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Articles

Rethinking the Role of the Written Description Requirement in Claim Construction:

Whatever Happened to “Possession is Nine-Tenths of the Law?”

Douglas R. Nemec* & Emily J. Zelenock**

INTRODUCTION

Patent law, once regarded as an arcane discipline relevant only to direct participants in the patent system – namely, patent lawyers and agents, inventors and owners, the United States Patent and Trademark Office (PTO), and the courts – has recently captured the attention and interest of the public. In the past few years, patent law has become headline news, accompanied by an increased public perception that overly broad patents are being granted by the PTO and unjustly enforced against companies that have commercialized valuable products and services, thereby stifling innovation and harming consumers.¹

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The dramatic and unprecedented technological revolution of the past decade may be largely responsible for the heightened public awareness of patents and their potential impact on the public. Since the mid-1990s, the Internet has risen from its nascent stages and completely altered the manner, process, and scope of doing business. The technology boom has caused a spike in the overall number of Internet-related patent applications filed with the PTO, particularly applications that cover business methods or software.² Several

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1. In some instances, "madcap patents, such as patents for "protecting a method of painting by dipping a baby's bottom into paint or a system for keeping track of people queuing for the bathroom" have grabbed headlines. See, e.g., Maggie Shiels, *Technology Industry Hits Out at Patent 'Trolls'*, BBC News (June, 2, 2004) (discussing the Federal Trade Commission's view that "[s]uch patents, while humorous, clearly show both how broken the American patent system and how lax standards are hurting innovation when it comes to business[.]"). In other instances, patent litigations involving widely used products or services have grabbed the public's attention because of the concern that a finding of infringement in such cases will affect consumers who use such products or services. See *infra* notes 3 and 4 (discussing the recent litigations involving eBay and Blackberry services). Moreover, patent law has received national attention due to recent decisions of the U.S. Supreme Court. *Microsoft, Inc. v. AT&T Corp.*, 2007 U.S. LEXIS 4744 (April 30, 2007) (reversing the Federal Circuit and holding that 35 U.S.C. § 271(f) does not extend to foreign duplication of software); *KSR Int'l Co. v. Teleflex, Inc.*, 2007 U.S. LEXIS 4745 (April 30, 2007) (rejecting the Federal Circuit's "teaching-suggestion-motivation" test for determining when a patent is invalid for obviousness because it was too narrow and rigid); *MedImmune, Inc. v. Genentech, Inc.*, 127 S. Ct. 764 (Jan. 19, 2007) (holding that a patent licensee is not required, insofar as U.S. Const. Art. III is concerned, to break or terminate its license agreement with the patent holder before seeking a declaratory judgment in federal court that the underlying patent was invalid, unenforceable, or not infringed).

2. In 1998, the Federal Circuit clarified that software is patentable when it is applied in such a way that yields a "useful, concrete and tangible result." *State Street Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1373 (Fed. Cir. 1998), *cert denied*, 119 U.S. 851 (1999) (quoting *In re Alappat*, 33 F.3d 1526, 1544 (Fed. Cir. 1994)). In addition, the *State Street* Court rejected what had become known as the "business method" exception to

high profile cases involving business method and software patents have contributed to a widely held belief that, at best, these types of patents are often overly broad as drafted and, at worst, have a deleterious impact on the marketplace. In particular, cases involving the widely used BlackBerry³ device and eBay's⁴ popular online auction site showed consumers the

patentability, stating that "[w]hether the claims are directed to subject matter within [35 U.S.C. § 101] should not turn on whether the claimed subject matter does 'business' instead of something else." *Id.* at 1377. The PTO responded to the *State Street* decision by creating a new classification for patent applications for so-called business methods, which "encompasses machines and their corresponding methods for performing data processing or calculation operations, where the machine or method is utilized in the 1) practice, administration, or management of an enterprise, or 2) processing of financial data, or 3) determination of the charge for goods or services." U.S. PATENT & TRADEMARK OFFICE, A USPTO White Paper, AUTOMATED FINANCIAL OR MANAGEMENT DATA PROCESSING METHODS (BUSINESS METHODS) 5 (defining Class 705). In the first year following the *State Street* decision, patent filings for software/Internet business methods more than doubled. See U.S. Patent & Trademark Office, Patent Business Methods: Class 705 Application Filing and Patents Issued Data, <http://www.uspto.gov/web/menu/pbmethod/applicationfiling.htm> (last visited Mar. 26, 2007).

3. In 2001, NTP sued Research In Motion ("RIM") alleging that RIM's BlackBerry service infringed its business method patents broadly directed to wireless e-mail. NTP won the case and was granted an injunction barring RIM from selling its BlackBerry device and service in the United States. *NTP, Inc. v. Research In Motion, Ltd.*, 2003 U.S. Dist. LEXIS 26837, at *5 (E.D. Va. Aug. 5, 2003). The injunction was stayed pending RIM's appeals. *Id.* The Federal Circuit upheld the district court's finding of patent infringement, despite RIM's claim that it was not infringing NTP's patents because a critical step of the BlackBerry service was not located in the United States. *NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282 (Fed. Cir. 2005). RIM filed a petition for certiorari on this issue, which the Supreme Court rejected in early 2006. *Research In Motion, Ltd. v. NTP, Inc.*, 126 U.S. 1174 (2006). The BlackBerry case made headlines largely because of its potential to impact the public – had the injunction been imposed, it would have affected the approximately 4.3 million BlackBerry customers in the United States. See Grace Wong, *Setback for BlackBerry Maker*, CNNMONEY.COM, Jan. 23, 2006, <http://money.cnn.com/2006/01/23/technology/rim/index.htm>. BlackBerry users breathed a collective sigh of relief when the parties ultimately settled for \$612.5 million. See Rob Kelley, *BlackBerry Maker, NTP Ink \$612 Million Settlement*, CNNMONEY.COM, Mar. 3, 2006, http://money.cnn.com/2006/03/03/technology/rimm_ntp/index.htm.

4. In 2001, a small company called MercExchange sued eBay, alleging that eBay's "Buy It Now" feature (which allows buyers to forgo the auction and buy an item for a set price) infringed two of MercExchange's business method patents. In 2003, eBay was found to have infringed the patents, but the district court did not impose an injunction, noting that MercExchange did not practice the patents and was willing to license. *MercExchange, LLC v. eBay, Inc.*, 275 F. Supp. 2d 695, 712 (E.D. Va. 2003). On appeal, the Federal Circuit overturned the decision to not impose the injunction and held that, absent

potential for patent litigation to adversely affect their daily lives.

Overly broad patents are a valid source of concern, as they undermine the quid pro quo bargain underlying the patent system, whereby the patentee agrees to publicly disclose what it is that he claims to have invented in exchange for exclusive rights to exploit the invention.⁵ The government's patent grant is intended to extend only to the inventive subject matter that the patentee has disclosed – simply put, a patentee is not entitled to a patent for that which it did not invent and disclose to the public in the patent document.⁶ Yet, if patent claims are afforded overly broad constructions without regard to whether the patentee has complied with its statutory disclosure obligations, the patentee's patent coverage may exceed what was actually invented and disclosed.

The patentee's written description defines the scope of the invention and, therefore, is critical in determining whether the patentee has a right to exclude others from exploiting the full breadth of the claims as written, and as the patentee proposes that they be construed. The written description requirement, codified in the first paragraph of title 35, section 112 of the U.S. Code, demands that the patent "contain a written description of the invention . . . in . . . full, clear, concise, and exact terms."⁷

"exceptional circumstances," an injunction must follow a finding of infringement. 401 F.3d 1323 (Fed. Cir. 2005), *reh'g & reh'g en banc denied*, 2005 U.S. App. LEXIS 10220 (Fed. Cir. Apr. 26, 2006). The Supreme Court granted certiorari, and in 2006 held that an injunction does not automatically follow from a finding of infringement, but that an injunction should not be denied simply because the patentee does not practice the patented invention. 126 S. Ct. 1837 (2006). The Supreme Court remanded the case for further consideration using the traditional four-factor test for determining whether an injunction should be imposed. *Id.* at 1841. Like the BlackBerry case, this case drew headlines because of its potential to impact on the millions of people who use eBay's online auction site daily. *See, e.g.*, Nicholas Varchaver, *eBay Gets the Blackberry Treatment*, CNNMONEY.COM, Mar. 28, 2006, http://money.cnn.com/2006/03/28/technology/eBay_fortune/index.htm.

5. The term "patentee" as used in this article collectively refers to any party with rights to an invention covered by a patent, including inventors and patent assignees.

6. *Lizardtech, Inc., v. Earth Res. Mapping, Inc.*, 433 F.3d 1373, 1375 (Fed. Cir. 2006) (Lourie, J., concurring) ("The whole purpose of a patent specification is to disclose one's invention to the public. It is the quid pro quo for the grant of the period of exclusivity. The need to tell the public what the invention is, in addition to how to make and use it, is self-evident. One should not be able to obtain a patent on what one has not disclosed to the public.").

7. 35 U.S.C. § 112, ¶ 1 (2000).

This conclusory statutory language begs the question of what the patentee must do to fulfill the written description requirement. While the Federal Circuit Court of Appeals has indicated that the “purpose of the description requirement is “to ensure that the inventor had possession” of the invention, the concept of possession often gets lost in the claim construction shuffle.⁸

Under current canons of claim construction, the analysis focuses on the so-called “ordinary meaning” of a patent claim term to a *hypothetical* person of ordinary skill in the art, rather than what the patentee *actually* conceived, reduced to practice, and disclosed to the public. The system provides an incentive for patentees to draft claims that encompass more subject matter than what they actually possessed at the time of filing, either by adding a specific limitation that is unsupported by the written description, or by using overly broad claim language when, in fact, the original disclosure describes something much narrower. The patentee’s overly broad construction will often prevail, unless the alleged infringer can prove “an intentional disclaimer, or disavowal, of claim scope,” or that patentee used a “special definition . . . that differs from the meaning [a claim term] would otherwise possess.”⁹ This standard further incentivizes patentees to be vague in describing their invention, lest their words be interpreted to be a “clear disavowal” or “special definition[.]”¹⁰ Thus, in all but these most obvious cases, the alleged infringer is left to fight an uphill battle to prove that the patentee’s written description does *not* support the claim construction that the patentee has proposed.

Placing such a heavy burden on the alleged infringer is misguided. The patentee’s right to exclude extends only to the invention that has been described in “full, clear, concise, and exact terms.”¹¹ Stated differently, others are entitled – indeed, *encouraged* – to participate in conduct that falls outside the

8. *Hyatt v. Boone*, 146 F.3d 1348, 1354-55 (Fed. Cir. 1998) (quoting *In re Edwards*, 568 F. 2d 1349, 1351-52 (C.C.P.A. 1978)), *cert denied*, 525 U.S. 1141 (1999); *In re Barker*, 559 F.2d 588, 592 n.4 (C.C.P.A. 1977) (“[T]he ‘essential goal’ of the description of the invention requirement is to clearly convey the information that an applicant has invented the subject matter which is claimed”), *cert denied*, 434 U.S. 1964 (1978).

9. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) (en banc), *cert. denied*, 126 S. Ct. 1332 (2006).

10. *Id.*

11. 35 U.S.C. § 112, ¶ 1 (2000).

scope of what has been fully, clearly, concisely, and exactly defined. A claim construction system that allows a patentee to benefit from a vague, overly broad, or otherwise poorly drafted written description threatens to destabilize the patent system by giving the patentee more than it bargained for.

This Article proposes that this risk could be diminished by a moderate shift in the application of the written description requirement. Rather than continuing to perpetuate the fallacy that claim construction and compliance with the written description requirement are separate inquiries, courts should evaluate written description compliance in connection with claim construction. Specifically, courts should place the initial burden on the patentee – the party typically urging the broader claim construction – to demonstrate that the invention’s written description supports the patentee’s proposed claim construction. This approach would bring the scope of the patentee’s rights into better alignment with what the patentee actually invented – something that would bring much needed clarity and predictability to the patent system. As Judge Lourie of the Federal Circuit observed in a 2006 opinion, “[o]ne does not receive entitlement to a period of exclusivity for what one has not disclosed to the public.”¹² Judge Newman recently expressed a similar sentiment: “We should speak en banc to clarify that it is appropriate, and necessary, to look at what has in fact been invented, prosecuted, and patented, and construe the claims accordingly.”¹³

Part I of this Article explores the constitutional and statutory origins of the patent system, and demonstrates that requiring the patentee to show compliance with the written description requirement is consistent with the historical purpose for the patent system. Part II traces the role of the written description in claim construction jurisprudence before and after the Federal Circuit’s 2005 en banc decision in *Phillips v. AWH Corp.*,¹⁴ which upheld the primacy of the patent specification as “the single best guide to the meaning of a

12. *Lizardtech*, 433 F.3d at 1375 (Lourie, J., concurring).

13. *Amgen, Inc. v. Hoechst Marion Roussel, Inc.*, 469 F.3d 1039, 1042 (Fed. Cir. 2006) (Newman, J., dissenting), *cert. denied*, 2007 U.S. LEXIS 5453, 75 U.S.L.W. 3609 (U.S. May 14, 2007).

