

# **EXHIBIT X**



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## JOURNAL

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### PATENTS

Federal district court patent invalidations based on indefiniteness have risen dramatically since the Federal Circuit's 2005 ruling in *Datamize*. The appellate court opened the door to even more indefiniteness invalidations in 2008 by issuing a spate of decisions critical of functional claim language, and the Patent and Trademark Office followed suit by ratcheting up its own standard for complying with the definiteness requirement. The author traces this "tectonic shift" in indefiniteness jurisprudence since his last report on the topic in this journal over a year ago.

## Indefiniteness Invalidations Continue to Rise Sharply in 2008

By DAVID A. KELLY

### Introduction

The second paragraph of 35 U.S.C. § 112 requires that a patent specification conclude with one or more claims that particularly point out and distinctly claim the subject matter of the patent. For years, however, the "definiteness" requirement, as it is known, was largely pro forma, and rarely were patents invalidated for failing to comply with it.

But that all changed in August 2005, when the Federal Circuit enunciated a new, more stringent standard

for satisfying the requirement. In *Datamize LLC v. Plumtree Software Inc.*, 417 F.3d 1342, 75 USPQ2d 1801 (Fed. Cir. 2005) (70 PTCJ 437, 8/12/05), the court held that patent claims must be supported by a "workable objective standard" or an "objective anchor" in the specification. As I reported last year, this decision resulted in a spike of patent invalidations at the district court level (75 PTCJ 456, 2/29/08). Indefiniteness invalidations rose nearly 250 percent in the 30 months following *Datamize* compared to the 30 months preceding it.

This article surveys the rate of district court indefiniteness invalidations over the past 42 months and concludes that, far from leveling off, the rate of such invalidations continued to rise in 2008: up 350 percent compared to the preceding 42 months. The article suggests that the increased rate can be explained in part by

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prominent decisions issued in 2008 by both the Federal Circuit and the Patent and Trademark Office.

It began in January 2008, when the Federal Circuit invalidated a patent for “fragile gel drilling fluids.” In *Halliburton Energy Services Inc. v. M-I LLC*, 514 F.3d 1244, 85 USPQ2d 1654 (Fed. Cir. 2008) (75 PTCJ 319, 2/1/08), the court rejected Halliburton’s proposed construction of the claims as indefinite because it would lead to differing results (some infringing and some not) based on differing sets of circumstances. The court also admonished patentees from claiming inventions functionally (i.e., by what the invention does, rather than what it is), suggesting that courts would no longer resolve ambiguities in functional claim language in the patentee’s favor.

Then, in a trio of software patent cases—*Aristocrat Technologies Australia Pty. Ltd. v. International Game Technology Inc.*, 543 F.3d 657, 88 USPQ2d 1458 (Fed. Cir. 2008) (76 PTCJ 731, 9/26/08), *Finisar Corp. v. DirectTV Group*, 523 F.3d 1323, 86 USPQ2d 1609 (Fed. Cir. 2008) (75 PTCJ 677, 4/25/08), and *Net MoneyIn Inc. v. Verisign Inc.*, 545 F.3d 1359, 88 USPQ2d 1751 (Fed. Cir. 2008)—the Federal Circuit invalidated computer-implemented means-plus-function claims for indefiniteness. In each case the court concluded that the claims were indefinite because the specifications failed to disclose enough corresponding structure. The court held that the price patentees must pay for using means-plus-function language is to disclose the software or algorithm for performing the claimed function.

In the wake of these decisions, on Sept. 2, 2008, the PTO’s deputy commissioner of patent examination policy sought to “clarify” the PTO’s policy on indefiniteness rejections. The deputy commissioner explained that an indefiniteness rejection is appropriate where a claim’s broadest reasonable interpretation results in more than one reasonable construction.

This new policy was cemented on Nov. 19, 2008, when, in a rare precedential decision, the Board of Patent Appeals & Interferences in *Ex Parte Miyazaki*, 89 USPQ2d 1207 (B.P.A.I. 2008), held that claims amenable to two or more plausible constructions ought to be rejected as indefinite. Noting that this standard was stricter even than that applied by the courts, the board justified the tougher standard because, during prosecution, the patentee has an opportunity and a duty to amend the claims to more clearly define the metes and bounds of the invention.

What was once a rarely invoked means for narrowing or invalidating patent claims has, in the course of the past few years, become both the courts’ and the PTO’s weapon of choice in the battle to guard the public against patents of ambiguous or vague scope.

### I. 35 U.S.C. § 112, Second Paragraph

35 U.S.C. § 112 specifies a number of formal requirements for a patent’s specification, including a requirement that each patent include one or more claims. Paragraph 2 of that section provides that for a patent claim to be valid, it must be definite: “The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.” The statute requires definiteness to encourage invention; vague

claims would deter inventors by confronting them with an undue risk of infringement.<sup>1</sup>

The standard for indefiniteness is whether “one skilled in the art would understand the bounds of the claim when read in light of the specification.”<sup>2</sup> A determination that a patent claim is invalid for failure to meet the definiteness requirement is a conclusion “that is drawn from the court’s performance of its duty as the construer of patent claims [and] therefore, like claim construction, is a question of law.”<sup>3</sup> Absolute clarity is not required; rather, the claims need only “be amenable to construction, however difficult that task may be.”<sup>4</sup> A claim is indefinite where it is “insolubly ambiguous, and no narrowing construction can properly be adopted.”<sup>5</sup>

