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EXAMINER
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* MARC LORE and WEIHU YAN

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Appeal 2017-006060  
Application 13/213,150<sup>1</sup>  
Technology Center 3600

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Before HUBERT C. LORIN, J. JOHN LEE, and  
SHEILA F. McSHANE, *Administrative Patent Judges*.

McSHANE, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants seek our review under 35 U.S.C. § 134(a) of the Examiner's final decision to reject claims 2–21. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM the Examiner's prior rejection. We enter NEW GROUNDS OF REJECTION to the extent that our rationale differs from that of the Examiner for the rejections of claims 2–21 under 35 U.S.C. § 101, pursuant to our authority under 37 C.F.R. § 41.50(b).

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<sup>1</sup> According to Appellants, the real party in interest is Quidsi, Inc., a subsidiary of Amazon.com, Inc. Appeal Brief filed August 17, 2016, hereafter "App. Br.," 2.

## BACKGROUND

The invention is directed to presenting upselling products that consider incremental packing and shipping costs. Specification, hereafter “Spec.,” ¶¶ 11–12.

Claims 2, 11, and 19 are the independent claims on appeal. Illustrative claim 2 is reproduced from pages 30 and 31 of the Claims Appendix of the Appeal Brief (Claims App.) as follows:

2. A computer-implemented method, comprising:

storing, by one or more configured computing devices of a merchant, a weight and dimensions of each of a plurality of products available from the merchant;

receiving, by the one or more configured computing devices via one or more first electronic communications sent over one or more computer networks, an indication of an order by a customer for one or more first products from the plurality of products;

determining, by the one or more configured computing devices, a box for use in shipping the one or more first products to the customer based on box sizes available and on the weight and dimensions of each of the one or more first products;

analyzing, by the one or more configured computing devices, an amount of room and an amount of weight that will be available in the box once the one or more first products are inside;

generating, by the one or more configured computing devices, a packing solution for one or more second products of the plurality based on a comparison of the weight and dimensions of the one or more second products with the amount of room and the amount of weight available in the box;

determining, by the one or more configured computing devices, an incremental shipping and

packaging cost associated with including the one or more second products in the box based on the generated packing solution;

selecting, by the one or more configured computing devices, one or more candidate products from the one or more second products to propose to the customer to include in the box with the one or more first products based at least in part on the determined incremental shipping and packaging cost;

providing, by the one or more configured computing devices via one or more second electronic communications sent over the one or more computer networks, an indication to the customer of the selected one or more candidate products; and

initiating, by the one or more configured computing devices via one or more third electronic communications and based at least in part on a selection by the customer of at least one candidate product from the selected one or more candidate products in response to the provided indication, shipping of the at least one candidate product in the box with the one or more first products to the customer.

The Examiner rejects claims 2–21 under 35 U.S.C. § 101 as reciting a judicial exception without significantly more. Final Action mailed April 6, 2016, hereafter “Final Act.,” 10–11; *see also* Examiner’s Answer mailed January 10, 2017, hereinafter “Ans.,” 3.

#### DISCUSSION

Appellants argue the § 101 rejection on all the claims on similar bases, and we will use claim 2 as representative. *See* App. Br. 12–29; Reply Brief mailed February 27, 2017, hereafter “Reply Br.,” 4–15.

The Examiner determines that the claims, and more specifically, representative claim 2, are directed to non-statutory subject matter because

they are directed to the abstract idea of “determining an incremental shipping and packaging cost and profit associated with upselling a second product,” which is similar to abstract ideas held by the courts to be judicial exceptions. Final Act. 10 (emphasis omitted). The Examiner compares the claims to cases where claims were directed to similar subject matter that was deemed to be an abstract idea. *Id.* The Examiner finds that there are similar cases to the instant claims, which are directed to “[c]omparing new and stored information and using rules to identify options,” “[c]reating a contractual relationship,” and “[m]anaging relationships or transactions between people.” *Id.* (emphasis omitted) (citing *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350 (Fed. Cir. 2014); *SmartGene, Inc. v. Advanced Biological Labs.*, 555 Fed. App’x 950 (Fed. Cir. 2014)). The Examiner finds that the claims “are similar to the concepts identified by the courts as economic practices in which monetary transactions between people are managed and the obtaining, comparing, and processing of data,” which are not meaningfully different from those concepts found by the courts to be abstract ideas. Ans. 8. The Examiner further finds that the claims are “directed to ‘an idea [] of itself,’ (i.e., an idea standing alone such as an uninstigated concept, plan or scheme, as well as a mental process (thinking)[]) that ‘can be performed in the human mind, or by a human using a pen and paper.’” Final Act. 5. The Examiner determines the claims do not include limitations that are significantly more than the judicial exception because the steps use generic computers performing generic computer functions that are well-understood, routine, and conventional activities. *Id.* at 11.

