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Rockwell Automation, Inc./FY Attention: Linda H. Kasulke E-7F19 1201 South Second Street Milwaukee, WI 53204			ARAQUE JR, GERARDO	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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howell@fyiplaw.com
docket@fyiplaw.com
raintellectualproperty@ra.rockwell.com

Office Action Summary

Application No. 12/429,881	Applicant(s) KAUFMAN ET AL.	
Examiner GERARDO ARAQUE JR	Art Unit 3689	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- Responsive to communication(s) filed on 3/28/2016.
 A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
- 4) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

- Claim(s) 1,4-12,15-17 and 19-23 is/are pending in the application.
5a) Of the above claim(s) _____ is/are withdrawn from consideration.
- Claim(s) _____ is/are allowed.
- Claim(s) 1,4-12,15-17 and 19-23 is/are rejected.
- Claim(s) _____ is/are objected to.
- Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the Patent Prosecution Highway program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

- The specification is objected to by the Examiner.
- The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

- Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

- a) All b) Some** c) None of the:
 - Certified copies of the priority documents have been received.
 - Certified copies of the priority documents have been received in Application No. _____.
 - Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- Notice of References Cited (PTO-892)
- Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)
Paper No(s)/Mail Date 11/27/2013; 4/4/2014.
- Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- Other: _____.

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1. The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

RESPONSE TO PTAB DECISION

2. In the decision by the Board of Patent Appeals and Interferences mailed **March 28, 2016**, the rejections of **claims 1, 4, 5, 7, 10 – 12, 15, 21, and 22** were **reversed** for the rejection under 35 USC 102(b) and **claims 6, 8, 9, 16, 17, 19, 20, and 23** were **reversed** for the rejection under 35 USC 103(a). However, **claims 1, 4 – 12, 15 – 17, and 19 – 23** remain **pending** and are currently rejected under 35 USC 101.

The reason for the reversal of **claims 1, 4 – 12, 15 – 17, and 19 – 23** were, in substance, that the Patent Trial and Appeal Board stated that, “The requirement set forth in the claims that the data elements “include various granularities of data types represented therein” does not appear to have been addressed.”

However, upon review, the claims are directed to non-statutory subject matter with respect to 101 eligibility guidance. Therefore, under 37 CFR 1.198, prosecution is hereby reopened (see MPEP 1214.04). The new grounds of rejection are detailed below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

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(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Technology Center Director has approved of reopening prosecution by signing below:

/GREG VIDOVICH/

Director, Technology Center 3600

Status of Claims

3. **Claims 1, 4, 5, 7, 10 – 12, 15, 21, and 22** have been **reversed** by the Patent Trial and Appeal Board for the rejections under 35 USC 102(b).
4. **Claims 6, 8, 9, 16, 17, 19, 20, and 23** have been **reversed** by the Patent Trial and Appeal Board for the rejections under 35 USC 103(a).
5. **Claims 2, 3, 13, 14, and 18** were **previously cancelled**.
6. **Claims 1, 4 – 12, 15 – 17, and 19 – 23** remain **pending** and are **currently rejected** under 35 USC 101.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. **Claims 1, 4 – 12, 15 – 17, and 19 – 23** are rejected under 35 U.S.C. 101 because the claimed invention is directed to a non-statutory subject matter.

When considering subject matter eligibility under 35 U.S.C. § 101, it must be determined whether the claim is directed to one of the four statutory categories of invention, i.e., process, machine, manufacture, or composition of matter. If the claim does fall within one of the statutory categories, it must then be determined whether the claim is directed to a judicial exception (i.e., law of nature, natural phenomenon, and abstract idea), and if so, it must additionally be determined whether the claim is a patent-eligible application of the exception. If an abstract idea is present in the claim, any element or combination of elements in the claim must be sufficient to ensure that

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the claim amounts to significantly more than the abstract idea itself. Examples of abstract ideas include fundamental economic practices, certain methods of organizing human activities, an idea itself, and mathematical relationships/formulas. *Alice Corporation Pty. Ltd. v. CLS Bank International, et al.*, 573 U.S. ___ (2014).