In certain fields of invention, particularly software-related inventions, patentees may generically define a structure for performing a particular function through the use of a “means-plus-function” limitation. In order for these claims to be definite, the specification must disclose sufficient structure corresponding to the claimed function.<sup>6</sup> To qualify as sufficient structure, the disclosed structure must correspond to the recited function.<sup>7</sup> A disclosed structure “corresponds” only if the specification or prosecution history clearly links or associates it to the recited function.<sup>8</sup> While the corresponding structure need not include all necessary elements to enable the claimed invention, it must include all structure that actually performs the recited function.<sup>9</sup>

### II. *Datamize* Holds That Claim Terms, to Be Definite, Must Be Objectively Anchored in the Specification

In *Datamize*, the claim at issue recited “an electronic kiosk system for displaying information” in a “uniform and aesthetically pleasing” manner.<sup>10</sup> The district court concluded that the term “aesthetically pleasing” was “hopelessly indefinite.”<sup>11</sup> The Federal Circuit affirmed. In so doing, however, the appellate court went further than it ever had before in emphasizing the need for *objectivity* in determining compliance with 35 U.S.C. § 112(2):

<sup>1</sup> See *United Carbon Co. v. Binney & Smith Co.*, 317 U.S. 228, 236 (1942) (“statutory requirement of particularity and distinctness in claims is met only when [the claims] clearly distinguish what is claimed from what went before in the art and clearly circumscribe what is foreclosed from future enterprise”).

<sup>2</sup> *Exxon Research and Engineering Co. v. United States*, 265 F.3d 1371, 1375, 60 USPQ2d 1272 (Fed. Cir. 2001) (62 PTCJ 498, 9/28/01).

<sup>3</sup> *Bancorp Services LLC v. Hartford Life Insurance Co.*, 359 F.3d 1367, 69 USPQ2d 1996 (Fed. Cir. 2004) (67 PTCJ 427, 3/12/04).

<sup>4</sup> *Exxon*, 265 F.3d at 1375.

<sup>5</sup> *Id.*

<sup>6</sup> *Intellectual Property Development, Inc. v. UA-Columbia Cablevision of Westchester Inc.*, 336 F.3d 1308, 1319, 67 USPQ2d 1385 (Fed. Cir. 2003) (66 PTCJ 389, 7/25/03).

<sup>7</sup> *Default Proof Credit Card Systems Inc. v. Home Depot U.S.A. Inc.*, 412 F.3d 1291, 1298, 75 USPQ2d 1116 (Fed. Cir. 2005) (70 PTCJ 239, 6/24/05).

<sup>8</sup> *Id.*

<sup>9</sup> *Id.*

<sup>10</sup> *Datamize*, 417 F.3d at 1344-45.

<sup>11</sup> *Id.* at 1345-46.

[H]ere Datamize has offered no **objective definition** identifying a standard for determining when an interface screen is “aesthetically pleasing.” In the absence of a **workable objective standard**, “aesthetically pleasing” does not just include a subjective element, it is completely dependent on a person’s subjective opinion. . . . Some **objective standard** must be provided in order to allow the public to determine the scope of the claimed invention. . . . While beauty is in the eye of the beholder, a claim term, to be definite, requires an **objective anchor**.<sup>12</sup>

In this passage the court repeatedly emphasizes objectivity: “objective definition,” “workable objective standard,” “objective standard,” and “objective anchor.”<sup>13</sup> The court’s reliance on objectivity as the benchmark for definiteness is significant because it represents a subtly, yet fundamental, deviation from precedent. Earlier cases had held that a claim was indefinite “only if reasonable efforts at claim construction prove futile” or if the claim was “insolubly ambiguous.”<sup>14</sup> But *Datamize* held—for the first time—that patent claims need to be more than just “amenable to construction”; they must also be objectively anchored in the specification.

### III. *Halliburton* Suggests That Functional Claims Are Inherently Ambiguous, and Advises Patentees to Cure Any Ambiguities During Prosecution

In *Halliburton*, the claim at issue related to a drilling mud system comprising “fragile gel drilling fluids.”<sup>15</sup> Relying on *Datamize*, the district court held that the term “fragile gel” was indefinite because “[n]either the specification nor any other evidence provides an objective standard for determining the scope of these amorphous terms.”<sup>16</sup> In January 2008, the Federal Circuit affirmed, holding that the specification’s failure to objectively define “fragile gel” or to distinguish the “fragility” of the claimed invention from the prior art was fatal.<sup>17</sup> It was irrelevant that *Halliburton* could articulate a definition supported by the specification: “Even if a claim term’s definition can be reduced to words, the claim is still indefinite if a person of ordinary

skill in the art cannot translate the definition into meaningfully precise claim scope.”<sup>18</sup>

The court also took issue with that part of *Halliburton*’s proposed construction that would cure the ambiguity in the claim by giving it the broadest possible construction. According to the court, this “would undermine the notice function of the claims because it would allow *Halliburton* to benefit from the ambiguity, rather than requiring *Halliburton* to give proper notice of the scope of its claims to competitors.”<sup>19</sup> The court likened the facts before it to those in *Geneva Pharmaceuticals Inc. v. GlaxoSmithKline PLC*,<sup>20</sup> where it rejected a patentee’s proposed construction for “synergistically effective amount” because it would simultaneously infringe or not infringe depending on the particular substrate chosen. As in that case, infringement under *Halliburton*’s proposed construction would also depend on a variety of conditions, such as formation geology, wellbore size, depth and angle.<sup>21</sup> According to the court, “[w]hen a proposed construction requires that an artisan make a separate infringement determination for every set of circumstances in which the composition may be used, and when such determinations are likely to result in differing outcomes (sometimes infringing and sometimes not), that construction is likely to be indefinite.”<sup>22</sup>