Appellants argue that the rejection of claim 2 is flawed because the claims are not directed to an abstract idea. App. Br. 13–18. Appellants argue that the claims are not abstract for similar reasons to the claims in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014) (“*DDR*”). *Id.* at 9. Appellants allege that, like *DDR*, the claim is to a solution to a problem “necessarily rooted in computer technology” and “recite an invention that is not merely the routine or conventional use of the Internet.” *Id.* at 13. Appellants also refer to *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016) (“*Enfish*”), where claims directed to a specific implementation of a solution to a problem in the software arts were determined not to be an abstract idea. *Id.* Appellants further refer to *Trading Technologies International, Inc. v. CQG, Inc.*, No. 05-cv-4811, 2015 WL 774655 (N.D. Ill. Feb. 24, 2015), and its display of trading-related information that was held to recite statutory subject matter. *Id.* at 14. In the Reply Brief, Appellants also refer to *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299 (Fed. Cir. 2016) (“*McRO*”), and *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288 (Fed. Cir. 2016), and allege that these cases reiterate that performing automated activities to improve technological processes is statutory subject matter. Reply Br. 5–7. Appellants argue that, similar to *Enfish*, *DDR*, and *Trading Technologies*, the subject matter of claim 2, which “specifies how interactions in the computer environment occur to yield a desired result and to provide resulting benefits to the computing systems themselves and to the operations of physically shipping products in boxes,” is directed to specific implementation of a solution in the software arts and does not recite an abstract idea. App. Br. 14–15; *see also* Reply Br. 8–9. Appellants argue

that the claimed automated operations use information and weights and dimensions of physical products and boxes, as well as improve operations and efficiency of a warehouse using analysis of the physical characteristics of products and boxes. Final Act. 15–17. On this basis, Appellants assert that the claims are therefore not directed to an abstract idea. *Id.*

Appellants allege that the Final Office Action fails to cite a case where an abstract idea has been found that has analogous subject matter to the present claims as a whole, and Appellants allege they are not aware of such a case. Final Act. 17. Appellants refer to the cases relied upon by the Examiner in the rejection, and argue that none of the cases relate to using physical measurements of physical products and shipping boxes to improve the physical transportation of such products. *Id.* at 17–18. Appellants argue that claim 2 has already been found to be allowable over prior art, which confirms that the subject matter of the claim is not conventional. *Id.* at 18. Appellants further assert that the rejection effectively requires that “only automated operations which improve an individual computer system’s operation are statutory subject matter,” and “any improvement to business functionality is directed to not patentable subject matter,” but that such a view of the case law is too limited. Reply Br. 5, 9.

Appellants also argue that, even if claim 2 is directed to an abstract idea, the claim recites significantly more than the abstract idea. App. Br. 18–21. Appellants aver similarities to *BASCOM Global Internet Services v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016) (“*BASCOM*”), arguing that the independent claims recite a combination of features, that is “specific operations in particular manners” that are comparable to *BASCOM*. Reply Br. 3. Appellants contend that the Examiner fails to cite a case where the

additional elements of this claim have been found to be well-understood and conventional, and Appellants are unaware of any cases that have involved using physical measurements of physical products and boxes to perform transportation of such physical products and boxes. *Id.* at 20. Appellants further argue that claim 2 includes meaningful limitations that would not preempt the use of the abstract idea. *Id.* at 21. Appellants assert that the “claim elements provide detailed computing functions that perform specialized actions and manipulate and transform data in a way that is not well-understood, routine and conventional in the field.” Reply Br. 13. Appellants also contend that when the claim elements are considered in their totality, they amount to more than generic computer functions claimed in a generic manner. *Id.* at 14.

To provide context, 35 U.S.C. § 101 provides that a new and useful “process, machine, manufacture, or composition of matter” is eligible for patent protection. The Supreme Court has made clear that the test for patent eligibility under Section 101 is not amenable to bright-line categorical rules. *See Bilski v. Kappos*, 561 U.S. 593, 609 (2010). There are, however, three limited, judicially created exceptions to the broad categories of patent-eligible subject matter in § 101: “[L]aws of nature; natural phenomena, and abstract ideas.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012).

