

NOTE: This disposition is nonprecedential.

## United States Court of Appeals for the Federal Circuit

2007-1375

ARISTOCRAT TECHNOLOGIES AUSTRALIA PTY LTD.,

Plaintiff-Appellant,

v.

MULTIMEDIA GAMES, INC.,

Defendant-Appellee.

Glenn K. Beaton, Gibson, Dunn & Crutcher LLP, of Denver, Colorado, argued for plaintiff-appellant. With him on the brief were J. Gregory Whitehair and Stephen C. McKenna.

Charles A. Bird, Luce, Forward, Hamilton & Scripps LLP, of San Diego, California, argued for defendant-appellee. With him on the brief was Callie A. Bjurstrom.

Appealed from: United States District Court for the Central District of California.

Judge George P. Schiavelli

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MULTIMEDIA GAMES, INC.,

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Appeal from the United States District Court for the Central District of California in Case No. 05-CV-0679, Judge George P. Schiavelli.

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DECIDED: February 22, 2008

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Before LOURIE, SCHALL, and BRYSON, Circuit Judges.

LOURIE, Circuit Judge.

Aristocrat Technologies Australia Pty Ltd. (“Aristocrat”) appeals from the order of the United States District Court for the Central District of California entering summary judgment of invalidity for indefiniteness of U.S. Patent 4,817,951 (“the ’951 patent”) in favor of Multimedia Games, Inc. (“Multimedia”). Because the district court erred in construing the claims at summary judgment while genuine issues of material fact

remained pertinent to such construction, we reverse the district court's order and remand for further proceedings in accordance with this opinion.

## BACKGROUND

On January 27, 2005, Aristocrat sued Multimedia for infringement of the '951 patent. The '951 patent is entitled "Player Operable Lottery Machine Having Display Means Displaying Combinations of Game Result Indicia," and describes and claims a machine similar to a slot machine that provides a paperless version of an instant lottery. At the start of a new lottery series, the controller retrieves a table of all the possible results for that series and then assigns each result to a random location in a block of memory, thereby creating a randomly ordered list of the game results. Each time a player deposits the required coins and pulls the lever to purchase a pseudo-ticket for the lottery, the next result in order on the list is retrieved, a display corresponding to the result is generated on the reels or other display, and, if a payout has been assigned for that result, the controller dispenses the coins corresponding to the assigned payout to the player or credits the amount toward further play. This process is repeated until the end of the list is reached (i.e., all tickets for that series have been purchased). The process is then repeated for another lottery series that may optionally be based upon a different table of possible results.

Claim 1, the only independent claim of the '951 patent, reads as follows:

A player operable instant lottery machine, comprising display means, control means to control the operation of the display means, and initiation means operable by a player to cause the control means to select and display a new result on the display means, said display means comprising means to simultaneously display several indicia in combination, said indicia being selected from a predetermined set of indicia and said combination being selected from a predetermined set of combinations of said indicia,

the control means including storage means for storing an ordered set of numbered game results representing a set of pseudo tickets of a lottery game series which is currently in progress, random number selection means for generating game results for said ordered set of game results and means for storing the ordered set in the storage means at the commencement of each said game series, means for sequentially selecting a next game result from the ordered set in the order in which they are stored in response to operation of the initiating means and means for displaying a combination of indicia corresponding to the currently selected game result.

(Emphases added.)

Multimedia filed a motion for summary judgment arguing that claim 1 was invalid for indefiniteness because the specification of the patent failed to disclose necessary structure corresponding to several of the means-plus-function limitations. The district court agreed with Multimedia and concluded that the claims were invalid as indefinite. The court identified six claim limitations that lacked corresponding structure in the specification: “control means”; “storage means”; “random number selection means”; “means for storing”; “means for sequentially selecting”; and “means for displaying.” The court concluded that because a person of ordinary skill in the art could not identify structure corresponding to the functions to be performed by the recited means, such a person could not determine the meaning of the claims.

