intrinsic evidence, the district court permitted expert testimony at the summary judgment hearing. Immunomedics criticizes the district court's use of expert testimony as impermissible, citing this court's prohibition on using extrinsic evidence to vary the meaning of claim terms from that apparent in the intrinsic evidence. Immunomedics is correct that "although expert testimony and declarations are useful to confirm that the construed meaning is consistent with the denotation ascribed by those in the field of the art, such extrinsic evidence cannot be used to vary the plain language of the patent document." *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1332 (Fed. Cir. 2003) (citations itted). However, the interpretation of the claims reached by the district court was consistent with that required by the intrinsic evidence, and the district court's use of expert testimony therefore falls within the permissible first clause of the above-quoted language rather than the impermissible second

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<sup>320</sup> 344 F.3d 1226, 1230-1233 (Fed. Cir. 2003).

<sup>321</sup> 344 F.3d at 1233.

<sup>322</sup> *Id.*

<sup>323</sup> *Apex Inc. v. Raritan Computer Inc.*, 325 F.3d 1364, 1374 (Fed. Cir. 2003).

<sup>324</sup> 373 F.3d 1158 (Fed. Cir. 2004)

clause. Contrary to Immunomedics' apparent belief, there is no prohibition on a district court's ability to hear expert testimony. *Key Pharms. v. Hercon Lab. Corp.*, 161 F.3d 709, 716 (Fed. Cir. 1998).<sup>325</sup>

The Court also noted that expert testimony can be relevant extrinsic evidence in *Home Diagnostics v. Lifescan* (2004).<sup>326</sup>

Of course, there are cases where the Court rejected or seemed less enthused about expert testimony in the claim construction process. In one of these, *CCS Fitness v. Brunswick* (2002), the Court stated:

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 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>327</sup>

Similarly, in *Storage Technology v. Cisco Systems* (2003),<sup>328</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* (1996)<sup>329</sup> 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.

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<sup>325</sup> 373 F.3d at 1166.

<sup>326</sup> 381 F.3d at 1356.

<sup>327</sup> 288 F.3d at 1368.

<sup>328</sup> 329 F.3d at 832.

<sup>329</sup> 90 F.3d 1576

*Omega Engineering v. Raytek* (2003) 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, the Court found that it would not be appropriate to use experts to rewrite the specification.<sup>330</sup>

**a. Pre-Phillips Cases (2005) re Expert Testimony**

In 2005, before deciding *Phillips (en banc)*, the Court commented on experts in claim construction in *Playtex Products v. Procter & Gamble Co*, 400 F.3d 901 (Fed. Cir. 2005). The claim called for, *inter alia*, a tubular barrel having “a rearward portion ... comprising two diametrically opposed, *substantially flattened surfaces*; ... whereby said flattened surfaces and said transition section provide a finger and thumb hold ...” According to the district court, the written specification did not specifically define the term, “substantially flattened surfaces,” *id.* at 903, and the trial court found the intrinsic evidence to be ambiguous. It therefore relied on expert witness testimony which stated that “substantially flattened surfaces” has no plain meaning to a person of skill in the art of product manufacturing and that such a person would view the “flattened” requirement as calling for flatness within manufacturing tolerances. The Federal Circuit found the claim construction to be multiply flawed. First, the word “substantial” is a meaningful modifier that implies “approximate” rather than “perfect.” Second, when one flattens a curved surface, it is made either completely flat or merely flatter than originally. Either way, the end result is less curved than the original material. It was error to use extrinsic evidence to contradict what the intrinsic evidence showed. In addition, the patent is not a manufacturing specification, and it was improper to read manufacturing tolerances into it. Further, it was improper to limit the claim to what is shown in the drawing, for claims are not limited to the preferred embodiment absent an express declaration of the patentee. On appeal, the Court noted that it was *not* error to admit the expert testimony, but it was error to use it to arrive at a claim construction at odds with the intrinsic evidence. *Id.* at 908, n.8.

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<sup>330</sup> 334 F.3d at 1332.

*Air Turbine Technology, Inc. v. Atlas Copco AB, et al.* 410 F.3d 701 (Fed. Cir. 2005) is another 2005 pre-*Phillips* decision that involved expert testimony and claim construction but essentially in the context of the expert's procedure.<sup>331</sup>

**b. Phillips**

The *en banc Phillips* Court discussed extrinsic evidence in the form of dictionaries, as quoted extensively *supra*, and next turned to a discussion of expert testimony in the claim construction process, stating:

We have also held that extrinsic evidence in the form of expert testimony can be useful to a court for a variety of purposes, such as to provide background on the technology at issue, to explain how an invention works, to ensure that the court's understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field. *See Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1308-09 (Fed. Cir. 1999); *Key Pharms. v. Hercon Labs. Corp.*, 161 F.3d 709, 716 (Fed. Cir. 1998). However, conclusory, unsupported assertions by experts as to the definition of a claim term are not useful to a court. Similarly, a court should discount any expert testimony "that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent." *Key Pharms.*, 161 F.3d at 716.

We have viewed extrinsic evidence in general as less reliable than the patent and its prosecution history in determining how to read claim terms, for several reasons. First, extrinsic evidence by definition is not part of the patent and does not have the specification's virtue of being created at the time of patent prosecution for the purpose of explaining the patent's scope and meaning. Second, while claims are construed as they would be understood by a hypothetical person of skill in the art, extrinsic

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<sup>331</sup> The Federal Circuit affirmed the district court ruling in *Air Turbine Technology, Inc. v. Atlas Copco AB, et al.* 410 F.3d 701 (Fed. Cir. 2005). The case dealt with a high precision pneumatic industrial grinder. The district court interpreted "braking means" language in the relevant claims as a means-plus-function limitation. The district court's decision occurred 30 days before trial. Because the patentee's designated expert witness failed to amend his expert report to reflect the requirements to establish infringement for a means-plus-function limitation, the district court excluded his testimony. The jury returned a verdict in favor of the accused infringer. On appeal, the Federal Circuit affirmed exclusion of the expert witness' testimony for failure to amend his original report. Having also affirmed the district court's exclusion of improper expert testimony from a lay witness (a co-inventor), the jury verdict of noninfringement was affirmed.

publications may not be written by or for skilled artisans and therefore may not reflect the understanding of a skilled artisan in the field of the patent. Third, extrinsic evidence consisting of expert reports and testimony is generated at the time of and for the purpose of litigation and thus can suffer from bias that is not present in intrinsic evidence. The effect of that bias can be exacerbated if the expert is not one of skill in the relevant art or if the expert's opinion is offered in a form that is not subject to cross-examination. *See Senmed, Inc. v. Richard-Allan Med. Indus., Inc.*, 888 F.2d 815, 819 n.8 (Fed. Cir. 1989). Fourth, there is a virtually unbounded universe of potential extrinsic evidence of some marginal relevance that could be brought to bear on any claim construction question. In the course of litigation, each party will naturally choose the pieces of extrinsic evidence most favorable to its cause, leaving the court with the considerable task of filtering the useful extrinsic evidence from the fluff. *See Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 595, 125 L. Ed. 2d 469, 113 S. Ct. 2786 (1993) ("Expert evidence can be both powerful and quite misleading because of the difficulty in evaluating it."). Finally, undue reliance on extrinsic evidence poses the risk that it will be used to change the meaning of claims in derogation of the "indisputable public records consisting of the claims, the specification and the prosecution history," thereby undermining the public notice function of patents. *Southwall Techs.*, 54 F.3d at 1578.

In sum, extrinsic evidence may be useful to the court, but it is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence. Nonetheless, because extrinsic evidence can help educate the court regarding the field of the invention and can help the court determine what a person of ordinary skill in the art would understand claim terms to mean, it is permissible for the district court in its sound discretion to admit and use such evidence. In exercising that discretion, and in weighing all the evidence bearing on claim construction, the court should keep in mind the flaws inherent in each type of evidence and assess that evidence accordingly.<sup>332</sup>

**c. Post-Phillips Cases re Expert Testimony**

Thus, consistent with the expert witness discussion in *Phillips*, the Court in *Network Commerce*, 422 F.3d 1353 (Fed. Cir. 2005) said that an expert's declaration re claim construction

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<sup>332</sup> 415 F.3d at 1318-19.

offered “scant support.” As said in *Phillips*, 415 F.3d at 1318, conclusory, unsupported assertions by experts as to definition of a claim term are not useful to a court. Expert testimony at odds with the intrinsic evidence must be disregarded. *Id.*

Likewise, in *Biagro v. Grow More*, *supra*, 423 F.3d 1296, the Court rejected expert declarations explaining labeling guidelines and standards. The primary example was a “guaranteed analysis” used in a fertilizer labeling convention. There, phosphorus content is not expressed in elemental form but as phosphorus pentoxide, regardless of whether the fertilizer actually contains that compound. The Court said that even if these show that persons in the art are familiar with the use of “chemical equivalents,” Biagro cannot tie this extrinsic evidence to the patent or the claim language.

