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READY, SET, MARK YOUR PATENTED SOFTWARE!

John LaBarre^{*} & *Xavier Gómez-Velasco*^{**}

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ABSTRACT

[1] The question of whether software programs embodying patented processes need to be marked in accordance with the marking requirement as set forth under 35 U.S.C. § 287 is an unanswered issue. This article first analyzes the marking requirement in the United States patent system and then goes on to survey the rocky history of patents on software innovations. After noting that neither the Supreme Court nor the Federal Circuit has directly decided the issue of the applicability of the Marking Statute to software programs, the article analyzes recent federal district court and Federal Circuit cases, ultimately reasoning that the Federal Circuit would likely conclude that software programs embodying patented processes need to comply with the marking requirement of 35 U.S.C. § 287. Finally, the article concludes by discussing the ramifications of the Marking Statute to software patents and the software industry.

I. INTRODUCTION

[2] Since 1842, within the United States, there has been a statutory requirement that all patented articles be marked in such a way as to alert

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the public of such patent protection (the “Marking Requirement”).¹ As the Federal Circuit has explained, the Marking Requirement serves to put the public on notice that a product is patented in order to avoid innocent infringement.² Under current patent law, the Marking Requirement is prescribed by 35 U.S.C. § 287(a) (the “Marking Statute”). Failure to mark a “patented article” creates a bar to a patentee in collecting damages from an infringer.³

[3] The Marking Requirement is not imposed under two scenarios: (1) where no patented article has been produced by a patentee or its licensee (and thus there is no product to mark); and (2) where a patent is a pure process or method patent (i.e., again, where there is no product to mark).⁴ While these exceptions to the Marking Requirement are well established in case law, the question of whether programs embodying software patents need to meet the Marking Requirement remains unanswered. With respect to the Marking Requirement, software patents⁵ present an interesting grey area, as many software patents are comprised of process claims⁶ that are not necessarily tangible. This article analyzes the Marking Requirement, explores the history of patents on software-related innovations, and seeks to address the question of whether software programs embodying patented software processes need to be marked in accordance with the Marking Requirement.

¹ See *Wine R. Appliance Co. v. Enter. R. Equip.*, 297 U.S. 387, 390 (1936) (describing the Act of August 29, 1842, which required patentees to mark their patented articles and penalized those who did not).

² *Nike, Inc. v. Walmart Stores, Inc.*, 138 F.3d 1437, 1443 (Fed. Cir. 1998) (stating that the Marking Statute serves three purposes: (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”) (citations omitted).

³ 35 U.S.C. § 287(a) (2000).

⁴ *Loral Fairchild Corp. v. Victor Co. of Japan*, 906 F. Supp. 813, 816 (E.D.N.Y. 1995) (citing *Bandag Inc. v. Gerrard Tire Co.*, 704 F.2d 1578, 1581 (Fed. Cir.1983)).

⁵ Throughout this article, the phrase “software patent” will be used generically to refer to any patented innovations that can be embodied in software. The United States Patent and Trademark Office refer to software patents as “patents on computer-related inventions.” See, e.g., *MANUAL OF PATENT EXAMINING PROCEDURE* (the “MPEP”) § 2106 (Rev. 2, May 2004) (explaining that some patents that can be effectuated in software do not necessarily mention software on the face of the patent application or issued patent).

⁶ Throughout this article, the phrase “process claims” will be used to mean both process claims and method claims.

II. THE MARKING STATUTE

[4] To date, neither the Federal Circuit nor any federal district court has ruled whether the Marking Statute creates a bar to recovery of damages in an instance where a software program, embodying one or more software patents, is unmarked.⁷

[5] The Marking Statute imposes limitations on the recovery of damages in a successful patent infringement action.⁸ In order for patentees to be in a position to collect full statutorily recoverable damages, the requirements of the Marking Statute must be met.⁹ Failure to mark a patented article as mandated in the statute can lead to a dramatic reduction of recoverable damages by a patentee. The Federal Circuit has held that the Marking Requirement is a statutory duty requiring a patent holder to give “in rem notice to the world,” and that without such notice (i.e., without proper marking) a plaintiff may not recover its full damages.¹⁰

A. BASICS OF THE MARKETING STATUTE

[6] The basic requirement of the Marking Statute is that patentees must “mark” their “patented article[s]” offered for sale within the United States.¹¹ To comply with the Marking Requirement, it is necessary to give notice of an article’s patented status either by including the “word ‘patent’ or the abbreviation ‘pat.’, together with the number of the patent” on the article itself; or, where not feasible, such notice can be contained on the article’s packaging.¹²

⁷ *E.g.*, Stephen Lindholm, Marking the Software Patent Beast 30 (Jan. 1, 2005) (unpublished paper, at <http://ssrn.com/abstract=642123>) (indicating that the Federal Circuit has not decided whether software patents need be marked).

⁸ 35 U.S.C. § 289 (2000) (stating that the patentee can seek, in addition to damages, an infringer’s profits); *Nike*, 138 F.3d at 1446 (holding that in addition to limiting damages, a failure to mark also limits recovery of such profits).

⁹ § 289.

¹⁰ *Am. Med. Sys., Inc. v. Med. Eng’g Corp.*, 6 F.3d 1523, 1537 (Fed. Cir. 1993) (citing *Hazeltine Corp. v. Radio Corp. of Am.*, 20 F. Supp. 668, 671 (S.D.N.Y. 1937)).

¹¹ 35 U.S.C. § 287(a) (2000).

¹² *Id.*

[7] The Marking Statute prevents recovery of damages unless the infringer was on notice, either constructive or actual, that the infringed article was protected by a valid United States patent.¹³ If the infringed patented article was marked in accordance with the Marking Statute, then, the infringer is constructively deemed to be on notice of the article's patented status.¹⁴ Consequently, compliance with the Marking Statute acts, irrefutably, to "place the world on notice" that an article is protected by a patent.¹⁵ In the absence of appropriate marking, a patentee's recovery is limited to those damages that occurred after the patentee actually places the infringer on notice of the alleged infringement.¹⁶

B. THE FAILURE TO MARK

[8] The failure of a party to mark their product in accordance with the Marking Statute results in an absolute inability to recover for infringement damages by another party except for those damages that occurred after the infringing party was placed on notice by the patentee of the infringement.¹⁷ A failure to comply with the Marking Statute places the burden on the patentee to prove that the infringer was made aware of the potential infringement *by the patentee*.¹⁸ In the absence of marking, the requirement of actual notice ensures two things: (1) that infringers are

¹³ *Gart v. Logitech, Inc.*, 254 F.3d 1334, 1345 (Fed. Cir. 2001) (quoting *SRI Int'l, Inc. v. Advanced Tech. Labs, Inc.*, 127 F.3d 1462, 1470 (Fed. Cir. 1997)).

