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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ROBERT J. KARSCHNIA and MARCOS PELUSO

Appeal 2016-006472[1]
Application 10/359,902[2]
Technology Center 3600

Before ANTON W. FETTING, BRADLEY B. BAYAT, and ALYSSA A. FINAMORE, *Administrative Patent Judges*.

BAYAT, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1, 2, 5–19, 22–28, 31–35, 38, 39, and 42–66.[3] We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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[1] Our Decision references Appellants' Appeal Brief ("App. Br.," filed Nov. 19, 2015), and Reply Brief ("Reply Br.," filed June 13, 2016), the Final Office Action ("Final Act.," mailed May 20, 2015), and the Examiner's Answer ("Ans.," mailed Apr. 11, 2016).

[2] The real party in interest is identified as Rosemount, Inc. App. Br. 1.

[3] Claims 3, 4, 20, 21, 29, 30, 36, 37, 40, and 41 have been canceled. *Id.*, Claims App'x.

CLAIMED INVENTION

"The present invention relates generally to process plants and, more particularly, to a service facility that provides remote diagnostic and maintenance services to a process plant." Spec. 1:5–7.

Claims 1, 18, 25, 33, and 38 are independent. Claim 25, reproduced below with added emphasis, is illustrative of the subject matter on appeal and recites:

> 25. A method for providing a plurality of applications to a process plant, the method comprising:
>
> remotely collecting process plant data associated with the process plant, wherein the process plant includes a process plant controller and a plurality of field devices coupled to the process plant controller and wherein the process plant controller is configured to control and measure the operation of the field devices to control a flow or processing of a material in the process plant according to a control scheme to thereby control process parameters according to an overall control scheme;
>
> remotely detecting a condition associated with the process plant in response to the collected process plant data; and *at least one of*:
>
> remotely and automatically downloading at least one of the plurality of applications from a service facility located remotely from the process plant to the process plant and implement the at least one of the plurality of applications in the process plant in response to the detected condition associated with the process plant, *and/or*
>
> remotely and automatically activating a web page on a display screen in the process plant that provides graphical and/or textual information for guiding an operator in correcting the detected condition associated with the process plant.

App. Br. 55, Claims App'x.

REJECTIONS

I. Claims 1, 2, 5–19, 22–24, 32–35, 38, 39, 42, 43, 45–48, 50–53, 55–58, 60–63, 65, and 66 stand rejected under 35 U.S.C. § 112, second paragraph. Ans. 2.

II. Claims 1, 2, 5–19, 22–28, 31–35, 38, 39, and 42–66 stand rejected under 35 U.S.C. § 112, first paragraph. *Id.*

III. Claims 1, 2, 5–19, 22–28, 31–35, 38, 39 and 42–66 stand rejected under 35 U.S.C. § 101. *Id.*

IV. Claims 1, 2, 5–12, 14–19, 22–28, 31–35, 38, 39 and 42–66 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Eryurek (US 2002/0123864 A1, pub. Sept. 5, 2002). *Id.*

V. Claim 13 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Eryurek and Official Notice. *Id.*

ANALYSIS

Rejections I and II

The Examiner's Rejections I and II are based on a finding that various limitations in the claims invoke 35 U.S.C. § 112, sixth paragraph, and the Specification fails to describe corresponding structure to satisfy the definiteness and written description requirements. *See* Final Act. 2–12; *see also* Ans. 11–16.

We are persuaded by Appellants' arguments (App. Br. 7–19; Reply Br. 2–7) that the Examiner did not overcome the presumption that 35 U.S.C. § 112, sixth paragraph, does not apply.