The court did not end its analysis there. It also addressed the issue of functional claiming, i.e., defining something “by what it does rather than what it is,” and cautioned that such claim limitations are inherently ambiguous.<sup>23</sup> The court counseled patent applicants to resolve issues of ambiguity inherent in functional limitations during prosecution rather than in litigation: “We note that the patent drafter is in the best position to resolve the ambiguity in the patent claims, and it is highly desirable that patent examiners demand that applicants do so in appropriate circumstances so that the patent can be amended during prosecution rather than attempting to resolve the ambiguity in litigation.”<sup>24</sup> If these ambiguities are not cured during prosecution, the court’s message seemed clear: they will not be resolved in the patentee’s favor during litigation.

### IV. *Aristocrat*, *Finisar*, and *Net MoneyIn* Hold That Means-Plus-Function Claims in Software Patents Must Be Supported by Software or an Algorithm

In *Aristocrat Technologies*, the claims at issue related to an electronic gaming machine that purportedly increases player interest by providing players with greater control over the definition of winning opportunities.<sup>25</sup> The machine allows the player to define the winning opportunities based on symbols displayed on a video screen and controlled by a “game control means.” The district court found the claims indefinite because the patent specification lacked “any specific algorithm” or any “step-by-step process for performing

<sup>12</sup> *Id.* at 1350 (emphasis added).

<sup>13</sup> Indeed, the court’s stress on an objective standard persists throughout the opinion. *See, e.g., id.* at 1352 (“In general, neither these statements nor any others in the written description set forth an **objective** way to determine whether an interface screen is ‘aesthetically pleasing.’”); *id.* at 1353 (“By arguing that ‘aesthetically pleasing’ does not depend on any standard of aesthetics other than a purely subjective standard held by any person who steps into the role of the system creator, the prosecuting attorney would eliminate any **objective** meaning for the phrase ‘aesthetically pleasing.’”); *id.* at 1356 (“Neither would claim 1 be indefinite if an ‘aesthetically pleasing’ look and feel for an interface screen was **objectively** verifiable.”); *id.* (“The ‘137 patent, however, fails to provide any **objective** way to determine whether the look and feel of an interface screen is ‘aesthetically pleasing.’”)

<sup>14</sup> *See, e.g., Exxon Research and Engineering Co. v. United States* 265 F.3d 1371, 1375 (Fed. Cir. 2001); *Novo Industries, LP v. Micro Molds Corp.*, 350 F.3d 1348, 1353 (Fed. Cir. 2003).

<sup>15</sup> *Halliburton* at 514 F.3d 1244.

<sup>16</sup> *Halliburton Energy Services Inc. v. M-I LLC*, 456 F. Supp. 2d 811, 817-18 (E.D.Tex. Oct. 18, 2006) (citing *Datamize*, 417 F.3d at 1350-51).

<sup>17</sup> *Id.* at 1252-53.

<sup>18</sup> *Id.* at 1251.

<sup>19</sup> *Id.* at 1254.

<sup>20</sup> 349 F.3d 1373 (Fed. Cir. 2003).

<sup>21</sup> *Id.* at 1254-55.

<sup>22</sup> *Id.* at 1255.

<sup>23</sup> *Id.* (internal quotations omitted).

<sup>24</sup> *Id.*

<sup>25</sup> *Aristocrat Technologies Australia Pty. Ltd. v. International Game Technology*, 521 F.3d 1328, 86 USPQ2d 1235 (Fed. Cir. 2008).

the claimed functions” of controlling the machine’s video screen.<sup>26</sup>

The Federal Circuit affirmed. The court began by reiterating that, in cases involving a computer-implemented invention in which the inventor has invoked means-plus-function claiming, the structure disclosed in the specification must be more than simply a general purpose computer or microprocessor.<sup>27</sup> While the patent specification need not disclose source code or a highly detailed description of the algorithm, at the very least it must describe an algorithm that transforms the general purpose microprocessor to a “special purpose computer programmed to perform the disclosed algorithm.”<sup>28</sup> The court explained that the price that Aristocrat must pay for using means-plus-function limitations is to disclose the software or algorithm for performing the claimed function, not simply a general purpose computer.<sup>29</sup>

For a patentee to claim a means for performing a particular function and then to disclose only a general purpose computer as the structure designed to perform that function amounts to pure functional claiming. Because general purpose computers can be programmed to perform very different tasks in very different ways, simply disclosing a computer as the structure designated to perform a particular function does not limit the scope of the claim to “the corresponding structure, material, or acts” that perform the function, as required by section 112 paragraph 6.<sup>30</sup>

Having failed to disclose the software or algorithm for performing the claimed “controlling means,” Aristocrat did not satisfy the requirements of 35 U.S.C. § 112, ¶ 6. Moreover, Aristocrat’s argument that the disclosure was enabling was irrelevant since “the pertinent question” is not whether the specification enables a person skilled in the art to make and use the invention, but rather whether the patent discloses structure used to perform the claimed function.<sup>31</sup> In this case, since Aristocrat had failed to disclose any algorithm at all, a person of ordinary skill in the art would not have understood the disclosure to encompass such an algorithm.<sup>32</sup> Accordingly, the means-plus-function limitations of the claims lacked sufficient disclosure of structure under 35 U.S.C. § 112, ¶ 6, and were therefore indefinite.<sup>33</sup>

