PATENT DAMAGE STRATEGIES AND THE ENTERPRISE LICENSE: CONSTRUCTIVE NOTICE, ACTUAL NOTICE, NO NOTICE

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ABSTRACT

For the patent owner, early provision of patent notice can help maximize recoverable infringement damages during subsequent litigation. This iBrief recognizes a growing trend of infringement suits predicated on patented enterprise software technology, and analyzes application of patent notice principles against industry convention. This iBrief examines the licensing paradigm of enterprise software and questions whether mechanical compliance with the marking statute should qualify as constructive notice. Borrowing from analogous Federal Circuit principles, this iBrief concludes by proposing alternate notice theories that would empower patentees to seek increased remedies consistent with industry reality, case law, and fundamental statutory purpose.

INTRODUCTION

¶1   For the patent owner, early provision of patent notice can help maximize recoverable infringement damages during litigation. The interplay of industry convention and enforcement strategy typically informs the particular manner chosen by the patentee to effect such notice. In the enterprise software[2] industry, patentees face unique notice considerations posed by a distribution paradigm restricting access to software products. Such restricted access hides software products and patent listings therein from the public, and thus may preclude compliance with the marking statute. Nonetheless, patentees of enterprise software can still assert

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[2] The term "enterprise software" generally means software intended for an enterprise. One meaning of "enterprise" is a business organization. *E.g.*, http://www.webopedia.com/TERM/e/enterprise.html (last visited Jan. 13, 2005); United States v. Oracle Corp., 331 F. Supp. 2d 1098, 1101 (N.D. Cal. 2004) (Findings of Fact, Conclusions of Law and Order Thereon).

alternative notice theories to preserve legal remedies consistent with case law and fundamental statutory purpose. As high-stakes patent litigation in the enterprise software industry continues to grow,[3] so too will strategic application of notice principles to optimize the potential scope of recoverable patent damages.[4]

I. SHOULD PATENT LISTINGS ON ENTERPRISE SOFTWARE QUALIFY AS MARKING?

A. The Marking Statute and Its Purposes

¶2   Section 287(a) of title 35 in the United States Code ("section 287" or the "marking statute"), permits patentees to "mark" a product when the product embodies patented technology.[5] The patentee "marks" the product "either by fixing thereon the word 'patent' or the abbreviation 'pat.', together with the number of the patent, or when, from the character of the article, this can not be done, by fixing to it, or to the package wherein one or more of them is contained, a label containing a like notice."[6] Compliant marking of patented products is a form of constructive notice to infringers, allowing recovery of full patent damages sustained after provision of such notice.[7]

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[3] *See* Steven Andersen, *IP Law Comes of Age: IP Enters the No-Holds-Barred World of Complex Business Litigation*, CORP. LEGAL TIMES, Sept. 2004, at 48, 53 (noting a "spike" in the number of software patent cases).

[4] Patent damages can be lost profits or reasonable royalties. *See* Panduit Corp. v. Stahlin Bros. Fibre Works, Inc., 575 F.2d 1152, 1157 (6th Cir. 1978); Georgia-Pacific Corp. v. United States Plywood Corp., 318 F. Supp. 1116, 1121 (S.D. N.Y. 1970).

[5] 35 U.S.C. § 287(a) (2000). The marking statute states in pertinent part:

> Patentees . . . making, offering for sale, or selling . . . any patented article . . . may give notice to the public that the same is patented, either by fixing thereon the word "patent" or the abbreviation "pat.", together with the number of the patent, or when, from the character of the article, this can not be done, by fixing to it, or to the package wherein one or more of them is contained, a label containing a like notice. In the event of failure so to mark, no damages shall be recovered by the patentee in any action for infringement, except on proof that the infringer was notified of the infringement and continued to infringe thereafter . . . .

Id.

[6] *Id.*

[7] *Id.* Under section 287, infringers are liable for patent damages no later than when they are notified of the patent. *See infra* ¶ 21 (explaining that damages

¶3   As found by the United States Court of Appeals for the Federal Circuit, the related purposes of the marking statute are:

1.   Helping to avoid innocent infringement;

2.   Encouraging patentees to give notice to the public that the article is patented; and

3.   Aiding the public to identify whether an article is patented.[8]

The public may rely on the absence of patent marking on an article to signify that the article may be freely reproduced.[9]   According to the Supreme Court, the marking statute most fundamentally helps protect against deceptive distribution of unmarked, patented articles that the public could mistakenly believe are in the public domain.[10]

¶4   The marking statute allows patentees some discretion regarding the marking's placement. Marking is permitted on packaging instead of the article itself when the latter is physically impossible.[11] Package marking may also be permitted when, "for reasons that go to the very purpose of the statute, marking the article itself would not provide sufficient notice to the

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liability can sometimes begin prior to receipt of notice). Compliance with the marking statute requires consistently marking substantially all of the patented products. Am. Med. Sys., Inc. v. Med. Eng'g Corp., 6 F.3d 1523, 1537-38 (Fed. Cir. 1993). Section 287 recognizes the patentee's filing of an action for infringement as one kind of actual notice. § 287(a). Another kind of actual notice is receipt of a patentee's letter alleging infringement. *See* Lans v. Digital Equip. Corp., 252 F.3d 1320, 1327-28 (Fed. Cir. 2001) (requiring that actual notice be an "affirmative act on the part of the patentee which informs the defendant of infringement").

[8] Nike, Inc. v. Wal-Mart Stores, Inc., 138 F.3d 1437, 1443 (Fed. Cir. 1998). In describing the purpose for the marking statute and its subsequent revisions, the American Intellectual Property Law Association ("AIPLA") has remarked that "[t]he legislative history … implies that the protection of the public probably was the strongest factor leading to the passage of the patent marking statutes." Memorandum from Jeffrey I.D. Lewis, Patent Litigation Committee Chair, and Mark Schuman, Patent Marking Subcommittee Chair, on Patent Marking Statute 35 U.S.C. § 287(a), to AIPLA Patent Litigation & Patent Law Committee Members 7 (April 9, 2002) (on file with the Duke Law & Technology Review).

[9] Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 162 (1989).