## **5. Other Extrinsic Evidence**

Other extrinsic evidence is sometimes identified. In *Cross Medical Products v. Medtronic*, 424 F.3d 1293 (Fed. Cir. 2005), one party claimed that the patentee’s marking of certain screws with the patent number was evidence of the scope of the patent. It is, after all, an indication of what the patentee regards as the scope of the patent and may even have been a pre-litigation event. In this ruling, however, it was rejected as extrinsic evidence that conflicts with the intrinsic record. The Court said that it “has no bearing on our construction,” citing *Phillips*, 415 F.3d at 1318.

## **G. 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.

### **1. “means-plus-function”**

One section of the patent statute that is at the heart of many patent controversies is §112, ¶6, which provides:

**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.**

The elements referred to in the statute 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 the claimed functions. When this form of claiming is used, the statute mandates some special rules of claim construction. The Court decided several cases this past year dealing with these special rules.

**a. Determining Whether §112, ¶6 Applies**

Sometimes parties may agree that even though the claim language recites a claim limitation using the word “means,” that limitation is not within the scope of this statute because the claim also specifically recites the structure that performs the claimed function.<sup>333</sup> However, as is usually the case, 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, one party asserts, and the other party denies, that §112, ¶6 applies and presents this as a claim construction issue for the Court to decide. Another common scenario is when the word “means” is in the claim but one party asserts that there is sufficient structure to remove the claim element from §112, ¶6. This was the case in *Phillips (en banc)*. The claim called for “further means [location stated] for [function stated] comprising internal steel baffle extending inwardly from the steel shell walls.” The word “baffles” took this claim element out of § 112, ¶ 6. 415 F.3d at 1310-11, 1324.

Similarly, *Cross Medical Products v. Medtronic, supra*, 424 F.3d 1293, raised the question of whether the claim language was within the scope of this statute. In this case, the claim phrase “anchor seat means” includes word “means” and raised a presumption that §112, ¶6

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<sup>333</sup> See *e.g.*, *Searfoss v. Pioneer Consolidated Corp.*, 374 F.3d 1142, 1149 (Fed. Cir. 2004)(agreeing with the parties that the term “actuation means” is not a means-plus-function limitation).

applies. However, the Court found that this language is sufficiently structural to take the limitation out of §112, ¶6. Another claim element called for “securing means.” The claim also said that such means includes “second threads” which cooperate with first threads of the seat means. A naked recital of threads alone does not ensure performance of the recited function, so the claim element remained within §112, ¶6.

That was the case in *Apex v. Raritan Computer* (2003).<sup>334</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 using the word “means” in a claim element raises a rebuttable presumption that §112, ¶6 applies.<sup>335</sup> Further, 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>336</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 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>337</sup>

Likewise, in *TI Group Automotive Sys., Inc. v. VDO North America, LLC* (2004), the Federal Circuit found that “pumping means” should not have been analyzed by the district court as a means-plus-function limitation because the limitation itself specified any necessary structure

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<sup>334</sup> 325 F.3d at 1371.

<sup>335</sup> *Id.*

<sup>336</sup> 325 F.3d at 1372 citing *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002).

<sup>337</sup> 325 F.3d at 1372.

required.<sup>338</sup> In fact, the Court noted that “[t]he claim limitation at issue recites not only a pumping means, but its structure, location, and operation.”<sup>339</sup>

The presumption can collapse 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>340</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>341</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 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>342</sup>

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<sup>338</sup> 375 F.3d at 1135.

<sup>339</sup> *Id.* (internal citations omitted)

<sup>340</sup> 325 F.3d at 1372 (*citing Watts v. IL Sys., Inc.*, 232 F.3d 877, 880-81 (Fed. Cir. 2000)).

<sup>341</sup> 325 F.3d at 1372 (*citing Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1583 (Fed. Cir. 1996)).

<sup>342</sup> 325 F.3d at 1375.

Decisions in 2004 were consistent with *Apex*. In *Linear Technology Corp. v. Impala Linear Corp. (2004)*,<sup>343</sup> the Court held that claim language such as “a first circuit for monitoring a signal from the output terminal to generate a first feedback signal” was not in means plus function form, because “circuit” has an understood meaning in the art. The Court relied at least in part on dictionary definitions such as the *Dictionary of Computing* (4th ed., 1996), which defined “circuit” as “the combination of a number of electrical devices and conductors that, when interconnected to form a conducting path, fulfill some desired function.”<sup>344</sup>

Similarly, in *Lighting World, Inc. v. Birchwood Lighting, Inc. (2004)*,<sup>345</sup> the Court held that “a connector assembly for connecting each pair of adjacent support members ...” was not subject to Section 112, ¶6 treatment, based on the same analysis. The Court again rejected the contention that if the claim language does not identify a *specific* structure and recites a function, then it falls within §112, ¶6:

Thus, while it is true that the term "connector assembly" does not bring to mind a particular structure, that point is not dispositive. What is important is whether the term is one that is understood to describe structure, as opposed to a term that is simply a nonce word or a verbal construct that is not recognized as the name of structure and is simply a substitute for the term "means for."<sup>346</sup>

In *Gemstar-TV Guide International, Inc. v. ITC (2004)*,<sup>347</sup> the Federal Circuit restated its earlier precedent that a claim limitation that “employs the language ‘means... for’ invokes a rebuttable presumption that § 112 paragraph 6 applies.” The Court reviewed several of the other underlying principles for this type of claim.

Also, in *Superguide Corp. v. Direct TV Enterprises, Inc. (2004)*, the Federal Circuit cautioned district courts from relying on cases involving means-plus-function claims to construe claims not written in means-plus-function format to conclude that later or ‘after-arising technologies’ cannot fall within the literal scope of the claim at issue.<sup>348</sup> The Court explained that “[m]ethod and apparatus claims not written in means-plus-function format are not

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<sup>343</sup> 379 F.3d 1311 (Fed. Cir. 2004).

<sup>344</sup> *Id.* at 1320.

<sup>345</sup> 382 F.3d 1354 (Fed. Cir. 2004).

<sup>346</sup> *Id.* at 1360.

<sup>347</sup> 383 F.3d 1352 (Fed. Cir. 2004).

<sup>348</sup> 358 F.3d 870, 878 (Fed. Cir. 2004).

necessarily limited to that disclosed in the specification but rather are defined by the language of the claims themselves.”<sup>349</sup> The Court found that when the district court construed the limitations “regularly received television signal,” “radio frequency information,” and “mixer,” it failed to begin its analysis with the claim language itself.<sup>350</sup> When beginning the claim language in this case, the Court found that “[t]he claim language does not limit the disputed phrases to any particular type of technology or specify a particular type of signal format, such as analog or digital.”<sup>351</sup>

**b. Methodology When §112, ¶6 Applies**

When §112, ¶6 applies, the claim element at issue has to be construed. The Court developed several rules that apply to these types of claims, and they are well established. A good review of these rules was set forth in *Cardiac Pacemakers v. St. Jude Medical* (2002):<sup>352</sup>

- 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;

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<sup>349</sup> *Id.*

<sup>350</sup> *Id.*

<sup>351</sup> *Id.*

<sup>352</sup> 296 F.3d 1106 (Fed. Cir. 2002)

- 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>353</sup> The Court stated that identifying the particular function that is 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.” [emphasis added] This is known as the clear linking requirement. The Court in *Medical Instrumentation* held that Section 112, ¶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.”

The clear linking requirement was reaffirmed in 2004 in *Linear Technology Corp. v. Impala Linear Corp.*<sup>354</sup>

In 2004 in *Gemstar-TV Guide v. ITC*,<sup>355</sup> the Federal Circuit again reaffirmed that the determination of the claimed function and corresponding structure in a claim governed by §112, ¶6 is a question of law, reviewed *de novo*. The Court identified a two step analysis to make this determination: (1) the recited function must first be identified; and (2) secondly, the written description must be examined to determine the corresponding structures which perform the function. *See also, Frank’s Casing Crew & Rental Tools, Inc. v. Weatherford International, Inc.* (2004).<sup>356</sup>

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<sup>353</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 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>354</sup> 379 F.3d 1311, 1321 (Fed. Cir. 2004).

<sup>355</sup> 383 F.3d 1352 (Fed. Cir. 2004)

<sup>356</sup> 389 F.3d 1370 (Fed. Cir. 2004)

The Federal Circuit in *Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.* (2004)<sup>357</sup> was careful to point out that merely claiming a step or even a series of steps does not implicate §112, ¶6. In reversing the district court on claim interpretation, the Federal Circuit held that while §112, ¶6 may apply, determining the meaning of the steps in any method claim requires reference to the specification.

