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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DETLEF KRAMPE and AMIT VERMA

Appeal 2018-007164
Application 15/278,525
Technology Center 2800

Before CAROLYN D. THOMAS, JASON V. MORGAN, and JASON M. REPKO, *Administrative Patent Judges*.

Opinion for the Board filed by *Administrative Patent Judge* REPKO.

Opinion Concurring in Judgment filed by *Administrative Patent Judge* THOMAS

REPKO, *Administrative Patent Judge*.

DECISION ON APPEAL

Under 35 U.S.C. § 134(a), Appellant[1] appeals from the Examiner's decision to reject claims 1–15 and 17. Br. 2.[2] Claim 16 was canceled. An

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[1] We use the word "Appellant" to refer to "applicant" as defined in 37 C.F.R. § 1.42. According to Appellant, the real party in interest is Siemens Aktiengesellschaft, Werner-von-Siemens-Strasse 1, 80333 München, Germany. Br. 2.

[2] Throughout this opinion, we refer to the Final Office Action ("Final"), mailed August 30, 2017; the Advisory Action ("Advisory"), mailed November 20, 2017; the Appeal Brief ("Br."), filed January 9, 2018; and the Examiner's Answer ("Ans."), mailed April 30, 2018

oral hearing was held on August 13, 2019. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

THE INVENTION

Appellant's invention relates to monitoring an electronically closed-loop or open-loop controlled machine part. Spec. ¶ 2. Closed-loop or open-loop controlled machine parts can be pumps, motors, robots, cranes, frequency converters, among other things. *Id.* ¶ 4. According to the Specification, previous approaches to monitoring parts involved determining a static configuration at the outset and do not take into consideration age or operating conditions. *Id.* ¶ 10. The invention, however, uses a group of comparable machine parts as an initial level for detecting errors. *Id.* ¶ 14. According to the Specification, the group-based approach allows the monitoring configuration to be determined dynamically and accounts for many factors, including age and wear. *Id.* ¶ 15.

Claims 1 and 13 are independent. Claim 1 is reproduced below:

> 1. A method for error detection and monitoring of an electronically closed-loop or open-loop controlled machine part, comprising:
>
> recording and storing operating parameters and monitoring parameters of machine parts;
>
> determining a comparison group of comparable machine parts and comparable operating parameters based on the recorded and stored operating parameters and a machine part to be compared;
>
> using a statistical analysis procedure for creating a threshold value based on the determined comparison group, and using the statistical analysis procedure for detecting a variance of at least one state or at least one of the monitoring parameters based on the threshold value;
>
> assigning the variance to the machine part; and

outputting an alarm by an alarm system when the variance exceeds a predefined value.

Br. 10.

THE REJECTIONS

The Examiner rejects claims 1–15 and 17 under 35 U.S.C. § 101 as directed to patent-ineligible subject matter. Final 2–5.

The Examiner rejects claims 1, 2, 4–13, 15, and 17 under 35 U.S.C. § 102(a)(1) as anticipated by Smith (U.S. Patent Application Publication US 2007/0109301 A1; published May 17, 2007). Final 5–9.

The Examiner rejects claims 3 and 14 under 35 U.S.C. § 103 as being obvious over Smith and Keenan (U.S. Patent Application Publication US 2004/0260431 A1; published Dec. 23, 2004). Final 10–11.

THE REJECTION UNDER 35 U.S.C. § 101

I. Principles of Law

Under § 101, patent-eligible subject matter is defined as "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." 35 U.S.C. § 101. But courts have long held that laws of nature, natural phenomena, and abstract ideas are not patentable. *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70–71 (2012) (citing *Diamond v. Diehr*, 450 U.S. 175, 185 (1981)). These ineligible concepts are implicit exceptions to the statutory categories. *Id.* at 71.

The Supreme Court articulated a two-step subject-matter eligibility test in *Mayo* and *Alice Corp. v. CLS Bank International*, 573 U.S. 208 (2014). *Alice/Mayo* step one asks whether a claim is "directed to" a judicial exception. *Alice*, 573 U.S. at 217. In *Alice/Mayo* step two, 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." *Id.* (quoting *Mayo*, 566 U.S. at 79, 78). Step two is described as a search for an "inventive concept." *Id.*

The USPTO published revised guidance on patent subject matter eligibility. 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (USPTO Jan. 7, 2019) ("Guidance"). Step 1 of the USPTO's eligibility analysis asks whether the claimed subject matter falls within the four statutory categories of invention. *Id.* at 53–54. Under Step 2A, Prong One of the Guidance, we determine if the claim recites a judicial exception, including particular groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity, or mental processes). *Id.* at 52–53. If so, we then analyze the claim to determine whether the recited judicial exception is integrated into a practical application under Step 2A, Prong Two of the Guidance. *Id.* at 53–55; MPEP §§ 2106.05(a)–(c), (e)–(h) (9th ed. Rev. 08.2017, Jan. 2018).

