

FEDERAL CIRCUIT REVIEW OF *MARKMAN* ISSUES (2004)

by the Litigation Committee (2004-05) of the
Intellectual Property Law Association of Chicago (IPLAC)

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May 10, 2005

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FEDERAL CIRCUIT REVIEW OF *MARKMAN* ISSUES (2004)

BY THE IPLAC LITIGATION COMMITTEE (2004-05)¹

In this report, we review the development of the law of patent claim construction in calendar year 2004 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. After reviewing the substantive law on this topic, we present various statistical information showing how the Court disposed of summary judgments in the reviewed cases, identifying the majority opinion authors, and indicating the cases that arose from (IPLAC's home in) Illinois. Various cases decided prior to 2004 are also covered here, particularly where needed to explain how the Court has dealt with certain topics in its claim construction jurisprudence.

On July 21, 2004, the Court decided to reconsider *en banc* the panel decision in *Phillips v. AWH Corp.*² The Court invited bar associations and others to address seven specific questions dealing with how patent claims ought to be interpreted. We expect the Court to rule in 2005 and clarify whether dictionaries or the specification should have primacy in the claim construction process, if either, and if so, then which one. Some decisions in 2004, particularly those penned after July 21, indicate how the judges regard some of the issues to be decided *en banc*.

Many panel rulings in 2004 reminded that the ordinary meaning of claim terms is based upon the understanding of the ordinarily skilled artisan in the relevant field. In some cases, claim terms had been used which, until set forth in the patent, had no meaning to the person of ordinary skill. The Court explained that in cases where there is *no* ordinary meaning to such person of ordinary skill, then one must find the meaning of the claim term in the patent specification itself, either explicitly or implicitly.

In recent years, several members of the Court expressed a strong preference for using the plain, ordinary and customary meaning of words in claims as they would be understood by persons of ordinary skill in the art, unless that meaning has been redefined or surrendered in the

¹ This review was prepared by members of the Litigation Committee of the Intellectual Property Law Association of Chicago (IPLAC). The editor acknowledges and thanks the contributors to this project. This writing is not offered as the opinion of the Association, the listed contributors, nor the editor.

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

intrinsic documents. Indeed, while many decisions in 2003 spoke about using terms in the proper context, the emphasis in 2004 seemed to be on how the ordinarily skilled artisan would understand the claims. Hence, the meaning of claim language continues to be with reference to the ordinarily skilled artisan.

A major issue now which the Court clearly struggles with (and often finesses) is the tension between the “ordinary meaning” and a contextual (and possibly narrower) meaning indicated by the patent documents. One question to be resolved by the Court is whether “ordinary meaning” or the intrinsic evidence has primacy in claim construction. The resulting conflict has led now-Chief Judge Michel to state in one 2004 decision that the Court’s recent case law “is unfortunately complex and inconsistent.”³ In another 2004 ruling, he expressed “alarm” caused by the Court’s use of imprecise statements from prior panels.⁴ Hence, district courts are presented with (at least) two competing claim construction regimens, many times indicating opposite outcomes, with no certainty that the same regimen would be followed on appeal. Litigants might note that the Federal Circuit has instructed that in the event of a conflict in its precedents, the *earlier* one controls unless overruled by an *en banc* Court.⁵

I. OVERVIEW

A. Standard of Review

Numerous 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.⁶ The Court reaffirmed this in multiple cases in 2004.⁷ The *de novo* review of district court claim constructions is

³ *Astrazeneca AB v. Mutual Pharmaceutical Co., Inc.* 384 F.3d 1333, 1336 (Fed. Cir. 2004).

⁴ *Superguide Corp. v. DirecTV*, 358 F.3d 870, 898 (Fed. Cir. 2004) (concurring opinion)

⁵ *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).

⁶ *See e.g., Cybor v FAS Technologies*, 138 F.3d 1448, 1456 (Fed. Cir. 1998) (*en banc*); *Ecolab v. Paraclyse*, 285 F.3d 1362, 1369 (Fed. Cir. 2002); *Frank’s Casing Crew & Rental Tools, Inc. v. PMR Technologies, Ltd.*, 292 F.3d 1363, 1373 (Fed. Cir. 2002); *Brookhill-Wilk I, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 (Fed. Cir. 2003); *Scanner Techs Corp. v. Vision Sys. Corp.*, 365 F.3d 1299, 1302 (Fed. Cir. 2004).

⁷ *See Golight, Inc. v. Wal-Mart Stores, Inc.*, 355 F.3d 1327 (Fed. Cir. 2004); *Dynacore Holding Corp. v. US Phillips Corp.*, 363 F.3d 1263 (Fed. Cir. 2004); *Golden Blount, Inc. v. Robert H. Peterson Co.*, 365 F.3d 1054 (Fed. Cir. 2004); *Goldenberg v. Cytogen, Inc.*, 373 F.3d 1158 (Fed. Cir. 2004); *Gemstar-TV Guide International, Inc. v. ITC*, 383 F.3d 1352 (Fed. Cir. 2004); *Franks Casing Crew & Rental Tools, Inc. v. Weatherford International, Inc.*, 389 F.3d 1370 (Fed. Cir. 2004)

“plenary.”⁸ Thus, in 2004, the Court in *Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*,⁹ 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*.¹⁰ 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.”¹¹

When the Court conducts a *de novo* review, it applies to all claim types. For example, in addressing means-plus-function claims, the Court in *ACTV v. Walt Disney Co.* (2003) stated that “[t]he determination of the claimed function and corresponding structure of a means-plus-function claim limitation is a question of law, reviewed *de novo*.”¹² *Accord, Gemstar-TV Guide International, Inc. v. ITC* (2004).¹³

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

⁸ *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 ...”)

⁹ *Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004).

¹⁰ *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).

¹¹ *In re Crish*, 393 F.3d 1253 (Fed. Cir. 2004).

¹² *ACTV v. Walt Disney Co.*, 346 F.3d 1082, 1087 (Fed. Cir. 2003); *see also Lockheed Martin Corp. v. Space Systems/Loral, Inc.*, 324 F.3d 1308, 1318 (Fed. Cir. 2003).

¹³ 383 F.3d 1352, 1361 (Fed. Cir. 2004).

conclusion drawn from the Court's performance of its claim construction duty,¹⁴ and the review is without deference.¹⁵

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)¹⁶ (“[T]he record supports the district court’s interpretation”); *Bowers v. Baystate Technologies* (2002)¹⁷ (“the specification supports the trial court’s interpretation”); *Minnesota Mining (3M) v. Chemque* (2002)¹⁸ (“no reason to conclude that the district court erred in not including this limitation in its construction”); *Utah Medical Products v. Graphic Controls* (2003)¹⁹ (specification and prosecution support the trial court’s rulings).²⁰

Thus, one of the seven questions that the Federal Circuit is taking up for decision *en banc* in *Phillips v. AWH* asks whether it is appropriate to accord deference to any aspect of trial court claim construction rulings, consistent with the Supreme Court decision in *Markman v. Westview Instruments, Inc.*²¹ and the Court’s *en banc* decision in *Cybor Corp. v. FAS Technologies, Inc.*²² Approximately 50 bar associations, corporations, and other *amicus curiae* submitted briefs to the court, IPLAC among them.²³ IPLAC urged that no deference be given on the ultimate issue of

¹⁴See, 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).

¹⁵ *Utah Medical Products v. Graphic Controls, Inc.*, 350 F.3d 1376 (2003).

¹⁶ *LNP Engineering Plastics v. Miller Waste Mills*, 275 F.3d 1347 (Fed. Cir. 2001).

¹⁷ *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).

¹⁸ *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 ...”).

¹⁹ *Utah Medical Products, Inc. v. Graphic Controls Corp.*, 350 F.3d 1376 (Fed. Cir. 2003).

²⁰ 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).

²¹ 517 U.S. 370 (1996)

²² 138 F.3d 1448 (Fed. Cir. 1998)

²³ Indeed, IPLAC was the first bar association to file its amicus brief (Sept. 10, 2004)

claim interpretation, which the Supreme Court has identified as a question of law. However, IPLAC urged that the standard of review of a claim construction should be like that of a patent validity determination. Both depend on purely factual issues, and deference should be due under F.R.Civ. Proc. Rule 52(a) as to all purely factual findings that inform the legal determination.²⁴ Most of the bar associations were in accord.²⁵ If these arguments are accepted, then the forthcoming *en banc* ruling will clarify that deference is appropriate as to purely factual findings.²⁶

B. Substantive Overview

“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 Jergens Co.*²⁷ The Court generally holds that when there is a dispute between the parties over the claim meaning,²⁸ then claim construction is required before determining certain issues such as infringement;²⁹ anticipation,³⁰ obviousness,³¹ invalidity over alleged on-sale activity,³² compliance with the written description requirement,³³ and inventorship.³⁴

²⁴ See *Dennison Mfg. Co. v. Panduit Corp.*, 475 U.S. 809, 822, 106 S. Ct. 1578, 1579, 89 L. ed. 2d 817, 821-22 (1986).

²⁵ The United States (Department of Justice, Patent and Trademark Office, and Federal Trade Commission) urged the Federal Circuit to defer to a district court evaluation of live testimony and (further) to give “due consideration to a persuasive claim construction” by a district court. IPLAC’s position was followed by The American Bar Association, The Association of Corporate Counsel, The Connecticut Intellectual Property Law Association, The Federal Circuit Bar Association, The Federation Interenationale de Conseils en Propriete Industriale, The Oregon Patent Law Association, and others. A similar position was taken by The New York Intellectual Property Law Association, Tennessee Bar Association, The State Bar of Michigan, and The Los Angeles Intellectual Property Law Association urging that the court should use the clearly-erroneous standard for findings based on extrinsic evidence but that the ultimate construction is subject to a *de novo* review. The only parties or amici who said there should be *no* deference were The Conejo Valley Bar Association, The Houston Intellectual Property Law Association and one corporation.

²⁶ Oral argument occurred on Feb. 7, 2005.

²⁷ 360 F.3d 1295 (Fed. Cir. 2004).

²⁸ *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.

²⁹ *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.)

³⁰ See e.g., *Akamai Techs., Inc. v. Cable & Wireless Internet Services, Inc.*, 344 F.3d 1186, 1192 (Fed. Cir. 2003).

³¹ *Id.* at 1195; *State Constructing & Eng., v. Condotte America*, 346 F.3d 1057, 1067 (Fed. Cir. 2003).

³² *Dana Corp. v. American Axle & Mfg., Inc.*, 279 F.3d 1372 (Fed. Cir. 2002).

³³ *Bilstad v. Wakalopulos*, 386 F.3d 1116, 1121 (Fed. Cir. 2004).

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.³⁵ 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.”³⁶ 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.”³⁷

A claim that is not amenable to construction is invalid as indefinite under 35 U.S.C §112, ¶ 2.³⁸ A claim is not indefinite merely because it may present a difficult claim construction issue; rather it is indefinite if the claim is insolubly ambiguous. *Bancorp Services, L.L.C. v. Hartford Life Ins. Co.*³⁹ See also, *Metabolite Laboratories, Inc. v. Laboratory Corp. of America Holdings*;⁴⁰ and *Smithkline Beecham v. Apotex, Inc.* (claims need not be plain on their face; must be amenable to construction, however difficult).⁴¹ The determination of an indefiniteness issue arises out of the court’s performance of its duty to construe claims.⁴²

³⁴ *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).

³⁵ *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.

³⁶ *Eli Lilly & Co. v. Aradigm Corp.*, 376 F.3d 1352, 1360 (Fed. Cir. 2004).

³⁷ *Id.*, citing *United States Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997).

³⁸ *Bancorp Services, L.L.C. v. Hartford Life Ins. Co.*; *Novo Industries. I.P. v. Micro Molds Corp.*, 350 F.3d 1348, 2003 U.S. App. LEXIS 24458, *12 (Fed. Cir. 2003), citing *Honeywell Int’l, Inc. v. Int’l Trade Comm’n*, 341 F.3d 1332, 1338 (Fed. Cir. 2003) (quoting *Exxon Research & Eng’g Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001)). In this case, the Court held that a district court can correct a patent only if (1) the correction is not subject to reasonable debate based on consideration of the claim language and the specification, and (2) the prosecution history does not suggest a different interpretation of the claims. *Id.* at *22. Because the nature of the error was not apparent from the face of the patent and the proper correction of the patent was subject to reasonable debate, the Court ruled that the present case did not fall within the district court’s authority to correct patents. The Court held the claim at issue invalid for being indefinite in its present form. *Id.* at *23. Finally, the Court did not remand the case to the district court.

³⁹ 359 F.3d 1367 (Fed. Cir. 2004).

⁴⁰ 370 F.3d 1354, 1366 (Fed. Cir. 2004).

⁴¹ 365 F.3d 1306, 1314 (Fed. Cir. 2004)

⁴² *BJ Services Co. v. Halliburton Energy Services, Inc.*, 338 F.3d 1368, 1372 (Fed. Cir. 2003).

Generally, the Court relies heavily on the public record, paying heed to the public notice function of claims and other intrinsic evidence.⁴³ It relies on intrinsic evidence and extrinsic evidence, *e.g.*, dictionaries and technical treatises, for determining what claim terms mean to the ordinarily skilled artisan. The Court relies on claim language and its plain meaning most often, frequently emphasizing its meaning to the ordinarily skilled artisan. Nevertheless, the Court always reviews the rest of the intrinsic evidence to determine, for example, whether the patent applicant had placed special meanings on terms or otherwise disclaimed the plain meaning with reasonable clarity and deliberateness.

It is difficult to state that any specific articulation of the claim construction process is “typical,” as there seem to be several competing regimens being used by various circuit judges on the Court. Here is *one* overview of the claim construction process in 2004 written by Judge Clevenger in *Innova/Pure Water v. Safari*, *supra*⁴⁴:

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. ***

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. *** The inquiry into the meaning that claim terms would have to a person of skill in the art at the time of the invention is an objective one. This being the case, a court looks to those 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. ***

The written description provides a context for the claims, and is appropriately resorted to "for the purpose of better understanding the meaning of a claim," ... and for "showing the connection in which a device is used," ... The claims of a patent may incorporate parts of the written description by reference, thus "limiting the patent to the form described." ... A patent applicant thus has the flexibility to imbue new or old terms with a different meaning than they would otherwise have to a person of ordinary skill in the art. ... All that is required is that the patent applicant set out the different meaning in the specification in a manner sufficient to give

⁴³ See, *e.g.*, *Springs Window Fashions v. Novo Industries, L.P.*, 323 F.3d 989, 995 (Fed. Cir. 2003).

⁴⁴ *Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004).

one of ordinary skill in the art notice of the change from ordinary meaning. ... Because the inquiry into the meaning of claim terms is an objective one, a patentee who notifies the public that claim terms are to be limited beyond their ordinary meaning to one of skill in the art will be bound by that notification, even where it may have been unintended. ***

The longstanding difficulty is the contrasting nature of the axioms that (a) a claim must be read in view of the specification and (b) a court may not read a limitation into a claim from the specification. ... For, as Justice Bradley famously stated:

Some persons seem to suppose that a claim in a patent is like a nose of wax which may be turned and twisted in any direction, by merely referring to the specification, so as to make it include something more than, or something different from, what its words express. The context may, undoubtedly, be resorted to, and often is resorted to, for the purpose of better understanding the meaning of the claim; but not for the purpose of changing it, and making it different from what it is. The claim is a statutory requirement, prescribed for the very purpose of making the patentee define precisely what his invention is; and 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. This has been so often expressed in the opinions of this court that it is unnecessary to pursue the subject further.⁴⁵

*** Accordingly, particular embodiments appearing in the written description will not be used to limit claim language that has broader effect. *** And, even where a patent describes only a single embodiment, claims will not be "read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using 'words or expressions of manifest exclusion or restriction.'"

...

[citations omitted]

⁴⁵ *White v Dunbar*, 119 U.S. 47 (1886)

C. Intrinsic Evidence

Several members of the Court rely mainly on the intrinsic evidence for construing the claims, while other members seem to rely mainly on a “plain and ordinary meaning” often garnered from dictionaries. The intrinsic evidence comprises the language of the claim sought to be construed, the other claims, the remainder of the patent document, and the prosecution history (if in evidence). The intrinsic evidence also includes the prior art cited in the prosecution history and excludes prior art that “the examiner failed to consider.”⁴⁶

The Court holds that claim language itself stands at the top of the intrinsic evidence hierarchy, followed by “the rest of the intrinsic evidence.”⁴⁷ Claim construction calls for looking at *all* of the intrinsic evidence (claim language, written description, and prosecution history),⁴⁸ with the claim language being most important.⁴⁹ Indeed, according to *Middleton v. 3M* (2002)⁵⁰, “the most important indicator of the meaning” of a disputed claim term “is its usage and context within the claim itself.”

In *Liquid Dynamics v. Vaughan Co.* (2004), Judge Gajarsa explained his sequence for examining intrinsic evidence:⁵¹

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, 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

⁴⁶ *Tate Access Floors, Inc. v. Interface Architectural Resources, Inc.*, 279 F.3d 1357 (Fed. Cir. 2002).

⁴⁷ *Advanced Cardiovascular v. Medtronic*, 265 F.3d 1294 (Fed. Cir. 2001).

⁴⁸ *E.g., Hockerson-Halberstadt v. Avia Group Int'l.*, 222 F.3d 951 (Fed. Cir. 2000).

⁴⁹ *See, e.g., Interactive Gift Express v. CompuServe*, 231 F.3d 859 (Fed. Cir. 2000), *opinion withdrawn* 256 F.3d 1323.

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

⁵¹ 355 F.3d 1361, 1368 (Fed. Cir. 2004)

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, Alza Corp. v. Mylan Laboratories.*⁵²

D. Plain Meaning

Previously, the Court has said that to construe a disputed claim term, the Court first ascertains its ordinary meaning, *See E-Pass Technologies v. 3Com*,⁵³ citing *Texas Digital Systems v. Telegenix* (2002)⁵⁴ (unless compelled otherwise, give a claim term its full range of ordinary meaning as understood by persons skilled in art). The Court is clearly mindful of the importance of fair notice to the public of what a patent claim covers.⁵⁵ It determines the ordinary meaning of a claim term by reviewing various sources – the claims themselves, the written description, prosecution history, dictionaries, and treatises. *Teleflex v. Ficosa North America* (2002).⁵⁶ To be clear, the “plain meaning” is directed to the understanding of ordinarily skilled artisans, not laymen, for “What the claim terms would mean to laymen is irrelevant.” *Searfoss v.*

⁵² 391 F.3d 1365 (2004).

⁵³ *E-Pass Technologies, Inc. v. 3Com Corp.*, 343 F.3d 1364 (Fed. Cir. 2003); *Combined Systems Inc. v. Defense Technology Corp.*, 350 F.3d 1207 (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).

⁵⁴ *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).

⁵⁵ On the subject of giving notice to the public of what is patented, *see also, Johnson & Johnston Assocs. v. R.E. Service Co.*, 285 F.3d 1046,1052 (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).

⁵⁶ *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).

*Pioneer Consolidated Corp.*⁵⁷ As will be evident from the discussion *infra*, even when confined to the understanding of the ordinarily skilled artisan, there are strongly divergent views on how to interpret words in a claim when those words are also used in the intrinsic documents. Many concurring or dissenting opinions accompanied the majority opinions in 2004 because the judges do not agree on the claim construction methodology. The “plain meaning” is one such area, and many of the “plain meaning” cases are discussed *infra* in the “Heavy Presumption” subsection. However, not every case which seeks to use the plain meaning references the “heavy presumption” language.

The simplest “plain meaning” situation is when there can be no conflict between a dictionary meaning and the intrinsic documents because 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),⁵⁸ one claim element held a part “in a raised level relative to” another part. The Federal Circuit, per Judge Linn, 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.⁵⁹

However, most cases involve claim language where intrinsic evidence *does* use or illuminate the same wording found in the claim. This often leads to the conflict of whether the inventor deliberately omitted any patent specification features from the claims, and whether those specific features or meanings are to be imposed on the meaning of the claim language so

⁵⁷ 374 F.3d 1142, 1149 (Fed. Cir. 2004).

⁵⁸ 365 F.3d 1054 (Fed. Cir. 2004).

⁵⁹ *Id.* at 1059.

that the proper claim construction differs from the “plain meaning” of those words, out of the context of the specification.

Judge Michel explained this issue fairly clearly, without deciding it, in a panel decision in September 2004 in *Astrazeneca v. Mutual, supra*.⁶⁰ The case involved a claim calling for a “solubizer,” and the parties agreed that generally, ordinarily skilled artisans would understand that word to include three types of chemicals. Defendant Mutual contended, however, that the intrinsic evidence pointed to a narrower meaning directed to just one of the three types of chemicals. Citing numerous precedents, the Court explained:

On this view, the patent is an integrated document ... and the goal of claim construction is to determine what an ordinary artisan would deem [to be] the invention claimed by the patent, taking the claims together with the rest of the specification.⁶¹

Judge Michel next set forth that a contrasting view had developed in some “recent cases” indicating that the intrinsic record should be consulted only after the ordinary, customary meaning of claim terms to skilled artisans is determined, relying on the use of technical and general-usage dictionaries to establish the ordinary meaning.

