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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ROMELIA H. FLORES and LEONARD S. HAND

Appeal 2017-009232
Application 13/611,065¹
Technology Center 3600

Before LARRY J. HUME, CATHERINE SHIANG, and
JASON J. CHUNG, *Administrative Patent Judges*.

SHIANG, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 21–38, which are all the claims pending and rejected in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm-in-part.

¹ Appellants identify IBM Corporation as the real party in interest. App. Br. 1.

STATEMENT OF THE CASE

Introduction

According to the Specification, the present invention “relates to the field of model driven architecture and, more particularly, to enabling synchronicity between architectural models and operating environments.”

Spec. ¶ 1. Claim 21 is exemplary:

21. A computer-implemented method for enterprise management, comprising:

identifying an operational environment including a computing system;
identifying an enterprise model within an enterprise organization;
creating a super model including at least one common component of the enterprise model and the operational environment; and

synchronizing the super model with the operational environment and the enterprise model, wherein the super model is a meta-model of the enterprise model.

References and Rejections²

Claims 21–38 stand rejected under pre-AIA 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement.³

Claims 21–38 stand rejected under 35 U.S.C. § 101 because they are directed to patent-ineligible subject matter.

² Throughout this opinion, we refer to the (1) Final Rejection dated September 19, 2016 (“Final Act.”); (2) Appeal Brief dated February 14, 2017 (“App. Br.”); (3) Examiner’s Answer dated April 14, 2017 (“Ans.”); and (4) Reply Brief dated June 14, 2017 (“Reply Br.”).

³ The Examiner withdrew an indefiniteness rejection. Ans. 2–3.

Appeal 2007-009232
Application 13/611,065

Claims 21–24, 26–30, 32–36, and 38 stand rejected under pre-AIA 35 U.S.C. § 102(b) as being anticipated by Aiber (US 2007/0006177 A1; January 4, 2007).⁴

Claims 25, 31, and 37 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Aiber and Brunswig (US 2006/0080289 A1; April 13, 2006).

ANALYSIS⁵

Pre-AIA 35 U.S.C. § 112, first paragraph

The Examiner rejects the following claims for failing to comply with the written description requirement: (1) claims 21–38 with respect to the limitation “creating a super model”; (2) claims 22, 28, and 34 with respect to the limitation “at least one inferred relationship between a component of the enterprise model and a node of the operational environment”; (3) claims 23, 29, and 35 with respect to the limitation “at least one explicit relationship between a component of the enterprise model and a node of the operational environment”; and (4) Claims 26, 32, and 38 with respect to the limitation “documentation of an architectural design is used to create the super model.” Final Act. 4–11.

To satisfy the written description requirement, the disclosure must reasonably convey to skilled artisans that Appellants possessed the claimed invention as of the filing date. *See Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). Specifically, the

⁴ The heading incorrectly includes claim 31, which appears to be a typographical error. Final Act. 18.

⁵ To the extent Appellants advance new arguments in the Reply Brief without showing good cause, Appellants have waived such arguments. *See* 37 C.F.R. § 41.41(b)(2).

Appeal 2007-009232
Application 13/611,065

description must “clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed” and

the test requires an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art. Based on that inquiry, the specification must describe an invention understandable to that skilled artisan and show that the inventor actually invented the invention claimed.

Id. (citations omitted).

Further, the written description statute “requires that the written description *actually* or *inherently* disclose the claim element.” *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1306–07 (Fed. Cir. 2008).

[I]t is not a question of whether one skilled in the art might be able to construct the patentee’s device from the teachings of the disclosure Rather, it is a question whether the application *necessarily discloses* that particular device A description which renders *obvious* the invention for which an earlier filing date is sought is not sufficient.

Lockwood v. Am. Airlines, Inc., 107 F.3d 1565, 1572 (Fed. Cir. 1997) (internal quotation marks and citations omitted) (emphasis added).

First, the original claim 1, which is a part of the Specification, recites “creating a super model.” Original claim 1. Therefore, we agree with Appellants that the Specification describes an invention understandable to a skilled artisan and shows the inventors actually invented the invention with respect to the limitation “creating a super model,” as recited in each of claims 21–38. *See Ariad Pharms.*, 598 F.3d at 1351; App. Br. 11–12.

Second, the Examiner acknowledges paragraph 29 of the Specification explains “discovery data 160 can determine inferred relationships between components of the enterprise model and/or nodes of an operational environment.” Final Act. 8; Spec. ¶ 29. Therefore, we agree with Appellants that the Specification describes an invention understandable to a

Appeal 2007-009232
Application 13/611,065

skilled artisan and shows the inventors actually invented the invention with respect to the limitation “at least one inferred relationship between a component of the enterprise model and a node of the operational environment,” as recited in each of claims 22, 28, and 34. *See Ariad Pharms.*, 598 F.3d at 1351; App. Br. 12.