**c. Determining the Claimed Function**

The Court decided some cases in 2005 where the claimed function was at issue in the claim construction. In *JVW Enterprises v. Interact Accessories, Inc.* (2005)<sup>358</sup> the Court faced a challenging claim element which provided, “means for *lockably* receiving a video game controller in fixed position on said mounting member” [emphasis added]. The adverb “lockably” was at the heart of this dispute. The district court had given two claim constructions. At first, it ruled that “lockably” meant “attached by a method whereby one can lock a game controller in place for use and can unlock and release the game controller after use.” Plaintiff JVW had sought clarification of that ruling, and the district court then “rephrased” its construction to state, “received in fixed position by the interlacing of fitting of parts into each other.” In a bench trial, the court found non-infringement of the two products at issue, largely due to the “lockably” limitation.

The district court’s infringement analysis appeared to use both of the claim constructions, and hence the Federal Circuit reviewed (and disagreed with) both, for several reasons. Starting with the second claim construction, it faulted the district court for not using the sequence required by the Court’s precedent. That is, the function *must* be determined before corresponding structure can be identified. When the district court adopted its “received in fixed position by the interlacing of fitting of parts into each other” construction, it “effectively combined the two steps, resulting in the inappropriate inclusion of structure ... in the construction of the claimed function.” Continuing, the Court found that the first claim construction was also flawed since it adopted a function different from what the claim explicitly recited. Further, it was error to import the functions of a device described in the specification into the claims, as opposed to reading the claim for their meaning *independent of any working embodiment*. Here, the district court adopted

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<sup>357</sup> 381 F.3d 1371 (Fed. Cir. 2004).

<sup>358</sup> 424 F.3d 1324 (Fed. Cir. 2005).

the unclaimed feature of “unlocking” and “releasing” the controller. The proper construction, according to the Court, should have been that “lockably receiving ... in a fixed position ...” simply means “receiving and locking ... into a fixed position.” Thus, the adverb “lockably” was given weight as a verb in this construction.<sup>359</sup>

The sequence of determining the function and *then* identifying the corresponding structure is consistent with prior cases. In *Omega Engineering v. Raytek Corp.* (2003),<sup>360</sup> the Court chastised the district court for 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 earlier case involving the function in this type of claim is *Lockheed Martin v. Loral* (2003).<sup>361</sup> 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>362 363</sup>

In *Gemstar-TV Guide, Inc. v. ITC* (2004), the Federal Circuit emphasized that it consults *the claim language* to determine the function of the claim limitation.<sup>364</sup>

In *Golight, Inc. v. Wal-Mart Stores, Inc.* (2004),<sup>365</sup> the Court interpreted the function of the “horizontal drive means” as rotating the exterior lamp unit in a horizontal direction. The Court held that nothing in the specification or file history required the usage of anything other than the plain meaning of these terms.

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<sup>359</sup> The Court, in determining the corresponding structure, reaffirmed the clear linking requirement and found it had been met here. It noted that the specification stated “controller holders 21-24 ... allow a video game controller 40 to be positioned within the controllers and locked into place by flanges 21A-24A.”

<sup>360</sup> 334 F.3d 1314 (Fed. Cir. 2004).

<sup>361</sup> *Lockheed Martin Corp. v. Space Systems/Loral, Inc.*, 324 F.3d 1308 (Fed. Cir. 2003).

<sup>362</sup> *Id.* at 1319.

<sup>363</sup> In *Vulcan Engineering Co., Inc. v. Fata Aluminum, Inc.*, 278 F.3d 1366 (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.

<sup>364</sup> 383 F.3d at 1361.

<sup>365</sup> 355 F.3d 1327 (Fed. Cir. 2004)

**d. 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 “clear linking” requirement was mentioned *supra* in sub-parts b and c.

In *Callicrate v. Wadsorth, supra*, 427 F.3d 1361, one claim element was a cutting means for cutting ligature material. The district court identified the corresponding structure as one mechanism in the specification. However, the specification also mentioned that “any device for cutting the band” would suffice, such as a slidably mounted razor or hand-held cutting tools such as scissors and hand-held razors. The Court ruled that all of these perform the recited function and must be included as part of the corresponding structure.

*Harris Corp. v. Ericsson*, 417 F.3d 1241 (Fed. Cir. 2005) involved computer-related claim elements using §112, ¶6 language. One claim called for “time domain processing means for simulating the time domain effect of ... by deducing prescribed characteristics ...” The district court construed this language under §112, ¶6 and ruled that the corresponding structure was “symbol processor 37.” The district court was unaware of *WMS Gaming v. Int’l. Game Technology*, 184 F.3d 1339 (Fed. Cir. 1999) which ruled that corresponding structure under §112, ¶6 for a computer-implemented function is the algorithm disclosed in the specification (not just the processor that performs it). The Court held that the “time domain processing means” is a microprocessor programmed to carry out a two-step algorithm in which the processor calculates generally non-discrete estimates and then selects the discrete value closest to each estimate. While Ericsson used a one-step process, the Court remanded the infringement issue for further proceedings.

In *Default Proof Credit Card System Inc. v. Home Depot USA Inc.*, 412 F.3d 1291 (Fed. Cir. 2005), the Federal Circuit reiterated that a “corresponding” structure is one that the specification or prosecution history clearly links or associates to the function recited in the claim. This duty to link or associate structure to function is the *quid pro quo* for the convenience of employing Section 112 par. 6, and the duty cannot be satisfied when there is a total omission of structure. The only structure mentioned in the patent at issue for this function was a “dispenser.” The Court rejected Default Proof’s assertion that other structures, e.g., certain parts of a POS terminal, correspond to the dispensing function. The specification failed to link the POS terminal or any part of it to the dispensing function. In addition, although knowledge of one

skilled in the art should be considered in determining the “corresponding” structure, expert testimony cannot supplant the duty to provide some description of the structure “corresponding” to the claimed function. Neither can expert testimony be used to incorporate by reference a structure within another patent. A person of ordinary skill in the art must identify the “corresponding” structure from the patentee’s specification. Finally, the expert’s testimony cannot provide a “corresponding” structure that varies from or is contradicted by the intrinsic evidence.<sup>366</sup>

In *Playtex v. Procter & Gamble, supra*, 400 F.3d 901, the Court faulted the district court for finding corresponding structure in only a figure of the patent. While this might not be error *per se*, it was error because corresponding structure for a “means” can come from the drawings, the abstract, and other parts of the specification. The district court must construe the claim in accordance with all the structures disclosed by the inventor. In this case, the written description was broader than the single embodiment depicted in the drawing.

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<sup>366</sup> The Court rejected the assertions of Default Proof’s expert that the “kiosk”, “receipt printer” or the “LCD/CRT” could serve as a “corresponding” structure for the dispensing function. However, the patent specification does not even disclose a “kiosk” and neither does the referenced Muehlberger patent. The expert did not explain how a “kiosk” was well known in the art or provide details of the “kiosk” structure. Consequently, this “kiosk” cannot correspond to the claimed function.

Next, the receipt printer cannot be the corresponding structure because there is no explanation of how such a printer would have been known in the art to dispense debit cards. The marketing material submitted to the PTO during prosecution describes a dot matrix printer for printing receipts, but nothing indicating that it was associated with printing debit cards. Further, the specification states the dispenser should be loaded with three or more stacks of debit cards, but nothing in the “receipt printer” describes how it could be loaded with three or more stacks of debit cards. The expert’s testimony is extrinsic evidence and, as such, cannot be used to vary the plain language of the patent document. His testimony with respect to the LCD or CRT suffers from the same deficiency. There is no explanation of how the LCD or CRT would have been known in the art to distribute or be capable of distributing debit cards. More importantly, the LCD or CRT cannot be loaded with three or more stacks of debit cards as taught by the specification.

The Court also distinguished the present case from the cases Default Proof cited, essentially because Default Proof’s disclosure provides no description of the corresponding structure for the means for dispensing debit cards. In both *S3* and *Atmel*, there was some description of the corresponding structure, and it was more than just that the “corresponding” structure should be loaded with three or more stacks of debit cards. In *S3*, the parties agreed that the “selector” identified by the patentee within his specification was the corresponding structure. Further, the expert testimony in *S3* established that it was well known in the industry that the “selector” referred to an electronic structure performing a common electronic function, and it could be readily created and implemented from the description provided in the specification.

In *Atmel*, expert testimony sufficiently indicated that a person of ordinary skill in the art would have known that the title alone described the precise structure of the means recited in the specification. The specification in *Atmel* described a “high voltage generator circuit” that performed the claimed function and referenced a detailed title of a technical article. In this case, the title along with the rest of the specification fails to provide comparable details. A patentee does not have to disclose details of structure well known in the art. However, the specification must disclose some “corresponding” structure. The testimony of a person of ordinary skill in the art cannot supplant the total absence of structure from the specification.