Under this approach ... the inventor’s written description of the invention ... is relevant only insofar as it provides clear lexicography or disavowal of the ordinary meaning.⁶²

The Court did not resolve that conflict, which is one of the questions for the *en banc* reconsideration in *Phillips v. AWH*.

Consistent with this second approach, in *Liquid Dynamics Corp. v. Vaughan Co., Inc.*, a split panel reversed a summary judgment of non-infringement due to the claim construction. The Federal Circuit disagreed that the plain meaning of the words in the claim was overcome by the specification:

Because the plain language of the claim was clear and uncontradicted by anything in the written description or the figures, the district court should not have relied upon the written description, the figures, or the prosecution history to add limitations to the claim. Under such circumstances, relying on the written description and prosecution history to reject the ordinary and customary meanings of the words themselves is impermissible.

⁶⁰ 384 F.3d 1333 (Fed. Cir. 2004).

⁶¹ *Id.* at 1337.

⁶² *Id.*

Tex. Digital Sys. v. Telegenix, Inc., 308 F.3d 1193, 1204 (Fed. Cir. 2002).⁶³

Judge Lourie dissented, stating that the claim interpretation was correct, and that it was supported by the specification and the claim language.

In *Unitherm Food Systems, Inc. v. Swift-Eckrich, Inc.*⁶⁴, the Court had to consider the meaning of “golden brown,” a phrase used in a claim. It affirmed the district court, which had reviewed the specification for a definition, and finding none, used a dictionary to develop a plain meaning. The dictionary definition did not contradict any meaning ascertained by reading the patent documents.⁶⁵ The district court properly declined to use specific examples set forth in the specification, which were “neither clear nor explicit disavowals of the common meaning.”

In *NTP, Inc. v. Research in Motion, Ltd.*,⁶⁶ the Court per Judge Linn explained that absent an express intent to impart a novel meaning to the words of the claim, those claim terms take on the full breadth of the “ordinary and customary meanings attributed to them by those of ordinary skill in the art.” That meaning is determined from reviewing various sources, including the claims themselves, dictionaries and treatises, the written description, drawings, and prosecution history. As there are different meanings for different contexts, the claim meaning will be discerned from not only the dictionaries but also the context of the written description, viewed from the perspective of the skilled artisan.

Judge Linn’s opinion in *Nystrom v. Trex Co.*⁶⁷ is to the same effect. Judge Gajarsa dissented from the claim construction outcome, however, stating:

The majority gives heed to the general rules of construction but then proceeds to ascertain the "plain and ordinary meaning" of the term "board" from various dictionaries. ... It establishes a duel between dictionary definitions and then selects one of the various definitions to support its results. The majority fails to recognize that the written description and the prosecution history clearly prescribe that the decking board of the invention is derived from a wood log. ...

*** Moreover, the majority opinion is in direct conflict with our recently issued opinion . . . [where] we held that when the dictionary definition "yields a range of possible meanings

⁶³ 355 F.3d 1361, 1367 (Fed. Cir. 2004).

⁶⁴ 375 F.3d 1341, 1350 (Fed. Cir. 2004).

⁶⁵ *Id.* at 1350

⁶⁶ 392 F.3d 1336 (Fed. Cir. 2004).

⁶⁷ 374 F.3d 1105 (Fed. Cir. 1105).

consisting of two competing definitions," ... we look to the intrinsic evidence "to determine as a matter of claim interpretation which of the available relevant definitions should be applied to the claim term at issue." ... We ultimately determined that, because the intrinsic evidence used the disputed term only [in] the context of the narrower definition, that narrower definition was the meaning the term would obtain. ... Here we have two or more possible meanings of the term "board" and therefore we should look to the context in which the term is used in the intrinsic evidence to ascertain which of the relevant definitions should be applied.

[citations omitted]⁶⁸

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

In *Johnson Worldwide Assocs. v. Zebco Corp.* (1999),⁶⁹ *CCS Fitness, Inc. v. Brunswick* (2002),⁷⁰ and *Texas Digital Systems, Inc. v. Telegenix, Inc.* (2002),⁷¹ 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.⁷² Its meaning has not been uniform, with some cases equating “ordinary and customary” as the plain meaning of the words, while in other cases, it has been used to implicate that intrinsic evidence and more. Moreover, this “heavy presumption” was limited or watered down in a number of 2004 cases.

This presumption was cited in the majority decisions in *Golight, Inc. v. Wal-Mart Stores, Inc.* (Prost, J., Jan. 2004),⁷³ *Superguide Corp. v. DirecTV Enterprises, Inc.* (Prost, J., Feb. 2004),⁷⁴ *Liebel-Flarsheim Co. v. Medrad, Inc.* (Bryson, J., Feb. 2004),⁷⁵ *Int’l. Rectifier Corp. v. IXYS Corp.* (Linn, J. March 2004),⁷⁶ *Housey Pharmaceuticals, Inc. v. Astrazeneca UK Ltd.*

⁶⁸ Id. at 1120.

⁶⁹ 175 F.3d 985, 989 (Fed. Cir. 1999).

⁷⁰ 288 F.3d 1359, 1366 (Fed. Cir. 2002).

⁷¹ 308 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)

⁷² 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); *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).

⁷³ 355 F.3d 1327 (Fed. Cir. 2004).

⁷⁴ 358 F.3d 870, 874 (Fed. Cir. 2004).

⁷⁵ 358 F.3d 898, 913 (Fed. Cir. 2004).

⁷⁶ 361 F.3d 1363(Fed. Cir. 2004).

(Clevenger, J., May 2004),⁷⁷ *W.E. Hall Co. v. Atlanta Corrugating, LLC* (Gajarsa, J., June 2004),⁷⁸ *Metabolite Laboratories v. Laboratory Corporation of America Holdings* (Rader, J., June 2004),⁷⁹ *Goldenberg v. Cytogen, et al.* (Gajarsa, J., June 2004),⁸⁰ *Home Diagnostics, Inc. v. Lifescan, Inc.* (Rader, J., August 2004),⁸¹ *Gemstar-TV Guide International, Inc. v. ITC* (Linn, J., September 2004),⁸² and *Fuji Photo Film Co. v. ITC* (Bryson, J., October 2004).⁸³ See also, *Novartis v. Abbott Laboratories*⁸⁴ (Prost, J., July 2004) (generally presume meaning a skilled artisan would ordinarily attribute, rebutted when patentee is own lexicographer or claim lacks clarity).

One example of applying the ordinary meaning to claim language appears in *Golight, Inc. v. Wal-Mart Stores, Inc.*⁸⁵ The patent disclosed a lamp able to rotate horizontally through 360°. All of the independent claims, except the claim at issue, specified rotation through at least 360°. The asserted claim specified "...horizontal drive means for rotating said lamp unit in a horizontal direction..." saying nothing about 360°. The Federal Circuit per Judge Prost, 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." The Court went on to reject Wal-Mart's prosecution disclaimer argument and the argument that the means-plus-function nature of the

⁷⁷ 366 F.3d 1348, 1352 (Fed. Cir. 2004).

⁷⁸ 370 F.3d 1343 (Fed. Cir. 2004).

⁷⁹ 370 F.3d 1354, 1360 (Fed. Cir. 2004).

⁸⁰ 373 F.3d 1158, 1164 (Fed. Cir. 2004).

⁸¹ 381 F.3d 1352, 1355 (Fed. Cir. 2004).

⁸² 383 F.3d 1352, 1361 (Fed. Cir. 2004).

⁸³ 386 F.3d 1095 (Fed. Cir. 2004).

⁸⁴ 375 F.3d 1328 (2004).

⁸⁵ 355 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.

claim element necessarily implied a structural or operational limitation not expressly recited there.

*Monsanto Co. v. Bayer Bioscience N.V.*⁸⁶ held that the district court had erred in its construction of the claim term “Bt2” by applying the claim construction given to that term in another case without examining the intrinsic evidence specific to the patent involved in this case.⁸⁷ The Federal Circuit also found that neither the specification nor the prosecution history for the patent in suit clearly limited “Bt2 toxin” to a particular source and construed the term consistent with its ordinary meaning as encompassing any toxin complying with the claim limitations.⁸⁸

In *Superguide Corp. v. Direct TV Enterprises, Inc.* (2004),⁸⁹ one of the claims at issue was for a system having a “mixer for mixing a *regularly received television signal* ...” The parties disputed the meaning of “signal.” The district court held for defendants and construed this term to refer to *analog* television signals only, as those were the only type of television signals broadcast in 1985 when the application was filed, and specifically did not include digital signals. The district court held that the patentees disclosed but did not claim digital captioning and could not invoke the doctrine of equivalents to extend the patent to digital technology. Reversing this claim construction, Judge Prost joined by Chief Judge Mayer cited the heavy presumption that the plain and ordinary meaning controls. The district court, said the majority opinion, failed to examine the claim language first. The claim language did not limit the disputed phrase (and others at issue) to any particular type of signal format, such as analog or digital.⁹⁰ The Federal Circuit found it “indisputable” that skilled artisans knew during the pendency of the patent application that video signals could be analog or digital, and that if the patentees had intended to limit the scope of the claims to analog technology, they could have done so by using appropriate words in the claim. Having not done so, the Federal Circuit reversed the district court ruling and rejected defendants’ contention.

Concurring in the result, Judge Michel expressed “alarm” that the Court’s opinion relied on “imprecise statements prior panels of this court have occasionally made in recent years

⁸⁶ 363 F.3d 1235 (Fed. Cir. 2004).

⁸⁷ *Id.* at 1245.

⁸⁸ *Id.* at 1246-47.

⁸⁹ 358 F.3d 870, 887 (Fed. Cir. 2004)(citing specification also for support that the patentee intended the plain and ordinary meaning of the claim term); *see also, Rhine v. Casio*, 183 F.3d 1342, 1345 (Fed. Cir. 1999).

⁹⁰ 358 F.3d at 878.

concerning the ‘plain’ or ‘ordinary’ meaning of claim terms, or even the ‘ordinary dictionary meaning.’”⁹¹ In his view, the question is not what the contested term means in isolation but rather whether it would have had a particular meaning to ordinarily skilled artisans at the time, *in the context of the patent disclosure*. He found no evidence cited by the majority indicating how such an artisan would have understood the disputed term in 1985, despite expert declarations on the term. He agreed, however, that there was a triable issue of infringement under the doctrine of equivalents and therefore concurred in the decision to vacate the summary judgment of non-infringement.

The March 2004 decision in *Int’l. Rectifier Corp. v. IXYS Corp.*⁹² per Judge Linn vacated a summary judgment of infringement because, according to the Court, the evidence failed to rebut the presumption of ordinary and customary meaning, and the district court applied too expansive a claim construction. The claims were directed to a transistor structure and recited a “polygonal” structure. The parties agreed that the ordinary and customary meaning of this word is a closed plane figure bounded by straight lines. However, the district court had allowed deviations from that definition on the basis that ordinarily skilled artisans in the semiconductor processing field would know that during processing, some rounding of the corners occurs and some of the straight lines changed. The Federal Circuit stated that in searching for the ordinary and customary meaning, the Court begins with an examination of possible dictionary definitions. It looks “*next to the written description for context and guidance as to the meanings attributed by those of ordinary skill in the art to the term ... and to see whether the patentee acted as his own lexicographer, or otherwise disavowed or disclaimed the full scope ...*”⁹³

In its construction of the literal words of the claim, the *International Rectifier* Court acknowledged that the skilled artisan may know of the blurring of lines and corners and agreed that claim interpretations are rarely correct when they exclude the preferred embodiment. However, the Court was unprepared to deviate from the clear claim language and laid responsibility squarely on the patentee for its choice of words, stating:

... that does not mean that the inventor’s choice of words may be ignored.[citations omitted] In the present case, one of ordinary skill in the art would understand from the written description that the diffusion resulting from the doping process will naturally cause

⁹¹ 358 F.3d at 898.

⁹² *Int’l. Rectifier Corp. v. IXYS Corp.*, 361 F.3d 1363, 1371 (Fed. Cir. 2004)

⁹³ *Id.* at 1371.

some blurring of the corners and sides of the polygonal regions. There is nothing, however, to suggest that the recognition of these diffusion effects by those skilled in the art warrants the re-definition of the term polygon to mean anything other than "a closed plane figure bounded by straight lines." The district court's construction, relaxing the requirements so much as to allow round corners and not straight edges, is erroneous. The correct construction of the term "polygonal," consistent with the written description, is simply "a closed plane figure bounded by straight lines." The patentee, being fully aware of the effects of the doping process, could have claimed the regions more broadly but chose to use the word "polygonal" without modification or qualification. The district court was not free to attribute new meaning to the term or to excuse the patentee from the consequences of its own word choice.⁹⁴

Housey Pharmaceuticals v. Astrazeneca (May 2004)⁹⁵ was another split decision, with Judge Clevenger joined by Chief Judge Mayer affirming the district court judgment that the claimed method was broadly expressed in the claim and not limited. The majority found no clear disavowal of the full breadth of the language.

Judge Newman, dissenting, explained why in her view the general presumption contravened existing precedent:

This case again illustrates the conflict generated in the court's recent jurisprudence of claim construction. The panel majority reinforces the recently created dominance of general definitions, wherein the court created a "heavy presumption" in contravention of precedent. 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.

It is curious indeed to announce a "heavy presumption" that the meaning of a term in a patent claim is unencumbered by the specification, and to place a "heavy burden" on overcoming that presumption. Such a presumption dissociates the term from the

⁹⁴ *Id.* at 1371-72.

⁹⁵ 366 F.3d 1348, 1352 (Fed. Cir. 2004).

invention described, enabled, and prosecuted by the inventor, and places an unnecessary burden on the inventor who wants simply to restore the meaning that the inventor and the examiner, and others in the field of the invention, clearly understand. I thus state my respectful disagreement with the panel's reinforcement of the distortions that have entered this court's jurisprudence. The written description is not an also-ran in claim construction, as the panel states; it is the primary resource in understanding the claims.

The rule is that claims are viewed and understood in light of the specification, of which they are a part. [citations omitted] *** If there is a "presumption" in claim construction, it is that a claim term has the meaning ascribed by the patent documents. It is incorrect to impose the obverse "heavy presumption" that the dictionary definition dominates and all inapplicable variants must be expressly disclaimed. The role of dictionaries and treatises is to educate the non-technical judge in understanding what the inventor and the examiner understood, not to impose a new evidentiary presumption and not to enlarge the patented invention beyond that set forth by the inventor. The words of patent claims have the meaning and scope with which they are used in the specification and the prosecution history.

It is also incorrect to hold that words in claims are broader in meaning than their usage in the specification, simply because a dictionary definition may not contain the limitations of the specification. It is imprecise to state that claims are not limited by "a narrow specification" unless the inventor expressly so limits them, maj. op. at 7, for the specification always limits the claims. The claims are part of the specification; their role is to point out what is covered by the patent, not to broaden the text. [citations omitted]⁹⁶

In June 2004, *W.E. Hall Co., Inc. v. Atlanta Corrugating, LLC*⁹⁷ per Judge Gajarsa addressed the "heavy presumption" and held that "... while dictionaries may be used to ascertain the plain and ordinary meaning of claim terms, the intrinsic record is used to resolve ambiguity in claim language or, where it is clear, trump inconsistent dictionary definitions." In *Hall*, however, the plain meaning was not rebutted.

Judge Rader's June 2004 opinion in *Metabolite v. Competitive Technologies* conceded the primacy of the patent specification in determining the "ordinary meaning," stating:

⁹⁶ 366 F.3d at 1357-58 (dissenting opinion).

⁹⁷ *W.E. Hall Co., Inc. v. Atlanta Corrugating, LLC*, 370 F.3d 1343 (Fed. Cir. 2004).

As always, the claim language itself governs its meaning. [citation omitted]. This court construes the meaning of claim language according to its *usage and context*. [citation omitted] The touchstone for discerning the usage of claim language is the understanding of those terms among artisans of ordinary skill in the relevant art at the time of invention. [citation omitted] Indeed, normal rules of usage create a "*heavy presumption*" that claim terms carry their accustomed meaning in the relevant community at the relevant time. [citations omitted]. Thus, this court sets the meaning of claim terms by ascertaining their technological and temporal context.

In most cases, the best source for discerning the proper context of claim terms is the patent specification wherein the patent applicant describes the invention. In addition to providing contemporaneous technological context for defining claim terms, the patent applicant may also define a claim term in the specification "in a manner inconsistent with its ordinary meaning." [citation omitted] In other words, a patent applicant may define a term differently from its general usage in the relevant community, and thus expand or limit the scope of the term in the context of the patent claims. ... Therefore, the primary aids to supply the context for interpretation of disputed claim terms are in the intrinsic record. [citation omitted] [emphasis added]⁹⁸

Judge Schall filed a dissenting-in-part opinion in *Metabolite* stating his own views on claim construction. Notably, his opinion states the "plain meaning" viewpoint without apparent reference to the specification: "If the meaning of a claim term is clear on its face, consideration of the remaining intrinsic evidence is restricted to determining if a deviation from the clear language of the claim is specified." Specifically, the "court may consider the patent specification in construing whether the patentee has intended for the meaning of a claim term to deviate from its ordinary meaning. ... The court may also consider the prosecution history, if it is in the record, for evidence of an intentional deviation from the plain meaning of a claim term." Thus, Judge Schall's view appears to be that the plain meaning controls unless intrinsic evidence reveals a clear intent to deviate from that.

Interestingly, Judge Rader's formulation was stated somewhat differently just a few months later in *Home Diagnostics v. Lifescan, Inc.* (August 2004)⁹⁹ where the opinion used the same first paragraph quoted above but then omitted the sentence that in most cases, the patent

⁹⁸ 370 F.3d 1354, 1360 (Fed. Cir. 2004).

⁹⁹ 381 F.3d 1352 (Fed. Cir. 2004)

specification is the best source for discerning the proper context of the disputed claim term. The later opinion omitted that language and then continued with the “manner inconsistent” discussion.¹⁰⁰ It is unclear why the formulation differed: perhaps it represents a change in Judge Rader’s views on the matter, or perhaps other members of the panel in *Home Diagnostics* (Judges Dyk and Prost) do not share the same view on the role of the specification as the other panel members in *Metabolite*, *i.e.*, Judges Friedman and Schall.

Thus, in *Home Diagnostics* the claim at issue called for performing a calculation “upon detection of a suitably stable endpoint.” The claim language did not explicitly require a predetermined time for the underlying reaction. The alleged infringer argued that the patentee had disavowed some scope of the claim by disclosing only a predetermined timing method. The Federal Circuit reaffirmed that “a patentee may claim an invention broadly and expect enforcement of the full scope of that language absent a clear disavowal or contrary definition in the specification.”¹⁰¹ A careful examination of the intrinsic evidence revealed that the patentee purposely sought claim scope broader than the preferred embodiment. In addition, there was clearly no disavowal of subject matter. Accordingly, the patentee was given the full scope of its claim language, and the disputed claim language was not limited to the preferred embodiment’s use of a pre-measurement time period, but was interpreted to cover measurement which occurred at any time after a reaction. The Court thus found that the presumption that “biases claim construction in favor of the accustomed usage of a term in the relevant community at the relevant time” had not been overcome, and the district court had erroneously narrowed the claims.¹⁰²

The September 2004 opinion in *Gemstar-TV Guide International, Inc. v. ITC*¹⁰³ by Judge Linn may be an effort to synthesize the divergent views. Though referring to the “presumption of ordinary meaning,” which can be rebutted if the inventor “has disavowed or disclaimed” any claim scope, and stating that the Court will give a claim term its full range of ordinary meaning unless compelled to do otherwise, this opinion also stated that the ordinary and customary meaning may be determined by reviewing the claims themselves, dictionaries and treatises, *the written description*, the drawings, and the prosecution history. Thus, the ordinary meaning according to this opinion may be determined by reference to the intrinsic documents themselves

¹⁰⁰ 381 F.3d 1352, 1355.

¹⁰¹ *Id.* at 1358.

¹⁰² *Id.*

¹⁰³ 383 F.3d 1352 (Fed. Cir. 2004).

and is not independent of that evidence. However, in construing “storage means in a data processor,” the Court used contemporaneous technical dictionaries to fashion a definition of the phrase and then found that the specification did nothing more than provide an example, without expressly disclaiming or disavowing claim scope.¹⁰⁴

In October 2004, Judge Bryson in *Fuji Photo Film Co. v. ITC*¹⁰⁵ framed the claim construction question as whether the claim language must be interpreted more narrowly than its language appears to require, citing the “heavy presumption” language of *Teleflex v. Ficosa*.¹⁰⁶ The Court found that statements in the patent where every step in the claimed process was performed in a darkroom were *not* adequate to narrow the claim, since these statements were in reference to a preferred embodiment, not to the invention as a whole. The ITC erred in ruling that certain steps in method claim 1 had to be performed in a darkroom.¹⁰⁷

In contrast, dissenting opinions and several majority opinions in 2004 criticized or limited this presumption, *e.g.*, *Irdeto Access, Inc. v. Echostar Satellite Corp.* (Michel, J., Sept. 2004)¹⁰⁸ (no heavy presumption where disputed term lacks accepted meaning in art); *Astrazeneca v. Mutual*,¹⁰⁹ *supra*, (Michel, J., September 2004) (intrinsic evidence overcame any ordinary meaning).

