

First *Datamize* and Now *Aristocrat* and *Finisar*: Electrical and Software Patent Invalidations For Indefiniteness Sharply on the Rise¹

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Introduction

Recently there has developed an alarming trend for patent owners, particularly owners of electrical and software patents. Patents have become increasingly vulnerable to invalidation for failing to satisfy the definiteness requirement of 35 U.S.C. § 112, ¶ 2. Beginning in August of 2005 with the Federal Circuit's decision in *Datamize, LLC v. Plumtree Software, Inc.*,² the rate of patent invalidations for indefiniteness has risen sharply. In *Datamize*, the court invalidated a patent to software used to create "aesthetically pleasing" kiosk interface designs where the specification failed to provide a "workable objective standard" for determining the meaning of the claims. Since *Datamize*, courts have seemed more willing than ever to find claims indefinite, especially in electrical/software patents.

Just this year in fact, in back-to-back decisions, the Federal Circuit invalidated two patents directed to "computer-implemented" inventions for indefiniteness. In *Aristocrat Techs. Austl. PTY Ltd. v. Int'l Game Tech.*³ and *Finisar Corporation v. The DirectTV Group, et al.*,⁴ the Federal Circuit affirmed the invalidity of means-plus-function claims where the patent specifications failed to disclose the software or algorithm for performing the claimed functions.

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² 417 F.3d 1342 (Fed. Cir. 2005).

³ 521 F.3d 1328 (Fed. Cir. Mar. 28, 2008).

⁴ 523 F.3d 1323 (Fed. Cir., April 18, 2008).

In both instances, the court found that the specifications did not provide the necessary structure under 35 U.S.C. § 112, ¶ 6, and thus the claims were fatally indefinite.

This article highlights these three important indefiniteness cases for electrical and software patent owners, describes and summarizes some analytical data related to indefiniteness trends, and offers guidance on how and when to raise these issues in litigation, and how to minimize or avoid these problems in prosecuting patent applications in general, and electrical/software-related inventions in particular.

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.⁵

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."⁶ 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

⁵ 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.").

⁶ *Exxon Research and Engineering Co. v. U.S.*, 265 F.3d 1371, 1375 (Fed. Cir. 2001).

construction, is a question of law.”⁷ Absolute clarity is not required; rather, the claims need only “be amenable to construction, however difficult that task may be.”⁸ A claim is indefinite where it is “insolubly ambiguous, and no narrowing construction can properly be adopted.”⁹

In certain fields of invention, particularly software-related inventions, patentees will 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.¹⁰ To qualify as sufficient structure, the disclosed structure must correspond to the recited function.¹¹ A disclosed structure “corresponds” only if the specification or prosecution history clearly link or associate it to the recited function.¹² 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.¹³

II. Before *Datamize*

Prior to *Datamize*, district courts sparingly invalidated patents for lack of definiteness. In the two and a half years preceding *Datamize*, there were only nine patent invalidations for indefiniteness. Since *Datamize*, however, there have been over two dozen indefiniteness

⁷ *Bancorp Services LLC v. Hartford Life Insurance Co.*, 359 F.3d 1367 (Fed. Cir. 2004).

⁸ *Exxon*, 265 F.3d at 1375.

⁹ *Id.*

¹⁰ *Intellectual Prop. Dev., Inc. v. UA-Columbia Cablevision of Westchester, Inc.*, 336 F.3d 1308, 1319 (Fed. Cir. 2003).

¹¹ *Default Proof Credit Card Sys., Inc. v. Home Depot U.S.A., Inc.*, 412 F.3d 1291, 1298 (Fed. Cir. 2005).

¹² *Id.*

¹³ *Id.*

holdings, an increase of more than 250%. The incentive for challenging a patent on indefiniteness grounds has swelled significantly as district courts seem more inclined to invalidate patents on these grounds. The correlation between the *Datamize* decision and the rise of indefiniteness invalidations appears to be strong. The explanation for this correlation undoubtedly has less to do with the narrow holding of that case, and more to do with the expansive *dicta* in the opinion.