It is well established that the use of the term "means" triggers a rebuttable presumption that § 112, sixth paragraph, governs the construction

of the claim term. Conversely, when claim language does not recite the term "means," as here, the presumption is that the limitation does not invoke § 112, sixth paragraph. However, this presumption can be overcome if the challenger demonstrates that "the claim term fails to 'recite sufficiently definite structure' or else recites 'function without reciting sufficient structure for performing that function.'" *Watts v. XL Sys., Inc.*, 232 F.3d 877, 880 (Fed. Cir. 2000). The correct inquiry is whether skilled artisans, after reading the patent, would conclude that a claim limitation is so devoid of structure that the drafter constructively engaged in means-plus-function claiming. *See Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1349 (Fed. Cir. 2015) (en banc). "Ultimately, whether claim language invokes § 112, ¶ 6 depends on how those skilled in the art would understand the structural significance of that claim language." *EnOcean GmbH v. Face Intern. Corp.*, 742 F.3d 955, 958 (Fed. Cir. 2014) (citations omitted). As with the term "receiver" in *EnOcean*, the terms "data collection unit," "analysis unit," "control unit," and "computer systems" do not recite the term "means" and, thus, presumptively connote sufficiently definite structure to those of skill in the art. *EnOcean*, 742 F.3d at 960. Although the term "unit" may serve as a generic placeholder and substitute for "means," the inquiry does not end there.

In *Williamson*, for example, the court demonstrated that the term "distributed learning control module" was recited in a format consistent with traditional means-plus-function language (i.e., by replacing "means for" with "module for" followed by a function), the term was not described in the disclosure in a way that imparted structural significance, the presence of modifiers did not provide structural significance to the term "module," and

the claim did not describe how the "distributed learning control module" interacts with other components in the claimed system. *See* App. Br. 8–9; *see also Williamson*, 792 F.3d at 1350–51. We find that the Examiner's inquiry falls short, especially considering that none of the cited limitations are drafted in the same format as a traditional means-plus-function limitation, by merely replacing the term "means" with "unit" followed by the linking term "for." For instance, claim 1 recites in part, "a data collection unit located remotely from the process plant and adapted to collect process plant data associated with the process plant via a communication link, wherein the process plant includes a process plant controller and a plurality of field devices coupled to the process plant controller." App. Br. 51, Claims App'x. The rejection, for example, indicates that "'data collection unit...to collect'" is interpreted as invoking § 112, sixth paragraph, because it uses a generic placeholder without sufficient structure to achieve the function or a structural modifier, and concludes that "one of ordinary skill in the art would have recognized that these are not specific structural elements that have [sic] are unique to carry out the particular functions." Final Act. 3–4. The rejection does not adequately construe the recited claim language in light of the Specification and evaluate whether the claim describes how each limitation interacts with other recited components "in a way that might inform the structural character of the limitation in question or otherwise impart structure." *Williamson*, 792 F.3d at 1351. And, in response to Appellants' arguments, which are reproduced by the Examiner on pages 3–11 of the Answer, the Examiner only refers to and asserts that

"rationales, and explanations were provided in the Non-Final Rejection."[4] *See* Ans. 11 (emphasis omitted). We have reviewed the cited Non-Final Office Action, but agree with Appellants that the Examiner has not overcome the presumption that 35 U.S.C. § 112, sixth paragraph, does not apply.

Because the Examiner's rejections under 35 U.S.C. § 112, first and second paragraphs, are premised upon the Examiner's findings that § 112, sixth paragraph, is invoked, we will not sustain those rejections. *See* Final Act. 6–12.

Rejection III

Under 35 U.S.C. § 101, an invention is patent eligible if it claims a "new and useful process, machine, manufacture, or composition of matter." 35 U.S.C. § 101. The Supreme Court, however, has long interpreted § 101 to include an implicit exception: "[l]aws of nature, natural phenomena, and abstract ideas" are not patentable. *See, e.g.*, *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014) (internal quotation marks and citation omitted).

The Supreme Court, in *Alice*, reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 82–84 (2012), "for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts." *Alice*, 134 S. Ct.

