CHAPTER 1

CLAIM INTERPRETATION UNDER POST-MARKMAN PRECEDENT

Meredith Martin Addy & David H. Bluestone

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Patent infringement analysis involves two steps: (1) the proper construction of the asserted claim, and (2) a determination as to whether the accused method or product infringes the asserted claim as properly construed.\(^1\) Claim construction addresses the first of these two steps.

Since the Federal Circuit decision in *Markman v. Westview Instruments, Inc.*,\(^2\) it has been well-established that the proper construction of the asserted claims of a patent-in-suit is a matter of law for the district court in the first instance. The determination of a claim construction made by the district court is reviewed *de novo* by the Federal Circuit.\(^3\)

Over the years, the Federal Circuit has set forth the basic framework within which the district court is to construe the claims. The seminal case in this arena is *Vitronics Corp. v. Conceptronic, Inc.*\(^4\) In *Vitronics*, the Federal Circuit reiterated and analyzed the many sources available to the district court to aid in its claim construction duties. These sources include intrinsic evidence (evidence present in the file history of the patent-in-suit) and extrinsic evidence (evidence external to the file history of the patent-in-suit).

The Federal Circuit requires the district court to consult the intrinsic evidence first, and, in some instances, precludes reliance on extrinsic evidence:

It is well-settled that, in interpreting an asserted claim, the court should look first to the intrinsic evidence of record, *i.e.*, the patent itself, including the claims, the specification and, if in evidence, the prosecution history. . . . Such

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2 *Id.*
3 *See Cybor Corp. v. FAS Tech, Inc.*, 138 F.3d 1448, 1454 (Fed. Cir. 1998) (*en banc*).
4 90 F.3d 1576 (Fed. Cir. 1996).
intrinsic evidence is the most significant source of the legally operative meaning of disputed claim language.

*    *    *

In most situations, an analysis of the intrinsic evidence alone will resolve any ambiguity in a disputed claim term. In such circumstances, it is improper to rely on extrinsic evidence.5

The intrinsic evidence is strongly favored as it constitutes the “public record of the patentee’s claim, a record on which the public is entitled to rely. Competitors are entitled to review the public record, apply the established rules of claim construction, ascertain the scope of the patentee’s claimed invention and . . . design around the claimed invention.”6 Extrinsic evidence, e.g., dictionaries,7 expert testimony, or uncited prior art, is not part of the negotiations between the patentee and the Patent Office. Thus, traditionally, a court may rely on extrinsic evidence only if, after review of the intrinsic evidence, the construction of a claim term still remains ambiguous.8 Recent decisions, however, have shown a departure from that framework. In particular, technical dictionaries are now in the forefront of the claim interpretation hierarchy as useful tools in determining the plain meaning of claim language.9

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5 Id. at 1582-83 (internal citations omitted).
6 Id. at 1583 (citation omitted).
7 Traditionally, treatises and dictionaries were characterized as a special form of extrinsic evidence that could be examined by the court at any time. See id. at 1584 n.6. However, at least one recent decision, discussed below, has suggested in dicta that dictionaries and treatises should no longer be treated as extrinsic evidence. See Texas Digital Sys. v. Telegenix, Inc., 308 F.3d 1193, 1202-03 (Fed. Cir. Oct. 16, 2002).
8 Vitronics, 90 F.3d at 1583.
9 See, e.g., Texas Digital Sys., 308 F.3d. at 1205; CCS Fitness, Inc. v. Brunswick Corp., 288 F.3d 1359, 1366 (Fed. Cir. May 3, 2002).
Markman v. Westview Instruments, Inc.\textsuperscript{10}

In the Federal Circuit’s \textit{en bane} decision in \textit{Markman}, the court resolved, once and for all, that claim construction is a matter of law exclusively for the courts. The Federal Circuit analogized claim construction to statutory interpretation, a pure matter of law. Therefore, like statutory interpretation, committing claim construction to the judge, rather than the jury, did not violate the Seventh Amendment right to a jury trial.\textsuperscript{11}

According to \textit{Markman}, at “its inception, the Federal Circuit held that claim construction was a matter of law.”\textsuperscript{12} However, some Federal Circuit cases still considered claim construction to be a factual or mixed issue.\textsuperscript{13} Notwithstanding the apparent inconsistencies in the early Federal Circuit opinions, the \textit{Markman} court related that the Supreme Court had repeatedly held that the “construction of a patent claim is a matter of law exclusively for the court.”\textsuperscript{14} The \textit{en bane} Federal Circuit reasoned that claim construction should not be left to the trier of fact because “[i]t has long been and continues to be a fundamental principle of American law that ‘the construction of a written evidence is exclusively with the court.’”\textsuperscript{15}

The Federal Circuit continued that “[t]o ascertain the meaning of claims, we consider three sources: The claims, the specification and the prosecution history. . . . Expert testimony, including evidence of how those skilled in the art would interpret the claims, may

\textsuperscript{10}52 F.3d 967 (Fed. Cir. 1995) (\textit{en bane}), aff'd, 517 U.S. 370 (1996).
\textsuperscript{11}Id. at 984.
\textsuperscript{12}Id. at 976 (citing SSIH Equip S.A. v. United States Int’l Trade Comm’n, 718 F.2d 365, 376 (Fed. Cir. 1983) as the first Federal Circuit case deciding a question of claim construction, and relying on \textit{Winans v. Denmead}, 56 U.S. (15 How.) 330, 14 L. Ed. 717 (1853)).
\textsuperscript{13}Id. (citations omitted).
\textsuperscript{14}Id. at 977 (citations omitted).
\textsuperscript{15}Id. at 978 (citing Levy v. Gadshy, 7 U.S. (3 Cranch) 180, 186, 2 L. Ed. 404 (1805) (Marshall, C.J.); \textit{Eddy v. Prudence Bonds Corp.}, 165 F.3d 157. 163 (2d Cir. 1947)).
also be used.” However, even in its Markman decision, the Federal Circuit placed a higher emphasis on the intrinsic record of a patent’s prosecution than on extrinsic evidence such as expert testimony. Nonetheless, the Markman en banc court did not exclude consideration of expert testimony; rather, it recognized the potential value of such testimony to determine how one of ordinary skill in the art would interpret technical claim language.\textsuperscript{17}

The Federal Circuit set forth the importance of the patent’s specification in determining the clear meaning of claim terms:

\begin{quote}
Claims must be read in view of the specification, of which they are a part. . . . For claim construction purposes, the description may act as a sort of dictionary, which explains the invention and may define terms used in the claims. . . . As we have often stated, a patentee is free to be his own lexicographer. . . . The caveat is that any special definition given to a word must be clearly defined in the specification. . . . The written description part of the specification does not delimit the right to exclude. That is the function and purpose of claims.\textsuperscript{18}
\end{quote}

In addition, the Federal Circuit emphasized that the prosecution history is of unique importance in the claim construction regime, and therefore, also must be considered if in evidence:

\begin{quote}
This “undisputed record” of the proceedings in the Patent and Trademark Office is of primary significance in understanding the claims. . . . The court has broad power to look as a matter of law to the prosecution history of the patent in order to ascertain the true meaning of language used in the patent claims.\textsuperscript{19}
\end{quote}

While the prosecution history should be considered, the Federal Circuit was quick to point out that it cannot be used to “enlarge, diminish, or vary” the limitations in the claims.\textsuperscript{20}

However, in its Markman decision, the en banc court did not elaborate further on this point.

\begin{footnotesize}
\begin{itemize}
\item[\textsuperscript{16}] Id. at 979 (internal citations omitted).
\item[\textsuperscript{17}] Id. at 980.
\item[\textsuperscript{18}] Id. at 979-80 (internal citations omitted).
\item[\textsuperscript{19}] Id. at 980 (internal citations omitted).
\item[\textsuperscript{20}] Id. (citations omitted).
\end{itemize}
\end{footnotesize}
Later panel decisions leading up to the Supreme Court’s decision in *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.* have provided the framework for limiting claim scope using the prosecution history. For example, recent cases have held that statements made during the prosecution of the patent-at-issue may limit the interpretation of claim terms to exclude subject matter disclaimed.

After a basic review of the intrinsic evidence available to the court for its claim construction analysis, the *en banc* Federal Circuit explained extrinsic evidence as consisting of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and treatises. The court noted the various uses for extrinsic evidence as follows:

This evidence may be helpful to explain scientific principles, the meaning of technical terms, and terms of art that appear in the patent and prosecution history. Extrinsic evidence may demonstrate the state of the prior art at the time of the invention. It is useful “to show what was then old, to distinguish what was new, and to aid the court in the construction of the patent.”

The court explained that a district court may, in its discretion, receive extrinsic evidence in order to aid it in reaching the correct conclusion as to the true meaning of the claim language. However, the court cautioned that while “[e]xtrinsic evidence is to be used for the court’s understanding of the patent, [it is not used] for the purpose of varying or contradicting the terms of the claims.”