In *Datamize*, the court stressed the need for a “workable objective standard” in the specification for determining the meaning of the claims. “Some objective standard must be provided in order to allow the public to determine the scope of the claimed invention.”¹⁴ This “objective standard” requirement was a subtle, yet significant, departure from long-standing precedent, which had held that claim terms were generally deemed to be definite unless so “insolubly ambiguous” as to render them “unamenable to construction.”¹⁵ Since *Datamize*, accused infringers wasted little time seizing upon the expansive language in the opinion to move for summary judgment of indefiniteness, and district courts began granting these motions in unprecedented numbers.

III. The *Datamize* Decision

Datamize is the owner of U.S. Patent No. 6,014,137 (the ‘137 patent), which is directed to a software program that allows a person to author user interfaces for electronic kiosks.¹⁶ The authoring system gives the system author a limited range of pre-defined design choices for

¹⁴ *Id.* at 1350.

¹⁵ See, e.g., *Novo Indus., L.P. v. Micro Molds Corp.*, 350 F.3d 1348, 1353 (Fed. Cir. 2003); *Honeywell Int'l, Inc. v. Int'l Trade Comm'n*, 341 F.3d 1332, 1338 (Fed. Cir. 2003).

¹⁶ *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1344. (Fed. Cir. 2005).

stylistic and functional elements appearing on the screens.¹⁷ Claim 1 of the patent recites “an electronic kiosk system for displaying information” wherein the software that creates kiosk interface designs are “uniform and aesthetically pleasing” and “aesthetically pleasing and functionally operable.”¹⁸ The “aesthetically pleasing” claim language was not discussed by the inventor or the patent examiner during prosecution of the application that led to the ‘137 patent, though in a related application the language was deleted as “superfluous and unnecessary” in response to a rejection of indefiniteness.¹⁹ After the ‘137 patent issued, Datamize sued Plumtree for infringement and Plumtree moved for summary judgment of invalidity.²⁰ The district court granted Plumtree’s motion, concluding that the term “aesthetically pleasing” was “hopelessly indefinite.”²¹

The sole issue on appeal was whether the ‘137 patent was definite. The Federal Circuit began by reviewing the law of indefiniteness. The court noted that the statutory presumption of patent validity of 35 U.S.C. § 282 required a finding of indefiniteness “only if reasonable efforts at claim construction prove futile.”²² The court reiterated that “[t]he definiteness requirement did not require absolute clarity or ease. Only claims not amenable to construction or insolubly

¹⁷ *Id.*

¹⁸ *Id.* at 1344-45.

¹⁹ *Id.* at 1345.

²⁰ *Id.*

²¹ *Id.* at 1345-46.

²² *Id.* at 1347-48 (quoting *Exxon Research & Eng'g Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001)).

ambiguous are indefinite.”²³ “Furthermore, a difficult issue of claim construction does not *ipso facto* result in a holding of indefiniteness” so long as “the meaning of the claim is discernible, even though the task may be formidable and the conclusion may be one over which reasonable persons disagree.”²⁴ The court added that, in the face of an allegation of indefiniteness, general principles of claim construction apply.²⁵ And the court proceeded to construe the claims in accordance with those principles.²⁶

Beginning with the words of the claim, the court pointed out that the claim, although employing the term “aesthetically pleasing” three times, “does not suggest or provide any meaningful definition for the phrase” and thus “fails to provide one of ordinary skill in the art with any way to determine whether an interface screen is ‘aesthetically pleasing.’”²⁷ Turning to the rest of the intrinsic record—the specification and prosecution history—the court held that neither provided a satisfactory definition of “aesthetically pleasing.”²⁸ In particular, the court was troubled by the complete dependence on a person’s subjective opinion in determining what was or was not “aesthetically pleasing”:

[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,

²³ *Id.* at 1347 (quoting *Novo Indus., LP v. Micro Molds Corp.*, 350 F.3d 1348, 1353 (Fed. Cir. 2003)).

²⁴ *Id.* (citing *Exxon*, 265 F.3d at 1375).

