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BROOKS KUSHMAN P.C./FGTL
1000 TOWN CENTER
22ND FLOOR
SOUTHFIELD, MI 48075-1238

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MARK ANTHONY ROCKWELL and
DOUGLAS RAYMOND MARTIN

Appeal 2018-004973
Application 14/282,015
Technology Center 3600

Before JAMES P. CALVE, MICHAEL J. FITZPATRICK, and
WILLIAM A. CAPP, *Administrative Patent Judges*.

FITZPATRICK, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant¹ appeals under 35 U.S.C. § 134(a) from the Examiner's final decision rejecting claims 1–4, 6–10, 12–20. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm-in-part.

¹ The real party in interest is identified as Ford Global Technologies, LLC. Appeal Br. 1.

STATEMENT OF THE CASE

The Specification

According to the specification, the “disclosure generally relates to a module interface for facilitating software updates to modules of a receiving vehicle.” Spec. ¶1. The specification explains that, in the prior art, “[t]o update a software version of a component of a vehicle, the vehicle may be driven to a dealership and serviced by a technician.” *Id.* ¶2.

In contrast, the specification discloses a system in which “a processor of a vehicle [is] configured to communicate [wirelessly] with an update server hosting software updates.” *Id.* ¶3. Of particular significance is the specification’s description of an embodiment comprising the following:

a computing system of a vehicle configured to request consent from a user to install a software update, when consent is received, install the software updates using a software update management module configured to invoke software update mode for a vehicle module identified by the software update, and apply the software update to the vehicle module, and when consent is not received, display an indication that software updates are available.

Id. ¶4. The indication “may be included as an icon within a gauge cluster of the vehicle 31 or “be displayed on the display 4 of the VCS 1 within a user interface 304 of the VCS 1.”

The Rejected Claims

Claims 1–4, 6–10, and 12–20 stand rejected. Final Act. 1. Claims 5 and 11 are cancelled. Appeal Br. Claims App’x. 2–3. Independent claims 1, 8, and 16 are representative and reproduced below.

1. A system comprising:
a processor of a vehicle configured to communicate with an update server hosting software updates; and

a software update management module connected to the processor and vehicle modules over a vehicle bus and configured to

determine that a software update is an optional software update based on a data indicator associated with the software update, wherein the software update is configured to at least one of add an additional feature to a vehicle module or adjust a configuration of an existing feature of a vehicle module,

provide, in a head unit display of the vehicle, an indication of an optional status of the software update and a request for consent from a user to install the optional software update,

invoke a software update mode responsive to receipt of a message indicating user consent to install the software update,

send an update command over the vehicle bus to invoke the software update mode for the vehicle module identified by the software update,

apply the software update to the vehicle module by installing the update to a memory of the vehicle module, and

display an indication as an icon within a gauge cluster of the vehicle responsive to lack of receipt of the user consent.

8. A system comprising:

a gauge cluster of a vehicle, and

a computing system of the vehicle programmed to

request consent to install a software update indicated as being an optional software update to add an additional feature to the vehicle or adjust a configuration of an existing feature of the vehicle, and

when consent is not received, display an indication in the gauge cluster that the optional software update is available.

16. A method comprising:

displaying, as an icon in a user interface of a vehicle, an indication that an optional software update configured to at least one of add an additional feature to a vehicle or adjust a configuration of an existing feature of the vehicle is available for installation; and

installing the software update by a computing system of the vehicle responsive to receipt of user consent to install the software update.

Appeal Br. Claims App'x 1–3.

The Appealed Rejections

The following rejections are before us for review:

1. claims 1–4, 6–10, 12–20 under a judicial exception to 35 U.S.C. § 101 (Final Act. 4);
2. claims 1 and 3 under 35 U.S.C. § 103 as unpatentable over Pal,² Gudell,³ and Roy⁴ (*id.* at 6);
3. claims 2 and 7 under 35 U.S.C. § 103 as unpatentable over Pal, Gudell, Roy, and Petroski⁵ (*id.* at 9);

² US 2014/0380296 A1, published Dec. 25, 2014 (“Pal”).

³ US 2015/0100623 A1, published Apr. 9, 2015 (“Gudell”).

