

INTELLECTUAL PROPERTY | A SPECIAL REPORT

In this week's special report, we consider the responsibility of brand owners to remain resolutely above-board and cooperate with legal authorities when going after counterfeiters. We investigate the wisdom and legality of attempting to trademark slogans, like "Je suis Charlie," that spring up in response to cultural events or tragedies. And we consider a proposed portal proceeding to screen patent claims by nonpracticing entities.



Functional Patent Claims May Face More Vigorous Review

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An inventor seeking a patent must distinctly claim his or her invention, and those claims define and communicate to the public the boundaries of the invention over which a patent holder is granted exclusivity.

Although inventors often draft claims distinctly describing the structure of their invention, the law permits a form of shorthand drafting called "means-plus-function" claiming. Pursuant to 35 U.S.C. 112(f) (formerly 112(6)), a claim element may be drafted in terms of a means for performing a particular function, provided the patent specification describes the corresponding structure.

Although drafting claims in the means-plus-function form is convenient for an inventor, it can present significant challenges for the patent holder in litigation. If a court determines that there is no structure disclosed in the specification corresponding to the "means," then the claim is invalid. This can be particularly problematic with computer-implemented claims, where the law is still evolving as to what constitutes sufficient supporting "structure."

Given these considerations, an essential question in litigating any patent claims is whether a given claim is a means-plus-function claim. But how can one tell? It is easy when the inventor uses the magic words "means for." The more interesting question — particularly

for software patents — is what happens when the inventor drafts claims using different generic language such as "device," "module" or "heuristic"? This question has divided the courts during the past year, and may see significant decisions moving forward.

The words of a claim trigger a rebuttable presumption as to whether § 112(f) governs construction of that claim term. If a claim term uses "means for," there is a strong but rebuttable presumption that § 112(f) applies; if not, then the strong presumption is that § 112(f) does not apply.

When the magic words aren't invoked, the presumption against means-plus-function claiming may be overcome if the claim fails to recite "sufficiently definite structure" or merely recites a "function without reciting sufficient structure for performing that function." This test is relatively simple when physical structures are involved, but as the U.S. Court of Appeals for the Federal Circuit recently noted in *Apple Inc. v. Motorola Inc.*, requiring traditional physical structure in software claims lacking the term "means" "would result in all of these limitations being construed as means-plus-function limitations and subsequently being found indefinite."

This has left the Federal Circuit and district courts with the task of determining when a claim limitation describes a definite structure versus merely a function without



a sufficient structure. Over the past year, the courts at all levels have found a claim to be reciting functions sans structure roughly 25 percent of the time. This suggests that the strong presumption against means-plus-function sans "means for" remains strong.

The Federal Circuit grappled with this issue four times, finding the presumption overcome just once. Notably, however, two of the other three cases generated strong dissents. In her dissent in *Apple Inc.*, now-Chief Judge Sharon Prost may even have been calling for an en banc review of this issue.

BLURRED LINES

All of the Federal Circuit decisions illustrate the blurred lines between structure and function in such claims. In *EnOcean GmbH v. Face Intern. Corp.*, the court reversed a decision of the U.S. Patent and Trademark Office's Board of Patent Appeals and Interferences holding that the claim terms "receiver for receiving" and "receiver adapted to receiving" recited sufficient

structure to avoid § 112(f). The court based its decision on a factual finding that the structure would be “sufficiently definite” to a person having skill in the art.

Similarly, in *Williamson v. Citrix Online LLC*, the majority of a Federal Circuit panel reversed a district court decision construing the term “distributed learning control module” to be a means-plus-function element. The district court had found that “module” is a mere nonce word — a word devoid of structure — and so the claim failed to recite structure. The Federal Circuit disagreed, consulting extrinsic evidence in the form of dictionary definitions for “module” and holding that the adjectival modifiers “distributed learning control” connote structure.

Dissenting in *Williamson*, Judge Jimmie Reyna argued that “module” is devoid of structure, nothing more than “a generic description for software or hardware that performs a specified function.” Reyna further took issue with the majority’s characterization of the adjectival phrase, arguing that a “distributed learning control module” is nothing more than a functional unit.