²⁵ *Id.* at 1348 (citing *Oakley, Inc. v. Sunglass Hut Int'l*, 316 F.3d 1331, 1340-41 (Fed. Cir. 2003)).

²⁶ *Id.* (citing *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc)).

²⁷ *Id.* at 1349.

²⁸ *Id.* at 1350-55.

it is completely dependent on a person's subjective opinion. ... The scope of claim language cannot depend solely on the unrestrained, subjective opinion of a particular individual purportedly practicing the invention. Some objective standard must be provided in order to allow the public to determine the scope of the claimed invention. ... A purely subjective construction of “aesthetically pleasing” would not notify the public of the patentee’s right to exclude since the meaning of the claim language would depend on the unpredictable vagaries of any one person’s opinion of the aesthetics of interface screens. While beauty is in the eye of the beholder, a claim term, to be definite, requires an objective anchor.²⁹

This passage is noteworthy because of the court’s repeated emphasis on *objectivity*. In just one paragraph, the court employs the term “objective” four times: “objective definition,” “workable objective standard,” “objective standard,” and “objective anchor.”³⁰ No less significant was the court’s repeated condemnation of subjectivity in patent claims.

The significance of this passage lies in the subtle, yet fundamental, manner in which it deviates from previous Federal Circuit precedent. Earlier cases had held that a claim was invalid for indefiniteness “only if reasonable efforts at claim construction prove futile,” or, alternatively, where the claims are “insolubly ambiguous.”³¹ No case—prior to *Datamize*—had held that 35 U.S.C. § 112(2) required an “objective anchor” for claim terms. While not explicitly saying so,

²⁹ *Id.* at 1350 (emphasis added).

³⁰ 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.’”)

³¹ *See, e.g., Exxon Research and Engineering Co. v. U.S.*, 265 F.3d 1371, 1375 (Fed. Cir. 2001); *Novo Indus., LP v. Micro Molds Corp.*, 350 F.3d 1348, 1353 (Fed. Cir. 2003)).

the Federal Circuit was clearly raising the definiteness bar. As discussed below, in the two and a half years prior to *Datamize* only nine patents had been invalidated for indefiniteness under the erstwhile “insolubly ambiguous” standard, roughly one patent every thirteen weeks. By contrast, in the two and a half years since *Datamize* announced its “objective anchor” standard, there have been nearly two dozen patents invalidated for indefiniteness, or roughly one indefiniteness invalidation every five weeks.

IV. The *Aristocrat* and *Finisar* Decisions

In *Aristocrat Techs. Austl. PTY Ltd. v. Int’l Game Tech.*, 521 F.3d 1328 (Fed. Cir. Mar. 28, 2008), the Federal Circuit held that when the corresponding structure of a means-plus-function limitation is a standard microprocessor programmed to perform an algorithm, the specification must also sufficiently disclose the algorithm, or else the patent is indefinite. The patent at issue in *Aristocrat* was directed to an electronic gaming machine that purportedly increases player interest by providing players with greater control over the definition of winning opportunities.³² 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 assignee of the patent, Aristocrat, sued IGT for patent infringement. IGT moved for summary judgment of invalidity, arguing that the means-plus-function limitation “game control means” were indefinite. Granting IGT’s motion, the district court determined that the patent specification lacked “any specific algorithm” or any “step-by-step process for performing the claimed functions” of controlling the machine’s video screen, and thus the limitation was indefinite.³³

The Federal Circuit affirmed. The court began by reiterating that, in cases involving a

³² *Aristocrat Techs. Austl. PTY Ltd. v. Int’l Game Tech.*, 521 F.3d 1328 (Fed. Cir. Mar. 28, 2008).

³³ *Id.* at 1331-32.

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.³⁴ 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.”³⁵ 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.³⁶

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 6.³⁷

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

³⁴ *Id.* at 1333 (citing *WMS Gaming, Inc. v. International Game Technology*, 184 F.3d 1339 (Fed. Cir. 1999)).

³⁵ *Id.* at 1338.