⁴ US 2015/0191122 A1, published July 9, 2015 (“Roy”).

⁵ US 2014/0297225 A1, published Oct. 2, 2014 (“Petroski”).

4. claims 4 and 5 under 35 U.S.C. § 103 as unpatentable over Pal, Gudell, Roy, and Jang⁶ (*id.* at 10);
5. claim 6 under 35 U.S.C. § 103 as unpatentable over Pal, Gudell, Roy, Jang, and Drope⁷ (*id.* at 12);
6. claims 8, 10, 12, 13, 16, and 18–20 under 35 U.S.C. § 103 as unpatentable over Pal, Gudell, Jang, Roy, and Hoffman⁸ (*id.* at 13⁹);
7. claims 9 and 17 under 35 U.S.C. § 103 as unpatentable over Pal, Gudell, Jang, Hoffman and Official Notice (*id.* at 18);
8. claim 14 under 35 U.S.C. § 103 as unpatentable over Pal, Gudell, Roy, Jang, Hoffman, and Drope (*id.* at 19); and
9. claim 15 under 35 U.S.C. § 103 as unpatentable over Pal, Gudell, Jang, Hoffman, and Petroski (*id.* at 20).

DISCUSSION

Rejection 1

The Examiner rejected claims 1–4, 6–10, and 12–20 under the judicial exception to 35 U.S.C. § 101. Final Act. 4; *see, e.g., Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014) (“We have long held that this provision [35 U.S.C. § 101] contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.”).

⁶ US 2014/0325500 A1, published Oct. 30, 2014 (“Jang”).

⁷ US 2011/0113122 A1, published May 12, 2011 (“Drope”).

⁸ US 2014/0109075 A1, published Apr. 17, 2014 (“Hoffman”).

⁹ The Examiner omits claim 19 from his heading on page 13 of the Final Action, but goes on to reject it on page 17 of the Final Action. Final Act. 13, 17.

In analyzing patent-eligibility questions under the judicial exception to 35 U.S.C. § 101, we “first determine whether the claims at issue are directed to a patent-ineligible concept.” *Alice*, 134 S. Ct. at 2355. If the claims are determined to be directed to an ineligible concept, then 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 Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 97 (2012)).

On January 7, 2019, the Director issued “2019 Revised Patent Subject Matter Eligibility Guidance,” which explains how we must analyze patent-eligibility questions under the judicial exception to 35 U.S.C. § 101. 84 Fed. Reg. 50–57 (“Revised Guidance”).

Per the Revised Guidance, the first step of *Alice* (i.e., Office Step 2A) consists of two prongs. In Prong One, we must determine whether the claim recites a judicial exception, i.e., an abstract idea, a law of nature, or a natural phenomenon. 84 Fed. Reg. at 54 (Section III.A.1.). If it does not, the claim is patent eligible. *Id.* With respect to the abstract idea category of judicial exceptions, an abstract idea must fall within one of the enumerated grouping of abstract ideas in the Revised Guidance or be a “tentative abstract idea,” with the latter situation predicted to be rare. *Id.* at 51–52 (Section I, enumerating three groupings of abstract ideas), 54 (Section III.A.1., describing Step 2A Prong One), 56–57 (Section III.D., explaining the identification of claims directed to a tentative abstract idea).

If a claim does recite a judicial exception, we proceed to Step 2A Prong Two, in which we must determine if the “claim as a whole integrates

the recited judicial exception into a practical application of the exception.”
Id. at 54 (Section II.A.2.) If it does, the claim is patent eligible. *Id.*

If a claim recites a judicial exception but fails to integrate it into a practical application, we then proceed to the second step of *Alice* (i.e., Office Step 2B). In that step, we then evaluate the additional limitations of the claim, both individually and as an ordered combination, to determine whether they provide an inventive concept. *Id.* at 56 (Section III.B.). In particular, we look to whether the claim:

- Adds a specific limitation or combination of limitations that are not well-understood, routine, conventional in the field, which is indicative that an inventive concept may be present; or
- simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception, which is indicative that an inventive concept may not be present.

Id.