Apple Inc. illustrates this same struggle. The majority reversed the district court, holding that claims using the term “heuristic” recited sufficient structure. The majority held that a limitation has sufficient structure when it uses a term with “a structural definition that is either provided in the specification or generally known in the art” or provided by describing the claim term’s “operation, such as its input, output or connections.” The majority found that a person of ordinary skill in the art would understand that “heuristic” defined a class of structures, similar to the terms connector, circuit and detector. Moreover, the majority looked to the structures disclosed in the specification to determine that heuristic disclosed a specific structure.

Dissenting, Prost argued, similar to Reyna, that in replacing “heuristic” with “means” she would see no difference in the claim limitations. She argued that this one-word difference in drafting “greatly expands the scope of the claim,” because the claim now extends to all possible heuristics performing the claimed function and not just the two specific heuristics described in the specification. Because Prost was concerned that such deference to use of the word “means” would allow patent claims — particularly software claims — to be broader than intended, she

argues that this outcome “should compel our court to reconsider” the issue.

On the other hand, representing the minority of cases, in *Robert Bosch v. Snap-On Inc.*, the Federal Circuit held that the terms “program recognition device” and “program loading device” overcame the strong presumption against means-plus-function claiming, and invoked § 112(f). Here, Prost, writing for the unanimous panel, rephrased the inquiry as “whether the claim language names particular structures or, instead, refers only to a general category of whatever may perform specified functions.” The court held that “device” is a nonce word and that all references in the patent specification to “program recognition device” and “program loading device” merely described a function. Finally, the court held that expert testimony listing structures that had those functions was insufficient to avoid invocation of § 112(f).

The Patent Office may have recognized this challenge, as it has been willing to take a tougher position on some nonce words in patent claims. In three decisions in 2013 alone, the Patent Trial and Appeal Board found that “processor” was a nonstructural term. In *ex parte Erol*, *ex parte Smith and ex parte Lakkala*, claims to a processor either “adapted,” “configured” or “programmed” were found to be means-plus-function claims, and invalidated for indefiniteness.

Ultimately, whether a given term recites sufficient structure may turn on where in the patent that term is used. For example, in *Inventio A.G. v. ThyssenKrupp Elevator Americas Corp.*, the Federal Circuit held that the term “computing unit” in the patent claim recited sufficient structure to avoid the invocation of § 112(f). Nonetheless, the court as recently as this year, in *Triton Tech of Texas LLC v. Nintendo of America Inc.*, held that reciting a general-purpose computer without disclosing a specific algorithm recited insufficient structure and invalidated the corresponding means-plus-function claim.

SUPREME COURT’S IMMEDIATE IMPACT

Something that may not immediately jump out about the Federal Circuit decisions is the role of extrinsic evidence. In every case, the court looked to either dictionary definitions or expert testimony regarding the knowledge of a person of ordinary skill in the art. The Federal Circuit reviewed

these determinations de novo, but that may change moving forward.

In the U.S. Supreme Court’s recent decision in *Teva Pharmaceuticals USA Inc. v. Sandoz Inc.*, the court reaffirmed that factual findings by the district court will be reviewed for clear error and clarified that this applies even in the claim-construction context. The fundamental dispute in *Teva* was over the meaning of a claim term to a person of ordinary skill in the art. The court specifically discussed the consultation of extrinsic evidence, such as dictionary definitions and expert testimony, to determine “the meaning of a term in the relevant art during the relevant period of time.” The court held that the district court’s factual determinations on these issues must be reviewed using the “clear error” standard of review.

Ultimately, *Teva* did not change the standard of review of the legal question of claim construction, but it may alter how the Federal Circuit reviews determinations of whether a term recites sufficient structure. To the extent the district court makes findings of fact with regard to how a person of ordinary skill in the art would view a specific term, that finding may receive far more deference on review.

Given this landscape, what might the future look like? The questions of structure versus function may grow in significance in obtaining or litigating software claims. Whereas using nonce words may once have been a way to have one’s cake and eat it too — obtaining broad claim scope without reciting cumbersome (and limiting) structure in the claim itself or in the specification — those days look numbered at the Patent and Trademark Office. If the courts follow suit, software patent claims may face more rigorous review. Software patent claims can still have meaning without “means,” but attorneys should make sure to structure patents with sufficient “structure” in their claims.

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