³⁶ *Id.* at 1333-1337.

³⁷ *Id.* at 1333.

claimed function.³⁸ 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 algorithm³⁹ 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 under 35 U.S.C. § 112 ¶ 2.⁴⁰

Following close on the heels of *Aristocrat*, the Federal Circuit in *Finisar Corporation v. The DirectTV Group, et al.*⁴¹ 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 “software.”⁴² 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.⁴³

Finisar appealed, but the Federal Circuit affirmed the district court. 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 §

³⁸ *Id.* at 1336.

³⁹ *Id.* at 1337.

⁴⁰ *Id.* at 1338.

⁴¹ 523 F.3d 1323 (Fed. Cir., April 18, 2008).

⁴² *Id.* at 1340.

⁴³ *Id.*

112, ¶ 6.”⁴⁴ 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.⁴⁵ 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.⁴⁶ 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.⁴⁷

V. Trend Information

As we reported earlier this year, there has been a substantial increase in the number of indefiniteness invalidations.⁴⁸ That article compared the number of district court decisions invalidating patents for indefiniteness in the thirty months before and after *Datamize*, and found an increase of 250%. In the six months since we published those findings, the Federal Circuit issued the *Finisar* and *Aristocrat* decisions, invalidating means-plus-function claims in software patents.

Here, we look at all the indefiniteness invalidations since January 2003. In the past five and a half years, there have been no less than least thirty-six reported decisions in which at least

⁴⁴ *Id.* (citing *WMS Gaming, Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999)).

⁴⁵ *Id.* (internal citations omitted).

⁴⁶ *Id.* at 1340-41 (citing *Aristocrat Techs. Austl. Pty v. Int'l Game Tech.*, 521 F.3d 1328 (Fed. Cir. 2008)).

⁴⁷ *Id.* at 1341.

⁴⁸ 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 *Pat. Trademark & Copyright J.* (BNA) 456 (Feb. 29, 2008).

one patent claim was invalidated for indefiniteness. Those cases are summarized in the table below. The table provides 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 technology at issue. Like most patent attorneys, we generally classify technologies as being either electrical/software, mechanical, or chemical/biotech. We have used those convenient, but admittedly imperfect designations for this chart.

Case Name	MPF/Non-MPF	Limitation Held Indefinite	General Class of Technology
<i>Competitive Technologies v. Fujitsu Ltd.</i> , 286 F.Supp.2d 1161 (N.D. Cal. Aug. 8, 2003)	Non-MPF	one limitation directed to an Independent Sustain and Address (ISA) configuration and another limitation that excluded ISA configurations	Electrical/Software
<i>Freeman v. Gerber Products Co.</i> , 284 F.Supp.2d 1290 (D. Kan. Sept. 30, 2003)	MPF	“attachable means”	Mechanical
<i>Marley Mouldings Ltd. v. Mikron Industries, Inc.</i> , No. 02-C-2855 (N.D. Ill. May 25, 2004), <i>rev’d</i> by <i>Marley Mouldings, Ltd. v. Mikron Indus.</i> , 417 F.3d 1356 (Fed. Cir. Aug 8, 2005)	Non-MPF	quantifying wood flour ingredients as a certain percentage of all ingredients’ “volume”	Chemical/Biotech
<i>Harrah's Entertainment, Inc. v. Station Casinos, Inc.</i> , 321 F.Supp.2d 1173 (D. Nev. June 3, 2004)	MPF	“theoretical win profile,”	Electrical/Software
<i>Datamize, L.L.C. v. Plumtree Software, Inc.</i> , No. 3:02-CV-05693 VRW (N.D. Cal. July 9, 2004)	Non-MPF	“aesthetically pleasing”	Electrical/Software
<i>IPXL Holdings, L.L.C. v. Amazon.Com, Inc.</i> , 333 F.Supp.2d 513 (E.D. Va. Aug. 25, 2004)	Non-MPF	System and method of using the system in the same claim	Electrical/Software