Only if the claim fails to integrate the exception and thus is "directed to" the judicial exception, do we then look to whether the claim adds a specific limitation beyond the judicial exception that is not "well-understood, routine, conventional activity in the field" (*see* MPEP § 2106.05(d)) or whether the claim simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. Guidance, 84 Fed. Reg. at 56.

II. Overview of the Examiner's Rejection

The Examiner determines that representative[3] claim 1 is directed to an abstract idea. Final 2. The Examiner determines that the additional elements do not amount to significantly more than the abstract idea. *Id.* at 4.

III. Overview of Appellant's Arguments[4]

Appellant argues that the claims are directed to a "specific tangible improvement to industrial application." Br. 5. Appellant argues that "the method and system of the present invention also change the way the machine parts operate." *Id.*

IV. Does the claim recite a judicial exception?

A. Step 2A, Prong One of the Guidance

We first consider whether the claim recites a judicial exception. Guidance, 84 Fed. Reg. at 51. "[A] claim recites a judicial exception when the judicial exception is 'set forth' or 'described' in the claim." October 2019 Update: Subject Matter Eligibility 1 (USPTO Oct. 17, 2019), https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf

The Guidance synthesizes the key concepts identified by the courts as abstract ideas into three primary subject-matter groupings: mathematical

[3] Appellant argues claims 1–12 as a group. *See* Br. 4–5. So we select claim 1 as representative of this group in this analysis. *See* 37 C.F.R. § 41.37(c)(1)(iv).

[4] "Except as provided for in [37 C.F.R.] §§ 41.41, 41.47 and 41.52, any arguments or authorities not included in the appeal brief will be refused consideration by the Board for purposes of the present appeal." 37 C.F.R. § 41.37(c)(1)(iv).

concepts, certain methods of organizing human activities, and mental processes. Guidance, 84 Fed. Reg. at 52.

Under the broadest reasonable interpretation, claim 1 recites an abstract idea within the Guidance's mental-process grouping. In the sections that follow, we explain how the claim sets forth or describes an evaluation or judgment that can practically be performed in the mind or with the assistance of pen and paper. *See id.* at 52 n. 14 (collecting cases).

B. "determining a comparison group of comparable machine parts and comparable operating parameters"

Claim 1 recites, in part, "determining a comparison group of comparable machine parts and comparable operating parameters based on the recorded and stored operating parameters and a machine part to be compared." Br. 10.

The recited "comparison group of comparable machine parts" is a family of comparable or similar machine parts with comparable or similar operating parameters. Spec. ¶ 33. The operating parameters can be environmental parameters, location, type of load, type of use, among other things. *Id.* ¶ 32. The parameters can be recorded by sensors or manually by an operator. *Id.*

Considering this, the recited determination can practically be performed mentally or with paper and pencil by comparing machine parts or parameters. *See id.* ¶ 34. For example, a person can determine whether the parts are (1) "identical or similar machine parts from a specific product family from a specific manufacturer, e.g. machine parts from a specific product family of an automotive manufacturer" or (2) "machine parts from a

specific product family from a specific manufacturer and the machine parts perform similar tasks (e.g. welding)." *Id.*

In this way, the recited determination is an evaluation that can practically be performed in the mind.

C. "using a statistical analysis procedure for creating a threshold"

Claim 1 recites, in part, "using a statistical analysis procedure for creating a threshold value based on the determined comparison group, and using the statistical analysis procedure for detecting a variance of at least one state or at least one of the monitoring parameters based on the threshold value." Br. 10. The Specification discloses analyzing three or more parameters for machine parts. Spec. ¶¶ 41–44. The number of machine parts can be four. *See, e.g.*, *id.* ¶ 29, Fig. 1. According to the Specification, the recited "statistical analysis" procedure uses "simple average analysis procedures." *Id.* ¶¶ 39, 44. Because the recited analysis can involve simple average analysis procedures on as few as three parameters and a small number of machines, the disclosed analysis can practically be calculated mentally or with the assistance of pen and paper. *See id.* ¶¶ 38–44.