14. 415 F.3d 1303, 1303 (Fed. Cir. 2005) (en banc), *cert. denied*, 126 S. Ct. 1332 (2006).

disputed term.”¹⁵ In this section, this Article argues that requiring the patentee to establish that the specification provides written support for its proposed construction of the claims takes the logic of *Phillips* one step further, and increases the likelihood that the patent scope will not exceed the invention that the patentee possessed and disclosed to the public at the time of filing. Indeed, this approach has already been utilized (and shown to be effective) in cases where the patentee’s written description contains a “clear disavowal of claim scope” or a narrow definition that readily undermines the patentee’s proposal for a broad construction. Thus, from an analytical standpoint, this approach is not a radical departure from what is already done in these clear cases. Such an approach will have particular utility, however, in more difficult, “close call” patent disputes, because it will place the burden on the patentee to satisfy the court that there is written description support for the subject matter covered by its proposed construction. Part III provides guidance on how this approach could be integrated with existing claim construction processes without the need for substantive changes in the law. In particular, courts could consider written description compliance in conjunction with claim construction without running afoul of the presumption of validity.

The Article concludes by explaining how this proposal, if implemented, would further the goals of the patent system without compromising its values or necessitating massive reform. Requiring the patentee to demonstrate compliance with the written description requirement would enhance the likelihood that the patent claims would match the scope of what the patentee actually invented. This approach would also promote efficiency and fairness during claim construction by placing the burden on the patentee, the party best positioned to know what it possessed at the time of filing, and who has an incentive to show that such possession is supported by the written description. Finally, this approach would further interests outside of the claim construction context as well. For example, incentivizing patentees to align their claims to their invention as described in the specification would lead to greater precision in patent draftsmanship, which would particularly

15. *Id.* at 1315 (citing *Vitronics Corp. v. Conceptronic Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)).

benefit the realm of software and business method patents.¹⁶ Likewise, the certainty that compliance with the written description requirement will be scrutinized at the claim construction stage may discourage patentees from pursuing dubious claims of infringement.

I. CONSTITUTIONAL AND STATUTORY DEVELOPMENT OF THE WRITTEN DESCRIPTION REQUIREMENT

The constitutional and statutory basis for a patent grant in the United States is based on a quid pro quo exchange between a patentee and the government: the patentee fully discloses its invention to the public in exchange for exclusive rights to the invention for a limited time period.¹⁷ This bargain, at least in theory, is pro-competitive – the patentee benefits by receiving a legal grant of “monopoly power,”¹⁸ which creates an incentive

16. Claim construction “can only be determined . . . with a full understanding of what the inventors *actually invented* The construction that stays true to the claim language *and most naturally aligns with the patent’s description* of the invention will be, in the end, the correct construction.” *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998) (citations omitted) (emphasis added).

17. U.S. patents (other than design patents) issuing after June 8, 1995 have a twenty year term, beginning on the date on which the patent issues and ending twenty years from the earliest filing date of the patent application. 35 U.S.C. § 154(a)(2) (2000). U.S. patents (other than design patents) that were already in force as of June 8, 1995, or that issued on an application that was filed before June 8, 1995, have a term that is the greater of the “twenty-year term” or seventeen years from the patent grant. *Id.* § 154(c). Design patents have a fourteen-year term from the patent grant. *Id.* § 173(c).

18. As used herein, references to patent “monopoly” and patentee “monopoly power” refer generally to the “bundle of rights” that a patent confers upon a patentee, most notably the exclusive rights to the invention disclosed in the patent and the right to exclude others from making, using, or selling the invention. *See, e.g., Ortho Pharm. Corp. v. Genetics Inst.*, 52 F.3d 1026, 1031-32 (Fed. Cir. 1995) (“The proprietary rights granted by any patent are the rights to exclude others from making, using or selling the invention in the United States.”) (citing 35 U.S.C. § 154, which provides: “Every patent shall contain . . . a grant to the patentee . . . of the right to exclude others from making, using, or selling the invention throughout the United States.”). Thus, references to “monopoly” in this Article do not refer to an economic “monopoly” within a strict antitrust definition. This is because “[p]atent rights are not legal monopolies in the antitrust sense of the word. Not every patent is a monopoly, and not every patent confers market power.” *See* FEDERAL TRADE COMMISSION, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY (Oct. 2003) at 2 n.8, *available at* <http://www.ftc.gov/os/2003/10/innovationrpt.pdf> (citing ROBERT L. HARMON, PATENTS AND THE FEDERAL CIRCUIT § 1.4(b) at 21 (5th ed. 2001)).

for the patentee to exploit the invention in the marketplace. In turn, the public benefits by receiving a detailed disclosure of a new invention, which can be used freely upon expiration of the patent, and which immediately enriches the public knowledge so as to spur further innovation.¹⁹

A. CONSTITUTIONAL ORIGINS FOR PATENTEE MONOPOLY POWER

The United States Constitution grants Congress the power to “promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”²⁰ While the language does not provide great detail, it does make it clear that the “exclusive right” should extend only for “limited times,” and only to subject matter that was the inventor’s discovery. As the Supreme Court has explained:

The patent laws “promote the Progress of Science and useful Arts” by rewarding innovation with a temporary monopoly. U.S. Const., Art. I, § 8, cl. 8. The monopoly is a property right; and like any property right, its boundaries should be clear. This clarity is essential to promote progress, because it enables efficient investment in innovation. A patent holder should know what he owns, and the public should know what he does not. For this reason, the patent laws require inventors to describe their work in “full, clear, concise, and exact terms,” 35 U.S.C. § 112 as part of the delicate balance the law attempts to maintain between inventors, who rely on the promise of the law to bring the invention forth, and the public, which should be encouraged to pursue innovations, creations, and new ideas beyond the inventor’s exclusive rights.²¹

B. STATUTORY DEVELOPMENT OF THE WRITTEN DESCRIPTION REQUIREMENT

Since the first patent law was enacted in 1790, Congress has acted numerous times in an effort to effectuate the quid pro quo contemplated by our Founding Fathers. The Patent Act of

19. See, e.g., *Brenner v. Manson*, 383 U.S. 519, 534-35 (1966) (“The basic quid pro quo contemplated by the Constitution and the Congress for granting a patent monopoly is the benefit derived by the public from an invention with substantial utility.”); *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 234 F.3d 558, 621 (Fed. Cir. 2000), (en banc) (Linn, J., concurring in part and dissenting in part) (“[T]he patent also is of value to the public because such disclosures will stimulate others to add to the sum of human knowledge through the creation of other inventions utilizing the lessons learned by the patentee”), *vacated*, 535 U.S. 722 (2002).

20. U.S. Const., art. I, § 8, cl. 8.

21. *Festo*, 535 U.S. 722, 730-31 (2002) (citing *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 150 (1989)).

1790 (the 1790 Act)²² did not require patent claim(s), but did require the patent to include a written description of the invention. Specifically, the 1790 Act required the inventor to:

[D]eliver . . . a specification in writing, containing a description . . . of [the invention] . . . which specification shall be so particular . . . as not only to distinguish the invention . . . but also to enable a workman or other person skilled in the art . . . to make, construct or use the same²³

Thus, the requirement for an adequate written description of the invention was part of the patent laws even before the inclusion of a patent claim was recognized or required.

The 1790 Act further required a patentee to demonstrate its possession over particular subject matter by submitting a “working model” of its invention with the patent application. This approach effectively limited the invention to what was actually reduced to practice, as shown in the working model. While a working model simplified the process of determining the invention literally “possessed” by the patentee, it effectively limited the patentee’s invention to one embodiment.

The patent laws were amended in 1793 to require, *inter alia*, an inventor to:

[D]eliver a *written description* of his invention, and of the manner of using, or process of compounding the same, *in such full, clear, and exact terms*, as to distinguish the same from all other things before known, and to enable any person skilled in the art or science . . . to make, compound, and use the same.²⁴

This language has been interpreted to impose two distinct requirements – an enablement requirement (“to enable artisans to make and use it”), and a written description requirement, which would “put the public in possession of what the party claims as his own invention . . . and to protect the public from an inventor ‘pretending that his invention is more than what it really is.’”²⁵ Like its predecessor act, the Patent Act of 1793 did not require the patent to include a claim.

The Patent Act of 1836 (“the 1836 Act”)²⁶ included a substantially similar written description requirement, but also

22. Patent Act of 1793, ch. 11, 1 Stat. 318, 321.

23. *Id.* § 2, Stat. at 110.

24. Patent Act of 1793, ch. 11, § 3 1 Stat. 318, 321 (emphasis added).

25. *In re Barker*, 559 F.2d at 588, 592 n. 4(C.C.P.A. 1977) (quoting *Evans v. Waton*, 20 U.S. 161 (1822)), *cert. denied*, 434 U.S. 1064 (1978).

26. Patent Act of 1836, ch. 357, 5 Stat. 117.

included the first iteration of claim practice:

[B]efore any inventor . . . receive[s] a patent . . . he shall deliver a *written description* of his invention or discovery, and of the manner and process of making, constructing, using, and compounding the same, *in such full, clear, and exact terms* . . . as to enable any person skilled in the art or science . . . to make, construct, compound, and use the same; and in case of any machine, he shall fully explain the principle and the several modes in which he has contemplated the application of that principle or character by which it may be distinguished from other inventions; *and shall particularly specify and point out the part, improvement, or combination, which he claims as his own invention or discovery.*²⁷

The requirements for a “full, clear, and exact” description of the invention, and a specification of the “part, improvement, or combination, which he claims as his . . . invention” served the same purpose as a working model – to fulfill the patentee’s quid pro quo of public disclosure.²⁸ Whereas a working model demonstrated an actual reduction to practice of the invention, these requirements were tantamount to a constructive reduction to practice. Both served to place the public on notice of the patentee’s invention and corresponding right to exclude. Accordingly, this language paved the way for Congress to drop the working model requirement altogether.

The working model requirement was officially dropped in the Patent Act of 1870 (“the 1870 Act”).²⁹ The 1870 Act included a written description provision substantially similar to the language of the 1836 Act:

[B]efore any inventor . . . shall receive a patent for his invention . . . he shall file in the patent office a *written description of the same*, and of the manner and process of making, constructing, compounding, and using it, *in such full, clear, concise, and exact terms* as to enable any person skilled in the art or science to which it appertains . . . to make, construct, compound, and use the same, and . . . he shall explain . . . the best mode in which he has contemplated applying that principle so as to distinguish it from other inventions . . . and *he shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention* . . . and said *specification and claim* shall be signed by the inventor and attested by two witnesses.³⁰

The main differences between this provision and the comparable provision in the 1836 Act is the requirement to “point out and distinctly *claim*” the invention, and the reference

27. *Id.* § 6, 5 Stat. at 119 (emphasis added).

28. *Id.*

29. Patent Act of 1870, ch. 230, 16 Stat. 201.

30. *Id.* § 26, 16 Stat. at 201 (emphasis added).

to “said specification and *claim*.” This language represents the first unequivocal signal in patent law showing that a claim is to be considered its own component of the patent, separate and distinct from the specification. It was not until 1952, however, that the patent laws were revised and codified into substantially their present form, expressly requiring “at least one claim” in addition to a written description of the invention.³¹

Although the Patent Act of 1952 (“the 1952 Act” or “the Patent Statute”) constituted a comprehensive revision to the patent laws, the 1836 and 1870 Acts’ language regarding written description carried over to the 1952 Act in substantially similar form.³² Codified in the first paragraph of title 35, section 112 of the U.S. Code, the written description requirement of the Patent Statute provides:

The specification shall contain 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, and shall set forth the best mode contemplated by the inventor of carrying out his invention.³³

31. Although the Patent Statute has remained substantially the same since 1952, that may change soon. On April 18, 2007, the Patent Reform Act of 2007 (“2007 Patent Bill”) was introduced to Congress. H.R. 1908, S. 1145, 110th Cong. (2007). This bill broadly resembles the the Patent Reform Act of 2005 (“2005 Patent Bill”), which was introduced to Congress on June 8, 2005. H.R. 2795, 109th Cong. (2005). Upon introduction to Congress, the 2005 Patent Bill was hailed as the “most comprehensive change to U.S. patent law since Congress passed the 1952 Patent Act.” Congressman Lamar Smith, Opening Statement to the Legislative Hearing on H.R. 2795, the “Patent Act of 2005,” June 9, 2005. These proposed reforms include, inter alia, changing the “first to invent” priority system to a “first to file” system, expanding prior user rights, allowing pre-issuance protests by third parties, expanding the use of post-issuance reexamination and opposition proceedings, eliminating the best mode requirement, and modifying the doctrines of willful infringement and inequitable conduct. *Id.* Despite the radical measures proposed in H.R. 2795, there is no proposed change that would alter the written description requirement.

32. Note that the current language of Section 112 is the result of the 1975 amendments to the 1952 Act. *See* DONALD S. CHISUM, CHISUM ON PATENTS § 7.02[4] (2005).

33. 35 U.S.C. § 112, ¶ 1 (2000) (emphasis added). This paragraph has been interpreted to encompass three distinct, but related, requirements. As the Federal Circuit has explained:

Three separate requirements are contained in [§ 112, ¶ 1]: (1) ‘the specification shall contain a written description of the invention’; (2) ‘the specification shall contain a written description . . . of the manner and process of making and using it [i.e., the invention] in

The Patent Statute adopts the “particularly point out and distinctly claim” language of the 1870 Act, and further requires that “[t]he specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.”³⁴

With this statutory development in mind, the Federal Circuit in *Phillips* observed that:

[The] “bedrock principle” of patent law that “the claims of a patent define the invention to which the patentee is entitled the right to exclude” . . . has been recognized since at least 1836, when Congress first required that the specification include a portion in which the inventor “shall particularly specify and point out the part, improvement, or combination, which he claims as his own invention or discovery.”³⁵

It is important to note, however, that the 1836 Act did not require the same formality of a claim that is required by the current Patent Statute. Rather, the specification defined the metes and bounds of the claimed invention, thereby disclosing to the public what the patentee invented.³⁶ While the 1870 Act

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”; and (3) “the specification . . . shall set forth the best mode contemplated by the inventor of carrying out his invention.” In common parlance, as well as in our and our predecessor court’s case law, those three requirements are referred to as the “written description requirement,” the ‘enablement requirement,’ and the ‘best mode requirement,’ respectively.