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22 See, e.g., *Fantasy Sports Prods., Inc. v. Sportsline.com*, 287 F.3d 1108, 1115 (Fed. Cir. 2002) (citing *Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576 (Fed. Cir. 1995)).
23 *Markman*, 52 F.3d at 979 (citation omitted).
24 *Id.* at 980 (quoting *Brown v. Piper*, 91 U.S. 37, 41, 23 L. Ed. 200 (1875)).
25 *Id.* (citation omitted).
26 *Id.* at 981 (citing, *inter alia*, *Catalin Corp. of Am. v. Catalazuli Mfg. Co.*, 79 F.2d 593, 594 (2d Cir. 1935) (Learned Hand, J.) (“If the doctrine of the ‘integration’ of a written instrument has any basis at all, surely it should apply to such a document . . . [as a patent].”).
The Supreme Court affirmed the decision of the Federal Circuit. In its decision, the Court extensively analyzed the history and appropriateness of claim construction as a matter of law.27

[B] **Vitronics Corp. v. Conceptronic, Inc.**28

After its *en banc* decision in *Markman*,29 the Federal Circuit provided further detail on its theories of claim construction through various panel decisions. The Federal Circuit’s decision in *Vitronics* is seen by many as the seminal case in laying down the claim construction hierarchy for analysis of intrinsic evidence. Yet, some post-*Vitronics* decisions have attempted to retreat from that case’s apparently rigorous treatment of the use of extrinsic evidence as an aid in the claim construction analysis.

As discussed in the sections that follow, the *Vitronics* court attempted to refine the concepts laid down in *Markman* and thereby to provide the district court with a consistent framework using intrinsic evidence for the claim construction analysis. By setting forth a hierarchy of intrinsic evidence to consider on the way to the correct and unambiguous claim interpretation, the court in *Vitronics* attempted to provide the district court with explicit instructions to address an area of patent law with which many district court judges were unfamiliar. Later Federal Circuit decisions have further elaborated the instructions set forth in *Vitronics*.

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28 90 F.3d 1576 (Fed. Cir. 1996).
29 52 F.3d 967 (Fed. Cir. 1995) (*en banc*) (citation omitted).
Traditional Use of Intrinsic and Extrinsic Evidence in Claim Construction

The Claim Language Itself

The court begins all claim interpretation analysis with the language of the claims themselves.30 Claim terms generally are given their ordinary and customary meaning.31 General descriptive terms ordinarily are given their full meaning, while modifiers are not added to broad terms standing alone.32 Alternatively, a “patentee may choose to be his own lexicographer” and choose a different meaning for the claim term.33 However, any such special definition of the term must be clearly stated in the patent specification or file history.34

If the claim language is “clear on its face,” the remaining intrinsic evidence is used to determine if there is a “deviation from the clear language of the claims.”35 This deviation may take the form of the aforementioned definition in the specification or the surrender of a claim coverage in order to overcome a rejection during prosecution of the patent application.36 If the claim language is not “clear on its face,” the remaining intrinsic evidence is considered to resolve the lack of clarity.37

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30 Vitronics, 90 F.3d at 1582; Johnson Worldwide Assocs., Inc. v. Zebco Corp., 175 F.3d 985, 989 (Fed. Cir. 1999); Interactive Gift Express Inc. v. Compuserve Inc., 256 F.3d 1323, 1331 (Fed. Cir. 2001).
31 Johnson Worldwide, 175 F.3d at 989.
32 Id.; Virginia Panel Corp. v. MAC Panel Co., 133 F.3d 860, 865-66 (Fed. Cir. 1997) (unmodified term “reciprocating” not limited to linear reciprocation); Bell Communications Res., Inc. v. Vitalink Communications Corp., 55 F.3d 615, 621-22 (Fed. Cir. 1995) (unmodified term “associating” not limited to explicit association); Specialty Composites v. Cabot Corp., 845 F.2d 981, 987 (Fed. Cir. 1988) (unmodified term “plasticizer” given full range of ordinary and accustomed meaning).
33 Vitronics, 90 F.3d at 1582 (internal citations omitted).
34 See id.
35 Interactive, 256 F.3d at 1331.
36 See id.
37 See id.
While a court is allowed to read a claim in light of the specification, it cannot read a limitation into the claim from the specification.\footnote{Id.} In acknowledging this fine line, the Federal Circuit stated “we look ‘to the specification to ascertain the meaning of the claim term as it is used by the inventor in the context of the entirety of his invention,’ and not merely to limit a claim term.”\footnote{Interactive, 256 F.3d at 1332 (citing Comark Communications, Inc. v. Harris Corp., 156 F.3d 1182, 1187 (Fed. Cir. 1998).}


In the claim construction hierarchy, the Federal Circuit places high importance on the patent specification:

\begin{quote}
Second, it is always necessary to review the specification 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. . . . ‘Claims must be read in view of the specification, of which they are a part.’ . . . Thus, the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.\footnote{Vitronics, 90 F.3d at 1582 (internal citations omitted); accord Interactive, 256 F.3d at 1331.}
\end{quote}

Generally, the specification will confirm that the patentee intended to use the ordinary meaning of the claim term. In order to overcome the heavy presumption in favor of the ordinary meaning of claim language, a “party wishing to use statements in the written description to confine or otherwise affect a patent’s scope must, at the very least, point to a term or terms in the claim with which to draw in those statements.”\footnote{Johnson Worldwide, 175 F.3d at 989. (citation omitted).} The claims cannot be narrowed with reference to the written description or prosecution history unless the language
of the claims invites reference to those sources.\textsuperscript{42} In other words, a party wishing to modify the ordinary meaning of a disputed claim term based on language found in the patent specification must show a clear basis in the claim language or the specification for altering that accepted meaning.

There are two often cited situations sufficient to require the entry of a definition of a claim term other than its ordinary and accustomed meaning: (1) when the patentee has chosen to be his own lexicographer by clearly setting forth an explicit definition for a claim term;\textsuperscript{43} and (2) where the term or terms chosen by the patentee remain unclear and there is no means by which the scope of the claims may be ascertained from the language used.\textsuperscript{44} “In these two circumstances, a term or terms used in the claim invites--or indeed, requires--reference to intrinsic, or in some cases, extrinsic evidence, . . . to determine the scope of the claim language.\textsuperscript{45}

In general, claim terms should be construed such that the preferred embodiments of the specification will fall within the scope of the claims. The opposite result rarely, if ever, is correct and requires “highly persuasive evidentiary support.”\textsuperscript{46}

\begin{footnotesize}
\textsuperscript{42} Id., 175 F.3d at 989-90 (citation omitted). (citing \textit{McCarty v. Lehigh Val. R.R.}, 160 U.S. 110, 116, 16 S. Ct. 240, 40 L. Ed. 358 (1895) (“If we once begin to include elements not mentioned in the claim in order to limit such claim . . . we should never know where to stop.”); \textit{Renishaw PLC v. Marposs Societa per Azioni}, 158 F.3d 1243, 1249 (Fed. Cir. 1998).
\textsuperscript{43} \textit{Johnson Worldwide}, 175 F.3d at 990; \textit{In re Paulsen}, 30 F.3d 1475, 1480 (Fed. Cir. 1994); \textit{Intellicall, Inc. v. Phonometrics, Inc.}, 952 F.2d 1384, 1387-88 (Fed. Cir. 1992); \textit{Lear Siegler, Inc. v. Aeroquip Corp.}, 733 F.2d 881, 888-89 (Fed. Cir. 1984).
\textsuperscript{44} \textit{Johnson Worldwide}, 175 F.3d at 990; \textit{J.T. Eaton & Co. v. Atlantic Paste & Glue Co.}, 106 F.3d 1563, 1568 (Fed. Cir. 1997) (disputed claim term had no previous meaning to those of ordinary skill in the art); \textit{North Am. Vaccine, Inc. v. American Cyanamid Co.}, 7 F.3d 1571, 1576 (Fed. Cir. 1993); \textit{E.I. du Pont de Nemours & Co. v. Phillips Petroleum}, 849 F.2d 1430, 1433 (Fed. Cir.1988).
\textsuperscript{45} \textit{Johnson Worldwide}, 175 F.3d at 990 (citing \textit{Vitronics}, 90 F.3d at 1583.
\textsuperscript{46} \textit{Vitronics}, 90 F.3d at 1583 (citation omitted).
\end{footnotesize}
Generally, when the same term appears in the same claim or multiple claims in the same patent, it should be interpreted consistently.\footnote{Digital Biometrics, Inc. v. Identix, Inc., 149 F.3d 1335, 1345 (Fed. Cir. 1998).} In some circumstances, however, the written description may set forth more than one definition of a claim term.\footnote{Genentech, Inc. v. Wellcome Found., Ltd., 29 F.3d 1555, 1563 (Fed. Cir. 1994).} Indeed, the written description may put the reader on notice that the patentee intended different uses of a claim term.\footnote{Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1311 (Fed. Cir. 1999).} Those different uses may become further apparent by the publicly available documents in the patent file, thus making it appropriate to depart from the normal rule of construing seemingly identical terms in the same manner. This entirely accords with the public notice function of claims.\footnote{Id. at 1311 (citing Vitronics).} In such a situation, a claim term must be read to correspond to the only plausible meaning in each context.\footnote{Id.; see also Genentech, 29 F.3d at 1563.}