D. "assigning the variance to the machine part"

The recited step of "assigning the variance to the machine part" could practically be performed mentally or manually with the assistance of pen and paper. For instance, the corresponding variances could be recorded with a pen on a paper listing the machine parts.

To summarize, claim 1 recites an evaluation that, when considered in the context of the claim as a whole, can practically be performed in the mind with the assistance of pen and paper. Thus, claim 1 recites a concept that

falls within the Guidance's subject-matter grouping of mental processes. For all the above reasons, claim 1 recites an abstract idea.

V. Is the claim "directed to" the recited judicial exception?

A. Step 2A, Prong Two of the Guidance

Because claim 1 recites an abstract idea, we now proceed to determine whether the recited judicial exception is integrated into a practical application. Guidance, 84 Fed. Reg. at 51. When a claim recites a judicial exception and fails to integrate the exception into a practical application, the claim is "directed to" the judicial exception. *Id.*

We use the term "additional elements" for claim features, limitations, or steps that the claim recites beyond the identified judicial exception. *See id.* at 55 n.24. In claim 1, the additional elements include (1) "recording and storing operating parameters and monitoring parameters of machine parts" and (2) "outputting an alarm by an alarm system when the variance exceeds a predefined value." For the reasons discussed below, we determine that these additional elements do not indicate that the judicial exception is integrated into a practical application.

B. "recording and storing"

Claim 1 recites, in part, "recording and storing operating parameters and monitoring parameters of machine parts." Br. 10. The operating parameters can be environmental parameters, location, type of load, type of use, among other things. Spec. ¶ 32. The monitoring parameters can be temperature or other similar parameters. *Id.* The Specification explains that "[t]he recording can for example be performed using sensors." *Id.* ¶ 28.

To the extent that the claimed method involves sensors, we see nothing that indicates that the claim uses a particular configuration of

sensors and a particular method of using the raw data from the sensors, for example, which may indicate that the claim is directed to a technological improvement. *See Thales Visionix, Inc. v. United States*, 850 F.3d 1343, 1348–49 (Fed. Cir. 2017), *cited in* MPEP § 2106.05(a) II (describing improvements to technology beyond computer functions). Rather, an operator can manually input the parameters. Spec. ¶ 32. This indicates that the method is not "a new and useful technique for using sensors," like the claims in *Thales*, for instance. *See* 850 F.3d at 1349.

Here, the recording-and-storing step "adds insignificant extra-solution activity to the judicial exception." Guidance, 84 Fed. Reg. at 55. Courts have found that such activity may not integrate the judicial exception into a practical application. *Id.* The Guidance explains that insignificant extra-solution activity includes "mere data gathering such as a step of obtaining information about credit card transactions so that the information can be analyzed" to detect fraudulent transactions. *Id.* at 55 n.31; *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011) (analyzing the step of obtaining transaction data and determining that "such data-gathering steps cannot alone confer patentability"); *see also* MPEP § 2106.05(g) (instructing examiners that "[a]n example of pre-solution activity is a step of gathering data for use in a claimed process").

The MPEP further instructs examiners that courts have recognized that the function of "[s]toring and retrieving information in memory" can be "insignificant extra-solution activity." MPEP § 2106.05(d)(II)(collecting cases). Also, the Federal Circuit has "held that mere '[data-gathering] step[s] cannot make an otherwise nonstatutory claim statutory.'" *CyberSource*, 654

F.3d at 1370 (Fed. Cir. 2011) (alteration in original) (quoting *In re Grams*, 888 F.2d 835, 840 (Fed. Cir. 1989)).

Thus, the recited recording-and-storing step, considered individually and in combination with the other limitations, does not indicate that the claim integrates the abstract idea into a practical application.

C. "outputting"

Claim 1 recites, in part, "outputting an alarm by an alarm system when the variance exceeds a predefined value." Br. 10.

