Patent Invalid - No Algorithms Describe"Means Plus Function" Claim Language:"Symbol Generator" and "CPU Software"

The Court of Appeals for the Federal Circuit affirmed a U.S. District Court for the Southern District of Florida's decision invalidating patent claims on a system for multiple cellular phone users to monitor each others' locations and statuses via visual GPS/status displays on cell phone displayed maps because the claims fail to comply with 35 U.S.C. § 112, ¶ 2 and ¶ 6, the means-plus-function requirement, that the patent specification disclose adequate structure for the claim terms "symbol generator" and "CPU software." Advanced Ground Information Systems, Inc. V. Life360, Inc., Case No. 2015-1732 (Fed. Cir. July 28, 2016)(appeal from S.D.Fl., J. Middlebrooks). Since no algorithms were disclosed or discussed in the patent specification for the "symbol generator" and the "CPU software" claim language as required by § 112, ¶ 6, the claims were indefinite and hence invalid under § 112, ¶ 2.

The patents-in-suit related to methods, devices, and systems for establishing a communication network for users (referred to as "participants") of mobile devices, such as cellular phones. Multiple cellular phone users monitor each others' locations and statuses via visual display of such information on a map. Symbols on the cell phone displayed map represent the latitude and longitude of other cell phone users.

Excerpts from various patent claims, subject to the Section 112 attack by defendants, recited: (1) "a designated administrator reprogram devices to change, modify[,] or create new virtual switch names and new symbols for a different operating environment;" (2) "symbol generator in [a central processing unit ('CPU)] that can generate symbols that represent each of the participants' cell phones in the communication network on the display screen;" and (3)"a symbol generator connected to [a] CPU and [a] database for generating symbols on [a] touch screen display screen."

In response to patentee AGIS's complaint, defendant Life360 asserted that the claim terms "symbol generator" and "CPU software" in the claims invoked means-plus-function ("MPF") claiming allowed under 35 U.S.C. § 112, ¶ 6, but the patent specification terms failed to disclose adequate structure or processes under § 112, ¶ 6 and, therefore, the claims were indefinite under 35 U.S.C. § 112, ¶ 2.

Paragraph 6 of 35 U.S.C. § 112 allows "[a]n element in a claim for a combination" to "be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." Pursuant to 35 U.S.C. § 112, ¶ 6, if the specification of a patent does not disclose "corresponding structure, material, or acts" for "performing the specified function" in the claims, the patent will be found to be invalid for indefiniteness under 35 U.S.C. § 112, ¶ 2 because it does not "distinctly claim[] the subject matter . . . the inventor ... regards as the invention." 35 U.S.C. § 112,¶ 2. O.I. Corp. v. Tekmar Co., 115 F.3d 1576, 1583 (Fed. Cir. 1997). "If the specification is not clear as to the structure that the patentee intends to correspond to the claimed function, then the patentee has not paid that price but is ... attempting to claim in functional terms unbounded by any reference to structure in the specification." Med. Instrumentation & Diagnostics Corp. v. Elekta AB, 344 F.3d 1205, 1211 (Fed.

Cir. 2003).

The word 'means' creates a presumption that invokes the means-plus-function provisions of 35 U.S.C. § 112,¶ 6. Envirco Corp. v. Clestra Cleanroom, Inc., 209 F.3d 1360, 1364 (Fed. Cir. 2000) (citation omitted). "That presumption falls, however, if the claim itself recites sufficient structure to perform the claimed function." Id. "[T]he failure to use the word 'means' also creates a rebuttable presumption - this time that § 112, para. 6 does not apply." Williamson, 792 F.3d at 1348. "The standard is 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." Id. at 1349.

According to the District Court, "[a] plain reading of the term in context of the relevant claim language suggests the term 'symbol generator' is analogous to a 'means for generating symbols' because the term is simply a description of the function performed." Patentee's expert testified that he was "not aware whether the term 'symbol generator' [had] a meaning in computer science." Patentee argued that the expert "testified that those skilled in the art would have understood a 'symbol generator' to refer to a well-known class of existing, available, standard modules of software code used to generate symbols on a display."