Judge Michel’s October 2004 opinion in *C. R. Bard, Inc. v. U.S. Surgical Corp.*,¹¹⁰ emphasized language from early claim construction opinions to the effect that the intrinsic evidence is the primary source for determining claim meaning. The Court explained that *Texas Digital* and its progeny cannot be used to argue that dictionary definitions somehow trump or override the intrinsic evidence in determining the meaning of a claim term. Quoting *Texas Digital*, the Court pointed out that “the objective and contemporaneous record provided by the intrinsic evidence is the most reliable guide to help ... determine which of the possible meanings ... was intended by the inventor to particularly point out and distinctly claim the invention.”¹¹¹

In *Bard*, the issue was whether a claimed “plug” should be interpreted to require a pleated surface. All of the claims explicitly required pleats, except for claim 20, the claim in issue. The

¹⁰⁴ *Id.* at 1371-72.

¹⁰⁵ 386 F.3d 1095 (Fed. Cir. 2004).

¹⁰⁶ 299 F.3d 1313, 1325 (Fed. Cir. 2002).

¹⁰⁷ 386 F.3d at 1105-06.

¹⁰⁸ 383 F.3d 1295, 1300 (Fed. Cir. 2004).

¹⁰⁹ 384 F.3d 1333 (Fed. Cir. 2004).

¹¹⁰ *CR Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858 (Fed. Cir. 2004).

¹¹¹ *Id.* at 863.

Court interpreted “plug” in claim 20 to require a pleated surface, even though it was not recited in the claim, based on statements in the specification, particularly the summary of the invention and abstract, to the effect that all of the plugs in the “invention” had a pleated surface. The prosecution history provided a separate basis for the same claim interpretation. The examiner agreed to allow the application if the claims were amended to require pleated plugs, and the applicant did not so amend claim 20.

On the other hand, Judge Michel in *Scanner Technologies Corp. v. ICOS Vision Systems Corp.*¹¹² seemed to apply a “plain meaning” to a non-technical word. Here, the Court held that broadly worded claim language (“an illumination apparatus”) was not limited to a single light source (as the district court had found, relying on the specification), because the patentee had not evinced a clear intent to limit the article “an” to a single illumination source in either the claims or the specification.

Descriptions of the invention in the prosecution history of the patent-in-suit and related patents resulted in a narrow claim construction in *Microsoft Corp. v. Multi-tech Systems, Inc.*¹¹³ In that case, the claims were restricted to the point-to-point communication systems described in the specification, and did not encompass communications over packet switched networks such as the Internet. Judge Rader dissented.

Quite apart from this tension between the ordinary meaning and the meaning gleaned from the intrinsic evidence, another line of cases came into sharp focus in 2004 dealing with a threshold question, namely, whether a disputed claim term has *any* ordinary meaning within the particular art. When there is *no* accepted meaning to the ordinarily skilled artisan, then the Court in this line of cases rejects the dictionary definitions or plain language definitions and turns to the intrinsic documents for explication of the claim term, whether explicit or inferential.

Thus, in May 2004, in *Vanderlande Industries v. ITC*¹¹⁴ the Court found that the ordinarily skilled artisan would have given the term at issue *no meaning at all* outside of the meaning in the specification. Affirming the ITC, the Federal Circuit looked to establish what a person of ordinary skill in the art would understand the claims to mean in light of the intrinsic evidence. While extrinsic evidence could “shed useful light on the relevant art – and thus better

¹¹² 365 F.3d 1299 (Fed. Cir. 2004).

¹¹³ *Microsoft Corp. v. Multi-tech Systems, Inc.*, 357 F.3d 1340 (Fed. Cir. 2004).

¹¹⁴ *Vanderlande Industries Nederland BV v. International Trade Commission et al.*, 366 F.3d 1311 (Fed. Cir. 2004)

allow a court to place itself in the shoes of a person of ordinary skill in the art – the ‘intrinsic evidence is the most significant source of the legally operative meaning of a disputed claim language’” (citing *Vitronics*).¹¹⁵

An important fact in *Vanderlande* case was that the term in question lacked the accepted meaning *in the art*. An expert witness and the inventors named in the patent testified that this term “had no independent meaning in the art . . .” Indeed, *Vanderlande* offered no evidence that the phrase had meaning in the art, and instead relied on an alleged “ordinary meaning.” It cited a general usage dictionary definition for a “glide” as part of a furniture leg (emphasizing that it completely contacts the leg and the floor). The Court faulted *Vanderlande* for misunderstanding the role of general usage dictionaries as opposed to technical, art-specific dictionaries in claim construction:

To the extent that [an] artisan would understand a claim term to have the same meaning in the art as that term has in common, lay usage, a general-usage dictionary can be a helpful aid to claim construction. But where evidence – such as expert testimony credited by the factfinder, or technical dictionaries – demonstrates that artisans would attach a special meaning to a claim term, or, as here, would attach no meaning at all to that claim term (independent of the specification), general-usage dictionaries are rendered irrelevant with respect to that term; a general-usage dictionary cannot overcome credible art-specific evidence of the meaning or lack of meaning of a claim term.¹¹⁶

The Court went on to explain that the meaning proffered by *Vanderlande* based on the dictionary definition was improper. The noun “glide” cited by *Vanderlande* concerns only one word in a two-word phrase. Further, it involved the noun form rather than the verb form.

The *Vanderlande* Court also said that the dictionary argument “is entirely eclipsed” by the written description of the patent, which provides detailed, art-specific examples of glide surfaces. This intrinsic evidence carried more weight with the Court because it “provides definite and readily discernible guidance as to the intended meaning of a structural claim term.”

¹¹⁵ Moreover, while each one of the preferred embodiments has regions of the glide surface that have some contact with every side of the slat, the “Summary of the Invention” contemplated an embodiment with contact between an “edge” of each slat and the glide surface of the shoe. The Court understood “edge” to mean “corner” and thus pointed to that summary description as contradicting *Vanderlande*’s proposed construction.

¹¹⁶ 366 F.3d at 1321.

Novartis v. Abbott Laboratories,¹¹⁷ decided in July 2004, is to the same effect. It stated that “if the disputed claim term ‘is a term with no previous meaning to those of ordinary skill in the prior art[,] its meaning, then, must be found [elsewhere] in the patent,’” citing *J.T. Eaton & Co. v. Atlantic Paste & Glue Co.*¹¹⁸

The Court ruled similarly in September 2004 in *Irdeto Access, Inc. v. Echostar Satellite Corp.*¹¹⁹ The invention concerned the distribution of subscription radio or television broadcast services. The issue concerned the word “group” in the claims. The patent specification mentioned or described “group keys,” “box keys,” and “service keys.” During prosecution, the patent examiner had rejected all pending application claims as indefinite, stating that these particular keys “have no accepted meaning within the art [and] thus are not understood.” The applicant responded that he was entitled to be his own lexicographer and that the terms questioned by the examiner “are very adequately described in the specification and therefore there is a complete foundation for the use of these terms in the claims.” The Federal Circuit, affirming the summary judgment of non-infringement, agreed with the district court construction of the term “group key” as a key pertaining to fewer than *all* of the subscribers in the claim system. Plaintiff asserted that the group key could apply to all of the subscribers rather than a mere sub-set of the subscribers, contending that it was entitled to the full breadth of the term and that there had been no limitations placed on the term in the patent, the claims, or the prosecution. The Federal Circuit agreed that there can be no heavy presumption as argued by the patent holder when the disputed term “lacks an accepted meaning in the art.” Indeed, when there is no accepted meaning in the art, the Court construes the claim “only as broadly as provided for by the patent itself” *and charges the patent applicant with the duty to provide a precise definition for the disputed term.*¹²⁰

The Court resolved the meaning of “group” by studying the intrinsic patent documents and noting that the patent specification consistently uses the term “group” to refer to a subset of all of the subscribers and nowhere indicates that a single group could be made up of the entire subscriber base. Thus, the Court found an “implicit definition” of a group as “a subset of all subscribers in the system.” The Court further indicated that the “clear intent [of the patentee] to

¹¹⁷ 375 F.3d 1328 (2004).

¹¹⁸ 106 F.3d 1563, 1568 (Fed. Cir. 1997).

¹¹⁹ 383 F.3d 1295 (Fed. Cir. 2004).

¹²⁰ 383 F.3d at 1300 citing *J. T. Eaton & Co. v. ATL Paste & Glue Co.*, 106 F.3d 1563, 1570 (Fed. Cir. 1997).

rely on the four corners of his patent to define fully the terms at issue thus takes this case out of the ‘heavy presumption’ regime of our cases.”¹²¹

Likewise, in June 2004, the Federal Circuit in *Goldenberg v. Cytogen, Inc.*¹²² held that when there is no ordinary and customary meaning for a term used in the patent claims, a court must refer to intrinsic evidence and, if necessary, extrinsic evidence. In *Goldenberg*, the invention pertained to a method for detecting and localizing tumors by targeting “intracellular marker substances” that were produced by or associated with tumor cells. The parties both agreed that the term “marker substance” had no recognized meaning to one of ordinary skill in the art. The Federal Circuit then concluded that the Court interpret the claim “only as broadly as provided for by the patent itself.” The Federal Circuit cited *J.T. Eaton & Co., Inc. v. Atlantic Paste & Glue Co.* (1997)¹²³ as fixing the duty on the patentee to provide a “precise definition of the limitation” in situations where the claim term is unknown to persons ordinarily skilled in the art. The Court referred to the examples used in the specification as well as statements made in the prosecution history to narrow the meaning of the term “marker substance” to be synonymous with the antigen identified therein.

2. Reference Date For Determining The Claim Meaning

Issues can arise as to the *reference date* for construing claim terms, *viz.* whether the meaning should be determined as of (1) the date of the invention, (2) the patent application filing date, or (3) the issue date. The Court has made inconsistent pronouncements on this point. For example, in *Plant Genetic Systems, N.V. v. DeKalb Genetics Corp.*¹²⁴ the Court said it was proper to determine the plain meaning of the claims as understood at the time the patent application *was filed*.¹²⁵ 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].¹²⁶

¹²¹ Id. at 1303

¹²² *Goldenberg v. Cytogen, Inc.*, 373 F.3d 1158 (Fed. Cir. 2004).

¹²³ 106 F.3d 1563, 1570 (Fed. Cir. 1997).

¹²⁴ 315 F.3d 1335 (2003)

¹²⁵ See *e.g.*, *Plant Genetics Sys., N.V. v. Dekalb Genetics Corp.*, 315 F.3d 1335, 1345 (Fed. Cir. 2003).

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

In *Resqnet.com v. Lansa* (2003)¹²⁷ 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].¹²⁸

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*,¹²⁹ 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.*¹³⁰

3. Context

The context in which a claim term is used has been a useful and important tool for claim construction. Many of the decisions referenced *supra* mention the context in which claim terms are used. Thus, in *Home Diagnostics v. Lifescan*, the Court reaffirmed that usage in context as understood by the skilled artisan is the best indicator of claim meaning.¹³¹ In *Smithkline Beecham v. Apotex, Inc.*¹³² the Court emphasized that the “task [of claim interpretation] requires the court to place the claim language in its proper technological and temporal context.”¹³³

In *Fuji Photo Film Co. v. ITC*,¹³⁴ the Federal Circuit reaffirmed that claims must be read in the context of the specification of which they are a part. Referring to the specification of the patent-in-suit, the Federal Circuit held that the term “opening” referred to an opening in the cover of a disposable camera. Because the patent specification consistently used the term “opening” in referring to perforation in the cover section or external container of the camera, the Federal Circuit rejected Fuji’s interpretation that opening referred simply to a “three dimensional open space.”

¹²⁷ 346 F.3d 1374 (Fed. Cir. 2003)

¹²⁸ 346 F.3d 1374, 2003 U.S. App. LEXIS 20962 at *8.

¹²⁹ *Brookhill-Wilk I, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294 (Fed. Cir. 2003).

¹³⁰ *Id.* at 1299.

¹³¹ 381 F.3d 1352, 1356 (Fed. Cir. 2004).

¹³² 365 F.3d 1306 (Fed. Cir. 2004).

¹³³ *Id.* at 1312.

¹³⁴ 386 F.3d 1095 (Fed. Cir. 2004).

In *Norian Corporation v. Stryker Corporation*,¹³⁵ Judge Newman explained that claim terms cannot be removed from their context (the specification):

The meaning of a technical term in a patent claim is determined in accordance with its usage in the specification, elaborated if appropriate by the prosecution history and with due consideration to usage in the field of the invention. A technical term in a patent document has the meaning that it would be understood to have by persons knowledgeable in the field of the invention and the prior art. A technical term is not properly removed from its context in order to seek its meaning. *See Network, LLC v. Centraal Corp.*, 242 F.3d 1347, 1352 (Fed. Cir. 2001) ("The claims are directed to the invention that is described in the specification; they do not have meaning removed from the context from which they arose."). Whether a term appearing in a patent claim is subject to limitations beyond its abstract general meaning is determined in the context of the invention described in the specification, the prosecution history, and the prior art. *See Toro Co. v. White Consol. Indus., Inc.*, 199 F.3d 1295, 1299 (Fed. Cir. 1999); *Hoechst Celanese Corp. v. B.P. Chems. Ltd.*, 78 F.3d 1575, 1578 (Fed. Cir. 1996).¹³⁶

In 2003, the Court in *Ferguson Beauregard v. Mega Systems*¹³⁷ noted that words "must be considered in context." In this case, (1) dictionaries indicated that "normal plunger performance" meant performance that is standard or regular and not in need of correction, and (2) the written description is consistent with and supports this construction "in the context of this invention." The district court erred when it departed from this meaning and (implicitly) read a requirement into the claim.

Judge Rader's concurring opinion noted that the phrase often used by the Court, "ordinary and customary," implies the use of proper context. Thus, dictionaries give several definitions of terms, varying from one resource to the next and varying over time as language

¹³⁵ 363 F.3d 1321 (2004)

¹³⁶ *Id.* at 1326.

¹³⁷ *Ferguson Beauregard/Logic Controls v. Mega Systems, LLC.*, 350 F.3d 1327 (Fed. Cir. 2003). The invention concerned an improvement method for pumping an oil well. One claim called for assigning "first values ... which represent normal plunger performance." Another independent method claim called for "assigning select values ... which represent predetermined plunger performance." The district court had found no infringement because the accused product allowed the user to assign one "first value" and the product would automatically add one minute to define a window. Testimony indicated that a one minute window was suitable only for oil wells at the one specific depth of 2,400 feet. Thus, reasoned the district court, the method practiced in the accused product bore no relationship to "normal plunger performance."

evolves. He noted that unless a Court uses the proper context in selecting a dictionary definition, it could err by importing an improper limitation:

Thus, when a Court relies on a dictionary definition, it must include additional reasoning to substantiate its choice amongst many possible definitions in many possible dictionaries at many possible times.”¹³⁸

Likewise, *Invitrogen Corp. v. Biocrest Mfg., L.P.*¹³⁹ warned that the ordinary meaning rule is not a formula but depends for its meaning upon the context in which words are used:

While this “ordinary meaning” rule is expressed as a pat formula, the context supplied by the field of invention, the prior art, and the understanding of skilled artisans generally is key to discerning the normal usage of words in any claim.¹⁴⁰

The Court also spoke of context in *Brookhill–Wilk 1 v. Intuitive Surgical*¹⁴¹ noting that the term in dispute, “remote location,” must be viewed in the context of the whole phrase in the claim, namely, “remote location beyond a range of direct manual contact.” The disputed term involved a system and method for performing robotic surgery from remote locations. The issue was how far the surgeon had to be from the patient to be considered a “remote location.”¹⁴²

4. 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.¹⁴³ Unless an inventor expressly states that he wants to impart a novel meaning to the claim terms, “the words are presumed to take on the ordinary and customary meanings attributed to them by those of ordinary skill in the art.”¹⁴⁴

¹³⁸ 350 F.3d 1327, 2003 U.S. App. LEXIS 24417 at *52-53.

¹³⁹ *Invitrogen Corp. v. Biocrest Mfg., L.P.*, 327 F.3d 1364 (Fed. Cir. 2003).

¹⁴⁰ *Id.* at 1367.

¹⁴¹ 334 F.3d 1294 (Fed. Cir. 2003)

¹⁴²The Court *cited Brookhill-Wilk* later in 2003 for the proposition that “[t]he context of the surrounding words in a claim also must be considered in determining the ordinary and customary meaning of a disputed claim term limitation.” *Arlington Industries v. Bridgeport Fittings*, 345 F.3d 1318, 1325 (Fed. Cir. 2003).

¹⁴³ *e.g., Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004); *Brookhill-Wilk1, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294 (Fed. Cir. 2003).

¹⁴⁴*Brookhill*, 334 F.3d at 1298.

5. Changing the Plain Meaning

As noted above, there are two diverse lines of cases. In one of them, the Court focuses on the ordinary meaning and narrows that ordinary meaning under specific conditions only. In the other line of cases, the ordinary meaning is subordinate to meanings indicated by the intrinsic evidence. The Court is expected to resolve this conflict in 2005. Meanwhile, with respect to the first line of cases, the circumstances for narrowing the claim construction from the ordinary meaning are subject to some variation. For example, in 2002 Judge Michel in *CCS Fitness v. Brunswick*¹⁴⁵ identified the following four occasions:

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

Judge Dyk, however, in *Inverness Medical v. Princeton*¹⁴⁶ stated just two situations when the ordinary meaning would not control:

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

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

¹⁴⁵ *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359 (Fed. Cir. 2002).

¹⁴⁶ *Inverness Medical Switzerland GmbH v. Princeton Biomeditech Corp.*, 309 F.3d 1365 (Fed. Cir. 2002), *rehearing and reh. en banc denied* 2002 U.S. App. LEXIS 27509 (Fed. Cir. Dec. 2002). This case indicates also that a broader definition may be disclaimed, for example, where the examiner adopts a narrow definition and the applicant does not object, citing precedent that a failure to respond to an examiner's statement of reasons for allowance functioned as a disavowal of a different interpretation of the claim. In this case, the Court used the plain meaning, finding that it was unambiguous and was not contradicted by either the specification or the prosecution history.

lexicographer, or (2) the Court finds a clear and manifest disavowal or disclaimer of claim subject matter.¹⁴⁷

Judge Gajarsa stated a third formulation in *Tate Access Floors v. Interface Architectural, supra*¹⁴⁸, tracking two of the items stated *supra* in discussing *CCS Fitness*, namely (1) patentee as own lexicographer and (3) the term deprives claim of clarity without resort to other evidence.

In 2004, in *Golight, Inc. v. Wal-Mart Stores, Inc.*¹⁴⁹, the Federal Circuit held that the ordinary meaning will not be applied to claim terms only when the patentee “unequivocally disavowed a certain meaning to obtain his patent.” Under those circumstances, the doctrine of prosecution disclaimer becomes operative and the meaning of the claim term will narrow in conformance to that which was surrendered.

In *Mars, Inc. v. H.J. Heinz Co.*,¹⁵⁰ Judge Dyk rejected Heinz’s argument that because “ingredients” in the examples referred to initial starting materials, the ordinary meaning of the term “ingredients” should be modified.¹⁵¹

The Court in *C. R. Bard, Inc. v. United States Surgical Corp.*¹⁵² commented that statements in the specification that describe the invention as a whole are more likely than statements that describe only preferred embodiments to support a limiting definition of a claim term. Further, such statements are more apt to be found in the “Summary of the Invention” portion of the specification.¹⁵³

6. 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

¹⁴⁷ This approach is illustrated in *Arlington Industries v. Bridgeport Fittings*, 345 F.3d 1318 (Fed. Cir. 2003). There, Judge Linn began by giving the claim term in question (“flex”) its ordinary meaning and then reviewed the intrinsic record to “determine whether anything in that record overcomes the presumption that ‘flexing’ has [its] broad ordinary meaning.” 345 F.3d at 1326. In turn, the Court found that nothing in the claim language, written description or prosecution history rebutted the presumption that “flexing” takes its ordinary meaning. 345 F.3d at 1326-30.

¹⁴⁸ 279 F.3d 1357 (Fed. Cir. 2002)

¹⁴⁹ 355 F.3d 1327 (Fed. Cir. 2004), *reh. and reh. en banc denied* 2004 U.S. App. LEXIS 8416 (2004)

¹⁵⁰ 377 F.3d 1369 (Fed. Cir. 2004)

¹⁵¹ *Mars, Inc. v. H.J. Heinz Co.*, 377 F.3d 1369, 1374-75 (Fed. Cir. 2004).

¹⁵² 388 F.3d 858 (Fed. Cir. 2004).

¹⁵³ *Id.* at 864.