[4] Although the Examiner cites to "**Non-Final Rejection mailed on 9/19/2014**" (Ans. 11), we note that the correct mailing date of the Non-Final Office Action was Nov. 26, 2014. Appellants' response to a previous Non-Final Office Action (mailed July 9, 2014) was filed on Sept. 19, 2014.

at 2355. The first step in that analysis is to "determine whether the claims at issue are directed to one of those patent-ineligible concepts." *Id.* If the claims are not directed to a patent-ineligible concept, e.g., to an abstract idea, the inquiry ends. Otherwise, the inquiry proceeds to the second step where the elements of the claims are considered "individually and 'as an ordered combination'" to determine whether there are additional elements that "'transform the nature of the claim' into a patent-eligible application." *Id.* (quoting *Mayo*, 566 U.S. at 66, 78, 79).

Applying the framework in *Alice*, the Examiner determines that the claims are directed to "an abstract idea of remote monitoring, specifically, acquiring information from a monitored location, analyzing the data, and transmitting information (corrections) to the monitored location." Ans. 17–18. According to the Examiner,

> the claimed invention is directed to comparing information regarding a sample or test subject to a control or target data (collecting plant data and comparing it to some threshold parameter, or the like, in order to determine whether a condition exists); collecting and comparing known information (collecting plant information and comparing it to known information in order to determine if a condition exists); comparing known data to determine risk level (based on the comparison a determination is made that a condition exists, i.e. risk, that requires a correction); diagnosing an abnormal condition by collecting the information and analyzing the results in order to determine the correct solution); comparing new and stored information and using rules to identify options (based on the comparison determining, based on a set of rules, the corresponding solution to the particular detected condition); data recognition and storage (identifying the condition providing the corresponding solution based the analysis), which results in it being an idea of itself.

Id. at 18 (emphasis omitted). The Examiner also determines that the claims do "not include additional element[s] that are sufficient to amount to significantly more than the judicial exception because the claim recited generically computer elements (e.g. a computing device) which do not add a meaningful limitation to the abstract idea because they would be routine in any computer implementation." *Id.* at 22.

In contesting this rejection, Appellants argue independent claims 1, 18, 25, 33, and 38 as a group. App. Br. 33. We select claim 25 as the representative claim for the group. Thus, independent claims 1, 18, 33, and 38 stand or fall with claim 25. *See* 37 C.F.R. § 41.37(c)(1)(iv). For the following reasons, we do not find any of Appellants' arguments to be persuasive of error in the rejection of claim 25.

Initially, Appellants argue[5] that a prima facie case of subject matter ineligibility has not been established because the Examiner has not "identif[ied] the specific recitations of the claims that pertain to the judicial exception, and then explain, with particularity why the remaining recitations do not amount to significantly more than the exception." App. Br. 35–36; Reply Br. 9–11. We disagree.

Section 132 sets forth a general notice requirement whereby an Applicant must be notified of the reasons for a rejection together with such information as may be useful in judging the propriety of continuing with prosecution of the application. *See, e.g.*, *In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011). We find the Examiner provided adequate explanation to

[5] Appellants' arguments on pages 34–35 of the Appeal Brief as to the claims not being directed to a fundamental economic practice are deemed moot in light of the Examiner's response on page 18 of the Answer.

meet the notice requirement. *See* Final Act. 12–14; *see also* Ans. 16–25. The Examiner set forth the statutory basis of the rejection, applied *Alice's* two-part framework, and sufficiently articulated reasoning in an informative manner (*see supra*), including further analysis and explanation in response to Appellants' arguments (*see* Final Act. 36–41), thus, meeting the notice requirement of Section 132. *See Chester v. Miller*, 906 F.2d 1574, 1578 (Fed. Cir. 1990) (Section 132 "is violated when a rejection is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection.").

Next, Appellants contend that "[e]ven assuming, *arguendo*, that 'acquiring information from a monitored location, analyzing the data, and transmitting information (corrections) to the monitored location' amounts to an abstract idea, they are only abstract when presented in a merely generic manner." App. Br. 36. According to Appellants, the Examiner's

> characterization completely ignores the remaining recitations of the claim, including, but not limited to, remotely collecting process plant data associated with the process plant, remotely detecting a condition associated with the process plant by analysis of process plant data collected from the process plant, and remotely and automatically downloading at least one of a plurality of applications to the process plant via a communication link and implementing the at least one of the plurality of applications in the process plant in response to the detected condition associated with the process plant, and/or automatically activating a web page on a display screen in the process plant that provides graphical and/or textual information for guiding an operator in correcting the detected condition associated with the process plant.

