

No. _____

In The
Supreme Court of the United States

RAIN COMPUTING, INC.,
Petitioner,

v.

SAMSUNG ELECTRONICS AMERICA, INC.,
SAMSUNG ELECTRONICS CO., LTD.,
SAMSUNG RESEARCH AMERICA, INC.,
Respondents.

ON PETITION FOR WRIT OF CERTIORARI TO THE
UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

PETITION FOR WRIT OF CERTIORARI

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QUESTIONS PRESENTED

Whether a patent claim may be invalidated for indefiniteness only if, under 35 U.S.C. § 112, para. 2 (now subsection 112(b)) as construed by *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014), the whole claim, “read in light of the specification delineating the patent, and the prosecution history, fail[s] to inform, with reasonable certainty those skilled in the art about the scope of the claim” and 35 U.S.C. § 112(f) (previously 112 para. 6) affects only coverage of a combination claim of which an element is expressed as allowed by the subsection?

Whether the United States Court of Appeals for the Federal Circuit panel in this case erred by invalidating a patent as indefinite without mentioning 35 U.S.C. § 112, para. 2 (now subsection 112(b)) and applying the *Nautilus* test and by substituting, without clear and convincing evidence, its conclusion of a “general purpose computer” for the district court’s finding of no “general computer”?

PARTIES TO THE PROCEEDINGS AND RULE 29.9 STATEMENT

The parties to the proceedings are those on the cover, namely petitioner Rain Computing, Inc. and respondents Samsung Electronics America, Inc., Samsung Electronics Co., Ltd., and Samsung Research America, Inc. Appeal No. 2020-1646, petitioner's appeal, and Appeal No. 2020-1656, respondents' cross appeal, were consolidated at the Federal Circuit Court of Appeals under the same caption.

Rain Computing, Inc. ("Rain") has no parent corporation, and no publicly held company owns 10 percent or more of its stock.

LIST OF RELATED PROCEEDINGS

Related proceedings include the following:

Rain Computing, Inc. v. Samsung Electronics America, Inc., Samsung Electronics Co., Ltd., and Samsung Research America, Inc., Nos. 2020-1646 and 2020-1656 (Fed. Cir.) (Judgment entered March 2, 2021)

Rain Computing, Inc. v. Samsung Electronics America, Inc., Samsung Electronics Co., Ltd., and Samsung Research America, Inc., No. 1:18-cv-12639-RGS (Judgment entered March 12, 2020)

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PETITION FOR WRIT OF CERTIORARI

Rain respectfully submits this petition for a writ of certiorari to review the opinion and judgment of the United States Court of Appeals for the Federal Circuit in Appeal Nos. 2020-1646 and -1656, dated March 2, 2021, which reversed the district court's opinion and order that the claims of U.S. Patent No. 9,805,349 ("the '349 patent") were not indefinite and dismissed the remainder of the appeal.

OPINIONS BELOW

The precedential opinion of the Federal Circuit panel is reported at 989 F.2d 1002 (Fed. Cir. March 2, 2021). App. 1a-9a. The district court's Memorandum and Order on Claim Construction ("Claim Construction Order," D. Mass. Feb. 12, 2020) is not reported officially, but appears at 2020 WL 708125 and 2020 U.S. Dist. LEXIS 24868; the Claim Construction Order (Doc. 43) is included in the appendix. App. 10a-38a.

STATEMENT OF JURISDICTION

On March 19, 2020, the Supreme Court extended all deadlines for filing petitions for certiorari due to COVID-19. In this case, the deadline was extended until July 30, 2021. The jurisdiction of the district court was invoked under 28 U.S.C. §§ 1331 and 1338. The jurisdiction of the Federal Circuit was invoked under 28 U.S.C. § 1295(a)(1). The jurisdiction of this Court is invoked under 28 U.S.C. § 1254(1).

STATUTORY PROVISIONS INVOLVED

Section 112(b) (formerly paragraph 2) of Title 35 of the United States Code (the “Patent Act”) provides:

(b) Conclusion. - The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

Section 112(f) (formerly paragraph 6) of the Patent Act provides:

(f) Element in Claim for a Combination. - An element in a claim for a combination may 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.

Section 282(a) of the Patent Act provides:

(a) In General. - A patent shall be presumed valid. Each claim of a patent (whether in independent, dependent, or multiple dependent form) shall be presumed valid independently of the validity of other claims; dependent or multiple dependent claims shall be presumed valid even though dependent upon an invalid claim. The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity.

Section 282(b) of the Patent Act provides:

(b) Defenses. - The following shall be defenses in any action involving the validity or infringement of a patent and shall be pleaded:

...