This step is insufficient to integrate the recited abstract idea into a practical application. For example, the Federal Circuit determined that displaying accessed data on a user's device without more may not be sufficient to render a claim patent eligible. *Interval Licensing, LLC v. AOL, Inc.*, 896 F.3d. 1335, 1345 (Fed. Cir. 2018). Similarly, the outputting step here merely reports the result of a comparison of the variance with a predefined value. For example, the Specification explains that an alarm can be "output/displayed when the variance is too high." Spec. ¶ 29. In this way, it merely adds insignificant extra-solution activity to the recited mental process. *See* Guidance, 84 Fed. Reg. at 55 (explaining that "courts have also identified examples in which a judicial exception has not been integrated into a practical application," including "an additional element that adds insignificant extra-solution activity to the judicial exception").

Appellant argues that the alarm requires machine parts. Br. 5. But the claim only nominally recites an alarm, which at most is a field-of-use limitation. For example, the MPEP instructs Examiners that *Parker v. Flook*, 437 U.S. 584 (1978) is an example of a field-of-use limitation. MPEP § 2106.05(h). The claimed invention in *Flook* calculated an updated value

for an alarm limit "in a process comprising the catalytic chemical conversion of hydrocarbons." 437 U.S. at 586. The court found that the claim was ineligible. *Id.* at 590. The court reasoned that to hold otherwise would "exalt[] form over substance" because a competent claim drafter could attach a limitation on the field of use (e.g., the petrochemical and oil-refining fields) to almost any mathematical formula. *Id.*

Similarly, the alarm system here simply limits the analysis to a field of use. At most, the alarm merely reports the result. In this way, it does not impose a meaningful limitation on the claim. *See* Guidance, 84 Fed. Reg. at 55 (explaining that "courts have also identified examples in which a judicial exception has not been integrated into a practical application," including when "an additional element does no more than generally link the use of a judicial exception to a particular technological environment or field of use.").

Thus, the outputting step, considered individually and in combination with the other limitations, does not indicate that the claim integrates the abstract idea into a practical application.

D. The Combination

Appellant argues that the claims are directed to a "specific tangible improvement to industrial application," which is "achieved by the method steps and the system components in their interaction and interjunction." Br. 5. Appellant, however, does not explain how the described "industrial application" relates to the *Alice/Mayo* framework that is applied to determine subject-matter eligibility here. For instance, Appellant's remarks lack any citation to the relevant case law. *See id.* at 4–5.

Under the Guidance, it is true that an improvement to technology or a technical field, for example, indicates that the claim may have integrated the judicial exception into a practical application. Guidance, 84 Fed. Reg. at 55. But Appellant has not shown that this is the case here. A claim to a judicial exception cannot be made eligible, for example, "simply by having the applicant acquiesce to limiting the reach of the patent for [a] formula to a particular technological use." *Diehr*, 450 U.S. at 192 n.14, *quoted in* MPEP § 2106.05(h).

To the extent that the claimed method "can be implemented locally on a computer, or as an application in a cloud" (Spec. ¶ 45), mere "instructions to implement an abstract idea on a computer, or merely [using] a computer as a tool to perform the abstract idea" indicates that the judicial exception has not been integrated into a practical application. Guidance, 84 Fed. Reg. at 55.

Thus, we are unpersuaded by Appellant's arguments about claim 1's reliance on machine parts or an industrial process. *See* Br. 4–5.

E. Other Indicia of Integration

Claim 1 does not recite the other indicia of integration listed in the Guidance. Guidance, 84 Fed. Reg. at 55. For instance, "[t]ransformation and reduction of an *article* 'to a different state or thing' is the clue to patentability of a process claim that does not include particular machines." *Bilski v. Kappos*, 561 U.S. 593, 604 (2010) (quoting *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972)) (emphasis added); *see also* MPEP § 2106.05(c). Yet "not all transformations . . . infuse an otherwise ineligible claim with an 'inventive concept.'" *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014). Unlike some eligible transformations, claim 1's

method does not transform a physical object or substance. *See, e.g.*, *Diehr*, 450 U.S. at 184 (a process that transforms rubber).

Thus, claim 1 is directed to the identified abstract idea.

VI. Does the claim provide an inventive concept?

A. Step 2B of the Guidance

To determine whether a claim provides an inventive concept, the additional elements are considered—individually and in combination—to determine whether (1) they add a specific limitation beyond the judicial exception that is not well-understood, routine, and conventional in the field or (2) they simply append well-understood, routine, and conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. Guidance, 84 Fed. Reg. at 56. Also, we reevaluate our conclusions about the additional elements that we presented in Step 2A, Prong Two. *Id.*

B. "recording and storing"

Claim 1 recites, in part, "recording and storing operating parameters and monitoring parameters of machine parts." Br. 10.