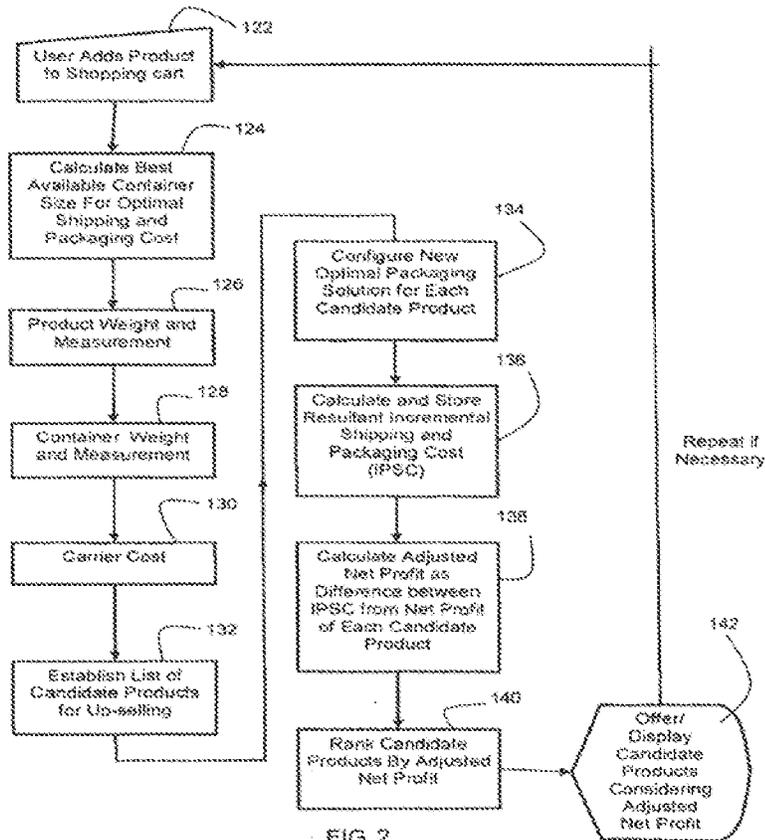
In *Alice Corporation Pty, Ltd. v. CLS Bank International*, 134 S. Ct. 2347 (2014), the Supreme Court reiterated the framework set forth previously in *Mayo*, “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 134 S. Ct. at 2355 (citation omitted).

Under *Alice*, the first step of such analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* (citation omitted). If it is determined that the claims are directed to a patent-ineligible concept, the second step in the analysis is to consider the elements of the claims “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 78, 79). In other words, the second step is to “search for an ‘inventive concept’—*i.e.*, an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Id.* (alteration in original) (quoting *Mayo*, 566 U.S. at 72–73).

After considering Appellants’ arguments and the evidence presented in this Appeal for the § 101 rejections, we are not persuaded that Appellants identify reversible error in the Examiner’s rejection. We add the following for emphasis.

In the first step of the analysis, the Examiner finds that the claims are directed to “determining an incremental shipping and packaging cost and profit associated with upselling a second product.” Final Act. 10 (emphasis omitted). We are not persuaded by Appellants’ arguments that the claims are not directed to an abstract idea because they use information regarding physical products and boxes, and improve operations and efficiency of a warehouse using analysis of the physical characteristics of products and boxes. Appellants’ arguments suggest that the steps directly involve physical items and physical improvement, which take the claims out of the abstract. The claimed steps, however, are limited to those performed on data

only by a computer, and there are no steps that include non-data (physical) actions: data for the weight and dimensions of products are stored, an order is received, a box is identified for shipping using box size data, there is an analysis to determine available remaining space and whether a second product would fit in the box and its weight, the incremental shipping and packaging cost of the second item is determined, with selection of candidate products, the selection of the candidate product is provided to a customer, and shipping is initiated upon customer selection. Figure 2, reproduced below, generally depicts the steps of claim 2.