[10] Wine Ry. Appliance Co. v. Enter. Ry. Equip. Co., 297 U.S. 387, 398 (1936) ("Under the interpretation which we accept, § 4900, R.S., [the predecessor to section 287] . . . provides protection against deception by unmarked patented articles, and requires nothing unreasonable of patentees.").

[11] § 287(a) (providing that patent notice should appear on the product but "when, from the character of the article, this can not be done, by fixing to it, or to the package wherein one of more of them is contained" a similar notice).

public."[12] However, when the patented article has other writings, the patent listing must appear on the article.[13]

B. The Reality of Enterprise Software Access

¶5   Distribution and use of enterprise software are subject to significant restrictions.   Unlike off-the-shelf consumer software for purchase by virtually anyone, the availability of an enterprise software license largely depends on the software owner's preferences and policies.   A typical enterprise license grants a customer, including its employees and sometimes others, limited rights to use the enterprise software under various terms and conditions.[14]   As a competitive safeguard, enterprise software owners typically discourage or forbid rival companies from licensing or otherwise accessing their products.

¶6   Even when a customer is found to qualify as a permitted licensee, the enterprise license may still restrict the scope of potential end users. While contractual provisions for enterprise software use are as varied as software products themselves, a few contractual restrictions commonly appear in these licenses:

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[12] Rutherford v. Trim-Tex, Inc., 803 F. Supp. 158, 162 (N.D. Ill. 1992).

[13] *Id*. at 163 ("Where the patented article has markings or printing on it, other than the appropriate patent marking, then the alternate form of patent marking on the package is not sufficient compliance with the statute."); Pierre Yanney, *The Patent Marking Statute*, METROPOLITAN CORP. COUNSEL, July 2001, at 16, 16 (citing Creative Pioneer Prods. Corp. v. K-Mart Corp., 5 U.S.P.Q.2d 1841, 1847-48 (S.D. Tex. 1987) (mem. and order on damages) for the proposition that patent marking on packaging when an article contains other printing does not comply with the marking statute). The *Rutherford* court further explained:

> The rationale behind stricter conformity to the marking provisions of § 287 when the article contains other markings is bound-up with the purpose of the statute to give notice to the public. Where the public finds markings or writings upon the article itself, the public should be able to rely upon the fact that a patent, if it exists, should also be noted with that writing. The notice required by the statute is most effective when it can be easily seen by the users of the article.

Rutherford, 803 F. Supp. at 163-64.

[14] *See*, *e.g.*, Oracle License and Services Agreement § C, *at* http://www.awaretechnologies.com/aware.pdf/2.6/OLSA.pdf (form agreement) ("You may allow your agents and contractors to use the programs for this purpose and you are responsible for their compliance with this agreement in such use.").

- Transferability: Licenses that are deemed personal often forbid the customer's transfer or assignment of rights to others.[15]

- End User Restrictions: Licenses may restrict the potential pool of end users to, for example, only those customer employees specifically named in the license or to a maximum number of unnamed concurrent users.[16]

- Confidentiality: Licenses often characterize enterprise software as the licensor's proprietary information that cannot be divulged by the licensee or its end users.[17] Under such a nondisclosure obligation, the licensee may be forbidden from disclosing information regarding the screens, functionality, code, business

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[15] *See*, *e.g.*, *id.* § D ("You may not . . . make the programs or materials resulting from the services available in any manner to any third party . . . .").

[16] *See* David M. Ewalt, *Price-Hike Surprise*, INFORMATIONWEEK, Oct. 27, 2003, at 24, *available at* http://www.informationweek.com/story/showArticle.jhtml?articleID=15600387 (noting industry adoption of licensing provisions based on concurrent users and named users). Prices charged for an enterprise software license are often proportional to the number of licensed end users. *See id.* (identifying controversy over pricing schema based on concurrent users versus named users). Many other restrictions on use may exist. For example, the enterprise software may be licensed on a per server or per site basis. *See*, *e.g.*, *New Oracle Site License*, I.T. Times, Dec. 1995, *at* http://ittimes.ucdavis.edu/v4n4dec95/oracle.html (announcing new Oracle site license). License termination can require the licensee to stop all access and use of the product on certain conditions. *See*, *e.g.*, Software License Agreement between Informix Software, Inc. and GeoCities § E(2)(a) (signed June 30, 1998), *at* http://contracts.corporate.findlaw.com/agreements/geocities/informix.lic.1998.06.30.html.

[17] *See* MICHAEL D. SCOTT, SCOTT ON COMPUTER LAW § 6.24[A] (Supp. 2001). The exact language of the confidentiality provision varies. Some provisions may categorically require secrecy over the entire software product. Other provisions may carve out from the restriction information that is or becomes part of the public domain without fault of the licensee. *See*, *e.g.*, Software License and Services Agreement between Blue Martini Software, Inc. and Bluefly Inc., § 10, *at* http://contracts.onecle.com/bluefly/martini.lic.2002.03.12.shtml (identifying, for example, "know-how, processes, apparatuses, equipment, algorithms, software programs, software source documents, and formulae related to the current, future and proposed products and services of each of the parties" as confidential information).

process flows, and other components of the enterprise
software.[18]

¶7   Other protections prevent disclosure of enterprise software cloaked
under these common restrictions. When a license is purchased, enterprise
software, as stored in a transportable medium, is often readied for direct
delivery from a manufacturing facility to the customer. In that situation, the
product is typically packaged and boxed under seal for shipment whereby
little, if anything, can be surmised about the enterprise software inside. As
another access control, "keys" may be confidentially provided to the
customer to unlock only the paid-for, licensed portions of the software
functionality embodied in the storage medium. Keys help to prevent
unpermitted access by both licensees and others. Clearly, owners of
enterprise software implement various measures to significantly restrict
access to their product and, as a result, patent markings therein.[19]

C.   *Enterprise Software Marking and Unpromoted Statutory Purposes*

¶8   In the enterprise software context, the patented product to be
marked, if any, is usually a storage device.[20] Thus, marking under section

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[18] SCOTT, *supra* note 17, at § 6.24[A]. *See*, *e.g.*, Software License and Services
Agreement between Blue Martini Software, Inc. and Bluefly Inc., § 10, *at*
http://contracts.onecle.com/bluefly/martini.lic.2002.03.12.shtml.