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*.¹⁵⁴

The Court also addressed the patentee acting as a lexicographer again in *3M Innovative Properties Co. v. Avery Dennison Corp.* (2003)¹⁵⁵ The Court noted that a term's ordinary meaning must be considered in the context of all intrinsic evidence, and that while limitations in a patent specification must not routinely be imported into the claims,

... a definition of a claim term in the specification will prevail over a term's ordinary meaning if the patentee has acted as his own lexicographer and clearly set forth a different definition¹⁵⁶

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 ...”)¹⁵⁷ 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.”¹⁵⁸

Likewise, in *Abbott Laboratories v. Novopharm Ltd.*,¹⁵⁹ the Federal Circuit found no error in reading the patentee's explicit definition of a new term, “co-micronization,” into the claim.¹⁶⁰

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

¹⁵⁴ *Brookhill-Wilk I, 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.

¹⁵⁵ 350 F.3d 1365, 2003 U.S. App. LEXIS 24207, at *22 (Fed. Cir. 2003).

¹⁵⁶ 350 F.3d 1365, 2003 U.S. App. LEXIS 24207 at *12-13.

¹⁵⁷ 2003 U.S. App. LEXIS 24207, at *22.

¹⁵⁸ *Id.*

¹⁵⁹ 323 F.3d 1324 (Fed. Cir. 2003)

¹⁶⁰ *Id.* at 1330.

_____” 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*¹⁶¹ 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, 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.¹⁶²

In *Novartis v. Abbott Laboratories*,¹⁶³ the Court similarly held that language in the specification required that claim term be construed more narrowly than its ordinary meaning. There the claim term at issue was “lipophilic component.” The accused product included a surfactant that ordinarily might be expected to meet the “lipophyllic component” claim limitation. But here the majority found that the inventor had narrowed the meaning in his specification. Based on the teaching of the specification, the term “lipophyllic component” was construed to require both a surfactant (as in the accused device) and another solvent that is not a surfactant. Because it was undisputed that the only lipophyllic substance in the accused composition was a surfactant, the Court affirmed the trial court’s judgment as a matter of law of non-infringement.

¹⁶¹ 384 F.3d 1333 (2004).

¹⁶² 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.

¹⁶³ 375 F.3d 1328 (2004).

In *Golight, Inc. v. Wal-Mart Stores, Inc.*,¹⁶⁴ 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 therefore the term’s “ordinary meaning” would control.

Similarly, in *Gemstar-TV Guide International, Inc. v. ITC*,¹⁶⁵ 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 disavow 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 only to 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.

A good illustration of a disclaimer of claim scope is found in *Alza Corporation v. Mylan Laboratories, Inc.*¹⁶⁶ The parties initially agreed on the definition of “skin permeable form”: fetanyl that is in a form that can pass through the skin. However, the trial court found this definition to be too imprecise and construed the claim limitation to mean “fetanyl that is in a form that can pass through the skin, excluding solutions of fetanyl citrate.” The Court affirmed. In an opinion authored by Judge Archer, the Court reasoned that “skin permeable form” is not plain on its face to one of ordinary skill when referring to a fetanyl base. Accordingly, we “must look to the specification and prosecution history to see if they shed any light on what is meant by ‘skin permeable form’” in the patent-in-suit. Because both the written description and the prosecution history recite that fetanyl citrate is not suitable for transdermal delivery, the Court found a clear disclaimer of fetanyl citrate and so affirmed the trial court’s construction.

¹⁶⁴ 355 F.3d 1327 (Fed. Cir. 2004)

¹⁶⁵ 383 F.3d 1352 (Fed. Cir. 2004)

¹⁶⁶ 391 F.3d 1365 (2004).

In 2003, the Court reiterated that the inventor could act as a lexicographer by defining terms either explicitly or implicitly. *Moba v. Diamond Automation*,¹⁶⁷ *Bowers v. Baystate Technologies*,¹⁶⁸ *Invitrogen v. Biocrest, supra.*¹⁶⁹

Even in the absence of an express definition for a claim term, the Court has relied on the specification to construe a claim limitation. For example, in *On-Line Techs., Inc. v. Bodenseewerk Perkin-Elmer GMBH*,¹⁷⁰ the Federal Circuit addressed whether the toroidal surfaces were disclosed in the specification to support a broader construction of the limitation “substantially spherical . . . having a cylindrical component added thereto.” The Court reasoned, “The intrinsic evidence may provide context and clarification about the meaning of claim terms. ***Although in this case, as in others, ‘the guidance [in the specification] is not provided in explicit definitional format, . . . the specification of the ‘143 patent nonetheless demonstrates that the claim language encompasses toroidal surfaces.’”¹⁷¹ Relying on the specification, the Court found support for its construction from the purpose of the invention, the preferred embodiment, and the description of alternative embodiments.¹⁷²

In *Kinik Co. v. ITC* (2004), Judge Newman authored an opinion which reversed the claim construction based on dictionary definition of the term “mixture.” Based on arguments made by the patentee to distinguish prior art and based on description of mixtures in the specification, the Court concluded that the term “mixture” in the claim had to be construed so that it “explicitly requires an excess of liquid binder over powdered matrix.”¹⁷³ The patentee’s argument that during the prosecution it was arguing patentability in the context of the preferred embodiment was not accepted by the Court. The Court stated that “precedent does not hold that the claims are not limited by what is described and enabled. Patent claims are directed to the invention that is set forth in the specification.”¹⁷⁴

¹⁶⁷ *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)

¹⁶⁸ *Bowers v. Baystate Technologies, Inc.*, 320 F.3d 1317, 1328 (Fed. Cir. 2003), *cert. denied* 156 L. Ed.2d (2003).

¹⁶⁹ *Invitrogen v. Biocrest, supra.*, 327 F.3d 1364 at 1367.

¹⁷⁰ 386 F.3d 1133, 1138 (Fed. Cir. 2004) (citing *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1324-25 (Fed. Cir. 2002))

¹⁷¹ 386 F.3d 1133, 1138 (Fed. Cir. 2004) (internal citations omitted).

¹⁷² *Id.* (explaining that “a claim interpretation that excludes a preferred embodiment from the scope of the claim is rarely, if ever, correct”) (internal citations omitted).

¹⁷³ *Kinik Co. v. International Trade Commission*, 362 F.3d 1359, 1365 (Fed. Cir. 2004).

¹⁷⁴ *Id.* at 1364.

7. Other Bases

The district court in *Abbott Laboratories v. Baxter Pharmaceutical Products (2003)*¹⁷⁵ construed the claims in light of information in an Information Disclosure Statement (“IDS”) filed by the patent applicant. The IDS disclosed a sale of a certain product 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 express disavowal of the claim scope in the IDS.¹⁷⁶ 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.¹⁷⁷

The Federal Circuit in *Goldenberg v. Cytogen, Inc.*¹⁷⁸ 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 familiar relationship and those that do not.”

In *Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*,¹⁷⁹ 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 often used in patent claiming to describe a functional

¹⁷⁵ 334 F.3d 1274 (Fed. Cir. 2003).

¹⁷⁶ *Id.* at 1277-79.

¹⁷⁷ *Id.* at 1282.

¹⁷⁸ 373 F.3d 1158 (Fed. Cir. 2004)

¹⁷⁹ 381 F.3d 1111 (2004)

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 – in an opinion authored by Judge Clevenger – vacated the trial court’s order of summary judgment for the defendant and remanded for further proceedings.

E. The Ordinarily Skilled Artisan

As seen in many of the opinion excerpts quoted above, the ordinarily skilled artisan is central to claim construction. For example, in 2002 the Court in *Leggett & Platt v. Hickory Springs*¹⁸⁰ 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.*”¹⁸¹ [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.”)¹⁸² See also, *Moba v. Diamond Automation*¹⁸³ (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*,¹⁸⁴ (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).¹⁸⁵

In *Merck & Company, Inc. v. Teva Pharmaceuticals USA (2003)*,¹⁸⁶ 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.

¹⁸⁰ *Leggett & Platt, Inc. v. Hickory Springs Mfg. Co.*, 285 F.3d 1353 (Fed. Cir. 2002).

¹⁸¹ *Id.* at 1357; cf. *Tate Access Floors, supra*, 279 F.3d at 1370.

¹⁸² *Rambus, Inc. v. Infineon Techs. AG*, 318 F.3d 1081, 1088 (Fed. Cir. 2003), *rehearing denied* 2003 U.S. App. LEXIS 8845.

¹⁸³ *Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1315 (Fed. Cir.), *cert. denied*, 124 S.Ct. 464 (2003).

¹⁸⁴ 334 F.3d 1294 (Fed. Cir. 2003).

¹⁸⁵ 342 F.3d 1361, 1368 (Fed. Cir. 2003).

¹⁸⁶ 347 F. 3d 1367 (Fed. Cir. 2003).

In 2004, the Court offered an interesting refinement on this principle. In *Chiron Corporation v. Genentech, Inc.*,¹⁸⁷ where the written description supported and enabled only hybridoma antibodies, it was error to construe “monoclonal antibody” to include chimeric and humanized antibodies. The Court reasoned that the state of the art at the priority date was such that a skilled artisan would not understand the written description to include chimeric or humanized antibodies. Nor would a skilled artisan be enabled to create a chimeric or humanized antibody without undue experimentation.

*Medical Instrumentation and Diagnostics Corp. v. Elekta AB (2003)*¹⁸⁸ involved Section 112, ¶6. The Court held that whether a skilled programmer could write a program called for in the claims is not the relevant inquiry for claims written in “means plus function” language. Rather, the correct inquiry is whether the disclosure is sufficient for a person of ordinary skill in the art to understand.

This comports with prior caselaw confirming that a technical term in a patent claim has the meaning that the person of ordinary skill in the art would give it.¹⁸⁹ Such an ordinarily skilled person provides the vantage point for determining whether the specification set forth adequate structure to achieve a claimed function in a §112, ¶6 claim.¹⁹⁰ Further, the ordinarily skilled artisan determines whether, when the claims are read with the rest of the specification, he would understand the patent scope, per the definiteness requirement of §112, ¶2. *S3 v. nVIDIA*.^{191 192} Indeed, the Court in 2001 admonished that a failure to consider such extrinsic evidence can be reversible error. *AFG Industries v. Cardinal*.¹⁹³

¹⁸⁷ 363 F.3d 1247 (2004).

¹⁸⁸ 344 F.3d. 1205 (Fed. Cir. 2003).

¹⁸⁹ *Bell Atlantic Network Services, Inc. v. Covad Communication Group, Inc.*, 262 F.3d 1258 (Fed. Cir. 2001); *Dayco Products Inc. v. Total Containment, Inc.*, 258 F.3d 1317 (Fed. Cir. 2001); *Interactive Gift Express (2001)*, *supra*; *Rexnord (2001)*, *supra*.

¹⁹⁰ *Budde v. Harley-Davidson*, 250 F.3d 1369 (Fed. Cir. 2001).

¹⁹¹ *S3 (SONICblue, Inc.) v. nVIDIA*, 259 F.3d 1364 (Fed. Cir. 2001).

¹⁹² It would appear that a district court has to weigh certain evidence in the process of construing claims, if it receives extrinsic evidence on what the claim language means to such hypothetical persons. Query whether summary judgment can be granted if opposing experts disagree, as one might predict, on the hypothetical ordinarily skilled person, or on what claim language means. While this might seem to raise a procedural issue – when there is a dispute as to the meaning to such hypothetical person – the Supreme Court still seems to require the district court to decide the fact issue as part of the claim construction. *See, AFG Industries, Inc. v. Cardinal*, (quoting *Seymour v. Osborne*, 78 U.S. 516 (1870)) (undoubted error to reject the testimony); *Markman v Westview Instruments, Inc.*, 517 U.S. 370, 390, 116 S. Ct. 1384, 1395-96 (1996) (claim construction ceded to trial court notwithstanding evidentiary underpinnings).

¹⁹³ *AFG Industries, Inc. v. Cardinal IG Co.*, 239 F.3d 1239 (Fed. Cir. 2001).

The Court has remanded cases so that the trial court can consider the ordinarily skilled artisan. For example, the Court in *Bayer v. Biovail* (2002)¹⁹⁴ 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*¹⁹⁵ and *Fonar v. Johnson & Johnson*¹⁹⁶ (“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.*,¹⁹⁷ (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*,¹⁹⁸ (meaning depends on usage of skilled artisans); *Neomagic v. Trident Microsystems*,¹⁹⁹ (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).

F. Interpreting Claims to Sustain Validity

Litigants sometimes appeal to a principle that claims should be construed one way or another to preserve their validity. The Court discussed this in 2004 in *Liebel-Flarsheim Co. v. Medrad*²⁰⁰ noting that there is a “familiar axiom” that claims ought to be construed to sustain their validity.²⁰¹ However, the Court was quick to establish that it has also cautioned against judges rewriting claims to preserve validity. To harmonize these competing statements, the Federal Circuit ruled that unless the Court, after applying all available tools of claim

¹⁹⁴ *Bayer AG and Bayer Corp. v. Biovail Corp.*, 279 F.3d 1340 (Fed. Cir. 2002).

¹⁹⁵ *Unique Concepts, Inc. v. Brown*, 939 F.2d 1558, 1561 (Fed. Cir. 1991).

¹⁹⁶ *Fonar Corp. v. Johnson & Johnson*, 821 F.2d 627, 631 (Fed. Cir. 1987), *overruled in part*, 508 U.S. 83, 90.

¹⁹⁷ *Apex Inc. v. Raritan Computer Inc.*, 325 F.3d 1364, 1374 (Fed. Cir. 2003).

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

¹⁹⁹ 287 F.3d 1062 (Fed. Cir. 2002).

²⁰⁰ 353 F.3d at 898 (Fed. Cir. 2004)

²⁰¹ 358 F.3d 898 at 911 citing *Rhine v. Casio, Inc.* 183 F.3d 1342, 1345 (Fed. Cir. 1999)

construction, concludes that a claim is still ambiguous, the axiom regarding construction to preserve validity does not apply.²⁰²

In *Housey Pharmaceuticals v. Astrazeneca* (May 2004),²⁰³ 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.²⁰⁴

*Chef America, Inc. v. Lamb-Weston, Inc.*²⁰⁵ 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:²⁰⁶

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.

²⁰² 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.

²⁰³ 366 F.3d 1348, 1352 (Fed. Cir. 2004).

²⁰⁴ *Housey Pharmaceuticals, Inc. v. Astrazeneca UK Ltd.*, 366 F.3d 1348, 1352 (Fed. Cir. 2004).

²⁰⁵ 358 F.3d 1371 (Fed. Cir. 2004).

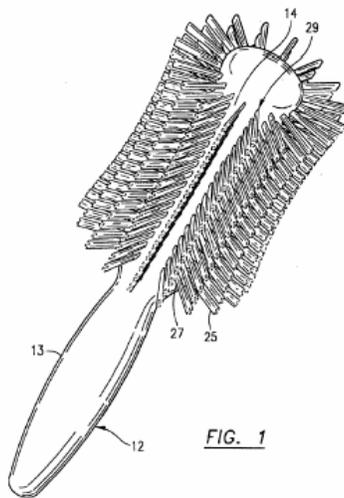
²⁰⁶ *Id.* at 1374.

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.

G. 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.²⁰⁷ 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.²⁰⁸ Nevertheless, this “ordinary meaning must be determined from the standpoint of a person of ordinary skill in the relevant art,”²⁰⁹ and while the PTO must give claims their broadest reasonable interpretation, it must be consistent with the interpretation of persons skilled in the art.²¹⁰ 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.²¹¹

In *In re Alberto Lee Bigio*, the Federal Circuit refused to limit the term “hairbrush” to hairbrushes for the scalp.²¹² An example of the preferred embodiment hair brush is shown below:



²⁰⁷ *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).

²⁰⁸ *In re American Academy of Science Tech Center*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

²⁰⁹ *Id.* at 1368, citing *Teleflex v. Ficosa*, 299 F.3d 1313, 1325 (Fed. Cir. 2002).

²¹⁰ *Id.* citing *In re Cortright*, 165 F.3d 1353, 1358 (Fed. Cir. 1999).

²¹¹ 367 F.3d at 1369.

²¹² *In re Alberto Lee Bigio*, 381 F.2d 1320 (Fed. Cir. 2004).

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.”²¹³

In *Bilstad v. Wakalopulos*,²¹⁴ the Federal Circuit considered whether the PTO Board of Appeals and Interferences had correctly construed the claim term “plurality” and 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 Wakalopulos 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”.²¹⁵

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*.²¹⁶ 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

²¹³ *Id.*, citing *Liebel-Flarsheim*.

²¹⁴ *Bilstad v. Wakalopulos*, 383 F.3d 1116 (Fed. Cir. 2004).

²¹⁵ *Id.* at 1122.

²¹⁶ *Kropa v. Robie*, 38 C.C.P.A. 858, 187 F.2d 150, 152 (CCPA 1951).

the specification and illuminated in the prosecution history.” *Allen Engineering v. Bartell Industries* (2002).²¹⁷

In a 2004 case, *Poly-America, L.P. v. GSE Lining Technology, Inc.*,²¹⁸ 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.²¹⁹

The 2004 Court came to the opposite result in *Intirtool, Ltd. v. Texar Corp.*,²²⁰ 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.²²¹ The Federal Circuit, however,

²¹⁷ *Allen Engineering v. Bartell Industries*, 299 F.3d 1336 (Fed. Cir. 2002).

²¹⁸ 383 F.3d 1303 (Fed. Cir. 2004).

²¹⁹ *Id.* at 1310.

²²⁰ 369 F.3d 1289 (Fed. Cir. 2004).

²²¹ *Catalina Marketing, Int’l. v. Coolsavings.com*, 289 F.3d 801, 808-09 (Fed. Cir. 2002).

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 affect the structure or steps of the claimed invention,” citing *Pitney Bowes, Inc. v. Hewlett-Packard Co.*²²² 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.

Turning to cases decided in earlier years, in several cases preamble language was found limiting. For example, in *Eaton v. Rockwell* (2003)²²³ 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.

²²² 182 F.3d 1298, 1305 (Fed. Cir. 1999).

²²³ *Eaton Corp. v. Rockwell International Corp.*, 323 F.3d 1332 (Fed. Cir. 2003).

In this case, the structure named in the preamble permitted the performance of the first step of the claimed method. Also, the method referred back to particular structure from the preamble, *e.g.*, “said vehicle master clutch (8).” The second step of the claimed method likewise called for manipulating particular structures that were identified and set forth in the preamble only. Hence, according to the Court, this is an example of the claim drafter choosing to use *both* the preamble and the body to define the claimed subject matter, and those recitations were limitations of the claim.²²⁴ 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),²²⁵ 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.”²²⁶

Jansen v. Rexall Sundown, Inc. (2003)²²⁷ 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.

²²⁴ 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.

²²⁵ 327 F.3d 1364, 1367 (Fed. Cir. 2003).

²²⁶ *Id.* at 1370.

²²⁷ 342 F.3d 1329 (Fed. Cir. 2003).

Boehringer Ingelheim Vet-Medica v. Schering-Plough Corp. (2003)²²⁸ stated that preamble language “will limit the claim if it recites not merely a context in which the invention may be used, but the essence of the invention without which performance of the recited steps is nothing but an academic exercise.” The Court recognized that this principle frequently holds true for method claims. In *Boehringer*, the terms “growing” and “isolating” in connection with an infectious virus were the basis for the claimed invention, not merely a description of when the invention would be useful. The effect of preamble language must be based on the claim as a whole. The Court in *Boehringer* adopted the plaintiff’s interpretation that a virus is “isolated” not only when the virus is cultured from the tissues of an infected animal, but also during subsequent serial passages of the virus when the virus is cultured from an aliquot of an infected cell culture.

The Court found that some of the preamble language was limiting and some was not in *Storage Technology Corp. v. Cisco Systems, Inc.* (2003).²²⁹ 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.²³⁰

Preamble language was not found limiting in *Altiris, Inc. v. Symantec Corp.* (2003),²³¹ where a method claim recited a series of steps used to “boot up” a computer. The preamble

²²⁸ 320 F.3d 1339 (Fed. Cir. 2003).

²²⁹ 329 F.3d 823, 851 (Fed. Cir. 2003).

²³⁰ *Id.* at 835.

²³¹ 318 F.3d 1363 (Fed. Cir. 2003).

indicated that the claimed method was performed prior to a normal boot, but the body of the claim did not explicitly dictate the order of the steps. One of the arguments for non-infringement was that the claim language dictated the order of steps, based on the language in the preamble. The Court did not discount the preamble, or indicate that it was not substantive, but rejected the defendant's argument because the method steps in the body of the claim did not require that they be performed in the order written, and nothing in the claim or the specification directly or indirectly required a narrow construction.

1. Jepson Claims

No decisions concerning Jepson style preambles were noted in 2004. However, in 2002, the Court had commented on them and confirmed in *Epcon Gas Systems v. Bauer Compressors*²³² 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

In *Medichem SA v. Rolabo, S.L.* (2003),²³³ 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),²³⁴ the Court stated that the transition term "comprising" in a method claim indicates that the claim is open-ended and allows for additional steps.