Consistent with Figure 2 above, we find no error with the Examiner’s articulation that these steps are directed to “determining an incremental

shipping and packaging cost and profit associated with upselling a second product.” *See* Final Act. 10. We also find no error with the Examiner’s finding that all these steps could be performed by the human mind or by a human using a pen and paper. The steps involve obtaining and processing of data for transactions between people. The Federal Circuit has held that if a method can be performed by human thought alone, or by a human using pen and paper, it is merely an abstract idea and is not patent-eligible under § 101. *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372–73 (Fed. Cir. 2011) (“[A] method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under § 101.”). Mental processes remain unpatentable even when automated to reduce the burden on the user of what once could have been done with pen and paper.

*CyberSource*, 654 F.3d at 1375 (“That purely mental processes can be unpatentable, even when performed by a computer, was precisely the holding of the Supreme Court in *Gottschalk v. Benson*.”). Here, the claims could have been performed by a human obtaining and analyzing data related to the transaction. We treat “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.” *Electric Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016). We also discern no error in the Examiner’s reliance on *buySAFE*, which involved an abstract idea involved in a transaction, or *SmartGene*. *See* Final Act. 10 (citing *buySAFE*, 765 F.3d 1350 (Fed. Cir. 2014); *SmartGene, Inc.*, 555 Fed. App’x 950 (Fed. Cir. 2014)). In *SmartGene*, the Federal Circuit concluded that the claims were patent ineligible because they did “no more than call on a ‘computing device,’ with basic functionality for comparing

stored and input data and rules, to do what doctors do routinely.”

*SmartGene*, 555 F. App’x at 954. In the instant case, the recited steps are nothing more than analyzing data in an algorithm process using a computer processor to calculate cost and profit associated with upselling a product.

We also do not find Appellants’ arguments based on *DDR* to be persuasive. In *DDR* the invention did not merely use the Internet but rather changed how interactions on the Internet operated and thereby claimed a solution “necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” *DDR*, 773 F.3d at 1257. Further, alleged similarities to *Enfish* fail to persuade because its claims were deemed to be patent eligible because they were directed to improvements in the way computers and networks carry out their basic functions. *See Enfish*, 822 F.3d at 1335–36 (“[T]he first step in the *Alice* inquiry . . . asks whether the focus of the claims is on the specific asserted improvement in computer capabilities . . . or, instead, on a process that qualifies as an ‘abstract idea’ for which computers are invoked merely as a tool.”). In an appeal of *Trading Technologies*, the Federal Circuit found that the claims required “a specific, structured graphical user interface paired with a prescribed functionality directly related to the graphical user interface’s structure that is addressed to and resolves a specifically identified problem in the prior state of the art,” which is an improvement to technology. *Trading Techs. Int’l, Inc. v. CQG, Inc.*, 675 F. App’x 1001, 1004 (Fed. Cir. 2017). In *McRO*, the claims “focused on a specific asserted improvement in computer animation.” *McRO*, 837 F.3d at 1314. Additionally, in *Amdocs*, “claim 1 solves a technological problem (massive data flows requiring huge databases)” and “is a technical improvement over

prior art technologies and served to improve the performance of the system itself.” *Amdocs*, 841 F.3d at 1302. Here, the claims are not directed to improved computer operations or functions, but rather are directed to data analysis for cost analysis for upselling a product—an abstract idea.

We also do not find that Appellants’ arguments identify error in the Examiner’s findings on the claimed steps under the second step of *Alice*. As discussed in *BSG Tech LLC v. Buyseasons, Inc.* (“*BSG*”), “[i]f a claim’s only ‘inventive concept’ is the application of an abstract idea using conventional and well-understood techniques, the claim has not been transformed into a patent-eligible application of an abstract idea.” 899 F.3d 1281, 1290–1291 (Fed. Cir. 2018) (citing *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1370 (Fed. Cir. 2018) (holding claims lacked an inventive concept because they “amount to no more than performing the abstract idea of parsing and comparing data with conventional computer components”)). Here, the Examiner’s findings are that the abstract idea is performed by implementation of the steps of the claims using generic computers performing generic computer functions that are well-understood, routine, and conventional activities, and the computer implementation is not significantly more than the judicial exception. We find no error with the Examiner’s finding that the claims are directed to implementation of the abstract idea by generic processes. Instructing one to “apply” an abstract idea and reciting no more than generic computer elements performing generic computer tasks does not make an abstract idea patent eligible. *See Alice*, 134 S. Ct. at 2359–60 (2014). The Specification describes the computing systems used as “well known.” Spec. ¶ 17. Appellants fail to identify any evidence that the steps are implemented by anything but a

generic computer system. *See* App. Br. 18–21; Reply Br. 10–16. Merely arguing that there is a factual dispute, absent justification, is insufficient to demonstrate Examiner error. *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 890 F.3d 1354, 1368 (Fed. Cir. 2018). Further, we do not find justification for Appellants’ arguments that the claim elements provide detailed computing functions that perform specialized actions and manipulate and transform data in a way that is not well-understood, routine and conventional. *See* Reply Br. 13. Appellants provide no evidentiary support for that assertion<sup>2</sup> and although the Specification identifies a “computer algorithm” for preferred packing for upselling products, the Specification states that the invention may use different optimization methods. *See* Spec. ¶ 35.