[19] *See* Ronald A. Cass, *Copyright, Licensing, and the "First Screen"*, 5 MICH.
TELECOMM. & TECH. L. REV. 35, 46 (1999) (noting that license terms are not
unilaterally determined by licensors independent of licensee preferences).

[20] In the U.S., patent claims often recite a computer-readable medium as the
statutory invention. *See* Examination Guidelines For Computer-Related
Inventions, 61 Fed. Reg. 7478, 7482 (Feb. 28, 1996). Other preambles from
claims directed to software include, for example, "computer program product"
and "program storage device." *See* Fenwick & West LLP, 2004 Report on
International Legal Protection for Computer Software, 21 No. 4 COMPUTER &
INTERNET LAWYER 1, 5 (2004) (noting gradual international acceptance of
program product claims). There are other variations to claim software-related
inventions as a manufacture (or machine) rather than a process. *See generally
id.*; Andrew J. Hollander, *Patenting Computer Data Structures: The Ghost, the
Machine and the Federal Circuit*, 2003 DUKE L. & TECH. REV. 33 (2003)
(discussing patentability of data structures). Such claims in the Beauregard style
identify the invention as a computer-readable product and, as such, the article on
which the marking must appear. For a general discussion on patentable subject
matter and the patentability of computer software, *see generally* Robert Plotkin,
*Computer Programming and the Automation of Invention: A Case for Software
Patent Reform*, 2003 U.C.L.A. J. L. & TECH. 7 (2003); Richard S. Gruner,
*Everything Old is New Again: Obviousness Limitations on Patenting Computer
Updates of Old Designs*, 9 B.U. J. SCI. & TECH. L. 209 (2003); Sam S. Han,

287 could entail a patent notice appearing on a label for a CD or other favored storage medium. However, perhaps because of space limitations or branding aesthetics, marking does not often appear on the CD label itself, the only practical area to mark "on" the CD. Rather, the "on the article" requirement has led to patent listings in the user interface of the software. Marking frequently appears as a familiar splash screen upon launch of the enterprise software. Marking can also appear in a drop box along with other legal notices or information. At first blush, marking according to these conventions apparently complies with the letter of section 287 to achieve constructive notice. However, resort to the purposes of the marking statute may better inform whether conventional marking of software should constitute constructive notice.

¶9   As previously noted, the fundamental purpose of marking is to help avoid innocent infringement.[21] With respect to non-licensees of enterprise software, marking does not help prevent innocent infringement because non-licensees lack access to reproduce the software product in the first place. For example, direct shipment from the owner of enterprise software, which is sealed until opened by the intended customer-licensee, restricts non-licensees from access to the software product and its marking. As another example, when marking involves patent listings on software screens, licensing terms contractually permit only licensees, or their agents, to access the software and patent notice therein. Unlike the traditional entry of sold products into the free stream of commerce, there is no practical potential for the non-licensed public to witness enterprise software or its markings when commercialized in the conventional manner.[22] Thus, hidden enterprise software and its markings do not influence the conduct of non-licensees, much less help them avoid innocent infringement.[23]

Analyzing the Patentability of "Intangible" Yet "Physical" Subject Matter, 3 COLUM. SCI. & TECH. L. REV. 1 (2002).

[21] Wine Ry. Appliance Co. v. Enter. Ry. Equip. Co., 297 U.S. 387, 398 (1936).

[22] Perkins Coie, *Patent Marking: Avoid Losing an Infringement Suit Before It Begins*, *at* www.perkinscoie.com/content/ren/updates/patent/091003.htm (Sept. 10, 2003) ("But merely marking products with the patent numbers is not enough either – the products must also be shipped or sold so that others have notice of the patent protection.").

[23] *See* Roger D. Blair & Thomas F. Cotter, *Rethinking Patent Damages*, 10 TEX. INTELL. PROP. L.J. 1, 64-65 (2001) (identifying "several imperfections" with the marking statute including award of damages for innocent infringement by an infringer who does not actually encounter a patented product). Of course, public disclosure of only a patent listing in a software product – by, for example, carving out the patent listing from contractual nondisclosure obligations – still does not serve the purpose of section 287 if the product otherwise remains off limits to the public. Because the public lacks legitimate access to enterprise

¶10   In contrast, marking may theoretically help prevent innocent infringement with respect to enterprise software licensees. However, other legal and contractual restrictions (e.g., copyright, confidentiality obligations, and license limitations)[24] and related notices that typically appear more frequently in enterprise software also confer knowledge of proprietary rights therein and warn end users against illegal reproduction or further sale of the software.[25] Thus, it is unclear how much patent marking actually contributes to preventing innocent infringement given preexisting appreciation of contractual limitations and the presence of other legal notices.[26]

¶11   The other two purposes of section 287 – to encourage public notice about a patented article and to aid the public in identifying patented articles – also do not appear to be significantly furthered, if at all, by the marking of enterprise software. As to the former purpose, in view of typical licensing provisions that restrict access to a limited set of permitted end users, public notice of patents covering the enterprise software is, as previously discussed, never achieved.[27] Owners of enterprise software have deliberately elected product confidentiality to bolster competitiveness as the more important business objective over public marking access to increase patent damages. As to the latter purpose, marking aids only a small fraction of the public: those relatively few licensees permitted to see the enterprise software during the course of their paid-for use.

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software, regardless of marking accessibility, the public cannot be deceived into believing the software is free to copy.

[24] *See supra* Part I.B.

[25] Copyright vests in its owner the exclusive rights to, for example, reproduce, prepare derivative works of, and distribute the copyrighted work. 17 U.S.C. § 106 (2000). A patent vests in its owner the right to exclude others from, for example, making, using, and selling the patented technology. 35 U.S.C. § 271 (2000). Although the intellectual property theories differ in significant ways (*e.g.*, non-abstract idea versus expression protection) in the enterprise software context, copyright and patent protections often vindicate the same primary business interest: preventing unauthorized copying and sale. *See* Final Report of the Nat'l Comm'n on New Technological Uses of Copyrighted Works (CONTU) 16-18 (July 31, 1978), *at* http://digital-law-online.info/CONTU/contu1.html.