<i>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>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>Globespanvirata, Inc. v. Tex. 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 in each said subchannel and for developing an optimum energy allocation and an optimum data bit allocation for each said subchannels”; “means for returning an indication of the monitored quality to said transmitter means” and “means responsive to said indication of monitored quality and operative to change the data bit allocation among said subchannels to improve the quality of the transmission.”	Electrical/Software
<i>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>Linear Tech. Corp. v. Micrel</i> , 2005 WL 5918851 (N.D. Cal. Nov. 10, 2005)	Non-MPF	Reexamination certificate omitting amended claims	Electrical/Software
<i>Fargo Electronics, Inc. v. Iris Ltd., Inc.</i> , 2005 WL 3241851 (D. Minn. Nov. 30, 2005)	Non-MPF	mistakenly truncated phrase, “the second supports other than the,”	Electrical/Software
<i>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

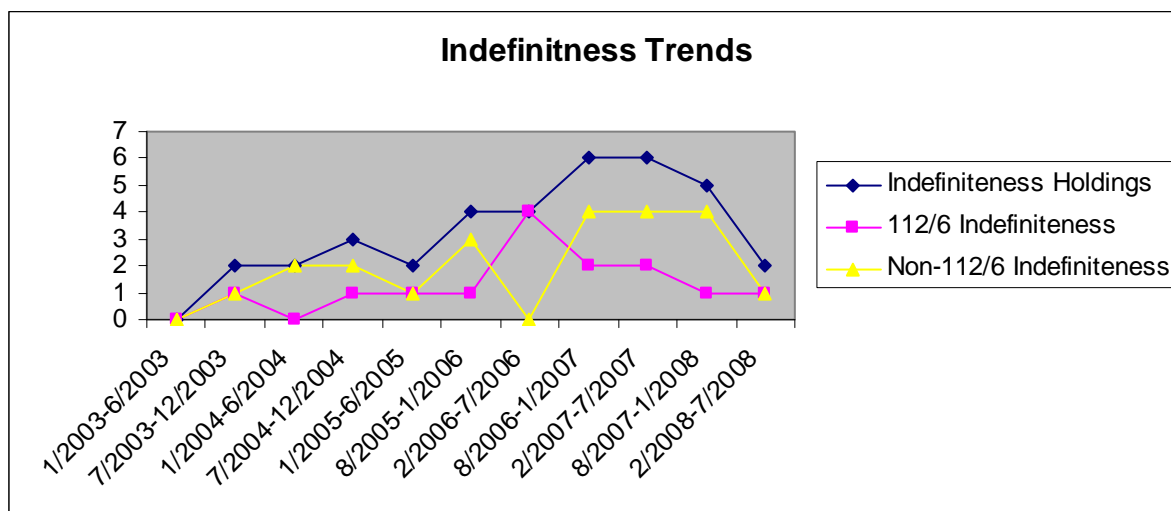
<i>Finisar Corp. v. DirecTV Group, Inc.</i> , 416 F.Supp.2d 512 (E.D.Tex. Feb. 17, 2006), <i>aff'd in part and rev'd in part by Finisar Corp. v. DirecTV Group, Inc.</i> , 523 F.3d 1323 (Fed. Cir. 2008)	MPF	“database means ... for generating ... and for embedding...”	Electrical/Software
<i>AllVoice Computing PLC v. Nuance Commc'ns, 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>Biomedino v. Waters Techs. Corp.</i> , No. CV05-0042 (W.D. Wash. Mar. 15, 2006), <i>aff'd by Biomedino LLC v. Waters Techs., Inc.</i> , 490 F.3d 946, 953 (Fed. Cir. 2007).	MPF	“control means for automatically operating said valving”	Chemical/Biotech
<i>DE Techs., 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>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>Halliburton Energy Services, Inc. v. M-I, LLC</i> , 456 F.Supp.2d 811 (E.D. Tex. Oct. 18, 2006), <i>aff'd 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>Rackable Systems, Inc. v. Super Micro Computer, Inc.</i> , 2006 WL 3065577 (N.D. Cal. Oct. 27, 2006)	Non-MPF	“front”	Mechanical