“Varied use of a disputed term in the written description demonstrates the breadth of the term rather than providing a limited definition.”\footnote{Johnson Worldwide, 175 F.3d at 991 (citing Enercon GmbH v. International Trade Comm’n, 151 F.3d 1376, 1385 (Fed. Cir. 1998)).} However, contrary to providing multiple meanings in the specification or prosecution history, when the patentee ascribes a special meaning to a claim term in the specification or prosecution history, the patentee must live with that meaning.\footnote{Liatram Corp. v. Morehouse Indus., Inc., 143 F.3d 1456, 1463 (Fed. Cir. 1998) (statements in the written description made clear that the asserted claims would bear only one interpretation); Spectrum Int’l, Inc. v. Sterlite Corp., 164 F.3d 1372, 1378 (Fed. Cir. 1998) (explicit meanings given to claim terms in order to overcome prior art will limit those terms accordingly); Southwall Techs., Inc. v. Cardinal IG Co., 54 F.3d 1570, 1576 (Fed. Cir. 1995); Standard Oil Co. v. American Cyanamid Co., 774 F.2d 448, 452 (Fed. Cir. 1985).} In such circumstances, the intrinsic record must be clear that the patentee intended to limit the term’s meaning in that special way; and “mere inferences
drawn from the description of an embodiment of the invention cannot serve to limit claim terms.”54

[3] The Prosecution History

“Third, the court may also consider the prosecution history of the patent, if in evidence. . . . This history contains the complete record of all the proceedings before the Patent and Trademark Office, including any express representations made by the applicant regarding the scope of the claims. As such, the record before the Patent and Trademark Office is often of critical significance in determining the meaning of the claims. . . . Included within the analysis of the file history may be an examination of the prior art cited therein.”55

The public should be able to rely on statements made by the patentee during prosecution to fairly determine the scope of the disputed claim terms. As one of the Federal Circuit’s predecessor courts stated, a proper analysis of the file history includes all communications to and from the Patent Office and prior-art cited both by the patent Examiner and by the patentee.”56

If the meaning of the claim limitation is apparent from a review of the totality of the intrinsic evidence, then the claim has been construed.57 If the claim limitation still is not clear, then the court may rely on extrinsic evidence.58

55 Vitronics, 90 F.3d at 1582-83 (citing Graham v. John Deere, 383 U.S. 1, 33, 86 S. Ct. 684, 701-02, 15 L. Ed.2d 545 (1966); Markman, 52 F.3d at 980; Southwall Techs., 54 F.3d at 1576 (“The prosecution history limits the interpretation of claim terms so as to exclude any interpretation that was disclaimed during prosecution.” (citations omitted))); see also Interactive, 256 F.3d at 1331.
56 Autogiro Co. of Am. v. United States, 181 Ct, Ck, 55, 384 F.2d 391, 399 (1967) (“In its broader use as source material, the prior art cited in the file wrapper gives clues as to what the claims do not cover.”).
57 Interactive, 256 F.3d at 1332.
58 Id.
Use of Extrinsic Evidence

Extrinsic evidence is that evidence which is external to the patent and file history. Traditional forms of extrinsic evidence include expert testimony, inventor testimony, dictionaries (including technical dictionaries), and technical treatises and articles. The Federal Circuit has noted, however, that technical treatises are “worthy of special note. Judges are free to consult such resources at any time in order to better understand the underlying technology and may also rely on dictionary definitions when construing claim terms, so long as those definitions do not contradict the intrinsic evidence.59

Initially, the Vitronics court took a restrictive stance on the use of extrinsic evidence:

In most situations, an analysis of the intrinsic evidence alone will resolve any ambiguity in a disputed claim term. In such circumstances, it is improper to rely on extrinsic evidence. . . . In those cases where the public record unambiguously describes the scope of the patented invention, reliance on any extrinsic evidence is improper.60

Many commentators, and other panel decisions, took this language as forbidding a district judge to even reference extrinsic evidence during claim construction.61 Recently, however, the Federal Circuit has clarified that, while the judge permissibly may hear all of the evidence (extrinsic and intrinsic), extrinsic evidence that is inconsistent with the specification and file history should be accorded no weight.62 Therefore, the distinction on what is permissible extrinsic evidence of claim construction seems to be made, not upon what the district court, as the gatekeeper, can admit and hear, but rather simply, that the district court may not rely upon extrinsic evidence that contradicts the intrinsic record.63

59 Vitronics, 90 F.3d at 1564 n.6.
60 Vitronics, 90 F.3d at 1583 (internal citations omitted) (emphasis added).
61 See, e.g., Pitney Bowes, 182 F.3d a1314 (Judge Plager concurring).
62 Vitronics, 90 F.3d at 1584.
63 Id at 1583.
Even so, some extrinsic evidence is placed in higher regard than other extrinsic evidence. Technical treatises and dictionaries are considered to be the most reliable type of extrinsic evidence in the claim construction analysis.\(^{64}\) In addition, uncited prior art is deemed a credible source of what one of ordinary skill in the art may have believed a disputed term meant at the time of the patent application.\(^{65}\) However, expert testimony, whether by a technical expert or by a patent law expert, generally has not been deemed to be of much value to the district judge in aiding the claim construction analysis.\(^{66}\)

Prior art may be admitted at the judge’s discretion, whether or not cited in the specification or prosecution history. The court stated in *Vitronics* that the prior art often helps to demonstrate how a disputed term is used by those skilled in the art. In addition, according to the *Vitronics* court, such prior art may make it unnecessary to rely on expert testimony and may save much trial time. However, the *Vitronics* court cautioned that “reliance on such evidence is unnecessary, and indeed improper, when the disputed terms can be understood from a careful reading of the public record.”\(^{67}\)

Based on precedent from *Markman\(^{68}\)* forward, it is apparent that the district court may rely on expert testimony and other extrinsic evidence to help it understand the underlying technology, but “testimony on the *technology* is far different from other expert testimony . . . on *proper construction* of a disputed claim term.”\(^{69}\) The latter kind of testimony may be relied upon only if the patent documents, taken as a whole, are insufficient to enable the

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\(^{64}\) *Id.* at 1584.

\(^{65}\) *Id.*

\(^{66}\) *Id.* at 1583.

\(^{67}\) *Id.*

\(^{68}\) *Markman*, 52 F.3d at 979 (Fed. Cir. 1995).

\(^{69}\) *Vitronics*, 90 F.3d at 1585.
court to construe disputed claim terms. The explanation for this distinction in types of extrinsic evidence is that “[u]nlike expert testimony, these sources are accessible to the public in advance of litigation. They are preferred over opinion testimony, whether by an attorney or artisan in the field of technology to which the patent is directed. Indeed, opinion testimony on claim construction should be treated with utmost caution, for it is no better than opinion testimony on the meaning of statutory terms.”

Since its decision in *Vitronics*, the Federal Circuit has stated that it will not dictate a claim interpretation process that excludes reliable expert testimony entirely. Claim construction may benefit from expert testimony which may:

1. supply a proper technical context to understand the claims (words often have meaning only in context),
2. explain the meaning of claim terms as understood by one of skill in the art (the ultimate standard for claim meaning . . .), and
3. help the trial court understand the patent process itself (complex prosecution histories--not to mention specifications--are not familiar to most trial courts).

The Federal Circuit in *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, further clarified the distinction between admitting expert testimony to determine the state of the art at the time of the application and relying on expert testimony in the claim construction analysis. *Vitronics* allows a court to hear whatever extrinsic evidence it wants to hear; the court, however, cannot rely on the extrinsic evidence in its claim construction analysis unless the

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70 Id.
71 Id. (citation omitted); see also Hoechst Celanese, 78 F.3d at 1580 (“Markman requires us to give no deference to the testimony of the inventor about the meaning of the claims.”).
72 *Pitney Bowes, Inc., v. Hewlett Packard Co.*, 182 F.3d at 1314 (Judge Plager concurring).
73 Id. (internal citation omitted).
74 182 F.3d 1298 (Fed. Cir. 1999).
claim language remains genuinely ambiguous after consideration of all of the intrinsic evidence.\textsuperscript{75}

[I]t is entirely appropriate, perhaps even preferable, for a court to consult trustworthy extrinsic evidence to ensure that the claim construction it is tending to from the patent file is not inconsistent with clearly expressed, plainly apposite, and widely held understandings in the pertinent technical field.\textsuperscript{76}

The Federal Circuit in \textit{Pitney Bowes} further embraced consultation of extrinsic evidence as particularly appropriate to ensure that the court’s understanding of the technical aspects of the patent is not entirely at variance with the understanding of one skilled in the art.\textsuperscript{77} Hence, the Federal Circuit appears to be stepping back on its distrust of various forms of extrinsic evidence in the claim construction arena, but one theme remains constant: extrinsic evidence cannot be used to support an interpretation that varies or contradicts the intrinsic evidence of the meaning of disputed claim terms.\textsuperscript{78}