(3) Invalidity of the patent or any claim in suit for failure to comply with--

(A) any requirement of section 112

STATEMENT OF THE CASE

I. The Statutes as Read by the Court and the Appeals Court's Extension

Section 282 of 35 U.S.C. mandates the presumption of validity of patents issued by the United States Patent and Trademark Office ("PTO"), and sets forth defenses, including that of failing to comply with requirements of section 112. Subsection 112(b) (formerly 112, ¶ 2) requires ("shall") that patent claims "particularly point[] out and distinctly claim[]" the invention sought to be patented; it has been the basis for "indefiniteness" challenges to validity, subject to the subsection 282(a) (formerly 282, ¶1) after issuance of a patent. By contrast, subsection 112(f) (formerly 112, ¶ 6) permits ("may") expressing of an element of the claim "as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof," with the proviso that with such expression "such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof" (emphasis added); decisions of the United States Court of Appeals for the Federal Circuit ("CAFC") have transformed 112, ¶ 6 into, among other things, a weapon of "arbitrary judicial subjectivity" for invalidating issued patent claims where it can be argued that the permitted "expression" occurred. This Petition seeks review of the CAFC panel decision below in order to limit the CAFC transformation of 112, ¶ 6 and its application to invalidate patents without the analysis required by this Court's application of 112, ¶ 2.

This Court's unanimous opinion in *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 903 (2014), traced the definiteness requirement of 35 U.S.C. § 112(b) (formerly § 112, ¶ 2) to the 1870 Patent Act and based indefiniteness invalidity on former 35 U.S.C. § 282, ¶ 2(3), now § 282(b)(3)(A) ("failure to comply with any requirement of section 112"). In that context, this Court held that "a patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Id.* at 901.

By contrast, this Court in another unanimous decision, *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, 520 U.S. 17, 27-28 (1997), denied effect on the doctrine of equivalents by 35 U.S.C. § 112, ¶ 6 (now § 112(f)), confirmed to be Congress' "targeted cure to a specific problem," namely, *Haliburton Oil Well Cementing Co. v. Walker*, 329 U.S. 1, 8 (1946) (rejecting claims "that do not describe the invention but use 'conveniently functional language at the exact point of novelty'"). This Court confirmed that 112, ¶ 6 was permissive in allowing an applicant to "describe an element his invention by the result accomplished or the function served" (520 U.S. at 27), "with the proviso that application of the broad literal language of such claims must be limited to only those means that are 'equivalent[s]' to the actual means shown in the patent specification" (*id.* at 28).

Although not exploring the full reach of 112, ¶ 6, *Warner-Jenkinson* was clear that all of 112, ¶ 6, including its proviso on claim coverage, is permissive. The permitted expression of an element in a claim is not a "requirement of section 112,"

failure to comply with which allows a defense under 35 U.S.C. § 282(b)(3)(A).¹ Nor is the concomitant coverage of “such claim” that includes an element that is so expressed as permitted – not required – by 112, ¶ 6.²

The CAFC nonetheless has extended the reach of 112, ¶ 6 so that claim language that might be read to be a 112, ¶ 6 functional expression of an element may invalidate a claim as “indefinite” where “structure” is not found to “correspond” to the expressed function of the element. Thus, in *Williamson v. Citrix Online, LLC*, 792 F.3d 1339 (Fed. Cir. 2015) (en banc), a divided CAFC abrogated its prior “strong presumption” against applying 112, ¶ 6 to elements not expressed as “means for [function]” or “steps for [function]” to favor applying it to “nonce” words (that it exemplified by “module”) that are “associated” with a function. In *Williamson*, the majority found indefiniteness-

¹ The “requirements” (introduced by “shall”) include those of “written description” and “enablement” under 35 U.S.C. § 112(a) (112, ¶ 1) and “definiteness” of a claim under § 112(f) (112, ¶ 2). As noted in *Nautilus*, 572 U.S. at 903, since at latest 1870, American patent law has focused on the claim as defining a patentable invention. Under American patent law (as opposed to other systems that may focus on incremental improvements), “the general rule [is] that patent claims ‘must be considered as a whole.’” *Alice Corp. Pty. Ltd. v. CLS Bank International*, 573 U.S. 208, 218 n. 3 (2014), quoting *Diamond v. Diehr*, 450 U.S. 175, 192 (1981). Even the text of 112(f) (112, ¶ 6), while allowing a certain expression of an “element,” provides for construction and coverage of the “claim.” “Indefiniteness” should consider the whole claim as apparent under subsection 112(b) as stated in *Nautilus*.