In the instant case, **claims 1, 4 – 10, 17, 19 – 21, and 23** are directed to a system (i.e., machine) and **claims 11, 12, 15, 16, and 22** are directed to a method (i.e. process). Thus, each of the claims falls within one of the four statutory categories. Nevertheless, the claims fall within the judicial exception of an abstract idea.

Claims 1, 4 – 12, 15 – 17, and 19 – 23 are directed to an abstract idea of the management of energy sustainability, usage, or emission, specifically, the collection of information pertaining to energy sustainability, usage, or emission, analyzing the collecting information, proposing an optimization plan based on the analysis, and providing the proposal. For instance, in *Alice Corp.* the Supreme Court found that “intermediated settlement” was a fundamental economic practice, which is an abstract idea. In this case, the claimed invention is directed to a method of organizing human activities and an idea of itself because the claimed invention is directed to concepts relating to interpersonal and intrapersonal activities, such as managing transactions between people, satisfying legal obligations, and managing human mental activity (providing an optimization plan to a user in order to inform the user of how to better control energy sustainability, usage, or emission); an idea standing alone such as an uninstantiated concept, plan or scheme, as well as a mental process (thinking) that “can be performed in the human mind, or by a human using pen and paper; collecting and

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comparing known information (energy sustainability, usage, or emission); comparing data to determine a risk level (determining how much energy is being used or emitted in order to determine if the energy use should be optimized); comparing new and stored information and using rules to identify options (collecting current information and determined goal in order to provide an optimization plan to make better use of energy usage); data recognition and storage (storage and retrieval of energy sustainability, usage, or emission, which results in it being method of organizing human activities and an idea of itself.

Part I: Is the claim **directed** to a law of nature, a natural phenomenon, or an abstract idea? As was discussed above, the claimed invention is, indeed, directed to an abstract idea as it is directed towards the abstract idea of the management of energy sustainability, usage, or emission, specifically, collecting energy usage related information and determining how to make better use of the energy. The claimed invention is directed towards performing the well-understood, routine, and conventional activities in the technical field of the energy management, i.e. collecting and analyzing energy usage information. Independent **claims 1, 11, and 17** are directed towards the well-understood, routine, and conventional activities of energy management.

The Examiner further reminds the applicant that the provision of evidence or court decisions that are specifically directed towards the claimed invention or the identified abstract idea is insufficient to eliminate any doubt that the claimed invention is directed to a judicial exception. The Examiner asserts that an argument that documentary evidence has not been provided in identifying the abstract idea would be

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unpersuasive. In order to establish that a claim is directed to an abstract idea, the Examiner must provide a reasoned rationale that identifies the concept recited in the claim and explain why it is considered an abstract idea. This can be done by comparing the recited concepts courts have found to be abstract ideas, as was discussed above. Therefore, the Examiner's burden has been met and a proper *prima face* case has been made.

Further, as a reminder, the July 2015 Update: Subject Matter Eligibility explains that courts consider the determination of whether a claim is eligible, which involves identifying whether an exception such as an abstract idea is being claimed, to be a question of law. Accordingly, courts do not rely on evidence, such as publications, to find that a claimed concept is a judicial exception. For example, in *Planet Bingo v VKGS LLC*, it was stated:

"Moreover, the claims here are ***similar to the claims at issue in Bilski v. Kappos***, 130 S. Ct. 3218 (2010), ***and Alice***, 134 S. Ct. 2347, which the Supreme Court held were directed to "abstract ideas." ***For example, the claims here recite methods and systems for "managing a game of Bingo."*** '646 patent col. 8 l. 46; *see also id.* col. 9 l. 33; '045 patent col. 8 l. 64. This is ***similar to the kind of "organizing human activity" at issue in Alice***, 134 S. Ct. at 2356. And, although the '646 and '045 patents are ***not drawn to the same subject matter*** at issue in *Bilski* and *Alice*, ***these claims are directed to the abstract idea of "solv[ing a] tampering problem and also minimiz[ing] other security risks" during bingo ticket purchases.*** Appellant's Br. 10, 20. ***This is similar to the abstract ideas of "risk hedging" during "consumer transactions," Bilski***, 130 S. Ct. at 3231, ***and "mitigating settlement risk" in "financial transactions," Alice***, 134 S. Ct. at 2356–57, that the Supreme Court found ineligible. Thus, we hold that the subject matter claimed in the '646 and '045 patents is directed to an abstract idea."