Aristocrat timely appealed. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

#### DISCUSSION

Aristocrat argues that the first disputed claim limitation, “control means,” is not a means-plus-function limitation because the elements that make up the “control means” in claim 1 are sufficient to define its structure without resort to the specification. On the other hand, Aristocrat argues that even if “control means” is a means-plus-function

limitation, it clearly corresponds to the “controller” described in the specification—a term that persons of ordinary skill in the art would understand to be a microprocessor or other similar computerized control device based both on the term itself and the way that the controller is described in the specification. Aristocrat asserts that the “storage means” is clearly associated with the “memory” described in the specification and that the term “memory” identifies sufficient structure for the means, particularly because the specification shows the memory to be a part of the “controller” that has already been identified as a microprocessor. Aristocrat also argues that the specification describes the “random number selection means” as a “pseudo-random number generating algorithm.” Similarly, Aristocrat states that “means for storing,” “means for sequentially selecting,” and “means for displaying” are simply portions of the programming for the microprocessor controller that perform the associated functions.

Multimedia responds that subsidiary limitations that are themselves means-plus-function limitations cannot constitute sufficient structure to rebut the presumption that “control means” is a means-plus-function limitation. Multimedia also argues that nowhere in the specification is the “controller” identified as a microprocessor and that the term “memory” is too general to identify structure to a person of ordinary skill in the art. Multimedia adds that it is necessary for the specification to disclose at least a single algorithm for implementing the “pseudo-random number generating algorithm” in order to avoid indefiniteness. As for the final three means-plus-function limitations, Multimedia asserts simply that there is no structure in the specification associated with the stated functions.

We review claim construction de novo on appeal. Cybor Corp. v. FAS Tech., Inc., 138 F.3d 1448, 1456 (Fed. Cir. 1998) (en banc). “We likewise review the district court's grant of summary judgment de novo, reapplying the standards applied by the district court.” U.S. Philips Corp. v. Iwasaki Elec. Co. Ltd., 505 F.3d 1371, 1374 (Fed. Cir. 2007). “Claim construction of a means-plus-function limitation includes two steps. First, the court must determine the claimed function. Second, the court must identify the corresponding structure in the written description of the patent that performs that function.” Applied Med. Res. Corp. v. U.S. Surgical Corp., 448 F.3d 1324, 1333 (Fed. Cir. 2006) (citations omitted). “The review of indefiniteness under 35 U.S.C. § 112, paragraph 2, proceeds as a question of law without deference.” SmithKline Beecham Corp. v. Apotex Corp., 403 F.3d 1331, 1338 (Fed. Cir. 2005).

We conclude that genuine issues of material fact exist concerning whether one skilled in the art of computer programming would identify structure in the specification associated with the various asserted claim limitations, thereby precluding summary judgment, and we thus reverse the district court's summary judgment order. While we leave the district court to construe the disputed claim terms upon remand after the opportunity to hear any relevant testimony or evidence, we provide the following guidance to aid the court in its deliberations.

First, we agree with the district court that the “control means” limitation should be construed as a means-plus-function limitation. A presumption applies that a claim limitation that includes the word “means” is intended to invoke means-plus-function treatment. Rodime PLC v. Seagate Tech., Inc., 174 F.3d 1294, 1302 (Fed. Cir. 1999). However, that presumption may be rebutted (1) if the claim limitation recites no function

corresponding to the means or (2) if the claim limitation itself recites sufficient structure for performing the recited function. Id.; see also York Products, Inc. v. Cent. Tractor Farm & Family Ctr., 99 F.3d 1568, 1576 (Fed. Cir. 1996) (“Without a ‘means’ sufficiently connected to a recited function, the presumption in use of the word ‘means’ does not operate.”); Cole v. Kimberly-Clark Corp., 102 F.3d 524, 531 (Fed. Cir. 1996) (concluding that “perforation means . . . for tearing” was not a means-plus-function limitation because perforations were the structure for accomplishing the tearing function). While Aristocrat does not argue here that the claim recites no function corresponding to the control means, neither does Aristocrat argue that the clause “control means” alone recites sufficient structure to rebut the presumption. It does argue that the five subsidiary means-plus-function limitations do recite sufficient structure to rebut the presumption that “control means” is a means-plus-function limitation. We disagree.