[26] The general public (and even the bar) is arguably more familiar with the concept of copyright than patent. *See generally* David A. Einhorn, *Copyright and Patent Protection for Computer Software: Are They Mutually Exclusive?*, 30 IDEA 265 (1990) (discussing both copyright and patent protections). For this reason, copyright notices, which are far more ubiquitous than patent markings, are likely to better deliver warnings against misuse of proprietary enterprise software.

[27] *See supra* Part I.B.

¶12   In certain circumstances, courts have acknowledged that some discretion must be reserved in the patentee to choose the marking location.[28] Therefore, an enterprise software company could attempt to characterize marking on the software packaging as a permissible alternative to better serve the purposes of section 287. However, this liberal interpretation of section 287 is still contrary to the underlying policy of the marking statute to avoid misleading the public into believing a product is free to copy. First, enterprise software does not sit on store shelves with packaging available for potential inspection by all. Because logistics surrounding software delivery typically involve direct, sealed shipments from manufacturing facility to intended customer that limit access to package markings, such markings do not further the purposes of the marking statute any more than product markings. Second, under applicable case law, package marking when the patented article contains other writings fails to comply with section 287.[29] Because CD labels and software screens normally contain other printings, such as company name, copyright notice, and version information, marking on packaging instead of the product is likely impermissible for enterprise software.[30]

¶13   The nature of enterprise software thus reveals discord between the core purpose of marking and the literal requirements of the marking statute.[31] Specifically, marking does not prevent deception of the public into believing the enterprise software is in the public domain because, deprived of both the software and marking therein, the public cannot be deceived in the first place.[32] With no access to conventional embodiments

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[28] *See*, *e.g.*, Sessions v. Romadka, 145 U.S. 29, 50 (1892) (stating that "something must be left to the judgment of the patentee").

[29] Rutherford v. Trim-Tex, Inc., 803 F. Supp. 158, 163 (N.D. Ill. 1992).

[30] *See supra* ¶ 4. The reservation or creation of a dedicated screen to list patents is presumably even easier than employing a CD label since screen design could provide more space for the marking. Professor Chisum remarks that although the patent owner enjoys some discretion about where to mark, many courts have insisted on a showing of physical impossibility of marking on the product before marking is permitted elsewhere. DONALD S. CHISUM, PATENTS § 20.03[7][c][iii] (1999). A patent notice on a CD (or in a screen generated by a computer instructions stored in the CD) unlike, for example, an integrated circuit, is not technically or commercially infeasible.

[31] Software poses many unique issues regarding the application of patent law. For example, interpretation of claim limitations under paragraph six of 42 U.S.C. § 112 in the software context defies easy resolution. *See generally* Tobi C. Clinton, *Infringement and Software Claimed Under 35 U.S.C. § 112, ¶ 6: Software Function is the Important Part*, 5 VA. J.L. & TECH. 4 (2000).

[32] In analyzing sold products whose markings became invisible after product installation, a lower court characterized a limited class of people who could witness the markings before installation as the qualifying "public" under section 287. *See Rutherford*, 803 F. Supp. at 164 ("[T]he 'public' for which notice is

of enterprise software or possible patent marking therein, the public could not reasonably conclude that the software is in the public domain.[33] Further, when owners of enterprise software deliberately and selectively conceal access to their products and patent listings therein to all except licensees, notions of fairness call into question whether patentees should be allowed to, at the same time, charge the world with patent knowledge.[34] Despite speculation to the contrary,[35] patentees that conventionally mark enterprise software CDs, or even their packaging, might not be entitled to collect infringement damages based on a constructive notice theory.[36]

II. DISADVANTAGE IN CONVENTIONAL NOTICE PRACTICE

A. *Risk in Attempted Marking*

¶14   Since constructive notice is uncertain under even a liberal interpretation of section 287, enterprise software companies could reasonably decide that marking would serve little purpose. In fact, marking could pose significant disadvantages.

¶15   Myriad reasons, both legal and non-legal, exist to not mark patented enterprise software.   The sheer length of marking verbiage may detrimentally impact product aesthetics, perhaps an important marketing consideration. Legal notices may add to apparent product complexity, the hallmark of a doomed offering in an industry increasingly committed to simplicity and user friendliness.[37]   Further, large patent portfolios and

provided are building contractors."). In *Rutherford*, no legal constraints limited theoretically broad access to those hidden markings, even if in practice few saw them. In contrast, contractual and related legal obligations do foreclose broad access to markings on enterprise software.

[33] Toro Co. v. McCulloch Corp., 898 F. Supp. 679, 684-85 (D. Minn. 1995) (explaining that "[i]f the device has not been released into public domain, there is manifestly no possibility of the public innocently copying or imitating that device").

[34] Where license agreements prohibit access to patented products by the patentee's competitors specifically, this question is especially relevant in considering what knowledge, if any, should be imputed to competitors, likely a primary infringement target of the patentee.

[35] *See, e.g.*, SCOTT, *supra* note 17, at § 4.26[D] (instructing without explanation that marking should go on the program medium, its packaging, or both).

[36] Consideration of constructive notice should be a highly fact-intensive inquiry performed on a case-by-case basis with due regard for the nature and extent of the distribution and accessibility of the particular software offering at issue and the degree to which the objectives of section 287 regarding prevention of public deception are met.

[37] *See, e.g.*, Press Release, FileMaker, Small Businesses Tell Software Makers: "Keep It Simple" (July 14, 2003), *at*

evolving product lines can make accurate association between a product and related patents a challenging task with potentially steep costs. Error in a patent listing, which in litigation could be characterized as deception, can implicate significant statutory fines for violation of the false marking provision.[38] In other countries false marking can even lead to criminal liability.[39] Thus, for products that are distributed abroad, special consideration should be given to the desirability of marking and safeguards to ensure accuracy.