² The language of the proviso, “and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof (35 U.S.C. 112(f)) is on its face a conditional rule of construction of the whole claim, not of the particular “element” expressed as permitted by 112, ¶ 6. We know of no authority that it is a “requirement of section 112” within the meaning of 35 U.S.C. § 282(b)(3)(A). Indeed, finding 112, ¶ 6 applicable to the patent application process, the CAFC maintained its separation from 112, ¶ 2: “one is still subject to the requirement that a claim ‘particularly point out and distinctly claim’ the invention.” *In re Donaldson Co.*, 16 F.3d 1189, 1195 (Fed. Cir. 1994) (en banc).

invalidity of a combination apparatus claim reciting a “distributed learning control module” where it did not find “corresponding structure” disclosed in the specification for three claimed functions “associated” with the module. 792 F.3d at 1351-52, *citing Noah Systems, Inc. v. Intuit Inc.*, 675 F.3d 1302, 1311-12 (Fed. Cir 2012).³ They did not mention this Court’s *Nautilus* 112, ¶ 2 decision of a year earlier.

In her dissent in *Williamson*, 792 F.3d 1358, 1358, Judge Newman lamented that the majority had “eliminat[ed] the statutory signal of the word ‘means,’” which served as a bright line for applicants who intended to avail of the 112, ¶ 6 option to express an element functionally and accept a limitation of scope – as well as providing notice to the public of that scope.⁴ In addition to reviewing the history of 112, ¶ 6 and

³ The CAFC panel there merged “35 U.S.C. § 112 ¶ 2 and ¶ 6” in a quotation from *AllVoice Computing PLC v. Nuance Communications, Inc.*, 504 F.3d 1236, 1241 (Fed. Cir. 2007), which in turn cited *Atmel Corp. v. Information Storage Devices, Inc.*, 198 F.3d 1374, 1381–82 (Fed. Cir. 1999). *Atmel* explained:

Section 112, ¶ 6 . . . does not have the expansive purpose of ¶ 1. It sets forth a simple requirement, a *quid pro quo*, in order to utilize a generic means expression. All one needs to do in order to obtain the benefit of that claiming device is to recite some structure corresponding to the means in the specification, as the statute states, so that one can readily ascertain what the claim means and comply with the particularity requirement of ¶ 2. . . .

198 F.3d at 1382. Thus, at the root, in line with the text and history of the two subsections (paragraphs) explained by this Court (pages 4 to 5 *supra*), 112, ¶ 6 is an optional expression of an element, while definiteness under 112, ¶ 2 under *Nautilus* is determined by whether the whole claim read in view of the specification and prosecution history informs with reasonable certainty the scope of the claim.

⁴ “Paragraph 6 has morphed from a clear legal instruction into a litigator’s delight.” 792 F.3d 1839. Here, the applicant did not avail of it (page 10 *infra*), the PTO said the applicant could not avail of a 112, ¶ 6 “means” in a method claim (page 10 *infra*), the district court was persuaded by Respondents of the applicability of 112, ¶ 6, but applied it and 112, ¶ 2 to find adequate disclosure for definiteness (pages 10 to 12 *infra*), and the CAFC panel was persuaded by Respondents to apply only 112, ¶ 6 to find indefiniteness (pages 12 to 15 *infra*). This after-issuance litigation over the applicability of the specifically targeted 112, ¶ 6 exactly exemplifies Judge Newman’s lament.

Congress' failure to amend it in its 2011 overhaul of the Patent Act (792 F.3d at 1359-61), Judge Newman referred to PTO examination guidelines that provided bright lines for the Examiner to apply 112, ¶ 6 where the claim limitations (1) must use the phrase "means for" or "step for" and be modified (2) by functional language and (3) not by structure, material or acts for achieving the specified function. 792 F.3d at 1261, *citing* Supplemental Examination Guidelines for Determining the Applicability of 35 U.S.C. 112 ¶ 6, 65 Fed. Reg. 38510, 38514 (June 21, 2000). She lamented that the majority had replaced "rigor and simplicity" with "arbitrary judicial subjectivity." *Id.* at 1363. Nonetheless, "All claims must meet the requirements of patentability. Paragraph 6 is a statute of authorization and limitation; it does not annul the other provisions of the [patent] statute." *Id.* at 1363; *also id.* at 1358 ("the claim must stand or fall on its merit, but does not fall under paragraph 6").

However, as in *Williamson*, the CAFC panel in the instant case applied 112, ¶ 6 and not 112, ¶ 2, to find claims invalid for indefiniteness. *Rain Computing, Inc. v. Samsung Electronics America Co.*, 989 F.3d 1002, 1007 [7a, 136a] (Fed. Cir. 2021) (hereinafter "*Rain (CAFC)*"), *citing Williamson*, 792 F.3d at 152. The panel invalidated the claim without citing *owr* discussing 112(b) or *Nautilus*. It went even further off course than *Williamson* at least by ignoring Petitioner's showing that the requisite structure and acts were recited in the claims and by requiring an algorithm for a general purpose computer when the district court found the disputed term was not such a computer (*Rain Computing, Inc. v. Samsung Electronics America Co.*, No. 1:18-cv-12639-RGS 2020 WL 708125, at *5 n. 6, 2020 U.S. Cist.