<p><i>Maurice Mitchell Innovations, L.P. v. Intel Corp.</i>, 2006 WL 3447632 (E.D. Tex. Nov. 22, 2006)</p>	<p>MPF</p>	<p>“first switch means comprised of at least three distinct parts for connecting said dedicated memory address, data and control circuits of said path configuring means to each of said first three sets of contacts”;</p> <p>“second switch means for connecting said dedicated memory address, data and control lines of said path configuring means to said dedicated memory address, data and control lines of said CPU respectively”;</p> <p>“means for causing said first and second switch means to remain in said non signal-conducting state upon application of power to said CPU power circuit and to assume a signal conductive state upon receipt of an appropriate signal from said CPU ... and to assume a non signal-conducting state upon receipt of an appropriate signal from said CPU”</p>	<p>Electrical/Software</p>
<p><i>Maurice Mitchell Innovations, L.P. v. Intel Corp.</i>, No. 2:04-CV-450 (E.D. Tex. Dec. 11, 2006)</p>	<p>MPF</p>	<p>“means for causing”</p>	<p>Electrical/Software</p>
<p><i>Leggett & Platt, Inc. v. Vutek, Inc.</i>, 2006 WL 3813677 (E.D. Mo. Dec. 26, 2006)</p>	<p>Non-MPF</p>	<p>“deform, deforming, and deformation”</p>	<p>Chemical/Biotech</p>
<p><i>Microprocessor Enhancement Corp. v. Texas Instruments Inc.</i>, 2007 WL 840362 (C.D. Cal. Feb. 8, 2007)</p>	<p>Non-MPF</p>	<p>“at least one condition code,” followed by five subsequent references to “condition code,” each of which has a different meaning depending on the context and each refers to the “at least one condition code” element as an antecedent</p>	<p>Electrical/Software</p>

<i>Aristocrat Technologies Australia Pty Limited et al. v. International Gaming Technology</i> , Civil Action No. 07-1419 (April 20, 2007), aff'd by <i>Aristocrat Technologies Australia Pty Limited et al. 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
<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
<i>Howmedica Osteonics Corp. v. Zimmer, Inc.</i> , 2007 WL 1741763 (D. N.J. June 13, 2007)	Non-MPF	Arrhenius' equation term	Chemical/Biotech
<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
<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
<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 control of each data file based on a user of the system’s predetermined role in a course”; “means for allowing access to and control of the data file associated with the course if authorization is granted based on the access level of the user of the system.”	Electrical/Software
<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
<i>Enzo Biochem, Inc. v. Applera Corp.</i> , 2007 WL 2669025 (D. Conn. Sept. 06, 2007)	Non-MPF	“not interfering substantially”	Chemical/Biotech

<i>starpay.com, L.L.C. v. Visa Intern. Service Ass'n</i> , 514 F.Supp.2d 883 (N.D. Tex. Sept. 10, 2007)	Non-MPF	“requesting”	Electrical/Software
<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
<i>Synthes (USA) v. Smith & Nephew, Inc.</i> , Civil Action No. 03-cv-0084 (E.D. Pa. Feb. 4, 2008)	Non-MPF	“less than about 2%”	Chemical/Biotech
<i>Alcatel USA Resources Inc. v. Microsoft Corp.</i> , 2008 WL 2625852, *17 (E.D.Tex. June 27, 2008)	MPF	“recognition means for detection of an actual property protocol of the communications protocol”	Electrical/Software

This information reveals several interesting trends. First, decisions invalidating at claims for indefiniteness have increased substantially since the *Datamize* decision. The following table uses six-month time intervals and charts the increase, since January of 2003, in invalidity findings based on indefiniteness in reported decisions.



After *Datamize* issued in August 2005, and its implications began to sink in on the patent bar, the number of invalidity decisions began to increase. Rulings, however, appear to have

peaked during the six months from February of 2007 through July of 2007, when six different courts invalidated for indefiniteness. In the last six months, only two patents have been invalidated for indefiniteness. And only time will tell whether the post-*Datamize* surge in indefiniteness invalidations will continue or return to pre-*Datamize* levels, or what impact the Federal Circuit's upholding of invalidity in the *Finisar* and *Aristocrat* cases will have.