Following close on the heels of *Aristocrat*, the Federal Circuit in *Finisar Corporation v. DirectTV Group*,<sup>34</sup> invalidated another computer-implemented means-plus-function claim for indefiniteness. The patent at issue in *Finisar* claimed information transmission systems that provides subscribers access to video and audio programs through high-speed satellite or cable links. The claims recited the means-plus-function limitation “database editing means,” which the specification simply indicated could be performed by “soft-

ware.”<sup>35</sup> Finding that Finisar’s specification failed to provide an algorithm or description of structure corresponding to the claimed “database editing” function, the district court ruled that the claims were indefinite.<sup>36</sup>

The Federal Circuit affirmed. It held that for computer-implemented means-plus-function claims where the disclosed structure is a computer programmed to implement an algorithm, “the patent must disclose, at least to the satisfaction of one of ordinary skill in the art, enough of an algorithm to provide the necessary structure under § 112, ¶ 6.”<sup>37</sup> That algorithm may be expressed “as a mathematical formula, in prose, or as a flow chart, or in any other manner that provides sufficient structure” so long as it is expressed in an understandable terms.<sup>38</sup> But, citing to *Aristocrat*, the court explained that merely reciting the word “software” without providing the requisite detail about the means to accomplish the claimed function is not enough.<sup>39</sup> The court concluded that, “[w]ithout any corresponding structure, one of skill simply cannot perceive the bounds of the invention,” and thus held the claims to be fatally indefinite.<sup>40</sup>

In *Net MoneyIn*, the claim at issue recited a financial transaction system comprising a “means for generating an authorization indicia in response to queries.”<sup>41</sup> The district court concluded that the claim was indefinite because the specification failed to disclose any corresponding structure to perform the claimed “generating” function.<sup>42</sup> The Federal Circuit affirmed. Citing *Aristocrat*, the court held that for computer-implemented inventions, the specification must disclose more than simply a general purpose computer: “[A] means-plus-function claim element for which the only disclosed structure is a general purpose computer is invalid if the specification fails to disclose an algorithm for performing the claimed function.”<sup>43</sup> In this case, the specification only disclosed a “bank computer,” which the court held was insufficient structure to support a general purpose computer that “generates an authorization indicia.”<sup>44</sup>

## V. The PTO Rules That the Standard for Complying With the Definiteness Requirement Is Higher During Prosecution Than in Litigation

In September 2008, “[i]n light of recent decisions rendered by the Federal Circuit”—namely *Halliburton* and the *Aristocrat* line of cases—the PTO issued dual memoranda “to remind the examining corps of the appropriate use of indefiniteness rejections.” The first memo addressed indefiniteness rejections in general. Citing *Halliburton*, the PTO explained that “providing a definition of a claim term in the written description

<sup>35</sup> *Id.* at 1340.

<sup>36</sup> *Id.*

<sup>37</sup> *Id.* (citing *WMS Gaming Inc. v. International Game Technology*, 184 F.3d 1339, 1349 (Fed. Cir. 1999)).

<sup>38</sup> *Id.* (internal citations omitted).

<sup>39</sup> *Id.* at 1340-41 (citing *Aristocrat Technologies Australia Pty v. International Game Technology*, 521 F.3d 1328 (Fed. Cir. 2008)).

<sup>40</sup> *Id.* at 1341.

<sup>41</sup> *Net MoneyIn Inc. v. Verisign Inc.*, 545 F.3d 1359 (Fed. Cir. 2008).

<sup>42</sup> *Id.* at 1362.

<sup>43</sup> *Id.* at 1367.

<sup>44</sup> *Id.*

<sup>26</sup> *Id.* at 1331-32.

<sup>27</sup> *Id.* at 1333 (citing *WMS Gaming Inc. v. International Game Technology*, 184 F.3d 1339, 51 USPQ2d 1385 (Fed. Cir. 1999) (58 PTCJ 356, 7/22/99)).

<sup>28</sup> *Id.* at 1338.

<sup>29</sup> *Id.* at 1333-1337.

<sup>30</sup> *Id.* at 1333.

<sup>31</sup> *Id.* at 1336.

<sup>32</sup> *Id.* at 1337.

<sup>33</sup> *Id.* at 1338.

<sup>34</sup> 523 F.3d 1323 (Fed. Cir. 2008).

does not preclude a finding of indefiniteness of the claim term.” If an examiner concludes that the definition itself “is not clear and precise and one of ordinary skill in the art would consider the term indefinite (e.g., the definition’s broadest reasonable interpretation results in more than one meaning and/or interpretation),” then an indefiniteness rejection is appropriate.

The second memo addressed indefiniteness rejections for computer-implemented means-plus function claim limitations. Citing *Aristocrat* and *Finisar*, the PTO explained that for such claims, the corresponding structure must include the algorithm as well as the general purpose computer or microprocessor. “The written description of the specification must at least disclose the algorithm that transforms the general purpose microprocessor to a special purpose computer programmed to perform the disclosed algorithm that performs the claimed function.” The PTO added that the algorithm may be expressed “in any understandable terms including as a mathematical formula, in prose, in a flow chart, or in any other manner that provides sufficient structure.”