LEXIS 24868, at *14 n. 6 [10a, 23a n. 6] (D. Mass. Feb. 12, 2020), hereinafter “*Rain (D. Mass.)*”).

II. The Patent Claim at Issue⁵

The base, independent claim 1 of the ‘349 patent is made to a particular combination of steps for providing application software over a computer network to a user according to subscription information held in a “user identification module” where the accessed application software is executed by the user terminal’s operating system. Claim 1 is labeled and emphasized for this petition:

1. A method for providing software applications through a computer network based on user demands, the method comprising:

[a] accepting, through a web store, a subscription of one or more software application packages from a user;

[b] **sending**, to the user, a **user identification module configured to control access of said one or more software application packages**, and [c] **coupling** the **user identification module** to a client terminal device of the user;

[d] a server device **authenticating** the user **by requesting subscription information** of the user from the **user identification module** through the computer network;

[e] *upon authentication* of the user, the server device **providing**, to the client terminal device of the user, *a listing* of one or more *software application packages* subscribed through the web store in accordance with the *subscription information*;

[f] the server device receiving, from the client terminal device and through the computer network, a selection of a first software application package from said listing of one or more software application packages;

⁵ To limit the burden, Petitioner’s review of the record at this time is limited to documentation of the arguments that it made, the district court’s acceptance of some of them, and the CAFC panel’s failure to address them. The underlying evidence will be produced should this Court grant *certiorari*.

[g] the server device transmitting the first software application package to the client terminal device through the computer network; and

[h] executing the first software application package by a processor of the client terminal device using resources of an operating system resident in a memory of the client terminal device.

61a, 7:21-58 (emphasis added). The plain language claims action on a “user identification module” in the gerundial phrases of [b] sending to a user, [c] coupling to a user terminal device and [d] requesting subscription information through a computer network. Access to the software application packages is controlled through steps [a]-[g] based on subscription in step [a], the user identification module “configured” for its role in this control by storing subscription information, being sent to the user, coupled with the user terminal device and requested by the server to return the information. These steps are illustrated in Fig. 3 of the ‘349 patent (57a), which includes additional features for alternative embodiments, as explained in the description. 59a-60a, 4:2-6:58. The “user identification module” is disclosed as a “user identification device” of memory devices that may be coupled to the user terminal to perform its roles in the claim. 59a, 4:28-40 (“a SIM card, an IC card, a flash memory device, a CD-ROM, and the like”); *see* 74a. These provide reasonable certainty about the scope of the claim.

III. Prosecution History of the “User Identification Module” at Issue

The applicant for the ‘349 patent recited a “user identification module” instead of the “user identification device” specifically disclosed as memory devices (59a, 4:28-40; *see* 74a) in order to cover both physical and virtual implementations of the “user

identification device” analogous to “modules” illustrated in the ‘349 patent for the server (*e.g.*, modules 140 and 160 in Figs. 1 and 2, 55a-56a).

The applicant never availed of the 112, ¶ 6 option to express an element as “means for [function]” or “step for [function].” *See* 79a-80a. The “configured to control access” language was provided to address the Examiner’s objection that the “user identification module” needed to be specifically limited such that its role in the steps was not “optional.” 80a-81a. Indeed, three PTO examiners defending against the applicant’s ultimately successful appeal to the Patent Trial and Appeal Board argued that the applicant could not avail of the “means-plus-function” option in a method claim. 83a. The ‘349 patent was issued without the applicant or the PTO using the “configured to control access” language as a 112, ¶ 6 substitute for setting forth structure or acts in the method claims; as reviewed at pages 8 to 9 *supra*, the steps involving the “user identification module” to “control access” were recited in the claim⁶ and explained in the specification.

IV. The District Court’s Finding of Structure and Non-Indefiniteness

Respondents argued that the “configured to control access” language, rather than limiting “user identification module” to non-optionally operate in the “control access” function disclosed in the claim, subjected the claim to 112, ¶ 6 treatment

⁶ Petitioner argued and continues to maintain that the claims provided the necessary structure or acts. *E.g.*, 92a n. 13, *quoting Phillips v. AWH Corp.*, 415 F.3d 1303, 1311 (Fed. Cir. 2005) (*en banc*) (“Means-plus-function claiming applies only to purely functional limitations that do not provide the structure that performs the recited function.”), *citing Watts v. XL Systems, Inc.*, 232 F.3d 877, 880-81 (Fed. Cir. 2000), *quoting Personalized Media, Communications, LLC v. Int’l Trade Comm’n*, 161 F.3d 696, 703-04 (Fed. Cir. 1998) (“the focus remains on whether the claim . . . recites sufficiently definite structure” but needs not “connote a precise physical structure”).