Univ. of Rochester v. G.D. Searle & Co., Inc., 358 F.3d 916, 921 (Fed. Cir. 2004). See also Guidelines for Examination of Patent Applications Under the 35 U.S.C. 112, ¶1, “Written Description” Requirement, 66 Fed. Reg. 1099, 1100 (Jan. 5, 2001) (“Although the [concepts of written description and enablement] are entwined, they are distinct and each is evaluated under separate legal criteria. The written description requirement, a question of fact, ensures that the inventor conveys to others that he or she had possession of the claimed invention; whereas, the enablement requirement, a question of law, ensures that the inventor conveys to others how to make and use the claimed invention.”).

34. 35 U.S.C. § 112 (2000).

35. See *Phillips*, v. AWH Corp., 415 F.3d at 1312 (Fed. Cir. 2005) (citations omitted), *cert. denied*, 126 S. Ct. 1332 (2006).

36.

[One] objective [of the written description requirement] is to provide notice to the public regarding what the inventor claims as his or her invention so that the public can resolve any infringement concerns. This objective also arose during the period when patents did not contain any claims. The public therefore had to rely solely on the written description to determine what the inventor was claiming as his or her exclusive property and what actions would or would not constitute infringement of the inventor’s rights. Even with the advent of claims, the specification still satisfies the *quid pro quo*

suggested that a claim is a separate, requisite component of a patent, the requirement that a patent must include "at least one claim" was not added until the 1952 Act.

Thus, the disconnect often seen today between how claims are construed and what is described in the specification is unsupported by the constitutional origins and statutory development of the laws governing the U.S. patent system. Construing claims without regard to what the inventor actually possessed at the time of filing, as measured by the written description, undermines the quid pro quo bargain contemplated by the Constitution by threatening to provide patent monopoly power that exceeds the actual scope of the patentee's disclosure.

II. ROLE OF THE WRITTEN DESCRIPTION IN CLAIM CONSTRUCTION

A. *MARKMAN V. WESTVIEW INSTRUMENTS, INC.*

The Supreme Court's 1996 decision in *Markman v. Westview Instruments, Inc.*³⁷ is often credited as having created the modern claim construction process. In fact, *Markman* did little to define how courts should go about construing claims. Rather, the case addressed the much narrower question of whether judges or juries are better suited to handle claim construction. The Court ultimately held that "the construction of a patent, including terms of art within its claim, is exclusively within the province of the court."³⁸ The Court's holding was ultimately driven by a policy rationale that judges are better suited than juries to perform the task of claim construction.³⁹ The Court explained:

disclosure to the public of the inventive subject matter in exchange for the grant of a limited period of exclusivity to the inventor.

Sasha Blaug, Michael Shuster, and Henry Su, *Enzo Biochem v. Gen-Probe: Complying with the Written Description Requirement Under U.S. Patent Law*, 21 NATURE BIOTECHNOLOGY 97, 99 (2003).

37. 517 U.S. 370 (1996).

38. *Id.* at 372.

39. *Id.* at 388. While this policy rationale drove the Court's holding, there were other factors that further supported the Court's determination that claim construction was a task for judges, not juries. For example, the Court determined that the Constitution's Seventh Amendment guarantee of a jury trial did not, from a historical perspective, mandate the question of claim interpretation to be submitted to the jury. *Id.* at 381-83. In addition, the

[W]hen an issue “falls somewhere between a pristine legal standard and a simple historical fact, the fact/law distinction at times has turned on a determination that, as a matter of the sound administration of justice, one judicial actor is better positioned than another to decide the issue in question.” So it turns out here, for judges, not juries, are the better suited to find the acquired meaning of patent terms. The construction of written instruments is one of those things that judges often do and are likely to do better than jurors unburdened by training in exegesis The judge, from his training and discipline, is more likely to give a proper interpretation to such instruments than a jury⁴⁰

While *Markman* is often cited for the proposition that claim construction is a “question of law” that interpretation is inconsistent with the actual language of the *Markman* decision. Rather, the Supreme Court recognized in *Markman* that claim construction was not a “pristine” question of law, but rather a mixed question of law and fact, better delegated to the courts because a judge is “more likely to be right, in performing such a duty, than a jury can be expected to be.”⁴¹ The Supreme Court reasoned that delegating claim construction to judges, rather than juries, would promote uniformity.⁴²

The *Markman* Court also emphasized the unity of the patent document during the “mongrel practice” of claim construction: “the patent itself . . . like other written instruments, . . . must be interpreted as a whole . . . and the legal deductions drawn therefrom must be conformable with

Court concluded that precedent weighed in favor of the court’s “interpretive role” in construing the meaning of a “legal instrument” such as a patent. *Id.* at 387-88 (“The duty of interpreting letters-patent has been committed to the courts. A patent is a legal instrument, to be construed, like other legal instruments, according to its tenor”) (quoting W. Robinson, LAW OF PATENTS § 732, pp. 481-83 (1890)). The Court ultimately concluded, however, that “history and precedent provide no clear answers” to the question of whether claim construction should be delegated to judges or juries, and the clearest mandate came from its view that judges are “better suited” to perform the task of claim construction. *Id.*

40. *Id.* at 388-89 (citations omitted).

41. *Id.* at 389 (quoting *Parker v. Hulme*, 18 F. Cas. 1140) (C.C.E.D. Pa. 1849). See also *Phillips v. AWH Corp.*, 415 F.3d 1303, 1330 n.1 (Fed. Cir. 2005) (Mayer, J., dissenting) (“The Supreme Court did not suggest . . . that claim construction is a purely legal question. It held only that, as a policy matter, the judge, as opposed to the jury, should determine the meaning of a patent claim.”) (citation omitted), *cert. denied*, 126 S. Ct. 1332 (2006); *Cybor Corp. v. FAS Tech., Inc.*, 138 F. 3d 1448, 1464 (Fed.Cir. 1998) (en banc) (Mayer, C.J., concurring) (explaining that “the [Supreme] Court chose not to accept our formulation of claim construction: as a pure question of law to be decided *de novo* in all cases on appeal”).

42. 517 U.S. at 391.

the scope and purpose of the entire document.”⁴³ However, the *Markman* Court may have obscured this message when it later described the claims and the written description as “two distinct elements” of a patent document.⁴⁴ By creating a dichotomy between the claims and the written description, without specifically delineating the role each is to play in construing claims, the *Markman* Court inadvertently sparked a debate that continues to rage today, and is arguably a root cause of the perceived failings of the patent system.

B. POST-MARKMAN: REAFFIRMING THE PRIMACY OF THE WRITTEN DESCRIPTION DURING CLAIM CONSTRUCTION

As explained above, while *Markman* answered the question of *who* decides claim construction, it did not provide guidance on *how* claim construction should be conducted.⁴⁵ Thus, post-*Markman*, the district courts were largely left to their own devices to determine the procedure and substance of claim construction. A handful of jurisdictions – namely, the Eastern District of Texas, Northern District of California, Northern District of Georgia, and Western District of Pennsylvania – have adopted patent local rules designed to promote efficiency and speedy resolution of patent cases by providing, inter alia, a series of claim construction-related deadlines leading up to a claim construction (or “*Markman*”) hearing. In the majority of jurisdictions that have not adopted patent local rules, there is great variation among districts and judges as to the discovery timelines leading up to claim construction, as well as whether

43. *Id.* at 378, 383 n.8 (quoting *Brown v. Huger*, 62 U.S. 305, 318 (1859)).

44. *Id.* at 373.

45. As the Federal Circuit explained,

Markman 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. To perform that task, some courts have found it useful to hold hearings and issue orders comprehensively construing the claims in issue. Such a procedure is not always necessary. . . . District courts have wide latitude in how they conduct the proceedings before them, and there is nothing unique about claim construction that requires the court to proceed according to any particular protocol. As long as the trial court construes the claims to the extent necessary to determine whether the accused device infringes, the court may approach the task in any way that it deems best.

Ballard Med. Prods. v. Allegiance Healthcare Corp., 268 F.3d 1352, 1358 (Fed. Cir. 2001).

and to what extent *Markman* hearings are conducted.

As a result of the lack of uniformity regarding claim construction at the district court level, the Federal Circuit experienced a flood of claim construction cases in the years following *Markman*. Despite variation in the district courts' handling of claim construction, the issue on appeal often presented the same underlying dilemma: how to strike the appropriate balance between reading the claims in light of the written description and prosecution history without improperly limiting the claims. At the heart of this challenge was the question of how district courts should weigh *factual* evidence bearing on the meaning of disputed terms in order to assign them a *legally* operative meaning during claim construction.

The Federal Circuit's attempts to respond to this challenge have created more confusion than clarity. In *Cybor Corp. v. FAS Technologies, Inc.*,⁴⁶ the court created controversy when it held that the Supreme Court's *Markman* decision was consistent with the concept of treating claim construction as "purely a matter of law" subject to *de novo* review.⁴⁷ In reaching this decision, the *Cybor* court made the puzzling statement that a construing court "is not crediting certain evidence over other evidence or making factual evidentiary findings. Rather, the court is looking to the extrinsic evidence to assist in its construction of the written document, a task it is required to perform."⁴⁸ This decision has been widely criticized for ignoring the factual questions inherent in claim construction and providing no deference to a trial court's determinations with respect to these factual questions. Importantly, eight of the twelve Federal Circuit judges agree that *Cybor* should be reviewed if the "appropriate" case arises.⁴⁹

46. 138 F.3d 1448 (Fed. Cir. 1998) (en banc).

47. *Id.* at 1454.

48. *Id.* (quoting *Markman v. Westview Instruments, Inc.*, 52 F. 3d 967, 981 (Fed. Cir. 1995)).

49. In a recent case in which the Federal Circuit denied a request for rehearing en banc, six separate dissenting and concurring opinions revealed internal conflict with respect to the *Cybor* decision. See *Amgen, Inc. v. Hoescht Marion Roussel, Inc.*, 469 F.3d 1039, 1040-46 (Fed. Cir. 2006), *cert. denied*, 2007 U.S. LEXIS 5453, 75 U.S.L.W. 3609 (U.S. May 14, 2007). Judges Michel, Newman, Rader, Mayer, and Moore all bluntly criticized *Cybor*. Judges Gajarsa, Linn, and Dyk also criticized *Cybor*, though seemed to be willing to allow for *de novo* review if extrinsic evidence was not considered by the district court during claim construction. *Id.*

Creating further confusion were the Federal Circuit's conflicting decisions in *Vitronics Corp. v. Conceptronics, Inc.*⁵⁰ and *Texas Digital Systems v. Telegenix, Inc.*⁵¹ regarding the relative weight that intrinsic evidence (*i.e.*, the written description and prosecution history) and extrinsic evidence (*e.g.*, dictionaries, treatises, and expert testimony) should be given by a court faced with the task of claim construction. Just a few months after *Markman*, the Federal Circuit in *Vitronics* held that "intrinsic evidence is the most significant source of the legally operative meaning of disputed claim language."⁵² In contrast, six years later in *Texas Digital*, the Federal Circuit suggested a different approach, holding that claim construction should be primarily driven by extrinsic sources, such as dictionaries, encyclopedias, and treatises.

As discussed in greater detail below, the Federal Circuit provided well-needed clarity in 2005 with its en banc decision in *Phillips v. AWH Corp.*⁵³ In *Phillips*, the Federal Circuit explicitly rejected the *Texas Digital* approach and reiterated the *Vitronics* pronouncement that "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 disputed terms."⁵⁴

1. *Vitronics Corp. v. Conceptronics, Inc.*

Shortly after *Markman*, the Federal Circuit clarified the imperative role of a patent's intrinsic evidence – especially the written description – in determining the proper meaning for a disputed claim term. In *Vitronics*, the parties' claim construction dispute centered on the term "solder reflow temperature" as used in a claim for a method for the reflow soldering of surface mounted devices to a printed circuit board.⁵⁵ The asserted claim required "maintaining the temperature of said devices below *said solder reflow temperature*."⁵⁶ The plaintiff/patent holder Vitronics argued

50. *Vitronics Corp., v. Conceptronics, Inc.*, 90 F.3d 1576 (Fed. Cir. 1996).

51. 308 F.3d 1193 (Fed. Cir. 2002), *cert denied*, 538 U.S. 1058 (2003).

52. *Vitronics*, 90 F. 3d.at 1582.

53. *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005), *cert. denied*, 126 S. Ct. 1332 (2006).

54. *Phillips*, 415 F.3d at 1315 (citing *Vitronics*, 90 F.3d at 1582).

55. *Vitronics*, 90 F.3d at 1579.