Together, these memoranda signaled the PTO’s intention to pay closer scrutiny to functional and ambiguous claim language for compliance with the definiteness requirement. This policy was cemented in November 2008, when the Board of Patent Appeals and Interferences confirmed that a stricter standard of definiteness applied during prosecution than in litigation. In *Ex Parte Miyazaki*, the claim at issue related to a large printer comprising a “paper feeding unit being located at a height that enables a user, who is approximately 170 cm tall, standing in front of the printer to execute the paper feeding process.”<sup>45</sup> The examiner rejected the claim as indefinite.<sup>46</sup>

In a rare precedential opinion, the board affirmed. It began by holding that the standard for definiteness during prosecution is higher than in litigation:

“[W]e employ a lower threshold of ambiguity when reviewing a pending claim for indefiniteness than those used by post-issuance reviewing courts. In particular, rather than requiring that the claims are insolubly ambiguous, we hold that if a claim is amenable to two or more plausible claim constructions, the USPTO is justified in requiring the applicant to more precisely define the metes and bounds of the claimed invention by holding the claim unpatentable . . . as indefinite.”<sup>47</sup>

<sup>45</sup> *Ex Parte Miyazaki*, Appeal No. 2007-3300 (B.P.A.I. 2008).

<sup>46</sup> *Id.* at 4-5.

<sup>47</sup> *Id.* at 11-12.

Citing *Halliburton*, the board held that the PTO is justified in using a lower threshold showing of ambiguity to support a finding of indefiniteness “because the patentee has an opportunity and a duty to amend the claims during prosecution to more clearly and precisely put the public on notice of the scope of the patent” and to resolve any ambiguities.<sup>48</sup>

Turning to the claim at issue, the board held that it was indefinite because neither it nor the specification specified the positional relationship between the user and the printer: “An infinite number of combinations of printer and user positions could be envisioned such that the above-recited language of claim 1 does not, in fact, impose a structural limitation on the height of the paper feeding unit of the claimed printer. . . . The Appellant’s Specification also does not clearly impose such a positional relationship between the user and the printer to the language of claim 1.”<sup>49</sup>

## VI. In Wake of Federal Circuit and PTO Decisions, District Court Indefiniteness Invalidations Continue to Rise Sharply

As reported last year, the number of indefiniteness invalidations has risen sharply since August 2005, when *Datamize* was handed down.<sup>50</sup> The number of district court decisions invalidating patents for indefiniteness was 250 percent higher in the 30 months after *Datamize* than in the preceding 30 months.

Since those findings were published, the Federal Circuit has issued *Finisar*, *Aristocrat*, and *Net MoneyIn*, which invalidated means-plus-function claims in software patents, and the PTO has issued *Ex Parte Miyazaki*, which tightened the standard for meeting the definiteness requirement during prosecution. Together with *Datamize* and *Halliburton*, these decisions have given real teeth to the definiteness requirement, which for years was largely toothless. As the tables below show, in the 40 months following *Datamize* there were 42 reported district court decisions invalidating claims for indefiniteness, or roughly one a month. This represents a 350 percent increase in indefiniteness invalidations compared to the same period of time prior to *Datamize*, where there were only 12 invalidations.

The tables below provide the name of the case, whether the invalidated claim term was a means-plus-function claim term or not, the limitation(s) invalidated, and the general technology class at issue.

<sup>48</sup> *Id.* at 12-13.

<sup>49</sup> *Id.* at 14.

<sup>50</sup> David A. Kelly, “In the Wake of *Datamize* and *Halliburton*: The Recent Spate of Patent Invalidations for Indefiniteness and the Implications for Patent Holders” (75 PTCJ 456, 2/29/08).

### Pre-*Datamize* (Jan. 2002 - Aug. 2005)

Case Name	MPF/Non-MPF	Limitation Held Indefinite	General Class of Technology
1. <i>Bancorp Services L.L.C. v. Hartford Life Insurance Co.</i> , 2002 WL 32727071 (E.D.Mo. Feb. 13, 2002), rev’d by <i>Bancorp Services L.L.C. v. Hartford Life Insurance Co.</i> , 359 F.3d 1367 (Fed. Cir. 2004)	Non-MPF	“surrender value protected investment credits”	Electrical/Software