under *Williamson*. The district court understood the Respondents to argue (1) “that the term itself does not denote structure, and that because the specification fails to disclose a corresponding algorithm, the term is indefinite,” and, alternatively, (2) “that the function of the term is ‘to control access to one or more server-based software application packages to which the user has a subscription,’ and that the corresponding structure is ‘a hardware device.’” *Rain (D. Mass.)*, 2020 WL 708125, at *3, 2020 U.S. Dist. LEXIS 24868, at *8-9 [10a, 17a]. Following the *Williamson* analysis of “nonce” words, the district court accepted Respondents’ second argument, without adding its proposed “server-based” limitation, finding “the structure of the ‘user identification module’ is ‘a hardware device capable of recording a user’s subscription information.’” 2020 WL 708125, at *3-5 & n. 5, 2020 U.S. Dist. LEXIS 24868, at *9-14 & n. 5, [17a-23a & n. 5]. The district court did not address Rain’s arguments of non-applicability of 112, ¶ 6 except to find that “[c]ontrary to Rain’s suggestion, that ‘a user identification module’ appears in a method rather than in an apparatus claim does not alter the conclusion that it is a means-plus-function claim.” 2020 WL 708125, at *4 n. 4, 2020 U.S. Dist. LEXIS 24868, at *11 n. 4, [20a n. 4].

The district court rejected Respondents’ first argument, of indefiniteness for alleged failure of the patent to “explain how a ‘user identification module’ is ‘configured to control access,’” by applying this Court’s *Nautilus* rule (572 U.S. at 901), that “a patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” 2020

WL 708125, at *5 n. 6, 2020 U.S. Dist. LEXIS 24868, at *14 n. 6, [23a n. 6] (emphasis in original). Citing the clear and convincing evidence hurdle applied on remand of *Nautilus* in *Biosig Instruments, Inc. v. Nautilus, Inc.*, 783 F.3d 1374, 1377 (Fed. Cir. 2015) and distinguishing *Aristocrat Techs. Australia Pty Ltd. v. Int'l Game Tech.*, 522 F.3d 1328, 1333 (Fed. Cir. 2008) (algorithm needed for programming general purpose computers), the district court found that claims were not indefinite under *Nautilus* (112, ¶ 2):

Here, the structure of ‘a user identification module’ is not a general computer performing a specialized function requiring a disclosure of the function’s algorithm. . . . Recording and retrieving a user’s subscription information is precisely the indented and ordinary function of “a hardware device capable of recording a user’s subscription information.”

2020 WL 708125, at *5 n. 6, 2020 U.S. Dist. LEXIS 24868, at *14 n. 6, [23a n. 6].

Neither Petitioner nor Respondents sought reconsideration of that decision.

V. The Appeals Court’s Reversal

In order to appeal a different claim construction, Rain stipulated to a judgment dismissing the case. 39a-40a. However, after the appeal was filed, Respondents cross-appealed the district court’s ruling of non-indefiniteness, arguing that the district court failed to find structure for the user identification module’s 112, ¶ 6 function of “control access” and that no algorithm was disclosed as the CAFC had required for “general purpose computers” under *Aristocrat*.

The CAFC panel (1) applied the *Williamson* reasoning that “module” in “user identification module” is a “well-known nonce word that can operate as a substitute for ‘means’”, (2) found that “user identification” merely described the function of the module, (3) assumed that the module was defined by a “claimed function of being

configured to control access,” (4) found that the specification does not import any structural significance to the term, “user identification module,” and (5) on that basis, applied 112, ¶ 6 to the term. *Rain (CAFC)*, 989 F.3d at 1006 [5a, 135a]. The panel did not address Rain’s arguments about the structure of the module as the storage device disclosed in the specification and claims, extended to a “module” connoting software implementation in the computer (74a, 78a-79a) where “configured to control access” was not a functional definition of the term that was otherwise specific enough for the Examiner in the method claim, but a response to the Examiner’s objection to “intended use” by substituting the actual “configured” for the counterfactual “for” (80a-81a, 89a-91a, 125a). It only concluded that the term was “purely functional claim language.” *Rain (CAFC)*, 989 F.3d at 1006 [6a, 135a]. As to the PTO’s understanding during prosecution that 112, ¶ 6 did not apply, the panel simply said “they were incorrect” and noted that “[a]pplicants are free to involve §112 ¶ 6 for a claim term nested in a method claim,” citing a couple of cases⁷ in which the CAFC held 112, ¶ 6 to apply. *Rain (CAFC)*, 989 F.3d at 1006 [6a, 135a] (emphasis added).