¹⁴ *Am. Med. Sys.*, 6 F.3d at 1537 n.18.

¹⁵ *Id.* at 1538 (quoting *Laitram Corp. v. Hewlett-Packard Co.*, 806 F. Supp. 1294, 1296 (E.D. La. 1992)).

¹⁶ *Amsted Indus. v. Buckeye Steel Castings Co.*, 24 F.3d 178, 187 (Fed. Cir. 1994) (holding that, in the absence of marking, "notice must be of the infringement, not merely notice of the patent's existence or ownership") (internal quotations omitted); *Am. Med. Sys.*, 6 F.3d at 1536 (stating that liability for infringement of a product subject to the Marking Requirement of § 287 occurs either from such time as the product was marked as required by the statute or upon actual notice to the infringer of infringement by the patentee). In many cases, such actual notice does not occur until a patent infringement suit is filed.

¹⁷ *Am. Med. Sys.*, 6 F.3d at 1535.

¹⁸ 35 U.S.C. § 287(a) (2000) ("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. . ."); *see also Am. Med. Sys.*, 6 F.3d at 1537 n.18 ("The notice of the infringement therefore must come from the patentee, not the infringer." (quoting *Devices for Medicine, Inc. v. Boehl*, 822 F.2d 1062, 1066 (Fed. Cir.1987))).

aware that their activity is infringing; and (2) that liability for such infringement fails to accrue until such time as the patentee makes any infringers aware of the infringement.¹⁹

[9] The Federal Circuit has held that the duty to mark is proactive to the patent holder and is irrespective of the knowledge of an alleged infringer.²⁰ Consequently, whether an infringer knows that an article is protected by a patent is immaterial; what is material is the moment in time that the infringer was put on notice by the patentee that the infringer's product infringes.²¹ Thus, it is not enough that an infringer knows that a product is covered by a valid patent; rather, the patent holder must put the alleged infringer on notice of the infringement, either by complying with the Marking Requirement or by informing the infringer of the potential infringement.²² Additionally, the Federal Circuit has held that in order for marking to satisfy the Marking Statute, "it must be substantially consistent and continuous" such that a party who only occasionally and intermittently complied with the Marking Requirement would be in no better shape than would a patent holder who had not complied at all.²³

[10] The burden of proving compliance with the Marking Statute rests with the patentee.²⁴ In the situation where a patentee has licensed the right to produce the patented product to third parties, the obligation to ensure compliance with the Marking Statute remains with the patentee.²⁵ However, in such a case, a patentee's compliance will be judged on whether the patentee took reasonable steps to ensure compliance and not necessarily whether actual compliance was achieved.²⁶ Thus, in the case where a third party fails to mark, the Marking Statute will not prove a bar to recovery if a patentee demonstrates that reasonable steps were taken to ensure compliance with the Marking Statute regardless of whether a third party licensee fully complied with the statute.

¹⁹ *SRI Int'l v. Advanced Tech. Lab.*, 127 F.3d 1462, 1470 (Fed. Cir. 1997).

²⁰ *Gart v. Logitech, Inc.*, 254 F.3d 1344, 1345 (Fed. Cir. 2001) (citing *Amsted Indus.*, 24 F.3d at 187).

²¹ *Am. Med. Sys.*, 6 F.3d at 1537.

²² *Id.*

²³ *Id.*

²⁴ *Maxwell v. J. Baker, Inc.*, 86 F.3d 1098, 1111 (Fed. Cir. 1996).

²⁵ *Id.*

²⁶ *Id.* at 1111-12.

C. LACK OF A TANGIBLE ARTICLE

[11] However, in cases where there is no product to mark, the Marking Statute provides no bar to recovery of damages.²⁷ Thus, the Marking Requirement is only necessary “in connection with some fabricated article.”²⁸

[12] When the allegedly infringing product is made using a patented process, it is well established that the Marking Requirement does not affect the calculus of damages.²⁹ With respect to such patents, the Federal Circuit has informed that “[t]he reason that the [M]arking [S]tatute does not apply to [process] claims is that, ordinarily, where the patent claims are directed to only a method or process[,] there is nothing to mark.”³⁰ However, where the patent consists of both apparatus and process claims, the Marking Requirement is operable, at least to the extent that a tangible product exists.³¹

[13] As a result, there are at least two potential arguments to justify excluding software covered by one or more patents from the Marking Requirement: (1) that since software is not a tangible product, there is no product required to be marked; and (2) that since the Federal Circuit has indicated that products produced by pure process claims need not be marked, software covered by process claims need not adhere to the requirements of the Marking Statute. As discussed below, the analysis of these arguments is not dispositive, and given the lack of judicial pronouncements on this issue, it remains an unanswered question as to

²⁷ *Texas Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1220 (Fed. Cir. 2002) (citing *Wine Ry. Appliance Co. v. Enter. Ry. Equip. Co.*, 297 U.S. 387, 393 (1936)).

²⁸ *Id.* (quoting *Wine Ry. Appliance*, 297 U.S. at 395).

²⁹ *State Contracting & Eng'g Corp. v. Condotte Am., Inc.*, 346 F.3d 1057, 1073 (Fed. Cir. 2003) (quoting *Bandag, Inc. v. Gerrard Tire Co., Inc.*, 704 F.2d 1578, 1581 (Fed. Cir. 1983)).

³⁰ *Am. Med. Sys., Inc. v. Med. Eng'g Corp.*, 6 F.3d 1523, 1538 (Fed. Cir. 1993).

³¹ *State Contracting*, 346 F.3d 1057 at 1074 (quoting *Am. Med. Sys.*, 6 F.3d at 1538).

whether a software program that embodies one or more software patents needs to adhere to the requirements of the Marking Statute.

III. SOFTWARE PATENTS

A. EARLY HISTORY OF SOFTWARE PATENTS

[14] The history of software patents in the United States is a rocky, convoluted one. It has only been in the last approximately twenty-five years that software innovation has enjoyed patent protection and only since 1996 has the United States Patent and Trademark Office (“PTO”) actually had guidelines for dealing with software patents.³² As recently as 1966, a report of the President’s Commission on the Patent System proposed that computer programs be denied patent protection.³³

[15] Generally speaking, in order for something to be eligible for patent protection, it must be useful (as required under 35 U.S.C. § 101); it must be novel (as detailed under 35 U.S.C. § 102); it must be “nonobvious” (as detailed under 35 U.S.C. § 103); and it must fit both a written description and enabling requirement (as detailed under 35 U.S.C. § 112).³⁴ However, most of the debate and controversy surrounding software patents in the United States has centered not on the question of whether a particular software innovation meets the statutory requirements of patentability, but rather on the threshold question of whether software innovations are the kind of which are protectable *at all* under federal patent law.³⁵ Under 35 U.S.C. § 101, only a “process, machine, manufacture, or composition of matter” can receive a patent. It was under a holding that software innovations are not patentable subject matter (i.e., that software innovations are neither a process, machine, manufacture, nor

³² See Examination Guidelines for Computer-Related Inventions, 61 Fed. Reg. 7478 (Feb. 28, 1996).