56. *Id.*

that the specification made it clear that the term meant “the temperature reached by the solder during the period it is reflowing during the final stages of the soldering process,” and *not*, as the accused infringer Conceptronics contended, the “liquidus temperature” (*i.e.*, the “temperature at which the solder first begins to melt.”).⁵⁷

In holding that Conceptronics did not infringe the patent, the district court adopted Conceptronics’ proposed construction based on extrinsic evidence, particularly expert testimony that “solder reflow temperature” meant the same thing as “liquidus temperature.”⁵⁸ The Federal Circuit reversed and remanded, condemning the district court’s reliance on extrinsic evidence to contradict the unambiguous support in the intrinsic evidence for Vitronics’ proposed construction. The court explained that the “peak reflow temperature” and “liquidus temperature” were clearly defined in the specification to have two separate meanings.

The solders described in the specification had a liquidus temperature around 190° C and a peak reflow temperature around 210-218° C. In addition, in the description of the preferred embodiment, “the solder is heated to a temperature of 210° C but the temperature of the devices is maintained at approximately 195° C, *i.e.*, below the peak reflow temperature (210° C) but *above* the liquidus temperature (190° C).”⁵⁹ Given the claim’s requirement that the temperature of the devices must be maintained “below said solder reflow temperature,” “if ‘solder reflow temperature’ was defined to mean liquidus temperature, a preferred – and, indeed, the *only* – embodiment in the specification would not fall within the scope of the patent claim. Such an interpretation is rarely, if ever correct.”⁶⁰

Thus, the Federal Circuit in *Vitronics* examined the evidence that each party had offered in support of its proposed construction, and correctly treated Vitronics’ evidence preferentially. The *Vitronics* Court declared that it is “well-settled” that, in “interpreting an asserted claim, the court should look first to the intrinsic evidence”—namely, the patent claims, specification, and prosecution history — because such evidence is “the most significant source of the legally operative

57. *Id.*

58. *Id.* at 1581.

59. *Id.* (emphasis added).

60. *Id.*

meaning of disputed claim language.”⁶¹ The court elaborated:

First, we look to the words of the claims themselves . . . to define the scope of the patented invention. . . . [S]econd, 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 . . . [t]he specification contains a *written description* of the invention which must be clear and complete enough to enable those of ordinary skill in the art to make and use it. Thus, *the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.* Third, the court may also consider the prosecution history of the patent.⁶²

With respect to extrinsic evidence, the *Vitronics* Court explained that “[i]n 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.”⁶³ Because Conceptronics’ proposed construction was based on extrinsic evidence that contradicted the clear meaning of “solder reflow temperature” as used in the specification of the patent, the court rejected it in favor of Vitronics’ proposed construction, which comported with what was described in the specification.

2. *Texas Digital System, Inc. v. Telegenix, Inc.*

More than six years after *Vitronics*, the Federal Circuit created confusion with its decision in *Texas Digital*, which contradicted the *Vitronics* court’s pronouncement that the specification is the “single best guide to the meaning of a disputed term” and instead emphasized that “dictionaries, encyclopedias and treatises are particularly useful resources to assist the court in determining the ordinary and customary meanings of claim terms.”⁶⁴

The *Texas Digital* court began with the observation that the “analytical focus” of claim construction is the claims themselves, and that the “terms used in the claims bear a ‘heavy presumption’ that they mean what they say and have the ordinary meaning that would be attributed to those words

61. *Id.* at 1582.

62. *Id.* at 1582. (emphasis added) (citations omitted).

63. *Id.* at 1583.

64. *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1202 (Fed. Cir. 2002), *cert denied*, 538 U.S. 1058 (2003).

by persons skilled in the relevant art.”⁶⁵ It advocated that a court should first consult extrinsic sources, such as dictionaries,⁶⁶ encyclopedias, and treatises to determine the “full range” of a disputed term’s ordinary and customary meaning. Then, only as a secondary step should the court check intrinsic evidence to “identify which of the different possible dictionary meanings . . . is most consistent with the use of the words by the inventor.”⁶⁷ To the extent that more than one dictionary meaning is consistent, the claims should be construed to “encompass all such consistent meanings.”⁶⁸

While the *Texas Digital* court recognized the possibility that the intrinsic evidence could be “clearly inconsistent” with the dictionary definition, it stated that the “presumption in favor of a dictionary definition will be overcome” in only two circumstances:

where the patentee, acting as his or her own lexicographer, has clearly set forth an explicit definition of the term different from its ordinary meaning . . . or if the inventor has disavowed or disclaimed scope of coverage, by using words or expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.⁶⁹

The *Texas Digital* approach was flawed for several reasons. The court’s statement that the “terms used in the claims bear a ‘heavy presumption’ that they mean what they say”⁷⁰ is both conclusory and nonsensical. What the claim terms say is, of course, not as simple as the text of the words on the page; likewise, claim construction is not as simple as looking up definitions in a dictionary. If it were, the Supreme Court would not have found it necessary to delegate the task of claim construction to judges. Consistent with the quid pro quo bargain upon which the patent system is based, claims should only “mean” what was invented, and what was invented depends on what the patentee was in possession of at the time of filing, as defined by the patentee’s written description of the invention. The *Texas Digital* approach, however, allowed dictionary definitions—which have no nexus to what the patentee possessed—to govern claim construction, unless the

65. 30 F.3d at 1201-02.

66. Where the term “dictionary” is used elsewhere in this article, it refers to dictionaries, encyclopedias, treatises, and the like.

67. *Texas Digital*, 30 F.3d at 1203.

68. *Id.*

69. *Id.* at 1204 (citations omitted).

70. *Id.* at 1202.

written description contained an explicit definition that deviated from the dictionary definition(s), or if the inventor expressly disavowed or disclaimed claim scope. This approach thus encouraged patentees to be vague in their written descriptions, and led to overly broad claim constructions.⁷¹

In addition, the *Texas Digital* court's analysis was based on the illogical premise that a person skilled in the art would attribute meaning to a disputed term based on dictionary definitions, rather than the patentee's own words to describe the invention. On the contrary, such a person would be generally familiar with the terminology employed in the patent, and would thus have no particular need to consult a dictionary for a basic definition. Rather, a person skilled in the art would find guidance in the written description of the invention (and other intrinsic evidence) to determine the patentee's specific use of the terminology in the context of the invention.

3. *Phillips v. AWH Corp.*

a. Specification Upheld as the "Most Important Guide" to Claim Construction

On July 12, 2005, the Federal Circuit issued its highly anticipated en banc decision in *Phillips v. AWH Corp.*⁷² The principal issue for the court to resolve was "the extent to which [the courts] should resort to and rely on a patent's specification in seeking to ascertain the proper scope of its claims."⁷³ The *Phillips* court endorsed the *Vitronics* pronouncement that 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."⁷⁴ In doing so, the Federal Circuit upheld the primacy of the specification

71. For an example of a case where the *Texas Digital* approach led to an overly broad claim construction, see the discussion of the Federal Circuit's pre-*Phillips* decision in *Nystrom v. Trex Co.*, 374 F.3d 1105, 1112 (Fed. Cir. 2004) (following the *Texas Digital* to broadly construe the claim term "board") and its post-*Phillips* decision in the same case, *Nystrom v. Trex Co.*, 424 F.3d 1136 (Fed. Cir., Sept. 14, 2005) (withdrawing its previous opinion in view of *Phillips* and limited the term "board" to mean "wood cut from a log"). The *Nystrom* cases are discussed in Section II.C.2, *infra*.

72. *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005).

73. *Id.* at 1312.

74. *Id.* at 1315 (citing *Vitronics Corp. v. Conceptronics, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)).

during claim construction, and thereby rejected the “dictionaries first” approach taken by *Texas Digital* and its progeny.

In particular, the *Phillips* court debunked the *Texas Digital* myth that a person skilled in the art would understand the claims by consulting a dictionary. Rather, the *Phillips* court asserted that “[a person of ordinary skill in the art] is deemed to read the words used in the patent documents with an understanding of their meaning in the field, and to have knowledge of any special meaning and usage in the field.”⁷⁵

The court elaborated:

The main problem with elevating the dictionary to such prominence is that it focuses the inquiry on the abstract meaning of words rather than on the meaning of claim terms within the context of the patent. Properly viewed, the “ordinary meaning” of a claim term is its meaning to the ordinary artisan after reading the entire patent. Yet heavy reliance on the dictionary divorced from the intrinsic evidence risks transforming the meaning of the claim term to the artisan into the meaning of the term in the abstract, out of its particular context, which is the specification.⁷⁶

Of particular concern to the *Phillips* court was the “risk of systematic overbreadth” that was posed by a claim construction approach that begins by consulting broad dictionary definitions.⁷⁷ This risk is “greatly reduced” by an approach that instead preliminarily examines the intrinsic evidence — especially the patentee’s written description of the invention — to discern the legally operative meaning of a disputed claim term.⁷⁸ Rather than relying on a dictionary with no

75. 415 F.3d at 1313 (quoting *Multiform Desiccants, Inc. v. Medzam, Ltd.* 133 F.3d 1473, 1477 (Fed. Cir. 1998)).

76. *Id.* at 1321.

77. *Id.* Note, however, that the *Phillips* Court recognized that dictionaries could have an appropriate role during claim construction. The Court explained:

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

Id. at 1322-23 (quoting *Vitronics*, 90 F.3d at 1584).

78. *Id.* at 1321. The *Phillips* Court recognized that the prosecution history was an important source of intrinsic evidence that courts should consider during claim construction. “Like the specification, the prosecution history provides evidence of how the PTO and the inventor understood the patent . . . [and] was created by the patentee in attempting to explain and obtain the patent.” *Id.* at 1317 (citations omitted). Yet, in concluding that the specification carries greater relative weight than the prosecution history, the

relationship to the patent, the specification “acts as a dictionary” for the patent at issue “when it expressly defines terms used in the claims or when it defines terms by implication.”⁷⁹

As the *Phillips* court explained, regarding the specification as the “primary basis for construing the claims” is supported by precedent of the Federal Circuit and its predecessors, as well as the Supreme Court.⁸⁰ Moreover, the court noted:

The importance of the specification in claim construction derives from its statutory role. The close kinship between the written description and the claims is enforced by the statutory requirement that the specification describe the claimed invention in “full, clear, concise, and exact terms” . . . [i]n light of th[is] statutory directive . . . the specification necessarily informs the proper construction of the claims.⁸¹

b. Problems Remaining After *Phillips*

Phillips was heralded as a much needed, long-overdue correction to the claim construction process. By clarifying that the specification should be afforded greater weight than other types of evidence available to a court during its claim construction analysis, the *Phillips* case provided procedural guidance on how *Markman* hearings should be conducted. Specifically, *Phillips* directed district courts to pay less attention to extrinsic evidence, and instead focus on the particular manner in which the patentee has defined the term

Phillips Court pointed out that “the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation.” *Id.* The “final product” of the negotiation, then, represents the bargain that the patentee and government ultimately entered into, and is reflected by the actual words used in the patent to describe the invention.

79. *Phillips*, 415 F.3d at 1321 (citing *Vitronics*, 90 F.3d at 1582); *accord* *Irdeto Access, Inc. v. EchoStar Satellite Corp.*, 383 F.3d 1295, 1300 (Fed. Cir. 2004) (quoting *Bell Atl. Network Servs., Inc. v. Covad Communications Group, Inc.* 262 F.3d 1258, 1266 (Fed. Cir. 2001)) (“Even when guidance is not provided in explicit definitional format, ‘the specification may define claim terms by implication such that the meaning may be found in or ascertained by a reading of the patent documents.’”); *Novartis Pharms. Corp. v. Abbott Labs.*, 375 F.3d 1328, 1334-35 (Fed. Cir. 2004) (same).

80. *See Phillips*, 415 F.3d at 1315 (citing *Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448, 452 (Fed. Cir. 1985). *See also, e.g.*, *United States v. Adams*, 383 U.S. 39, 49 (1966) (“It is fundamental that claims are to be construed in the light of the specifications and both are to be read with a view to ascertaining the invention.”).

81. *Phillips*, 415 F.3d at 1316 (citations omitted).

in the patent document itself —namely the claims, the written description in the specification, and the prosecution history — thus making drafting and prosecuting patent applications even more important to effective enforcement efforts.

While the guidance provided by the *Phillips* decision was a step in the right direction, the outcome of the claim construction dispute at issue in the case illustrates that certain fundamental problems persist. Indeed, the great paradox of *Phillips* is that the en banc court ultimately *reversed* the claim construction rulings of the panel and district court, despite the fact that these rulings were driven by the specification-focused procedure advocated by the en banc court. The reversal reflects the uncertainty in predicting how a court in any particular case will strike the balance between reading the claims in light of the specification without improperly importing limitations from the specification into the claims.

Phillips involved a patent for modular, steel-shell panels that are welded together to form vandalism-resistant walls for use in prisons. The claim construction dispute centered on whether the language “further means disposed inside the shell for increasing its load bearing capacity comprising internal steel baffles extending inwardly from the steel shell walls[]” required the baffles to be positioned at obtuse or acute angles or whether they were not so limited (*i.e.*, whether they could be positioned at 90-degree angles as well).⁸² The district court interpreted the claim language as a “means-plus function” claim format subject to 35 U.S.C. § 112, paragraph 6, and granted summary judgment of noninfringement on the basis that the specification limited the scope of the invention to baffles oriented at obtuse or acute angles.⁸³ On appeal, a Federal Circuit panel disagreed that the claim language was written in means-plus-function format, but ultimately affirmed summary judgment of noninfringement because the specification was “unmistakably clear that the invention was limited to baffles angled at other than 90 [degrees].”⁸⁴

Upon rehearing en banc, the Federal Circuit reversed because, based on its review of the specification, a person skilled in the art would *not* read the term restrictively.⁸⁵ In

82. *Id.* at 1325.