The statutory requirements of §112, ¶6 have been held to supersede rules of claim construction such as the doctrine of claim differentiation. The Court reaffirmed that rule in 2005 in *Cross Medical v. Medtronic*, *supra*, 424 F.3d 1293. In that case, the Court ruled that while the doctrine of claim differentiation suggests that one claim ought to be broader than another, any presumption that the claims differ with respect to this feature may be overcome by a contrary construction mandated by §112, ¶6.

Cases from prior years comport with the 2005 jurisprudence. In *Frank's Casing Crew & Rental Tools, Inc. v. Weatherford International, Inc.* (2004),<sup>367</sup> the Federal Circuit identified a lift plate under a boom used for oil exploration as the only structure capable of performing the pivoting function called for in the claim. The patent disclosed a piston and cylinder assembly. However, any mention of such assembly in connection with the lifting function always included a connection to a lift plate. The Court also held that this interpretation provided a consistent reading of the claim terms. The same term used in different sections of the claims should be given the same meaning unless it is clear from the specification that different meanings are to be accorded the same term in different portions of the claims. Patent claim terms should, wherever possible, be interpreted so that the patent is internally consistent. The Court found the lift plate to be an essential feature that was necessary to enable the embodiment to yaw and lift at the same time.

In *Gemstar-TV Guide International, Inc. v. ITC* (2004),<sup>368</sup> the Federal Circuit affirmed the ITC's finding that the function dictated by the patent-in-suit required that a video switcher be included as part of the corresponding structure since the video switcher was integral to displaying the television schedule as a grid on the television screen.

In *Golight, Inc. v. Wal-Mart Stores, Inc.* (2004),<sup>369</sup> the Federal Circuit affirmed the district court's decision after trial that nothing in the specification required that the patented portable search light be capable of rotating 360°. The Court rejected Wal-Mart's interpretation that a follower pin and slot were required for the function of rotating through 360° because the Court found that rotation through 360° was not required by the specification. The Court stated that "structural features that do not actually perform the recited function do not constitute

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<sup>367</sup> 389 F.3d 1370 (Fed. Cir. 2004)

<sup>368</sup> 383 F.3d 1352 (Fed. Cir. 2004)

<sup>369</sup> 355 F.3d 1327 (Fed. Cir. 2004).

corresponding structure and thus, do not serve as claim limitations.” Hence, even though the “corresponding structure” of the preferred embodiment worked with that limitation, such a limitation was not imported into the claim meaning through §112, ¶6.

In *Versa Corp. v. AG-Bag Intl. Ltd.* (2004),<sup>370</sup> the Federal Circuit held that “when multiple embodiments in the specification correspond to the claimed function, proper application of §112, P6 generally reads the claim element to embrace each of those embodiments.” In determining the structure that performs the function, “creating air channels in the compost material in said bag to enhance the composting of the compost material,” the Federal Circuit found that the specification disclosed two structures that would perform the claimed function, *i.e.*, flutes and perforated pipe.

Likewise, in *TI Group Automotive Sys., Inc. v. VDO North Am., LLC* (2004), the Federal Circuit applied the same reasoning to “routing means” as stated above in *Versa Corp.* to determine the structure that performs the function “to route the fuel to jet pump 30 and through check valve 38 to the injectors.”<sup>371</sup> The Court looked to the specification for guidance and found that the specification disclosed a generalized representation of the invention, along with more specific embodiments. According to the Court, nothing in the written description indicated that the generalized representation should have been limited, and thus the Court refused to limit the structure.

## 2. **“Step-Plus-Function”**

Cases dealing with the “step plus function” branch of §112, ¶6 are rare. In *Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.* (2004),<sup>372</sup> the district court construed the following claim element as a step-plus-function element under §112, ¶6: “determining a condition of the heart from among a plurality of conditions of the heart.” Noting that claiming a step by itself, or even a series of steps, does not implicate this provision of the statute, the Federal Circuit ruled that §112, ¶6 did not apply to this claim element.<sup>373</sup> Further, using the preamble phrase, “the method comprises the steps of,” does not automatically convert each step in the claim to a §112, ¶6 claim element. Also, the absence of the phrase “step for” raises a presumption that §112, ¶6

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<sup>370</sup> 392 F.3d 1325,—, 2004 U.S. App. LEXIS 25766, at \*8-\*10 (Fed. Cir. Dec. 14, 2004).

<sup>371</sup> 375 F.3d at 1137.

<sup>372</sup> 381 F.3d 1371 (Fed. Cir. 2004).

<sup>373</sup> *Id.* at 1381.

does not apply to the method.<sup>374</sup>

Earlier, the Court found no such claim element in the patent in *Epcon Gas Systems v. Bauer Compressors* (2002). 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>375</sup> Moreover, just because the patent also contains 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."

*Masco Corp. v. United States* (2002)<sup>376</sup> considered whether 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>377</sup>

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<sup>374</sup> *Id.* at 1382.

<sup>375</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.

<sup>376</sup> 303 F.3d 1316 (Fed. Cir. 2002)

<sup>377</sup> Judge Rader in a concurring opinion in *Seal-Flex, Inc. v. Athletic Track and Court Construction*, 172 F.3d 836 (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."

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>378</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.

## **H. 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 often designates as non-precedential many of its decisions in this area. In 2005, *Brooks Furniture Mfg. v. Dutailier Int’l., Inc.*, 393 F.3d 1378 (Fed. Cir. 2005) concerned a design patent but did not explain the scope of the patent. It did note, however, that infringement does not require every aspect of the design to be identical.

*Bernhardt LLC v. Collezione Europa USA, Inc.* (2004) reaffirmed that validity contentions concerning a design patent cannot be determined without first construing the claimed design.<sup>379</sup> Just as design patent *infringement* requires use of the ordinary observer test and the point of novelty test, a contention of *invalidity* for prior public use under §102(b) also requires the fact finder to compare the claim and the prior public use using both tests. Turning to the claim construction issues, at the trial court the parties disagreed on how the court should determine the points of novelty. Bernhardt had represented to the district court that this task was not part of the court’s claim construction duties and undertook to explain this at trial. The district court acceded and subsequently ruled that Bernhardt failed to prove its case on points of novelty. At trial, Bernhardt submitted into evidence the patent, file history, and cited references. It offered proposed findings of fact, but no witness to explain the evidence.

The Federal Circuit acknowledged that it had “not unequivocally spoken to what minimum evidence a patentee must present to satisfy its burden under the point of novelty test” and then addressed the evidentiary requirements for proving that the point of novelty test has been satisfied. The Court held that it was sufficient, though minimal, for the patentee to introduce into evidence the design patent at issue, its prosecution history, and relevant prior art

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<sup>378</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>379</sup> 386 F.3d 1371, 1378 (Fed. Cir. 2004).

references of record. The patentee must also present, either in proposed findings of fact or some other form, its contentions as to points of novelty. However, additional evidence, such as expert testimony, is not absolutely necessary to establish the points of novelty in a design patent case.<sup>380</sup> Reversing, it found that the district erred in requiring Bernhardt to explain its points of novelty through a witness and in basing its decision on the absence of testimony. The Court noted, however, that a party may want to present additional evidence, such as expert testimony, to assist the fact finder in understanding its contentions as to points of novelty, and in some cases such evidence may be advisable.

The *Bernhardt* Court also noted that in a design patent case, where the design contains both functional and non-functional elements, the scope of the claim must be construed to identify the non-functional aspects.<sup>381</sup> This comports with *Door-Master v. Yorktowne* (2001),<sup>382</sup> where the patent claim was construed to avoid functional features.

Functionality was addressed also in *Catalina Lighting International, Inc. v. Lamps Plus, Inc.* (2002),<sup>383</sup> and *Rosco Inc. v. Mirror Lite Co.* (2002).<sup>384</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 -- namely, 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.

*Rosco v. Mirror Lite* (2002)<sup>385</sup> reversed a ruling that the design patent was functional. 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* (1993).<sup>386</sup> Also,

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<sup>380</sup> *Id.* at 1384-85.

<sup>381</sup> *Id.* at 1383.

<sup>382</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>383</sup> *Catalina Lighting International, Inc. v. Lamps Plus, Inc.*, 295 F.3d 1277 (Fed. Cir. 2002).

<sup>384</sup> *Rosco, Inc. v. Mirror Lite Company*, 304 F.3d 1373 (Fed. Cir. 2002), *rehearing and rehearing en banc denied*, 2002 U.S. App. LEXIS 27299 (Fed. Cir. 2002).

<sup>385</sup> 304 F.3d 1373 (Fed. Cir. 2002)

<sup>386</sup> *L.A. Gear, Inc. v. Thom McAn Shoe Co.*, 988 F.2d 1117, 1123 (Fed. Cir. 1993).

“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.”

The construction of the claim in a design patent calls for considering all of the figures. In *Contessa Food Products v. ConAgra, Inc.* (2002),<sup>387</sup> the Court noted that 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. 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.