¶16   Marking can also detrimentally expand the scope of litigation discovery to reach deep into the patentee's product design and strategy.[40] In a typical patent infringement suit, some information concerning a patentee's product offerings can be probative.[41] When the patentee's products are marked, the markings are powerful admissions about the critical relevance of the marked products to the patent claims in suit and related construction issues.[42] As a result, detailed and comprehensive discovery into marked

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http://www.filemaker.com/releases/1030.html (announcing survey results that demonstrate user desire for simplicity over complexity in software products); SAP Info, *The Software Works the Way I Do*, No. 29 (June 3, 2000), *at* http://www.sap.info/index.php4?ACTION=noframe&url=http://www.sap.info/public/en/print.php4/article/comvArticle-193333c63b51c696a9/en (underscoring increasing user expectations about software ease of use and clarity); Scott Berkun, The Importance of Simplicity (July/August 1999) *at* http://msdn.microsoft.com/library/default.asp?url=/library/en-us/dnhfact/html/humanfactor8_4.asp.

[38] 35 U.S.C. § 292(a) (2000) (stating that false markings "for the purpose of deceiving the public" are punishable by fines of $500 for each offense.).

[39] Hal J. Bohner, *Patent Marking: Why to do it and how to do it*, INTELL. PROP. & TRADE REG. J., Spring 2003, at 1, 3; Gordon R. Moriarity, *Patent Marking Principles*, BOSTON E-NET, Fall 2000, *at* http://www.boston-enet.org/newsletter/fall00-2.htm.

[40] *See* Douglas E. Lumish & Matthew M. Sarboraria, *Preserving the Crown Jewels, Practical Strategies for Protecting Source Code in Patent Litigation Discovery*, 5 PAT. STRAT. & MGMT. 1 (2004) (explaining the danger of software product source code disclosure in patent litigation discovery).

[41] For example, patent law requires the inventor to describe the best mode known at filing. 35 U.S.C. § 112 (2000); Eli Lilly & Co. v. Barr Labs., Inc., 251 F.3d 955, 963 (Fed. Cir. 2001). Comparison of a patentee's commercial product against the patent in suit is probative, but not necessarily dispositive, of the best mode inquiry. *See* FED. R. CIV. P. 26(b)(1) (allowing discovery of relevant information "reasonably calculated to lead to the discovery of admissible evidence").

[42] *See* Akron Polymer Container Corp. v. Exxel Container, Inc., 69 F.3d 554 (Fed. Cir. 1995) (unpublished) (affirming the summary judgment of an infringement ruling by the district court, stating that its "purported comparison of the accused device with an embodiment produced by the patentee" did not constitute reversible error).

products can become a virtual certainty, undesirably introducing evidence that, for example, could complicate an otherwise straightforward prima facie infringement showing by the patentee.[43] Worse still, discovery expanded to encompass the patentee's product could unveil product detail sufficient to support a patent counterclaim or separate suit by the accused infringer. As a result, product marking could quickly turn the litigation tide against the patentee.

B. The Problem with Letters to Trigger Damages

¶17   A conventional alternative to marking is the provision of a notice letter as actual, rather than constructive, notice to the accused when infringement arises. Federal Circuit decisions teach that proper provision of actual notice requires (1) a charge of infringement (2) of specific patents (3) against a specific accused device or activity (4) by the patentee.[44] Receipt by an accused infringer of a properly crafted notice letter can begin the period over which patent damages are recoverable.[45]

¶18   However, the notice letter is necessarily delayed at least until the infringement is detected, which often comes well after the onset of infringement. Software infringements, especially in the enterprise arena, can be uniquely difficult to detect. Limited comprehension of software-related accused devices based on, for example, their confidentiality and relative insusceptibility to reverse engineering, can render infringement detection a very formidable challenge.[46]

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[43] Kimberly A. Moore, *Are District Court Judges Equipped to Resolve Patent Cases?*, 15 HARV. J.L. & TECH. 1, 7 (2001) (noting that beyond intrinsic evidence, courts can consider anything helpful for claim construction as extrinsic evidence). Determination of a patent infringement claim involves a two-step inquiry: (1) claim construction to determine the limits of the scope and the meaning of the asserted claims, and (2) comparison of the claims with the allegedly infringing devices or methods to determine whether the latter embody every limitation of the asserted claims. *See* Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1454 (Fed. Cir. 1998). Because claim construction is a question of law, the standard of review is de novo. *Id.* at 1456. The second step in determining whether an accused device or method infringes an asserted claim, either literally or under the doctrine of equivalents, is a question of fact, for which the standard of review is clear error. *See* Insituform Techs., Inc. v. Cat Contracting, Inc., 161 F.3d 688, 692 (Fed. Cir. 1998).

[44] Lans v. Digital Equipment Corp., 252 F.3d 1320, 1327-28 (Fed. Cir. 2001); Amsted Indus. Inc. v. Buckeye Steel Castings Co., 24 F.3d 178, 187 (Fed. Cir. 1994).

[45] *Amsted Indus. Inc.*, 24 F.3d at 187.

[46] *See*, *e.g.*, Jeff Moore, *Sources for Patent Infringement Investigations and Patent Search Services on the Internet*, *at*

¶19   Another significant disadvantage of notice letters is the potential creation of reasonable apprehension of suit, a jurisdictional predicate to a claim for declaratory relief.[47] On that basis, a notice letter recipient, if first to file, is empowered to deprive the patentee of its desired judicial forum and otherwise sabotage its enforcement strategy.[48]   Notwithstanding industry attempts to carefully draft notice letters that simultaneously impart actual notice yet sidestep creation of a justiciable controversy, the Federal Circuit has refused to provide a safe harbor or other definitive guidance on how to trigger one without the other.[49]

¶20   Notice letters therefore pose disadvantages to patent enforcement efforts. From their causal dependence on the discovery of infringement,