³³ *Diamond v. Diehr*, 450 U.S. 175, 197 (1981) (Stevens, J., dissenting).

³⁴ 35 U.S.C. §§ 101-103, 112 (2000 & Supp. 2002).

³⁵ See, e.g., Thomas P. Burke, *Software Patent Protection: Debugging the Current System*, 69 NOTRE DAME L. REV. 1115, 1142 (1994) (citing 35 U.S.C. §101 foundation patent requirements but questioning how, with thousands of software patents already issued, “the question [of] whether software per se can be patented is still hotly debated.”).

composition of matter) that the Supreme Court initially declared software innovations unpatentable.

B. A PREMATURE END TO SOFTWARE PATENTS

[16] In 1972, the Supreme Court set down precedent effectively denying a mathematical algorithm protection under patent law.³⁶ In *Gottschalk v. Benson*, the Court ruled that a patent application for an algorithm was properly denied by the PTO as not protectable subject matter.³⁷

[17] As stated above, under U.S. patent law, any “process, machine, manufacture, or composition of matter” is appropriate subject matter for patent protection.³⁸ In *Benson*, the Court ruled that the software innovation in question was not protectable under patent law owing to a lack of patentable subject matter.³⁹ In declining to characterize an algorithm as protectable subject matter, the Court relied on two fundamental precepts: (1) that an abstract idea, a law of nature, or a natural phenomenon is not patentable subject matter and (2) that a patent must have a definitive scope.⁴⁰

[18] Courts have long held that patents on abstract ideas, laws of nature, and natural phenomena are not patentable subject matter.⁴¹ In essence, the courts have made a distinction between mere discovery of that which

³⁶ *Gottschalk v. Benson*, 409 U.S. 63 (1972).

³⁷ *Id.* at 71-72. The algorithm in question dealt with converting binary-coded decimal (“BCD”) notation into pure binary notation. In BCD notation, each digit of a number is converted to its constituent notation in binary. Thus the number 152 in BCD notation is represented as 0001 (for 1), 0101 (for 5), and 0010 (for 2). In pure binary notation, the number 152 is represented as 010011000. The ramifications of this algorithm amounted to a substantial increase in the speed at which computerized switches could route telephone calls. For a more detailed explanation, see *Benson*, 409 U.S. at 65-67.

³⁸ 35 U.S.C. § 101 (2000).

³⁹ *Benson*, 409 U.S. at 71-72.

⁴⁰ *Id.* at 67-68.

⁴¹ See, e.g., *Funk Bros. Seed Co. v. Kalo Co.*, 333 U.S. 127, 131-132 (1948) (holding that a discovery relating to the qualities of certain strains of naturally occurring bacteria is not patentable); *Rubber-Tip Pencil Co. v. Howard*, 87 U.S. 498, 507 (1874) (“An idea of itself is not patentable, but a new device by which it may be made practically useful is.”).

already exists in nature and true invention.⁴² Consequently, Einstein would not have been able to patent his famous discovery that $E=MC^2$,⁴³ but Edison was able to patent his invention of the carbon filament light bulb.⁴⁴

[19] Courts have also held that claims lacking definitive scope are unpatentable.⁴⁵ According to the Court in *Benson*, a patent on the algorithm for converting BCD notation to pure binary notation could not be allowed as it would effectively grant the patentee the rights to all uses of such conversions, even if such uses have not yet been invented.⁴⁶

[20] In *Benson*, the Court went out of its way to explicitly state that it did not hold software, in and of itself, to be non-patentable subject matter;⁴⁷ nevertheless, its ruling was largely viewed as deterring patents on software.⁴⁸

C. SOFTWARE PATENT REVIVAL

[21] *Benson*'s chilling effect on software patents was ended in the early 1980's largely due to the influence of two Supreme Court cases. In *Diamond v. Chakrabarty*, the Supreme Court overruled a PTO ruling and found that man-made micro-organisms were patentable such matter.⁴⁹ In so concluding, the Court found that it was Congress's intent in passing the 1952 Patent Act, to provide patent protection for "anything under the sun

⁴² *E.g.*, *Diamond v. Diehr*, 450 U.S. 175, 185 (1981).

⁴³ *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980).

⁴⁴ U.S. Patent No. 223,898 (filed Jan 27, 1880).

⁴⁵ *See, e.g.*, *O'Reilly v. Morse*, 56 U.S. 62, 113 (1854) (holding that a particular claim in Samuel Morse's patent on the telegraph was void as it amounted to a claim on any method that used electric signals as a means of communication, even those which had not yet been invented).

⁴⁶ *Benson*, 409 U.S. at 71-72.

⁴⁷ *Id.*

⁴⁸ Burke, *supra* note 35, at 1144 ("Justice Douglas' opinion in *Gottschalk v. Benson* virtually foreclosed the patentability of computer programs.").

⁴⁹ *Chakrabarty*, 447 U.S. at 310; *see also* Michael A. Carrier, *Cabining Intellectual Property Through a Property Paradigm*, 54 DUKE L.J. 1, n.44 (2004) (stating that this case is widely heralded as jump-starting the biotechnology industry within the United States).

that is made by man.”⁵⁰ While noting that “laws of nature, natural phenomena, and abstract ideas” fall outside of this broad ambit, the Court made clear that what constitutes patentable subject matter is to be defined broadly.⁵¹

[22] The following year, the Court decided *Diehr*.⁵² In this case, the Court was required to determine whether a new method for curing synthetic rubber was patentable.⁵³ Part of the claimed invention involved the use of a computer to repeatedly apply a well-known equation in order to dynamically calculate the proper heating time to cure a quantity of synthetic rubber.⁵⁴ Sensors inside the molds would periodically report the temperature of the rubber, thus providing the necessary inputs for the equation.⁵⁵ The PTO rejected the patent on the grounds that, as a computer program, the invention was not directed towards an invention of patentable subject matter.⁵⁶ However, the Supreme Court overruled the PTO, and declared the invention patentable and held that software, at least under certain circumstances, was a patentable subject matter.⁵⁷

[23] It is notable that the Supreme Court was consistent in its pronouncements regarding the patentability of software innovations (namely that an algorithm is patentable subject matter so long as the algorithm only uses mathematical relationships to achieve its ends as opposed to trying to patent the mathematical relationships themselves). Yet, the result of these two cases on the allowability of software patents was profound. Much as the *Gottschalk* decision had a chilling effecting on software patents, with *Diehr*, software patents began to enjoy a renaissance. Today, there are over 100,000 issued software patents.⁵⁸

D. DEFINING ALGORITHM

⁵⁰ *Chakrabarty*, 447 U.S. at 309 (quoting S. REP. NO. 82-1979 at 5 (1952), as reprinted in 1952 U.S.C.A.N. 2394, 2399).