83. *Id.* at 1310.

84. *Id.* (quoting *Phillips v. AWH Corp.*, 363 F.3d 1207, 1214 (Fed. Cir. 2004)).

85. *Id.* at 1330-35. In a vigorous dissent, Judge Mayer (joined by Judge

reaching this decision, the Court dismissed the argument that the claim should be read restrictively because it would be invalid under a broader reading (i.e., a reading that includes 90° angles). The Court noted that, “[w]hile we have acknowledged the maxim that claims should be construed to preserve their validity . . . we have limited the maxim to cases in which ‘the court concludes, after applying all the available tools of claim construction, that the claim is still ambiguous.’”⁸⁶ The Court then cited to a number of cases standing for the proposition that limitations cannot be added to a claim for the purpose of preserving validity when the only reasonable construction of the claim does not include that limitation.⁸⁷ What is puzzling is how the en banc Court could have concluded that the only reasonable construction of “baffles” is one that includes 90° angles, when the Federal Circuit panel and the district court applied the same specification-focused procedure advocated by the en banc Court, and yet reached the opposite conclusion.

Also puzzling is the Court’s statement that, in determining whether claims should be construed to preserve their validity, “we have looked to whether it is reasonable to infer that the PTO would not have issued an invalid patent, and that the ambiguity in the claim language should therefore be resolved in

Newman) argues that the result in *Phillips* once again demonstrates the failings of the Federal Circuit’s treatment of claim construction as a pure question of law, devoid of any factual questions:

[w]hile this court may persist in the delusion that claim construction is a purely legal determination, unaffected by underlying facts, it is plainly not the case. Claim construction is, or should be, made in context: a claim should be interpreted both from the perspective of one of ordinary skill in the art and in view of the state of the art at the time of invention.

Id. at 1332 (Mayer, J., dissenting). As Judges Mayer and Newman colorfully describe it, the *Phillips* Court’s attempt to bring clarity to the claim construction procedure but failing to afford any deference to the trial court’s findings on the inherent factual questions “is akin to rearranging the deck chairs on the Titanic—the orchestra is playing as if nothing is amiss, but the ship is still heading for Davey Jones’ locker.” *Id.* at 1334-35.

86. *Id.* at 1327 (quoting *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 911 (Fed. Cir. 2004)).

87. *Id.* (citing, *e.g.*, *Elekta Instrument S.A. v. O.U.R. Scientific Int’l, Inc.*, 214 F.3d 1302, 1309 (Fed. Cir. 2000) (“having concluded that the amended claim is susceptible of only one reasonable construction, we cannot construe the claim different . . . in order to preserve its validity”).

a manner that would preserve the patent's validity."⁸⁸ This statement implies that it would only be "reasonable" to infer the PTO issued a valid patent in limited circumstances — which flies in the face of the presumption of validity that attaches to all patents issued by the PTO.⁸⁹ Indeed, all patents are presumed valid and their claims are presumed to have written description support.⁹⁰ As every patent litigant knows, however, the construction of key terms is often in dispute, and, as every judge tasked with claim construction knows, there may be sound arguments supporting each of the competing constructions. Given that the PTO is not charged with the task of claim construction (and does not issue patents with any type of accompanying instruction regarding its understanding of claim scope), a construing court can never be entirely sure which of the competing constructions the PTO had in mind when it issued the patent. What the court *can* be sure of, however, is that the PTO intended to issue a valid patent. While the Federal Circuit "has urged caution in construing claims in order to preserve their validity, no precedent or logic requires that when more than one claim construction is available, the court must choose the broader one although it may invalidate the claim."⁹¹ When a court must decide between two competing constructions for a disputed term, and one construction would invalidate the claim and the other would not, it is "reasonable" for the court to adopt the construction that would preserve the validity of the claim. Not only would it be "reasonable to infer that the PTO would not have issued an invalid patent"⁹² in such a case, it would be *unreasonable* to do otherwise, given the presumption of validity.

88. *Id.* at 1327.

89. 35 U.S.C. § 282 (2000) ("A patent shall be presumed valid.")

90. *Id.*

91. *Amgen, Inc. v. Hoechst Marion Roussel, Inc.*, 469 F.3d 1039, 1042 (Fed. Cir. 2006) (Newman, J., dissenting), *cert. denied*, 2007 U.S. LEXIS 5453, 75 U.S.L.W. 3609 (U.S. May 14, 2007).

92. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1327.

C. INTEGRATING WRITTEN DESCRIPTION AND CLAIM CONSTRUCTION ANALYSES IS EVOLUTIONARY, NOT REVOLUTIONARY

1. Pre-*Phillips* Cases

The Federal Circuit's *Phillips* decision affirmed the written description as the primary guide to interpreting the meaning of disputed claim language, thus making it less likely that a patentee will be able to exploit the claim construction process to obtain a dictionary-based construction for a claim term that vastly exceeds the scope of what the patentee's written description actually disclosed. While the danger of overbreadth was reduced by this holding, more can and should be done by the courts in order to alleviate the risk of giving "patent monopoly power" in excess of what the patentee actually possessed and disclosed at the time of filing. In particular, the Federal Circuit should take the logic of *Phillips* one step further, and require the patentee to demonstrate that its proposed construction complies with the written description requirement.

Analytically, this proposal is not a radical departure from the approach taken by the Federal Circuit in pre-*Phillips* cases where the specification's inclusion of an explicit definition or a "clear disavowal of claim scope" make it obvious that the patentee's proposed construction lacks written description support.⁹³ For example, in *Cultor Corp. v. A.E. Staley Mfg. Co.*,⁹⁴ the Federal Circuit affirmed summary judgment of noninfringement based the patentee's inability to show that its broad construction of the term "water-soluble polydextrose" was supported by the written description.⁹⁵ The patents at issue were directed to the process of remedying the bitter taste produced by polydextrose by passing it through an ion-exchange resin.⁹⁶ The written description explained that the bitter taste was due to the use of citric acid in the process, causing remnant citric acid to be bound to the product.⁹⁷ The

93. *Texas Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1204 (Fed. Cir. 2002).

94. 224 F.3d 1328 (Fed. Cir. 2000).

95. *Cultor Corp. v. A.E. Staley Mfg. Co.*, 224 F. 3d 1328 (Fed. Cir. 2000).

96. *Id.* at 1329-30.

97. *Id.* at 1330.

written description also provided an express definition for the term “water-soluble polydextrose”: “[a]s used herein, the expression ‘water-soluble polydextrose’ . . . specifically refers to the water-soluble polydextrose prepared by melting and heating dextrose . . . in the presence of a catalytic amount . . . of citric acid.”⁹⁸ Although the asserted claims said nothing of citric acid, the alleged infringer argued that the specification limited the term “water-soluble polydextrose” to “polydextrose produced with citric acid as a catalyst.”⁹⁹ The district court agreed and, accordingly, entered summary judgment of noninfringement because the alleged infringer’s process used phosphoric acid, not citric acid.

The Federal Circuit’s decision in *Bell Atlantic Network Services, Inc. v. Covad Communications Group, Inc.*¹⁰⁰ provides an example of a case in which the Federal Circuit found that the written description did not support the broad construction proposed by the patentee, even though the narrower meaning was not set forth in explicit definitional format. The patentee alleged infringement of its patent for digital subscriber line (“DSL”) services.¹⁰¹ The district court granted summary judgment of noninfringement by adopting limited constructions of the claim terms at issue.¹⁰² The claim construction dispute centered on, inter alia, the “plurality of different modes” limitation contained in the following claim language:

[A] second transceiver, connected to said first transceiver via said subscriber loop, for *selectively operating* in one of said *plurality of different modes*, said second transceiver transmitting or receiving said *first channel* signals at said first transmission rate on said *first channel* and transmitting or receiving said *second channel* signals at said second transmission rate on said second transmission rate on said *second channel*; and a controller connected to said first transceiver for *selectively changing* said first and second transmission rates.¹⁰³

Based on an analysis of the intrinsic evidence, and in particular the written description of the invention, the district court restricted the “plurality of different modes” to the three modes described therein: “conventional ADSL” mode, “bi-

98. *Id.*

99. *Id.*

100. 262 F.3d 1258 (Fed. Cir. 2001).

101. *Id.* at 1265-66.

102. *Id.*

103. *Id.* at 1265.

directional" mode, and "reversible" mode.¹⁰⁴ The district court observed that "throughout the specification, the written description describes only these three modes" and, therefore, "it would 'not broaden . . . the term beyond . . . the support in the specification, as the three modes discussed in the patent specification literally occupy the field of possibilities contemplated by the inventor.'"¹⁰⁵ The Federal Circuit affirmed this construction, noting the written description can "dictat[e] the manner in which the claims are to be construed, even if the guidance is not provided in explicit definitional format."¹⁰⁶ Thus, according to the Federal Court's *Bell Atlantic* decision, when a patentee uses a claim term throughout the specification in a manner consistent with only a single meaning, he has defined that term "by implication."¹⁰⁷

In *Wang Labs., Inc. v. America Online, Inc.*,¹⁰⁸ patentee Wang alleged that AOL and Netscape infringed its patent directed to an online information system. The parties agreed that the ordinary meaning of "frame" as used in the patent included bit-mapped display systems and character-based systems. Wang argued in favor of the broad construction that would include both of these types of systems. AOL and Netscape, which used bit-mapped systems, argued that Wang's invention only described character-based systems. The district court adopted AOL and Netscape's limited construction, and granted summary judgment of noninfringement on that basis. On appeal, the Federal Circuit affirmed, reasoning that the written description only described character-based systems.

A representative example of the patent's usage of the term "frame" follows:

The videotext supplier electronically stores the information supplied by the different sources in the form of hundreds of thousands of pages (frames) each representing a collection (arranged, for example, in

104. *Id.* at 1266.

105. *Id.* at 1266.

106. *Id.* at 1268.

107. *Id.* at 1271 (citations omitted). In addition, based on a reading of the written description, the Federal Circuit agreed with the district court that the "channels" limitation should be restricted to "an amount of bandwidth isolated for communications." Conceding that the ordinary meaning of "channel" is "quite broad", the Court found that the written description "defines the first and second channels, by implication, as amounts of bandwidth, and thus, communication paths separated by frequency." *Id.* at 1277.

108. 197 F.3d 1377 (Fed. Cir. 1999).

rows and columns) of alphanumeric and graphic characters to be displayed on a cathode ray tube (CRT) at the subscriber's location.¹⁰⁹

Wang argued that the display of "alphanumeric and graphic characters" can include character-based and bit-mapped displays, and that the parenthetical use of "for example" implied that any character-based limitation is merely exemplary.¹¹⁰ AOL and Netscape contended that the use of "frame" in conjunction with "characters" restricted the invention to a character-based protocol, and that a character-based protocol was the only protocol described in the written description or shown in the patent drawings.¹¹¹

In affirming the district court, the Federal Circuit agreed with AOL and Netscape's position that the written description supported only a character-based system. In addition, the Federal Circuit noted that its conclusion was reinforced by the fact that Wang's proposed broad construction would not have been enabled by the specification. The inventors had testified, and thus it was "not disputed," that "Wang had not been able to implement a bit-mapped protocol."¹¹² Wang argued that the fact that a bit-mapped protocol was not enabled by the specification was "irrelevant" to claim construction. The Court responded:

[T]he claims are not properly construed to have a meaning or scope that would lead to their invalidity for failure to satisfy the requirements of patentability. Although Wang is correct that a claim is not invalid simply because it embraces subject matter that is not specifically illustrated, in order to be covered by the claims that subject matter must be sufficiently described as the applicant's invention to meet the requirements of section 112. This requirement was not met as to protocols other than character-based.

In other words, "when claims are amenable to more than one construction, they should when reasonably possible be interpreted so as to preserve their validity."¹¹³

109. *Id.* at 1381.

110. *Id.*

111. *Id.* at 1381.

112. *Id.* at 1382.

113. *Id.* at 1383 (citing *Modine Mfg. Co. v. United States Int'l Trade Comm'n*, 75 F.3d 1545, 1557 (Fed. Cir. 1996). In *Digital Biometrics, Inc. v. Indentix Inc.*, 149 F.3d 1335, 1344 (Fed. Cir. 1998), plaintiff Digital Biometrics brought suit against Indentix, alleging infringement of its patent related to a system for generating digital fingerprint images. Affirming summary judgment of noninfringement, the Federal Circuit found that the written description and prosecution history adopted Indentix's narrow construction of the terms "array" and "slice data." *Id.* at 1346. Moreover, the Court noted that if the broad construction was adopted, "we are not sure the resulting

In *Renishaw PLC v. Marposs Societa' per Azioni*,¹¹⁴ the Federal Circuit similarly limited the meaning of a claim term based on the failure of the written description to support a broader meaning. The patent at issue covered an improved touch probe for use in the automated manufacturing and measurement field to check the dimensions of machined parts with extreme precision. The claim term at issue was the word "when" as used in a claim, which provided "a touch probe . . . which has a sensing tip at a free end thereof, the probe generating a trigger signal *when* said sensing tip contacts an object and said stylus holder is thereby deflected relative to said housing . . ." ¹¹⁵ The district court narrowly construed "when" to mean "as soon as possible" after contact, and granted summary judgment of noninfringement as a result of this narrow construction.