Finally, the Interim Eligibility Guidelines at 74625 state that **"if there is doubt as to whether the applicant is effectively seeking coverage for a judicial exception**

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itself, the full analysis should be conducted to determine whether the claim

recites significantly more than the judicial exception.” Further yet still, the July

2015 Guidelines are state:

“In particular, the initial burden is on the examiner to explain why a claim or claims are unpatentable clearly and specifically, so that applicant has sufficient notice and is able to effectively respond. For subject matter eligibility, the examiner’s burden is met by clearly articulating the reason(s) why the claimed invention is not eligible, for example by providing a reasoned rationale that identifies the judicial exception recited in the claim and why it is considered an exception, and that identifies the additional elements in the claim (if any) and explains why they do not amount to significantly more than the exception. This rationale may rely, where appropriate, on the knowledge generally available to those in the art, on the case law precedent, on applicant’s own disclosure, or on evidence.

...

Accordingly, courts do not rely on evidence that a claimed concept is a judicial exception, and in most cases resolve the ultimate legal conclusion on eligibility without making any factual findings.

...

Alice Corp., Myriad, Mayo, Bilski, Diehr, Flook and Benson relied solely on comparisons to concepts found to be exceptions in past decisions when identifying judicial exceptions.

...

Alice Corp., Bilski, Diehr, Flook and Benson did not cite any evidence in support of the significantly more inquiry, even where additional elements were identified as well-understood, routine and conventional in the art. *Mayo* did not cite any evidence in support of identifying additional elements as mere field-of-use or data gathering steps, but did cite the patent’s specification when identifying other limitations as well-understood, routine and conventional.”

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Therefore, the full analysis under *Alice* is still appropriate because applicant's remarks have not eliminated all doubt that the invention is directed to a judicial exception.

Although, one may argue that the claimed invention does not seek to "tie up" the exception because of the claimed invention's narrow scope, the Examiner asserts that clever draftsmanship of further narrowing the abstract idea does not change the fact that the invention is still directed towards an abstract idea. Here, the claimed invention is directed towards a similar scenario because the claimed invention is narrowing the abstract idea of energy management, specifically, collecting specific energy usage information, i.e. sustainability, usage, or emission, analyzing the collected information, determining trends for the particular information that was collected or, alternatively, trends for the manner of how the energy is being used, determining and proposed an optimization plan for the collected information, implementing the particular proposal, and (Claim 17) verifying whether the user who is receiving the proposal is actually the user that the plan is intended for, i.e. the claimed invention is merely implementing well-known business practices and implementing them in a computer environment that is comprised of generic computing devices to perform generic functions, or, more specifically, applies them in the aforementioned well-understood, routine, and conventional activities that are known in the technical field of energy management.

Also, in *BuySafe, Inc. v. Google, Inc.* (Fed. Cir. 2014), the court stated that "*abstract ideas, no matter how groundbreaking, innovative, or even brilliant, are outside what the statute means by "new and useful process, machine, manufacture, or*

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composition of matter", and reference is made to *Mryiad* by the court for this position. Also stated in *BuySafe* is

"In defining the excluded categories, the Court has ruled that the exclusion applies if a claim involves a natural law or phenomenon or abstract idea, even if the particular natural law or phenomenon or abstract idea at issue is narrow. Mayo, 132 S. Ct. at 1303. The Court in Mayo rejected the contention that the very narrow scope of the natural law at issue was a reason to find patent eligibility, explaining the point with reference to both natural laws and one kind of abstract idea, namely, mathematical concepts."

See also *OIP Techs.*, 788 F3.d at 1362-63, stating:

"Lastly, although the claims limit the abstract idea to a particular environment that does not make the claims any less abstract for the step 1 analysis."

Again, the Examiner would like to reiterate that this is a rejection under 35 USC 101 and not a rejection under 35 USC 102/103.