\textbf{[D] Refining the Vitronics Framework}

On July 13, 2001, the Federal Circuit further refined the framework for claim interpretation in \textit{Interactive Gift Express v. Compuserve Inc.}\textsuperscript{79} This framework summarizes the above analysis by providing an organizational approach through which a court should conduct its claim interpretation. Of primary importance, \textit{Interactive} notes that the focus of the analysis “must begin and remain centered on the language of the claims themselves.”\textsuperscript{80} First, a court looks to the intrinsic evidence of record.\textsuperscript{81} Of that intrinsic evidence, the court

\begin{itemize}
\item \textsuperscript{75} \textit{Id.} at 1308.
\item \textsuperscript{76} \textit{Id.} at 1309.
\item \textsuperscript{77} \textit{Id.} (citations omitted); \textit{see also} \textit{Interactive}, 256 F.3d at 1332.
\item \textsuperscript{78} \textit{See, e.g.,} \textit{Interactive}, 256 F.3d at 1332.
\item \textsuperscript{79} 256 F.3d 1323 (Fed. Cir. 2001).
\item \textsuperscript{80} \textit{Id.} at 1331.
\item \textsuperscript{81} \textit{Id.}
\end{itemize}
first looks to the claim language. Then, the specification is examined. If in evidence, the court next reviews the prosecution history.

If the claim language is “clear on its face,” the court should look to the rest of the intrinsic evidence solely to determine if there is a deviation from the clear language of the claims. Deviation may occur if the patentee chose to provide his or her own definition for the claim term, or if the patentee gave up a particular claim interpretation during the course of the prosecution of the patent. If the claim language is not “clear on its face,” the court may utilize the intrinsic evidence to resolve the lack of clarity. According to Interactive, this use of the intrinsic evidence should be to provide “‘context to the entirety of [the] invention,’ and not merely to limit a claim term.”

82 If the meaning of the claim term is apparent from the totality of the intrinsic evidence, the claim is construed.

If the meaning of the claim term still is not clear, extrinsic evidence may be relied upon. In addition, even if intrinsic evidence is sufficient, the court may always consult extrinsic evidence “to assist in the understanding of the underlying technology.”

§ 1.02 THE USE OF DICTIONARY DEFINITIONS TO DETERMINE PLAIN MEANING

[A] The Need for Context

By statute, a patent must include a specification containing “a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same. . . .”

83 Id.

82 Id. at 1332.
conclude with “one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.” Simply put, the “specification teaches, claims claim.” Accordingly, the focus in evaluating infringement and invalidity is on the claims.

In claim construction, the plain meaning of the claims is of primary importance. The principle behind the focus on the plain meaning was enunciated by the Supreme Court in 1886:

[I]t is unjust to the public, as well as an evasion of the law, to construct [a claim] in a manner different from the plain import of its terms.

Markman requires that the judge construe the claims, even though she is probably not intimately familiar with the technology of the patent in question. As noted in Interactive:

Throughout the construction process, it is important to bear in mind that the viewing glass through which the claims are construed is that of a person skilled in the art.

Further, the specification, which itself serves to provide context for the claims, is written for a person of ordinary skill in the art. For this reason, the Federal Circuit has readily accepted that extrinsic evidence may be consulted to provide a judge with the understanding of the technology at issue.

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86 Rexnord Corp. v. Laitram Corp., 274 F.3d 1336, 1344 (Fed. Cir. 2001) (quoting SRI Int’l v. Matsushita Elec. Corp. of Am., 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc)).
87 Interactive, 256 F.3d at 1331 (“Focus must begin and remain centered on the language of the claims themselves.”).
88 Johnson Worldwide, 175 F.3d at 989 (“The general rule is, of course, that terms in the claim are to be given their ordinary and plain meaning.”); Interactive, 256 F.3d at 1331 (setting forth the early stage analysis of whether the “claim language is clear on its face.”).
89 White v. Dunbar, 119 U.S. 47, 52 (1886).
90 Interactive Gift Express, 256 F.3d at 1332.
91 Id.
Dictionaries as Extrinsic Evidence

Treatises and dictionaries often have been used to provide judges with the necessary context to understand the technology in the patents. Even prior to the Supreme Court’s Markman decision, the Federal Circuit admitted that courts rely on technical and general dictionaries as secondary references.92 In Vitronics, the Federal Circuit held that even though they are considered extrinsic evidence, dictionaries are entitled to special treatment:

Although technical treatises and dictionaries fall within the category of extrinsic evidence, as they do not form a part of an integrated patent document, they are worthy of special note. Judges are free to consult such resources at any time in order to better understand the underlying technology and may also rely on dictionary definitions when construing claim terms, so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents.93

Further, in Pitney-Bowes, the court noted that it was perhaps even preferable . . . to consult trustworthy extrinsic evidence to ensure that the claim construction it is tending to from the patent file is not inconsistent with clearly expressed, plainly apposite, and widely held understandings in the pertinent technical field.94

Most recently, in Interactive, the court also bolstered the use of dictionaries:

Dictionaries, which are a form of extrinsic evidence, hold a special place and may sometimes be considered along with intrinsic evidence.95

Despite the approval of dictionaries as a “special form of extrinsic evidence,” they are nonetheless extrinsic evidence that cannot trump the intrinsic evidence. For example, in Digital Biometrics, Inc. v. Indentix, Inc., the Federal Circuit found that a proffered dictionary definition was not consistent with the intrinsic evidence and thus not given any weight.96

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92 Hoechst, 78 F.3d at 1580.
93 Vitronics, 90 F.3d at 1584 n.6.
94 Pitney-Bowes, 182 F.3d at 1309.
95 Interactive, 256 F.3d at 1332 n.1.
96 149 F.3d 1335, 1346 (Fed. Cir. 1998).
Similarly, in *Renishaw PLC v. Marposs Societa Per Azioni*, the Court admonished the use of a dictionary definition that flies in the face of the patent disclosure. Nevertheless, dictionary definitions that are consistent with the intrinsic evidence provide the court with a further persuasive basis for supporting a specific construction.

**[C] Recent Emphasis on Dictionaries**

In light of the acceptance of dictionaries as a “special form of extrinsic evidence,” citation to dictionary definitions in recent precedent is not surprising. In fact, one Federal Circuit panel recently stated in dicta that dictionaries should not even be considered as extrinsic evidence. Nonetheless, the Federal Circuit’s increased reliance on dictionary definitions to solely establish the plain meaning is a significant development in precedent. Indeed, almost every case in the last year significantly addressing claim construction has addressed dictionary definitions in some manner. This progression is most significant in three recent cases: *Rexnord Corp. v. Laitram Corp.*, *CCS Fitness, Inc. v. Brunswick Corp.*, and *Texas Digital Systems, Inc. v. Telegenix, Inc.*

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97 158 F.3d 1243, 1250 (Fed. Cir. 1998) 1203 (“categorizing [dictionaries] as ‘extrinsic evidence’ or even a ‘special form of extrinsic evidence’ is misplaced and does not inform the analysis.”).

98 *Texas Digital Sys., Inc.*, 308 F. 3d at 1202-03.


100 274 F.3d 1336 (Fed. Cir. 2001).

101 288 F.3d 1359 (Fed. Cir. 2002).

102 308 F. 3d 1193 (Fed. Cir. 2002).
In Rexnord v. Laitram, the claim construction dispute centered on the meaning of the term “portion.” The district court noted that the ordinary meaning of portion encompassed two readings: (1) parts that were separable from the whole; and (2) parts that were not separated from the whole. The district court found that the term was unclear and looked to the intrinsic evidence. After the examination of the intrinsic evidence, the district court found that the term should be construed to have the narrower meaning requiring “separate parts.” The Federal Circuit reversed the claim construction, holding that a broader interpretation encompassing both meanings was appropriate.103

The Federal Circuit turned first to the dictionary definition:

The parties agree that the dictionary definition of “portion” is “a part of any whole, either separated from or integrated with it.” Random House Unabridged Dictionary 1507 (2d ed. 1993). Hence, according to the ordinary meaning, so long as a “portion” of an object is “part” of that object, it can connote either the quality of being “separate” or of being “integral.” That there is no doubt that “portion” has a broad meaning is evidenced by Laitram’s explicit concession at oral argument that the dictionary definition contemplates both meanings.104

The court also carefully noted that the acts of analyzing the claim terms by themselves and the analysis of the intrinsic evidence are separate and distinct.105 In reviewing the intrinsic evidence as a whole, the Federal Circuit held that it was inappropriate to confine the plain meaning to the narrower meaning.