On appeal, Renishaw argued that "when" should be broadly construed to mean "at or after the time that" so that the claim would read on a claim that waited an appreciable amount of time before generating a trigger signal.¹¹⁶ The alleged infringer, Marposs, argued that the written description demonstrated a "clear intent to provide triggering as soon as possible after contact."¹¹⁷ The Federal Circuit agreed with Marposs and the district court, finding that the written description was

[r]eplete with references that indicate that the patentee was preeminently concerned with generating a trigger signal as soon as possible after contact . . . [and] shows that the patentee's invention is directed at a machine that produces very accurate, very precise probe readings by maintaining tight control over the position of the stylus. *In the context of the invention*, such readings can only be obtained if the probe triggers very, very soon after contact.¹¹⁸

The *Renishaw* Court was persuaded by statements made in the written description because, fundamentally, it represented

claim would be enabled." *Id.* at 1348.

114. 158 F.3d 1243 (Fed. Cir. 1998).

115. *Id.* at 1246 (emphasis added).

116. *Phillips*, 415 F.3d at 1320-21 ("requiring that any definition of claim language in the specification be express, is inconsistent with our rulings that the specification is 'the single best guide to the meaning of a disputed term,' and that the specification 'acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication.'") (citations omitted).

117. *Id.*

118. *Id.* at 1251-52 (emphasis added).

the invention that the patentee actually possessed and disclosed at the time of filing:

Ultimately, the interpretation to be given a term can only be determined and confirmed with a *full understanding of what the inventors actually invented and intended to envelop with the claim*. The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction.¹¹⁹

As these cases show, and as the Federal Circuit confirmed in *Phillips*, the written description can indeed narrowly define the proper scope of a claim term even when an explicit definition is not articulated.¹²⁰

2. Post-*Phillips* Cases

Because *Phillips* confirmed that the specification is the primary guide to discerning the meaning of a disputed claim term, post-*Phillips* claim construction disputes often center on the precise words used by the patentee in the written description. Post-*Phillips*, construing courts are often charged with the task of examining the written description to determine whether a disputed term should be given a broad or narrow definition. While it is not feasible to discuss every post-*Phillips* case bearing on the written description requirement in this Article, a handful of representative cases are discussed below.

*Nystrom v. Trex Co.*¹²¹ is a case that particularly reveals the impact of *Phillips* because it led to *two* claim construction determinations by the Federal Circuit, one before and one after the *Phillips* decision. In its 2004 (pre-*Phillips*) *Nystrom* decision (*Nystrom I*), the Federal Circuit followed *Texas Digital's* "dictionaries first" approach to claim construction and held that the term "board", as used in a patent relating to deck boards designed to shed water, should be broadly construed to mean "a flat piece of wood or similarly rigid material adapted for special use."¹²² The *Nystrom I* court therefore rejected the accused infringer's argument that "board" should be limited to mean boards made of "wood cut from a log."¹²³ The court reasoned that multiple dictionaries revealed that "the ordinary

119. *Id.* at 1249 (citation omitted) (emphasis added).

120. *Id.* at 1582.

121. 374 F.3d 1105 (Fed. Cir. 2004) (*Nystrom I*), *op. withdrawn by, sub'd op. at* 424 F.3d 1136 (Fed. Cir., Sept. 14, 2005) (*Nystrom II*).

122. 374 F.3d at 1112.

123. *Id.*

meaning of the word 'board' encompasses both a piece of cut wood or sawn timber and a similarly-shaped item made of a rigid material."¹²⁴ However, in 2005, following the Federal Circuit's *en banc* decision in *Phillips*, the Federal Circuit withdrew its *Nystrom I* opinion and reconsidered the claim construction issue in view of the *Phillips* court's holding that the specification was the most important guide to claim construction (*Nystrom II*).¹²⁵ The court determined that the prior claim construction of "board" was overly broad and that the written description limited its meaning to wood cut from a log.¹²⁶ The *Nystrom II* court reasoned: "as explained in *Phillips*, *Nystrom* is not entitled to a claim construction divorced from the context of the written description and prosecution history. The written description and prosecution history consistently use the term 'board' to refer to wood decking materials cut from a log."

In another important post-*Phillips* case, *Abraxis Bioscience, Inc. (f/k/a Astrazeneca Pharma. LP, et al.) v. Mayne Pharma. Inc.*,¹²⁷ the Federal Circuit reversed a district court's finding of literal infringement on the basis that the district court's broad definition of the claim term at issue was clearly erroneous in view of the teachings of the specification. The patent related to an improved formulation of a pharmaceutical composition used to induce and maintain general anesthesia and sedation in patients.¹²⁸ The claim construction dispute centered on the claim term "edetate," which the district court construed to mean "EDTA as well as compounds structurally related to EDTA regardless of how they are synthesized."¹²⁹ The district court explained that the specification expressly defined "edetate" to mean "EDTA and derivatives thereof."¹³⁰ The district court then broadly construed "derivatives" to encompass "structural analogs of EDTA as well as synthetic

124. *Id.*

125. *Nystrom v. Trex Co.*, 424 F.3d 1136 (Fed. Cir. 2005) (*Nystrom II*), *reh'g denied*, *reh'g en banc denied*, 2005 U.S. App. LEXIS 26669 (Fed. Cir. Nov. 1, 2005), *cert. denied*, 126 S. Ct. 1654 (U.S., Apr. 3, 2006).

126. *Id.* at 1144-45.

127. 467 F.3d 1370 (Fed. Cir. 2006).

128. *Id.* at 1376.

129. *Id.* at 1374-75.

130. *Id.* at 1375. EDTA is an abbreviation for ethylenediaminetetraacetic acid.

derivatives.”¹³¹

On appeal to the Federal Circuit, the accused infringer Mayne Pharma argued that the district court erred by adopting a broad claim construction for the term “edetate” that would include structural analogs as “derivatives.”¹³² In particular, Mayne contended that the proper construction of “edetate” was “the salts or anions of EDTA.”¹³³ Abraxis (the assignee of the patents-in-suit) responded that the district court’s broad construction of “edetate” was proper in light of certain statements in the specification.¹³⁴ The Federal Circuit agreed with Mayne, and thus rejected the broad definition adopted by the district court. The Federal Circuit’s decision was based on its careful examination of the specification.

The *Abraxis* court first considered the passage in the written description in which the patentee expressly defined the term “edetate”:

By the term “edetate” we mean ethylenediaminetetraacetic acid (EDTA) and derivatives thereof, for example the disodium derivative is known as disodium edetate. In general suitable edetates of this invention are those salts having lower affinity for EDTA than calcium. Particular derivatives of use in the present invention include trisodium edetate, tetrasodium edetate and disodium calcium edetate.¹³⁵

The court noted that all of the “suitable” derivatives listed in this passage were EDTA salts, *not* structural analogs.¹³⁶ Although Abraxis had persuaded the district court that these EDTA salts were merely exemplary and not limiting, the Federal Circuit disagreed, noting that “in the context of the entire specification, it is evident that the listing of various EDTA salts defines the term ‘derivatives.’ At the very least, ‘derivatives’ does not include structural analogs.”¹³⁷ Of particular significance to the court was the fact that the patentee had experimented with a variety of chemical compositions that would be suitable for the invention, and “unexpectedly found that edetate, which is not regarded as a broad spectrum antimicrobial agent was the only agent that

131. *Id.*

132. *Id.* at 1376.

133. *Id.*

134. *Id.*

135. *Id.* at 1376-77 (citing the patent specification).

136. *Id.* at 1377.

137. *Id.*

would meet our requirements.”¹³⁸ The court explained, “[t]hat statement indicates that edetate possessed particular chemical properties that allowed it to work as an effective antimicrobial agent and that the term ‘derivatives’ was not intended to extend broadly.”¹³⁹

Ultimately, the court concluded that the listing of EDTA salts as

“[p]articular derivatives of use in the present invention,” coupled with the statements regarding the uniqueness of edetate as the only successful antimicrobial agent, and the patentees’ description of EDTA salts as advantageous, preferable, and “exceptional,” limit the term “derivatives” to EDTA salts or compounds that maintain the EDTA free acid structure. Those statements are inconsistent with a definition of “derivatives” that includes structural analogs that can encompass a large number of non-derivative compounds. That definition fails to recognize that the patentees’ discovery focused on the unexpected effectiveness of edetate and its salts as antimicrobial agents.¹⁴⁰

Although Abraxis was able to point to various instances in the specification that purported to support a broader construction, the court examined the overall context and meaning of the written description and found that narrower construction was justified. For example, Abraxis cited the statement in the specification that “[t]he nature of the edetate is not critical, provided that it fulfils the function of preventing significant growth of microorganisms for at least 24 hours in the event of adventitious extrinsic contamination.”¹⁴¹ The court was unmoved by this statement, explaining that,

when read in context, that statement does support a *narrow* construction. It appears in the specification directly after the listing of the various EDTA salts that the patentees identified as suitable edetates. Thus, the statement that the “nature of the edetate is not critical” only connotes that the choice of which particular agent to use, *i.e.*, EDTA or any EDTA salt, itself is not of critical importance, as long as the agent chosen can adequately prevent microbial growth. Contrary to Abraxis’ suggestion, that sentence does not support a broad construction for “derivatives.”¹⁴²

In addition, Abraxis cited to the patentees’ use of the

138. *Id.* (citing patent specification).

139. *Id.*

140. *Id.* at 1377-78.

141. *Id.* (citing patent specification).

142. *Id.* (emphasis added).

term “derivatives” in the context of silicone.¹⁴³ Abraxis argued that the specification identifies “dimethicone” and “simethicone” as “silicone derivative[s],” which are structural analogs of silicone. Abraxis argued that using the term in the context of silicone to broadly describe a class of antifoaming agents supports a broader definition for “derivatives” in the context of “edetate.”¹⁴⁴ Importantly, the court disagreed:

[t]hat term was used to describe a general class of antifoaming agents as disclosed in another patent. That is far removed from the pointed discussion in the specification identifying the “derivatives” of “edetate.” Thus, the passing reference to silicone derivatives fails to overcome our conclusion that the patentees narrowly defined edetate “derivatives” to mean EDTA and its salts.¹⁴⁵

The *Abraxis* court’s decision is important because it shows that the written description can compel a narrow construction not only where there is no explicit, narrow definition set forth in the specification, but also where there is no “clear disavowal” of claim scope or criticism of prior art on the basis of a particular, broader feature. The district court, which had construed the claims pre-*Phillips*, had adopted a broad construction for “derivatives” largely because the “patentees did not disavow structural analogs from their definition of derivatives or criticize their usage.”¹⁴⁶ While the district court later issued an opinion to the effect that its “claim construction was consistent with the approach suggested in *Phillips*,”¹⁴⁷ the Federal Circuit clearly disagreed.

The written description can compel a narrow construction even where there is an explicit *broadening* statement made during prosecution. In *Honeywell International, Inc. v. ITT Industries, Inc.*,¹⁴⁸ the patent holder Honeywell sought to assert patent claims in a patent disclosing a fuel filter that was specially made for use in motor vehicles having electronic fuel injection (EFI) systems.¹⁴⁹ At issue was the construction of the term “fuel injection system component.” Honeywell advocated a broad construction for the term, specifically contending that

143. *Id.*

144. *Id.*

145. *Id.*

146. *AstraZeneca Pharms., LP v. Mayne Pharma (USA) Inc.*, 352 F. Supp. 2d 403, 417 (S.D.N.Y. 2004).

147. *AstraZeneca Pharms., LP v. Mayne Pharma (USA) Inc.*, 2005 U.S. Dist. LEXIS 26196, at *49 (S.D.N.Y. 2005).

148. 452 F.3d 1312 (Fed. Cir. 2006).

149. *Id.*

the term was not limited to fuel filters as argued by the alleged infringer. The district court agreed with the accused infringer's narrower construction, declaring that, "notwithstanding the ordinary meaning or the prosecution history, *the written description clearly limited* the 'fuel injection system component' to a fuel filter, and statements in the prosecution history could not be used to enlarge the content of the written description."¹⁵⁰ In affirming the district court's decision, the Federal Circuit explained:

[E]ven if we were to agree with Honeywell that the patentee clearly expressed his intention during prosecution to have the "fuel injection system component" limitation include components in addition to a fuel filter, *it would not change the result in this case*. As we determined above, the written description provides only a fuel filter that is made with polymer housing and electrically conductive fibers interlaced therein. No other fuel injection system component with the claimed limitations is disclosed or suggested. *Where, as here, the written description clearly identifies what his invention is, an expression by a patentee during prosecution that he intends his claims to cover more than what his specification discloses is entitled to little weight.*¹⁵¹

The *Honeywell* Court's holding reveals the primacy of the written description in claim construction. If the patentee's words in the written description direct a narrower construction, that construction cannot be "broadened" by statements made during prosecution.¹⁵²

While *Phillips* has properly shifted the claim construction focus to the written description, construing courts (like the district court in the *Abraxis* case) often presume a broad construction (*i.e.*, "the full effect to the ordinary and accustomed meaning of claim terms") unless the accused infringer proves otherwise.¹⁵³ This approach places the burden

150. *Id.* at 1316 (citing *Honeywell International Inc. v. ITT Industries, Inc.*, 330 F. Supp. 2d 865, 882-83 (E.D. Mich. 2004)) (emphasis added).

151. 452 F.3d at 1319 (emphasis added) (citation omitted).