### **III. Claim Indefiniteness**

As noted *supra*, the question of whether a claim is sufficiently definite under 35 U.S.C. 112, para. 2 is closely related to the claim construction task because the decision depends on the ability of a court to interpret the claim. The determination of indefiniteness arises out of the court’s performance of its duty to construe claims. *BJ Services Co. v. Halliburton Energy Services, Inc.*, 338 F.3d 1368, 1372 (Fed. Cir. 2003). Several cases arose in 2005 concerning this. Some of the cases discussed *supra* involved asserted indefiniteness, such as *IPXL Holdings, LLC v. Amazon.com, Inc.*<sup>388</sup> (apparatus claim held indefinite where it included method of use limitations) and *Howmedica Osteonics Corp. v. Tranquil Prospects, Ltd.* 401 F.3d 1367 (Fed. Cir. 2005) (indefiniteness ruling reversed).

*Datamize v. Plumtree Software*, 417 F.3d 1342 (Fed. Cir. 2005) involved a claim reciting “aesthetically pleasing look and feel” interface screens. This was held to be indefinite. Section 112, ¶2 does not call for absolute clarity, and the fact that claim construction may be difficult does not compel a holding of indefiniteness. Rather, if a meaning is discernable, even though subject to disagreement by reasonable persons, the claim can be definite. Here, the claim language gave no objective standard as to what is “aesthetically pleasing.” The specification also gave no objective standards. Indeed, the file history of a *continuation* application resulted in this phrase being deleted, following the PTO examiner’s objection to it. Extrinsic evidence did

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<sup>387</sup> *Contessa Food Products, Inc. v. ConAgra, Inc.* 282 F.3d 1370 (Fed. Cir. 2002).

<sup>388</sup> 2005 U.S. App. LEXIS 25120 (Fed. Cir. 2005), affirming 333 F. Supp. 2d 513 (E.D. Va. 2004).

not help: an expert witness gave list of considerations but could not use the very parameters he listed to state whether a screen was “aesthetically pleasing.”

*Invitrogen v. Biocrest Mfg.*, 424 F.3d 1374 (Fed. Cir. 2005) had a claim which included a phrase, “improved competence.” This was challenged as indefinite. The Court ruled that a claim is indefinite if reasonable efforts at claim construction prove futile, *i.e.*, if the claim is *insolubly ambiguous*. Even if understanding a claim is a formidable task and the result is not unanimously accepted, as long as its boundaries may be understood, it is not indefinite. The test is not whether a *potential infringer* can determine infringement, but whether a *skilled artisan* can understand the bounds of the invention.

In determining whether claims meet the requirement for definiteness, the claim language is analyzed from the perspective of a person of ordinary skill in the art at the time the patent application was filed. Determining whether a patent claim meets the standard for definiteness under §112 depends on whether a person skilled in the art would understand the limitations of the claims when reviewed in light of the specification. *Howmedica Osteonics Corp. v. Tranquil Prospects, Ltd.* 401 F.3d 1367, 1371 (Fed. Cir. 2005). “A claim is indefinite if its legal scope is not clear enough that a person of ordinary skill in the art could determine whether a particular [product or method] infringes or not.” *Id.*

In *Smithkline Beecham Corp. v. Apotex Corp.*, 403 F.3d 1331 (Fed. Cir. 2005), the Federal Circuit rejected an attempt to limit the claims based upon an asserted indefiniteness issue under 35 U.S.C. § 112 ¶2, distinguishing *Morton Intl. Inc. v. Cardinal Chem. Co.*, 5 F.3d 1464 (Fed. Cir. 1993)(holding that a product claim is indefinite when one skilled in the art cannot determine whether a given compound is within the scope of the claims). The Federal Circuit pointed out that indefiniteness does not exist just because the patentee is incapable of ascertaining the nature of its own products, where the scope of the claims is clear.

#### **IV. Procedure and Timing**

District courts typically hold claim construction hearings before trial, although “hearings” *per se* are not required. Indeed, the Federal Circuit has generally confirmed the wide latitude given to the district court in complying with the *Markman* claim construction 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>389</sup>

In 2005, the Court reviewed a case where the parties had agreed, contrary to the district court’s wishes, not to have a *Markman* hearing, and the claims were not construed until the close of the evidence in a jury trial. This was held not to be error, given the broad discretion allowed the district courts in determining when to resolve issues of claim construction. *Cytologix v. Ventana Medical Systems*, 424 F.3d 1168 (Fed. Cir. 2005).

Consistent with prior rulings on the wide latitude allowed district courts on the procedure it chooses to make its claim constructions, the Court in *Cytologix v. Ventana Medical*, *supra*, 424 F.3d 1168 (2005) reaffirmed that a district court may have a “rolling claim construction.”

Likewise, in *Network Commerce v. Microsoft*, *supra*, 422 F.3d 1353, the Court reaffirmed that there is no requirement that a district court must construe claims at any particular time. District courts can have rolling claim construction where a court revisits and alters its interpretations of the claims as its understanding of the technology evolves.<sup>390</sup>

Likewise, in *SanDisk Corp. v. Memorex Products, Inc.*, 415 F.3d 1278 (Fed. Cir. 2005), the Court noted approvingly that courts are free to revisit an initial claim construction that was adopted for a preliminary injunction – where a preliminary claim construction was without the full development of the record. Indeed:

After discovery the court expects the parties to refine the disputed issues and learn more about the claim terms and technology, at which point a more accurate claim construction can be attempted.<sup>391</sup>

The Court in *SanDisk* also recognized the broad deference it accords to the trial court’s application of local procedural rules, in view of the trial court’s need to control the parties and flow of litigation before it.

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<sup>389</sup> *Ballard Medical Products v. Allegiance Healthcare Corp.*, 268 F.3d 1352 (Fed. Cir. 2001).

<sup>390</sup> See also, *Jack Guttman v Kopykake Enterprises*, 302 F.3d 1352, 1361 (Fed. Cir. 2002). In *Medtronic v. Advanced Cardiovascular*, 248 F.3d 1303 (Fed. Cir. 2001), 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. In a 2003 case, the Federal Circuit approved a district court’s revision of its prior claim construction. *Utah Medical Products v. Graphics Controls*, 350 F.3d 1376 (Fed. Cir. 2003). That is, the district court had made one claim construction but during oral argument on pre-trial motions revised its construction.

<sup>391</sup> 415 F.3d at 1291.

### A. Special Masters and Magistrates

In several cases, the claim construction has come from special masters. *See e.g., Power Mosfet Techs., L.L.C. v. Siemens AG* (2004);<sup>392</sup> *AK Steel v. Sollac* (2003);<sup>393</sup> *Ferguson Beauregard v. Mega Systems* (2003);<sup>394</sup> *Northrop Grumman Corp. v. Intel Corp.*;<sup>395</sup> *Crystal Semiconductor v. Tritech* (2001);<sup>396</sup> and *Datapoint v. Standard Microsystems* (2002).<sup>397</sup> For magistrates, *see, e.g., Day International v. Reeves* (2001);<sup>398</sup> *Sandt Technology v. Resco* (2001);<sup>399</sup> and *Smith & Nephew v. Ethicon* (2001).<sup>400</sup>

### B. Jury Issues

In *Cytologix v. Ventana*, *supra*, 424 F.3d 1168 (Fed. Cir. 2005), pursuant to an agreement between the parties, opposing experts testified before the jury regarding claim construction. Further, counsel argued conflicting claim constructions to the jury. Notwithstanding the latitude given to district court, this went too far. The Court ruled that the district court ought to have disallowed such testimony, notwithstanding any agreement of the parties and notwithstanding the district court making it clear to the jury that the court's claim constructions control.

The Court made some interesting comments. First, it left the door to expert testimony on claim construction somewhat ajar, stating:

Of course, if the district court has not yet construed the claims, testifying experts must make clear the claim constructions that they have assumed in their testimony.<sup>401</sup>

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<sup>392</sup> 378 F.3d 1396, 1407-1408 (Fed. Cir. 2004) (affirming the Special Master's construction of 'interface' to be 'necessarily physical').

<sup>393</sup> 344 F.3d 1234 (Fed. Cir. 2003)

<sup>394</sup> 350 F.3d 1327 (Fed. Cir. 2003)

<sup>395</sup> 325 F.3d at 1352-1353

<sup>396</sup> *Crystal Semiconductor Corp. v. Tritech Microelectronics, Int'l. Inc.*, 246 F.3d 1336 (Fed. Cir. 2001).

<sup>397</sup> *Datapoint Corp. v. Standard Microsystems Corp.*, 31 Fed. Appx. 685, 2002 WL 243431 (Fed. Cir. 2002) (not published).

<sup>398</sup> *Day International, Inc. v. Reeves Brothers, Inc.*, 260 F.3d 1343 (Fed. Cir. 2001).

<sup>399</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>400</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>401</sup> 424 F.3d 1168, \_\_\_, n4.