**Pre-Datamize (Jan. 2002 - Aug. 2005) – Continued**

<b>Case Name</b>	<b>MPF/Non-MPF</b>	<b>Limitation Held Indefinite</b>	<b>General Class of Technology</b>
<i>2. Omega Engineering Inc. v. Cole-Parmer Instrument Co.</i> , 198 F. Supp.2d 152 (D.Conn. Mar. 15, 2002)	Non-MPF	Claims contained “internally inconsistent” limitations	Mechanical
<i>3. ASM America Inc. v. Genus Inc.</i> , 260 F. Supp.2d 827 (N.D.Cal. Nov. 14, 2002)	MPF	“Means for reducing autodoping”	Chemical/Biotech
<i>4. Competitive Technologies v. Fujitsu Ltd.</i> , 286 F. Supp.2d 1161 (N.D.Cal. Aug. 8, 2003)	Non-MPF	Claim containing one limitation directed to ISA configuration and another limitation excluding ISA configurations	Electrical/Software
<i>5. Freeman v. Gerber Products Co.</i> , 284 F. Supp.2d 1290 (D.Kan. Sept. 30, 2003)	MPF	“attachable means” for keeping lid on cup	Mechanical
<i>6. Marley Mouldings Ltd. v. Mikron Industries Inc.</i> , No. 02-C-2855 (N.D.Ill. May 25, 2004), <i>rev'd by Marley Mouldings Ltd. v. Mikron Industries</i> , 417 F.3d 1356 (Fed. Cir. Aug 8, 2005)	Non-MPF	“in parts (volume)”	Chemical/Biotech
<i>7. Harrah's Entertainment Inc. v. Station Casinos Inc.</i> , 321 F. Supp.2d 1173 (D.Nev. June 3, 2004)	Non-MPF	“theoretical win profile”	Electrical/Software
<i>8. Datamize L.L.C. v. Plumtree Software Inc.</i> , No. 3:02-CV-05693 VRW (N.D.Cal. July 9, 2004), <i>aff'd by DatamizeLLC v. Plumtree Software Inc.</i> , 417 F.3d 1342 (Fed. Cir. 2005)	Non-MPF	“aesthetically pleasing”	Electrical/Software
<i>9. IPXL Holdings L.L.C. v. Amazon.Com Inc.</i> , 333 F. Supp.2d 513 (E.D.Va. Aug. 25, 2004), <i>aff'd by IPXL Holdings L.L.C. v. Amazon.com Inc.</i> , 430 F.3d 1377 (Fed. Cir. 2005)	Non-MPF	“The system of claim 2 wherein . . . the user uses the input means”	Electrical/Software
<i>10. Default Proof Credit Card System v. Home Depot U.S.A.</i> , 389 F. Supp.2d 1325 (S.D.Fla. Sept. 30, 2004)	MPF	“means for dispensing”	Electrical/Software
<i>11. Fisher-Price Inc. v. Graco Children's Products Inc.</i> , 2005 WL 408040 (E.D.Pa. Feb. 17, 2005)	Non-MPF	“a seat coupled to said swing arm and having an upper seating surface”	Mechanical
<i>12. Globespanvirata Inc. v. Texas Instrument Inc.</i> , 2005 WL 984346 (D.N.J. Apr. 7, 2005)	MPF	“means for measuring the capability of the datalink to efficiently communicate the data bits”	Electrical/Software

**Post-Datamize (Aug. 2005-Dec. 2008)**

<b>Case Name</b>	<b>MPF/Non-MPF</b>	<b>Limitation Held Indefinite</b>	<b>General Class of Technology</b>
<i>1. Gobeli Research Ltd. v. Apple Computer Inc.</i> , 384 F. Supp. 2d 1016 (E.D. Tex. Aug. 26, 2005)	MPF	“means for reallocating processing resources unused by said specific portions to other specific portions as a function of task priority”	Electrical/Software
<i>2. Net MoneyIN Inc. v. VeriSign Inc.</i> , 2005 WL 5960650 (D.Ariz. Oct. 19, 2005), <i>aff'd by Net MoneyIN Inc. v. VeriSign Inc.</i> , 545 F.3d 1359, 1365 (Fed. Cir. 2008).	MPF	“means for generating an authorization indicia,” and “a financial processing computer . . . having automatic means responsive to [the] order for . . . receiving customer account data . . .”	Electrical/Software