The means-plus-function limitations subsidiary to the “control means” do not recite sufficient structure to remove the “control means” limitation from the ambit of 35 U.S.C. § 112, ¶ 6. While we do not agree with the apparent argument by Multimedia that subsidiary means-plus-function limitations can never define sufficient structure to rebut the presumption concerning means-plus-function treatment of a parent clause on the ground that they only recite additional functions, nonetheless, even if we were to assume that structures argued by Aristocrat for each of the subsidiary limitations (memory for the “storage means” and programming or software for the other limitations) are described in the specification, the structure of the “control means” would still not be sufficiently defined. That is because a combination of memory and programming does not adequately describe a microprocessor or other structure for performing the claimed

functions of the “control means”—controlling the operation of the display means, responding to the initiation means, selecting and displaying a new result, etc. The structure of a parent means clause must be disclosed in terms of the functions that the claim states the means performs. Here, it is not clear that the structures allegedly associated with the subsidiary means as a whole are capable of performing all of the functions associated with the parent means. However, under different circumstances it may be possible that once identified, structures corresponding to the subsidiary means-plus-function limitations may as a whole sufficiently recite the structure for performing the superior function such that resort to the specification for further corresponding structure is not necessary. Because that is not the case here, we conclude that the presumption of means-plus-function treatment applies, and “control means” should be construed as a means-plus-function limitation subject to having structural support in the specification.

Having concluded that “control means” is an independent means-plus-function limitation that must stand on its own merits, we must still determine whether it is supported by sufficient structure in the specification before turning further to evaluate the subsidiary limitations on their own. Aristocrat argues that the function of the control means is performed by the “controller” in the specification and that a person of ordinary skill in the art would readily identify a “controller” in the context of this patent as a microprocessor. We do not know if that is the case, and the district court did not decide that question. But what is clear is that the specification must disclose some structure for a means-plus-function limitation. See Default Proof Credit Card Sys., Inc. v. Home Depot U.S.A., Inc., 412 F.3d 1291, 1302 (Fed. Cir. 2005) (“In sum, while it is true that

the patentee need not disclose details of structures well known in the art, the specification must nonetheless disclose some structure. Stated differently, the testimony of one of ordinary skill in the art cannot supplant the total absence of structure from the specification.”) (citation omitted); In re Donaldson Co., Inc., 16 F.3d 1189, 1195 (Fed. Cir. 1994) (en banc) (“[I]f one employs means-plus-function language in a claim, one must set forth in the specification an adequate disclosure showing what is meant by that language.”). Whether a specification discloses adequate structure corresponding to a means-plus-function limitation is determined from the viewpoint of one of ordinary skill in the art: “[I]t is well-established that the determination whether a claim is invalid as indefinite ‘depends on whether those skilled in the art would understand the scope of the claim when the claim is read in light of the specification.’” Atmel Corp. v. Info. Storage Devices, Inc., 198 F.3d 1374, 1378 (Fed. Cir. 1999) (quoting N. Am. Vaccine, Inc. v. Am. Cyanamid Co., 7 F.3d 1571, 1579, (Fed. Cir. 1993)). That is what needs to be established by evidence on remand.

The law does not require that structure be explicitly identified as long as a person of ordinary skill in the art would understand what structure is identified in the specification. See Atmel Corp. v. Info. Storage Devices, Inc., 198 F.3d 1374, 1380 (Fed. Cir. 1999) (quoting with approval a proposed Supplemental Examiner Guideline stating that the “written description does not have to explicitly describe the structure . . . corresponding to a means(or step-) plus-function limitation to particularly point out and distinctly claim the invention as required by 35 U.S.C. 112 ¶ 2”). We have held that a computer was the intended structure even when it was not expressly recited. For example, in In re Dossel, 115 F.3d 942, 946-47 (Fed. Cir. 1997), we concluded that

although the specification did not use the “magic word ‘computer,’” a general or special purpose computer was clearly the structure intended to “receive[] digital data, perform[] complex mathematical computations and output[] the results to a display.” See also, Creo Products, Inc. v. Presstek, Inc., 305 F.3d 1337, 1347 (Fed. Cir. 2002) (“Under our case law interpreting § 112, ¶ 6, knowledge of one skilled in the art can be called upon to flesh out a particular structural reference in the specification for the purpose of satisfying the statutory requirement of definiteness.”). However, because it is not clear from the record that the present case is a Dosse situation, where the specification showed that a computer was clearly intended to be the means performing the claimed function, we will leave that determination to the district court upon remand.