In *AK Steel v. Sollac* (2003), the Court construed the phrase "consisting essentially of aluminum,"²³⁵ 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.'"²³⁶ 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

²³² *Epcon Gas Systems, Inc. v. Bauer Compressors, Inc.*, 279 F.3d 1022 (Fed. Cir. 2002).

²³³ 353 F.3d 928, 2003 U.S. App. LEXIS 26236 (Fed. Cir. 2003).

²³⁴ 327 F.3d 1364, 1367 (Fed. Cir. 2003).

²³⁵ *AK Steel Corp. v. Sollac*, 344 F.3d 1234, 1239 (Fed. Cir. 2003) (internal citations omitted).

²³⁶ *Id.*

materially affect the basis and novel properties of the invention.”²³⁷ See also, *W.E. Hall v. Atlanta Corrugating*²³⁸ (every claim limitation must be satisfied before additional elements examined under “consisting essentially of”).

In *Abbott Laboratories v. Baxter Pharmaceutical Products* (2003),²³⁹ 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.²⁴⁰

In *Power Mosfet Techs., L.L.C. v. Siemens AG*, (2004)²⁴¹ 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.”²⁴² The Court further explained that “[c]omprising’, while permitting additional elements not required by a claim, does not remove the limitations that are present.”²⁴³ 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.”²⁴⁴ Finding no clear intent to limit the claim term “a” the court reasoned that the use of “comprising” itself establishes a presumption that those claims are “open”.²⁴⁵

²³⁷ *Id.*

²³⁸ 370 F.3d 1343, 1353 (Fed. Cir. 2004)

²³⁹ 334 F.3d 1274 (Fed. Cir. 2003)

²⁴⁰ *Id.* at 1280-81.

²⁴¹ 378 F.3d 1396, 1407-1408 (Fed. Cir. 2004).

²⁴² *Id.* at 1408.

²⁴³ *Id.* at 1409.

²⁴⁴ 365 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.)

²⁴⁵ *Id.* at 1306.

In *Norian Corporation v. Stryker Corporation* (2004),²⁴⁶ 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 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 by Judge Schall, the Court (in an opinion by Judge Newman) 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.

3. Other Terms

On a somewhat related note, the Court noted that using the words “first” and “second” in the body of the claim to identify two identical elements is common patent practice. Such usage provides no basis for calling the claim a product-by-process claim with a time sequence on these elements. *3M Innovative Properties v. Avery Dennison* (2003).²⁴⁷

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.²⁴⁸

Mars, Inc. v. H.J. Heinz Co. (2004)²⁴⁹ ruled that the word “containing” in a claim element is like “comprising.”

B. Claim Differentiation – Other Claims

Patent claims other than the one at issue are part of the intrinsic evidence and should therefore be considered. Litigants nearly always assert that language of one claim has to be construed a certain way in light of the language of other claims. In the early years of the Federal Circuit, Chief Judge Markey characterized claim differentiation as an “immutable” rule of patent

²⁴⁶ 363 F.3d 1321 (2004)

²⁴⁷ 350 F.3d 1365, 2003 U.S. App. LEXIS 24207.

²⁴⁸ *Metabolite Laboratories, Inc. v. Laboratory Corporation of American Holdings*, 370 F.3d 1354, 1362 (Fed. Cir. 2004)

²⁴⁹ *Mars, Inc. v. H.J. Heinz Co.*, 377 F.3d 1369, 1375-76 (Fed. Cir. 2004).

claim construction.²⁵⁰ This rule has been said to raise a presumption of differing scope for differing words.

The doctrine of claim differentiation was applied in 2004 in *Liebel-Flarsheim Co. v. Medrad*²⁵¹ where the Court 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.”²⁵² 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.’”²⁵³ Ultimately, the Court found that “because an interpretation of claim 1 requiring flutes would render claim 2 superfluous, the doctrine of claim differentiation supports an interpretation that claim 1 does not require the flutes of claim 2.”²⁵⁴

Limitations added to particular claims to distinguish over prior art may not be inserted into other claims not requiring such limitation. In *Golight, Inc. v. Wal-Mart Stores, Inc.* (2004),²⁵⁵ the Federal Circuit held that the patentee’s statement regarding the patented product’s inability to rotate through 360° were made to distinguish only those claims which explicitly call for a rotation of 360°.

The presumption of differing meaning was not overcome (and claim differentiation was applied) in *RF Delaware v. Pacific Keystone Technologies* (2003).²⁵⁶ 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.

²⁵⁰ *D.M.I. Inc. v. Deere & Co.*, 755 F.2d 1570, 1574 (Fed. Cir. 1985).

²⁵¹ 353 F.3d at 898 (Fed. Cir. 2004)

²⁵² 392 F.3d 1325, —, 2004 U.S. App. LEXIS 25766, at *10-*11 (Fed. Cir. 2004).

²⁵³ 392 F.3d 1325, —, 2004 U.S. App. LEXIS 25766, at *10-*11.

²⁵⁴ 392 F.3d 1325, —, 2004 U.S. App. LEXIS 25766, at *11.

²⁵⁵ 355 F.3d 1327 (Fed. Cir. 2004)

²⁵⁶ *RF Delaware, Inc. v. Pacific Keystone Technologies, Inc.*, 326 F.3d 1255, 2003 U.S. App. LEXIS 7450 (Fed. Cir. 2003).

Likewise, the presumption was not overcome either in *AK Steel Corp. v. Sollac* (2003).²⁵⁷ 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.'" ²⁵⁸

The Federal Circuit considered the application of a slightly different, but related, doctrine in *Bancorp Services, L.L.C. v. Hartford Life Ins. Co.*,²⁵⁹ 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.²⁶⁰ 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.²⁶¹

In *Sunrace Roots Enterprise Company Ltd. v. SRAM Corporation* (2003),²⁶² 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 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)²⁶³ 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.

²⁵⁷ 344 F.3d 1234, 1242 (Fed. Cir. 2003).

²⁵⁸ *Id.*

²⁵⁹ 359 F.3d 1367 (Fed. Cir. 2004).

²⁶⁰ *Id.* at 1373-74.

²⁶¹ *Id.* at 1372.

²⁶² 336 F.3d 1298 (Fed. Cir. 2003)

²⁶³ 342 F.3d 1361 (Fed. Cir. 2003).

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.²⁶⁴ The Court observed in *Dayco II*,²⁶⁵ 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.”²⁶⁶ 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.²⁶⁷

However, the doctrine of claim differentiation is not inflexible. In *Power Mosfet Techs., v. Siemens AG* (2004),²⁶⁸ 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.”²⁶⁹ “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.”²⁷⁰

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. *Innova/Pure v. Safari* (2004);²⁷¹ *Frank’s Casing Crew v. Weatherford International* (2004).²⁷² 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.²⁷³

²⁶⁴ See *Dayco Products, Inc. v. Total Containment, Inc.*, 329 F.3d 1358, 1371 (Fed. Cir. 2003) (“*Dayco II*”).

²⁶⁵ *Id.*

²⁶⁶ *Id.*

²⁶⁷ *Id.*

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

²⁶⁹ *Id.* at 1410 (internal citations omitted).

²⁷⁰ *Id.*

²⁷¹ 381 F.3d at 1119.

²⁷² 389 F.3d 1370.

²⁷³ *Id.*

C. Written Description

Section 112 of the patent statute requires each patent specification to “contain a written description of the invention ...”²⁷⁴ It also requires the specification to “conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.”²⁷⁵ 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*.²⁷⁶

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

The cases dealing with the interplay between the written description and the claims deal with (1) disclaimers or disavowals, *i.e.*, negations (2) affirmations (where the patentee defines claim language implicitly or explicitly), (3) ambiguities, (4) describing the whole invention in the specification, (5) avoiding invalidity, (6) statements as to advantages of the invention, (7)

²⁷⁴ 35 U.S.C. §112 para. 1.

²⁷⁵ 35 U.S.C. §112 para. 2.

²⁷⁶ 318 F.3d 1148-49.

excluding the preferred embodiment, (8) using the specification as a concordance, and (9) miscellaneous instances.

1. Disclaimers or Disavowals

An example of a disclaimer or other limitation is found in *SciMed v. Advanced Cardiovascular* (2001)²⁷⁷ where the Court found that the written description of the patent-in-suit disclaimed a defendant's configuration. The Court thus affirmed a narrow construction of the claims and finding of non-infringement. Judge Dyk's concurring opinion warned that the caselaw had not clarified when one should take guidance from the specification and when one should not.

Again in *Rexnord v. Laitram* (2001),²⁷⁸ the Court noted the general rule which suggests that one should look to the specification (and drawings) to see whether there has been a disclaimer.

In *Pandrol v. Airboss* (2003),²⁷⁹ the Court found no disclaimer and used the broad, plain meaning of a claim term and stated that such meaning was proper in view of the specification, which includes both the abstract and the preferred embodiment.

Likewise in *Prima Tek II 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.²⁸⁰

Similarly, the Court in *Sunrace Roots v. SRAM* (2003)²⁸¹ 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

²⁷⁷ *SciMed Life Systems, Inc. v. Advanced Cardiovascular Systems, Inc.*, 242 F.3d 1337 (Fed. Cir. 2001).

²⁷⁸ *Rexnord v. Laitram*, 274 F.3d 1336 (Fed. Cir. 2001).

²⁷⁹ *Pandrol USA, LP v. Airboss Railway Products, Inc.*, 320 F.3d 1354 (Fed. Cir. 2003).

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

²⁸¹ 336 F.3d 1298 (Fed. Cir. 2003)

such a cam, and that the “rotary cam member ... is the heart of the ... actuator.”²⁸² The Federal Circuit found these statements *insufficient* evidence of an intention to depart from the ordinary meaning of “shift actuator.” The first-cited statements simply detail *some* of the goals of *some* 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 preferred embodiment *as the invention itself*;²⁸³ (2) the patent distinguished the prior art on the basis that it lacked the relevant features;²⁸⁴ and (3) all disclosed embodiments contain the element and the written description expressly distinguished the prior art as not including that element.²⁸⁵ 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.”²⁸⁶ 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.”²⁸⁷

In *Akamai Techs., Inc. v. Cable & Wireless Internet Services, Inc.* (2003),²⁸⁸ 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.”²⁸⁹ 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

²⁸² *Id.* at 1304.

²⁸³ *Wang Labs, Inc. v. America Online, Inc.*, 197 F.3d 1377 (Fed. Cir. 1999).

²⁸⁴ *SciMed Life Systems, Inc. v. Advanced Cardiovascular Systems, Inc.*, 242 F.3d 1337 (Fed. Cir. 2001).

²⁸⁵ *O.I. Corp. v. Tekmar Co.*, 115 F.3d 1576, 1581-82 (Fed. Cir. 1997).

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

²⁸⁷ *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).

²⁸⁸ 344 F.3d 1186, 1193 (Fed. Cir. 2003).

²⁸⁹ *Id.*

mechanism."²⁹⁰ 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)²⁹¹ which had a narrower description of preferred embodiments than in the broadest claim, as the analytical focus for interpreting claims must 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, and that “there is no indication that TI Group disclaimed or disavowed meaning or acted as its own lexicographer in giving the term another meaning.”²⁹²

Again, in *Gaus v. Conair Corp.* (2004),²⁹³ 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

²⁹⁰ *Id.* The *Akamai* Court also chose not to follow the testimony of the inventor.

²⁹¹ 355 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.

²⁹² 375 F.3d 1126, 1135 (Fed. Cir. 2004).

²⁹³ 363 F.3d 1284 (Fed. Cir. 2004).

of probe networks overlap, but rather plainly described them as separate.²⁹⁴ 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.²⁹⁵

Also in 2004, Judge Gajarsa gave an extensive treatment of the role of the patent specification in a case where there was no claim construction issue, *PSC Computer Products, Inc. v. Foxconn Int'l, Inc.*²⁹⁶ The issue, instead, involved the disclosure-dedication rule, which was applied to affirm a summary judgment of non-infringement. No claim construction was needed, since the parties had no claim construction issues. Instead, the issue was whether, when a claim called specifically for a metal part, and the alleged infringer used plastic, that product could be an equivalent. In this case, the Court found that the specification ruled that out as within the scope of the invention. A further discussion of the disclosure-dedication rule appears in *Toro Co. v. White Consolidated Ind., Inc.* (2004).²⁹⁷

2. Affirmations

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

3. Ambiguity and Non-Ambiguity

One traditional justification for reliance on the specification is to resolve an ambiguity in the claim language. For example, in *Biogen v. Berlex Laboratories* (2003),²⁹⁸ 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

²⁹⁴ *Id.* at 1288-89.

²⁹⁵ *Id.* at 1289.

²⁹⁶ 355 F.3d 1353 (Fed. Cir. 2004).

²⁹⁷ 383 F.3d 1326 (Fed. Cir. 2004).

²⁹⁸ *Biogen, Inc. v. Berlex Laboratories, Inc.*, 318 F.3d 1132 (Fed. Cir. 2003).

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."²⁹⁹

Likewise, the Court found no ambiguity in *Brookhill-Wilk I v. Intuitive Surgical* (2003).³⁰⁰ 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.³⁰¹ In this case, (1) the patent claim contained broad language, (2) the dictionary contained multiple definitions for the claim term, some broad and some narrow, (3) the specification mentioned an object of the invention that comported with the narrower definition, and (4) the sole preferred embodiment was also consistent with the narrower definition. After the district court determined that dictionary definitions would not rule out either of the competing proposed claim constructions, it considered the objectives and advantages set forth in the written description and "determined that they would not be met unless the surgeon is located beyond the room in which the patient is located." Furthermore, according to the district court, because only one preferred embodiment was set forth (where the surgeon was outside the operating room), this "necessarily limited" the claims to such situations. The lower court also found that the prosecution history pointed to the same result and accordingly ruled that "remote location" in the claims meant outside the operating room.³⁰² 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:

- Dictionary definitions are only the starting point in construing disputed language in patent claims.

²⁹⁹ 318 F.3d at 1136-37.

³⁰⁰ 334 F.3d 1294 (Fed. Cir. 2003)

³⁰¹ The claim specified "a remote location beyond a range of direct manual contact with said patient's body and ... endoscopic instrument."

³⁰² 334 F.3d at 1297.

- 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.
- 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.
- Similarly, the specification did not contain a *clear* disavowal of claim scope. The written description set forth no specific parameters as to the distance between surgeon and patient, but taught generally that the surgeon may operate without directly touching the patient, the endoscope, or the surgical instruments.
- 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.
- The specification did not specify that the invention is useful *only* where the surgeon is located at a great distance from the operating room.
- Advantages described in the body of the specification that are not included in the claims are not per se limitations on the claimed invention.
- 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.³⁰³

The Court in *Minton v. National Association of Securities* (2003)³⁰⁴ 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.

³⁰³ *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)).

³⁰⁴ 336 F.3d 1373 (Fed. Cir. 2003).

While the Court has stated in some opinions that it would look beyond claim language only if it were unclear,³⁰⁵ that view clearly is not shared by all members of the Court. In 2004, in *On-Line Techs., Inc. v. Bodenseewerk Perkin-Elmer GMBH*,³⁰⁶ 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*³⁰⁷ that the written description “must be examined in every case, because it is relevant not only to aid in the claim construction analysis, but also to determine if the presumption of ordinary and customary meaning is rebutted.”³⁰⁸

Liebel-Flarsheim v. Medrad (2004)³⁰⁹ 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.³¹⁰

³⁰⁵ *E.g.*, *KCJ v. Kinetic Concepts*, 223 F.3d 1351 (Fed. Cir. 2000).

³⁰⁶ 386 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).

³⁰⁷ 350 F.3d 1207 (Fed. Cir. 2003).

³⁰⁸ *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).

³⁰⁹ 358 F.3d 898 (Fed. Cir. 2004)

³¹⁰ 358 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)

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.

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.”³¹¹ 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.

4. 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.

Thus, 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), Judge Newman explained that in the

³¹¹ 381 F.3d at 1118.

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:

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.³¹²

Phillips v. AWH, supra,³¹³ decided in April 2004, raised the question of whether the teachings of the specification are limitations of the claims. The now-vacated majority panel (Judges Newman and Lourie) opinion affirmed a summary judgment of non-infringement, ruling that the term “baffle” (which the parties did not have in dispute) had to be construed narrowly in light of the specification. According to the panel majority: (1) the baffles of the claims at issue had to be structures at angles other than 90 degrees in order to achieve one of the objectives in the patent specification of deflecting bullets or other projectiles; (2) the inventor stated that the invention used baffles at such angles; (3) all disclosed embodiments used the non-90 degree angled baffles; and (4) the prior art disclosed baffles in general in this art.

Judge Dyk’s dissent pointed out that just months earlier, the Court in *Liebel-Flarsheim, supra*, had said the opposite. He voted to reverse the district court judgment in *Phillips* because:

- the parties had stipulated that “baffles” are a means for obstructing, impeding, or checking the flow of something;
- the holding that baffles had to have an angle different from 90 degrees flies in the face of the plain meaning, and there is nothing to show that the patentee gave a special meaning to the term;

³¹² 362 F.3d at 1365.

³¹³ 363 F.3d 1207, *vacated by* 376 F.3d 1382.

- describing only a single embodiment is not in itself a reason to limit the claims; the Court has expressly rejected that argument in prior cases.³¹⁴ Here, the specification has no language clearly limiting the claims to a specific structure.
- It is not necessary for a claimed invention to satisfy *all* of the stated objectives of the invention. In this instance, several objectives were stated, and baffles oriented at 90 degrees would satisfy some of the objectives taught in the specification; and
- The prior art explanation does not raise serious questions of invalidity and, moreover, provides no justification to depart from the plain meaning of the terms. There is no argument that the person of ordinary skill in the art would give a specialized meaning to the term “baffles,” there is no reason to depart from the general purpose dictionary definition.³¹⁵

In *Genzyme Corp. v. Transkaryotic Therapies, Inc.* (2003),³¹⁶ 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)³¹⁷ 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”³¹⁸ 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

³¹⁴ *E.g. Liebel*, 358 F.3d at 906.

³¹⁵ IPLAC in its *amicus curiae* brief noted that a claim differentiation argument could apply since dependent claim 2 called for the baffles to be oriented with the panel sections disposed at angles for deflecting projectiles such as bullets. IPLAC further invited the *en banc* court to consider whether the inventor specifically disclaimed or disavowed “baffles” in his description of the drawings, for example, which he said depict *this invention* rather than simply an embodiment of it.

³¹⁶ 346 F.3d 1094, 1199-1100 (Fed. Cir. 2003).

³¹⁷ *Alloc, Inc. v. Int’l. Trade Comm.*, 342 F.3d 1361 (Fed. Cir. 2003).

³¹⁸ 342 F.3d at 1368-69.

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.³¹⁹ Further, all figures and embodiments disclosed or implied “play.”³²⁰ The Court recognized that it must interpret *in light of* the specification and yet avoid *impermissibly* importing limitations from the specification. The balance “turns on how the specification characterizes the claimed invention.”³²¹ “Where the specification makes clear ... that the claimed invention is narrower than the claim might imply, it is entirely permissible and proper to limit the claims.” In this case, the majority of the panel found that the specification “read as a whole leads to the inescapable conclusion that the claimed invention must include play in every embodiment.”³²² Circuit Judge Schall filed a dissenting opinion.

5. Invalidity Non-Avoidance

In April 2004 in *Smithkline Beecham v. Apotex*,³²³ 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.

6. 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

³¹⁹ *Id.* at 1369.

³²⁰ *Id.* at 1370.

³²¹ 342 F.3d at 1370 *citing Sunracer Roots v. SRAM, supra.*

³²² *Id.*

³²³ 365 F.3d 1306 (Fed. Cir. 2004).

all of them. Thus, the Court in *E-Pass Technologies v. 3Com*³²⁴ vacated a summary judgment of non-infringement and remanded for a determination of the infringement issue.³²⁵

7. 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 claim constructions that exclude the preferred embodiment. *See, e.g., NeoMagic v. Trident Microsystems* (2002)³²⁶ (rarely correct and requires highly persuasive evidentiary support); *Bowers v. Bay State Technologies, Inc.* (2003)³²⁷ (same).

Hence, in *Glaxo Group Ltd. v. Apotex, Inc.* (2004)³²⁸ 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.”³²⁹ 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.³³⁰

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).³³¹ 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.³³²

³²⁴ 343 F.3d 1364 (Fed. Cir. 2003)

³²⁵ *See also, Resonate, Inc. v. Alteon Websystems, Inc.*, 338 F.3d 1360 (Fed. Cir. 2003).

³²⁶ *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).

³²⁷ 320 F.3d 1316 (Fed. Cir. 2003).

³²⁸ 376 F.3d 1339 (Fed. Cir. 2004).

³²⁹ *Id.* at 1347.

³³⁰ *Id.*

³³¹ 322 F.3d 1335 (Fed. Cir. 2003).

³³² 322 F.3d at 1343. *But see* Judge Clevenger’s dissent, 322 F.3d at 1354-56.