⁵¹ *Id.*

⁵² *Diamond v. Diehr*, 450 U.S. 175 (1981).

⁵³ *Diehr*, 450 U.S. at 177-78.

⁵⁴ *Id.* at 178-79.

⁵⁵ *Id.*

⁵⁶ *Id.* at 180.

⁵⁷ *Id.* at 193.

⁵⁸ Lindholm, *supra* note 7, at 3.

[24] The difference between *Benson* and *Diehr* is the Court's understanding of the definition of an algorithm. In *Benson*, the Court, taking a narrow definition, recited the following explanation of an algorithm:

A procedure for solving a given type of mathematical problem is known as an "algorithm." The procedures set forth in the present claim are of that kind; that is to say, they are a generalized formulation for programs to solve mathematical problems of converting one form of numerical representation to another. From the generic formulation, programs may be developed as specific applications.⁵⁹

Thus, under the *Benson* definition, an algorithm will not be patentable subject matter if it amounts to nothing more than an attempt to claim "math" as mathematics falls outside the scope of patentable subject matter.⁶⁰

[25] The *Diehr* Court, however, allowed a software patent to issue. The Court distinguished itself from its prior decisions by making clear that where a mathematical formula is used as part of a process, even where the formula is well-known and, so long as the process itself is otherwise patentable, a patent may issue.⁶¹ The Court defined a process as:

'[A] mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a

⁵⁹ *Benson*, 409 U.S. at 65.

⁶⁰ *Diehr*, 450 U.S. at 186 (explaining that the decision in *Benson* interprets an algorithm, like a mathematical formula, to be equivalent to a law of nature and therefore not of patentable subject matter).

⁶¹ *Id.* at 187 ("It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.").

different state or thing. If new and useful, it is just as patentable as is a piece of machinery. In the language of patent law, it is an art. The machinery pointed out as suitable to perform the process may or may not be new or patentable; whilst the process itself may be altogether new, and produce an entirely new result. The process requires that certain things should be done with certain substances, and in a certain order; but the tools to be used in doing this may be of secondary consequence.⁶²

[26] Thus, in *Diehr*, the Court abandoned the notion that an algorithm is nothing but a representation of underlying unpatentable mathematics, and adopted a more expansive concept which allowed for the patenting of algorithms that produced a tangible result.

E. FREEMAN-WALTER-ABELE TEST

[27] Concurrent with the pronouncements of the Supreme Court in *Chakrabarty* and *Diehr*, the lower courts developed a test to determine whether an algorithm was patentable or whether it was merely a nonpatentable mathematical process. This test, generally referred to as the Freeman-Walter-Abele test,⁶³ has two parts. First, an examining entity (such as the PTO or a court) should determine whether a mathematical algorithm is recited directly or indirectly by a claim.⁶⁴ If recited directly, the second portion of the test is to determine whether the claim *is directed to* the algorithm (in which case it is not patentable subject matter) or if rather the claim merely *uses* the algorithm as part of its claimed process.⁶⁵

⁶² *Id.* at 182-83 (quoting *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876)).

⁶³ The etymology of this semi-eponymous test can be traced over the course of three cases: *In re Freeman*, 573 F.2d 1237 (C.C.P.A. 1978); *In re Walter*, 618 F.2d 758 (C.C.P.A. 1980); and *In re Abele*, 684 F.2d 902 (C.C.P.A. 1982).

⁶⁴ *Arrythmia Research Tech., Inc. v. Corazonix Corp.*, 958 F.2d 1053, 1058 (Fed. Cir. 1992).

⁶⁵ *Id.*

As the court explained in *Arrythmia Research*, “the emphasis is ‘on *what* the claimed method steps do rather than *how* the steps are performed.’”⁶⁶

[28] However, it is clear that this test is no longer applicable to the patentability of software patents. In the original guidelines promulgated by the PTO regarding the examination of computer-related inventions, patent examiners were informed that “[t]he Freeman-Walter-Abele test may additionally be relied upon in analyzing claims directed solely to a process for solving a mathematical algorithm.”⁶⁷ Subsequent rulings by the Federal Circuit have informed that the rulings of *Diehr* and *Chakrabarty* have obviated the test with respect to its ability to determine patentability.⁶⁸ Current PTO examiners are now informed that they should “no longer rely on the Freeman-Walter-Abele test to determine whether a claimed invention is directed to statutory subject matter.”⁶⁹ Instead, examiners are directed to ensure that the “claimed invention as a whole must accomplish a practical application.”⁷⁰

IV. MUST SOFTWARE BE MARKED?

A. CURRENT STATUS OF SOFTWARE PATENTS

[29] As indicated above, the notion of receiving a software patent has not always been a firmly established tenet of the United States patent system. In fact, prior to the Supreme Court’s decision in *Diehr*, most patents on software innovations were disguised in patent applications as being hardware innovations.⁷¹

[30] The predominate early debate over patenting software innovations turned on the question of whether software was of patentable subject matter.⁷² Early cases, in part based on the rudimentary functionality of

⁶⁶ *Id.* (quoting *Ex Parte Logan*, 20 U.S.P.Q.2d 1465, 1468 (PTO Bd. Pat. App. & Interf. 1991)) (emphases in original).

⁶⁷ Examination Guidelines, 61 Fed. Reg. at 7479 (Feb. 28, 1996).

⁶⁸ *State St. Bank & Trust Co. v. Signature Financial Group*, 149 F.3d 1368, 1374 (Fed. Cir. 1998).

⁶⁹ MPEP § 2106.

⁷⁰ *Id.*

⁷¹ Simson L. Garfinkel, *Patently Absurd*, 2.07 WIRED MAGAZINE., July 1994, available at http://www.wired.com/wired/archive/2.07/patents_pr.html.