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http://www.ipmall.info/hosted_resources/bp98/moore.htm (last visited Jan. 13, 2005) (discussing difficulty in, and resources for, detecting patent infringement).
[47] Shell Oil Co. v. Amoco Corp., 970 F.2d 885, 887-88 (Fed. Cir. 1992) (regarding claims brought under the Declaratory Judgment Act, 28 U.S.C. § 2201). The requirements for a declaratory judgment action are (1) a charge of infringement, or resort to the totality of circumstances, that puts the accused infringer under reasonable apprehension that the patentee will sue, and (2) an immediate intention and ability of the accused infringer to engage in activity that would be adversely impacted by the suit. *See id*.
[48] *See* Peter J. Shurn III, *Using Declaratory Judgments Offensively in Patent Cases*, 3 J. MARSHALL REV. INTELL. PROP. L. 1, 6 (2003), *available at* http://www.jmls.edu/ripl/vol3/issue1.htm. The option to file first also allows the accused infringer, for example, to protect a new product offering, to protect reputation or image, to protect customers, to send a message to the industry, to bolster negotiating leverage, or to distract or confuse the patentee. *Id*. at 13.
[49] *See* EMC Corp. v. Norand Corp., 89 F.3d 807, 811-12 (Fed. Cir. 1996). The Federal Circuit has acknowledged that the requirements for actual notice under section 287 are not coextensive with those for declaratory judgment jurisdiction. SRI Int'l, Inc. v. Adv. Tech. Labs., Inc., 127 F.3d 1462, 1470 (Fed. Cir. 1997). For example, a patentee's offer to license a patent by itself – enough to trigger actual notice – is usually insufficient to create a justiciable controversy. *EMC Corp.*, 89 F.3d at 811-12. However, inherent complexity in identification of a justiciable controversy renders uncertain even informed attempts to implicate section 287 without the Declaratory Judgment Act:

> This court's two-part test for declaratory judgment jurisdiction is designed to police the sometimes subtle line between cases in which the parties have adverse interests and cases in which those adverse interests have ripened into a dispute that may properly be deemed a controversy. . . . In the end, the question is whether the relationship between the parties can be considered a "controversy," and that inquiry does not turn on whether the parties have used particular "magic words" in communicating with one another.

Id.

they fail to preserve a full measure of potential damages to secure complete justice for the patentee.[50]   Unintended implication of the Declaratory Judgment Act can also weigh against dispatch of notice letters.

III. ALTERNATIVE CONTEXTUAL THEORIES TO OPTIMIZE DAMAGES

A. *Impossibility of a Deceived Public*

¶21   If an attempt to mark enterprise software is deemed legally futile or otherwise undesirable, the patentee has other strategies to seek damages greater than those secured by notice letter alone. For example, marking is not necessary for asserted method claims of a patent having no apparatus claims, even when the patentee markets a related product.[51] As suggested by case law, when a patent contains both method and apparatus claims, and a patented product is amenable to marking, the product must be marked to achieve constructive notice, thereby starting the damages clock for any asserted claim.[52] However, when the patentee does not sell any patented product at all, and there is no product to mark, full damages are recoverable from the onset of infringement without any notice.[53]

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[50] *See* Roger D. Blair & Thomas F. Cotter, *Rethinking Patent Damages*, 10 TEX. INTELL. PROP. L.J. 1, 65 (2001) (stating that the actual notice requirement wastes social resources and provides incentive to knowingly infringe until the infringer receives actual notice).

[51] ROBERT L. HARMON, PATENTS AND THE FEDERAL CIRCUIT § 9.4(b) (4th ed. 1998). *See* Wine Ry. Appliance Co. v. Enterprise Ry. Equip. Co., 297 U.S. 387, 395 (1936) ("If respondent's position is correct, process patents and patents under which nothing has been manufactured may be secretly infringed with impunity, notwithstanding injury to owners guilty of no neglect."). This rule's application deserves further consideration when a patent contains only method claims covering software product functionality, and with trivial modification could, but does not, also contain a product claim.

[52] Am. Med. Sys., Inc. v. Med. Eng'g Corp., 6 F.3d 1523, 1538-39 (Fed. Cir. 1993) ("Where the patent contains both apparatus and method claims, however, to the extent that there is a tangible item to mark by which notice of the asserted method claims can be given, a party is obliged to do so if it intends to avail itself of the constructive notice provisions of section 287(a)."); Douglas J. Bucklin, *Patent Marking Requirements – Patented Articles Must Be Marked as Patented in Order for Patentee to Recover Damages Due to Patent Infringement*, FindLaw for Corporate Counsel (Dec. 19, 2002) (suggesting some ambiguity in case law), *at* http://library.lp.findlaw.com/articles/file/00305/008547/title/Subject/topic/Intellectual%20Property_Patents/filename/intellectualproperty_2_4593.

[53] *See*, *e.g.*, *Wine Ry. Appliance Co.*, 297 U.S. at 398. Others have also noted this result discouraging the sale of patented products. *E.g.*, Carl Oppedahl, *Patent Marking Of Systems*, 11 SANTA CLARA COMPUTER & HIGH TECH. L.J. 205, 211 (1995) ("From this it will be appreciated that from the point of view of

¶22   One commentator explained the marking rationale as follows:

> A helpful jurisprudential model for § 287 . . . is that of estoppel or
> reliance: a patent owner who sells a patented product but does not
> mark it may be understood to have led the public to believe that it is
> not patented, and thus cannot be heard to complain for damages if a
> member of the public who has not been given actual notice of the
> patent chooses to copy the product.[54]

Likewise, when a patented product is not sold, the patent owner has not led
the public into believing anything. This reliance model makes sense for
sold products and their markings that move freely through the stream of
public commerce under the first sale or exhaustion doctrine[55] to potentially
impact public behavior.[56]

¶23   By contrast, the flow of licensed enterprise software including its
markings is significantly constrained by contractual prohibitions forbidding
movement. From the public's perspective, the inaccessibility of such
enterprise software renders it essentially invisible. The public therefore
remains unaffected by a patent listing in a restricted software product it
cannot witness.[57]

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monetary damages and associated proof it is better as a patent owner never to
have sold the patented product than to have sold it, since if no product has been
sold, then damages will run from the start of the infringement.").

[54] Oppedahl, *supra* note 53, at 11

[55] *See, e.g.*, Jazz Photo Corp. v. Int'l Trade Comm'n, 264 F.3d 1094, 1105 (Fed.
Cir. 2001) ("The unrestricted sale of a patented article, by or with the authority
of the patentee, "exhausts" the patentee's right to control further sale and use of
that article by enforcing the patent under which it was first sold.").