Query whether this means that experts might be permitted to offer opinions on claim constructions to the jury if the district court has not yet finalized its claim construction. Most likely, this means that absent a claim construction, experts testifying on construction-dependent issues should disclose which construction underlies their testimony.

Second, the Court said there was no ground for reversal “since there was no objection to the expert testimony as to claim construction.” Indeed, the Court noted that this apparently led to confusion on the jury and may have led to a verdict of infringement that was not supported by substantial evidence. However, there apparently was no objection.

In *Sulzer Textil A.G. v. Picanol N.V.* (2003),<sup>402</sup> the Court ruled that it was error to withhold from the jury instructions any mention of the court’s claim constructions. Indeed, 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.

The *Markman* decisions, in ruling that claim construction is a matter of law for the court, do not hold that the trial judge in a patent case must repeat or restate every claim term in the court’s jury instructions. ... The district court simply must give the jury guidance that “can be understood and given effect by the jury once it resolves the issues of fact which are in dispute.” ... This means that, as to claim coverage, the district court must instruct the jury on the meanings to be attributed to all disputed terms used in the claims in suit so that the jury will be able to “intelligently determine the questions presented.”<sup>403</sup>

On the other hand, the *analysis* performed by the district court in reaching its claim construction need not be part of the jury instructions, and the *Markman* order is an explanation to the parties of the reasoning behind the claim construction. It is thus not necessary for a district court to include excerpts from its *Markman* order in the jury instructions. *MercExchange, LLC v. eBay, Inc.*, 401 F.3d 1323, 1329 (Fed. Cir. 2005).

The Court jealously protects the claim construction task as an issue of law. In no case should claim construction, even to a minimal degree, slip into the realm of the jury. In *Moba v.*

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<sup>402</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>403</sup> 358 F.3d at 1366.

*Diamond Automation* (2003),<sup>404</sup> the Court reversed a district court's denial of a motion for JMOL. The district court interpreted the method claims of the patent-in-suit but left undetermined whether the claim required sequential performance of the steps. It 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 'guiding steps.'"<sup>405</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

Various waiver issues arise in the review of claim construction rulings. As to claim construction *arguments*, the Court in 2005 declared that "waiver is a procedural issue, but if one views the issue more narrowly as 'waiver of a claim construction argument,' rather than the more general 'waiver of an appellate argument,' it seems indisputably unique to patent law." *Harris Corp. v. Ericsson*, 417 F.3d 1241, 1250 (Fed. Cir. 2005). The Court decided that Federal Circuit law controls waiver in the context of claim construction arguments. However, it also noted that an appellate court has case-by-case discretion over whether to invoke a waiver rule.

Disputes arise on whether a litigant whose proposed claim constructions have been rejected by the district court must tender an objection to jury questions embodying the claim constructions which the court did adopt. This issue arose several times in prior years and was judged to be governed by regional circuit law as opposed to Federal Circuit law.

For example, the "futile objection" rule did not assist the patentee in *Ecolab v. Paraclipse* (2002).<sup>406</sup> The patentee had fully briefed its proposed claim construction contentions, but they were rejected by the district court in its claim construction ruling. Subsequently, in the trial stage of the case, the patentee did not object to jury instructions containing the allegedly erroneous claim constructions. Rule 51, Fed. R. Civ. Proc. 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

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<sup>404</sup> 325 F.3d 1306, 1313-1314 (Fed. Cir. 2003)

<sup>405</sup> *Id.* at 1313.

<sup>406</sup> 285 F.3d 1362 (Fed. Cir. 2002).

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 appeared 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 *Hewlett-Packard Co. v. Mustek Systems, Inc.* (2003).<sup>407</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 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>408</sup>

In *Koito Mfg. v. Turn-Key* (2004), the Federal Circuit refused to consider Turn-Key’s argument on claim construction where Turn-Key failed to preserve its claim construction argument by raising appropriate objections at trial and by not objecting to the jury instructions on the construction of the term at issue on appeal.<sup>409</sup>

In contrast, the Court in *Cardiac Pacemakers v. St. Jude Medical* (2004)<sup>410</sup> ruled that no objection under Rule 51 was necessary to preserve the objections to the claim construction which the district court had entered months earlier. This case arose in the Seventh Circuit, which has a “futility” exception to Rule 51. The Court noted further that the claim construction resulted from

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<sup>407</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’].”

<sup>408</sup> 340 F.3d at 1321.

<sup>409</sup> *Koito Mfg. Co. v. Turn-Key-Tech, LLC*, 381 F.3d 1142, 1150 (Fed. Cir. 2004).

<sup>410</sup> 381 F.3d 1371, 1381 (Fed. Cir. 2004).

a hearing where all parties' positions were presented, the issue was complex, was fully litigated, and the decision was announced before the jury was instructed.<sup>411</sup>

As noted *supra*, another waiver arose in *Eli Lilly v. Aradigm* (2004),<sup>412</sup> where the Court said that the defendant had waived its right to request a construction of one claim, thereby conceding “implicitly ... that the meanings of the terms in [that claim] are clear and not in need of construction.” The Court cited a precedent for the proposition that “claim construction is required only ‘when the meaning or scope of technical terms and words of art is unclear and in dispute and requires resolution to determine’ the issue before the court.”<sup>413</sup>

Likewise, in *Superguide Corp. v. Direct TV Enterprises, Inc.* (2004),<sup>414</sup> the Federal Circuit declined on appeal to address the appellant’s new construction of a claim term because that new, broader construction was not before the district court.<sup>415</sup> Similarly, in *NTP v. Research in Motion, Ltd.* (2004), the Court ruled that RIM had waived its newly-proposed (on appeal) claim construction by not raising it at the district court level.<sup>416</sup>

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

In general, district courts 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 explicitly or implicitly. *Optical Disc v. Del Mar Avionics* (2000).<sup>417</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>418</sup>

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<sup>411</sup> Id. at 1381.

<sup>412</sup> *Eli Lilly & Co. v. Aradigm Corp.*, 376 F.3d 1352, 1360 (Fed. Cir. 2004).

<sup>413</sup> *Id.*, citing *United States Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997).

<sup>414</sup> 358 F.3d 870, 881 (Fed. Cir. 2004)

<sup>415</sup> 358 F.3d at 889; see also, *Interactive Gift Express, Inc. v. Compuserve, Inc.*, 256 F.3d 1323, 1346 (Fed. Cir. 2001)(discussing cases in which the appellate court applied the doctrine of waiver to preclude a party from adopting a new claim construction on appeal because the new construction proffered on appeal changed the scope of the claim construction asserted before the trial court).

<sup>416</sup> 204 U.S. App. LEXIS 25767 (Fed. Cir. 2004).

<sup>417</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>418</sup> *AFG Industries Inc. v. Cardinal IG Co.*, 239 F.3d 1239 (Fed. Cir. 2001).

Then in 2003, a concurring opinion in *Oakley v. Sunglass Hut Int'l.* (2003)<sup>419</sup> 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>420</sup>

In 2004, the Federal Circuit vacated a grant of summary judgment of invalidity because the district court did not “expressly” construe the claim and seemed “to have suggested contradictory constructions for claim 1.” *Toro Co. v. Deere & Co.*<sup>421</sup>

### **E. Estoppel Issues**

An issue of judicial estoppel arose in 2005. In *SanDisk Corp. v. Memorex Products, Inc.*, 415 F.3d 1278 (Fed. Cir. 2005), one of the appellees asserted that equity required plaintiff-appellant to be judicially estopped from arguing a certain claim construction. Rejecting the assertion, the Court reviewed the applicable law, including recent Supreme Court authority on the point:

Judicial estoppel is an equitable doctrine that prevents a litigant from “perverting” the judicial process by, after urging and prevailing on a particular position in one litigation, urging a contrary position in a subsequent proceeding - or at a later phase of the same proceeding - against one who relied on the earlier position. See *Hamilton v. State Farm Fire & Cas. Co.*, 270 F.3d 778, 782 (9th Cir. 2001); *Data Gen. Corp. v. Johnson*, 78 F.3d 1556, 1565 (Fed. Cir. 1996). It is within the trial court's discretion to invoke judicial estoppel and preclude an argument. *Id.* Here, the trial court did not apply the doctrine and the appellees ask this court, in its appellate jurisdiction, to find an estoppel.

As the Supreme Court recently explained,

Where a party assumes a certain position in a legal proceeding, and succeeds in maintaining that position, he may not thereafter, simply because his interests have changed, assume a contrary position, especially if it be to the prejudice of the party who

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<sup>419</sup> 316 F.3d 1331 (Fed. Cir. 2003).

<sup>420</sup> *Oakley*, 316 F.3d at 1348 (citing *Sofamor Danek Group, Inc. v. DePuy-Motech, Inc.*, 74 F.3d 1216, 1221 (Fed. Cir. 1996)).

<sup>421</sup> 355 F.3d 1313, 1319 (Fed. Cir. 2004).

has acquiesced in the position formerly taken by him.