Thus, the district court will need to define the relevant art and the level of ordinary skill in that art. Then, it will be presented upon remand with two questions in construing the limitation “control means.” First, would a person of ordinary skill in the art understand the word “controller” alone in the context of this invention to refer to a particular structure, such as a microprocessor; if the answer is “yes,” further inquiry into additional details of the specification is unnecessary because there would be adequate structure in the specification. Second, if the answer to the first question is “no,” one must ask whether a person of ordinary skill in the art would understand the word “controller” in the context of other statements and description in the specification to identify a particular structure, in which case, again, there would be adequate structure and the claim would not be indefinite. The district court might consider whether the controller must include writable memory that is capable of storing the randomly ordered set of game results and be capable of using a pseudo-random number generating

algorithm. In considering these questions, the court should consider how the reference to the use of “pointers” in the procedure of Figure 5 impacts the way in which a person of ordinary skill in the art would understand the term controller in the context of this specification. The expert testimony cited by the parties thus far, however, was too generalized and insufficiently focused on such specific questions in order to be relied upon for summary judgment.

The district court will also need to evaluate the subsidiary means clauses in the same manner. However, if the district court concludes that the structure of the “control means” is adequately identified in the specification, the identified structure will aid in the construction of the remaining claim terms because the organization of claim 1 requires that the structure of each of the subsidiary means-plus-function limitations must be a subset or part of the structure corresponding to the “control means.” Thus, higher level structure leads to subsidiary structure. For example, if the district court concludes that the “control means” corresponds to a microprocessor as urged by Aristocrat, construction of the “storage means” will be a straightforward matter as the parties already agree that the “storage means” refers to the “memory” in the specification and computer or microprocessor memory is a generally known structure.

However, Multimedia argues that even if the “random number selection means” corresponds to a “pseudo-random number generating algorithm,” that limitation is still indefinite because the specifics of that algorithm are not disclosed in the specification. Multimedia seemingly urges that WMS Gaming, Inc. v. International Game Technology, 184 F.3d 1339 (Fed. Cir. 1999), stands for the rule that when a general purpose microprocessor or computer is the structure corresponding to a recited function, a

specific algorithm for performing that function must be disclosed in order to avoid indefiniteness, and, by extension, a specific random number algorithm must be disclosed here. WMS Gaming, however, does not require that a particular algorithm be identified if the selection of the algorithm or group of algorithms needed to perform the function in question would be readily apparent to a person of skill in the art. For example, in Dosse, we found that the claim limitations “means for reconstructing the current distributions of the volume elements which are situated on said surfaces on the basis of said measured values” and “reconstruction means for determining the current distributions at said predetermined volume locations from said stored values” were not indefinite because, “[w]hile the written description d[id] not disclose exactly what mathematical algorithm w[ould] be used to compute the end result, it d[id] state that ‘known algorithms’ c[ould] be used to solve standard equations which are known in the art.” 115 F.3d at 946.

Similarly, in Medical Instrumentation, although we concluded that a box labeled “Image Format Conversion” in one of the patent figures could not “serve to clearly link software as a corresponding structure for the function of converting the images into a selected format,” we also concluded that “there would be no need for a disclosure of the specific program code if software were linked to the converting function and one skilled in the art would know the kind of program to use.” 344 F.3d at 1213-14. Thus, if the district court concludes on remand that a controller is synonymous with a microprocessor and that a person of skill in the art would readily appreciate the type of algorithm necessary to perform the pseudo-random number generating function, the primary focus for purposes of construing “random number selection means” and the

final three claim terms in dispute, “means for storing,” “means for sequentially selecting,” and “means for displaying,” will be whether algorithms needed to perform those functions are readily apparent to a person of skill in the art or are disclosed in the specification.

#### CONCLUSION

For the foregoing reasons, we reverse the district court’s entry of summary judgment of invalidity of the ’951 patent and remand for further proceedings in accordance with this opinion.

REVERSED AND REMANDED