Here, the recording-and-storing step is claimed generically. Similarly, the Federal Circuit has determined that "storing test results in a 'machine-readable medium'" was well-understood, routine, and conventional activity previously known to the industry. *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015); *see also Versata Dev. Grp. v. SAP Am., Inc.*, 793 F.3d 1306 (Fed. Cir. 2015) (determining that "storing pricing information, retrieving applicable pricing information" were well-understood, routine, and conventional activity). The MPEP also instructs examiners that courts have recognized the function of "[s]toring and

retrieving information in memory" as well-understood, routine, and conventional functions when they are claimed generically. MPEP § 2106.05(d)(II) (citing *Versata*, 793 F.3d at 1334). Here, the recording-and-storing step requires no more than a generic computer. Spec. ¶ 45. Thus, we agree with the Examiner that the recording and storing, as generically recited in claim 1, is well-understood, routine, and conventional activity. *See* Final 4.

We also reevaluate our conclusions about whether the recited recording-and-storing step integrates the abstract idea into a practical application. *See supra* § V.B. Because this step adds nothing more than well-understood, routine, and conventional activities, those conclusions stand. Considering both our previous conclusions and the findings about well-understood, routine, and conventional activity, we determine that the claimed step does not indicate that the claim provides an inventive concept.

C. "outputting"

Claim 1 recites, in part, "outputting an alarm by an alarm system when the variance exceeds a predefined value." Br. 10.

As discussed above, the "outputting" step merely reports the result of the previous calculations. The MPEP notes that courts have found reporting information and gathering statistics to be well-understood, routine, and conventional activity when these operations are claimed in a merely generic way (e.g., at a high level of generality) or as insignificant extra-solution activity. MPEP § 2106.05(d)(II) (citing *OIP*, 788 F.3d at 1363 (discussing presenting offers and gathering statistics)). Here, the Specification explains that an alarm can be "output/displayed when the variance is too high." Spec. ¶ 28–29. But apart from this well-understood, routine, and conventional

activity, the Specification does not further disclose the details of the alarm system. *See, e.g.*, *id.* On this record, claim 1 generically recites outputting an alarm resulting from gathered statistics, which as discussed in the MPEP and in *OIP*, is nothing more than well-understood, routine, and conventional activity.

We also reevaluate our conclusions about whether the outputting step integrates the abstract idea into a practical application. *See supra* § V.C. Because the outputting step adds nothing more than well-understood, routine, and conventional activities, those conclusions stand. Considering both our previous conclusions and the findings about well-understood, routine, and conventional activity, we determine that the claimed outputting step does not indicate that the claim provides an inventive concept.

D. The Combination

Appellant does not identify any inventive concept in the recited combination of steps or any specific arrangement of computing components. *See* Br. 4–5. And to the extent that the claimed method "can be implemented locally on a computer, or as an application in a cloud" (Spec. ¶ 45), using a computer "only for its most basic function, the performance of repetitive calculations," may not impose meaningful limits on the claim's scope. *Bancorp Servs. v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012). Similarly, the MPEP instructs examiners that courts recognize that using a computer for performing repetitive calculations may be well-understood, routine, and conventional when claimed generically, which is the case here. MPEP § 2106.05(d)(II)(ii) (citing *Flook*, 437 U.S. at 594; *Bancorp*, 687 F.3d at 1278).

At most, the improvement that Appellant describes is to the recited determinations and analysis, which are part of the abstract idea itself. Yet "[w]hat is needed is an inventive concept in the non-abstract application realm." *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1168 (Fed. Cir. 2018). "[A] claim for a *new* abstract idea is still an abstract idea." *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016).

On this record, the limitations—considered individually and in combination—do not provide an inventive concept.

E. Conclusion

Appellant has not persuaded us of error in the rejection of claim 1 under 35 U.S.C. § 101. Thus, we sustain the § 101 rejection of representative claim 1 and claims 2–12, which are not argued separately. *See supra* n.3.

VII. Claims 13–15 and 17

Independent claim 13 recites limitations in means-plus-function form with functions similar to the steps recited in claim 1.