In vacating a summary judgment, the Federal Circuit in *Globetrotter Software, Inc. v. Elan Computer Group, Inc.* (2004)³³³ 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 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.

However, 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),³³⁴ the Court followed the clear claim language, notwithstanding that the skilled artisan would have seen it as incorrectly describing the preferred embodiment.³³⁵ Likewise, in *Rheox v. Entact* (2002)³³⁶ 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).³³⁷

This continued in 2004. In *Chef America, Inc. v. Lamb-Westin, Inc.*,³³⁸ 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 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

³³³ 362 F.3d 1367 (Fed. Cir. 2004).

³³⁴ *Allen Engineering Corp. v. Bartell Industries, Inc.*, 299 F.3d 1336 (Fed. Cir. 2002).

³³⁵ 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.

³³⁶ *Rheox, Inc. v. Entact, Inc.*, 276 F.3d 1319 (Fed. Cir. 2002).

³³⁷ 214 F.3d 1302 (Fed. Cir. 2000).

³³⁸ 358 F.3d 1371 (Fed. Cir. 2004)

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.”³³⁹

Likewise, in *Int’l. Rectifier Corp. v. IXYS Corp.* (2004)³⁴⁰ the Court refused to ignore or redefine the inventor’s chosen words.

8. Concordance

The Court in *Merck & Company v. Teva Pharmaceuticals USA* (2003)³⁴¹ held that a fundamental rule of claim construction is that “the terms in a patent document are construed with the meaning with which they are presented in the patent document.” The interpretation given to claim terms must be consistent with the meaning given to them in the specification.

In 2004, the Court struggled with the “plain meaning” of the claims and the meaning based on reading the written description. Judge Newman, dissenting in *Housey Pharmaceuticals v. Astrazeneca* (May 2004)³⁴² (quoted extensively *supra*) 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.

The October 2004 decision in *Fuji Photo Film Co. v. International Trade Comm.* turned to the written description to construe claim terms “in the context of the specification of which they are a part.”³⁴³ Construing the claim term “opening,” the Court noted how that term was used in the specification and particularly what structure it described.

³³⁹ *Id.* at 1374

³⁴⁰ *Int’l. Rectifier Corp. v. IXYS Corp.*, 361 F.3d 1363, 1371 (Fed. Cir. 2004)

³⁴¹ 347 F.3d 1367 (Fed. Cir. 2003).

³⁴² 366 F.3d 1348, 1352 (Fed. Cir. 2004).

³⁴³ 386 F.3d 1095, 1098 (Fed. Cir. 2004).

9. Miscellaneous

In a case involving a patent drawing, the Court in *Cordis Corp. v. Medtronic AVE, Inc.* (2003)³⁴⁴ 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. 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.³⁴⁵

D. Prosecution History

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

The district court erred in not according more weight to the inventor's definition. It is well settled that a patentee may define a claim term either in the written description of the patent or, as in the present case, in the prosecution history. ... 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 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]³⁴⁶

³⁴⁴ 339 F.3d 1352, 1358 (Fed. Cir. 2003).

³⁴⁵ *Id.*

³⁴⁶ 298 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).

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.”

In 2004, the Court in *Liebel-Flarsheim v. Medrad*,³⁴⁷ also referred to the prosecution history. Ordinarily, the prosecution history is reviewed to find occasions where the patentee *surrenders* 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.

The Court in *Bowers v. Baystate Technologies* (2003)³⁴⁸ cited statements made by the inventor in distinguishing over prior art to find the patent claim not infringed.³⁴⁹ 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)³⁵⁰ 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.

³⁴⁷ 358 F.3d 898 (Fed. Cir. 2004)

³⁴⁸ 320 F.3d 1317 (Fed. Cir. 2003).

³⁴⁹ 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*).

³⁵⁰ 320 F. 3d 1339 (Fed. Cir. 2003).

Brookhill-Wilk I v. Intuitive Surgical (2003)³⁵¹ 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),³⁵² 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.”

Similarly, in *Springs Window Fashions v. Novo Industries*, the Court required any disclaimer to be stated with “reasonable clarity and deliberateness.”³⁵³ 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)³⁵⁴ 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 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 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)³⁵⁵ 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”

³⁵¹ 330 F.3d 1294 (Fed. Cir. 2003).

³⁵² 336 F.3d 1298 (Fed. Cir. 2003).

³⁵³ *Springs Window Fashions LP v. Novo Industries, L.P.*, 323 F.3d 989, 994 (Fed. Cir. 2003).

³⁵⁴ 327 F.3d at 1360.

³⁵⁵ 339 F.3d 1352,1360-63 (Fed. Cir. 2003).

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.³⁵⁶

Likewise, in *Superguide Corp. v. Direct TV Enterprises, Inc.* (2004),³⁵⁷ the Federal Circuit refused to limit the scope of the 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 claim as covering any particular type of signal format.”³⁵⁸ “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.”³⁵⁹

Following the Supreme Court Decision in *Festo*, the Court of Appeals in *Talbert Fuel Systems Patents Company v. Unocal Corporation* (2003)³⁶⁰ 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),³⁶¹ 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

³⁵⁶ *Id.*

³⁵⁷ 358 F.3d 870, 881 (Fed. Cir. 2004)

³⁵⁸ *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.

³⁵⁹ *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.”)

³⁶⁰ 347 F. 3d 1355 (Fed. Cir. 2003).

³⁶¹ 318 F.3d 1132 (Fed. Cir. 2003).

consistently in terms of linked co-transformation only. In affirming the district court's narrower construction, the Court noted the importance of the prosecution history to the public's understanding of the invention:

The Court correctly viewed the prosecution history not for the examiner's or applicant's subjective intent, but as an official record that is created in the knowledge that its audience is not only the patent examining officials and the applicant, but the interested public.³⁶²

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*,³⁶³ 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."³⁶⁴

In *3M Innovative Properties v. Avery Dennison* (2003),³⁶⁵ 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."³⁶⁶ The applicant also included an express definition in the specification.³⁶⁷ 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

³⁶² 318 F.3d at 1139.

³⁶³ 318 F.3d 1143, 1151 (Fed. Cir. 2003).

³⁶⁴ *Id.*; See also, *DeMarini Sports, Inc. v. Worth, Inc.*, 239 F.3d 1314, 1326 (Fed. Cir. 2001) (addressing silence in prosecution history).

³⁶⁵ 350 F.3d 1365, 2003 U.S. App. LEXIS 24207, at *17-*22 (Fed. Cir. 2003).

³⁶⁶ 2003 U.S. App. LEXIS 24207, at *17-*18.

³⁶⁷ 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.

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.”³⁶⁸

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.³⁶⁹

In *Storage Technology v. Cisco Systems* (2003),³⁷⁰ the Court held that the patent applicant’s inaccurate statement of the scope of his claim during prosecution did not limit claim scope absent claim language referring to the supposed limitation.

The prosecution history statement described generally the features of the claimed invention and erroneously suggests that the independent claims include a cache for the instance of network policy. The applicants’ inaccurate statement cannot override the claim language itself, which controls the bounds of the claim.³⁷¹

On the other hand, *ACCO Brands Inc. v. Micro Security Devices, Inc.* (2003)³⁷² 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.”³⁷³ Thus, the Court applied the same construction to the 'pin' limitation to the amended claim 10 as it did to the unamended claim 1.

Likewise, in *Superguide Corp. v. Direct TV Enterprises, Inc.* (2004) 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.³⁷⁴

³⁶⁸ 2003 U.S. App. LEXIS 24207, at *20.

³⁶⁹ 2003 U.S. App. LEXIS 24207, at *21-*22.

³⁷⁰ 329 F.3d at 832.

³⁷¹ *Id.*

³⁷² 346 F.3d 1075, 1079 (Fed. Cir. 2003).

³⁷³ *Id.*

³⁷⁴ 358 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.

The district court erred in *Rambus, Inc. v. Infineon Techs. AG* (2003)³⁷⁵ 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.*,³⁷⁶ the imprecise statement in the prosecution history does not limit claim 26.”³⁷⁷ The Court further noted that “[t]he claim language itself controls the bounds of the claim, not a facially inaccurate remark during prosecution.”³⁷⁸ 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.”³⁷⁹

In *Glaxo Wellcome, Inc. v. Impax Laboratories, Inc.* (2004)³⁸⁰ 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.³⁸¹ 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.³⁸²

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.”³⁸³

³⁷⁵ 318 F.3d 1081, 1089 (Fed. Cir. 2003), rehearing denied, 2003 U.S. App. LEXIS 8845.

³⁷⁶ *Intervet America, Inc. v. Kee-vet Laboratories, Inc.*, 887 F.2d 1050 (Fed. Cir. 1989) (addressing an erroneous remark in the prosecution history).

³⁷⁷ *Id.* at 1090.

³⁷⁸ *Id.*

³⁷⁹ 318 F.3d 1081, 1094-1095 (Fed. Cir. 2003), rehearing denied, 2003 U.S. App. LEXIS 8845.

³⁸⁰ 356 F.3d 1348 (Fed. Cir. 2004).

³⁸¹ *Id.* at 1356-57.

³⁸² *Id.*

³⁸³ 375 F.3d at 1136 (construing the term ‘within’).

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.³⁸⁴ Likewise, in *Omega Engineering v. Raytek Corp.* (2004), the Court reaffirmed that limiting prosecution history statements in ancestor cases are perpetuated as limitations on progeny cases that use the same claim terms.³⁸⁵

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).³⁸⁶

E. 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. Generally, “extrinsic evidence, however, cannot be used to alter a claim construction dictated by a proper analysis of the intrinsic evidence.”³⁸⁷ Nevertheless, courts are often required to consider how the extrinsic evidence bears on claim construction. Such extrinsic evidence includes dictionaries, technical references, other patents, inventor testimony, and expert testimony.

1. Dictionaries and Other Technical Resources

The Federal Circuit refers to dictionaries as a special form of extrinsic evidence, but their import is subject to varying views among the Federal Circuit judges.

Judge Linn gave extensive treatment to dictionaries in *Texas Digital Systems v. Telegenix*,³⁸⁸ an often-cited case stating that, among other things, dictionaries may be referred to by the trial or appellate court *at any time* (even if not offered into evidence). One limitation, however, is that the dictionary (or other technical resource) must have been available when the patent issued. Further, the patentee, according to one line of claim construction thought, is

³⁸⁴ *NTP, Inc. v. Research In Motion, Ltd.*, 392 F.3d 1336, 1346 (Fed. Cir. 2004).

³⁸⁵ 334 F.3d 1314, 1333 (Fed. Cir. 2003).

³⁸⁶ 370 F.3d 1131 (Fed. Cir. 2004).

³⁸⁷ *On-Line Techs., Inc. v. Bodenseewerk Perkin-Elmer GMBH* 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.”)

³⁸⁸ 308 F.3d 1193 (Fed. Cir. 2002), cert. den. 538 U.S. 1058 (2003).

entitled to the full range of the definitions to the extent they are consistent with the specification and avoid absurd results (and provided there is no disclaimer or redefinition, etc.). Another limitation mentioned in several cases is that that the definitions must be in the proper context. *See, e.g., Ferguson Beauregard v. Mega Systems* (2003).³⁸⁹

Chief Judge Michel and other circuit judges point out that excessive reliance on dictionaries is improper and caution against reading *Texas Digital Systems* too broadly. Thus, in *C. R. Bard, Inc. v. United States Surgical Corp.* (2004), he explained that dictionary definitions do *not* trump or override the intrinsic record.³⁹⁰ Indeed, *Bard* highlighted portions of *Texas Digital Systems* “emphasizing the need to consult the intrinsic record, such as the following: ‘The objective and contemporaneous record provided by the intrinsic evidence is the most reliable guide to help the court determine which of the possible meanings of the terms in question was intended by the inventor to particularly point out and distinctly claim the invention.’”³⁹¹ Further, the *Texas Digital Systems* Court had construed nine claims but used dictionary definitions in just two of them, and as to those, the definitions according to the Court were consistent with the intrinsic record.³⁹²

In *Novartis v. Eon Labs Mtg., Inc.* (2004),³⁹³ the Court per Judge Dyk said that under its precedent, it begins the claim construction analysis with examining general purpose dictionary definitions and then examining the intrinsic record to determine which of the available, relevant definitions should be applied.³⁹⁴ In this case, the Court concluded that the claim term “hydrosol” does not include products formed in the stomach of a patient after a medicine has been ingested. First, because neither party argued that hydrosol has a specialized meaning, the Court began its claim construction by examining *Webster’s Third New International Dictionary* (2002) and discovered that:

Webster’s defines the term “hydrosol” as “a sol in which the liquid is water.” *Webster’s* at 1110. In turn a “sol” is “a dispersion of solid particles in a liquid colloidal solution.” *Id.* at 2167. The term “solution” has two pertinent definitions. There are: “(1): a liquid containing a dissolved substance” and “(2): a liquid and usu.

³⁸⁹ 350 F.3d 1327 (Fed. Cir. 2003).

³⁹⁰ 388 F.3d 858, 862 (Fed. Cir. 2004).

³⁹¹ *Id.* Citing *Texas Digital Systems*, 308 F.3d at 1203.

³⁹² The Court in *Bard* did not resolve this issue, but concluded that the district court’s claim construction must be affirmed under either methodology offered by the parties. 388 F.3d at 863.

³⁹³ 363 F.3d 1306 (2004).

³⁹⁴ *Id.* at 1308-10.

aqueous medicinal preparation with the solid ingredients soluble.
Id. at 2170.

By referring to the common meaning of “medicinal” as defined in *Webster’s* and several other general purpose dictionaries, the Court concluded that a medicine is a pre-existing product that is administered to treat disease and therefore must necessarily be prepared outside the body. Thus, the Court concluded that the ordinary meaning of hydrosol excludes a product formed in the body.

The Court also consulted the intrinsic record which confirmed that this is the definition intended by the inventor. The specification describes hydrosol in terms of a pharmaceutical composition and makes no mention of the term in any other context. This usage in the written description supports the narrower definition found in *Webster’s*.

Judge Clevenger, dissenting, would have consulted a medical dictionary instead of a general purpose dictionary, and if a specialized dictionary had been consulted, then a different outcome would be warranted. Also, if different general purpose dictionaries than those used by the majority had been consulted, the outcome would have differed. Yet the Court gave no guidance as to how to choose the correct dictionary.

In *Nystrom v. Trex Company, Inc.* (2004),³⁹⁵ the Court turned to dictionaries to determine claim term meaning. Here the dispute concerned the meanings of the term “board” and the phrase “manufacturing to have.” Applying standard use dictionary definitions, the majority determined that the trial court erred in restricting “board” to boards sawn from wood and “manufacturing to have” to a process utilizing woodworking techniques. Ordinary meaning generally controls, according to this panel, and there was nothing in the intrinsic record indicating the inventor intended a narrower definition. In dissent, Judge Gajarsa criticized the majority, arguing that in *Novartis v. Eon Labs Mfg., Inc.*,³⁹⁶ the Court had held that when a dictionary definition yields a range of possible meanings, the Court will look to the intrinsic record to choose which of the available definitions should apply. In Judge Gajarsa’s view, the majority failed to do that in this case.

Likewise, in *NTP, Inc. v. Research in Motion, Ltd.* (2004),³⁹⁷ the Court per Judge Linn explained that absent an express intent to impart a novel meaning to the words of the claim, those

³⁹⁵ 374 F.3d 1105 (2004).

³⁹⁶ 363 F.3d 1306 (Fed. Cir. 2004).

³⁹⁷ 392 F.3d 1336 (Fed. Cir. 2004).

claim terms take on the full breadth of the “ordinary and customary meanings attributed to them by those of ordinary skill in the art.” That meaning is determined from reviewing various sources, including dictionaries and treatises, as well as intrinsic documents. As there are different meanings for different contexts, the claim meaning will be discerned from not only the dictionaries but also the context of the written description, viewed from the perspective of the skilled artisan.

As noted *supra*, in some cases general purpose dictionaries have been eschewed where terms used in claims failed to have *any* accepted meaning to the ordinarily skilled artisan. Thus, in *Vanderlande Industries Nederland BV v. ITC*³⁹⁸ the Court explained when a general purpose dictionary was useful and when it was not, stating:

To the extent that [an] artisan would understand a claim term to have the same meaning in the art as that term has in common, lay usage, a general-usage dictionary can be a helpful aid to claim construction. But where evidence – such as expert testimony credited by the factfinder, or technical dictionaries – demonstrates that artisans would attach a special meaning to a claim term, or, as here, would attach no meaning at all to that claim term (independent of the specification), general-usage dictionaries are rendered irrelevant with respect to that term; a general-usage dictionary cannot overcome credible art-specific evidence of the meaning or lack of meaning of a claim term.³⁹⁹

Thus, to find “the ordinary and customary meaning” of the word “flange” in *Waner v. Ford Motor Co.* (2003),⁴⁰⁰ the Court followed the *Texas Digital Systems* process. It noted that “flange” was given no specific meaning in the intrinsic record. The Court found several definitions in a (non-technical) dictionary and, consulting the specification and drawings of the patent-in-suit, selected the one definition that “most adequately represents what the inventor intended to claim in his invention.”⁴⁰¹

In *Moba v. Diamond Automation* (2003),⁴⁰² the Court used the *Oxford English Dictionary* as well as the specification to help interpret the ordinary meaning of the infinitives “to hold” and

³⁹⁸ 366 F.3d 1311 (Fed. Cir. 2004)

³⁹⁹ *Id.* at 1321.

⁴⁰⁰ *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).

⁴⁰¹ 331 F.3d at 854.

⁴⁰² 325 F.3d 1306, 1315 (Fed. Cir. 2003).

“to urge.” Concerning the word “urge,” the Court chose a meaning that avoided excluding the preferred embodiment from the claims.⁴⁰³

Also following *Texas Digital Systems*, the Court in *Genzyme Corp. v. Transkaryotic Therapies, Inc.* (2003)⁴⁰⁴ ascertained the accustomed usage of the term "chromosomally integrated" in the relevant community by considering technical dictionaries and publications. The Court cautioned, however, that “perhaps the best tool to put the claims in proper temporal and technical context is the patent specification itself.”⁴⁰⁵

In *Kumar v. Ovonic Battery Co.* (2003),⁴⁰⁶ the Court held that the ordinary dictionary definition of the term *amorphous* was “trumped” by a conflicting definition which could be found in a prior art reference that had been discussed extensively during prosecution.

In *Intellectual Property Development, Inc. v. UA-Columbia Cablevision of Westchester, Inc.* (2003),⁴⁰⁷ the issue was whether “high frequency” should be interpreted using an ordinary dictionary definition, which was very broad, or a technical dictionary definition, which was narrow and avoided infringement. The Court adopted the narrow definition, based in part on the description of “VHF” in the specification. Because “VHF” (very high frequency) was described as 30-300MHz, “high frequency” was defined as 3-30MHz, even though that definition was not in the specification.

In *Riverwood Int’l. Corp. v. R.A. Jones & Co., Inc.* (2003),⁴⁰⁸ the Court found that there was no dictionary definition for “flight bars” in packaging equipment, so the ordinary meaning was determined from the specification.

In *Altiris, Inc. v. Symantec Corp.* (2003),⁴⁰⁹ the dictionary definition of “automation” in the phrase “automation code” was so broad as to lack significant meaning. Because the patentee chose a phrase that deprived the claim of clarity, the Court resorted to the specification to interpret the phrase.

Boehringer Ingelheim v. Schering-Plough Corp. (2003)⁴¹⁰ reaffirmed that courts are free to consult dictionary definitions of disputed terms, even if such dictionary definitions are not

⁴⁰³ *Id.* at 1316.

⁴⁰⁴ 346 F.3d 1094, 1098 (Fed. Cir. 2003).

⁴⁰⁵ *Id.*

⁴⁰⁶ 351 F.3d 1364, 2003 U.S. LEXIS 2490, at **8-10 (Fed. Cir. 2003).

⁴⁰⁷ 336 F.3d 1308 (Fed. Cir. 2003).

⁴⁰⁸ 324 F.3d 1346 (Fed. Cir. 2003).

⁴⁰⁹ 318 F.3d 1363 (Fed. Cir. 2003).

⁴¹⁰ 320 F.3d 1339 (Fed. Cir. 2003)

offered into evidence at trial. The Court found the definition of “isolation” offered by the accused infringer to be unnecessarily narrow.

Brookhill-Wilk I v. Intuitive Surgical (2003)⁴¹¹ rejected the district court’s use of unrelated and non-contemporaneous authorities to interpret the disputed term “remote location.” “Because the references were not contemporaneous with the patent, they did not reflect the meanings that would have been attributed to the words in dispute by persons of ordinary skill in the art as of the date of the grant of the patent.” The Court also noted that consulting dictionary definitions is simply a first step in the claim construction analysis. “While dictionaries and treatises are useful resources in determining the ordinary and customary meaning or meanings of disputed claim terms, the correct meaning of a word or phrase is informed only by considering the surrounding text.” To interpret claims correctly, a Court must always look to the surrounding text of the claims in question, the other claims, the written description, and the prosecution history. Abstract dictionary definitions alone are not determinative. The Court also stated that claim terms may encompass all definitions consistent with the intrinsic record.