Therefore, because independent **claims 1, 11, and 17** include an abstract idea, the claim must be reviewed under Part II of the Alice Corp. analysis to determine whether the abstract idea has been applied in an eligible manner.

Part II: The claim(s) does not include additional element 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.

The Examiner asserts that the claimed invention does not further or improve upon the technology or the technical field as merely having a general purpose device to perform the steps of the abstract idea is nothing more than having the general purpose

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device perform the well-understood, routine, and conventional activities already known in energy management, which results in the claimed invention not amounting to being “significantly more” than the judicial exception. The Examiner further notes that the decision of *DDR Holdings* does not apply as, unlike *DDR Holdings*, the claimed invention is not “deeply rooted in the technology” since: 1.) humans have, for some time, longed been known to perform the well-understood, routine, and conventional activities in the field of energy management, e.g., gathering the necessary information pertaining to the specifics of the energy usage so as to determine an optimization plan; and 2.) the well-understood, routine, and conventional activities of the abstract idea does not change, alter, or improve upon how the technology, i.e. the computing device, fundamentally functions. The invention further fails to improve upon the technical field (energy management) because merely using the general purpose device to perform the well-understood, routine, and conventional activities of the energy management and that such use of the technology has been held to not be an “inventive concept” as the general purpose device is being used for the very purpose that such device are known to be used for, e.g. more efficient, faster, and etc. **(See applicant’s specification ¶ 21, 23, 29, 30, 31, 50, 51, 52, 55, 57, 64)** Looking at the limitations as an ordered combination adds nothing that is not already present when looking at the elements taken individually. There is no indication that the combination of elements improves the functioning of a computer or improves any other technology. Their collective functions merely provide conventional computer implementation.

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Further still, unlike *Enfish* where the claims were directed to a specific improvement to the computer's functionality at the time of the invention and where *Enfish* explicitly defined the specific improvements along with the technical aspects of the improvements to demonstrate the improvements to existing technology, the Examiner asserts that the instant invention does not. In order to determine whether the claimed invention is directed towards an abstract idea and/or that it is "significantly more" than the abstract idea, *Alice* stated that the following considerations must be taken into account before making this determination. Specifically, in *Enfish, LLC v Microsoft Corporation, Fiserr, Inc., Intuit, Inc., Sage Software, Inc., Jack Henry & Associates, Inc.* the courts stated the following:

"We do not read *Alice* to broadly hold that all improvements in computer-related technology are inherently abstract and, therefore, must be considered at step two. Indeed, some improvements in computer-related technology when appropriately claimed are undoubtedly not abstract, such as a chip architecture, an LED display, and the like. Nor do we think that claims directed to software, as opposed to hardware, are inherently abstract and therefore only properly analyzed at the second step of the *Alice* analysis. Software can make non-abstract improvements to computer technology just as hardware improvements can, and sometimes the improvements can be accomplished through either route. We thus see no reason to conclude that all claims directed to improvements in computer-related technology, including those directed to software, are abstract and necessarily analyzed at the second step of *Alice*, nor do we believe that *Alice* so directs. Therefore, we find it relevant to ask whether the claims are directed to an improvement to computer functionality versus being directed to an abstract idea, even at the first step of the *Alice* analysis."

"For that reason, the first step in the *Alice* inquiry in this case asks whether the focus of the claims is on the specific asserted improvement in computer capabilities (i.e., the self-referential table for a computer database) or, instead, on a process that qualifies as an "abstract idea" for which computers are invoked merely as a tool. ... In this case, however, the plain focus of the claims is on an improvement to computer

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functionality itself, not on economic or other tasks for which a computer is used in its ordinary capacity.”