For instance, claim 13 recites a statistical-analysis procedure unit corresponding to the analysis step in claim 1. Because the recited analysis can involve simple average analysis procedures on as few as three parameters and a small number of machines, as discussed above, the disclosed analysis can practically be calculated mentally or with the assistance of pen and paper. *See* Spec. ¶¶ 38–44. As for the recited unit, the structure in the Specification corresponding to the statistical-analysis procedure unit is a computer processor. *See id.* ¶ 45 ("The method/system can be implemented locally on a computer, or as an application in a cloud.").

"If a claim, under its broadest reasonable interpretation, covers performance in the mind but for the recitation of generic computer components, then it is still in the mental processes category unless the claim cannot practically be performed in the mind." Guidance, 84 Fed. Reg. at 52 n.14. So even if claim 13's functions "can be implemented locally on a computer, or as an application in a cloud" (Spec. ¶ 45), which are generic computer components, then it is still in the mental-processes category because the steps can practically be performed in the mind. *See* Guidance, 84 Fed. Reg. at 52 n.14. Thus, claim 13 recites the same abstract idea as claim 1 under the Guidance's Step 2A, Prong One. *See supra* § IV.

Under the Guidance's Step 2A Prong Two, claim 13's additional elements include (1) a "first means for recording and storing operating parameters and monitoring parameters of machine parts by using sensors and/or manually by an operator" and (2) "an alarm system outputting an alarm when the variance exceeds a predefined value." These limitations correspond to the recording and outputting steps recited in claim 1.

Also, to the extent that claim 13 recites a computer, we note that using the computing device to achieve a solution more quickly may not be sufficient to show an improvement to computer technology. *See Versata*, 793 F.3d at 1335; *see also* MPEP § 2106.05(a)(II) (instructing examiners that a "commonplace business method being applied on a general purpose computer" may not be sufficient to show an improvement). Here, the computing device is used as a tool in its ordinary capacity for its calculating function. *See* Spec. ¶ 45.

Indeed, a particular machine or manufacture that is integral to the claim is an indication that the abstract idea has been integrated into a

practical application. Guidance, 84 Fed. Reg. at 55. But a general-purpose processor that merely executes the judicial exception—as is the case here—is not a particular machine. *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716–17 (Fed. Cir. 2014), *cited in* MPEP § 2106.05(b)(I). Essentially, the recited computing device is a general-purpose computer that executes the abstract idea. *See* Spec. ¶ 45. So for the same reasons discussed above (*see supra* § V), claim 13 is directed to the abstract idea under the Guidance's Step 2A Prong Two.

Under the Guidance's Step 2B, the same reasons discussed for claim 1 apply to claim 13. *See supra* § VI. Also, to the extent that claim 13 recites a computer, the MPEP instructs examiners that the courts have recognized that performing repetitive calculations can be a well-understood, routine, and conventional function when claimed generically. MPEP § 2106.05(d)(II) (citing *Flook*, 437 U.S. at 594 (computing or readjusting alarm limit values); *Bancorp*, 687 F.3d at 1278 ("The computer required by some of Bancorp's claims is employed only for its most basic function, the performance of repetitive calculations, and as such does not impose meaningful limits on the scope of those claims.")). In claim 13, there is no indication that the claimed calculations require any specialized computer function. Rather, claim 13 uses a general-purpose computer only for its most basic function: executing the calculations. Thus, we agree that the claimed computing device is well-understood, routine, and conventional. Final 4.

Appellant has not persuaded us of error in the rejection of claim 13 under 35 U.S.C. § 101. Thus, we sustain the § 101 rejection of claim 13 and claims 14, 15 and 17, which are not argued separately. *See* Br. 4–5.

THE ANTICIPATION REJECTION

I. The Examiner's Rejection

The Examiner determines that representative[5] claim 1 is anticipated by Smith. Final 6. According to the Examiner, Smith discloses that the recited "statistical analysis" is based on a comparison group because Smith's enterprise-wide information system ("EWIS") 27 collects data and sends it to data-analysis applications 10 that use the data to predict future problems or failures. Ans. 10 (citing Smith ¶ 43).

II. Appellant's Arguments

Appellant argues that, unlike the claimed invention, Smith does not perform a statistical analysis of a comparison group of machine parts to determine the upper and lower bounds. Br. 6.

Appellant also argues that the Examiner combines different embodiments from Smith. *Id.*

III. Analysis

Claim 1 recites, in part, "using a statistical analysis procedure for creating a threshold value *based on the determined comparison group*." *Id.* at 10 (emphasis added).