From there, the panel applied its *Aristocrat* line of cases to require an “algorithm” to be disclosed for general purpose computers relied upon for structure in a 112, ¶ 6 analysis. *Rain (CAFC)*, 989 F.3d at 1007 [7a, 136a]. Contrary to the panel’s

⁷ Rain distinguished at 92a and 125a these cases, *Media Rights Technologies, Inc. v. Capital One Financial Corp.*, 800 F.3d 1366, 1370 (Fed. Cir. 2015) and *On Demand Machine Corp. v. Ingram Industries, Inc.*, 442 F.3d 1331, 1340 (Fed. Cir. 2006) as involving terms that were wholly functionally defined, in contrast to the role of “user identification module” in the ‘349 patent claims “configured” as a required part of the its role in controlling access through steps [a]-[g] as reviewed at pages 8 to 9 *supra*.

pronouncement that “[t]he parties do not dispute that the function of ‘user identification module is to control access to one or more software application to which the user has a subscription’ (989 F.3d at 1007 [8a,136a]),⁸ Rain continued to maintain that “configured to control access” was not a 112, ¶ 6 expression of definition-by-function, but the recitation of non-optional presence of “user identification module” in the claimed process including controlling access (*e.g.*, 89a-93a) and expressly rejected Respondents’ contention that all of its proposed “controlling” function must be supported by the “user identification module” alone (124a-125a). The panel fashioned admissions from statements out of context.⁹

Although the CAFC panel stated that it would only upset the district court’s factual findings for “clear error,” the panel simply ignored that the district court expressly found the “user identification module” not to be a “general purpose

⁸ This statement of function is inconsistent with the panel’s earlier premise of a “claimed function of being configured to control access” (*Rain (CAFC)*, 989 F.3d at 1006 [5a, 135a]), which is a description closer to the non-optional role of the “user identification module” in the subset of steps involved in controlling access.

⁹ *Rain (CAFC)*, 989 F.3d at 1008 [8a-9a, 137a]. It cited to Appellant’s Resp. and Reply Br. at 22 [90a], which actually refers to the assertion and cites evidence that some common software algorithms may be used to query and respond to queries of a storage device, and to 27 [95a] n.17, which argued for inclusion of software implementations – in addition to the hardware devices (flash drives, CD-ROMs, which may include some standard “software”). The panel also cited to “J.A. 297-99,” which is a transcription of part of the inventor’s ten-year later recollection of whether there was software to allow the user identification module to work, as in the querying and response of a storage device. Rain explained this at 95a-96a, which the panel ignored. Rain also showed at 94a that Respondents mischaracterized the testimony as agreeing to “special programming” when it was about “specific configuration”; this was also ignored by the panel. Finally, the panel referred to an exchange at oral argument, which included Rain’s attempt to repeat its argument that the required algorithm for “controlling access” was set forth in the controlling-access steps [a]-[g] as reviewed at pages 8 to 9 *supra*.

computer” (*Rain (D. Mass.)*, 2020 WL 708125, at *5 n. 6, 2020 U.S. Dist. LEXIS 24868, at *14 n. 6, [23a n. 6]) and posited instead that “computer-readable media or storage devices amount to nothing more than a general purpose computer.” *Rain (CAFC)*, 989 F.3d at 1007 [7a-8a, 136a]). It did so without showing that “a SIM card, an IC card, a flash memory drive, a memory card, a CD-ROM and the like” were general purpose computers.¹⁰ The panel simply concluded that the district court erred “in concluding that the disclosure of computer-readable media or storage devices provided sufficient structure for the ‘control access’ function,” citing only the district court decision. *Rain (CAFC)*, 989 F.3d at 1007 [8a, 136a]). However, as reviewed at pages 11 to 12 *supra*, the district court decided non-indefiniteness on the basis of *Nautilus* 112, ¶ 2 review of the claim, not on a failure under 112, ¶ 6.

The CAFC panel found indefiniteness, citing only *Williamson* as authorization. *Rain (CAFC)*, 989 F.3d at 1007 [7a, 136a]). Ignoring the district court’s reliance on *Nautilus* and Rain’s reliance on that reliance (120a-126a) the panel

¹⁰ Rather than addressing, or even mentioning *In re Katz Interactive Call Processing Patent Litigation*, 639 F.3d 1303, 1316-17 (Fed. Cir 2011) (claims did not “run afoul of the rule against purely functional claiming” where the claimed functions of “processing”, “receiving” and “storing” were “coextensive” with the structure disclosed, a general purpose processor), which was argued by Petitioner to support its position of adequate disclosure of structure (*e.g.*, 124a), the CAFC merely stated that “an algorithm need not be disclosed” only “in the rare circumstances where any general-purpose computer without any special program can perform the function” (*Rain (CAFC)*, 939 F.3d at 1007 [7a, 136a], *citing Ergo Licensing, LLC v. CareFusion 303, Inc.*, 673 F.3d 1361, 1365 (Fed. Cir. 2012) (limiting *In re Katz*). Judge Newman dissented extensively, explaining *In re Katz* and lamenting the *Ergo Licensing*’s “destruction of a granted patent” as “not only a disservice to inventors who expect a reliable patent upon examination, but an injury to the public that is served by patent-supported innovation.” *Ergo Licensing* 673 F.3d at 1366, 1372.

reversed the district court's application of *Nautilus* without mentioning, much less applying *Nautilus* or 35 U.S.C. § 112(b) (112, ¶ 2).