[56] Professor Chisum also apparently emphasizes the importance of public
impact, questioning a literal reading of section 287 when it conflicts with the
fundamental purpose of the statute:

> Section 287 literally specifies "making *or* selling," and it can be argued
> that marking is required even if the patentee neither sells nor authorizes
> others to sell (e.g. when a patent owner makes and uses a patented
> machine and sells only the unpatented products thereof), but that literal
> reading is contrary to the rationale behind the statute identified in *Wine
> Railway*, to wit, to protect against deception of the public by the
> distribution of unmarked patented articles.

CHISUM, *supra* note 30, at § 20.03[7][c][ii] (emphasis in original).

[57] To the extent that limited licenses of enterprise software do not impact the
public at large as outright sales of products do, licensing should not be deemed
equivalent to "selling" under section 287. *Cf.* Group One, Ltd. v. Hallmark
Cards, Inc., 254 F.3d 1041, 1049 (Fed. Cir. 2001) (comparing license with sale
in different on-sale bar context).

¶24   As proposed above, enterprise software markings in conventional embodiments do not likely serve a compelling public notice function.[58] Thus, a patentee providing enterprise software could cite an undeceived public to argue against a requirement of marking to recover full damages for any kind of claims in suit, whether method or apparatus, or both.[59] Although there appears to be no case law on point, the argument parallels the obviation of marking to recover full damages when there is no product at all to mark. In both cases, the general public lacks access to any patented product and therefore cannot be misled into believing a patented product is free to copy.[60] Appropriate judicial focus on the fundamental policy of section 287, to prevent innocent infringement, rather than mechanical adherence to its letter would support this approach to render marking unnecessary.[61]

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[58] *See supra* Part I.B.

[59] Whether a claim directed to enterprise software recites a product or method, or both, is often an arbitrary decision, at least when patentees target only users of the patented technology. Artful drafting of substantive claim limitations can render differences between a product claim and a method claim largely a matter of form. *See*, *e.g.*, U.S. Patent No. 6,771,303 (issued Aug. 3, 2004) (reciting method and apparatus claims formalistically differing only by preamble). Of course, the distinction between product and method claims does substantively impact enforcement strategies targeting manufacturers of the patented technology, most notably competitors of the patentee. *See* Burt Magen, *Media Claims for Software Inventions*, 20 NO. 11 COMPUTER & INTERNET LAW. 1, 2 (Nov. 2003) (noting undesirable resort to contributory infringement allegation to target software maker or distributor).

[60] This result also promotes uniformity. Because the presence of a single product claim may require patent notice when method claims alone do not, the scope of recoverable patent damages unreasonably turns on formality. *See supra* ¶¶ 21-22 (explaining that without notice full damages are available for patents having only method claims but not patents having apparatus claims).

[61] The Federal Circuit has rejected rote application of section 287 in at least one other context. *See* Motorola, Inc. v. United States, 792 F.2d 765, 772 (Fed. Cir. 1984). Observing the futility of constructive notice to a U.S. government bound to non-patent strictures that render the government powerless to avoid infringement, the *Motorola* court explained:

> In light of [government procurement policy], a notice to the Government would be meaningless since the contracting agency must award the contract to the lowest bidder regardless of any patent infringement problems. This policy, therefore, does not take into consideration a fundamental rationale supporting section 287—supplying notice in order to prevent innocent infringement. *Wine Railway*, 297 U.S. at 394 . . . . Since the government does not consider the question whether the device it takes by eminent domain is protected

B. *Attempted Marking as Actual Notice to Licensees*

¶25   While a claim for increased damages by marking to accomplish constructive notice might prove unsuccessful, and a resort to ad hoc notice by letter inadequate, a secondary, alternate theory of actual notice may succeed in maximizing remedies against a discrete class of defendants: patented enterprise software licensees. Case law provides that actual notice is not negated when the patent owner requests a license instead of ceasing the infringement.[62] In an unpublished decision, the Federal Circuit affirmed a lower court holding that even a letter cautioning about future infringement could constitute actual notice.[63] At least one federal district court has also recognized that acknowledgment by an accused infringer that it received notice establishes actual notice, even if the original notice was flawed.[64]

¶26   This precedent informs issues of notice to licensees of marked enterprise software. At a fundamental level, any license is a communication by the licensor patentee that certain activities are contractually permitted while all others, if undertaken in violation of the license, are prohibited and infringing. If a licensed customer of patented enterprise software breaches the license, the customer may become a patent infringer as to its activities constituting the breach.[65] In the event of such a breach, a typical enterprise

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> by patents or not, requiring a patent owner to mark his device or give notice pursuant to section 287 would be meaningless in this context.

Id. at 771-72.

[62] *See*, *e.g.*, SRI Int'l, Inc. v. Adv. Tech. Labs., Inc., 127 F.3d 1462, 1470 (Fed. Cir. 1997) ("Thus, the actual notice requirement of § 287(a) is satisfied when the recipient is informed of the identity of the patent and the activity that is believed to be an infringement, accompanied by a proposal to abate the infringement, whether by license or otherwise.").

[63] CHISUM, *supra* note 30 at § 20.03[7][c][iv] n.179 (citing T.D. Williamson Inc. v. Laymon, 723 F. Supp. 587, 606, (N.D. Okla. 1989), *aff'd*, 923 F.2d 871 (Fed. Cir. 1990) (unpublished)) for proposition that a "cautionary" letter warning of, not past or present, but rather future patent infringement constitutes sufficient notice). The *Laymon* court stated that "warning of infringement is not lessened because the act of infringement has not yet occurred; no law requires an infringement to have taken place prior to an effective notice of infringement." *Laymon*, 723 F. Supp. at 606.

[64] Wokas v. Dresser Indus. Inc., 978 F. Supp. 839, 846 (N.D. Ind. 1997) (quoting Chubb Integrated Sys., Inc v. Nat'l Bank of Washington, 658 F. Supp. 1043, 1053 (D.C. Cir. 1987) for proposition that "[w]hen one acknowledges . . . that the adversary is claiming infringement, the law most certainly does not compel the patent owner to repeat it more explicitly").