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Enfish provided a background on the state of the art, at the time of the invention, in the technology, namely, with regards to the management of information in a computer database. This served as reference material in order to identify the improvement or, more specifically, establish that the claimed invention of *Enfish* was deeply rooted in the technology and was seeking to remedy a problem that arose from the technology. That is to say, *Enfish* provided a background explanation with regards to the state of the art to establish the flaws that arose from data management and demonstrated that the inventive concept of *Enfish* laid with the improvement of this technology. It was established in *Enfish* that the claimed invention did not contain an abstract idea because it was not directed towards a fundamental economic practice, a method of organizing human activities, an idea of itself, or mathematical relationships/formulas because the inventive concept was directed towards the improvement of the technology, specifically, i.e. although the invention was directed towards the organization of information the invention of *Enfish* was not simply relying on or applying well-understood, routine, and conventional concepts known in the technical field or describing the use of generic devices and technologies to perform an abstract idea, but was, in fact, directed and seeking to improve upon the technology by addressing issues known in the technology. This was further made evident by the disclosure presented in the specification of *Enfish*, which the courts stated the following:

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“The patents teach that multiple benefits flow from this design. First, the patents disclose an indexing technique that allows for faster searching of data than would be possible with the relational model. *See, e.g.*, ’604 patent, col. 1 ll. 55–59; *id.* at col. 2 l. 66–col. 3 l. 6. Second, the patents teach that the self-referential model allows for more effective storage of data other than structured text, such as images and unstructured text. *See, e.g.*, ’604 patent, col. 2 ll. 16–22; col. 2 ll. 46–52.”

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“Finally, the patents teach that the self-referential model allows more flexibility in configuring the database. *See, e.g.*, ’604 patent, col. 2 ll. 27–29. In particular, whereas deployment of a relational database often involves extensive modeling and configuration of the various tables and relationships in advance of launching the database, Enfish argues that the self-referential database can be launched without such tasks and instead configured on-the-fly. *See* Oral Argument at 1:00–2:15 <http://oralaruments.cafo.ucscourts.gov/default.aspx?fi=2015-1244.mp3>; *see also* ’604 patent, col. 7 ll. 10–22. For instance, the database could be launched with no or only minimal column definitions.”

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Here, the claims are not simply directed to *any* form of storing tabular data, but instead are specifically directed to a *self-referential* table for a computer database. ... (“The present invention improves upon prior art information search and retrieval systems by employing a flexible, selfreferential table to store data.”)

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The specification also teaches that the self-referential table functions differently than conventional database structures. According to the specification, traditional databases, such as “those that follow the relational model and those that follow the object oriented model,” ’604 patent, col. 1 ll. 37–40, are inferior to the claimed invention. While “[t]he structural requirements of current databases require a programmer to predefine a structure and subsequent [data] entry must conform to that structure,” *id.* at col. 2 ll. 10–13, the “database of the present invention does not require a programmer to preconfigure a structure to which a user must adapt data entry.” *Id.* at col 2 ll. 27–29. Moreover, our conclusion that the claims are directed to an improvement of an existing technology is bolstered by the specification’s teachings that the claimed invention achieves other benefits over conventional databases, such as increased

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flexibility, faster search times, and smaller memory requirements. *See id.* at col 2 ll. 23–27; *see also Openwave Sys., Inc. v. Apple Inc.*, 808 F.3d 509, 513–14 (Fed. Cir. 2015) (finding that a specification’s disparagement of the prior art is relevant to determine the scope of the invention).

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In the case of the instant invention, the Examiner asserts that the specification lacks any disclosure of evidence to demonstrate that the invention is seeking to improve upon the technology or, more specifically, that the claimed invention is directed towards addressing and improving upon an issue that arose from the technology, but merely demonstrating that the claimed invention is directed towards the abstract idea and merely applying or utilizing generic computing devices performing their generic functions to carry out the well-understood, routine, and conventional activities in the technical field of energy management due to the benefits that computing devices provided, i.e. faster, more efficient, and etc.. The courts further stated:

“The Supreme Court has not established a definitive rule to determine what constitutes an “abstract idea” sufficient to satisfy the first step of the *Mayo/Alice* inquiry. *See id.* at 2357. Rather, both this court 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. “[The Court] need not labor to delimit the precise contours of the ‘abstract ideas’ category in this case. It is enough to recognize that there is no meaningful distinction between the concept of risk hedging in *Bilski* and the concept of intermediated settlement at issue here.” *Alice*, 134 S. Ct. at 2357; *see also OIP Techs.*, 788 F.3d at 1362. ***For instance, fundamental economic and conventional business practices are often found to be abstract ideas, even if performed on a computer.*** *See, e.g., OIP Techs.*, 788 F.3d at 1362–63.”

