INSIGHT: Stabilizing the Software Patent Field

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Section 112(f) of the U.S. Patent Act allows patentees to claim their invention as a means for performing a certain function—a method commonly employed by inventors in the software space. In Part 2 of a two-part series on new guidance from the United States Patent and Trademark Office (USPTO), Akin Gump attorneys share practice tips and say the guidance gives practitioners the tools to prosecute and enforce valid software patents.

In 2011, Marc Andreessen, serial entrepreneur and venture capitalist, boldly declared that "software is eating the world," as evidenced by the rise of computer-implemented technology powering global innovation.

Inventors have responded to this technological sea-change by seeking patent protection on innovative software—i.e., code which instructs a computer how to run and solve discrete problems. However, the unique, instructive nature of software runs up against a basic tenet of patent law that disallows functional claiming—when a claim is directed toward the function, solution, or outcome it performs.

Considering these concerns, on January 7, the USPTO issued Functional Claiming Guidance to the examiner corps and Patent Trial and Appeal Board (PTAB), for examining computer-implemented functional claim limitations under Section 112. This guidance accompanied updated Section 101 eligibility guidance, issued contemporaneously by the USPTO. (See related article)

Section 112 Guidance–Focus on Substance, Not Form

The guidance opens with an assessment of Section 112(f) (means-plus-function), which requires the disclosure of structures for performing any claimed function and is a statutory barrier to prevent purely functional claiming. Aristocrat Techs. Australia Pty Ltd. v. Int'l Game Tech., 521 F.3d 1328, 1333 (Fed. Cir. 2008).

This guidance follows the Federal Circuit's en banc decision in Williamson v. Citrix, which overruled the strong presumption that claims lacking the word "means" should not be considered under Section 112(f). 792 F.3d 1339 (Fed. Cir. 2015) (en banc).

Specifically, the USPTO emphasizes the Federal Circuit's holding that the standard to determine the applicability of Section 112(f) is "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." Id. at 1349.

In effect, the Functional Claiming Guidance aims to halt efforts to use claim drafting to get around Section 112(f). Regardless of whether "means," "step," or some other generic placeholder is recited in the claims, the guidance clarifies that patent examiners—or challengers arguing that Section 112(f) should apply—should analyze the three prongs set forth in the Manual of Patent Examining Procedure (MPEP) § 2181:

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- 1. Determine whether the claim recites "means," "step," or a generic term like "mechanism," or "system;"
- 2. If so, assess whether that term is modified by functional language, typically connected to a transition word like "for," or "so that"; and
- 3. If so, evaluate whether that term is further modified by sufficient structure, material, or acts for performing that function.

The third part of the inquiry, whether sufficient structure is recited in the claims, is informed by the specification as well as extrinsic evidence to help understand the modifying claim terms and whether a person having ordinary skill in the art would understand such terms to recite structure.

For example, examiners may assess whether:

- the patent specification contains a sufficient description of the recited term to inform an individual of ordinary skill in the art that the term has structure;
- technical dictionaries demonstrate the term is recognized as a noun denoting structure; and
- prior art shows the term has a recognized structure to perform the claimed function.

In sum, the guidance refocuses the Section 112(f) application inquiry on whether a claim limitation is more aligned with a particular function or a defined structure, rather than a patentee's drafting efforts.

In addition, the Functional Claiming Guidance reinforces and summarizes what constitutes sufficient structure for computer-implemented claims assessed under Section 112(f); the specification must disclose an algorithm for performing the claimed function—in a formula, flowchart, or prose—to avoid indefiniteness under Section 112(b).

The guidance cites a technical dictionary that defines an algorithm as "a finite sequence of steps for solving a logical or mathematical problem or performing a task." Microsoft Computer Dictionary (5th ed., 2002). Rather than detail a general-purpose computer, the corresponding structure to the claim should be a specific-purpose computer programmed to perform each step of the algorithm necessary to achieve the claimed function.

The guidance also outlines disclosure in the Section 112(a) context. By disclosing an algorithm, the inventor also satisfies the written description requirement. Spelling out an algorithm in most cases, rather than stating a program could hypothetically be coded, would describe the claimed invention in sufficient detail to demonstrate possession.

Pitfalls & Practice Tips

This instructive guidance fits into the recent, broader USPTO effort to achieve consistency in application of the Patent Act and across disparate technology fields. Most recently, this trend has been evidenced by the USPTO's rule standardizing claim construction standards between the PTAB and federal courts, and the concurrently issued Section 101 eligibility guidance.

With this guidance, the USPTO is giving practitioners the tools to prosecute and enforce valid software patents; inventors should make sure to provide sufficient structure for computer-implemented means-plus-function claims, including algorithmic support.

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