REASONS FOR GRANTING THE PETITION

This petition should be granted (1) to determine the important federal question of whether 35 U.S.C. § 112(f) (112, ¶ 6) may be applied to invalidate an issued patent claim expressly without review of the claim under 35 U.S.C. § 112(b) (112, ¶ 2), which has not been, but should be, settled by this Court; and (2) to exercise this Court's supervisory power where the CAFC panel in this case not only applied 112, ¶ 6 to invalidate the patent at issue without addressing the district court's application of this Court's 112, ¶ 2 guidance to find the patent not indefinite, but ignored the finding by the district court that a "general computer" was not at issue and substituted a contrary finding without the clear and convincing evidence needed to invalidate a patent.

I. Any Finding of Indefiniteness Under 35 U.S.C. § 112(b) Should Meet this Court's Reading of that Provision in *Nautilus* and May Not Be Based Only on an Appeals Court's Opinion of Inadequate Availing of the 35 U.S.C. § 112(f) Statutory Option of Reciting Claim Elements by Their Functions.

The review at pages 4 to 8 *supra* of the long history of 35 U.S.C. § 112(b) (112, ¶ 2) definiteness as a basis for American patent claiming and the shorter history of the specifically targeted and option 35 U.S.C. § 112(f) (112, ¶ 6) shows a trend of the CAFC to merge the two in 112, ¶ 6 cases, particularly in computer-implemented invention cases (note 3 *supra*). Despite the laments of Judge Newman, the CAFC's longest-serving jurist (notes 4 and 10 and associated text *supra*), including her

proposal to address with existing statutory validity requirements any “concern[s] with overly broad interpretation of software claims” (*Williamson*, 792 F.3d at 1392 (dissent)), this trend has continued.

The trend has continued to the point where a CAFC panel, in the decision petitioned to be reviewed, reversed the district court’s application of *Nautilus*, without even mentioning *Nautilus* or applying its test of what a claim informs with reasonable certainty about the scope of the invention, relying only on application of *Aristocrat* (which the district court distinguished) and other cases in that line. *Rain* (CAFC), 989 F.3d at 1007 [7a, 136a], see pages 12 to 16 *supra*. Aside from the injustice visited upon *Rain*, this abbreviated, but precedential decision will support future indefiniteness invalidation of patents with *Aristocrat* versus *Nautilus* consideration.

As a minimum, the CAFC should be reminded that, as was applied by the district court (pages 11 to 12 *supra*), the 112, ¶ 6 and 112, ¶ 2 inquiries are distinct, and any finding of indefiniteness under 35 U.S.C. § 112(b) should meet this court’s reading of that provision in *Nautilus* and may not be based only on an appeals court’s subjective opinion of inadequate availing of the 35 U.S.C. § 112(f) statutory option of reciting claim elements by their functions.

In line with other statements of this Court (note 1 *supra*), it would be helpful to state explicitly that the whole claim must be considered under the 112, ¶ 2 inquiry as well as the 112, ¶ 6 inquiry. Subsection 112(b) on its face applies to the whole claim, and subsection 112(f), while authorizing a way to express an element of a claim, provides a rule of construction of the whole claim. While

subsection 112(b) dominates, the two should be reconciled if there should arise to a conflict.¹¹

Reconciliation is particularly important in light of the litigation room expanded by *Williamson*. Consideration (or reconsideration) should also be given to the manifested intent of the patent applicant in availing of 112, ¶ 6 authorized drafting of a purely functionally defined element, the PTO examining the claims,¹² and the (pre-litigation) public reading the claims – Judge Newman’s “signaling” (note 4 and associated text *supra*). The price for availing of 112, ¶ 6 should be paid upfront and not extracted through expensive litigation; abuses such as failure to adequately inform the public are already remedied under other provisions of the Patent Act.

The first question presented calls for affirmation that indefiniteness may only be found after a whole-claim *Nautilus* analysis under 112, ¶ 2 while 112, ¶ 6 affects only the coverage of a combination claim of which an element is expressed as allowed by 112, ¶ 6. This is faithful to the statutory language. If such an element is defined only by recitation of the function that it performs and no “corresponding structure, materials or acts” can be found in the specification, that element may be considered to have no coverage under 112, ¶ 6, which may affect the claim’s usefulness, but

¹¹ Here, the district court found 112, ¶ 6 structure in a physically-based memory device but avoided a conflict with 112, ¶ 2, by finding no *Aristocrat* general purpose computer. The CAFC improperly gave *Aristocrat* 112, ¶ 6 precedence over *Nautilus*.