Id.; *see also* Reply Br. 10 (asserting that "while collecting the process plant data and analyzing the collected process plant data to detect a condition may arguably correspond to remote monitoring, the remaining recitations do not have anything to do with mere remote monitoring").

This argument is unpersuasive of error because the "directed to" inquiry applies a stage-one filter to the claims, considered in light of the Specification, instead of a piecemeal analysis of the claim limitations. *See Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015); *see also Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1376 (Fed. Cir. 2016); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016). In that regard, we "look at the 'focus of the claimed advance over the prior art' to determine if the claim's 'character as a whole' is directed to excluded subject matter." *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016) (citing *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016)).

To that end, Appellants' invention is drawn to a method and "system for providing remote diagnostic and maintenance services to a process plant." Spec., Abstract. Representative claim 25 recites a method that requires the performance of three steps: (1) remotely collecting data; (2) remotely detecting a condition in response to the collected data; and (3) remotely and automatically activating a web page on a display screen that provides graphical and/or textual information for guiding an operator in correcting the detected condition.[6] *Cf.* Spec. 6:5–14 ("data collection unit

[6] Claim 25 alternatively recites a step of remotely and automatically downloading an application, but because the language of the claim does not

collects data associated with the process plant," "analysis unit analyzes the collected data to detect a condition associated with the process plant," and "[i]n response to the detected condition, the control unit automatically . . . activating a web page that provides information for guiding an operator . . . in correcting the detected condition").

The background of Appellants' Specification discloses that typically, experienced and highly skilled human operators are responsible for overseeing daily monitoring activities to assure that devices within a process plant are operating efficiently, as well as repairing and replacing malfunctioning devices. Spec. 5:9–21.

> [D]ue to the increasing number and complexity of monitoring, diagnostic, and maintenance applications available in the process control industry, it is often difficult, if not impossible, for an operator to become knowledgeable about all of the various applications in order to choose and implement the most suitable application to correct a poorly performing loop or device.

Id. at 5:22–27. Appellants' "system provides remote diagnostic and maintenance services to a process plant by diagnosing a problem, associated with the plant, such as a poorly performing loop or device, and automatically implementing the appropriate software application or tool to correct the problem without the intervention of a human operator." *Id.* at 6:17–21. The advantages realized by Appellants' system eliminates the need for individual plants to purchase software applications and the expensive overhead associated with personnel supporting these applications. *Id.* at 6:21–23. In

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require this step to be performed, we need not address it in our analysis. We note that all the independent claims recite that "at least one of" the two alternative limitations is to be performed. *See* App. Br., Claims App'x.

light of the Specification's description of the problem and solution, the advance over the prior art by the claimed invention is in automating the monitoring of power plant devices and implementation of tools to make corrections.

Unlike the claims found non-abstract in prior cases, the claimed invention here uses generic computer technology to facilitate remote condition monitoring of power plant devices, and fails to recite any improvement to a particular computer technology. *Cf. McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314–15 (Fed. Cir. 2016) (determining claims not abstract because they "focused on a specific asserted improvement in computer animation"). The alleged advantages that Appellants tout do not concern an improvement to computer capabilities, but instead relate to an alleged improvement in automating the monitoring activities of a power plant and correcting of detected conditions, for which a computer is used as a tool in its ordinary capacity. As such, we agree with the Examiner that claim 25 as a whole is directed to "remote [condition] monitoring, specifically, acquiring information from a monitored location, analyzing the data, and transmitting [or displaying] information (corrections) to the monitored location." Ans. 17–18.