**Post-Datamize (Aug. 2005-Dec. 2008) – Continued**

<b>Case Name</b>	<b>MPF/Non-MPF</b>	<b>Limitation Held Indefinite</b>	<b>General Class of Technology</b>
<i>3. Linear Technology Corp. v. Micrel</i> , 2005 WL 5918851 (N.D. Cal. Nov. 10, 2005)	Non-MPF	Reexamination certificate omitting amended claims	Electrical/Software
<i>4. Fargo Electronics Inc. v. Iris Ltd.</i> , 2005 WL 3241851 (D. Minn. Nov. 30, 2005), <i>aff'd by Fargo Electronics Inc. v. Iris Ltd.</i> , 287 Fed.Appx. 96 ( Fed. Cir. 2008)	Non-MPF	mistakenly truncated phrase, “the second supports other than the” in a patent for ribbon supply rolls	Electrical/Software
<i>5. Touchcom Inc. v. Dresser Inc.</i> , 427 F. Supp.2d 730 (E.D.Tex. Dec. 5, 2005)	MPF	“application task means” and “display and input task means”	Electrical/Software
<i>6. Acacia Media Technologies Corp. v. New Destiny Internet Group</i> , 405 F. Supp.2d 1127 (N.D. Cal. Dec. 7, 2005)	Non-MPF	“sequence encoder”	Electrical/Software
<i>7. Finisar Corp. v. DirecTV Group Inc.</i> , 416 F. Supp.2d 512 (E.D.Tex. Feb. 17, 2006), <i>aff'd in part and rev'd in part by Finisar Corp. v. DirecTV Group Inc.</i> , 523 F.3d 1323 (Fed. Cir. 2008)	MPF	“database means . . . for generating . . . and for embedding. . .”	Electrical/Software
<i>8. AllVoice Computing PLC v. Nuance Communications Inc.</i> , H-02-4471 (S.D. Tex. Feb. 22, 2006), <i>rev'd by AllVoice Computing PLC v. Nuance Communications Inc.</i> , 504 F.3d 1236, 1248 (Fed. Cir. 2007).	MPF	“output means for outputting the recognized words into at least any one of the plurality of different computer-related applications”	Electrical/Software
<i>9. Biomedino v. Waters Technologies Corp.</i> , No. CV05-0042 (W.D. Wash. Mar. 15, 2006), <i>aff'd by Biomedino LLC v. Waters Technologies Inc.</i> , 490 F.3d 946, 953 (Fed. Cir. 2007).	MPF	“control means for automatically operating said valving”	Chemical/Biotech
<i>10. DE Technologies Inc. v. Dell Inc.</i> , 428 F. Supp. 2d 512 (W.D. Va. May 10, 2006)	MPF	“means for running a transaction program so as to integrate components including . . .”	Electrical/Software
<i>11. E-Watch Inc. v. March Networks Corp.</i> , 2006 WL 2239069 (E.D. Tex. Aug. 4, 2006)	Non-MPF	“server” and “said sensor”	Electrical/Software
<i>12. Southwestern Bell Telephone Co. v. Arthur A. Collins Inc.</i> , No. 2007-1577 (N.D. Tex. Sept. 26, 2006), <i>aff'd by Southwestern Bell Telephone Co. v. Arthur A. Collins Inc.</i> , 279 Fed.Appx. 989 (Fed. Cir. 2008)	MPF	“means for measuring”	Electrical/Software
<i>13. Halliburton Energy Services Inc. v. M-I LLC</i> , 456 F. Supp.2d 811 (E.D. Tex. Oct. 18, 2006), <i>aff'd by Halliburton Energy Services Inc. v. M-I LLC</i> , — F.3d —, 2008 WL 216294 (Fed. Cir. 2008)	Non-MPF	“fragile gel drilling fluid”	Chemical/Biotech
<i>14. Rackable Systems Inc. v. Super Micro Computer, Inc.</i> , 2006 WL 3065577 (N.D. Cal. Oct. 27, 2006)	Non-MPF	“front”	Mechanical
<i>15. Maurice Mitchell Innovations L.P. v. Intel Corp.</i> , 2006 WL 3447632 (E.D. Tex. Nov. 22, 2006)	MPF	“first switch means,” “second switch means,” “means for causing said first and second switch means to remain in said non signal-conducting state”	Electrical/Software
<i>16. Maurice Mitchell Innovations L.P. v. Intel Corp.</i> , No. 2:04-CV-450 (E.D. Tex. Dec. 11, 2006)	MPF	“means for causing”	Electrical/Software



**Post-Datamize (Aug. 2005-Dec. 2008) – Continued**

<b>Case Name</b>	<b>MPF/Non-MPF</b>	<b>Limitation Held Indefinite</b>	<b>General Class of Technology</b>
17. <i>Leggett &amp; Platt, Inc. v. Vutek Inc.</i> , 2006 WL 3813677 (E.D. Mo. Dec. 26, 2006)	Non-MPF	“deform, deforming, and deformation”	Chemical/Biotech
18. <i>Microprocessor Enhancement Corp. v. Texas Instruments Inc.</i> , 2007 WL 840362 (C.D. Cal. Feb. 8, 2007)	Non-MPF	“at least one condition code,” followed by five subsequent references to “condition code,” each of which has a different meaning depending on the context	Electrical/Software
19. <i>Aristocrat Technologies Australia Pty Ltd. v. International Gaming Technology</i> , Civil Action No. 07-1419 (April 20, 2007), aff’d by <i>Aristocrat Technologies Australia Pty Ltd. v. International Gaming Technology</i> , 521 F.3d 1328 (Fed. Cir. March 28, 2008)	MPF	“game control means arranged to control images displayed on the display means”	Electrical/Software
20. <i>Rothschild Trust Holdings LLC v. Citrix Systems Inc.</i> , 491 F. Supp.2d 1105 (S.D. Fla. June 5, 2007)	Non-MPF	“full band broadcast signal”	Electrical/Software
21. <i>Howmedica Osteonics Corp. v. Zimmer Inc.</i> , 2007 WL 1741763 (D. N.J. June 13, 2007)	Non-MPF	Arrhenius’ equation term	Chemical/Biotech
22. <i>Hamilton Products Inc. v. O’Neill</i> , 492 F. Supp.2d 1328 (M.D. Fla. June 15, 2007)	Non-MPF	“greater than approximately” and “less than approximately”	Mechanical
23. <i>Star Scientific Inc. v. R.J. Reynolds Tobacco Co.</i> , 2007 WL 1890709 (D.Md. June 26, 2007), rev’d by <i>Star Scientific Inc. v. R.J. Reynolds Tobacco Co.</i> , 537 F.3d 1357 (Fed. Cir. 2008)	Non-MPF	“anaerobic condition”	Chemical/Biotech
24. <i>Graphon Corp. v. Autotrader.com Inc.</i> , 2007 WL 1870622 (E.D. Tex. June 28, 2007)	MPF	“means for generating said record with said information”.	Electrical/Software
25. <i>Praxair Inc. v. ATMI Inc.</i> , No. 03-1158-SLR (D.Del. July 2, 2007), rev’s by <i>Praxair Inc. v. ATMI Inc.</i> , 543 F.3d 1306 (Fed. Cir. 2008)	Non-MPF	“port body”	Mechanical
26. <i>Blackboard Inc. v. Desire2Learn Inc.</i> , 2007 WL 2255227 (E.D. Tex. Aug. 3, 2007)	MPF	“means for assigning a level of access to,” and “means for allowing access to and control of”	Electrical/Software
27. <i>Cisco Systems Inc. v. Telcordia Technologies Inc.</i> , 2007 WL 2316272 (E.D. Tex. Aug. 10, 2007)	Non-MPF	“within about a reasonable number for human capacity”	Electrical/Software
28. <i>Enzo Biochem Inc. v. Applera Corp.</i> , 2007 WL 2669025 (D. Conn. Sept. 06, 2007)	Non-MPF	“not interfering substantially”	Chemical/Biotech
29. <i>starpay.com L.L.C. v. Visa International Service Association</i> , 514 F. Supp.2d 883 (N.D. Tex. Sept. 10, 2007)	Non-MPF	“requesting”	Electrical/Software
30. <i>DSW Inc. v. Shoe Pavilion Inc.</i> , No. 2:06-CV-06854-FMC-SHx (C.D.Cal. Sept. 25, 2007), vacated on other grounds by <i>DSW Inc. v. Shoe Pavilion Inc.</i> , 537 F.3d 1342 (Fed. Cir. 2008)	MPF	Claims lacked seminal “Track and Roller” limitation	Mechanical
31. <i>Romala Stone Inc. v. Home Depot U.S.A. Inc.</i> , 2007 WL 2904110 (N.D. Ga. Oct. 1, 2007)	Non-MPF	“a price affordable to an average consumer”	Electrical/Software