⁷² See *supra* PART III.

software, held that software did not *do* anything other than perform mathematics, albeit very quickly and efficiently.⁷³ Thus, owing to a proscription on the patenting of mathematical formulas, software was not deemed patentable subject matter.⁷⁴

[31] As the judicial interpretation of this issue began to evolve over the next decade, slowly, the notion that software was merely unpatentable mathematics and laws of nature changed.⁷⁵ In *Diehr*, the Court allowed a patent on an invention, whose only innovative step was the use of a particular software process.⁷⁶ In so doing, the *Diehr* court re-invigorated the notion that innovations in the field of computer software were patentable subject matter.⁷⁷

[32] Over the course of the intervening years, the courts and the PTO increasingly warmed to the notion of patents on software innovations, and in 1996, the PTO promulgated guidelines for dealing with patents on such inventions (“PTO Guidelines”).⁷⁸ Under the PTO Guidelines any claimed invention, computer-related or otherwise, must meet the requirements of 35 U.S.C. § 101, including the requirements of utility,⁷⁹ and the requirements of novelty⁸⁰ and obviousness⁸¹ as well as meeting certain enabling and written description requirements.⁸² Whereas, for most claimed inventions, the utility requirement poses a low barrier to patentability,⁸³ the PTO Guidelines require an examiner to pay special

⁷³ See *supra* notes 35-47 and accompanying text.

⁷⁴ *Id.*

⁷⁵ See *supra* notes 48-57 and accompanying text.

⁷⁶ *Diamond v. Diehr*, 450 U.S. 175 (1981).

⁷⁷ See *supra* notes 51-57 and accompanying text.

⁷⁸ See Examination Guidelines for Computer-Related Inventions, 61 Fed. Reg. 7478 (Feb. 28, 1996), now embodied in § 2106 of the MPEP.

⁷⁹ 35 U.S.C. § 101 (2000).

⁸⁰ 35 U.S.C. § 102 (2000 & Supp. 2002).

⁸¹ 35 U.S.C. § 103 (2000).

⁸² 35 U.S.C. § 112 (2000).

⁸³ Patent law’s requirement of utility has always been a relatively low bar to overcome. While the boundaries of this concept are hard to define, the patent office generally treats utility in a nominal fashion. In general, utility must be something more substantive than, for example, “use of a complex invention as landfill.” See MPEP § 2107(II)(B)(1)(i). Most inventions will have some usefulness, and will find that the utility requirement poses little barrier to patentability.

attention to this requirement in the case of a computer-related invention.⁸⁴ While the confines of the utility requirement for computer-related inventions have yet to be fully defined by the courts, the PTO Guidelines make clear that utility of a computer-related invention must be something more than just data or information stored on a computer-readable medium. For example, a DVD movie is not patentable simply because it can be accessed by a computer and is therefore not patentable as “nonfunctional descriptive information.” Other forms of “nonfunctional descriptive material” include music stored on a compact disc, books stored in a digital form, and any “compilation or mere arrangement of data.”⁸⁵

[33] The PTO instructs its examiners to “determine what the programmed computer does when it performs the process dictated by the software.”⁸⁶ The MPEP notes, quoting *Arrhythmia Research Technology, Inc. v. Corazonix Corp.*,⁸⁷ that in making this determination, the examiner needs to look beyond the base distinction of how the computer performs its programmed function (i.e., manipulating binary data through mathematical operations) to what the computer is doing.⁸⁸ Thus, the pre-*Diehr* conception that software merely performs mathematical algorithms and is, therefore, not patentable, has been expunged. Examiners are required to look not at how the computer interprets the algorithm but at the results of the process.

[34] Bound to this determination is the question of whether the invention is of patentable subject matter. While mindful of the Supreme Court’s determination in *Chakrabarty* that patentable subject matter should be treated with a fairly expansive scope, examiners are reminded that there are limits to what can be patented, and only that which is a machine, manufacture, composition of matter, or a process is patentable.⁸⁹

[35] Software fits this statutory definition in one of two ways: either (1) as a pure process patent; or (2) as a mixed process and apparatus patent.

⁸⁴ MPEP § 2106(II)(A).

⁸⁵ MPEP § 2106(IV)(B)(1).

⁸⁶ MPEP § 2106 (II)(B).

⁸⁷ *Arrhythmia Research Tech., Inc. v. Corazonix Corp.*, 958 F.2d 1053, 1057 (Fed. Cir. 1992).

⁸⁸ MPEP § 2106 (II)(B).

⁸⁹ MPEP § 2106(IV)(A) (citing 35 U.S.C. § 101 (2000)).

In the latter case, the PTO will treat a general-function computer that is programmed with the software on which a patent is sought as the apparatus.⁹⁰ Thus, where the patent contains both process and apparatus claims, the invention is a general-function computer (i.e., the apparatus) that is running certain software (i.e., processes that are contained in the software). A computer program can be claimed as a pure process patent only in the instance where the “computer is executing the computer program’s instructions.”⁹¹

B. IS SOFTWARE A PATENTED ARTICLE

[36] The judiciary has not specified whether a program that embodies one or more software patents needs to be marked in accordance with the Marking Statute.⁹² The answer to this question depends on whether the judiciary will interpret software to be a “patented invention” under the Marking Statute.⁹³

[37] To date, the Federal Circuit has not addressed the meaning of the term “patented article” under the Marking Statute.⁹⁴ However, as discussed below, several Federal Circuit (and federal district) court pronouncements relating to software patents indicate that were courts to consider whether programs that embody software patents need to be marked in accordance with the Marking Statute, they would likely hold in the affirmative.

C. NO DIFFERENCE BETWEEN SOFTWARE AND HARDWARE INNOVATIONS

[38] In a recent case, *Eolas Techs., Inc. v. Microsoft Corp.*, the Federal Circuit, upholding in part the lower court’s finding of infringement, determined affirmatively that software should be considered a “component

⁹⁰ A variant of this mixed apparatus and process exists where the computer program is claimed in conjunction with a physical structure such as a disk. See *AT&T Corp. v. Excel Commc’n, Inc.*, 172 F.3d 1352 (Fed. Cir. 1999); *In re Alappat*, 33 F.3d 1526 (Fed. Cir. 1994).

⁹¹ MPEP § 2106(IV)(B)(1)(a).

⁹² 35 U.S.C. § 287(a) (2000).

⁹³ 35 U.S.C. § 287(a).