Moreover, it is well established that the conventional use of a generic computer using generic steps to implement an abstract idea does not make an abstract idea patent eligible. *See BSG*, 899 F.3d at 1290–91; *Electric Power*, 830 F.3d at 1353, 1355 (Fed. Cir. 2016) (“We have repeatedly held that invocations of computers and networks that are not even arguably inventive are ‘insufficient to pass the test of an inventive concept in the application of an abstract idea.’”) (quoting *buySAFE*, 765 F.3d at 1355); *Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1055–56 (Fed. Cir. 2017); *Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d

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<sup>2</sup> Appellants argue that if the computing functions were well known, that the Patent Office should have been able to find prior art with this functionality. Reply Br. 13. However, allowability over prior art relates to whether a claim is novel or non-obvious, not whether the claim is significantly more than the judicial exception. *See Two-Way Media Ltd. v. Comcast Cable Commc’ns.*, 874 F.3d 1329, 1339–40 (Fed. Cir. 2017) (“Eligibility and novelty are separate inquiries.”).

1364, 1374–75 (Fed. Cir. 2017); *Secured Mail Solutions LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 911 (Fed. Cir. 2017); *DDR*, 773 F. 3d at 1256 (Fed. Cir. 2014) (“[A]fter *Alice*, there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible.”).

Even if we were to consider issues beyond the findings on the implementation of the abstract idea on a generic computer, we are not persuaded by Appellants’ arguments. As to Appellants’ contention that the “specific operations in particular manners” of claim 2 are comparable to *BASCOM*, we do not find that the Appellants have identified reversible error in the Examiner’s findings. App. Br. 18–19. Appellants merely reiterate the steps of the claim, and argue that the claim language goes “far beyond merely determining an incremental shipping and packaging cost.” *Id.* at 19. Appellants represent the claim as a case of “automated operations of computing systems involving using physical measurements of physical products and boxes to perform transportation of such physical products and boxes in a more efficient manner.” *Id.* at 20. In *BASCOM*, the Federal Circuit agreed that the evidence presented for the claims at issue in that case supported that an ordered combination of the claim elements provided a specific way to filter content on the Internet to overcome existing technology problems with other Internet-filtering systems, and improved the filtering performance of the computer system itself, which represented significantly more than each of the conventional elements. *BASCOM*, 827 F.3d at 1351. Here, there is no technology improvement identified by Appellants in the claims.

We also do not find Appellants' arguments concerning the use of physical measurements and "perform[ing] transportation of such physical products" to be an accurate representation of the claims to the extent that the argument suggests improvements to any physical processes—as discussed above, the steps are limited to data processes. App. Br. 20. The "specific automated operations" being performed are steps limited to those performed on data only. *See id.* at 19.

And although it may be true that the claims recite specific steps for determining preferred packing for upselling that do not wholly preempt a fundamental concept, that issue is not dispositive as to whether the claims are patent eligible. *See Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1377 (Fed. Cir. 2015) ("While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.").

We therefore sustain the Examiner's rejection of claims 2–21 under § 101. To the extent that our rationale differs from that of the Examiner, we designate the rejection of claims 2–21 under 35 U.S.C. § 101 as a new ground of rejection pursuant to 37 C.F.R. § 41.50(b).

#### SUMMARY

We affirm the Examiner's rejection of claims 2–21 under 35 U.S.C. § 101. To the extent our rationale differs from that set forth by the Examiner, we designate the rejection as a NEW GROUND OF REJECTION.

Section 41.50(b) provides that "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review." Thus, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION,

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Appellants must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) Reopen prosecution. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the Examiner, in which event the proceeding will be remanded to the Examiner; or

(2) Request rehearing. Request that the proceeding be reheard under § 41.52 by the Board upon the same record.

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; 37 C.F.R. § 41.50(b)