¹² A court should not, as in this case, simply dismiss an Examiner’s – much less three Examiners’ – examination expressly rejecting application of 112, ¶ 6 (*e.g.*, page 10 *supra*). The panel’s “nested means-plus-function” cases may “free” the applicant to avail of 112, ¶ 6 claiming, but that freedom should not override the applicant’s choice not to avail and the PTO’s preclusion of such availing in the CAFC’s near-formulaic application of 112, ¶ 6 and required algorithms in its growing *Aristocrat* line of cases.

whether such a functional recitation is definite or not requires additional inquiry under 112, ¶ 2, not only under 112, ¶ 6.

II. In this Case, the Appeals Court Failed To Give Proper Deference to the District Court’s Finding that There Was No “General Computer” for Which an Algorithm Was Required, and There Was No Clear and Convincing Evidence To Overturn that Finding To Find the Patent Invalid.

Here, the CAFC panel elevates its 112, ¶ 6 analysis over the required 112, ¶ 2 analysis that it did not make¹³ or even mention, even though the district court expressly relied on both *Nautilus* and the CAFC’s response in *Biosig* (pages 11 to 12 *supra*). For that reason alone, the panel opinion should be reversed or vacated and remanded with instructions to apply *Nautilus*.

The panel also erred in failing to give proper deference to the district court’s finding that the “user identification module” that it construed under 112, ¶ 6 as “a hardware device capable of recording a user’s subscription information” is not “a general computer performing a specialized function requiring a disclosure of the function’s algorithm. *Cf. Aristocrat Techs. Australia Pty Ltd. v. Int’l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008).¹⁴ *Rain (D. Mass.)*, 2020 WL 708125, at *5 n. 6, 2020 U.S. Dist. LEXIS 24868, at *14 n. 6, [23a n. 6].

¹³ The panel completely ignored (and at oral hearing cut off) Rain’s argument that the relevant algorithm (“a step-by-step procedure for accomplishing a given result,” and may be described “in prose” *Ergo Licensing*, 673 F.3d at 1365) was set forth in the claims, particularly steps [a]-[g] as reviewed at pages 8 to 9 *supra*. These informed with reasonable certainty the scope of the claims to meet the *Nautilus* test.

¹⁴ *Aristocrat* recited in an apparatus claim “game control means” as performing functions of (1) controlling display of images, (2) paying a prize on certain conditions, and (3) defining “pay lines for the game” according to conditions recited in the claim. 521 F.3d at 1331. *Aristocrat*, the patent owner, specifically argued that the structure

Although the CAFC panel stated that it would only upset the district court's factual findings for "clear error," the panel simply ignored the above and posited that "computer-readable media or storage devices amount to nothing more than a general purpose computer." *Rain (CAFC)*, 989 F.3d at 1007 [7a-8a, 136a]. The panel gave no explanation how "a SIM card, an IC card, a flash memory drive, a memory card, a CD-ROM and the like" (the examples of the hardware storage device construed by the district court) would be general-purpose computers. One would be hard put to say that a flash memory drive is a general-purpose computer; it would be absurd to say a CD-ROM is.¹⁵ Almost invariably these would operate as "plugged in," thereby meeting the limited exception allowed by the panel (*id.*). There is no evidence, much less the clear and convincing evidence required by the CAFC's own *Biosig* case, to overturn the district court's finding of non-indefiniteness.

for this component of the apparatus claim was disclosed in the specification as "any standard microprocessor base [sic] gaming machine [with] appropriate programming" that was "within the capability of a worker in the art." *Id.* at 1333. *Aristocrat* itself traced, *id.*, its view of programming a general purpose computer to create a "new machine" to *In re Alappat*, 33 F.3d 1526 (Fed. Cir. 1994) (en banc), a case that opened up patenting of computer programs, but that was subsequently explained by the CAFC at *In re Bilski*, 545 F.3d 943, 958 (Fed. Cir. 2008), *aff'd sub nom. Bilski v. Kappos*, 561 U.S. 593 (2010), in the context of this Court's precedent that in assessing computer-implemented inventions, claims must be considered "as a whole." *Accord, Alice*, note 1 *supra*.

¹⁵ Some devices may have some interface or storage space allocation or indexing "algorithms" hard-wired, but the alleged "admissions" are more directed to the common software (such as input-output routines) for accessing the memory device. See note 9 *supra*.

Petitioner respectfully submits that questions presented are ready for review and respectfully requests that the Court grant this petition for certiorari.

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