Keywords: **means plus function; claim construction; nonce words**

General: **Absence of the term "means" in a claim no longer creates a "strong" presumption that 35 U.S.C. § 112, paragraph 6 does not apply**

Williamson v. Citrix Online, LLC
(Fed. Cir. 2015) (*en banc*)
Decided June 16, 2015

I. Facts

Richard A. Williamson is the trustee for the At Home Corporation Bondholders' Liquidating Trust, who owns U.S. Patent Number 6,155,840 (the '840 patent). The '840 patent relates to systems and methods that create a virtual classroom environment. The claims include recitations of a "distributed learning" system that has three main components: 1) a presenter computer; 2) audience member computers; and 3) a distributed learning server that facilitates communication and interaction between the presenter and audience member computers. Relevant claim language from independent claim 8 recites:

> a *distributed learning control module* for receiving communications transmitted between the presenter and the audience member computer systems and for relaying the communication to an intended receiving computer system and for coordinating the operation of the streaming data module.

Williamson brought patent infringement suits against Citrix Online LLC and others, alleging infringement of all 24 claims. In its claim construction order, the district court held that the phrase "distributed learning control module" in independent claim 8 invokes 35 U.S.C. § 112, paragraph 6. Using the two-part analysis associated with means-plus-function claim construction, the district court held claims 8-16 as invalid under 35 U.S.C. § 112, paragraph 2 because the specification fails to provide necessary structure for performing all the claimed functions of the "distributed learning control module." A judgment of non-infringement of claims 1-7 and 17-24 was entered based on a claim construction order associated with other, unrelated recitations of claims 1 and 17. Williamson appealed.

In its split panel opinion, the Federal Circuit concluded that the district court's claim constructions were erroneous, and vacated the judgment of invalidity of claims 8-16 and the judgment of non-infringement of claims 1-7 and 17-24. Relying on the precedent established in *Lighting World* and *Inventio*, the panel held that the "distributed learning control module" recitation of claim 8 does not invoke 35 U.S.C. § 112, paragraph 6. The majority explained that there is a "strong" presumption against invoking means-plus-function claiming when the claim does not use the word "means," and that to overcome this strong presumption, "it must be determined that 'skilled artisans, after reading the patent, would conclude that [the] claim limitation is so devoid

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of structure that the drafter constructively engaged in means-plus-function claiming[1].'" Applying this standard, the majority held that the presumption was not rebutted. More specifically, the majority held that the term "module" has certain definitions that connote structure, that the claimed communications between the computer systems suggests structure, and that the description of the "distributed learning control module" in the specification, though highly generic and functional, is suggestive of structure.

After issuance of the panel's opinion, Citrix filed for rehearing *en banc*. The court granted an *en banc* rehearing without argument, and specifically considered whether 35 U.S.C. § 112, paragraph 6 applies to the "distributed learning control module" limitation of independent claim 8.

II. Issues

Did the district court err in its interpretation of the claim language of independent claim 8?

III. Discussion

No. The Federal Circuit's *en banc* opinion overrules the characterization established in *Lighting World* that the presumption against means-plus-function claiming is "strong" when a claim does not use the term "means." The *en banc* opinion also overrules the requirement of "a showing that the limitation essentially is devoid of anything that can be construed as structure," as established by the *Inventio* court, noting that this evidentiary burden was too high. Instead, the "new" standard is the same as the "old" pre-*Lighting World* standard: "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[2]." Thus, if a claim does not recite the term "means," the presumption can be overcome and 35 U.S.C. § 112, paragraph 6 will apply by demonstrating that the claim term in question fails to "recite sufficiently definite structure" or "recites function without reciting sufficient structure for performing that function[3]."