Here, the Examiner determined that the “claims are directed to an abstract idea of itself of updating software, which includes the nominal steps of gathering data, processing data, and storing data.” Final Act. 4–5 (parentheticals omitted). “Alternatively, [the Examiner determined,] the claims are also directed towards a certain method of organizing human activity.” Ans. 4. The Examiner explained the latter as follows:

Analogously in a hypothetical scenario, a service provider can approach a user to request an optional service, that user would then decide to accept or decline the optional service. Upon user consent to perform the service, the service provider would then perform the agreed upon service.

Id.

As such, the Examiner has not determined that the claims recite an abstract idea that falls within one of the enumerated grouping of abstract ideas in the Revised Guidance. *See* 84 Fed. Reg. at 52. Additionally, and even if one of the Examiner-asserted abstract ideas were a “tentative abstract idea,” the claims nonetheless would not be “directed to” an abstract idea under the Revised Guidance. That is because the claims as a whole integrate the asserted abstract ideas (i.e., updating software and organizing human activity) into specific practical applications of those ideas. For example, claim 1 is directed to a practical application of updating software specifically for a vehicle module, in which user consent is required and in which lack of receipt of user consent is communicated to a user via an icon within the gauge cluster of a vehicle. Claim 1 also is directed to providing in a head unit display of the vehicle an indication of an optional status of the software update and a request for consent to install the optional update and upon receipt of user consent sends an update command over the vehicle bus and installs the update to a memory of the vehicle module.

For the foregoing reasons, we reverse the Examiner’s rejection of claims 1–4, 6–10, and 12–20 under the judicial exception to 35 U.S.C. § 101.

Rejection 2

The Examiner rejected claims 1 and 3 under 35 U.S.C. § 103 as unpatentable over Pal, Gudell, and Roy. Final Act. 6.

Claim 1 recites “display an indication as an icon within a gauge cluster of the vehicle responsive to lack of receipt of the user consent.” Appeal Br. Claims App’x 1. For this limitation, the Examiner relied exclusively on Roy, stating:

Pal fails to explicitly disclose wherein the user interface is a head unit display and displaying an indication as an icon within a gauge cluster of the vehicle responsive to lack of receipt of the user consent. However, Roy teaches wherein the user interface is a head unit display and displaying an indication as an icon within a gauge cluster of the vehicle responsive to lack of receipt of the user consent (see at least Fig 1; ¶20-22; *touch screen 108 of an in-vehicle computing system 109 (e.g., an infotainment system . . . instrument cluster 110 . . . claim2: wherein the notification includes one or more of available software updates for the in -vehicle computing system).*

Final Act. 8.

We agree that Roy’s “in-vehicle computing system 109” and “instrument cluster 110” correspond respectively with claim 1’s “head unit display” and “gauge cluster.” *Compare* Roy Fig. 1, ref. 109, 110, *with* Spec. Fig. 3, ref. 302, 304. However, we do not adopt the Examiner’s finding that “Roy teaches . . . displaying an indication as an icon within a gauge cluster of the vehicle responsive to lack of receipt of the user consent.” *See* Final Act. 8. Instead, we agree with Appellant that Roy fails to this feature of claim 1. *See* Appeal Br. 11.

Roy does teach providing notifications—including notifications about software updates (*see* Roy claim 2)—but its notifications are presented “via an in-vehicle computing system” (i.e., the asserted head unit) and not via the instrument/gauge cluster. *Id.* ¶4; *see also id.* ¶22 (stating that “[i]nstrument cluster 110 may include various gauges such as a fuel gauge, tachometer, speedometer, and odometer, as well as indicators and warning lights” but not mentioning software update notifications); *see also* Appeal Br. 11 (arguing the same).

In the Answer, the Examiner states that “Roy teaches that there exist instrument clusters within vehicle on which indicators and notifications can be displayed.” Ans. 5 (citing Roy ¶22). We agree, but this finding is too general and not commensurate with the scope of the claim. Not every indication or notification within a gauge cluster meets the limitation at issue. That limitation recites “an indication as an icon within a gauge cluster of the vehicle responsive to lack of receipt of the user consent.” Appeal Br. Claims App’x 1. The only indications/notifications taught by Roy within the instrument/gauge cluster are conventional ones “such as a fuel gauge, tachometer, speedometer, and odometer, as well as indicators and warning lights.” Roy ¶22.