### Post-Datamize (Aug. 2005-Dec. 2008) – Continued

Case Name	MPF/Non-MPF	Limitation Held Indefinite	General Class of Technology
32. <i>Synthes (USA) v. Smith &amp; Nephew Inc.</i> , Civil Action No. 03-cv-0084 (E.D. Pa. Feb. 4, 2008)	Non-MPF	“less than about 2%”	Chemical/Biotech
33. <i>Mytee Products Inc. v. Harris Research Inc.</i> , 2008 WL 4855029 (S.D.Cal. April 24, 2008)	Non-MPF	“Vertically higher”	Mechanical
34. <i>Visto Corp. v. Research in Motion Ltd.</i> , 2008 WL 1930295 (E.D.Tex. Apr. 30, 2008)	MPF	“means for updating”	Electrical/Software
35. <i>Alcatel USA Resources Inc. v. Microsoft Corp.</i> , 2008 WL 2625852 (E.D.Tex. June 27, 2008)	MPF	“recognition means for detection of an actual property protocol of the communications protocol”	Electrical/Software
36. <i>CBT Flint Partners LLC v. Return Path Inc.</i> , 2008 WL 2744751 (N.D.Ga July 11, 2008)	Non-MPF	“detect analyze”	Electrical/Software
37. <i>Ariba Inc. v. Emptoris Inc.</i> , 2008 WL 3482521 (E.D.Tex. Aug. 7, 2008)	Non-MPF	Claim reciting both apparatus and method was indefinite	Electrical/Software
38. <i>Baldwin Graphic Systems Inc. v. Siebert Inc.</i> , 2008 WL 4083145 (N.D.Ill. Aug. 27, 2008)	Non-MPF	“reduced air content cleaning fabric”	Mechanical
39. <i>Hochstein v. Microsoft Corp.</i> , 2008 WL 4104332 (E.D.Mich. Sept. 2, 2008)	MPF	“control means,” “modem means,” “first port means,” and “voice over data means”	Electrical/Software
40. <i>First Years Inc. v. Munchkin Inc.</i> , 575 F. Supp.2d 1002 (W.D.Wis. Sept. 9, 2008)	Non-MPF	“natural state surface energy”	Mechanical
41. <i>Network Appliance Inc. v. Sun Microsystems Inc.</i> , 2008 WL 4193049 (N.D.Cal. Sept. 10, 2008)	Non-MPF	“associating the data blocks with one or more storage blocks across the plurality of stripes as an association”	Electrical/Software
42. <i>Keithley v. Homestore.com Inc.</i> , 2008 WL 4962885 (N.D.Cal. Nov. 19, 2008)	MPF	“database demographics updating means”	Electrical/Software

The following chart uses six-month time intervals to chart the increase of district court patent invalidations over the last 7 years. As can be seen, prior to *Datamize*, no six-month interval had more than 3 indefiniteness invalidations. Since *Datamize*, no six-month interval has had fewer than 4 indefiniteness rejections. The black line, representing the trend, is angled sharply upward.

## Conclusion

*Datamize* represented a tectonic shift in indefiniteness jurisprudence. District court patent invalidations for indefiniteness have risen dramatically ever since the decision, with the rate of invalidation now exceeding more than one a month. In 2008, the Federal Circuit fanned the flames by issuing a spate of decisions critical of functional claim language, opening the door to even more patent invalidations. And the PTO followed suit by ratcheting up its own standard for complying with the definiteness requirement, leading inevitably to more indefiniteness rejections during prosecution.

These cases reflect a new paradigm in indefiniteness jurisprudence, and patentees would do well to consider this and to craft appropriate strategies in view of it. In

particular, patent drafters should ensure that the specification provides a meaningful standard for determining the scope and meaning of the claim terms. Moreover, for terms that are explicitly defined in the specification, patentees should ensure that the definition itself is clear and unambiguous. Patentees should also avoid claiming their inventions functionally wherever possible. If functional language is necessary, patentees should be sure to clarify any ambiguity during prosecution. In addition, electrical and software patentees should, where possible, avoid means-plus-function claim limitations. And if such limitations are necessary, patentees should be sure to include in the specification some software or an algorithm corresponding to the claimed functions.