Having re-established the standard for rebutting the presumptive inapplicability of 35 U.S.C. § 112, paragraph 6, the *en banc* court considered whether 35 U.S.C. § 112, paragraph 6 applies to the "distributed learning control module" limitation of claim 8. The court first noted that the passage is consistent with a traditional means plus function claim structure, the main difference being that the term "means" is replaced with the term "module." The court went on to note that the term "module" is a well-known "nonce" word that can operate as a substitute for the term "means," and that using other generic terms such as "mechanism," "element," and "device" in a similar manner without more descriptive subject matter is tantamount to using the term "means" because the terms

[1] citing *Inventio AG v. ThyssenKrupp Elevator Ams. Corp.*, 649 F.3d 1350, 1357 (Fed. Cir. 2011)
[2] citing *Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580 (Fed. Cir. 1996)
[3] citing *Watts v. XL Sys., Inc.*, 232 F.3d 877, 880 (Fed. Cir. 2000)

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generally do not denote sufficiently definite structure. In the present context, the court noted that the term "module" simply denotes software or hardware that performs a specified function, but that this was not sufficiently definite structure even when considered with the adjectival modifier "distributed learning control." The court did note, however, that the presence of certain modifiers can change the meaning of "module" in certain situations.

The court also dealt with whether the inputs and outputs recited at a high level in the claim are sufficient to denote structure to avoid 35 U.S.C. § 112, paragraph 6. Specifically, the court noted that there was nothing in the claim that describes the manner in which the "distributed learning control module" interacts with other components in the distributed learning control server so as to be informative of the structure of the "distributed learning control module." Further, while Williamson pointed to testimony of a person of ordinary skill in the art that he would know exactly how to program a computer to perform the specified functions, the court did not find this testimony to be convincing. The court noted that "the fact that one of skill in the art could program a computer to perform the recited functions cannot create structure where none otherwise is disclosed."

Based on its analysis, the court determined that the presumption against means-plus-function claiming was rebutted, and moved on to review whether the disclosure in the '840 patent provides adequate structure corresponding to the claimed functions of the distributed learning control module. Importantly, the court noted that the distributed learning control module must be implemented in a special purpose computer (a general purpose computer programmed to perform specific functions) because the module has specialized functions. The court emphasized that in such a situation, the structure set forth in the specification must be more than just a general purpose computer or microprocessor. Specifically, an algorithm for performing each claimed function is required, and the algorithm may be expressed as a mathematical formula, in prose, as a flow chart, etc.

Williamson pointed to certain sections of the specification and drawings, but the court did not find these sections to adequately satisfy the requirements of 35 U.S.C. § 112. Instead, the disclosure was held to be functional and not structural, and the drawings were simply illustrations of an example display. The court held that the '840 patent fails to disclose any structure corresponding to the "coordinating" function of the "distributed learning control module" of claim 8, and affirmed the district court's judgment that claims 8-16 are invalid under 35 U.S.C. § 112, paragraph 2.

IV. <u>Conclusion</u>

The *en banc* court established an evidentiary standard 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" to rebut the presumption against means-plus-function claiming in accordance with 35 U.S.C. § 112, paragraph 6. The court found that

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the "distributed learning control module" lacks sufficient structure and is subject to interpretation under 35 U.S.C. § 112, paragraph 6.

V. Dissent

Judge Newman dissented. Judge Newman stated that the court should recognize that it is the applicant's choice during prosecution whether or not to invoke paragraph 6, and it is the court's job to hold the patentee to his or her choice. Judge Newman further stated that this type of an approach is clear, easy to administer, and does no harm since patent applicants know how to invoke paragraph 6 if they so choose. Judge Newman also argued that if the court is concerned with "overly broad interpretation of software claims," then it should apply the statute, not eliminate portions of it, since the claims must meet *all* the requirements for patentability (e.g., including novelty and nonobviousness).

VI. Practice Tips

- If you do not mean to invoke paragraph 6, avoid using a claim structure that is similar to a means-plus-function claim (e.g., do not use a phrase such as "[generic structure] for [function]") and avoid using the term "for" as applied to a function
- Consider providing additional "algorithmic structure" relating to certain functions performed by a device or module, especially if it can be implemented in hardware or software
- If embodiments may be implemented as software, claim them as such (e.g., instructions stored on a non-transitory, machine-readable medium…)
- Try to use terms that connote "sufficiently definite" structure to one of ordinary skill in the art *in the claim language* – the sufficiently definite structure should be capable of performing *all* the claimed functions
- Avoid using the nonstructural generic placeholders listed included in M.P.E.P § 2181, such as "module for," "mechanism for," "device for," "unit for," "component for," "element for," "member for," "apparatus for," "machine for," or "system for"

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