Perhaps more ominous for owners of software patents, however, is the percentage of indefiniteness invalidations in this technology area. Since January 2003, twenty-four of the thirty-six reported decisions on indefiniteness related to electrical/software innovations. That amounts to *two-thirds* of all reported cases. In comparison, the Patent Technology Monitoring Team Report (published by the United States Patent and Trademark Office) shows that in 2006 nearly half of all issued patents were in the electrical/software class.⁴⁹

The seemingly disproportionate number of electrical/software patent invalidations may have a logical explanation. Patent attorneys routinely use means-plus-function language in electrical and software patent claims. Indeed, for many years, common practice dictated inclusion of at least one method claim, at least one system claim, and at least one means-plus-function claim in every electrical/software case. Patent attorneys preparing chemical cases were less inclined to utilize means-plus-function language. As the statistics show, the number of indefiniteness invalidations relating to the use of means-plus-function language has also increased, disproportionately affecting electrical and software cases.

In addition, although means-plus-function language is also routinely used in mechanical patent claims, the nature of a mechanical innovation necessitates the disclosure of structure. In

⁴⁹ In 2006, the PTO issued 34,061 patents in the chemical classes, 55,716 patents in the mechanical classes, and 83,995 patents in the electrical classes. This figure is up sharply from the 2000 statistics, in which only one-third of issued patents were in the electrical/software class.

contrast, electrical innovations often relate to data processing, the passing of signals, and other more ethereal concepts where the innovation lies more in what something does rather than what it looks like.

Regardless of the reasons, patent owners seeking to enforce electrical or software patents have now another hurdle to face and with the Federal Circuit considering anew the patentability of business methods and other software innovations, enforcing such patents may be more difficult. On the other hand, a well-written electrical or software patent that provides an algorithm for software means-plus-function claims and sets forth sufficient structural detail, may be more valuable in light of the vast numbers of patents where such detail was never thought to be required.

VI. Strategy for Patent Holders

Patent owners would do well to consider the impact of these decisions, and craft appropriate strategies in view of them. In particular, patent drafters should ensure that their claims are “objectively anchored” in the specification. In other words, the specification should provide a meaningful standard for determining the scope and meaning of the claim terms. Moreover, it is not enough to simply provide a definition of claim terms. That definition must itself be clear and unambiguous, and should not rely on relative terms. Furthermore, patentees should, if possible, avoid claiming their inventions functionally, i.e., by what the invention does, rather than what it is. Patent drafters should claim quantitatively (e.g., provide numeric values and ranges) rather than qualitatively (e.g., “capable of” language). Patent drafters should also provide examples in the specification that meet the claim limitations and examples that do not.

While many drafters of electrical and software patents have included system claims that recite structural elements in addition to or instead of means-plus-function claim recitations for years, the recent *Finisar* and *Aristocrat* cases provide an even more compelling reason for doing

so. If means-plus-function claims are included, patent drafters should review the disclosure to ensure that an algorithm corresponding to the software-related functions is clearly recited. Inclusion of one or more figures that show the algorithm for each different software-related means-plus-function element would be one way to reduce the possibility of an indefiniteness finding later. In light of *Finisar* and *Aristocrat*, patent drafters may be better off avoiding means-plus-function language altogether. Instead, they might consider using phraseology such as “a ____ module/unit/component that ____” as a way of reciting software inventions.

Conclusion

Taken together, *Datamize* and its progeny, including *Finisar* and *Aristocrat*, should serve as a strong warning to electrical/software patent owners: beware 35 U.S.C. § 112, ¶ 2, particularly claims reciting means-plus-function limitations. What was once thought to be a section of the statute reserved for “nit-picky” initial rejections in a first office action has now become a serious weapon for defendants in patent infringement cases. The take home message is clear: Be sure your disclosure provides sufficient structural details, such as the software or algorithm, for performing the claimed function.