Third, Appellants argue the original claim 2 and paragraphs 24 and 29 of the Specification *separately* disclose “at least one explicit relationship” and “between a component of the enterprise model and a node of the operational environment.” *See* App. Br. 13. However, such *separate* teachings do not *actually* or *inherently* disclose “at least one explicit relationship between a component of the enterprise model and a node of the operational environment.” *See PowerOasis*, 522 F.3d at 1306–07; *see also Ariad Pharms.*, 598 F.3d at 1352 (“a description that merely renders the invention obvious does not satisfy the [written description] requirement”) (citation omitted). As a result, Appellants have not demonstrated the Specification describes an invention understandable to a skilled artisan and shows the inventors actually invented the invention with respect to the limitation “at least one explicit relationship between a component of the enterprise model and a node of the operational environment,” as recited in each of claims 23, 29, and 35. *See Ariad Pharms.*, 598 F.3d at 1351.

Fourth, Paragraph 19 of the Specification describes “converting architecture design (e.g., documentation 152) into a living document (e.g., super model 110).” Spec. ¶ 19. Therefore, we agree with Appellants that the Specification describes an invention understandable to a skilled artisan and shows the inventors actually invented the invention with respect to the limitation “documentation of an architectural design is used to create the

Appeal 2007-009232
Application 13/611,065

super model,” as recited in each of claims 26, 32 and 38. *See Ariad Pharms.*, 598 F.3d at 1351; App. Br. 14.

For the reasons discussed above, we (i) reverse the Examiner’s rejection of claims 21, 22, 24–28, 30–34, and 36–38, and (ii) affirm the Examiner’s rejection of claims 23, 29, and 35 under pre-AIA 35 U.S.C. § 112, first paragraph.

35 U.S.C. § 101

We have reviewed the Examiner’s rejection in light of Appellants’ contentions and the evidence of record. We concur with Appellants’ contention that the Examiner erred in determining claims 21–38 are directed to patent-ineligible subject matter. *See* App. Br. 14–24; Reply Br. 6–10.

Section 101 of the Patent Act provides “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101. That provision “contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013)). According to the Supreme Court:

[W]e set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts. First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts. . . . If so, we then ask, “[w]hat else is there in the claims before us?” . . . To answer that question, we consider the elements of each claim both individually and “as an ordered combination” to determine whether the additional elements “transform the nature of the claim” into a patent-eligible application. . . . We have

described step two of this analysis as a search for an ““inventive concept”” —*i.e.*, an element or combination of elements that is “sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.”

Alice Corp., 134 S. Ct. at 2355.

The Federal Circuit has described the *Alice* step-one inquiry as looking at the “focus” of the claims, their “character as a whole,” and the *Alice* step-two inquiry as looking more precisely at what the claim elements add—whether they identify an “inventive concept” in the application of the ineligible matter to which the claim is directed. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016); *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015).

For the reasons discussed below, we focus on the *Alice* step-two inquiry in this case. In *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (2014), the Federal Circuit determines the claims satisfy *Alice* step two because “the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” *DDR Holdings*, 773 F.3d at 1257. As a result, the *DDR* court holds the claims are patent eligible regardless of whether the claims are characterized as an abstract idea under *Alice* step one. *See id.* at 1257.

Similar to the claims in *DDR*, the claims here are necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of operating environment. *See* claims 21–38; *see also* Spec. ¶¶ 1–6; *DDR Holdings*, 773 F.3d at 1257. As a result, the claims are patent

Appeal 2007-009232
Application 13/611,065

eligible regardless of whether they are characterized as an abstract idea under *Alice* step one. *See DDR Holdings*, 773 F.3d at 1257.

In particular, the claims address the problem of divergence between the operating environment and the original enterprise model. *See* claims 21–38; *see also* Spec. ¶¶ 1–6. To that end, the claims provide an improved method and system for synchronizing between the operating environment and the original enterprise model. *See* claims 21–38. For example, independent claim 21 recites a method comprising “identifying an operational environment . . . ; identifying an enterprise model . . . ; creating a super model . . . ; and synchronizing the super model with the operational environment and the enterprise model” Claim 21. Independent claims 27 and 33 recite similar functions. *See* claims 27 and 33. Contrary to the detailed steps discussed above, the Examiner incorrectly asserts the claims merely organize data (Ans. 11).