⁹⁴ § 287(a).

of a patented invention” as required under 35 U.S.C. § 271.⁹⁵ In this case, the court had to grapple with the issue of whether copies of Microsoft’s Internet Explorer software that were physically created abroad, but used a master CD-ROM with the source code created in the United States, could be used in the calculus of infringement damages. Ultimately, the court found that source code and master CD-ROM software constituted a component of a patented invention and could be used in calculating damages.⁹⁶ In so ruling, the Federal Circuit concurred with the lower court on this issue, explaining that with respect to software innovations there is no practical difference between a software-based invention and a hardware-based invention.⁹⁷ Although the specific legal question addressed by the court in *Eolas* is removed from the issue presented in this article, it is clear the Federal Circuit is comfortable treating software programs as apparatus-like under the patent laws. Since there is little doubt that computer hardware is a patented article under the Marking Statute, it stands to reason that under the *Eolas* decision, courts should treat software in the same manner.⁹⁸

[39] Similarly, the Federal Circuit, in *Minton v. National Ass’n of Securities Dealers*,⁹⁹ held that the leasing of a program to a third party more than one year prior to the filing of an application on processes embodied within the program was contrary to the On-Sale Bar of the Patent Code.¹⁰⁰ Here the court noted that there is a difference for the purposes of applying the On-Sale Bar to a tangible product and to a process,¹⁰¹ but nevertheless agreed with the lower court that the leasing of the computer program constituted a violation of the On-Sale Bar (thus holding the difference between a tangible product and a computer process inapposite in that context).¹⁰² By analogy to the Marking Requirement, it

⁹⁵ 35 U.S.C. § 271(f)(1) (2000 & Supp. 2002); *Eolas Techs., Inc. v. Microsoft Corp.*, 399 F.3d 1325, 1338 (Fed. Cir. 2005).

⁹⁶ *Id.* at 1338-1341.

⁹⁷ *Id.* at 1339 (“Hardware and software . . . are practically interchangeable in the field of computer technology.” (quoting *Eolas Techs., Inc. v. Microsoft Corp.*, 274 F. Supp. 2d 972, 974 (N.D. Ill. 2003))).

⁹⁸ *See, e.g.*, *Lairam Corp. v. Hewlett-Packard Co.*, 806 F. Supp. 1294 (E.D. La. 1992).

⁹⁹ *Minton v. Nat’l Ass’n. of Sec. Dealers*, 336 F.3d 1373, 1378 (Fed. Cir. 2003).

¹⁰⁰ 35 U.S.C. § 102(b) (2000 & Supp. 2002).

¹⁰¹ *Minton*, 336 F.3d at 1378 (informing that there is a difference between the sale of a “tangible item” and “an invention that describes a series of steps in an invention”).

¹⁰² *Id.*

seems that just as the Federal Circuit is willing to liken the lease of a program to being more akin to the sale of a tangible item than to the sale of a process; it would be willing to liken a program to a “patented article” under the Marking Statute.

D. ANALOGY TO THE FALSE MARKETING STATUTE

[40] In *Clontech Lab., Inc. v. Invitrogen Corp.*, the Federal Circuit dealt with issues pertaining to 35 U.S.C. § 292 (the “False Marking Statute”).¹⁰³ The False Marking Statute imposes penalties on those who falsely indicate that their product is covered by a patent or who produce and mark a product as patented without the permission of the patentee.¹⁰⁴ In *Clontech*, the court explained that “Congress intended the public to rely on marking as a ‘ready means of discerning the status of intellectual property embodied in an article of manufacture or design.’”¹⁰⁵ The purpose of the False Marking Statute is to punish those (i) who try to dupe the public either into believing that their product is covered by a patent when it is not; or (ii) who try to make the public believe that their “patented” product is somehow sanctioned by the patentee.¹⁰⁶ In this sense, the underlying rationale of the False Marking Statute as to the first of the indicated purposes is not that different from that of the Marking Statute whose purpose has been said to be “aiding the public to identify whether an article is patented.”¹⁰⁷

[41] Moreover, the court in *Clontech* implied that an unpatented product embodying or made using a patented process can be falsely marked where such a product is marked as being patented and produced without the permission of the patentee.¹⁰⁸ By the same token, in the case of an article made with or embodying a patented process, it ought to be marked in

¹⁰³ *Clontech Labs., Inc. v. Invitrogen Corp.*, 406 F.3d 1347 (Fed. Cir. 2005).

¹⁰⁴ 35 U.S.C. § 292 (2000) (creating a fine for up to \$500 for each offense).

¹⁰⁵ *Clontech*, 406 F.3d at 1356 (quoting *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 162 (1989)).

¹⁰⁶ 35 U.S.C. § 292(a) (2000).

¹⁰⁷ *Nike, Inc. v. Walmart Stores, Inc.*, 138 F.3d 1437, 1443 (Fed. Cir. 1998).

¹⁰⁸ *Clontech*, 406 F.3d at 1357 (“This is not a case where the cDNA library products were marked with language stating that the products were made by the ‘methods’ of any patents. Rather, the record shows that the marking language included the statement: ‘This product is the subject of U.S. Patent No. 5,668,005.’”).

accordance with the Marking Statute.¹⁰⁹ It stands to reason that if there can be liability under the False Marking Statute for falsely marking an unprotected product that embodies process claims, liability must equally exist for a failure to properly mark the same product.¹¹⁰ In other words, if one can be punished for falsely marking a tangible unpatented process under the False Marking Statute,¹¹¹ then liability ought to equally attach for not marking the same process pursuant to the Marking Statute¹¹² if the process is actually covered by a patent.

E. FEDERAL DISTRICT TEST FOR A “PATENTED ARTICLE”

[42] Several district court decisions have suggested a simple, axiomatic-test for determining whether a “patented article” needs to conform to the requirements of the Marking Statute. The test posits that a court should determine whether the product is such that if made by someone else other than the patentee or its licensee, it would create liability for infringement.¹¹³ Under such a test, software programs that embody one or more software patents will meet the definition of patented article and will thus require marking in accordance with the statute.¹¹⁴ This is true either where the software innovation is claimed as a series of process claims or the innovation is claimed as a mixture of process and apparatus claims.

[43] Even if this test proves inappropriate, it is clear that any software products that embody software patents that contain a mixture of both process and apparatus claims will be considered patented articles under the Marking Statute. And if the test does prove inappropriate, it still remains

¹⁰⁹ 35 U.S.C. § 287(a) (2000).

¹¹⁰ § 292.

¹¹¹ *Id.*

¹¹² § 287(a).

¹¹³ *Broadcom Corp. v. Agere Sys., Inc.*, No. 04-CIV-2416, 2004 U.S. Dist. LEXIS 18163, at *9-11 (E.D. Pa. Sept. 8, 2004) (refusing to dismiss on summary judgment a claim for damages owing to a failure to mark on the grounds that there existed factual uncertainty as to whether the products in question constituted patented articles); *Clancy Sys. Int’l, Inc. v. Symbol Techs., Inc.*, 953 F. Supp. 1170, 1173 (D. Colo. 1997) (“One test for determining whether a product is a ‘patented article’ under section 287(a) is to ask whether the product would infringe the patent if sold by an authorized party.” (quoting *Laitram Corp. v. Hewlett-Packard Co.*, 806 F. Supp. 1294, 1296 (E.D. La. 1992))).

¹¹⁴ *Id.* at *8, *11.

a question as to whether software products that embody only process claims could be considered “patented articles.”