[65] For example, the licensee might appropriate a certain functionality of the enterprise software for the licensee's own commercial product rather than limit its use of the patented product for internal purposes only, a typical restriction in

license could be deemed to satisfy the first, third, and fourth elements of actual notice, as identified by the Federal Circuit and set out in part II.B of this paper.[66]

¶27   For example, a customer might continue to use the enterprise software in a manner otherwise permitted by the license, even after material breach by the customer and related notice by the owner to thereupon terminate its license to use. Since a request for a license is a proper alternative to a charge of infringement, a consummated license agreement between the patentee and the infringer should be no less proper than a cautionary infringement charge, satisfying the first element of actual notice. With respect to the third and fourth elements, the license agreement serves as an express identification by the patentee and the infringer of the permitted and unpermitted activity and, as such, a cautionary charge of infringement regarding the latter.[67]   Countersignature on the license agreement by a licensee-turned-infringer could be deemed the infringer's acknowledgment of the need for a license to the patented enterprise software. Under applicable case law, such acknowledgment would excuse any defects in the ability of the license agreement to qualify as notice.[68]

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enterprise software licenses. *See* SCOTT, *supra* note 17, at § 12.02[c] (identifying common provisions in software licenses).

[66] Lans v. Digital Equipment Corp., 252 F.3d 1320, 1327-28 (Fed. Cir. 2001); Amsted Indus. Inc. v. Buckeye Steel Castings Co., 24 F.3d 178, 187 (Fed. Cir. 1994) (identifying requirements for actual notice).

[67] An enterprise software license agreement contains express statements about permissible use of the licensed software. Very often, the license agreement also includes express restrictions or prohibitions regarding product use. *See*, *e.g.*, SCOTT, *supra* note 17, at § 12.02 (listing typical prohibitions in licensing agreements); Software License and Service Agreement between E.piphany, Inc. and eGroups, Inc., ¶ 2.2(B) (March 3, 2000), *at* http://contracts.corporate.findlaw.com/agreements/egroups/epiphany.lic.2000.03.03.html ("Customer agrees not to cause or permit the reverse engineering, disassembly or decompilation of Applications, except to the extent required to obtain interoperability with other independently created software or as specified by law."). Even when explicit identification of infringing activity is absent, it can be directly implied by the scope of the express license. For example, what if the license expressly permitted only internal business use by the licensee, but the licensee, in fact, incorporated patented technology into its own product offerings? Of course the more explicit the agreement provisions regarding activities constituting infringement, the more likely the license agreement could qualify as the required, albeit anticipatory, charge of infringement. The E.piphany Agreement provides in pertinent part: "E.piphany grants to Customer a nonexclusive license . . . to use the Applications solely for Customer's operations . . . Customer shall not copy or use the Applications . . . except as specified in this Agreement of this Order Form . . . ." *Id*. at ¶¶ 2.1(A)-(B).
[68] *Wokas*, 978 F. Supp. at 846.

¶28   Identification of specific patents, the second element of actual notice, does not commonly appear in enterprise software license agreements. However, a typical licensee learns of patent rights in the software by its access to the software or, more specifically, a screenshot or other location in which the attempted marking appears.[69] The appearance of an infringed patent in a patent listing on some portion of enterprise software should constitute the required specific identification of infringed patents under actual notice principles.[70]

¶29   Licensees of enterprise software can typically receive actual notice of patent rights.[71] While delivery of notice to licensees as proposed may not precisely mirror the traditional provision of an infringement notice letter, licensees might receive as much patent infringement information as letter recipients. In the absence of explicit case law on point, fairness favors recognition that, by virtue of their actual knowledge and ready access to patent notices otherwise invisible to the public at large, licensees should be subject to early damages liability.[72]

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[69] *But see supra* Part II.A (identifying significant risk in patent listings). When the alleged infringement concerns excessive copies of the licensed software, all listed patents are implicated. When alleged infringement involves misappropriation of a discrete patented functionality for use in, for example, the infringer's own commercial offering, the infringer may struggle to know which of many patents listed in the software are at issue. However, that struggle is no different from the public's effective receipt of constructive notice from a large patent listing on a public product.

[70] While conventional marking of enterprise software would likely suffice to support a claim of actual notice, a patent listing in the license itself would perhaps more closely mirror the conventional notice letter containing both the infringement charge and the patents allegedly infringed in a single document. *See Lans*, 252 F.3d at 1327-28; *Amsted*, 24 F.3d at 187 (identifying requirements for actual notice). Similarly, case law may not welcome notices that predate the onset of infringement. *But see* CHISUM, *supra* note 30 at § 20.03[7][c][iv] n.179 (citing T.D. Williamson Inc. v. Laymon, 723 F. Supp. 587, 606, (N.D. Okla. 1989), *aff'd*, 923 F.2d 871 (Fed. Cir. 1990) (unpublished)) (discussing cautionary infringement notices). To prepare for that possibility, patentees could consider making the license agreement available in the software for access during software use. That way, notice could be deemed to be ongoing, with appearance of the license agreement at some point following infringement.

[71] Assigning knowledge of patents listed in concealed markings to non-licensees would be fundamentally inequitable. *See supra* Part I.B (noting inability of the public to access patent markings).

[72] An actual notice finding in the enterprise software context should of course follow a highly fact-intensive inquiry with due consideration of the information imparted to the licensee-turned-infringer.

CONCLUSION

¶30 Marking enterprise software in the conventional manner does not likely further the fundamental purpose of the marking statute. For this reason, full recovery of damages based on mechanical compliance with section 287 is uncertain at best. A primary, alternative theory to support damages unbounded by the delivery of notice is based on analogy between two situations: (1) patents under which no products are distributed to the public, and (2) the inaccessibility to the public of markings in enterprise software products, both rendering impossible a public deceived into believing that products are free to exploit. A secondary, alternative theory based on actual notice may preserve full damages against licensees of patented enterprise software, even if such damages cannot be recovered against all infringers. From their access to enterprise software, licensees can, and often do, learn pertinent information about applicable patent rights and should be held accountable for such knowledge. Although case law has not squarely addressed these proposed notice theories, they are supported by the underlying objective of the marking statute, case law, and general principles of fairness.