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Federal Circuit Revamps Means-Plus-Function Trigger

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New Standard Continues Federal Circuit Demand for Algorithms in Software Cases

An *en banc* Federal Circuit issued an opinion on June 16, 2015 weakening a longstanding claim construction presumption related to what patent practitioners know as “means-plus-function” language. This significant shift by the court will impact functional claiming, or expressing a claim element by a function performed rather than by the structure used to perform the function. For years, the Federal Circuit had held that whether a claim element is considered functional should be controlled largely by the presence or absence of the word “means” in the claim, with the absence of the word “means” creating a presumption against functional claim construction. This presumption, while rebuttable in theory, had been described by the Federal Circuit since 2004, as “a strong one that is not readily overcome.”¹ In *Williamson v. Citrix Online, LLC*,² the Federal Circuit held that the presumption that arises when the word “means” is not used is not so strong after all, and no heightened evidentiary showing should

be needed to overcome it. This new standard broadens what will be considered means-plus-function language in a claim. Therefore, patent examiners and courts spotting functional claim language will require corresponding structure to be identified in the written description. For software cases in particular, the Federal Circuit emphasized the need for corresponding structure in the form of algorithms to be identified in the written description and perhaps illustrated in associated drawings in order to find claims supported and valid.

Background of Means-Plus-Function Claim Construction and Its Trigger

Functional claims, or means-plus-function claims, are interpreted according to pre-America Invents Act (AIA), 35 U.S.C. § 112, ¶ 6 or AIA 35 U.S.C. § 112(f). These provisions stipulate that a claim element may be expressed as a means for performing a specified function without reciting in the claim itself the exact structure to be used to carry out the function. A claim drafted in this means-plus-function manner will be construed to cover the corresponding structure described in the specification and any legal equivalents. Before reaching the claim language construction stage, however, a preliminary issue is whether Section 112, ¶ 6 applies in the first place. If it does, then the examiner or court will look to the written description in an attempt to identify structure corresponding to the function of the means-plus-function language. If no corresponding structure is identified in the written description, then the claim can be found indefinite and invalid, as illustrated by the result in *Williamson*.

As noted, the first step of the analysis, determining whether Section 112, ¶ 6 applies, has long turned on the presence or absence of the word “means.” So, for example, a claim might recite: a table top; four legs; and *means for securing* each of the four legs to the table top. In this case, one interpreting the claim would have to turn to the written description, as the “means for securing” would be limited to the means disclosed in the written description and any legal equivalents.

Sometimes, the waters are murkier, though. For instance, the same claim could have recited: a table top; four legs; and *devices for securing* each of the four legs to the table top. Recognizing that it would be improper to allow a patentee to circumvent Section 112, ¶ 6 simply by substituting another generic word, for example, devices, for the word “means,” while similarly describing a function without sufficient structure, the Federal Circuit framed the inquiry as a determination of “whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.”³

In short, presumptions for or against application of Section 112, ¶ 6 arise, respectively, with the presence or absence of the word “means.” The presumption *for* application of Section 112, ¶ 6, however, can be overcome by showing that notwithstanding *presence* of the word “means,” a skilled artisan would understand the claim element to recite sufficient structure, not merely function. Conversely, the presumption *against* application of Section 112, ¶ 6 can be overcome by showing that notwithstanding *absence* of the word “means,” a skilled artisan would understand the claim element to recite merely function, not sufficient structure. For some time, however, rebutting the latter presumption has been much more difficult than rebutting the former.

Starting in 2004, the Federal Circuit adopted a heightened standard for invoking Section 112, ¶ 6 in the absence of the word “means,” holding that the presumption *against* invoking paragraph 6 was “a strong one that is not readily overcome.”⁴ The presumption for moving in the converse direction was left unchanged, that is, the presumption *for* application of Section 112, ¶ 6 when the word “means” is used was rebuttable, but without a heightened evidentiary standard. This bifurcated treatment was maintained for years, until 2012 when the chasm widened even further. In a 2012 opinion, the Federal Circuit wrote that “[w]hen a claim drafter has not signaled his intent to invoke § 112, ¶ 6, we are unwilling to apply that provision *without a showing that the limitation essentially is devoid of anything that can be construed as structure.*”⁵ Finally, as recently as last year, the Federal Circuit reiterated a firm position on the standard to rebut the Section 112, ¶ 6 presumption—again, in one direction only—and further noted that the court had “seldom held that a limitation without recitation of ‘means’ is a means-plus-function limitation.”⁶

Williamson and Its Likely Consequences

The effect of this jurisprudential slide has been to create a low and a high hurdle and then to raise the high one

over time. In *Williamson*, the Federal Circuit decided that strengthening the Section 112, ¶ 6 presumption, but in only one direction, had “the inappropriate practical effect of placing a thumb on what should otherwise be a balanced analytical scale.”⁷ Now, the thumb has come off the scale. The two presumptions will remain, but they will be on even footing. In the absence of the word “means,” there is still a presumption against application of Section 112, ¶ 6, but the presumption can be overcome by showing that the claim fails to recite structure or recites insufficient structure for carrying out the described function. Critically, this now will require the same evidentiary showing as that needed to overcome the converse presumption, which is unaffected by the *Williamson* holding.