Although there is no definitive rule to determine what constitutes an abstract idea, the Federal Circuit has explained that "both [it] and the Supreme Court have found it sufficient to compare claims at issue to those claims already found to be directed to an abstract idea in previous cases." *Enfish*, 822 F.3d at 1334; *see also Amdocs (Isr.) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016) (explaining that, in determining whether claims are patent eligible under § 101, "the decisional

mechanism courts now apply is to examine earlier cases in which a similar or parallel descriptive nature can be seen--what prior cases were about, and which way they were decided"). After the briefings in this case, the Federal Circuit held that claims involving "collecting information, analyzing it, and displaying certain results of the collection and analysis" are "a familiar class of claims 'directed to' a patent-ineligible concept." *Elec. Power Grp.*, 830 F.3d at 1353. The claims in *Electric Power* described systems and methods for performing real-time performance monitoring of an electric power grid by collecting data from multiple data sources, analyzing the data, and displaying the results. *Id.* at 1352. We determine claim 25 is similar to the claims in *Electric Power*, which did "not go beyond requiring the collection, analysis, and display of available information in a particular field, stating those functions in general terms, without limiting them to technical means for performing the functions that are arguably an advance over conventional computer and network technology." *Id.* at 1351. The court explained that "collecting information, including when limited to particular content (which does not change its character as information), is within the realm of abstract ideas" and characterized "analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category." *Id.* at 1353–54 (citations omitted). In light of this precedent, we agree with the Examiner that claim 25 is "directed to" an abstract idea. Because claim 25 is directed to a patent-ineligible concept, we proceed to the second step in the *Alice* framework.

Under *Alice* step two, Appellants contend that even assuming that the claims are directed to an abstract idea, the claims recite substantially more than the abstract idea (App. Br. 37) because

> [t]hese additional limitations simplify and improve the technology of the process plants (i.e., something other than the claimed system). As disclosed in the originally filed specification, "the remote system provides easy access to various software applications via a common medium such as the Internet, thus eliminating the need for expensive proprietary communication protocols and networks," (page 6, lines 23-26) where conventional process plants would otherwise utilize proprietary communication protocol and networks that require special (possibly custom) software and hardware (page 17, line 26 to page 18, line 4; page). The additional limitations therefore obviate, or at least reduce, the need for proprietary communication protocol and networks, including special software and hardware, for the process plant.

Id. at 38. We disagree.

The only portions of claim 25 that could be considered "technological" is the recitation of a process plant "controller" coupled to "field devices" and a "display screen" for presenting a web page, which are not enough, alone or in combination, to confer subject-matter eligibility. *See Alice Corp.*, 134 S. Ct. at 2358 (quoting *Mayo*, 566 U.S. at 66, 84) ("[I]f a patent's recitation of a computer amounts to a mere instruction to 'implemen[t]' an abstract idea 'on ... a computer,' that addition cannot impart patent eligibility."). To the extent that Appellants argue cost savings and realized efficiencies "improve the technology of the process plants," we are not persuaded that these improvements are to any technology, as opposed to a business practice.

Evaluating the claimed elements either individually or as an ordered combination, we agree with the Examiner that claim 25 lacks an "inventive concept" to transform the abstract idea into a patent-eligible application, because those additional features must be more than well-understood, routine, and conventional. *See Alice Corp.*, 134 S. Ct. at 2357 ("[C]laims, which merely require generic computer implementation, fail to transform [an] abstract idea into a patent-eligible invention."). For example, as for the claimed "controller," the Specification discloses that "[t]he process controller 12 may be a distributed control system (DCS) type controller such as, for example, a DeltaV™ controller sold by Fisher-Rosemount Systems, Inc., or any other type of controller for use in controlling field devices 15-22 that are connected to the process controller 12 in any conventional or any other desired manner." Spec. 7:11–15. As for the recited "field devices," Appellants' Specification states:

> The field devices 15-22 may be any types of devices, such as sensors, valves, transmitters, positioners, etc. while the I/O devices 26 and 28 may be any types of I/O devices conforming to any desired communication or controller protocol. As shown in Fig. 1, the process controller 12 is communicatively coupled to conventional (i.e., non-smart) field devices 15-18 via analog lines 33-36. Field devices 15-18 may be standard 4-20 mA analog field devices that communicate over analog lines 33-36 to the I/O device 26. Similarly, field devices 19-22 may be smart devices, such as Fieldbus field devices, that communicate over a digital bus 38 to the I/O device 28 using Fieldbus non-proprietary protocol communications.