For the foregoing reasons, we reverse the Examiner’s rejection of claims 1 and 3 under 35 U.S.C. § 103 as unpatentable over Pal, Gudell, and Roy.

Rejections 3–5

The Examiner rejected, under 35 U.S.C. § 103, claims 2 and 7 as unpatentable over Pal, Gudell, Roy; Petroski and claims 4 and 5 under as unpatentable over Pal, Gudell, Roy, and Jang; and claim 6 as unpatentable over Pal, Gudell, Roy, Jang, and Drope. Final Act. 9–10, 12.

All of these claims depend from claim 1. In rejecting these dependent claims, the Examiner did not rely on any other reference to cure the deficiency of Roy as applied to claim 1. Accordingly, we likewise reverse the prior art rejections of these claims, claims 2 and 4–7. *See In re Fine*, 837 F.2d 1071, 1076 (Fed. Cir. 1988) (“Dependent claims are nonobvious under section 103 if the independent claims from which they depend are nonobvious.”).

Rejection 6

The Examiner rejected claims 8, 10, 12, 13, 16, and 18–20 under 35 U.S.C. § 103 as unpatentable over Pal, Gudell, Jang, Roy, and Hoffman. Final Act. 13.

Independent claim 8 recites “display an indication in the gauge cluster that the optional software update is available.” Appeal Br. Claims App’x 2. Claims 10, 12, and 13 incorporate this limitation because they depend from claim 8. *Id.* at 3.

For this limitation, the Examiner relied exclusively on Roy in the same manner as with respect to the similar of claim 1. *Compare* Final Act. 15, *with id.* at 8. Thus, for the same reasons with respect to the prior art rejection of claim 1, we reverse the Examiner’s rejection of claim 8, 10, 12, and 13 under 35 U.S.C. § 103 as unpatentable over Pal, Gudell, Jang, Roy, and Hoffman.

Independent claim 16 recites “displaying, as an icon *in a user interface of a vehicle*, an indication that an optional software update configured to at least one of add an additional feature to a vehicle or adjust a configuration of an existing feature of the vehicle is available for installation.” Appeal Br. Claims App’x 3 (emphasis added). Notably, claim 16 does not recite displaying an indication *in a gauge cluster*.

Yet, Appellant’s argument in opposition to the rejection of claim 16 refers back to, and relies on, its argument for claims 1 and 8 that Roy fails to teach an indicator in a gauge cluster. Appeal Br. 13. That argument is not commensurate with the scope of claim 16. Accordingly, Appellant has failed to apprise us of error in the Examiner’s prior art rejection of claim 16. Appellant does not provide any additional argument for claims 18–20, which

depend from claim 16. Thus, for the foregoing reasons, we affirm the Examiner's rejection of claim 16 and 18–20 under 35 U.S.C. § 103 as unpatentable over Pal, Gudell, Jang, Roy, and Hoffman.

Rejection 7

The Examiner rejected claims 9 and 17 under 35 U.S.C. § 103 as unpatentable over Pal, Gudell, Jang, and Hoffman. Final Act. 18. Appellant does not provide any additional argument for these claims, which depend respectively from claims 8 and 16.

Thus, we reverse the rejection of claim 9, which depends from claim 8, and we affirm the rejection of claim 17, which depends from claim 16. *See In re Fine*, 837 F.2d at 1076.

Rejections 8 and 9

The Examiner rejected, under 35 U.S.C. § 103, claim 14 as unpatentable over Pal, Gudell, Roy, Jang, Hoffman, and Drope; and claim 15 as unpatentable over Pal, Gudell, Jang, Hoffman, and Petroski. Final Act. 19–20. Appellant does not argue these rejections. *See generally* Appeal Br. Accordingly, we summarily affirm the prior art rejections of claims 14 and 15.

CONCLUSION

The Examiner's rejection of claims 1–4, 6–10, and 12–20 under the judicial exception to 35 U.S.C. § 101 is reversed.

The Examiner's prior art rejections of claims 1–10, 12, and 13 are reversed.

The Examiner's prior art rejections of claims 14–20 are affirmed.

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TIME PERIOD

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-IN-PART