For practitioners, this foreshadows a far greater willingness, both at the Patent Office and in courts, to invoke Section 112, ¶ 6. Indeed, the Federal Circuit indicated its displeasure with the “proliferation of functional claiming untethered to Section 112, ¶ 6 and free of the strictures set forth in the statute.” We can expect this displeasure to impute to patent examiners and district court judges.

The increased invocation of Section 112, ¶ 6 likely will be accompanied by the claim construction rules included in that statutory provision. Specifically, functional claiming, even in the absence of the word “means,” will be more likely to be construed as covering the corresponding structure disclosed in the specification. For patentees, the takeaway is simple, but critical: Make sure there is corresponding structure disclosed in the specification. As the appellant discovered in *Williamson*, a lack of corresponding structure is fatal to a means-plus-function claim.

The standard for determining when structure “corresponds” has not changed: Intrinsic evidence must clearly link or associate the structure to the function recited in the claim. Where the functions described are specialized, or not the type that can be executed on a general purpose computer, the Federal Circuit could not have been more explicit regarding the type of structure needed: “We require that the specification disclose an algorithm for performing the claimed function.”⁸

The Federal Circuit signaled flexibility in form, noting that the algorithm could be presented “as a mathematical formula, in prose, or as a flow chart, or in any other manner that provides sufficient structure.”⁹ For patent prosecutors, this sends a clear message to ensure that any claim element that can be interpreted as functional is supported by corresponding structure in the specification. Particularly in the software area, for example, it can be critical to disclose the algorithms associated with any claimed functions.

For patent litigators, *Williamson* opens up another line of attack against functional claims, especially those in the

software space. Because the standard for invoking Section 112, ¶ 6 has been lowered, a patent challenger who seeks a finding that a claim recites a function without the requisite structure has to demonstrate only that the specification fails to disclose a corresponding algorithm in order to show that the claim is invalid. Moreover, claims that survive such a *Williamson* attack will not do so unscathed. While a patentee can save a claim by pointing to one or more algorithms in the specification, the patentee risks limiting the claim by, or otherwise tying it to, those algorithms for purposes of determining infringement. Thus, where a patentee might have expected expansive claim scope due to a plain reading of the claim language, *Williamson* stipulates that valid software claims with functional language should be limited only to disclosed algorithms and their legal equivalents.

In sum, the two parts of a formerly-bifurcated Section 112, ¶ 6 standard have been unified. There no longer will be added significance to a drafter's omission of the

word “means” for purposes of triggering Section 112, ¶ 6. Although the effects of this decision will impact the patent landscape across technological arts, *Williamson* likely will ripple most forcefully through the software area, where functional claiming is relatively common. For practitioners in general, *Williamson* is a reminder to ensure corresponding structure accompanies functional claim language. For practitioners in the software art, *Williamson* heaps greater importance on the inclusion of algorithms in the written description. Indeed, it often has been understood that detailed algorithms can help distinguish claims over prior art challenges brought under Section 102 and Section 103 of the Patent Act. In the aftermath of *Alice Corp. v. CLS Bank International*,¹⁰ practitioners learned that well-crafted algorithms also may reduce risks associated with a Section 101 challenge. If practitioners are looking for another important reason to include algorithms in their specifications, add Section 112 to the list.

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1. *Lighting World, Inc. v. Birchwood Lighting, Inc.*, 382 F.3d 1354, 1358 (Fed. Cir. 2004).
 2. *Williamson v. Citrix Online, LLC*, No. 13-1130 (Fed. Cir. June 16, 2015).
 3. *Williamson*, slip op. at 16.
 4. *Lighting World*, 382 F.3d at 1358.
 5. *Flo Healthcare Solutions, LLC v. Kappos*, 697 F.3d 1367, 1374 (Fed. Cir. 2012) (emphasis added).

6. *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1297 (Fed. Cir. 2014).
7. *Williamson*, slip op. at 15.
8. *Id.* at 22.
9. *Id.*
10. *Alice Corp. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014).

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