

Keywords: 35 U.S.C. §112 (1); 35 U.S.C. §112 (2); 35 U.S.C. §112 (6); means-plus-function language; means-plus-function presumption; software claims.

General: The absence of the term “means for” in a claim does not necessarily mean that 35 U.S.C. § 112 (6) doesn’t apply, but rather triggers a rebuttable presumption.

Ex parte Rodriguez

U.S. Patent and Trademark Office Board of Patent Appeals and Interferences
(precedential opinion)
Decided October 1, 2009

I. Facts

The technology at issue, disclosed in U.S. Patent Application 10/132,492 (hereinafter ‘492), generally relates to verification of hardware components with an automated verification system. Within the specification, the automated verification system is described with two high level block diagrams illustrating system components and a process flow chart illustrating the operation of the system. Specifically, the automated verification system is described as an apparatus including a system configuration generator, a system builder, and a simulation verification environment. Further, the specification notes that the function performed by the system may be implemented using “a conventional general purpose digital computer.”

While the automated verification system is implemented via software running on a general purpose computer, details on an algorithm and/or source code were not included in the specification. Instead, the specification noted that “appropriate software coding can readily be prepared by skilled programmers based on the teachings of the present disclosure, as will also be apparent to those skilled in the relevant art(s).”

The ‘492 application included four different sets of claims: an apparatus claim, an apparatus means-plus-function claim, a method claim, and a computer-readable medium claim. The apparatus claim recites:

1. An apparatus, comprising:
 - a system configuration generator *configured to generate a random system configuration file of a structurally variable and complex system;*
 - a system builder *configured to build a system level netlist in response to said random system configuration file;* and

a simulation verification environment *configured to* verify said structurally variable and complex system in response to said system level netlist, wherein said simulation verification environment is *configured to* provide automatic random verification of said structurally variable and complex system in response to said random system configuration file.

The apparatus means-plus-function claim, the method claim, and the computer-readable medium claim parallel the apparatus claim. For example, the apparatus means-plus-function claim specifically states:

10. An apparatus, comprising:
 means for generating a random system configuration file of a structurally variable and complex system;
 means for building a system level netlist in response to said random system configuration file;
 means for verifying said structurally variable and complex system in response to said system level netlist; and
 means for providing automatic random verification of said structurally variable and complex system in response to said random system configuration file.

During prosecution of the '492 application, the Examiner rejected all four independent claims under 35 U.S.C. §102. On Appeal, The Board of Patent Appeals and Interferences (hereinafter "the Board") reversed these rejections and entered new rejections under 35 U.S.C. §112 (1) and (2), as not being enabled for the scope of the claims and for being indefinite. Furthermore, the Board entered additional new grounds of rejections for the apparatus claims 1 and 10.

II. Issue

A. Is the apparatus means-plus-function claim (claim 10) definite under 35 U.S.C. §112 (2) if the means is not supported with corresponding structure in the specification?

B. Is the apparatus claim (claim 1), when construed as *effectively* having means-plus-function language despite lacking the "*means for*" language, definite under 35 U.S.C. §112 (2) if the means is not supported with corresponding structure in the specification?

C. Is the apparatus claim (claim 1), when *not* construed as having means-plus-function language, enabled under 35 U.S.C. §112 (1) when the functional elements of the claim are not limited by the application of 35 U.S.C. §112 (6) and the claim does not contain any additional recitations of structure?

III. Discussion

A. Claim 10 is indefinite under §112 (2) because the means is not supported with corresponding structure in the specification.

In a prior Federal Circuit case, *Aristocrat Techs. Austl. Pty Ltd. V. Inter. Game Tech.* (521 F.3d at 1334), the Court held that for claims related to a computer-implemented invention invoking §112 (6), the structure described in the specification must not only disclose a general purpose computer or microprocessor, but must also disclose a specific algorithm. For example, the Court stated that the specific algorithm is needed to transform the standard computer or microprocessor into a special purpose computer capable of carrying out the means-plus-function language of the claims. In particular, the Court noted that references to “appropriate programming” are not sufficient to transform a general purpose computer into more a specific structure.

In applying the holding from *Aristocrat*, the Board found claim 10 indefinite under §112 (2) because no details related to an algorithm were provided in the specification to transform the general purpose computer into a specific structure configured to implement the recited means-for language. The Board noted that the specification stated using “appropriate software coding,” which, similar to the “appropriate programming” language in *Aristocrat*, fails to provide sufficient structure to support the recited means-plus-function language.

B. Claim 1, when construed as having means-plus-function language under §112 (6), is indefinite under §112 (2) because the means is not supported with corresponding structure in the specification.

Despite the fact that claim 1 lacks the “*means-for*” language typically needed to invoke §112 (6), the Board *effectively* treated claim 1 as including means-plus-function language. The Board stated that the absence of means-for language within a claim does not necessarily mean that §112 (6) cannot be used. Rather, the lack of means-for language merely triggers a “*rebuttable presumption*” that §112 (6) does not apply. The presumption can be rebutted by showing that the claimed elements are verbal constructs that are not recognized as “the name of a structure” and are simply “a substitute for the term ‘means for.’” The presumption can also be rebutted by showing that the claim recites functional

limitations without having sufficient structural context or support in the specification.

The Board found that the claimed elements are not terms that are understood to describe structure, but rather are “verbal constructs” configured to substitute for the term “means for.” For example, the “system configuration generator,” the “system builder,” and the “simulation verification environment” do not have any recognition in the art as “noun denoting structure[s].” In other words, these claimed terms, for a person of ordinary skill in the art, do not evoke a particular structure or a variety of structures. In reaching this conclusion, the Board looked at general and subject specific dictionaries, prior art patents, and a review of the prosecution history of the present case. Accordingly, the Board noted that there is no structural context for these terms, and that these terms are merely “verbal constructs that are not recognized as the name of a structure and are simply a substitute for the term ‘means for.’”

In addition, the Board found that the claim recites functional limitations that have no structural context or support in the specification, as noted above with respect to claim 10. As such, the Board asserted that the *presumption* that a claim without “means for” language cannot evoke §112 (6) has been *rebutted*. Accordingly, the Board applied to claim 1 the rationale from *Aristocrat* used to reject claim 10 under §112 (2) (as described above).

C. Claim 1, when *not* construed as having means-plus-function language, is still invalid because it is not enabled under 35 U.S.C. §112 (1).

The Board found that even if claim 1 were not construed as having means-plus-function language under §112 (6), claim 1 would still be invalid for lack of enablement under §112 (1). Specifically, applying the *Halliburton* rule, the Board noted that the claimed elements of claim 1 “are purely functional (i.e., there is no particular structure to support the function being performed).” Further, the Board stated that the claimed elements are “essentially black boxes not connoting any structure to the skilled artisan, and are merely circularly defined by their desired functions.” Accordingly, the Board found that these claimed elements are not enabled under §112 (1).

IV. Conclusion

The Board rejected the apparatus means-plus-function claim (claim 10) under 35 U.S.C. §112 (2), following the rationale set under *Aristocrat*. In addition, despite the lack of “means for” language in the apparatus claim (claim 1), the Board found that the “*configured to*” language was *effectively* means-plus-function language, and rejected claim 1 under 35 U.S.C. §112 (2), following the same rationale. Further, the Board noted that even if the apparatus claim (claim 1) was

not considered to include means-plus-function language, claim 1 would be rejected under 35 U.S.C. §112 (1), for not being enabled for the scope of the claim.