*New Hampshire v. Maine*, 532 U.S. 742, 749, 149 L. Ed. 2d 968, 121 S. Ct. 1808 (2001) (cit. omitted); see also *id.* at 749-50 (collecting cases). In *New Hampshire*, the Supreme Court identified several factors guiding the decision to apply judicial estoppel: (1) the party's later position must be "clearly inconsistent" with the earlier position; (2) the party must have succeeded in persuading a court to adopt the earlier position in the earlier proceeding; and (3) the courts consider "whether the party seeking to assert an inconsistent position would derive an unfair advantage or impose an unfair detriment on the opposing party if not estopped." *Id.* at 751. These factors, while not exclusive, must guide the court's application of its equitable powers. *Id.*<sup>422</sup>

The Court ruled against the estoppel for at least the reason that SanDisk in the prior litigation had not advanced a claim construction that was "clearly inconsistent" with the analysis discussed in the Court's current opinion.

In 2004, the Federal Circuit ruled that plaintiff-appellant was collaterally estopped from challenging a Special Master's claim construction report that the Federal Circuit had previously affirmed. *Dynacore Holdings Corp. v. U.S. Philips Corp.*<sup>423</sup>

*Fuji Photo Film Co. v. ITC* (2004) ruled that complainant Fuji's failure to appeal a claim construction in a prior related proceeding was not an abandonment of all issues decided adversely for the reason that there was no adverse judgment against Fuji in that earlier case.<sup>424</sup>

In *Alfred Dana III v. E.S. Originals, Inc.* (2003),<sup>425</sup> the Court vacated 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>426</sup>

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<sup>422</sup> 415 F.3d at 1290-91.

<sup>423</sup> 363 F.3d 1263, 1267-68 (Fed. Cir. 2004).

<sup>424</sup> 386 F.3d 1095, 1104 (Fed. Cir. 2004).

<sup>425</sup> 342 F.3d 1320 (Fed. Cir. 2003).

<sup>426</sup> 342 F.3d at 1327.

## F. Appellate Procedure

### 1. Standard of Review

Numerous Federal Circuit cases have declared that claim construction by the district court is an issue of law that the Federal Circuit reviews *de novo* and without deference.<sup>427</sup> The Court reaffirmed this in multiple cases in 2005.<sup>428</sup> The *de novo* review of district court claim construction is “plenary.”<sup>429</sup> Thus, in 2004, the Court in *Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*,<sup>430</sup> explained:

When exercising the power to review claim construction, this court determines the meaning and scope of the relevant claim language and decides whether the district court's determination of the meaning and scope of the relevant claim language is coterminous with that construction. Where it is not, the district court has erred in its construction of the claims.

When the Federal Circuit reviews claim constructions by the International Trade Commission, that review also is *de novo*.<sup>431</sup> However, when the Federal Circuit reviews decisions of the PTO, different standards apply. “Because the PTO is entitled to give claims their broadest reasonable interpretation, our review of the Board’s claim construction is limited to determining whether it was reasonable.”<sup>432</sup>

When the Court conducts a *de novo* review, it applies to all claim types. For example, in addressing means-plus-function claims, the trial court’s identification of the claimed function and corresponding structure of a means-plus-function claim limitation are questions of law,

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<sup>427</sup> See e.g., *Cybor v FAS Technologies*, 138 F.3d 1448, 1456 (Fed. Cir. 1998) (*en banc*); *Ecolab v. Paraclipse*, 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 1, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 (Fed. Cir. 2003); *Scanner Techs. Corp. v. Vision Sys. Corp.*, 365 F.3d 1299, 1302 (Fed. Cir. 2004).

<sup>428</sup> E.g., see, *PC Connector Solutions LLC v. Smartdisk Corp., et al.* 406 F.3d 1359, 1362 (Fed. Cir. 2005).

<sup>429</sup> *Kinik Co. v. ITC*, 362 F.3d 1359, 1361 (Fed. Cir. 2004); *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>430</sup> *Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004).

<sup>431</sup> *Fuji Photo Film Co. Ltd. v. ITC*, 386 F.3d 1095, 1104 (Fed. Cir. 2004) (“...we review the Commission’s claim construction *de novo*.”); *Gemstar-TV Guide Int’l. v. ITC*, 383 F.3d 1352, 1360 (Fed. Cir. 2004).

<sup>432</sup> *In re Crish*, 393 F.3d 1253 (Fed. Cir. 2004).

reviewed de novo. *JVW Enterprises v. Interact Accessories, Inc.*, 424 F.3d 1324 (Fed. Cir. 2005).<sup>433</sup>

On a point related to claim construction, the Court has also reviewed *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,<sup>434</sup> and the review is without deference.<sup>435</sup> This is discussed in Part III (Indefiniteness).

While the Court has stated almost uniformly that its claim construction review is *de novo* and without deference, some (infrequent) opinions have stated that the district court decision was *supported by the record*, or other terms suggesting that the review might not be completely *de novo*. See, *LNP Engineering Plastics v. Miller Waste Mills* (2001)<sup>436</sup> (“[T]he record supports the district court’s interpretation”); *Bowers v. Baystate Technologies* (2002)<sup>437</sup> (“the specification supports the trial court’s interpretation”); *Minnesota Mining (3M) v. Chemque* (2002)<sup>438</sup> (“no reason to conclude that the district court erred in not including this limitation in its construction”); *Utah Medical Products v. Graphic Controls* (2003)<sup>439</sup> (specification and prosecution support the trial court’s rulings).<sup>440</sup>

Thus, one of the seven questions that the Federal Circuit posed for *en banc* review in *Phillips v. AWH* asked whether it is appropriate to accord deference to any aspect of trial court

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<sup>433</sup> See also *ACTV v. Walt Disney Co.*, 346 F.3d 1082, 1087 (Fed. Cir. 2003); *Lockheed Martin Corp. v. Space Systems/Loral, Inc.*, 324 F.3d 1308, 1318 (Fed. Cir. 2003); *accord, Gemstar-TV Guide International, Inc. v. ITC* 383 F.3d 1352, 1361 (Fed. Cir. 2004).

<sup>434</sup> See, e.g., *Omega Engineering v. Raytek Corp.*, *supra.*; *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; *BJ Services Co. v. Halliburton Energy Services, Inc.*, 338 F.3d 1368, 1372 (Fed. Cir. 2003).

<sup>435</sup> *Utah Medical Products v. Graphic Controls, Inc.*, 350 F.3d 1376 (2003),

<sup>436</sup> *LNP Engineering Plastics v. Miller Waste Mills*, 275 F.3d 1347 (Fed. Cir. 2001).

<sup>437</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>438</sup> *Minnesota Mining and Manufacturing Company v. Chemque, Inc.*, 303 F.3d 1294, 2002 U.S. App. LEXIS 17962 (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>439</sup> *Utah Medical Products, Inc. v. Graphic Controls Corp.*, 350 F.3d 1376 (Fed. Cir. 2003).

<sup>440</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 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).

claim construction rulings, consistent with the Supreme Court decision in *Markman v. Westview Instruments, Inc.*<sup>441</sup> and the Federal Circuit *en banc* decision in *Cybor Corp. v. FAS Technologies, Inc.*<sup>442</sup> Approximately 50 bar associations, corporations, and other *amicus curiae* submitted briefs to the court.

Ultimately the Court decided not to answer the deference question. Many understand this to mean that the answer to the posed question is that deference cannot be accorded unless the Court would overrule its own *en banc* decision in *Cybor* and reverse its understanding of the Supreme Court ruling in *Markman*. Clearly, the Court was not of a mind to overrule *Cybor*. This decision not to decide the deference question evoked a heated dissent. Nevertheless, unless the Supreme Court speaks to this issue, it appears that the *de novo* standard will apply to all claim construction reviews.<sup>443</sup>

## **2. Post-Appeal**

The Court has previously remanded to the district court when the appellate record was insufficient to resolve the claim construction issues. *Toro Co. v. Deere & Co.* (2004)<sup>444</sup> (remand so district court can receive additional evidence to guide claim construction analysis).

The Court did this again in 2005. In *Nazomi Comms., Inc. v. ARM Holdings, PLC*, 403 F.3d 1364 (Fed. Cir. 2005), the Federal Circuit remanded the case for a new claim construction hearing due to the flawed nature of the district court's claim construction. The Court rejected the accused infringers' contention that since claim construction review is *de novo*, the appeals court itself could perform this function, noting that it had a minimal record to review. The Court admonished that it does not conduct claim construction in the first instance, but instead it must have findings and reasoning from the trial court for meaningful appellate scrutiny.<sup>445</sup>

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<sup>441</sup> 517 U.S. 370 (1996)

<sup>442</sup> 138 F.3d 1448 (Fed. Cir. 1998)

<sup>443</sup> Cf. Manzo *et al.*, "Deference – the Unanswered Question," THE PATENT LAWYER, vol. 3, issue 1, p. 4 (Ass'n. of Patent Law Firms, Spring 2006).