The logical framework for the determination of the plain meaning in Rexnord is:

(1) The parties agreed on the appropriate dictionary definition; (2) That dictionary definition

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103 274 F.3d at 1343-44.
104 Id. at 1344.
105 Id. at 1345 (“When the claim language is assessed on its own, and when the written description is examined carefully, one finds that the patentee has described an invention that embraces, through the word “portion,” structure that may be either “integral” or “separate”).
is the plain meaning. While reference to a dictionary to determine the meaning of a word also is not unusual, the *Rexnord* approach nonetheless marks a new direction in construing a claim term. Indeed, even in *Johnson Worldwide*, which focused heavily on the importance of utilizing the plain meaning of claim terms, this determination is made without any reference to dictionary definitions. In *Rexnord*, the court’s analysis of plain meaning begins and ends with a dictionary definition, evidence not found in either the patent-in-suit or its file history.

The *Rexnord* panel’s primary focus on this special type of intrinsic evidence is not problematic. After all, the court has noted since *Vitronics* that dictionaries may be referred to at any time. Nonetheless, the implementation of a dictionary definition as the plain meaning comes without citation or explanation. In addition, the immediate resort to non-intrinsic evidence as the preliminary step in the claim analysis marks a departure from the “intrinsic first” orientation of previous frameworks set forth by the Federal Circuit. Again, however, this alone is not contrary to the precedent because presumably, if the ordinary meaning was contradicted by the clear import of the intrinsic evidence, under current precedent, the ordinary meaning would not be accepted as the construction of the claim term.

[2] **CCS Fitness, Inc. v. Brunswick Corp.**

*CCS Fitness, Inc. v. Brunswick Corp.* expounds upon *Rexnord* to further support the sole use of dictionaries to establish the ordinary meaning of a claim term. In *CCS Fitness,*

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106 *Johnson Worldwide*, 173 F.3d at 989-90.
107 *See Vitronics*, 90 F.3d at 1584 n.6.
108 288 F.3d 1359 (Fed. Cir. 2002).
the Federal Circuit made reference to the “intrinsic first” orientation. Nonetheless, the majority of the decision is centered around the ‘‘heavy presumption’’ that a claim term carries its ordinary and customary meaning” and the use of the dictionary to determine the ordinary meaning.110

Importantly, the court in *CCS Fitness* attempted to provide an explanation for the *Rexnord* application of a dictionary definition as the *de facto* plain meaning of a claim term. The court stated, “Sensibly enough, our precedents show that dictionary definitions may establish a claim term’s ordinary meaning.”111 This statement was supported by *Rexnord* itself, *Renishaw PLC v. Marposs Society Per Azoni*,112 *Kegal Co., Inc. v. AMF Bowling*,113 and *Vitronics*.114

The *CCS Fitness* panel’s reliance on *Renishaw* is ironic. *Renishaw* notes that “a common meaning, such as one expressed in a relevant dictionary, that flies in the face of the patent disclosure is undeserving of fealty” and warns:

Indiscriminate reliance on definitions found in dictionaries can often produce absurd results . . . . One need not arbitrarily pick and choose from the various accepted definitions of a word to decide which meaning was intended as the word is used in a given claim. The subject matter, the context, etc., will more often than not lead to the correct conclusion.115

*Renishaw* also very clearly holds that “the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented

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109 Id. at 1366 (‘‘Claim interpretation begins with an examination of the intrinsic evidence, *i.e.*, the rest of the specification and, if in evidence, the prosecution history.’’)

110 Id.

111 Id.

112 158 F.3d 1243, 1250 (Fed. Cir. 1998).

113 127 F.3d 1420, 1427 (Fed. Cir. 1997).

114 90 F.3d 1576, 1584 (Fed. Cir. 1996).

and intended to envelop with the claim.”116 Through the citation of Renishaw, one surmises that the panel in CCS Fitness was implicitly acknowledging its warnings, but nonetheless pushing forward the importance of utilizing dictionary definitions. An attempt at reconciliation with Renishaw, however, comes in later precedent.

Notwithstanding Renishaw, CCS Fitness gives carte blanche to use of a dictionary to establish the ordinary meaning of a claim term. In the court’s analysis of the disputed claim term “member,” the panel followed the analytical approach of Rexnord by immediately turning to dictionary definitions and presenting them as the plain meaning of the claim terms. Only after establishing the plain meaning through the dictionary definitions did the court proceed to consider the intrinsic evidence to evaluate whether “anything in the specification or prosecution history overcomes the ‘heavy presumption’ that ‘member’ carries its ordinary meaning.”117

The CCS Fitness decision holds that a dictionary definition in itself may be sufficient to establish ordinary meaning. However, it is important to note that the Federal Circuit has not mandated this approach. Indeed, soon thereafter, in Teleflex, Inc. v. Ficosa N.A. Corp., the Federal Circuit noted, “The ordinary meaning of a claim term may be determined by a variety of sources, including the claims themselves, other intrinsic evidence including the written description and the prosecution history, and dictionaries and treatises.”118

116 Id. (quoting Markman, 517 U.S. at 389).
117 288 F.3d at 1367.
118 299 F.3d at 1325.
The Texas Digital Case

The next significant iteration in the Federal Circuit’s push for the use of dictionaries occurred in October 2002. In Texas Digital Systems v. Telegenix, Inc.,119 the Federal Circuit reinforced that dictionary definitions are inherently reliable sources, and thus approved of their use in determining the plain meaning of a claim term. The Texas Digital decision so favored the use of dictionaries, it propounded that they should not even be considered as extrinsic evidence.120

Texas Digital treats dictionary definitions among the intrinsic evidence in the initial stages of claim construction because they are “objective resources that serve as reliable sources of information on the established meanings that would have been attributed to the terms of the claims by those of skill in the art.”121 The court follows the structure of CCS Fitness and provides citations to previous cases in which dictionaries and treatises are used to establish the claim’s ordinary meaning.122 The court also notes that dictionaries and treatises are often used in the interpretation of statutes, regulations, and contracts.123

Having further supported the use of dictionary definitions to provide the ordinary meaning of a claim term, the court in Texas Digital went on to attack the classification of dictionary definitions as extrinsic evidence:

As resources and references to inform and aid courts and judges in the understanding of technology and terminology, it is entirely proper for both trial and appellate judges to consult these materials at any stage of a litigation,

119 308 F.3d 1193 (Fed. Cir. 2002).
120 Id. at 1202-03.
121 Id.
122 Id. at 1202 (quoting Teleflex, 299 F.3d at 1325, CCS Fitness, 288 F.3d at 1366, Optical Disc Corp. v. Del Mar Avionics, 208 F.3d 1324, 1334-35 (Fed. Cir. 2000), Quantum Corp. v. Rodime, PLC, 65 F.3d 1577, 1581 (Fed. Cir. 1995), In re Ripper, 171 F.2d 297, 299 (C.C.P.A. 1948), Vitronics, 90 F.3d at 1584 n.6, Cybor Corp. v. FAS Techs., 138 F.3d 1448, 1459 (Fed. Cir. 1998) (en banc) and Vanguard Prods. Corp. v. Parker Hannifin Corp., 234 F.3d 1370, 1372 (Fed. Cir. 2000)).
123 Id. at 1203.
regardless of whether they have been offered by a party in evidence or not. Thus, categorizing them as “extrinsic evidence” or even a “special form of extrinsic evidence” is misplaced and does not inform the analysis.124

This bold statement proposes that dictionary definitions should not be considered extrinsic evidence. Yet, as they are not part of the patent or its prosecution history, they cannot be considered traditional intrinsic evidence. It remains to be seen whether other panels or the court as a whole will embrace the rationale of Texas Digital.

Notwithstanding the stance of the panel in Texas Digital on the proper classification of dictionaries in the claim construction hierarchy, precedent still requires that dictionaries be regarded as extrinsic evidence. First, the above statement, which many commentators and litigants have and will cite, is merely dictum. Second, this statement directly contradicts Markman,125 Vitronics,126 and other binding precedent. Previous precedent, including both en banc and panel decisions, can only be overturned through a subsequent en banc decision.127 The Texas Digital pronouncement, therefore, that dictionaries are not extrinsic evidence128 does not change the import of previous precedent; the previous decisions control.129

However, the decision shows that, even though dictionaries are still extrinsic evidence, there is a strong new emphasis on the use of their definitions. In particular, the Federal Circuit is condoning immediate use of the dictionary prior to the review of the entire specification. According to the court in Texas Digital, the determination of plain meaning,

124 Id.
125 52 F.3d at 980 (“Extrinsic evidence consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.”).
126 90 F.3d at 1584.
127 South v. U.S., 690 F.2d 1368, 1372 (Fed. Cir. 1982); Vas-Cath Inc. v. Mahurkar, 935 F.2d 1555, 1563 (Fed. Cir. 1991); see also Fed. Cir. R. 35(a) (2) (“only the court en banc may overrule a binding precedent”).
128 Texas Digital, 308 F.3d at 1203.
and thus the use of dictionary definitions, takes place after consideration of the claims
themselves, but before the consideration of the remaining intrinsic evidence:

Consulting the written description and prosecution history as a threshold step
in the claim construction process, before any effort is made to discern the
ordinary and customary meanings attributed to the words themselves, invites a
violation of our precedent counseling against importing limitations into the
claims.\textsuperscript{130}

After identifying the dictionary definitions, the intrinsic evidence is considered to
decide which potential plain meanings to apply:

By examining relevant dictionaries, encyclopedias and treatises to ascertain
possible meanings that would have been attributed to the words of the claims
by those skilled in the art, and by further utilizing the intrinsic record to select
from those possible meanings the one or ones most consistent with the use of
the words by the inventor, the full breadth of the limitations intended by the
inventor will be more accurately determined and the improper importation of
unintended limitations from the written description into the claims will be
more easily avoided.\textsuperscript{131}

The court in \textit{Texas Digital} further explains:

[T]he intrinsic record must always be consulted to identify which of the
different possible dictionary meanings of the claim terms is most consistent
with the use of words by the inventor. If more than one dictionary definition is
consistent with the use of the words in the intrinsic record, the claim terms
may be construed to encompass all such consistent meanings. 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. Moreover, the intrinsic record also must be
examined in every case to determine whether the presumption of ordinary and
customary meaning is rebutted.\textsuperscript{132}

\textit{Texas Digital} acknowledges that the use of dictionary definitions can create a plurality of
possible meanings. Given a broad range of possible meanings, the intrinsic evidence is then
used to narrow the focus of potential claim term meanings. In other words, the intrinsic

\textsuperscript{130} \textit{Texas Digital}, 308 F.3d at 1204.
\textsuperscript{131} \textit{Id.} at 1205.
\textsuperscript{132} \textit{Id.} at 1203 (citations omitted).
evidence is used to eliminate any definitions that are incongruous with the inventor’s intended meanings, as evidenced by the specification and prosecution history.

Importantly, *Texas Digital* does not simply leave the intrinsic evidence in the dust. Rather, the decision attempts to reconcile the pro-intrinsic evidence warnings of *Renishaw* with the adoption of dictionaries as the primary source for determining plain meaning. *Renishaw* warns that the dictionary definitions may give inappropriate results because they are out of context with the invention claimed in the patent-at-issue.133 *Texas Digital*, while clearly giving the first pass at evaluating plain meaning to the dictionary definitions, nonetheless stresses the importance of placing the claim terms in context.134 The assessment of the proper context is done through the narrowing of potential definitions by way of examination of the remaining intrinsic evidence.135 While perhaps not a total reconciliation with *Renishaw*, *Texas Digital* at least acknowledges the risks of simply relying on dictionary definitions and the importance of always reviewing the intrinsic evidence.

[D] Emulating a Person of Ordinary Skill by Providing Context

The framework discussed above in *Interactive Gift Express v. Compuserve Inc.* requires that the court first determine if the claims are “clear on their face.” In other words, one must assess if there is a plain meaning, or, alternatively stated, an “ordinary and customary meaning,” for the claim terms at issue. After answering this question, the court must next proceed to an examination of the intrinsic evidence. Where there is a plain meaning for the claim term, the remaining intrinsic evidence is examined to determine if

133 *Renishaw*, 158 F.3d at 1250.
134 *Texas Digital*, 308 F.3d at 1203.
135 *Id.* (“the intrinsic record [is used] to select from those possible meanings the one or ones most consistent with the use of the words by the inventor.”).
there is a deviation from the plain meaning. Where there is no plain meaning, the intrinsic evidence, and if necessary extrinsic evidence, is considered to determine the proper meaning of the claim term. The Interactive framework, however, raises the question: How do you know if the claims are clear on their face?

The Texas Digital approach attempts to answer this question by starting from the presumption that the judge is not a person of ordinary skill in the art. To emulate ordinary skill in the art, the judge looks to an appropriate dictionary to provide purely objective meanings for the claim terms as they would be ordinarily understood. This first step gives the judge a starting point for putting the claims in context. From the range of possible meanings, the judge then narrows the focus through examination of the intrinsic evidence. The analysis of the intrinsic evidence provides the court with the opportunity to determine how the inventor himself contemplated the meaning of the disputed claim term.136 Dictionary definitions that are incongruous with the specification are eliminated.

[E] Lingering Issues: What Type of Dictionary and What Vintage?

On October 31, 2002, the Federal Circuit issued two decisions; Inverness Medical Switzerland v. Warner Lambert Co.137 and Inverness Medical Switzerland v. Princeton Biomeditech Corp.138 (collectively, the “business medical cases”). The Inverness Medical cases address two issues regarding the use of dictionary definitions: First, what kind of dictionaries should be used to determine plain meaning? Second, what is the relevant time period for which the claim term should be defined?

136 Id. (“The objective and contemporaneous record provided by the intrinsic record 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.”).
137 309 F.3d 1373 (Fed. Cir. 2002).
138 309 F.3d 1365 (Fed. Cir. 2002).
The Inverness Medical cases continue the prevalent theme that dictionaries provide evidence of a claim term’s “ordinary meaning.” They also further note the wide variety of types of dictionaries that may be relevant, including dictionaries of the English language, technical dictionaries, encyclopedias, and treatises. According to these cases, English language dictionaries are the proper source for the meaning of general terms and technical dictionaries, encyclopedias, and treatises are the proper source for “specialized meanings in particular fields of art.” The apparent testis whether the term has an “established specialized meaning.” If there is no specialized meaning, a general English language dictionary is to be used.

The Inverness Medical cases also note that the Federal Circuit has been inconsistent regarding the applicable date for determining the definition of a claim term. The court sets forth that dictionary definitions of the claim terms should be determined as of the date the patent issued. However, the court notes that previous precedent utilizes the date of filing. Indeed, there is a controversy, as several cases say that claims are interpreted as of their filing date, and the invention is considered fixed as of the filing date. Yet, the claim’s meaning may be adapted through arguments made during prosecution. Moreover,

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139 309 F.3d at 1378; 309 F.3d at 1369.
140 309 F.3d at 1378; 309 F.3d at 1369.
141 Id.
142 Id.
143 Id.
144 309 F.3d at 1378; 309 F.3d at 1369.
145 309 F.3d at 1378 n.2; 309 F.3d at 1369 n.1 (citing Texas Digital, 308 F.3d 1193, 1202 (Fed. Cir. Oct. 16, 2002); Schering Corp. v. Amgen, Inc., 222 F.3d 1347, 1353, (Fed. Cir. 2000)).
147 285 F.3d at 1357.
the issued claims may not have even been present when the application was filed. As panel decisions reach different results, this issue remains unresolved.

§ 1.03 DETERMINING WHEN TO USE INTRINSIC EVIDENCE TO DEViate FROM THE PLAIN MEANING

[A] CCS Fitness

Certain canons of claim construction assist the judge in assessing whether she is reading the claims properly in light of the specification, or improperly reading limitations into the claims. For example, the Federal Circuit has held that, before narrowing a limitation from its accepted meaning, one must, at a minimum, point to a claim limitation from which the claim can be narrowed. However, the Federal Circuit has not resolved what type of intrinsic evidence may be used to restrict the claim language.

Recently, in CCS Fitness, the Federal Circuit identified four ways in which the specification could be used to limit the scope of the claims. The court found that the ordinary meaning of the claim term(s) could be restricted in any of the following categories: (1) when there is an explicit alternative meaning in the specification or prosecution history; (2) expressions manifesting exclusion or restriction, i.e., when the patentee has distinguished the claim term from prior art, expressly disclaimed a meaning of the claim term, or described an important feature of the invention; (3) when the term has no clarity; or (4) when the term is drafted in means-plus-function format pursuant to 35 U.S.C. § 112, paragraph 6.

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148 CCS Fitness, 288 F.3d at 1371.
149 See Texas Digital, 308 F.3d at 1204 (“the intrinsic record must also be examined in every case to determine whether the presumption of ordinary and customary meaning is rebutted.”); See also Interactive, 256 F.3d at 1331 (“If the claim language is clear on its face, then our consideration of the rest of the intrinsic evidence is restricted to determining if a deviation from the clear language of the claims is specified.”); CCS Fitness, 288 F.3d at 1366 (“An accused infringer may overcome this ‘heavy presumption’ and narrow a claim term’s ordinary meaning. . . .”).
Alternate Meaning Provided in the Specification

The first category refers to the well-documented ability of the patentee to act as his own lexicographer. If a definition is provided by the patentee in the specification or during the prosecution history, the court should adopt that definition. The recent decision in Jack Guttman, Inc. v. Kopykake Enterprises, Inc. provides an example in which the Federal Circuit adopted a special definition provided by the patentee. The claim terms at issue were “non-tortuous copy path” and “tortuous bend.” First, the court examined the term “tortuous” in the dictionary, but found that the dictionary did not assist in determining the plain meaning of the claim terms. Next, the court looked to the specification, but failed to find an explicit definition of “tortuous.” The court noted, however, that from the specification the inventor “clearly contemplated” the use of his invention in several embodiments; thus supporting the broad interpretation asserted by the patentee. The court also relied on the prosecution history, which included a broad definition of “non-tortuous.” This definition was adopted by the Federal Circuit.