The Federal Circuit found no clear error in the District Court's findings regarding the expert's testimony. The expert's testimony "that the terms 'symbol' and 'generator'' are known within the field of computer science is not dispositive and does not require [the Court] to find that 35 U.S.C. § 112, ¶ 6 does not apply." The District Court stated that the expert "testified [that] he was aware of the terms 'symbol' and 'generator' separately, but was unaware of [the] use [of] the specific term 'symbol generator' within the field of computer science".

Per the Federal Circuit: "Irrespective of whether the terms 'symbol' and 'generator'' are terms of art in computer science, the combination of the terms as used in the context of the relevant claim language suggests that it is simply an abstraction that describes the function being performed (i.e., the generation of symbols)."

The patent in suit stated: "Each cellular phone/[Personal Digital Assistant ('PDA')/[Global Positioning System ('GPS')]" is identified on the display of other phone systems by a symbol that is generated to indicate its identity." Further. "Each cellular phone device is identified on the map display of the other participant/user cell phone devices by a display symbol that is generated on each user cell phone device display to indicate each user's identity." The district court's construction of patent claims is based on intrinsic evidence. See Williamson v. Citrix Online, LLC, 792 F.3d 1339, 1346 (Fed. Cir. 2015) (en banc).

The Federal Circuit stated: "Finally, the claim term 'symbol generator,' by itself, does not identify a structure by its function, cf. Personalized Media Commc'ns v. ITC, 161 F.3d 696, 705 (Fed. Cir. 1998) (stating that the claim term 'digital detector' does not invoke § 112, ¶ 6 because '[e]ven though the term 'detector' does not specifically evoke a particular structure, it does convey to one knowledgeable in the art a variety of structures known as 'detectors''), nor do the asserted claims suggest that the term 'symbol generator'' connotes a definite structure, see Media Rights Techs., Inc. v. Capital One Fin. Corp., 800 F.3d 1366, 1372 (Fed. Cir. 2015) (finding that the term 'compliance

mechanism' invokes § 112, ¶ 6."

In Blackboard, Inc. v. Desire2Learn, Inc., 574 F.3d 1371, 1382 (Fed. Cir. 2009), the Court held that "If the specification does not contain an adequate disclosure of the structure that corresponds to the claimed function, the patentee will have failed to particularly point out and distinctly claim the invention [under § 112, ¶ 2], which renders the claim invalid for indefiniteness."

The Federal Circuit agreed with the District Court's determination that the 'term "symbol generator" is indefinite." Although the District Court recognized that "the specification describe[s], in general terms, that symbols are generated based on the latitude and longitude of the participants," the lower court nonetheless determined that the specification "fails to [disclose] an 'algorithm' or description as to how those symbols are actually 'generated.'"

In the case of computer-implemented functions, the Federal Circuit requires that the specification "disclose an algorithm for performing the claimed function." See Net MoneyIN, Inc. v. VeriSign, Inc., 545 F.3d 1359, 1367 (Fed. Cir. 2008). The specification can express the algorithm "in any understandable terms including as a mathematical formula, in prose, ... as a flow chart, or in any other manner that provides sufficient structure." Finisar Corp. v. DirecTV Grp., Inc., 523 F.3d 1323, 1340 (Fed. Cir. 2008) (citation omitted). Although the specification of the patent in suit suggests that these symbols are generated via "a map database and a database of geographically referenced fixed locations . . . with a specified latitude and longitude[,] ... [and] [a] database with the constantly updated GPS location,'" (citing the patent in suit), this description only addresses the medium through which the symbols are generated. A patentee cannot claim a means for performing a specific function and subsequently disclose a "general purpose computer as the structure designed to perform that function" because this "amounts to pure functional claiming." Aristocrat Techs., 521 F.3d at 1333.

[keywords: algorithm, indefinite, 35 U.S.C. § 112 ¶ 2, means-plus-function, 35 U.S.C. § 112 ¶ 6, computer-implemented functions, Symbol Generator, invalid]