152. *See also* *Biogen, Inc. v. Berlex Laboratories, Inc.*, 318 F.3d 1132, 1140 (Fed. Cir. 2003) ("[r]epresentations during prosecution *cannot enlarge the content of the specification*, and the district court was correct in relying on the specification in analyzing the claims.") (emphasis added) (citation omitted); *Netword, LLC v. Centraal Corp.*, 242 F.3d 1347, 1352 (Fed. Cir. 2001) (the claims do not "enlarge what is patented beyond what the inventor has described as the invention.").

153. *Johnson Worldwide Assocs. v. Zebco Corp.*, 175 F.3d 985, 989 (Fed. Cir. 1999) (a court must presume that the terms in the claim mean what they say, and, unless otherwise compelled, give full effect to the ordinary and

on the alleged infringer to prove a negative (*i.e.*, that the written description does *not* support the full breadth of a patentee's proposed construction). While this burden may be relatively easy to shoulder in the obvious case where the written description is unmistakably clear that a broad reading is not supported (*i.e.*, because there is an explicit narrow definition articulated in the specification, a clear disavowal of claim scope, or criticism of prior art that would encompass a broader definition), it becomes onerous in the more difficult cases in which the written description is not as clear. The result is that the patentee – the party who is not only responsible for any lack of clarity in the written description, but who is also statutorily obligated to describe the invention in “full, clear, concise, and exact terms” – is allowed to benefit from vague, ambiguous, or otherwise poorly drafted descriptions of their inventions.

III. PROCEDURAL IMPLEMENTATION

Phillips neatly sets the stage for the next act, or perhaps the next several acts, in the development of patent law. As evidenced by the opinions accompanying the Federal Circuit's 2006 denial of rehearing in *Amgen, Inc. v. Hoechst Marion Roussel, Inc.*,¹⁵⁴ *Phillips* acted as a springboard that launched the Federal Circuit into an internal debate regarding the fact/law distinction in claim construction. Resolution of this question is surely necessary. Lurking beneath the surface of that debate, however, is a more elementary solution to the problems plaguing the patent system. In particular, the time is ripe for proactive application of the written description requirement. As discussed below, and in contrast to other proposals to reform or “fix” the patent system, the only barriers to taking the step proposed here are practical and procedural.¹⁵⁵

accustomed meaning of claim terms) (citing cases).

154. 469 F.3d 1039 (Fed. Cir. 2006), *cert. denied*, 2007 U.S. LEXIS 5453, 75 U.S.L.W. 3609 (U.S. May 14, 2007). *See also supra* note 49.

155. *See supra* note 31 (discussing the Patent Reform Act of 2007 (H.R. 1908)); *see also* FEDERAL TRADE COMMISSION, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY (Oct. 2003), *available at* <http://www.ftc.gov/os/2003/10/innovationrpt.pdf> (advocating changing the standard for invalidating a patent from “clear and convincing evidence” to “preponderance of the evidence”). While the Patent Reform Act of 2007 and the FTC report include a variety of intriguing and potentially viable reforms to the patent system, both call for major changes to the substantive

A. THE CURRENT PROCEDURAL FRAMEWORK

In current practice, district courts consider claim construction and compliance with the written description requirement in entirely different contexts, and are loath to combine the two. Claim construction is typically handled in a series of briefs leading to a short hearing toward the end of discovery. In complex cases, the entire issue of claim construction may be referred to a magistrate or special master. In districts where specialized patent rules are in effect, the parties are compelled to state their positions on claim construction early in the case, and work together to narrow the scope of their disputes. Once the parties have agreed which terms are in dispute, the patent rules provide for an exchange of briefs on claim construction, followed by a *Markman* hearing.

The defense of lack of written description, by contrast, is generally presented for decision either in a motion for summary judgment or at trial. In either case, consideration of a written description defense almost invariably takes place after the claims have been construed. Details of the defense will typically be disclosed earlier in contention interrogatory responses, expert reports, or in disclosures of invalidity contentions required by patent local rules. However, litigants who attempt to inject issues of compliance with the written description requirement into the claim construction analysis are routinely rebuffed on the basis that the section 112 issues are premature.¹⁵⁶ It is unclear whether the reluctance of district courts to grapple with written description in conjunction with claim construction derives from a belief that precedent requires treating the two inquiries separately, or whether it is a reflection of the general reluctance to deal with the often confounding issue of adequacy of written description. In either event, the result is that challenges to the adequacy of the written description are often pushed to the end of cases, overshadowed by other issues and defenses, and not afforded due consideration.

and procedural law.

¹⁵⁶ For an exemplary case, see the discussion of the Federal Circuit's dual decisions in the Liebel-Flarsheim case in Section III.C, *infra*.

B. WRITTEN DESCRIPTION COMPLIANCE WOULD DOVETAIL WITH THE EXISTING CLAIM CONSTRUCTION PROCESS

Following *Phillips*, district courts now have a directive to take proper account of the specification in the claim construction process in *every* case. No longer can a district court short circuit the analysis of the meaning of a disputed claim term through reliance on a dictionary definition of the term. *Phillips* leaves no doubt that the court must analyze the specification and give weight to its teachings when considering the parties' competing claim constructions. As such, going forward a district court will inevitably have before it (and will have thoroughly examined) the bulk of the evidence bearing on the written description requirement. It would add little burden on the parties to complete that record, and on the courts to consider additional evidence and argument, so as to grapple with the written description question at a time when the impact of the specification on the scope of the claims is already the analytical focus.

In the vast majority of cases, it is the patentee's proposed claim construction that pushes the boundaries of compliance with the written description requirement. The patentee is also uniquely positioned to demonstrate what subject matter it was in possession of at the time the patent application was filed. Accordingly, the burden should rest on the patentee in the first instance to demonstrate that its proposed claim construction complies with the written description requirement.

In districts with patent local rules, consideration of written description support could be integrated into the claim construction process with little or no change to the existing rules. Taking the Northern District of California rules as exemplary, parties are required to exchange proposed terms and claim elements for construction very early in discovery, and shortly thereafter to exchange preliminary claim constructions and identify extrinsic evidence relating to claim construction.¹⁵⁷ These preliminary filings would provide the parties with sufficient knowledge such that the accused

157. The Northern District of California was the first district to implement patent local rules. All districts to subsequently adopt patent local rules have modeled their rules closely on the Northern District of California rules. As a result, the sequence and timing of claim construction filings is essentially the same across all districts where patent local rules apply. The patent local rules for the Northern District of California are available on its website, <http://www.cand.uscourts.gov/>.

infringer could state, in the Joint Claim Construction and Prehearing Statement called for in Patent Local Rule 4.3, whether it believes the patentee's position on claim construction would violate the written description requirement.¹⁵⁸ Existing Rule 4.3(e) permits the parties to raise in this prehearing statement "any other issues which might appropriately be taken up at a prehearing conference," and thus already contemplates that issues beyond pure claim construction may be raised. If compliance with the written description requirement is identified as an issue in the Rule 4.3 Statement, the patentee would then be obligated to establish in its opening claim construction brief (pursuant to Rule 4.5(a)) that its proposed claim construction would not violate the written description requirement.¹⁵⁹ The accused infringer could respond to the patentee's showing in its Rule 4.5(b) responsive claim construction brief, and the patentee could in turn reply under Rule 4.5(c).¹⁶⁰

In districts without patent local rules, the process would remain fluid. District judges could require all patentees to establish compliance with the written description requirement in their initial briefs on claim construction, and then allow accused infringers to respond in subsequent briefs. Alternatively, judges could direct the parties to confer on the issue of whether the parties' competing claim constructions raise an issue of compliance with the written description requirement before compelling the patentee to make a showing of compliance. The same basic approach would apply to

158. Local P.R. 4.3 currently requires each party to submit, inter alia, a proposed construction for each disputed claim term, along with "an identification of all references from specification or prosecution history that support that construction, and an identification of any extrinsic evidence known to the party on which it intends to rely either to support its proposed construction or to oppose the other party's proposed construction"

159. Local P.R. 4.5(a) provides: "Not later than 45 days after serving and filing the Joint Claim Construction and Prehearing Statement, the party claiming patent infringement shall serve and file an opening brief and any evidence supporting its claim construction."

160. Local P.R. 4.5(b) provides: "Not later than 14 days after service upon it of an opening brief, each opposing party shall serve and file its responsive brief and supporting evidence." Local P.R. 4.5(c) provides: "Not later than 7 days after service upon it of a responsive brief, the party claiming patent infringement shall serve and file any reply brief and any supporting evidence directly rebutting the supporting evidence contained in an opposing party's response."

Markman hearings, regardless of the applicability of patent local rules, with patentees bringing forward argument and evidence on written description as part of their presentations, and accused infringers responding with evidence and argument.

C. PRESUMPTION OF VALIDITY WOULD REMAIN INTACT

It is important to bear in mind that this procedure would not shift to the patentee the burden of proving validity. Just as the claim construction process currently does not impose strict burdens of proof, there would be no defined threshold showing the patentee would be required to meet in order for the court to adopt its proposed claim construction. District courts would retain the ability to adopt a claim construction even if doing so would likely result in invalidity based upon inadequate written description support. In fact, in some cases, written description compliance would properly remain a question of patent validity. In particular, when there is a question as to whether there is *any* written description support for a particular claim limitation, as opposed to *how much* the written description supports (*i.e.*, whether the written description supports the full breadth of the patentee's proposed definition or something narrower), it makes sense to examine written description compliance in the context of a validity analysis. For example, in *Gentry Gallery v. Berkline Corp.*, the Federal Circuit invalidated certain claims for a sectional sofa because the claim limitation calling for a "pair of control means, one for each reclining seat; mounted on the double reclining seat sofa section . . ." for lack of compliance with the written description requirement because "the original disclosure clearly identifies the console as the only possible location for the controls."¹⁶¹ In *Gentry Gallery*, the question of written description compliance could not have been resolved at the claim construction phase because a claim requiring controls "mounted on the double reclining seat sofa section" could not have been construed to mean controls mounted on the *console*. It was, therefore, entirely proper for the *Gentry Gallery* court to consider lack of written description compliance during the validity phase, and nothing in this proposal would diminish a court's ability to do so.

Thus, rather than compliance with the written description

161. 134 F.3d 1473, 1479 (Fed. Cir. 1998).

requirement becoming a necessary prerequisite to adoption of a particular claim construction, the intent of this proposal is to compel courts and parties to consider the two issues together (particularly when the claim construction dispute hinges on the breadth to confer upon a disputed claim term), rather than continuing to perpetuate the fallacy that they are separate inquiries. Accused infringers would remain free to challenge validity for lack of adequate written description, regardless of the outcome of claim construction. That is to say, under the proposed procedure, if a court were to accept a patentee's broad claim construction over the accused infringer's objection that doing so would violate the written description requirement, the accused infringer would still have the opportunity to later challenge the patent's validity by clear and convincing evidence. Indeed, it is reasonable to anticipate that such a process would increase the frequency of written description challenges, as the relevant issues would be crystallized earlier than is currently the case, thus allowing the parties to develop more complete evidentiary records and better frame the issues for consideration in motions for summary judgment or at trial. Conversely, if the court were to reject a patentee's proposed construction on the basis of non-compliance with the written description requirement, it would not be tantamount to a ruling of invalidity. At most, it would be an exercise of the maxim that claims should, where possible, be construed so as to preserve their validity.¹⁶²

Although the Federal Circuit attacked this maxim in its decision in *Phillips*,¹⁶³ there is nothing in the law that compels a court to adopt the broader of two possible claim constructions

162. See, e.g., *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 296 F.3d 1106, 1114 (Fed. Cir. 2002) ("It remains true that we will construe claims to preserve validity, if possible."); *Tate Access Floors, Inc. v. Interface Architectural Res., Inc.*, 279 F.3d 1357, 1367 (Fed. Cir. 2002) ("Claim language should generally be construed to preserve validity, if possible.").

163. The *Phillips* Court remarked,

While we have acknowledged the maxim that claims should be construed to preserve their validity, we have not applied that principle broadly, and we have certainly not endorsed a regime in which validity analysis is a regular component of claim construction. Instead, we have limited the maxim to cases in which "the court concludes, after applying all the available tools of claim construction, that the claim is still ambiguous."

415 F.3d at 1327 (citing *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 911 (Fed. Cir. 2004)) (internal citation omitted).

where there is compelling evidence that doing so will render the claims invalid for lack of written description. In fact, post-*Phillips* developments in the *Liebel-Flarsheim* case that the *Phillips* court relied on to undermine this maxim exemplify the inefficiency of treating written description compliance and claim construction as wholly separate inquiries.

In *Liebel-Flarsheim Co. v. Medrad, Inc.*¹⁶⁴, the claim construction dispute centered on whether the claimed powered fluid injectors required pressure jackets, even though the claims did not expressly recite the term "pressure jackets." The district court declined to limit the scope of the claims to fluid injectors with pressure jackets and the Federal Circuit affirmed this claim construction in 2004. In reaching this decision, the court noted that "the specification in this case contains no disclaimer, all that Medrad can point to . . . is the absence of any embodiment that lacks a pressure jacket." The court also pointed out that the specification did not distinguish the invention from the prior art on the basis that the prior art lacked pressure jackets.¹⁶⁵ In addition, there was a clear statement during prosecution indicating the patentee's intention to cover injectors with and without pressure jackets.¹⁶⁶

While *Liebel* was successful in its quest for a broad construction, it lost the validity battle. *Medrad* challenged the validity of the broad claims based on lack of compliance with the written description requirement and enablement requirement of 35 U.S.C. § 112, ¶ 1. The district court "observed that the written description and enablement requirements often rise and fall together, and determined that the asserted claims of the front-loading patents 'are of a far greater scope than [*Liebel's*] specification of what it invented or possessed when it filed its application.'"¹⁶⁷ In 2007, the Federal Circuit affirmed the district court's invalidation of the patent claims because the specification did not support the broad construction that the patent holder had urged.¹⁶⁸

Because the Federal Circuit first examined the claims for lack of enablement and determined that they were invalid on

164. 358 F.3d 898 (Fed. Cir. 2004).