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“Moreover, we are not persuaded that the invention’s ability to run on a general-purpose computer dooms the claims. Unlike the claims at issue in *Alice* or, more recently in *Versata Development Group v. SAP America*,

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Inc., 793 F.3d 1306 (Fed. Cir. 2015), which Microsoft alleges to be especially similar to the present case, Appellee's Br. 18, *see also* Oral Argument at 15:40–18:15, the claims here are directed to an improvement in the functioning of a computer. ***In contrast, the claims at issue in Alice and Versata can readily be understood as simply adding conventional computer components to well-known business practices.*** *See Alice*, 134 S. Ct. at 2358–60; *Versata Dev. Grp.*, 793 F.3d at 1333–34 (***computer performed “purely conventional” steps to carry out claims directed to the “abstract idea of determining a price using organization and product group hierarchies”***); *see also Mortgage Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324–25 (Fed. Cir. 2016) (***claims attaching generic computer components to perform “anonymous loan shopping” not patent eligible***); *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1367–69 (Fed. Cir. 2015) (***claims adding generic computer components to financial budgeting***); *OIP Techs.*, 788 F.3d at 1362–64 (***claims implementing offer-based price optimization using conventional computer activities***); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 714–17 (Fed. Cir. 2014) (***claims applying an exchange of advertising for copyrighted content to the Internet***); *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1354–55 (Fed. Cir. 2014) (***claims adding generic computer functionality to the formation of guaranteed contractual relationships***). ***And unlike the claims here that are directed to a specific improvement to computer functionality, the patent ineligible claims at issue in other cases recited use of an abstract mathematical formula on any general purpose computer, see Gottschalk v. Benson***, 409 U.S. 63, 93 (1972), *see also Alice*, 134 S. Ct. at 2357–58, ***or recited a purely conventional computer implementation of a mathematical formula, see Parker v. Flook***, 437 U.S. 584, 594 (1978); *see also Alice*, 134 S. Ct. at 2358, ***or recited generalized steps to be performed on a computer using conventional computer activity, see Internet Patents***, 790 F.3d 1348–49 (***claims directed to abstract idea of maintaining computer state without recitation of specific activity used to generate that result***), *Digitech Image Techs., LLC v. Electrs. For Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014) (***claims directed to abstract idea of “organizing information through mathematical correlations” with recitation of only generic gathering and processing activities***).

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“In sum, the self-referential table recited in the claims on appeal is a specific type of data structure ***designed to improve the way a computer stores and retrieves data in memory. The specification’s***

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disparagement of conventional data structures, combined with language describing the “present invention” as including the features that make up a self-referential table, confirm that our characterization of the “invention” for purposes of the § 101 analysis has not been deceived by the “draftsman’s art.” Cf. Alice, 134 S. Ct. at 2360. In other words, we are not faced with a situation where general-purpose computer components are added post-hoc to a fundamental economic practice or mathematical equation. Rather, the claims are directed to a specific implementation of a solution to a problem in the software arts. Accordingly, we find the claims at issue are not directed to an abstract idea.

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As a result, the Examiner asserts that, in light of the applicant’s specification (see *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015); see *Genetic Techs. Ltd. v. Merial L.L.C.*, 2016 WL 1393573, at *5 (Fed. Cir. 2016) (inquiring into “the focus of the claimed advance over the prior art”)), the claimed invention does not lie with the improvement of a technology, identifying and resolving an issue that arose from the technology, or that the claimed invention is “deeply rooted in the technology”, but that the claimed invention is directed towards the abstract idea of energy management and merely utilizing generic computing devices (**see the citations from the applicant specifications provided above**) in order to perform the well-understood, routine, and conventional activities known in the field of energy management. As was found in *Alice Corp v CLS Bank*, the claims in *Alice Corp v CLS Bank* also required a computer that processed streams of data, but nonetheless were found to be abstract. There is no “inventive concept” in the claimed invention’s use of a general purpose computing devices to perform well-understood, routine, and

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conventional activities commonly used in the technical field, in this case, energy management.