On the other hand, in *Tehrani v. Hamilton Medical Inc.* (2003),⁴¹² the Court reaffirmed its prior holding that when a term has multiple dictionary definitions, a Court must consult the intrinsic record “to identify which of the different possible dictionary meanings of the claim terms in issue is the most consistent with the use of the words by the inventor.”⁴¹³

Likewise, in *Searfoss v. Pioneer Consolidated Corp.* (2004), the Federal Circuit was presented with conflicting dictionary definitions for the claim limitation “connecting,” where the dictionaries contemplated both direct and indirect connections.⁴¹⁴ Affirming the district court’s construction, the Court explained “[i]n construing the claim, however, the district court did not, and indeed must not, stop with the dictionary definitions offered by Searfoss . . . [i]nstead, the district court did as it must, and consulted the written description.”⁴¹⁵ Ultimately, the Court found that the limitation “‘connecting’ refers to a ‘direct pivotal connection between the tension bail and the extension assembly’ because the patent referred to the term ‘connecting’ as synonymous with ‘attaching.’”⁴¹⁶

⁴¹¹ 334 F.3d 1294 (Fed. Cir. 2003).

⁴¹² 331 F.3d 1355 (Fed. Cir. 2003).

⁴¹³ *Id.* at 1361 (citing *Texas Digital Systems v. Telegenix*, 308 F.3d 1193, 1203 (Fed. Cir. 2002)).

⁴¹⁴ 374 F.3d 1142, 1149 (Fed. Cir. 2004)

⁴¹⁵ *Id.* at 1150.

⁴¹⁶ *Id.*

Similarly, in *TI Group Automotive Sys., Inc. v. VDO North Am., LLC* (2004), the Federal Circuit found that the proffered dictionary definitions of both parties for “within” were facially relevant, and accordingly, “we rely on the written description to point away from the improper meanings and toward the proper meanings.”⁴¹⁷ After examining the specification, the Court refused to limit the claim scope because of one drawing, reasoning that “[t]he drawings, without more, are insufficient to cabin the scope of the ordinary customary meaning of the term ‘within’ in this case.”⁴¹⁸ Further, in rejecting the appellant’s argument that only the “primary definition” of “within” should be adopted, the Court reiterated that “a patentee is entitled to a definition that encompasses all consistent meanings.”⁴¹⁹

In *Rambus v. Infineon* (2003), the Court considered two technical dictionaries, albeit in an analogous context, to construe the term “integrated circuit device.”⁴²⁰ As to the term “bus”, however, the Court expressly considered a technical dictionary.

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),⁴²¹ 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 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 75* (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.”⁴²²

⁴¹⁷ 375 F.3d at 1336.

⁴¹⁸ *Id.*

⁴¹⁹ *Id.*

⁴²⁰ 318 F.3d 1081, 1091 (Fed. Cir. 2003), rehearing denied, 2003 U.S. App. LEXIS 8845.

⁴²¹ 379 F.3d 1311 (Fed. Cir. 2004).

⁴²² 379 F.3d at 1320.

Likewise, in *Lighting World, Inc. v. Birchwood Lighting, Inc.*⁴²³ 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).⁴²⁴

2. Other Reference Works

Reference works other than dictionaries have also been used. In *Glaxo Wellcome, Inc. v. Andrx Pharma.*,⁴²⁵ 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* 31 (3rd ed. 1977), *Introduction to Classical & Modern Optics* 120 (3rd ed. 1989), and other reference works to ascertain the meaning of the limitation "toroidal."⁴²⁶

Less commonly used but potentially helpful sources of extrinsic evidence are publications produced by standards-setting organizations. The Court in *ACTV, Inc. v. Walt 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."⁴²⁷ 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

⁴²³ 382 F.3d 1354 (Fed. Cir. 2004).

⁴²⁴ *Id.* at 1360-61.

⁴²⁵ 344 F.3d 1226, 1229 (Fed. Cir. 2003).

⁴²⁶ 386 F.3d at 1139.

⁴²⁷ 346 F.3d 1082, 1090 (Fed. Cir. 2003).

these Requests for Comments to the same authoritative, unbiased level as dictionaries is improper.”⁴²⁸

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),⁴²⁹ citing *Solomon v. Kimberly Clark* (2000).⁴³⁰ The Court had also addressed this in *Superior Fireplace v. Majestic Products* (2001)⁴³¹ and *Amazon.com v. Barnesandnoble.com* (2001).⁴³² In 2000, the Court had explained that while inventor testimony is rejected as probative of the claim meaning, extrinsic evidence may properly be received to educate the Court about the underlying technology, *Hockerson-Halberstadt v. Avia Group Int'l.*,⁴³³ or to show the context or history of the invention, *Cortland Line v. Orvis* (2000)⁴³⁴ and *Solomon v. Kimberly Clark* (2000), *supra*.

The district court did, however, receive inventor testimony in *Goldenberg v. Cytogen, Inc.* (2004)⁴³⁵ 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 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.⁴³⁶

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.⁴³⁷ The Court explained that “[t]his extrinsic evidence is not the unequivocal evidence, indicating the term ‘identifying’ should take anything

⁴²⁸ *Id.*

⁴²⁹ 343 F.3d 1364 (Fed. Cir. 2003)

⁴³⁰ *Solomon v. Kimberly Clark*, 216 F.3d 1372 (Fed. Cir. 2000).

⁴³¹ *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).

⁴³² *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343 (Fed. Cir. 2001).

⁴³³ 222 F.3d 951 (Fed. Cir. 2000)

⁴³⁴ *Cortland Line v. Orvis*, 203 F.3d 1351 (Fed. Cir. 2000).

⁴³⁵ 373 F.3d 1158 (Fed. Cir. 2004).

⁴³⁶ *Id.*

⁴³⁷ *Akamai Techs, Inc. v. Cable & Wireless Internet Services, Inc.*, 344 F.3d 1186, 1194 (Fed. Cir. 2003).

other than its ordinary and accustomed meaning.”⁴³⁸ 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.”⁴³⁹

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.⁴⁴⁰

4. Other Extrinsic Evidence

The Court in various cases declares that it will look beyond claim language only if it is unclear.⁴⁴¹ The Court also stated that *after* the intrinsic evidence is considered in claim construction, *if ambiguity remains*, then extrinsic evidence may be considered in determining the meaning or scope of technical terms in claims.⁴⁴² Other Federal Circuit cases explain that extrinsic evidence can or should have various roles in the claim construction process. Indeed, it may actually be *necessary* to consider extrinsic evidence to determine what the ordinarily skilled artisan understands.⁴⁴³ The Court has remanded one case for consideration of extrinsic evidence.⁴⁴⁴

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

When construing the claims, we begin with an examination of the intrinsic evidence, *i.e.*, the claims, the other portions of the written

⁴³⁸ *Id.* (citations omitted)

⁴³⁹ *Id.* (citations omitted); *See also*, *Solomon v. Kimberly-Clark Corp.*, 216 F.3d 1372 (Fed. Cir. 2000).

⁴⁴⁰ 336 F.3d 1298, 1307 (Fed. Cir. 2003).

⁴⁴¹ *E.g.*, *KCJ v. Kinetic Concepts*, 223 F.3d 1351 (Fed. Cir. 2000). In *Vitronics v. Conceptiontronic*, 90 F.3d 1576, 1582 (Fed. Cir. 1996), the Court declared that if the intrinsic evidence alone would resolve any ambiguity in a claim term, it is improper to rely on extrinsic evidence.

⁴⁴² *Frank’s Casing Crew & Rental Tools, Inc. v. PMR Technologies, Ltd.*, 292 F.3d 1363, 1374 (Fed. Cir. 2002); *Pickholtz v. Rainbow Technologies, Inc.*, 284 F.3d 1365 (Fed. Cir. 2002); *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed. Cir. 2002), *rehearing and reh. en banc denied*, 2002 U.S. App. LEXIS 27412 (Fed. Cir. 2002), *cert. denied* 12 S.Ct. 2230 (2003) (where patent documents are unambiguous, no weight to be given to expert testimony regarding meaning of claim).

⁴⁴³ *AFG Industries, Inc. v. Cardinal IG Co.*, 239 F.3d 1239 (Fed. Cir. 2001). Indeed, the *AFG Industries* Court said it could be reversible error not to consider it. Yet in another case decided by the Federal Circuit just seven days later, the Court did not mention even once the role, if any, of the ordinarily skilled artisan. *DeMarini Sports, Inc. v. Worth, Inc.*, 239 F.3d 1314 (Fed. Cir. 2001). *Cf. Cybor, supra* (*en banc* decision).

⁴⁴⁴ *Advanced Cardiovascular v. SciMed Life Systems, Inc.*, 261 F.3d 1329 (Fed. Cir. 2001)

description, and the prosecution history (if any, and if in evidence). Additionally, dictionary definitions may be consulted in establishing a claim term's ordinary meaning. In analyzing the intrinsic evidence, we start with the language of the claims and engage in a "strong presumption" that claim terms carry their ordinary meaning as viewed by one of ordinary skill in the art. Courts may also review extrinsic evidence to assist them in comprehending the technology in accordance with the understanding of skilled artisans and as necessary for actual claim construction. Extrinsic evidence may not be relied upon, however, to vary or contradict the clear meaning of terms in the claims.⁴⁴⁵

Early in 2003, the Court approved a confirmatory role for extrinsic evidence. In *Plant Genetic Systems v. DeKalb*,⁴⁴⁶ the Court approved (or encouraged) the use of extrinsic evidence "to ensure that the claim construction ... is not inconsistent with clearly expressed, plainly apposite and widely held understandings in the pertinent technical field."⁴⁴⁷ According to the Court, "such use of extrinsic evidence is permitted."

Extrinsic evidence was rejected, however, in *Brookhill-Wilk I v. Intuitive Surgical*.⁴⁴⁸ The Court declined to consider extrinsic evidence when the plain language of the claims, the written description, and the prosecution history "fully support" the meaning given to the claim term at issue.

5. Expert Testimony

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

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

⁴⁴⁵ *Apex v. Raritan Computer, Inc.*, 325 F.3d 1364, 1371 (Fed. Cir. 2003) (internal citations omitted).

⁴⁴⁶ 315 F.3d 1335 (Fed. Cir. 2003)

⁴⁴⁷ *Id.* at 1346 (citing *Pitney Bowes, Inc. v. Hewlett Packard Co.*, 182 F.3d 1298, 1308 (Fed. Cir. 1999).

⁴⁴⁸ 334 F.3d 1294 (Fed. Cir. 2003).

proposed definition fully comports with the specification and claims and so will preserve the patent's internal coherence.⁴⁴⁹

In *Vitronics Corporation v. Conceptronic, Inc.* (1996),⁴⁵⁰ the Federal Circuit ruled that if an ambiguity remains after all of the intrinsic evidence has been considered, then the trial court should resort to extrinsic evidence, such as expert testimony. However, expert testimony which contradicts the intrinsic evidence is not entitled to any weight. It can, however, be used “only to help the court come to the proper understanding of the claims; [but] it may not be used to vary or contradict the claim language. *** Nor may it contradict the import of other parts of the specification.”

The Federal Circuit has been approving the use of experts in other ways, however. They are not just for trying to resolve ambiguities and for example have a role in establishing what the ordinarily skilled worker would understand about various language. In 2002, the Court in *Bayer AG v. Biovail Corp.*⁴⁵¹ embraced the use of expert testimony, citing *Fonar Corp. v. Johnson & Johnson* (1987),⁴⁵² (“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)⁴⁵³ 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),⁴⁵⁴ the Court referred to expert testimony without commenting on why that should bear on claim construction.

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

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

⁴⁴⁹ *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 389-90, 116 S.Ct. 1384, 1395 (1996). It is not clear from this, however, that the Supreme Court was actually endorsing the use of expert witnesses to construe patent claims or, on the other hand, explaining why judges are in a position superior to juries to understand such testimony, should it come into the record.

⁴⁵⁰ *Vitronics Corporation v. Conceptronic, Inc.*, 90 F.3d 1576 (Fed. Cir. 1996).

⁴⁵¹ *Bayer AG v. Biovail Corp.* 279 F.3d 1340 (Fed. Cir. 2002).

⁴⁵² *Fonar Corp. v. Johnson & Johnson*, 821 F.2d 627, 631 (Fed. Cir. 1987), overruled in part, 508 U.S. 83, 90.

⁴⁵³ 287 F.3d 1062 (Fed. Cir. 2002)

⁴⁵⁴ *Trintec Industries, Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292 (Fed. Cir. 2002).

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.⁴⁵⁵

In *Storage Technology v. Cisco Systems* (2003),⁴⁵⁶ 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. Conception* as authority that resort to extrinsic evidence is "appropriate only when an ambiguity remains after consulting the intrinsic evidence of record" — which was not the case here. Second, the trial court did not use the expert's declaration to define a claim limitation, but rather used it to limit claim scope based on the invention's purpose — which is impermissible.

Omega Engineering v. Raytek (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.⁴⁵⁷

The Court in *Merck & Company, Inc. v. Teva Pharmaceuticals USA* (2003)⁴⁵⁸ 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."⁴⁵⁹ The Court concluded there was no reversible error in the district court's crediting of the

⁴⁵⁵ 288 F.3d at 1368.

⁴⁵⁶ 329 F.3d at 832.

⁴⁵⁷ 334 F.3d at 1332.

⁴⁵⁸ 347 F.3d 1367 (Fed. Cir. 2003).

⁴⁵⁹ *Id.* at ____ [HN5].

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

In *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 lead to the conclusion that the disputed term HPMC was "not limited to a particular grade or molecular weight, provided only that the claimed limitations of release rate and plasma levels are met."⁴⁶⁰ 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."⁴⁶¹ The Court chose not to limit the claims to the preferred embodiment or the examples given in the specification.⁴⁶²

The Court referred to expert testimony in *Apex v. Raritan Computer* (2003),⁴⁶³ 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)⁴⁶⁴ 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

⁴⁶⁰ 344 F.3d 1226, 1230-1233 (Fed. Cir. 2003).

⁴⁶¹ 344 F.3d at 1233.

⁴⁶² *Id.*

⁴⁶³ *Apex Inc. v. Raritan Computer Inc.*, 325 F.3d 1364, 1374 (Fed. Cir. 2003).

⁴⁶⁴ 373 F.3d 1158 (Fed. Cir. 2004)

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 omitted). 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 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).⁴⁶⁵

The Court also noted that expert testimony can be relevant extrinsic evidence in *Home Diagnostics v. Lifescan* (2004).⁴⁶⁶

F. 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 seems to foment controversy 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.

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

⁴⁶⁵ 373 F.3d at 1166.

⁴⁶⁶ 381 F.3d at 1356.

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 a means-plus-function limitation because the claim specifically recites the structure that performs the claimed function.⁴⁶⁷ 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, the alleged infringer asserts, and the patentee denies, that §112, ¶6 applies and presents this as a claim construction issue for the Court to decide.

That was the case in *Apex v. Raritan Computer* (2003).⁴⁶⁸ 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.⁴⁶⁹ 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.⁴⁷⁰

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.⁴⁷¹

⁴⁶⁷ 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).

⁴⁶⁸ 325 F.3d at 1371.

⁴⁶⁹ *Id.*

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

⁴⁷¹ 325 F.3d at 1372.

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 required.⁴⁷² In fact, the Court noted that “[t]he claim limitation at issue recites not only a pumping means, but its structure, location, and operation.”⁴⁷³

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

Next, to determine whether a claim term recites sufficient structure, the Court examines whether the term has an understood meaning in the art.⁴⁷⁴ 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, ¶6.⁴⁷⁵

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

⁴⁷² 375 F.3d at 1135.

⁴⁷³ *Id.* (internal citations omitted)

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

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

and the record otherwise was too undeveloped to show that the terms “do not connote sufficiently definite structure to one of ordinary skill in the art.”⁴⁷⁶

Decisions in 2004 were consistent with *Apex*. In *Linear Technology Corp. v. Impala Linear Corp.*,⁴⁷⁷ 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* 75 (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.”⁴⁷⁸

Similarly, in *Lighting World, Inc. v. Birchwood Lighting, Inc.* (2004),⁴⁷⁹ 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."⁴⁸⁰

In *Gemstar-TV Guide International, Inc. v. ITC* (2004),⁴⁸¹ 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

⁴⁷⁶ 325 F.3d at 1375.

⁴⁷⁷ 379 F.3d 1311 (Fed. Cir. 2004).

⁴⁷⁸ *Id.* at 1320.

⁴⁷⁹ 382 F.3d 1354 (Fed. Cir. 2004).

⁴⁸⁰ *Id.* at 1360.

⁴⁸¹ 383 F.3d 1352 (Fed. Cir. 2004).

technologies’ cannot fall within the literal scope of the claim at issue.⁴⁸² The Court explained that “[m]ethod and apparatus claims not written in means-plus-function format are not necessarily limited to that disclosed in the specification but rather are defined by the language of the claims themselves.”⁴⁸³ 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.⁴⁸⁴ 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.”⁴⁸⁵

b. Methodology When §112, ¶6 Applies

Even when §112, ¶6 applies, the claim element at issue has to be construed. Judge Gajarsa in *Cardiac Pacemakers v. St. Jude Medical* (2002)⁴⁸⁶ reviewed numerous principles concerning §112, ¶6 claim elements:

- the claimed function is identified first;
- the function is limited to those recited in the claim language;
- the claim language is interpreted by ordinary principles of claim construction;
- such functions are not to be broadened or narrowed beyond the claim language;
- functions not recited in the means plus function claim, even if performed by the corresponding structure, are not to be included in the claim construction;
- the corresponding structure that performs that function is determined;
- the specification must link or associate structure with the function;
- if there is no disclosed structure to perform the function, the claim is invalid;

⁴⁸² 358 F.3d 870, 878 (Fed. Cir. 2004).

⁴⁸³ *Id.*

⁴⁸⁴ *Id.*

⁴⁸⁵ *Id.*

⁴⁸⁶ 296 F.3d 1106 (Fed. Cir. 2002)

- the “corresponding structure” must include *all* the structure that performs the recited function;
- however, just as functions that are not recited in the claim language are not to be included in the claim construction, neither are structural features that do not actually perform the recited function properly included.

Several of these principles were reiterated in 2003 in *Medical Instrumentation and Diagnostics Corp. v. Elekta AB*.⁴⁸⁷ 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.*⁴⁸⁸

In 2004 in *Gemstar-TV Guide v. ITC*,⁴⁸⁹ 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).⁴⁹⁰

⁴⁸⁷ *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.

⁴⁸⁸ 379 F.3d 1311, 1321 (Fed. Cir. 2004).

⁴⁸⁹ 383 F.3d 1352 (Fed. Cir. 2004)

⁴⁹⁰ 389 F.3d 1370 (Fed. Cir. 2004)

The Federal Circuit in *Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.* (2004)⁴⁹¹ 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

One case that involved determining the claimed function was *Omega Engineering v. Raytek Corp.* (2003),⁴⁹² which presented the following claim element: “means for causing . . . at least one laser beam to strike the periphery of the energy zone for visibly outlining said entire energy zone.” The Court admonished that in identifying the claimed function, it must “stay . . . true to the claim language and the limitations expressly recited by the claims” and “take great care not to impermissibly limit the function by adopting a function different from that explicitly recited in the claim.”⁴⁹³ The district court had added a negative limitation that the laser could not, in performing this outlining function, strike the center of the energy zone, for this would, in the district court’s view, contradict an express element of the claim. The Federal Circuit disagreed, stating that the negative limitation was not supported by the express text of the claim, which did not forbid the laser beam from striking inside the energy zone. Nor did the claim word “periphery” justify the limitation. The Court referred to ordinary dictionaries to define that word (because it had no specialized meaning), and ruled that the plain words of the claim require simply that the beam must strike the periphery of the zone. Nor did the specification provide any express disclaimer. Hence, the “heavy presumption” that claim terms carry their full ordinary and customary meaning was not rebutted by the specification. The *Omega Engineering* Court also found a clear disavowal in the prosecution history but not one broad enough to support the summary judgment, and relied on the clear linking requirement.⁴⁹⁴ It emphasized that disavowals must be “both clear and unmistakable.”

The sequence of determining the function and *then* identifying the corresponding structure is important. The *Omega Engineering* Court chastised the district court for doing the

⁴⁹¹ 381 F.3d 1371 (Fed. Cir. 2004).

⁴⁹² 334 F.3d 1314 (Fed. Cir. 2004).

⁴⁹³ 334 F.3d at 1322.

⁴⁹⁴ The disclaimer was that while the laser beam could strike within the energy zone, it could not add detectable heat to it.

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

Another case involving the function in this type of claim is *Lockheed Martin v. Loral* (2003).⁴⁹⁵ 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.^{496 497}

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.⁴⁹⁸

In *Frank’s Casing Crew v. Weatherford International, Inc.* (2004)⁴⁹⁹ the Federal Circuit affirmed a summary judgment of noninfringement of means plus function claims. In that case, the Court determined the function to be the pivoting of a boom used for oil exploration about a horizontal axis to raise and lower a second end of the boom which carried a set of jaws used to secure piping. The pivoting function permitted the elevation of the boom to where it could be extended in a generally vertical direction.