Spec. 8:8–16. And programming conventional software or hardware to apply rules or algorithms is routine and conventional practice, which represent the most basic functions of a computer. *See* Spec. 12:26–28

("[T]he analysis unit 44 analyzes the collected data to detect one or more conditions associated with the process plant 10 in accordance with a set of stored rules or other algorithms."); *see also* App. Br. 22–23. According to the Specification, "the components described herein may be implemented in a standard multipurpose CPU, or on specifically designed hardware or firmware such as an ASIC or other hardwired devices, and still be a routine executed in a processor." Spec. 18:10–13.

Claim 25 does no more than simply instruct the practitioner to implement the abstract idea on a generic computer or computing devices. *See Elec. Power Grp.*, 830 F.3d at 1355 ("Nothing in the claims, understood in light of the specification, requires anything other than off-the-shelf, conventional computer, network, and display technology for gathering, sending, and presenting the desired information."); *see also Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012) (citation omitted) ("Simply adding a 'computer aided' limitation to a claim covering an abstract concept, without more, is insufficient to render [a] claim patent eligible."). On this record, Appellants have not shown that the limitations individually, or as an ordered combination, ensure that claim 25 amounts to "significantly more" than the abstract idea.

For the foregoing reasons, we are not apprised of reversible error in the Examiner's rejection of record. Therefore, we sustain the rejection of independent claim 25 under 35 U.S.C. § 101, including independent claims 1, 18, 33, and 38, which fall with claim 25.

As for the dependent claims 2, 5–17, 19, 22–24, 26–28, 31, 32, 34, 35, 39 and 42–66, Appellants argue that the Examiner has not made a prima facie case under 35 U.S.C. § 101. App. Br. 39–42. We disagree. Instead,

we agree with the Examiner that "[t]he dependent claims merely add further details of the abstract steps/elements recited in claims 1, 18, 25, 33, and 38 without including an improvement to another technology or technical field, an improvement to the functioning of the computer itself, or meaningful limitations beyond generally linking the use of an abstract idea to a particular technological environment." Ans. 25 (emphasis omitted). Therefore, we also sustain the rejection of dependent claims 2, 5–17, 19, 22–24, 26–28, 31, 32, 34, 35, 39 and 42–66 under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Rejection IV

"All claims are argued together." App. Br. 43 (footnote 13: "[T]he arguments for independent claim 1 apply equally to each of claims 2, 5–12, 14–19, 22–28, 31–35, 38, 39 and 42–66."). We also select claim 1 as the representative claim. Thus, claims 2, 5–12, 14–19, 22–28, 31–35, 38, 39 and 42–66 stand or fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

In contesting the Examiner's rejection under 35 U.S.C. § 102(e) as being anticipated by Eryurek, Appellants argue that "Eryurek discloses a variety of systems and software located ***within*** the process plant (App. Br. 45 (citing Eryurek Fig. 1)), but "under the ordinary and customary meaning of the term 'remote,' the claimed system cannot be located in the vicinity of the process plant, such as within the process plant or as part of the process plant." Reply Br. 12. Appellants define the term *remote* as "'[n]ot in the immediate vicinity, as a computer or other device located in another place (room, building, or city) and accessible through some type of cable or communications link' . . . *Computers* Located at a distance from another

computer that is accessible by cables or other communications links: *a remote terminal*." App. Br. 45.