The plain language of claim 1 requires that the recited "comparison group" is a group of "comparable machine parts and comparable operating parameters." For example, the Specification lists that the group can be (1) "identical or similar machine parts from a specific product family from a specific manufacturer, e.g. machine parts from a specific product family of

[5] Appellant argues claims 1, 2, 4–13, 15, and 17 as a group. *See* Br. 5–7. We select claim 1 as representative of claims 1, 2, 4–13, 15, and 17 for the anticipation rejection. *See* 37 C.F.R. § 41.37(c)(1)(iv).

an automotive manufacturer" or (2) "machine parts from a specific product family from a specific manufacturer and the machine parts perform similar tasks (e.g. welding)," among other things. Spec. ¶ 34. But the disclosed "list is intended only for illustration and is neither complete nor definitive." *Id.* ¶ 35. So under the broadest reasonable interpretation, the group can include other types of comparable machine parts and comparable operating parameters.

Consistent with the example about "similar machine parts" in the Specification (*id.* ¶ 34, item i), Smith states that the disclosed application can "compare similar equipment" (Smith ¶ 59). Smith also discloses that EWIS 27 collects "data from various pieces of equipment and/or machinery (i.e., one or more devices)." Smith ¶ 43. Because Smith compares a group of similar equipment in this way, the weight of the evidence here favors the Examiner's finding that Smith discloses a "comparison group." Final 6; Ans. 10.

We also agree with the Examiner that Smith's analysis is "based on the determined comparison group." Final 6; Ans. 10. In particular, Smith's EWIS 27 collects "data from various pieces of equipment and/or machinery (i.e., one or more devices)" and makes this data "available for the data analysis applications 10." Smith ¶ 43; *see also* Smith ¶ 59 (discussing "similar equipment"). According to Smith, "[t]he data analysis applications 10 can use the information collected to monitor the current activity of equipment or machinery, as well as to predict future problems or failures." *Id.* ¶ 43.

For example, application 35 can compare "similar equipment," and with the data, the user can determine minimum and maximum values.

Id. ¶ 59. The data collected by the EWIS establishes a baseline or normal range of values for monitored parameters. *Id.* ¶ 60. Values that fall outside the normal range indicate that the equipment is not operating correctly. *Id.* Because Smith's EWIS collects data that establishes a "normal range" for the parameters in this way, Smith establishes a baseline or normal range of values for monitored parameters by "statistical analysis" based on data collected from a "comparison group," as recited. *Id.*

In sum, we agree with the Examiner that Smith discloses using a statistical analysis procedure for creating a threshold value (i.e., Smith's analysis that creates the normal range) based on the determined comparison group. *See* Ans. 10–11.

We are also unpersuaded by Appellant's argument that the Examiner combines different embodiments from Smith. Br. 6. Apart from stating that this can be seen from the Office Action, Appellant provides little support for this argument. *See id.* Here, the Examiner relies upon the embodiment from Smith that analyzes collected data. For example, the Examiner cites Smith's paragraph 59, which discusses analyzing parameters over time. *See*, *e.g.*, Final 6 (citing Smith ¶ 59); Ans. 10 (citing Smith ¶ 59). Appellant has not sufficiently explained which other embodiments are being combined by the Examiner. *See* Br. 5–7.

Thus, we sustain the anticipation rejection of representative claim 1 and claims 2, 4–13, 15, and 17, which are not argued separately (*see supra* n.5).

THE OBVIOUSNESS REJECTION

Claim 3 depends from claim 2, which in turn, depends from independent claim 1. Claim 14 depends from independent claim 13. In arguing for the patentability of claims 3 and 14, Appellant refers to the arguments presented for independent claim 1. Br. 7. As discussed above, these arguments are unpersuasive. So for the reasons discussed in connection with claim 1, we also sustain the rejections of claims 3 and 14.

CONCLUSION

We affirm the Examiner's decision to reject claims 1–15 and 17.

Claims Rejected	**35 U.S.C. §**	**Reference(s)**	**Affirmed**	**Reversed**
1–15, 17	101	Eligibility	1–15, 17	
1, 2, 4–13, 15, 17	102	Smith	1, 2, 4–13, 15, 17	
3, 14	103	Smith, Keenan	3, 14	
Overall Outcome			1–15, 17	

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).

AFFIRMED

THOMAS, *Administrative Patent Judge*, concurs in the Judgment.