In *Golight, Inc. v. Wal-Mart Stores, Inc.* (2004),⁵⁰⁰ 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.

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*

⁴⁹⁵ *Lockheed Martin Corp. v. Space Systems/Loral, Inc.*, 324 F.3d 1308 (Fed. Cir. 2003).

⁴⁹⁶ *Id.* at 1319.

⁴⁹⁷ 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.

⁴⁹⁸ 383 F.3d at 1361.

⁴⁹⁹ 389 F.3d 1370 (Fed. Cir. 2004)

⁵⁰⁰ 355 F.3d 1327 (Fed. Cir. 2004)

function. The “clear linking” requirement was mentioned *supra* in sub-part b. The clear linking requirement was reviewed in 2003 in *Utah Medical Products v. Graphic Controls*. The Court noted that structure in the specification is “corresponding structure *only if* the specification or prosecution history clearly links or associates that structure to the function recited in the claim.” The duty to link clearly is the *quid pro quo* for the convenience allowed by §112, ¶6. In this case, defendant Graphics Controls argued that the patent specification failed to link the stiffening function to the plastic cable cover, wherefore any “claim” allowing the cover to perform the function is indefinite. The trial court rejected this challenge and was sustained on appeal: the Court did not allow a structure disclosed in the specification that was not linked to the function of the means claim to perform that function. The jury found that specific structure *beyond* a simple cable cover performed the function. Accordingly, the Court found the patent not invalid (as indefinite) but to the contrary found that it adequately informed one skilled in the art that a separate, permanent component of the cable means could perform the stiffening function.

In *ACTV, Inc. v. Walt Disney Co.* (2003), the Court considered a variety of sources to construe the term “means for receiving . . . a uniform source locator,” *i.e.*, a URL.⁵⁰¹ First, the Court rejected using RFC's (Request for Comments) from the W3C (World Wide Web Consortium) to construe a URL because the RFC's did not reflect a “common usage but purport[ed] to select language to be used in the future”⁵⁰² Second, the Court considered the plain language by examining the context in which URL was used, and found a broad meaning. Next, the Court considered the written description to determine if the plain meaning was rebutted. After reviewing the abstract, summary of the invention, and the preferred embodiment, the Court found that the specification did not teach a limiting construction. Finally, the Court addressed the prosecution history and concluded that it “[did] not inform a definition other than the ordinary and customary meaning of the term URL, and further, does not disclaim or disavow any interpretation of the term URL.”⁵⁰³

In *Northrop Grumman Corp. v. Intel Corp.* (2003),⁵⁰⁴ the Court, reversing and remanding, held that the district court unduly restricted the claims by erroneously including

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

⁵⁰² *Id.* at 1089-1090.

⁵⁰³ *Id.* at 1092.

⁵⁰⁴ 325 F.3d 1346, 1354 (Fed. Cir. 2003).

additional elements as part of the “corresponding structure” which was unnecessary to perform the claimed function.⁵⁰⁵ In interpreting the corresponding structure of a claimed function, the Court looked to the plain meaning of the words in the claim and the language of the written description. The Court stated, “Absent a clear disclaimer of a particular subject matter, the fact that the inventor may have anticipated that the invention would be used in a particular way does not mean that the scope of the patent is limited to that context.”⁵⁰⁶

The Court in *Tehrani v. Hamilton Medical Inc.* (2003)⁵⁰⁷ held that “means for processing” is “written in means-plus-function form which recites a function to be performed and is construed to cover the corresponding structure, materials or acts described in the specification and equivalents thereof.” In a means-plus-function claim in which a computer program is the described structure employed to effect an algorithm, the described structure is the special purpose computer program which performed the disclosed function, not an off-the-shelf computer.

In *Frank’s Casing Crew & Rental Tools, Inc. v. Weatherford International, Inc.* (2004),⁵⁰⁸ 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),⁵⁰⁹ the Federal Circuit affirmed the ITC’s finding that the function dictated by the patent-in-suit required that a video switcher be

⁵⁰⁵ *Id.* at 1352-1353. In this case, the Court construed the corresponding structures of a “means for monitoring” function. The Court noted that the signals that are monitored by the “means for monitoring” cannot be part of the structure that does the monitoring. *Id.* at 1352 (citing *O.I. Corp. v Tekmar Co.*, 115 F.3d 1576, 1581 (Fed. Cir. 1997)), rehearing *en banc* denied, granted in part, 1997 U.S. App. LEXIS 22282.

⁵⁰⁶ *Id.* at 1355.

⁵⁰⁷ 331 F.3d 1355 (Fed. Cir. 2003).

⁵⁰⁸ 389 F.3d 1370 (Fed. Cir. 2004)

⁵⁰⁹ 383 F.3d 1352 (Fed. Cir. 2004)

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),⁵¹⁰ 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 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),⁵¹¹ 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."⁵¹² 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"

Though cases dealing with the "step plus function" branch of §112, ¶6 are rare, one was

⁵¹⁰ 355 F.3d 1327 (Fed. Cir. 2004).

⁵¹¹ 392 F.3d 1325,—, 2004 U.S. App. LEXIS 25766, at *8-*10 (Fed. Cir. Dec. 14, 2004).

⁵¹² 375 F.3d at 1137.

decided in 2004. In *Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.* (2004),⁵¹³ 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.⁵¹⁴ 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 “step for” raises a presumption that §112, ¶6 does not apply to the method.⁵¹⁵

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.”⁵¹⁶ 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.”

In *Masco Corp. v. United States* (2002),⁵¹⁷ one court had reversed a ruling that a method claim element (“transmitting a force...”) was in “step plus function” form under §112, ¶6. The Court of Federal Claims had determined that the claim element did not recite an act. The Federal Circuit disagreed. First, a recital of the words, “steps for” would indicate an intent to be governed by §112, ¶6. However, a second condition for the statute to apply is that the clause must describe steps-plus-function *without* reciting “acts.” Analyzing the claim element at issue, the Federal Circuit confirmed the absence of the phrase, “step for.” The claims at issue were for a method, comprising several steps, *of* controlling a lock. The fourth step called for

⁵¹³ 381 F.3d 1371 (Fed. Cir. 2004).

⁵¹⁴ *Id.* at 1381.

⁵¹⁵ *Id.* at 1382.

⁵¹⁶ 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.

⁵¹⁷ 303 F.3d 1316 (Fed. Cir. 2002)

“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.⁵¹⁸ 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.”⁵¹⁹ The Court found that the limitations do contain an act, noting that the phrase, “transmitting a force” describes how a lever is driven into a cam.

The Court in *Minton v. National Association of Securities Dealers* (2003)⁵²⁰ held that a “whereby clause” in a method claim “is not given weight when it simply expresses the intended result of a process step positively recited.” The term in question, “efficiently,” is one that praises the outcome of the executing step.

G. Design Patents

Claim construction is required in a design patent, even though there is only one claim, and its language is fairly uniform. Design patent cases coming before the Federal Circuit are few in number, and the Court does not publish all of its decisions in this area. One precedential ruling in 2004 concerned the construction of a design patent.

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.⁵²¹ 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

⁵¹⁸ 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.”

⁵¹⁹ 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.

⁵²⁰ 336 F.3d 1373 (Fed. Cir. 2003).

⁵²¹ 386 F.3d 1371, 1378 (Fed. Cir. 2004).

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 had 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 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.⁵²² 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 *Berhardt* 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.⁵²³ This comports with *Door-Master v. Yorktowne* (2001),⁵²⁴ where the patent claim was construed to avoid functional features.

Functionality was addressed also in *Catalina Lighting International, Inc. v. Lamps Plus, Inc.* (2002),⁵²⁵ and *Rosco Inc. v. Mirror Lite Co.* (2002).⁵²⁶ 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

⁵²² *Id.* at 1384-85.

⁵²³ *Id.* at 1383.

⁵²⁴ *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).

⁵²⁵ *Catalina Lighting International, Inc. v. Lamps Plus, Inc.*, 295 F.3d 1277 (Fed. Cir. 2002).

⁵²⁶ *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).

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*⁵²⁷ 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).⁵²⁸ Also, “When there are several ways to achieve the function of an article of manufacture, the design of the article is more likely to serve a primarily ornamental purpose.”

The construction of the claim in a design patent calls for considering all of the figures. In *Contessa Food Products v. ConAgra, Inc.* (2002),⁵²⁹ 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. Procedure and Timing

District courts typically hold *Markman*⁵³⁰ hearings before trial, although “hearings” *per se* are not required. Indeed, the Federal Circuit confirmed the wide latitude given to the district court in complying with the *Markman* requirement, which “does not require a district court to follow any particular procedure in conducting claim construction. It merely holds that claim construction is the province of the Court, not a jury.” *Ballard Medical v. Allegiance Healthcare* (2001).⁵³¹ In one case, the district court offered a tentative claim construction, then held a *Markman* hearing, invited further briefing, and delivered its claim construction after trial but

⁵²⁷ 304 F.3d 1373 (Fed. Cir. 2002)

⁵²⁸ *L.A. Gear, Inc. v. Thom McAn Shoe Co.*, 988 F.2d 1117, 1123 (Fed. Cir. 1993).

⁵²⁹ *Contessa Food Products, Inc. v. ConAgra, Inc.* 282 F.3d 1370 (Fed. Cir. 2002).

⁵³⁰ *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995)(*in banc*), affirmed, 517 U.S. 370 (1996).

⁵³¹ *Ballard Medical Products v. Allegiance Healthcare Corp.*, 268 F.3d 1352 (Fed. Cir. 2001).

before jury deliberations. *See Medtronic v. Advanced Cardiovascular* (2001).⁵³² In a 2003 case, the Federal Circuit approved a district court's revision of its prior claim construction. *Utah Medical Products v. Graphics Controls*.⁵³³ That is, the district court had made one claim construction but during oral argument on pre-trial motions revised its construction.

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);⁵³⁴ *AK Steel v. Sollac*;⁵³⁵ *Ferguson Beauregard v. Mega Systems*;⁵³⁶ *Northrop Grumman Corp. v. Intel Corp.*;⁵³⁷ *Crystal Semiconductor v. Tritech* (2001);⁵³⁸ and *Datapoint v. Standard Microsystems* (2002).⁵³⁹ For magistrates, *see e.g., Day International v. Reeves* (2001);⁵⁴⁰ *Sandt Technology v. Resco* (2001);⁵⁴¹ and *Smith & Nephew v. Ethicon* (2001).⁵⁴²

B. Jury Issues

In *Sulzer Textil A.G. v. Picanol N.V.*,⁵⁴³ 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

⁵³² *Medtronic v. Advanced Cardiovascular Systems, Inc.*, 248 F.3d 1303 (Fed. Cir. 2001).

⁵³³ 350 F.3d 1376 (Fed. Cir. 2003)

⁵³⁴ 378 F.3d 1396, 1407-1408 (Fed. Cir. 2004) (affirming the Special Master's construction of 'interface' to be 'necessarily physical').

⁵³⁵ 344 F.3d 1234 (Fed. Cir. 2003)

⁵³⁶ 350 F.3d 1327 (Fed. Cir. 2003)

⁵³⁷ 325 F.3d at 1352-1353

⁵³⁸ *Crystal Semiconductor Corp. v. Tritech Microelectronics, Int'l. Inc.*, 246 F.3d 1336 (Fed. Cir. 2001).

⁵³⁹ *Datapoint Corp. v. Standard Microsystems Corp.*, 31 Fed. Appx. 685, 2002 WL 243431 (Fed. Cir. 2002) (not published).

⁵⁴⁰ *Day International, Inc. v. Reeves Brothers, Inc.*, 260 F.3d 1343 (Fed. Cir. 2001).

⁵⁴¹ *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).

⁵⁴² *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).

⁵⁴³ *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).

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."⁵⁴⁴

The Court holds that in no case should claim construction, even to a minimal degree, slip into the realm of the jury. In *Moba v. Diamond Automation* (2003),⁵⁴⁵ 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.'"⁵⁴⁶ 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

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 has arisen several times and is largely 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).⁵⁴⁷ 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 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

⁵⁴⁴ 358 F.3d at 1366.

⁵⁴⁵ 325 F.3d 1306, 1313-1314 (Fed. Cir. 2003)

⁵⁴⁶ *Id.* at 1313.

⁵⁴⁷ 285 F.3d 1362 (Fed. Cir. 2002).

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).⁵⁴⁸ 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.”⁵⁴⁹

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.⁵⁵⁰

In contrast, the Court in *Cardiac Pacemakers v. St. Jude Medical* (2004)⁵⁵¹ 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 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.⁵⁵²

⁵⁴⁸ *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’].”

⁵⁴⁹ 340 F.3d at 1321.

⁵⁵⁰ *Koito Mfg. Co. v. Turn-Key-Tech, LLC*, 381 F.3d 1142, 1150 (Fed. Cir. 2004).

⁵⁵¹ 381 F.3d 1371, 1381 (Fed. Cir. 2004).

⁵⁵² *Id.* at 1381.

As noted *supra*, another waiver arose in *Eli Lilly v. Aradigm* (2004),⁵⁵³ 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.”⁵⁵⁴

Likewise, in *Superguide Corp. v. Direct TV Enterprises, Inc.* (2004),⁵⁵⁵ 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.⁵⁵⁶ Similarly, in *NTP v. Research in Motion, Ltd.*, the Court ruled that RIM had waived its newly-proposed (on appeal) claim construction by not raising it at the district court level.⁵⁵⁷

D. Form of Claim Construction Rulings

The district courts seem to have wide latitude in the form of claim constructions, and the Federal Circuit has been inconsistent on what it requires. 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).⁵⁵⁸ 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.”⁵⁵⁹

Then in 2003, in a concurring opinion, Judge Dyk in *Oakley v. Sunglass Hut Int’l.* (2003),⁵⁶⁰ citing past Federal Circuit decisions, noted that the trial court had no obligation to

⁵⁵³ *Eli Lilly & Co. v. Aradigm Corp.*, 376 F.3d 1352, 1360 (Fed. Cir. 2004).

⁵⁵⁴ *Id.*, citing *United States Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997).

⁵⁵⁵ 358 F.3d 870, 881 (Fed. Cir. 2004)

⁵⁵⁶ 358 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).

⁵⁵⁷ 204 U.S. App. LEXIS 25767 (Fed. Cir. 2004).

⁵⁵⁸ *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).

⁵⁵⁹ *AFG Industries Inc. v. Cardinal IG Co.*, 239 F.3d 1239 (Fed. Cir. 2001).

⁵⁶⁰ 316 F.3d 1331 (Fed. Cir. 2003).

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.⁵⁶¹

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.*⁵⁶²

Hopefully, the Court will eventually set forth a clear rule of law on what it expects from the district courts on the form of their claim construction rulings.

E. Estoppel Issues

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.*⁵⁶³

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.⁵⁶⁴

In *Alfred Dana III v. E.S. Originals, Inc.* (2003),⁵⁶⁵ 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.⁵⁶⁶

F. Appellate Procedure

The Court remanded a case to the district court when the appellate record was insufficient to resolve the claim construction issues. *Toro Co. v. Deere & Co.* (2004)⁵⁶⁷ (remand so district court can receive additional evidence to guide claim construction analysis).

⁵⁶¹ *Oakley*, 316 F.3d at 1348 (citing *Sofamor Danek Group, Inc. v. DePuy-Motech, Inc.*, 74 F.3d 1216, 1221 (Fed. Cir. 1996)).

⁵⁶² 355 F.3d 1313, 1319 (Fed. Cir. 2004).

⁵⁶³ 363 F.3d 1263, 1267-68 (Fed. Cir. 2004).

⁵⁶⁴ 386 F.3d 1095, 1104 (Fed. Cir. 2004).

⁵⁶⁵ 342 F.3d 1320 (Fed. Cir. 2003).

⁵⁶⁶ 342 F.3d at 1327.

⁵⁶⁷ 355 F.3d 1313 (Fed. Cir. 2004).

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)*.⁵⁶⁸

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)*⁵⁶⁹ Similarly, in *AFG Industries v. Cardinal IG Co.*,⁵⁷⁰ 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.⁵⁷¹

Regarding the “final judgment” requirement in *Nystrom v. Trex Co. (2003)*,⁵⁷² 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 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.⁵⁷³

⁵⁶⁸ 329 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.”).

⁵⁶⁹ 383 F.3d 1326, 1337 (Fed. Cir. 2004).

⁵⁷⁰ 375 F.3d 1367 (Fed. Cir. 2004).

⁵⁷¹ *Id.* at 1372.

⁵⁷² 339 F.3d 1347 (Fed. Cir. 2003)

⁵⁷³ *Id.* at 1349.

IV. 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 2004.⁵⁷⁴

SJ non-infringement	
reversed or vacated	Affirmed
<i>AFG Industries</i>	<i>C.R. Bard</i>
<i>Globetrotter Software</i>	<i>Chef America</i>
<i>*Goldenberg (equivalents)</i>	<i>Dynacore</i>
<i>Innova/Pure Water</i>	<i>Frank's Casing Crew</i>
<i>Liebel-Flarsheim</i>	<i>Glaxo Wellcome</i>
<i>Liquid Dynamics</i>	<i>*Goldenberg (literal)</i>
<i>Mars</i>	<i>Housey</i>
<i>Monsanto</i>	<i>Irdeto</i>
<i>*Nystrom</i>	<i>Novartis v. Eon</i>
<i>Superguide</i>	<i>Searfoss</i>
<i>Scanner Technologies</i>	<i>PSC Computer Products</i>
<i>On-Line Technologies</i>	<i>W.E. Hall Co.</i>

SJ infringement	
reversed or vacated	Affirmed
<i>*Astrazeneca</i>	
<i>International Rectifier</i>	

SJ invalidity	
reversed or vacated	Affirmed
<i>Bancorp</i>	<i>*Astrazeneca</i>
<i>*Nystrom</i>	
<i>Toro Co. v. Deere & Co.</i>	

⁵⁷⁴ The asterisks (*) in the tables denote that the case is listed in more than one category.

V. Opinion Writers

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

Judge	#	Case
<i>Per Curiam</i>	0	
Archer, S. J.	1	<i>Alza Corp.</i>
Bryson	8	<i>Bancorp Services, Gaus, In re American Academy of Science, Fuji Photo Film, Liebel-Flarsheim, Lighting World, Monsanto v. Bayer, On-line Technologies</i>
Clevenger	3	<i>Eli Lilly v. Aradigm, Housey Pharmaceuticals, Innova/Pure,</i>
Dyk	5	<i>Globetrotter Software, Honeywell v. Hamilton (en banc), Mars, Novartis v. Eon, Versa Corporation</i>
Friedman, S. J.	1	<i>Chef America</i>
Gajarsa	8	<i>Dynacore, Goldenberg, Koito Mfg., Liquid Dynamics, PSC Computer Products, Power Mosfet Technologies, Unitherm, W.E. Hall Co.</i>
Linn	11	<i>Bernhardt, Gemstar-TV Guide, Golden Blount, In re Crish, International Rectifier, Intirtool, Linear Technology, NTP, Nystrom, TI Group Automotive Systems, Sulzer Textil A.G.</i>
Lourie	4	<i>In re Crish, Microsoft, Philips I, Q-Pharma</i>
Mayer	0	
Michel, C.J. ⁵⁷⁵	6	<i>Astrazeneca, C.R. Bard, Irdeto, Vanderlande, Scanner Technologies, Searfoss</i>
Newman	3	<i>Cardiac Pacemakers, Kinik, Norian</i>
Plager, S.J.	0	
Prost	3	<i>Golight, Novartis v. Abbott, Superguide</i>
Rader	7	<i>AFG Industries, Chiron, Frank's Casing Crew, Home Diagnostics, In re Bigio, Metabolite, Smithkline Beecham,</i>
Schall	0	

⁵⁷⁵ Circuit Judge Michel became Chief Judge on December 25, 2004.

VI. Illinois Cases

The 2004 Federal Circuit cases concerning claim construction include the following appeals from federal courts in Illinois:

A. From the Northern District of Illinois:

Catalina Marketing Int'l., Inc. v. Coolsavings.com, Inc., 2004 U.S. App. LEXIS 24129 (Fed. Cir. 2004) (affirming dismissal of complaint following claim construction) (non-precedential);

Glaxo Group Ltd. v. Apotex, Inc., 376 F.3d 1339 (Fed. Cir. 2004) (affirming judgment of infringement; reversing determination of willfulness).

Liquid Dynamics v. Vaughan Co., 355 F.3d 1361 (Fed. Cir. 2004) (vacating summary judgment of non-infringement due to claim construction and an issue of fact)

Smithkline Beecham v. Apotex, 365 F.3d 1306 (Fed. Cir. 2004) (judgment of no liability affirmed; claim construction reversed).

B. From the Central District of Illinois:

(none)

C. From the Southern District of Illinois:

(none).