In response to Appellants' argument, the Examiner relies on Figure 32 of Eryurek (Ans. 27–28 (quoting Eryurek ¶¶ 140–142)), which "discloses that the monitoring can also be performed remotely from the physical plant." *Id.* at 29. "[T]he Examiner asserts that nothing in the definition would result in one of ordinary skill in the art interpreting 'remote' as being a particular set distance or outside the process plant." *Id.* We agree.

Eryurek is directed to the use of "process analysis tools by a remote processing facility to analyze process control plant data." Eryurek ¶ 2. In the background of its disclosure, Eryurek recognizes the problems associated with analysis tools being "widely used within process control plants, [which] often result in a substantial cost to the plant owner." *Id.* ¶ 12; *see also id.* ¶¶ 9–10, 13. Eryurek proposes the following solution:

> The remote data processing facility analyzes the process data using a process analysis tool such as a process monitoring tool, an equipment monitoring tool, a device monitoring tool, an index generation tool, a work order generation tool and/or an accounting tool to generate analysis data. The analysis data is then transmitted to the process control plant via a communication link such as the Internet.

Id., Abstract. As shown in Figure 32, a plurality of independently operable process control plants (918, 920, 922) are communicatively connected to the Internet (916) and coupled to the Application Service Provider (ASP 914) via one or more communication links (936, 938), wherein ASP 914 functions as a remote data processing facility that provides software, customization, and support services to plants 918, 920, and 922 via the Internet. Eryurek ¶¶ 140–142. In describing Figure 32, Eryurek discloses

that system 900 "enables one or more independently operable process control plants to remotely access models, optimizers and other data analysis tools such as equipment performance monitoring tools." *Id.* ¶ 140.

> Thus, the ASP 914 can function as a remote monitoring or data processing facility that can execute the software for asset, performance, condition and process monitoring as well as executing one or more optimizers for different plants. As a result, the process control plants 918-922 do not need to include processing power or applications for these purposes.

Id. ¶ 146.

We disagree with Appellants' contention that the language of the claim necessitates the scope of the term *remote* to be defined as not being located in the vicinity of the process plant. Indeed, Appellants' proffered definition of *remote* provides "not in the *immediate* vicinity," and does not preclude a computer being in another room or building and accessible through some type of communications link. As the Examiner correctly observes (Ans. 29), neither the claim language nor the Specification requires that each recited unit be located a set distance away, but only calling for a "unit located remotely from the process plant." *See* App. Br. 51, Claims App'x.

Nevertheless, Eryurek describes a remote service facility 914 enabling one or more independently operable process plants 918–922 that are physically remote form each other and from the service facility to remotely access a plurality of software applications via the Internet. *See supra*. We see no meaningful distinction between Figure 32 of Eryurek described above, and Figure 2 of Appellants' disclosure, which shows a service facility

that uses Internet-based communications to provide remote diagnostic and maintenance services to a plurality of disparate process plants.

Furthermore, Appellants argue that Eryurek does not disclose a control unit adapted to "automatically activate a web page on a display screen in the process plant that provides graphical and/or textual information for guiding an operator in correcting the detected condition associated with the process plant," as required by claim 1. App. Br. 48.

In response to Appellants' argument, the Examiner states that the citations to Eryurek disclose a control unit adapted to or capable of activating a web page to provide an operator with the necessary information to resolve an issue, as required by claim 1. Ans. 29. According to the Examiner "the term 'automatically' does not mean without human interaction. Examiner asserts a process may be automatic even though a human initiates or may interrupt to the process. The term 'automatically' can be construed to mean 'once initiated by a human, the function is performed by a machine, without the need for manually performing the function.'" Ans. 30 (citing *CollegeNet, Inc. v. ApplyYourself, Inc.*, 418 F.3d 1225, 1235 (Fed. Cir. 2005)).