The Jack Guttman panel also interpreted the term “photocopy machine.” The court noted that the plain meaning of “photocopy machine” was a standard office photocopy machine. In addition, unlike the “tortuous” claim terms, “photocopy machine” was explicitly defined in the specification as including “any apparatus with scanning and image reproduction (i.e., printing) capabilities that operate in tandem--regardless of whether the

150 See, e.g., Vitronics, 90 F.3d at 1582 (“Although words in a claim are generally given their ordinary and customary meaning, a patentee may choose to be his own lexicographer and use 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 or file history.”).

151 302 F.3d 1352 (Fed. Cir. 2002).
152 Id. at 1357.
153 Id.
154 Id. at 1358.
scanner and printer equipment are housed separately.\textsuperscript{155} The court held that because the patentee provided an explicit definition for the claim term in the specification and because there was no intrinsic evidence to counter that definition, the explicit definition was adopted.\textsuperscript{156}

[2] \textbf{Expressions Manifesting Exclusion or Restriction}\textsuperscript{157}

The second CCS \textit{Fitness} category encompasses three different types of acts: (1) distinguishing a claim term from prior art; (2) expressly disclaiming a meaning; and (3) describing an embodiment as an important feature of the invention. For convenience, we connote these three subcategories as acts of “expressions manifesting exclusion or restriction” and discuss them in detail in § 1.03[B] below.

[3] \textbf{Ambiguity in the Claim Term}

The third category applies where the term has no clarity, \textit{i.e.}, an ambiguous claim term. The court has described the lack of clarity as occurring where “there is no means by which the scope of the claim may be ascertained.”\textsuperscript{158} For such terms there is no way to readily assess a plain meaning and the intrinsic evidence must be examined to establish the meaning of the ambiguous term.\textsuperscript{159}

[4] \textbf{Claim Terms in Means-Plus-Function Format}

The fourth CCS \textit{Fitness} category relates to means-plus-function and step-plus-function claim terms. These terms are governed under 35 U.S.C. § 112, paragraph 6, and have their own claim interpretation rules.

\textsuperscript{155} Id. at 1359.
\textsuperscript{156} Id. at 1361.
\textsuperscript{157} Teleflex v. Ficosa, 299 F.3d 1313 (Fed. Cir. 2002).
\textsuperscript{158} Rexnord, 274 F.3d at 1343 (quoting Johnson Worldwide Assocs., 175 F.3d at 990).
\textsuperscript{159} Id.
Of the four categories identified in CCS Fitness, the second category is the most intriguing, as it may provide insight into how and when a claim term may be limited if an ordinary meaning has been provided, but no alternative definition is established.

[B] Refining “Manifest Exclusion or Restriction”

It is black-letter law that evaluating the meaning of claim term is not to be confused with improperly reading in a limitation from the intrinsic evidence. Unfortunately, precedent has not offered much guidance in applying this proposition. As each patent suit brings its own claim terms, specification, prosecution history, and often extrinsic evidence, determinations must be made on a case-by-case basis. Nonetheless, the lack of clear guidelines for evaluating whether one is properly determining the meaning of the claim term in light of the specification or improperly imposing limitations from the intrinsic evidence needs more clarification.

In evaluating intrinsic evidence during claim construction, the following scenario often arises: The accused infringer asserts a narrow interpretation of claim terms relying on statements in the specification. The patentee will counter that the infringer is improperly reading in limitations that are not included in the specification. Similarly, the accused infringer may assert that the patentee relinquished claim scope during prosecution to overcome a rejection by the patent examiner. The patentee conversely will say that the statements made during prosecution do not have any restrictive effect on claim scope.

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160 See, e.g., Laitram Corp. v. NEC Corp., 163 F.3d 1342, 1348 (Fed. Cir. 1998) (“interpreting what is meant by a word in a claim ‘is not to be confused with adding an extraneous limitation appearing in the specification, which is improper.’” (quoting Intervet Am., Inc. v. Kee-Vet Lab., Inc. 887 F.2d 1050, 1053 (Fed. Cir. 1989) (emphasis in original)).
In order to determine whether the claims are properly interpreted or whether extraneous limitations are being improperly imported, the specification must be used to ascertain the meaning of the claim term in the context of the invention, not merely to limit a claim term.161 Like previous attempts at guidance, however, this statement fails to explain what type of evidence needs to be present to limit the claim scope.

The common theme of the three actions cited in the second *CCS Fitness* category may offer assistance. The “express exclusion or restriction” category encompasses the distinction of a claim term from prior art, the express disclaimer of a claim meaning, and the description of an embodiment as an important feature of the invention. All three acts require an affirmative, deliberate step on the part of the patentee as a predicate to limiting a claim term. Further, each of the three acts encompasses an action that differentiates the claimed invention from non-claimed art. Hence, the common thread of these acts of “expressions of exclusion” offers assistance on the distinction between properly limiting a claim term based on the intrinsic evidence, and improperly reading in limitations to a claim term.

The “express exclusion or restriction” category focuses heavily on how the inventor contemplated the scope of the invention. All of the acts cited in this category rely on deliberate steps taken by the patentee in the specification and during prosecution. Thus, in a scenario exhibiting “manifest expressions of exclusion or restriction,” while the potential consequences of a non-infringing claim scope may not have been intentional, deliberate activity was nonetheless taken by the inventor himself, which caused the claim term to be limited. Further, all of the acts cited in this category require that the inventor distinguish her invention from other technology--prior art or otherwise.

161 *Interactive*, 256 F.3d at 1332.
Recent Cases

Several recent cases consider potential acts of “manifest expressions of exclusion or restriction.” In *Ballard Medical v. Allegiance Healthcare Corp.*, the Federal Circuit held that the scope of disclaimer is determined by what a competitor would believe had been surrendered by the applicant. In evaluating statements made during the prosecution history, the court noted that the inventor presented an affidavit that described a control valve with several features that distinguished it from the prior art. This control valve was described as the “control valve of the present invention” and “the control valve disclosed in the above-identified application.” Because the applicant identified the invention as being a control valve with several features, the court held that he had disclaimed claim coverage reading on valves that did not incorporate those features.

Conversely, in *Rexnord v. Laitram*, the Federal Circuit noted that the applicant carefully used the terms “in one embodiment,” “of a preferred embodiment,” and “of other embodiments.” This evidenced that the invention could be practiced in “various ways.” The court also gave deference to the following blanket text:

> [I]t is to be understood that the invention is not limited in its application to the details of construction and the arrangements of components set forth in the following description or illustrated in the drawings.

Further, the court noted that there were indeed two embodiments that supported a broader definition.

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162 268 F.3d 1352 (Fed. Cir. 2001).
163 Id. at 1361.
164 Id. at 1359-60.
165 Id. at 1360.
166 Id. at 1362.
167 274 F.3d at 1345.
168 Id.
169 Id.
The Federal Circuit in Teleflex v. Ficosa,170 explained the distinction:

The specification may limit the scope of the claims via other routes. . . . The patentee may demonstrate an intent to deviate from the ordinary and accustomed meaning of a claim term by including in the specification expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope. Likewise, the prosecution history may demonstrate that the patentee intended to deviate from a term’s ordinary and accustomed meaning, i.e., if it shows the applicant characterized the invention using words or expressions of manifest exclusion or restriction during the administrative proceedings before the Patent and Trademark Office. . . . In particular, “the prosecution history (or file wrapper) limits the interpretation of claims as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance.”171

In Teleflex, the Federal Circuit refuted the erroneous assertion that “where only one embodiment is disclosed in the specification, claim terms are limited to the embodiment disclosed” through a detailed analysis of previous precedent.

The Teleflex case also addressed the often cited case for the “single embodiment” theory, Wang Laboratories, Inc. v. America Online, Inc.172 In Wang, the plain meaning of “frame” included both character-based protocols and bit-mapped protocols, but the specification only disclosed a character-based protocol. From this, “a person skilled in the art would not have understood bit-mapped protocols to be included.”173 Moreover, during prosecution, the invention was “presented . . . as involving a character-based system.”174 Hence, according to the panel in Teleflex, the Wang specification and file history indicated that the invention should be more limited than the ordinary meaning of the disputed claim

170 299 F.3d 1313 (Fed. Cir. 2002).
171 Id. at 1325 (citations omitted).
173 299 F.3d at 1327.
174 Id.
term indicated. Similarly, according to Teleflex, in Bell Atlantic the term was defined by implication through its consistent use in the specification. Thus, there were “clear indications throughout the intrinsic evidence that the terms should be limited.

Despite the arguable differences in the methodology in the Wang and Bell Atlantic cases, the Teleflex court propounded the current “express manifest exclusion” standard:

As we explained in CCS Fitness, an accused infringer cannot overcome the “heavy presumption” that a claim term takes on its ordinary meaning by simply pointing to the preferred embodiment or other structures or steps disclosed in the specification or prosecution history. We hold that claim terms take on their ordinary and accustomed meanings unless the patentee demonstrated an intent to deviate from the ordinary and accustomed meaning of a claim term by redefining the term or by characterizing the invention in the intrinsic record using words or expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.

