USPTO Issues New Guidance on Computer-Implemented Means-Plus-Function Claim Terms

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On January 4, 2019, the United States Patent and Trademark Office (USPTO) announced new guidelines for "Examining Computer-Implemented Functional Claim Limitations for Compliance with 35 U.S.C. § 112." These guidelines, published in the Federal Register on January 7, 2019, take immediate effect and apply to all pending applications and issued patents.

While nothing in these guidelines appears to alter the current framework for analyzing computer-implemented means-plus-function claim terms, the guidelines nonetheless provide both patent prosecutors and patent litigators with a helpful reminder of certain additional considerations encountered when a patent claims software or other computer-implemented function. This is both useful and important because software is frequently and most easily described in terms of a goal or objective to be implemented on a computer, and so software claims raise particular problems with respect to the written description, enablement, and definiteness requirements of 35 U.S.C. § 112.

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Of foremost concern is whether computer-implemented claim limitations invoke the means-plus-function requirements of 35 U.S.C. § 112(f). This is determined by evaluating whether:

(1) the claim limitation recites the term "means" (or "step") or a generic placeholder (e.g., mechanism, module, device, unit, component, element, member, apparatus, machine, system);

(2) the term is modified by functional language; and

(3) the term is not modified by sufficient structure, material, or acts for performing the function.

Underlying this 3-prong analysis are two presumptions both of which can be rebutted. First, a claim term that recites the word "means" and includes functional language creates a presumption that the term is written in means-plus-function form. This presumption is rebutted if the claim term includes additional words that are understood by a person of ordinary skill in the art to have a sufficiently definite meaning as the name for structure. Conversely, a claim term that lacks the word "means" creates a presumption that the term is not written in means-plus-function form. This presumption is rebutted if the claim term includes functional language and fails to recite sufficiently definite structure for performing the claimed function.

Once it is determined that a claim term invokes 35 U.S.C. § 112(f), the term is construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof. The new guidelines require that the specification must, in order to satisfy the definiteness requirement of 35 U.S.C. § 112(b), disclose an algorithm for performing the claimed function. In other words, the corresponding structure for a computer-implemented-means-plus function limitation is not merely a computer, but a computer programmed to execute a particular algorithm. Citing to the Microsoft Computer Dictionary (5th ed., 2002), the new guidelines further define an algorithm as "a finite sequence of steps for solving a logical or mathematical problem or performing a task."

The new guidelines also discuss several often-cited cases addressing the requirements of a computer and algorithm, and explain that the algorithm must provide a step-by-step procedure for accomplishing a given result

and must be described in a degree of detail such that a person of ordinary skill in the art would know how to program the computer to achieve the claimed function. For example, it is not sufficient to merely reference a computer, a specialized computer, one or more undefined components of a computer system, program instructions, or any element that is a black box intended to perform the function. Rather, the corresponding structure for a function performed by a software algorithm is the algorithm itself, and the specification must disclose how the computer or computer components perform the claimed function.

Moreover, to demonstrate that the inventor was in possession of the claimed invention, the specification must disclose a computer and an algorithm even if a person of ordinary skill in the art would be capable of writing a software program to perform the claimed function. Accordingly, a computer-implemented-means-plus-function limitation found to be indefinite will also lack written description under 35 U.S.C § 112(a).

In sum, the new guidelines confirm that computer-implemented claim terms that implicate 35 U.S.C. § 112(f) must be rejected as indefinite under 35 U.S.C. § 112(b) and as lacking written description under 35 U.S.C. § 112(a) if the specification fails to disclose an algorithm or if the disclosed algorithm is not sufficient to perform the claimed function. When drafting applications directed to software, practitioners should be mindful of this requirement and ensure the specification discloses a computer programmed with a specific algorithm for accomplishing the computer-implemented function. Likewise, practitioners attempting to invalidate a patent should make certain to address the lack of or insufficiency of an algorithm when a patent includes computer-implemented-means-plus-function limitations.

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