Consequently, the Examiner asserts that the claimed invention is, in fact, more closely directed related to the decision of, *inter alia*, *TLI Communications, LLC v AV Automotive, LLC*, in that the claimed invention is merely relying on the use of a generic computing device to perform the abstract idea of energy management. As was done in *TLI Communications*, the Examiner refers to the specification to determine whether the claimed invention amounts to “significantly more” or whether the claimed invention is directed towards the improvement of the technological arts.

Turning to the specification, the Examiner finds that the invention relies on the use of a generic and well-known energy gathering devices, as well as a generic and well-known communication network in order to gather the necessary information so as to allow a generic microprocessor to carry out the steps of the abstract idea and provide an optimization plan, such as a schedule. **(See the citations from the applicant specifications provided above)**

The specification continues on with disclosing how the disclosed generic computing environment and devices are utilized, for their intended purpose, in order to carry out the claimed invention or, more specifically, the abstract idea of energy management. It is clear from the applicant’s specification that the “claims here are not directed to a specific improvement to computer functionality. Rather, they are directed to the use of conventional or generic technology in a nascent but well-known environment, without any claim that the invention reflects an inventive solution to any

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problem by combining the two.” (Page 8 *TLI Communications, LLC v AV Automotive, LLC*) Similar to *TLI Communications*, the Examiner asserts that the instant invention does not describe any new computing device or communication network/infrastructure and “fails to provide any technical details for the tangible components, but instead predominately describes the system and methods in purely functional terms.” (Page 9 *TLI Communications, LLC v AV Automotive, LLC*) The specification simply describes the components in terms of performing generic computing functions and, accordingly, “are not directed to a solution to a “technological problem” as was the case in *Diamond v Diehry*, 450 U.S. 175 (1981). Nor do the claims attempt to solve a ‘challenge particular to the Internet.’ *DDR Holdings, LLC v Hotels.com, L.P.*, 773 F.3d 1245, 1256 – 57 (Fed. Cir. 2014); cf. *Intellectual Ventures I*, 792 f.3d at 1371 (because the patent claims at issue did not “address problems unique to the Internet, ... *DDR* has no applicability.”) (Page 10 *TLI Communications, LLC v AV Automotive, LLC*) Such vague, functional descriptions of computing components/environment are insufficient to transform the abstract idea into a patent-eligible invention. (Page 14 *TLI Communications, LLC v AV Automotive, LLC*)

Instead, the claims, as noted, are simply directed to the abstract idea of energy management. As a result, returning to the second step of the analysis, the Examiner asserts that the claims fail to recite any element that individually or as an ordered combination transform the abstract idea of energy management into a patent eligible application of that idea. “It is well-settled that mere recitation of concrete, tangible components is insufficient to confer patent eligibility to an otherwise abstract idea.

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Rather, the components must involve more than performance of “well-understood, routine, conventional activit[ies]’ previously known in the industry.” *Alice*, 134 S. Ct. at 2359 (quoting *Mayo*, 132 S. Ct. at 1294).” Accordingly, the Examiner asserts that the claims’ recitation of generic computing components/environment fail to add an inventive concept sufficient to bring the abstract idea into the realm of patentability.

Even if the applicant were to argue that, even if known in the prior art, the components recited in the claims cannot be “conventional” within the meaning of the *Alice* absent fact-finding by the court, the Examiner asserts that simply looking towards the specification it is clear that the invention describes the computing components/environment as either performing basic computing functions such as sending and receiving data, or performing functions “known” in the art. In other words, the claimed functions are “well-understood, routine, activit[ies]’ previously known in the industry.” *Id.* at 2359 (quoting *Mayo*, 132 S. Ct. at 1294). That is to say, the computing components/environment simply provide the environment in which the abstract idea of energy management is carried out. Further, as was stated in *Alice* 134 S. Ct. at 2360 “Nearly every computer will include a ‘communications controller’ and a ‘data storage unit’ capable of performing basic calculation, storage, and transmission functions required by the method claims.”); *Content Extraction*, 776 F.3d at 1345, 1348 (“storing information” into memory, and using a computer to “translate shapes on a physical page into typeface characters,” insufficient confer patent eligibility); *Mortg. Grader*, 811 F.3d at 1324-25 (generic computer components such as an “interface,” “network,” and “database,” fail to satisfy the inventive concept requirement); *Intellectual Ventures I*, 792

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F.3d at 1368 (a “database” and a “communication medium” “are all generic computer elements”); *BuySAFE v Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (“That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive.”)