F. PURE PROCESS EXCEPTION MIGHT APPLY TO SOFTWARE PROGRAMS

[44] The strongest argument that software programs are exempt from the Marking Requirement is the notion that software patents are more akin to process claims and that, under “settled” Federal Circuit holdings, such process claims are exempt from the requirement of the Marking Statute.

[45] In *Bandag, Inc. v. Gerrard Tire Co., Inc.*,¹¹⁵ the Federal Circuit noted that “the notice requirement of [the Marking Statute] does not apply where the patent is directed to a process or method.”¹¹⁶ In so holding, the court relied upon *Wine Railway Appliance Co. v. Enterprise Railway Equipment Co.*, a much earlier Supreme Court pronouncement.¹¹⁷

[46] However, the question presented in *Wine Railway* dealt with a different issue. In *Wine Railway*, Enterprise Railway Equipment Company (“Enterprise”) sued Wine Railway Appliance Co. (“Wine”) for patent infringement.¹¹⁸ The district court found that Wine had infringed a patent that had been assigned to Enterprise and was required to pay \$18,002.83.¹¹⁹ The appellate court partially overturned the lower court and reduced the amount of the award to \$12,512.06 representing the amount of damages that occurred after notice of infringement had been given.¹²⁰ Under the appellate court’s analysis, Enterprise was only entitled to the damages that occurred after Wine had been placed on notice of the infringement of the patent at issue in the dispute.¹²¹

[47] In this case, Enterprise never produced any product that had been covered by the patent at issue. Under the appellate court’s analysis this constituted a failure to mark, limiting damages to those that occurred after

¹¹⁵ *Bandag Inc. v. Gerrard Tire Co. Inc.*, 704 F.2d 1578 (Fed. Cir. 1983).

¹¹⁶ *Id.* at 1581.

¹¹⁷ *Id.*

¹¹⁸ *Ry. Equip. Co. v. Wine Ry. Appliance Co.*, 77 F.2d 159 (6th Cir. 1935).

¹¹⁹ *Wine Ry Appliance Co. v. Enter. Ry. Equip. Co.*, 297 U.S. 387, 392 (1936).

¹²⁰ *Id.*

¹²¹ *Id.*

the infringer had been placed on notice of the infringement by the patentee.¹²² The Supreme Court ruled that where a party holds a patent, but has never produced a product covered by the patent, the Marking Statute does not apply.¹²³ Dicta within the opinion noted, as part of the Court's overview of the cases applying the Marking Statute (as it existed at that time), that certain lower courts have held that the Marking Requirement "does not apply to a process patent, since the process is not susceptible of marking."¹²⁴

[48] *Bandag* involved the use by Gerrard Tire Co., Inc. ("Gerrard"), of a system for retreading used tires that was covered by a patent owned by Bandag, Inc. ("Bandag").¹²⁵ On appeal to the Federal Circuit, the court affirmed the holding of the lower district court with respect to Gerrard's arguments relating to the Marking Requirement. Gerrard argued it should not be held liable for damages relating its infringement prior to the point at which it was placed on notice by Bandag that it was infringing.¹²⁶ Additionally, Gerrard argued the Marking Statute applied to the patented Bandag process; therefore, Bandag's failure to mark products produced under the process (a process which it used and licensed to franchisees), barred Bandag from recovery of full infringement damages.¹²⁷ The Federal Circuit, concurring with the opinion of the lower court and relying on *Wine Railway*, stated it was "settled in the case law that the notice requirement of [the Marking Statute] does not apply where the patent is directed at a process or method."¹²⁸

[49] The same year that the Federal Circuit decided *Bandag*, it also decided *Hanson v. Alpine Valley Ski Area*.¹²⁹ Here, the Federal Circuit

¹²² In other words, the question presented in *Wine Railway* was whether a party that had never produced the product upon which it held a patent was restricted by the Marking Statute in an infringement action against a party that did produce the product covered by the patent. The lower courts had found that the failure to actually produce the product upon which it held the patent constituted a failure to mark under the Marking Statute. *Id.* at 391-98.

¹²³ *Id.* at 398.

¹²⁴ *Id.* at 391.

¹²⁵ *Bandag*, 704 F.2d at 1581.

¹²⁶ *Id.* at 1580-81.

¹²⁷ *Id.*

¹²⁸ *Id.* at 1581.

¹²⁹ *Hanson v. Alpine Valley Ski Area*, 718 F.2d 1075 (Fed. Cir. 1983).

made the strongest statement that a machine merely utilizing a patented process is not a “patented article” under the Marking Statute. In *Hanson*, the issue was over snow machines used by Alpine Valley Ski Area (“Alpine Valley”) that infringed Hanson’s patented method of snow-making.¹³⁰ Hanson had developed the method and had licensed it to a third-party, Snow Machines Incorporated (“SMI”), who produced machines that utilized Hanson’s method in order to make snow. Hedco, Inc. (“Hedco”) sold machines to Alpine Valley utilizing the same method;¹³¹ however, Hedco did so without a proper license.¹³²

[50] On appeal from a lower court verdict ordering Alpine Valley to pay damages to Hanson for infringement, Alpine Valley argued that, pursuant to the Marking Statute, damages should be limited to those which occurred after Alpine Valley had been placed on notice of the infringement as the machines produced by SMI were not properly marked.¹³³ Noting that certain process claims of the Hanson patent had been found to be infringed by Alpine Valley’s use of the Hedco snow-making machines, the Federal Circuit concluded, keeping with the court’s recent pronouncement in *Bandag*, that any restriction on infringement damages imposed by the Marking Statute does not apply where the claims at issue are process claims.¹³⁴ Thus, the court’s holding was highly supportive of the notion that the Marking Statute does not apply to machines that embody process claims, as opposed to being separately patented themselves as apparatus claims. By analogy to the snow-machines in *Hanson*, it is arguable that software programs embodying patented processes, even where the same patent also contains claims directed to an apparatus that uses the processes, are not restricted by the Marking Statute.

[51] However, in *American Medical Systems*, the Federal Circuit pulled back from this simplistic standard that under no circumstances does the

¹³⁰ *Id.* at 1076.

¹³¹ *Id.*

¹³² *Id.* at 1076-77.

¹³³ *Id.* at 1082. It appears that this issue was raised for the first time on appeal by Alpine Valley. Additionally, it is unclear from the opinion as to whether Alpine asserted that the SMI machines were not properly marked or whether it asserted that Hanson failed to prove at trial that the machines were properly marked.

¹³⁴ *Id.* at 1083.