During examination, claims are to be given their broadest reasonable interpretation consistent with the specification, and the language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004) (citations omitted). Although "[t]he phrase 'adapted to' generally means 'made to,' 'designed to,' or 'configured to,' . . . it can also be used more broadly to mean 'capable of' or 'suitable for.'" *In re Man Machine Interface Techs. LLC*, 822 F.3d 1282, 1286 (Fed. Cir. 2016) (citing *In re*

Giannelli, 739 F.3d 1375, 1379 (Fed. Cir. 2014)). "While the Board must give the terms their broadest reasonable construction, the construction cannot be divorced from the specification." *In re NTP, Inc.*, 654 F.3d 1279, 1288 (Fed. Cir. 2011).

Here, the Specification describes the functions ascribed to the control unit as being capable of or suitable for being performed, instead of the narrower meaning of being configured to. *See*, *e.g.*, Spec. 13:3–4 ("[T]he control unit 46 may automatically implement an appropriate software application 70 to further analyze the detected condition."), 13:14–16 ("Examples of parameters capable of being calculated by the control unit 46 include tuning parameters, indexes for the process plant 10, or any other parameters capable of being provided by the software applications 70."), 13:27–28 ("[T]he control unit 46 may automatically download the appropriate software application."), 14:4–6 ("[T]he control unit 46 may activate a web page providing graphical and/or textual information such as, for example, instructions from an operator's manual."). We find that the Examiner's broader interpretation of the term "adapted to" as meaning "capable of" is consistent with the Specification's description of the control unit, and is not so broad as to include a configuration expressly disclaimed by Appellants' disclosure. Appellants did not explicitly contest this construction of the claim language.

We also agree with the Examiner that the term *automatically* normally does not exclude all possible human intervention. *See WhitServe, LLC v. Comput. Packages, Inc.*, 694 F.3d 10, 19 (Fed. Cir. 2012); *CollegeNet*, 418 F.3d at 1235. Appellants' Specification does not define or otherwise limit the use of the term *automatically* to exclude all human intervention. The

Specification provides that "the control unit 46 may activate a web page providing graphical and/or textual information such as, for example, instructions from an operator's manual, for guiding an operator at the process plant 10 in manually troubleshooting and/or correcting the detected condition." Spec. 14:4–7. As such, we construe "a control unit . . . adapted to . . . automatically activate a web page on a display screen in the process plant that provides" information for guiding an operator to encompass a system's capability of allowing a user to initiate the display of and access the web page. This construction is consistent with the Examiner's broadest reasonable interpretation of the claim, and is expressly disclosed by Eryurek. Appellants concede that Eryurek provides such capability. *See* Reply Br. 12 ("While the process plants 918, 920, 922 may *access* a web page, the web page is not automatically *activated* in the process plants 918, 920, 922 by the remote system 900 in response to a detected condition."). Nonetheless, we find "the GUI described [in Eryurek] may automatically, or may in response to a request by a user, provide maintenance information to the user." Eryurek ¶ 112. Because claim 1 requires that the control unit perform "at least one of" the recited functions, we need not address Appellants' arguments as to the alternative automatic download limitation, which is not required to be implemented.

Accordingly we are not persuaded the Examiner erred in rejecting claim 1 as being anticipated by Eryurek. Thus, we sustain the rejection of claim 1 under 35 U.S.C. § 102(e), including claims 2, 5–12, 14–19, 22–28, 31–35, 38, 39 and 42–66, which fall with claim 1.

Rejection V

In contesting the rejection of claim 13 as unpatentable over Eryurek and Official Notice, Appellants argue: "Claim 13 is patentable for at least the same reasons set for above for Claim 1." App. Br. 49. Accordingly, for the same reasons discussed above with respect to claim 1, we sustain the rejection of claim 13 under 35 U.S.C. § 103(a).

DECISION

Rejection I under 35 U.S.C. § 112, second paragraph, is reversed.

Rejection II under 35 U.S.C. § 112, first paragraph, is reversed.

Rejection III under 35 U.S.C. § 101 is affirmed.

Rejection IV under 35 U.S.C. § 102(e) is affirmed.

Rejection V under 35 U.S.C. § 103(a) is affirmed.

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

AFFIRMED