The court then noted that “in the circumstances of this case the record is devoid of ‘clear statements of scope’ limiting the term appearing in claim 1. . . . Absent such clear statements of scope, we are constrained to follow the language of the claims, rather than that of the written description.”

In Honeywell Inc. v. Victor Co., the patent related to a mask for a passive autofocus system used in cameras and video cameras. The decision turned on the meaning of the term “contiguous,” which was used in the claims to describe the position of the mask relative to a transparent member and the position of the transparent member relative to a circuit. While the Federal Circuit noted that the patent was poorly drafted, it nonetheless held that a broader definition applied to “contiguous” and overturned the district court.

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176 299 F.3d at 1327.
177 299 F.3d at 1325 (citation omitted).
178 298 F.3d 1317 (Fed. Cir. 2002).
During prosecution of the patent, the applicant provided a definition for “contiguous,” which encompassed actual contact, touching, and also, being near, but not in contact. In accordance with the ability for the applicant to be his own lexicographer, the Federal Circuit held that this definition was entitled to substantial weight.\textsuperscript{179} This definition was adopted by the Federal Circuit.

The Federal Circuit also reversed the district court’s holding that the patentee disclaimed subject matter. Prior art masks were problematic because they allowed light to pass through and expose a circuit area and also because they allowed imprecise readings due to surface imperfections.\textsuperscript{180} The claimed invention required that an opaque member be “placed contiguous to the transparent member so as to permit radiation through the lenslets to reach detector areas and to prevent radiation through the transparent member from reaching the circuit area.” “Contiguous,” according the definition provided in the prosecution history, did not require the opaque member to be placed immediately next to the transparent member. With the opaque member not in contact with the transparent member, the first problem in the prior art was solved, but the second problem was not. The accused infringer asserted that the patentee had disclaimed coverage to items that do not obviate both prior art problems.

First, the Federal Circuit noted that the claim-at-issue did not include a limitation regarding the second prior art problem. Second, the Federal Circuit distinguished \textit{SciMed Life Systems, Inc. v. Advanced Cardiovascular Sys., Inc.}\textsuperscript{181} from the statements made in the patent-at-issue. The court noted that there were no broad and unequivocal statements

\textsuperscript{179} \textit{Id.} at 1323-24.
\textsuperscript{180} \textit{Id.} at 1320.
\textsuperscript{181} 242 F.3d 1337 (Fed. Cir. 2001).
concerning “all embodiments of the present invention.” Third, the court further noted that the following statement in the written description, like the independent claim, only addressed the first prior art problem:

> It is therefore seen that I have provided a means for overcoming the problem of light passing through areas of a lenslet array in such a way as to be received by the circuit apparatus on an auto focus module thus overcoming the problem of spuriously generated signals.

Because the characterization only discussed one of the two problems in the prior art, the Federal Circuit held that the above statement did not constitute a disclaimer of subject matter. Instead, the court held that it was merely a characterization of a preferred embodiment.

Although the decision in *Honeywell* is difficult to navigate due to the problems of the patent itself, it nonetheless shows important factors in considering whether subject matter has been disclaimed. First, the court noted that there is no limitation in the independent claim that pertains to preventing light, other than that passed through the lenslets, from reaching the detector areas. Further, the court noted that allegedly disclaiming statements never mentioned the second prior art problem. Thus, they should not be read as limiting the placement of the opaque member to being in contact with the transparent member. The specification simply mirrored the limitation expressly stated in claim 1, and no disclaimer existed.

Finally, in *Schwing GMBH v. Putzmeister Aktingensellschaft*, the Federal Circuit further addressed an express manifest exclusion with respect to the specification and the

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182 298 F.3d at 1325.
183 *Id.* at 1326.
184 *Id.*
185 *Id.*
186 305 F.3d 1318 (Fed. Cir. Sept. 24, 2002).
prosecution history. The court found that, while embodiments indeed disclosed the feature that the accused infringer sought to incorporate into the claim scope, there was no suggestion in the patent that this feature was “a necessary limitation” of the claim term cited in the claim at issue. Regarding the prosecution history, the court again referred to the requirement that a competitor would believe that the applicant disavowed coverage of the relevant subject matter and confirmed that no exclusion or restriction had been made.187

**[D] Express Manifest Exclusion or Restriction as Accepted Precedent**

The analysis described in *CCS Fitness* and *Teleflex* requires a deliberate act that represents a clear disavowal of claim coverage. This analysis is premised on the policy of public notice. Competitors are entitled to rely on the statements made in the intrinsic evidence in order to determine the scope of the patentee’s right to exclude.188 Thus, an important factor in determining whether the intrinsic evidence rebuts the ordinary meaning accorded to a claim term is whether a competitor would believe that the patentee disavowed claim coverage.189

Strictly interpreted, *CCS Fitness* and *Teleflex* may not award the opportunities to limit the scope of the claims described in *Wang* and *North American Vaccine*. To the contrary, there must be “words or expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.” In *Wang*, for example, the court paid significant attention to extrinsic evidence that demonstrated that the inventors themselves were unable to provide a frame using a bit-mapped protocol. As the inventors themselves could not provide an enabling disclosure for this embodiment, it was nonsensical to assert that their patent was

187 *Id.*
188 *Texas Digital*, 308 F.3d at 1212.
189 305 F.3d at 1324-25.
entitled to this breadth. Yet, while the failure to disclose bit-mapped protocols in *Wang* may be arguably sufficient to assert that a competitor would reasonably believe that there was a disavowal of claim scope, this lack of disclosure would hardly meet the deliberate differentiation test.

The deliberate differentiation standard, however, is consistent with *SciMed* and *Toro*. As noted by the court in *CCS Fitness*, in both cases the specification noted that the features in question were features of the invention. In *SciMed*, “the present invention” and “all embodiments of the present invention” used coaxial lumens. In *Toro*, the particular structure was identified as “important to the invention.” As the incorporation of a feature as part of the invention is an expression of manifest restriction, these analyses would yield the same result.

§ 1.04 SUMMARY: STATE OF THE LAW ON CLAIM CONSTRUCTION

From the various *post-Markman panel* opinions several general claim construction doctrines become apparent. (1) The intrinsic evidence of record is still the most important resource and the first upon which the district court should rely. (2) The plain meaning of the claim language is entitled to the greatest weight. (3) The specification and prosecution history are used to refine and confirm the plain meaning of the claim language. (4) Extrinsic evidence may always be considered by the district court in fulfilling its role as gatekeeper. And (5) Extrinsic evidence that contradicts the intrinsic record may not be *relied upon* by the district court in forming the proper claim construction.

Based on these general doctrines, two trends appear in the recent panel decisions of the Federal Circuit: (1) the Federal Circuit has elevated the appropriate dictionary as the
primary source for assessing the ordinary meaning of claim terms; (2) the Federal Circuit is attempting to develop a body of precedent advising on when the intrinsic record can be used to alter the plain meaning of the claim terms.

§ 1.05 THE LEGAL RAMIFICATIONS OF CLAIM CONSTRUCTION

Many times, once the disputed claim terms are interpreted by the court, questions of infringement may be decided as a matter of law. When the relevant aspects of the accused device’s structure and operation are undisputed, the question of whether the accused infringer’s device infringes the claims of the patent-in-suit turns on the interpretation of those claims.190 While one might suppose that the resulting legal determinations of infringement litigations would lead to more certainty in the law, many commentators believe that the opposite has occurred. Because the Federal Circuit reviews the district court’s legal determination of claim construction de novo, the resulting rate of reversal of district court claim construction determinations is inordinately high. Some commentators remark that as many as 33% of the appealed cases contain improperly construed claim terms.191

Precedent from the Federal Circuit, therefore, should be focused on clarifying the district court’s claim construction duties. The recent decisions reviewed herein reflect the struggle facing the Federal Circuit to be true to its precedent in Markman192 and Vitronics193 while providing the district court with additional guidance. A focus on determining ordinary meaning through the use of dictionary definitions appears not to be in conflict with

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190 See, e.g., Athletic Alternatives, Inc. v. Prince Mfg., Inc., 73 F.3d 1573, 1578 (Fed. Cir. 1996); Johnson Worldwide, 175 F.3d at 988.


192 52 F.3d 967 (Fed. Cir. 1995) (en banc).

193 90 F.3d 1576 (Fed. Cir. 1996).
precedent, because the court’s decisions are clear that the ordinary meaning cannot conflict with the intrinsic evidence. In addition, the Federal Circuit’s newly coined “express manifest exclusion or restriction\textsuperscript{194} doctrine also appears to have the potential to provide further certainty to the district court and potential defendants regarding claim scope. How the Federal Circuit will develop this new doctrine is yet to be determined.

\textsuperscript{194} Teleflex, 299 F.3d at 1326.