<sup>444</sup> 355 F.3d 1313 (Fed. Cir. 2004).

<sup>445</sup> The Court offered some guidance to the district court on remand. The case related to a JAVA hardware accelerator used to translate java byte codes into native instructions for a CPU. The disputed claim term was "instruction," which the district court had not explicitly construed, despite the parties' disagreement regarding its meaning. Nazomi had proposed a broad definition of "instruction" namely, "a command that specifies or causes performance of an operation or function," and ARM had argued for a definition of instruction as "that provided to the processor that adds input and must be recognizable to the decoder." The district court construed these terms of the patent claims as calling for a hardware unit or subunit that converts stack-based instructions into the register-

(footnote ctd. next page)

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* (2003).<sup>446</sup>

Applying the law of the case doctrine, the Federal Circuit will not change its prior claim construction of a term in a case in a subsequent appeal in the same case unless it is “convinced to a certainty’ that clear error pervaded a claim construction in” the prior appeal. *Toro Co. v. White Consolidated Indus., Inc.* (2004).<sup>447</sup> Similarly, in *AFG Industries v. Cardinal IG Co.*,<sup>448</sup> the claim construction had been previously appealed and reviewed. The Court declined to revisit its earlier claim construction in the absence of any recognized exceptions: (1) new and different material evidence not presented in the prior action; (2) an intervening change of controlling legal authority; (3) when the prior decision is clearly incorrect and would work a manifest injustice.<sup>449</sup>

Regarding the “final judgment” requirement in *Nystrom v. Trex Co.* (2003),<sup>450</sup> the Court dismissed an appeal where the district court had entered 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

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based instructions prior to the processing of those instructions by the processor in the so-called 'decode stage.' The Court noted that the specification defined instructions in an indirect manner by referring to what the instructions do and where they do it.

The Court suggested that the trial court consider references to the meaning of “instruction” in the specification as well as prior art references discussed by the Examiner and the inventor, which can show the understanding of the claim term to one of ordinary skill in the art.

Further, the Court suggested that the trial court consider possible alternative embodiments of the invention that could explain what is meant by “instruction.” Finally, the Court suggested the district court consider the effect of claim differentiation on claim scope, and noted that the district court did not address the issue of the level of ordinary skill in the art or the understanding of “instruction” to such an artisan.

<sup>446</sup> 329 F.3d 823, 834 (citing *Electro Scientific Industries, Inc. v. Dynamic Details, Inc.*, 307 F.3d 1343, 1350 (Fed. Cir. 2002)); see also, *Toro Co. v. Deere & Co.*, 355 F.3d 1313, 1320 (Fed. Cir. 2004) (“Where, as here, claim construction cannot be resolved on the appellate record, we must remand claim construction to the district court, which can receive additional evidence to guide the claim-construction analysis.”).

<sup>447</sup> 383 F.3d 1326, 1337 (Fed. Cir. 2004).

<sup>448</sup> 375 F.3d 1367 (Fed. Cir. 2004).

<sup>449</sup> *Id.* at 1372.

<sup>450</sup> 339 F.3d 1347 (Fed. Cir. 2003)

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>451</sup>

## V. 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 2005.<sup>452</sup>

<b>SJ non-infringement</b>	
<b>Reversed or vacated</b>	<b>Affirmed</b>
<i>*Aquatex v. Techniche</i> (equivalents) <i>Dorel v. Graco</i> <i>Free Motion Fitness v. Nautilus</i> <i>Nazomi Comms. v. ARM Hldgs.</i> <i>Nellcor v. Masimo</i> <i>*North American v. Plastipak</i> <i>*Perricone v. Medicis</i> <i>Phillips v. AWH (en banc)</i> <i>Playtex v. Procter &amp; Gamble</i> <i>Research Plastics v. Federal</i> <i>Rhodia Chime v. PPG Indus.</i> <i>Salazar v. Procter &amp; Gamble</i> <i>SanDisk v. Memorex</i> <i>* Sentry v. Eagle</i> <i>Smithkline Beecham v. Apotex</i>	<i>*Aquatex v. Techniche</i> (literal) <i>Biagro v. Grow More</i> <i>Business Objects. v. Microstrategy,</i> <i>Hoffer v. Microsoft</i> <i>Microstrategy v. Business Objects</i> <i>Network Commerce v. Microsoft</i> <i>*North American v. Plastipak,</i> <i>Nystrom v. Trex</i> <i>Pause Technology v. Tivo</i> <i>PC Connetor v. Smartdisk</i> <i>*Perricone v. Medicis</i> <i>*TAP Pharmaceutical v. Owl</i> <i>Terlep v. Brinkmann</i> <i>V-Formation v. Benetton Group</i>

<b>SJ infringement</b>	
<b>Reversed or vacated</b>	<b>Affirmed</b>
<i>Ocean Innovations v. Archer</i> <i>Warner-Lambert v. Teva</i>	<i>Invitrogen v. Biocrest</i> <i>*TAP Pharmaceutical v. Owl</i>

<sup>451</sup> *Id.* at 1349.

<sup>452</sup> The asterisks (\*) in the tables denote that the case is listed in more than one category.

<b>SJ invalidity</b>	
<b>Reversed or vacated</b>	<b>Affirmed</b>
<u>Howmedica v. Tranquil Prospects</u> *Perricone v. Medicis	<i>Datamize v. Plumtree</i> <i>IPXL v. Amazon.com</i> <i>Medrad v. MRI Devices</i> *North American Container v. Plastipak *Perricone v. Medicis *Sentry v. Eagle

## **VI. Opinion Writers**

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

<b>Judge</b>	<b>#</b>	<b>Case</b>
<i>Per Curiam</i>	1	<i>Hoffer v. Microsoft Corp.</i>
Archer, S. J.		
Bryson	9	<i>Arthrocare Corp. v. Smith &amp; Nephew,</i> <i>ASM v. Arthur Sherman</i> <i>Asyst v. Emtrak</i> <i>Medrad v. MRI Devices,</i> <i>MercExchange v. eBay,</i> <i>Nellcor Puritan v. Masimo,</i> <i>Norian v. Stryker,</i> <i>Phillips v. AWH (en banc),</i> <i>TAP Pharmaceutical v. Owl</i>
Clevenger, S.J.	2	<i>Dorel v. Graco,</i> <i>IPXL v. Amazon.com</i>
Dyk	3	<i>Cytologix v. Ventana Medical Systems,</i> <i>Free Motion Fitness v. Nautilus,</i> <i>Network Commerce v. Microsoft</i>
Friedman, S. J.		
Gajarsa	6	<i>Invitrogen v. Clontech,</i> <i>Merck v. Teva,</i> <i>Playtex v. Procter &amp; Gamble</i> <i>Research Plastics v. Federal,</i> <i>Rhodia Chime v. PPG Indus.,</i> <i>SanDisk v. Memorex</i>
Linn	6	<i>Cross Medical Products v. Medtronic,</i> <i>NTP v. Research in Motion,</i> <i>Nystrom v. Trex,</i>

<b>Judge</b>	<b>#</b>	<b>Case</b>
		<i>Pause Technology v. Tivo,</i> <i>Seachange v. C-Cor,</i> <i>Terlep v. Brinkmann</i>
Lourie	2	<i>North American Container v. Plastipak,</i> <i>PC Connector v. Smartdisk</i>
Mayer	1	<i>Aquatex v. Techniche,</i>
Michel, C.J.	1	<i>Default Proof v. Home Depot</i>
Newman	1	<i>Brooks Furniture v. Dutailier</i>
Plager, S.J.	1	<i>Biagro v. Grow More</i>
Prost	6	<i>Boss v. Ontario,</i> <i>Datamize v. Plumtree,</i> <i>Harris v. Ericsson,</i> <i>JVW Enterprises v. Interact,</i> <i>Pfizer v Teva</i> <i>Sentry v. Eagle</i>
Rader	14	<i>Business Objects v. Microstrategy,</i> <i>Callicrate v. Wadsworth,</i> <i>CollegeNet v. ApplyYourself,</i> <i>Eolas v. Microsoft,</i> <i>Gillette v. Energizer Holdings,</i> <i>Howmedica v. Tranquil Prospects,</i> <i>Invitrogen v. Biocrest,</i> <i>Microstrategy v. Business Objects,</i> <i>Nazomi Comms. v. ARM Holdings,</i> <i>Perricone v. Medicis,</i> <i>Salazar v. Proctor &amp; Gamble,</i> <i>Smithkline Beecham v. Apotex,</i> <i>Sorensen v. ITC</i> <i>V-Formation v. Benetton</i>
Schall	3	<i>Air Turbine Tech v. Atlas Copco,</i> <i>Ocean Innovations v. Archer,</i> <i>Warner-Lambert v. Teva</i>