Marking Statute apply to claims directed at processes.¹³⁵ Instead, the Federal Circuit held that:

The purpose behind the [M]arking [S]tatute is to encourage the patentee to give notice to the public of the patent. The reason that the [M]arking [S]tatute does not apply to method claims is that, *ordinarily*, where the patent claims are directed to only a method or process *there is nothing to mark*. 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).¹³⁶

[52] Here, the court defines a different test for a patented article and, consequently, whether the Marking Statute applies. The test is not whether the claims deal with process claims, as indicated by the *Bandag* opinion, but rather, whether there exists a tangible article to mark.¹³⁷

G. POLICY CONSIDERATIONS

[53] Until such time as the Federal Circuit rules more specifically on this issue, it is unclear whether programs sold embodying software patents need to be marked in accordance with the Marking Statute. What is clear, however, is that the policy arguments in favor of adopting an approach that includes defining patented software as a “patented article” under the Marking Statute are strong.

[54] The policies underlying the Marking Statute are best served by requiring patentees to mark software programs that embody patented

¹³⁵ *Am. Med. Sys., Inc. v. Med. Eng’g Corp.*, 6 F.3d 1523, 1538 (Fed. Cir. 1993).

¹³⁶ *Id.* at 1538-39 (emphasis added).

¹³⁷ *Id.* at 1539.

processes.¹³⁸ A contrary view would permit patentees to circumvent the marking provisions by claiming only the use of processes, which is detrimental to the public interests that underlie the Marking Statute.¹³⁹ This concern is particularly relevant in the case of computer software because:

[S]oftware can also be patented as a method. Under the present law, which exempts pure method patents [namely, patents that contain only method claims] from the marking requirements of section 287(a) entirely, the patent owner who sells software protected by a pure method patent would be under no obligation to mark the disk as patented. If the disk is not labeled as patented, persons who obtain copies of the disk may erroneously believe that the “invention” it contains is free for all the world to make, use, and sell. It only makes sense to require that the disk or magnetic tape on which the software resides be marked so as to put the world on notice that unauthorized copying and use of the software constitutes not only copyright infringement but patent infringement as well. This is equally true whether the software is protected by apparatus claims, method claims, or both. There is no reason that the marking requirement should not also extend to software patented under pure method claims.¹⁴⁰

¹³⁸ See Joel Voelzke, *Patent Marking Under 35 U.S.C. § 287(a): Products, Processes, and the Deception of the Public*, 5 FED. CIR. B.J. 317, 338, 344 (1995).

¹³⁹ See Carl Oppedahl, *Patent Marking of Systems*, 11 SANTA CLARA COMPUTER & HIGH TECH. L.J. 205, 221 (1995).

¹⁴⁰ Voelzke, *supra* note 137, at 338-39.

V. CONSEQUENCES OF APPLYING MARKING REQUIREMENT TO SOFTWARE PATENTS

[55] For many companies, the implicit purpose of acquiring software patents is not for use as a weapon against those who may infringe, but rather as defensive ammunition to use against those who would accuse them of infringement. For these companies, the benefit in a portfolio of software patents is to have strong currency with which to barter when others assert software patents against them. For example, if a software company comes after Company A for patent infringement, Company A can use its large software patent portfolio to countersue, in the event that the suing company infringes one of Company A's patents, or it can offer the suing company the right to license from its patent portfolio in exchange for a cross-license.

[56] However, even for defensive uses of software patents, the question of whether the Marking Statute applies is not academic. Assuming, *arguendo*, that the Marking Requirement applies to software programs, if the patent holder has not adhered to the Marking Requirement, such a holder is limited to seeking injunctive relief forcing it to stop the continued sale of any infringing projects. Nevertheless, a company that adheres to the requirement now has an arguably more effective deterrent: the ability to countersue for monetary damages. A company would think twice about bringing an infringement lawsuit if there was a possibility that the company could be countersued for monetary damages, as opposed to mere injunctive relief.

[57] In the world of software, unlike, for example, biotechnology, it is often the case that there is an alternative non-patented method to achieve a similar result. In the case where a company is enjoined from further infringing another's software patent, it is not uncommon that the company will nevertheless be able to work around the patent. An award of monetary damages, on the other hand, could be crippling to a company, especially in light of the fact that an infringer would potentially be liable for every copy of an infringing product sold. Consequently, even for companies that wish to use their patents defensively, adherence to the Marking Requirement, where feasible, would likely strengthen their defensive position by providing the ability to countersue for monetary

damages, thus increasing the deterrent effect of their respective patent portfolios.

VI. CONCLUSION

[58] There is substantial Federal Circuit precedent for the notion that programs that embody software patents must be considered a “patented article” under the Marking Statute. The *Eolas* decision suggests that the Federal Circuit sees little difference between hardware-based inventions and software-based inventions.¹⁴¹ Similarly, the *Minton* decision indicates a willingness on the part of the Federal Circuit to liken programs to tangible goods.¹⁴² Taken separately or together, these opinions suggest that the Federal Circuit would likely consider a program embodying a software patent to be a “patented article” under the Marking Statute under one of two theories: either because software should be treated similarly to hardware, which is clearly a patented article, or because, on balance, patented software has enough characteristics to qualify it as a product and, thus, a patented article.

[59] Even if the Federal Circuit is not swayed by these or similar arguments, at least two different federal district courts have suggested a test for the determination of whether something is a “patented article.”¹⁴³ This test, namely that an article is a patented article if, when made by another a party, the patent is infringed, if adopted by the Federal Circuit would firmly place programs into the category of being a patented article for the purpose of the Marking Statute.¹⁴⁴

[60] Finally, it is not clear that the early Federal Circuit *Bandag*-type pronouncements that infringement of pure process claims are outside the scope of the Marking Statute apply to software programs. The appropriate standards seem to focus more on the existence of an object to mark, and, where there is no tangible product to mark, the Marking Requirement poses no bar to recovery. With regard to software programs, given that there is something that can be marked, the likely conclusion should be that the Marking Requirement applies.

¹⁴¹ *Eolas Techs. Inc. v. Microsoft Corp.*, 399 F.3d 1325 (Fed. Cir. 2005).

¹⁴² *Minton v. Nat’l Assoc. of Sec. Dealers*, 336 F.3d 1373 (Fed. Cir. 2003).

¹⁴³ See *supra* notes 112-13 and accompanying text.

¹⁴⁴ *Id.*

[61] With the large proliferation in software patents in recent years, the potential for innocent infringement is growing exponentially. It is protection against innocent infringement which is exactly what the Marking Requirement is supposed to cure. Not only should the Marking Statute apply to software programs, but existing precedent and logic dictate that such is the case. Regardless, given the high stakes involved and the strong arguments in favor of applying the Marking Requirement to programs that embody software patents, until the Federal Circuit provides absolute clarity on this issue, companies that produce programs which they believe are covered by software patents should mark their products in conformity with the Marking Statute.