Instead of adhering to the conventional way of managing an operating environment, the claims provide an improved method and system of synchronizing between the operating environment and the original enterprise model. *See* claims 21–38; *DDR Holdings*, 773 F.3d at 1258–59. Therefore, similar to the claims of *DDR* and contrary to the Examiner’s determinations (Ans. 10–11), “[w]hen the limitations of [this invention] are taken together . . . , the claims recite an invention that is not merely the routine or conventional use of” general-purpose computers. *See DDR Holdings*, 773 F.3d at 1259; *see also* claims 21–38.

Finally, “[i]t is also clear that the claims at issue do not attempt to preempt every application of the idea of” synchronizing between the operating environment and the original enterprise model. “Rather, they recite a specific way” based on detailed identifying, creating, and

Appeal 2007-009232
Application 13/611,065

synchronizing steps discussed above. *DDR Holdings*, 773 F.3d at 1259. As a result, the claims include “additional features” that ensure the claims are “more than a drafting effort designed to monopolize the [abstract idea].” *Id.* (citing *Alice*, 134 S. Ct. at 2357). In short, “the claimed solution amounts to an inventive concept for resolving this particular” operating environment problem, rendering the claims patent eligible. *Id.*

Accordingly, we reverse the Examiner’s rejection of claims 21–38 under 35 U.S.C. § 101.

35 U.S.C. § 102⁶

We have reviewed the Examiner’s rejection in light of Appellants’ contentions and the evidence of record. We concur with Appellants’ contention that the Examiner erred in finding the cited portions of Aiber disclose “creating a super model including *at least one common component of the enterprise model and the operational environment*,” as recited in independent claim 1 (emphasis added). *See* App. Br. 26–27; Reply Br. 11–12.

The Examiner cites Aiber’s Figures 2 and 5 and paragraphs 36, 37, 65, 72, 74, and 117–121 for disclosing the above claim limitation. *See* Final Act. 19. Appellants argue, and we agree, the cited Aiber’s excerpts do not disclose “at least one common component of the enterprise model and the operational environment,” let alone “creating a super model including at least one common component of the enterprise model and the operational environment,” as required by claim 1. *See* App. Br. 26–27; Reply Br. 11–12.

⁶ Appellants raise additional arguments about the anticipation rejection. Because the identified issue is dispositive of the appeal with respect to the anticipation rejection, we do not need to reach the additional arguments.

In response to Appellants' arguments, the Examiner determines that claim 1 does not require "at least one common component of the enterprise model and the operational environment." *See* Ans. 15–16. Instead, the Examiner concludes claim 1 merely requires creating a super model including at least one component of the enterprise model and at least one component of the operational environment. *See* Ans. 15. We disagree with the Examiner because that claim interpretation omits the "common" component of the enterprise model and the operational environment," as required by claim 1.

Because the Examiner fails to provide sufficient evidence or explanation to support the anticipation rejection, we are constrained by the record to reverse the Examiner's rejection of claim 1.

Each of independent claims 27 and 33 also recites "creating a super model including at least one common component of the enterprise model and the operational environment." Claims 27 and 33. The Examiner applies similar findings and claim interpretation discussed above. *See* Final Act. 23, 25–26. Therefore, for similar reasons, we reverse the Examiner's anticipation rejection of independent claims 27 and 33.

We also reverse the Examiner's anticipation rejection of corresponding dependent claims 21–24, 26, 28–30, 32, 34–36, and 38.

35 U.S.C. § 103

The Examiner cites an additional reference for the obviousness rejection of claims 25, 31, and 37. The Examiner relies on Aiber in the same manner discussed above in the context of claim 1, and does not rely on the additional reference in any manner that remedies the deficiencies of the underlying anticipation rejection. *See* Final Act. 27–28.

Appeal 2007-009232
Application 13/611,065

Accordingly, we reverse the Examiner's obviousness rejection of claims 25, 31, and 37.

DECISION

We (i) reverse the Examiner's decision rejecting claims 21, 22, 24–28, 30–34, and 36–38, and (ii) affirm the Examiner's decision rejecting claims 23, 29, and 35 under pre-AIA 35 U.S.C. § 112, first paragraph.

We reverse the Examiner's decision rejecting claims 21–38 under pre-AIA 35 U.S.C. §§ 101–103.

Because we affirm at least one ground of rejection with respect to each of claims 23, 29, and 35, we affirm the Examiner's decision rejecting claims 23, 29, and 35. *See* 37 C.F.R. § 41.50(a)(1).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv). *See* 37 C.F.R. § 41.50(f).

AFFIRMED-IN-PART