Additionally, the claimed invention is also directed towards the abstract idea of collecting data, recognizing data, and storing the recognized data in order to perform a particular transaction. The Examiner asserts that the concept of data collection, recognition, and storage is undisputedly well-known and, indeed, humans have always performed these functions. As was already discussed above, the claimed invention is merely utilizing general purpose devices (computing device) to perform the steps of data retrieval, i.e. receiving energy usage information, recognizing information that corresponds to the particular optimization plan that will be determined, and, based on the recognized information, store the information so provide the particular optimization plan that will address the particular energy usage, i.e. sustainability, usage, or emission. Although one may argue that the human mind is unable to process and recognize the electronic stream of data that is being received, transmitted, stored, and etc. by the computing device, the Examiner asserts that this is insufficient to overcoming the rejection under 35 USC 101 (see *Content Extraction and Transmission LLC v Wells Fargo Bank, National Association* and *Cyberfone* where the system uses categories to organize, store, and transmit information, which was considered by the courts to be an abstract idea). The claims in *Alice Corp v CLS Bank* also required a computer that processed streams of data, but nonetheless were found to be abstract. There is no

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“inventive concept” in the claimed invention's use of a general purpose computing device to perform well-understood, routine, and conventional activities commonly used in the technical field, in this case, commerce or, more specifically, performing a particular transaction type for a good based on the provision of a receipt for the good.

(Content Extraction and Transmission LLC v Wells Fargo Bank, National

Association) At most, the claims attempt to limit the abstract idea of recognizing and storing information using the devices to a particular environment. Such a limitation has been held insufficient to save a claim in this context.

Further still, the steps of receiving and transmitting information between the computing device and the storage of the information are merely directed towards the concept of data gathering and transmitting are considered insignificant extra solution activities. Viewed as a whole, these additional claim elements do not provide meaningful limitations to transform the abstract idea into a patent eligible application of the abstract idea such that the claims amount to significantly more than the abstract idea itself.

The claim(s) does/do not include additional elements that are sufficient to amount to significantly more than the judicial exception because the additional elements or combination of elements in the claims other than the abstract idea per se amounts to no more than: (i) energy management, and/or (ii) recitation of computer readable storage medium having instructions encoded to perform functions of energy management are well understood, routine, and conventional activities previously known to the

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industry. Considering all claim elements both individually and in combination, do not amount to significantly more than an abstract idea.

Dependent **claims 4 – 10, 12, 15, 16, and 19 – 23** merely add further details of the abstract steps/elements recited in **claims 1, 11, and 17** 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. Therefore, dependent **claims 4 – 10, 12, 15, 16, and 19 – 23** are also non-statutory subject matter.

In light of the detailed explanation and evidence provided above, the Examiner asserts that the claimed invention is directed towards the abstract idea of energy management, which a method of organizing human activities and an idea of itself. As disclosed, the claimed invention is directed towards energy management. It is also directed towards being method of organizing human as the claimed invention is directed towards providing an optimization plan to a user in order to inform the user of how to better control energy sustainability, usage, or emission. Finally, the claimed invention is directed to an idea of itself as it is also directed to the collecting, recognition, and storage of information in order to allow for the analysis of the collected data and to provide an optimization, i.e. a better energy management plan, to a user. Lacking significantly more for the remainder of the claim, the invention is nothing more than an abstract idea.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GERARDO ARAQUE JR whose telephone number is (571)272-3747. The examiner can normally be reached on Monday - Friday 8:00- 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janice Mooneyham can be reached on (571) 272-6805. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/GERARDO ARAQUE JR/
Primary Examiner, Art Unit 3689
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