165. *Id.* at 907.

166. *Id.* at 909.

167. 481 F.3d 1371, 1377 (Fed. Cir. 2007) (citing district court ruling).

168. *Id.* at 1378.

that basis, it did “not need to consider the written description holding of invalidity.”¹⁶⁹ Nevertheless, based on the court’s analysis of the specification, it is likely that the Federal Circuit would have reached the same conclusion as the district court had it considered the issue. In particular, the court noted that “nowhere does the specification describe an injector with a disposable syringe without a pressure jacket” and, “[i]n fact, the specification teaches away from such an invention.”¹⁷⁰ The Federal Circuit explained that

[t]he irony of this situation is that Liebel successfully pressed to have its claims include a jacketless system, but, having won that battle, it then had to show that such a claim was fully enabled, a challenge it could not meet. The motto, “be careful of what one asks for,” might be applicable here.¹⁷¹

The *Liebel* case demonstrates the efficiency that could be gained in treating written description compliance in conjunction with claim construction when a court is faced with a broad and narrow proposed claim construction for a particular claim term. Cases limiting the maxim that claims should be construed to preserve their validity generally involve situations where preserving validity through claim construction would involve “revis[ing] or ignor[ing] the explicit language of the claims,” or adding limitations in order to preserve validity.¹⁷² In *Liebel*, the court could have construed the claimed fluid injector to require a pressure jacket without revising or ignoring anything in the claims. The court could have simply construed the fluid injector in view of the specification, which instructed that the fluid injector of the invention was one with a pressure jacket. If, however, the patentee in *Liebel* had managed to obtain some claims that explicitly recited a fluid injector *without* a pressure jacket, the court could not have resolved compliance with the written description during claim construction. Rather, such claims

169. *Id.* at 1380.

170. *Id.* at 1380.

171. *Id.*

172. *See, e.g.*, *Generation II Orthotics, Inc. v. Medical Tech., Inc.*, 263 F.3d 1356, 1365 (Fed. Cir. 2001) (“Claims can only be construed to preserve their validity where the proposed claim construction is ‘practicable,’ is based on sound claim construction principles, and does not revise or ignore the explicit language of the claims.”); *E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 1434 (Fed. Cir. 1988) (rejecting argument that limitations should be added to claims to preserve the validity of the claims).

would be analogous to those at issue in *Gentry Gallery*, where it was appropriate to consider the lack of written description compliance during the invalidity stage.

Moreover, as discussed above, an examination of post-*Markman* claim construction cases reveals that this proposal is not a radical departure from the approach the Federal Circuit has taken in previous cases where a clear issue of inadequate written description arises in the claim construction process.¹⁷³ Such precedent stands as proof that there is no legal barrier to considering written description and claim construction together. Considering written description compliance simultaneously with claim construction in *all* cases where the claim construction dispute hinges on the appropriate breadth to be given to a particular claim term, would result in greater consistency and efficiency.

D. THE STATUS OF WRITTEN DESCRIPTION AS AN ISSUE OF FACT DOES NOT PROHIBIT ITS CONSIDERATION IN CONNECTION WITH CLAIM CONSTRUCTION

With the *Phillips* Court having “left undisturbed [its] en banc decision in *Cybor*,” the Federal Circuit currently treats claim construction as pure question of law that is subject to *de novo* review. As discussed above, this holding has been heavily criticized for being inconsistent with the Supreme Court’s decision in *Markman* that claim construction is not a “pristine” question of law, but rather one that requires the resolution of underlying fact questions. In addition, *Cybor* has been criticized for the lack of deference afforded to the district courts’ claim construction rulings, given the amount of factual evidence that district courts must consider during the claim construction process.¹⁷⁴ *Cybor* is widely regarded as undermining the *Markman* Court’s goal of uniformity, and has instead led to uncertainty and unpredictability, with the

173. See *supra* Section II.C.

174. In his dissent in *Cybor*, Judge Rader denounced the majority for turning a blind eye to the voluminous factual evidence that district courts evaluate in connection with claim construction analyses:

trial judges can spend hundreds of hours reading and rereading all kinds of source material, receiving tutorials on technology from leading scientists, formally questioning technical experts and testing their understanding against that of various experts, examining on site the operation of the principles of the claimed invention, and deliberating over the meaning of the claim language.

Cybor Corp. v. FAS Tech., Inc., 138 F. 3d 1448, 1477 (Rader, J., dissenting).

Federal Circuit reversing the district court on the issue of claim construction in a substantial percentage of all cases on appeal.¹⁷⁵

If the Federal Circuit corrects its mistake by reconsidering *Cybor* – something that at least 8 out of 12 Federal Circuit judges have suggested a willingness to do – the path will be further paved for implementation of the proposal suggested in this article.¹⁷⁶ That is to say, consideration of the written description requirement, which is considered to be a “question of fact”, would naturally fall within the set of fact questions underlying claim construction. With *Cybor* reversed or substantially clarified, the Federal Circuit could then apply a more deferential standard of review to the district court’s finding on claim construction.

If, however, *Cybor* remains the law of the Federal Circuit, and the Court continues to endorse the fiction that claim construction is a purely legal issue,¹⁷⁷ district courts could nonetheless simply consider written description compliance. After all, *Cybor*, though flawed and largely unsupported by the very judges who brought it to life, is technically good law today and does not stand in the way of district courts’ consideration of

175. While the exact percentage is subject to some debate, most sources agree that the percentage is significant. In Judge Rader’s dissent in *Cybor*, he lamented the lack of predictability on appeal due to the high reversal rate, noting that it “reverses more than the work of numerous trial courts; it also reverses the benefits of *Markman I*. In fact, this reversal rate, hovering near 50%, is the worst possible. Even a rate that was much higher would provide greater certainty.” 138 F.3d at 1476. *See also e.g.*, Dan L. Burk and Mark Lemley, *Quantum Patent Mechanics*, 9 LEWIS & CLARK L. REV. 29, 53 (2005) (“The Federal Circuit reverses roughly a third of the claim constructions presented to it on appeal, a far larger percentage than its general reversal rate. The idea of setting out clear boundaries to warn the public of what is and is not claimed - the ‘notice function’ of patents that has received so much attention in recent years - simply isn’t working.”) (citations omitted); Kimberly A. Moore, *Are District Court Judges Equipped to Resolve Patent Cases?*, 15 HARV. J.L. & TECH. 1, 2 (2001) (finding that the Federal Circuit reverses district court claim constructions 33% of the time). In a subsequent study, Professor Moore reported that the problem of unpredictability due to high reversal rate had not improved with time. Kimberly A. Moore, *Markman Eight Years Later: Is Claim Construction More Predictable?*, 9 LEWIS & CLARK L. REV. 231 (2005).

176. *See supra* Section II.B and accompanying discussion.

177. “While this court may persist in the delusion that claim construction is a purely legal determination, unaffected by underlying facts, it is plainly not the case.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1332 (Lourie, J., and Newman, J., dissenting).

the written description requirement. In fact, after *Phillips*, the written description *must* be considered, as it is “always highly relevant” – and indeed, is the “single best guide” – to claim construction.¹⁷⁸ Thus, if the approach advocated in this article were adopted, district courts would continue to examine evidence of the written description, but would do so from a different perspective (*i.e.*, with an eye towards whether the patentee’s proposed construction, if adopted, would satisfy the written description requirement). Moreover, it is important to note that this approach would in no event require the district court to make an affirmative ruling on noncompliance with the written description requirement. Therefore, even if this approach was adopted, the Federal Circuit could continue to review claim construction rulings *de novo*, with the question of written description compliance being subsumed within the legal operation of claim construction.

CONCLUSION

As the Supreme Court has explained, “[t]he [patent] monopoly is a property right; and like any property right, its boundaries should be clear.”¹⁷⁹ Clarity is necessary “for the protection of the patentee, the encouragement of the inventive genius of others and the assurance that the subject of the patent will be dedicated ultimately to the public.”¹⁸⁰ Without it, “a zone of uncertainty which enterprise and experimentation may enter only at the risk of infringement claims would discourage invention . . . and ‘the public [would] be deprived of rights supposed to belong to it, without being clearly told what it is that limits these rights.’”¹⁸¹

Though clarity is “essential” to the proper functioning of the patent system, the current system fosters obscurity through the courts’ inconsistent and unpredictable treatment of the written description during claim construction. While it may be true that “there is no magic formula or catechism for conducting claim construction,” there is significant room for

178. *Phillips*, 415 F.3d at 1315.

179. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 730 (2002) (citing *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 150 (1989)).

180. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390 (1996) (citing *General Elec. Co. v. Wabash Appliance Corp.*, 304 U.S. 364, 369 (U.S. 1938)).

181. *Id.* (citation omitted).

improvement of the current regime.¹⁸² This article has recommended an approach by which the patentee is required to demonstrate, at the claim construction stage, that its proposed construction for a disputed term would comply with the written description requirement. This proposal represents a moderate reform in the courts' treatment of the written description requirement, and would go a long way in upholding the quid pro quo bargain underlying the patent system. In doing so, it would promote clarity, predictability, and fairness in the claim construction process.

This proposal is consistent with the constitutional and statutory mandate that a patentee's exclusive rights extend only to inventive subject matter described in "full, clear, concise, and exact terms." Under current claim construction practice, there is a "heavy presumption" that the patentee is entitled to the "full breadth" of the "ordinary meaning" of a claim term absent "clear disavowal" of claim scope or a contrary definition of the term set forth in the specification. This practice seemingly ignores the fact that the patentee is not entitled to patent coverage for subject matter that was not fully, clearly, concisely, and exactly described in the specification. If the patentee's written description of the invention that it possessed at the time of filing falls short of the "full breadth" of the claim construction that the patentee has proposed, the patentee is not entitled to monopoly power over that full breadth. Yet, current claim construction practice allows the patentee to unfairly benefit from incomplete, unclear, and imprecise descriptions of its own invention since such descriptions are less likely to be construed to represent unequivocal narrowing language.

Perhaps a more fundamental problem with the current practice is its implication that a hypothetical person of "ordinary" skill in the art would ever understand a claim term to have an "ordinary" meaning removed from its meaning in the context of the written description. Cases like *Texas Digital* and its progeny, which advised courts to first consult dictionary definitions when construing a claim in order to ascertain the "the full range of its ordinary meaning," fell prey to that line of thinking. In those cases, the hypothetical construct of the "person of ordinary skill in the art," which was designed to

182. Phillips, 415 F.3d at 1324.

provide a lens through which a court should read the claims, has obscured the court's analysis, rather than clarified it.

To be sure, the *Phillips* court expressly rejected the approach taken in *Texas Digital*, confirming that the written description is "always highly relevant" to claim construction and is, in fact, the "single most important guide" to that process. In doing so, the Court made it clear that the so-called "ordinary meaning" of a claim cannot be discerned by treating the claim as though it exists in a vacuum: "Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification."¹⁸³ As another 2005 Federal Circuit decision explained, "[w]e cannot look at the ordinary meaning of the term . . . in a vacuum. Rather, we must look at the ordinary meaning in the context of the written description and the prosecution history."¹⁸⁴ Indeed, a person of ordinary skill in the art is already familiar with the general meaning of the terminology used in the patent claims; the specific meaning of that terminology is informed by the written description, where the patentee has disclosed what was invented.

Still, *Phillips* could – and should – have gone further. Recognizing that "there will still remain some cases in which it will be hard to determine" whether a broad or narrow construction is supported, the *Phillips* Court believed that making that determination "in the context of the particular patent is likely to capture the scope of the *actual invention* more accurately than either strictly limiting the scope of the claims to the embodiments disclosed in the specification or divorcing the claim language from the specification."¹⁸⁵ Requiring the patentee to show that its proposed construction

183. *Id.* at 1313.

184. *Medrad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1319 (Fed. Cir. 2005).

185. *Phillips*, 415 F.3d at 1323-24. This approach is consistent with the Federal Circuit recognition that "[t]he claims are directed to *the invention that is described in the specification*; they do not have meaning removed from the context in which they arise." *Netword, LLC v. Centraal Corp.*, 242 F.2d 1347, 1352 (Fed. Cir. 2001) (emphasis added). As the *Renishaw* Court explained, claim construction "can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop within the claim . . . [T]he claims cover only the invented subject matter." *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998).

satisfies the written description requirement would extend the logic of *Phillips*, making it even more likely that the resulting construction would align with the “actual invention”. This approach would have particular utility in the more difficult cases where it is unclear whether the full breadth of a patentee’s proposed construction is supported in the written description. In such cases, the scale would tip in favor of a narrower construction – a reasonable result, given that constitutional and statutory requirements demand clarity and exactitude from the patentee in exchange for the “bundle of rights” a patent confers.

Although “possession” of a patentable invention is less concrete than the physical possession of tangible property, the old adage “possession is nine-tenths of the law” should apply to patents with equal force. Requiring the patentee to establish written description support for its proposed claim construction is simply a new approach to an old idea – namely, that the patent grant extends only insofar as the patentee has upheld its end of the bargain by describing, in “full, clear, concise, and exact terms,” the invention it possessed at the time of filing.