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DETAILED ACTION

1. This communication is a **Final Rejection** Office Action in response to the submission filed on 5/5/2016.
2. The present application is being examined under the pre-AIA first to invent provisions.
3. Claims 1-4 were previously examined in the action mailed on 11/5/15.
4. Claims 1-4 have been amended. Claims 6-16 have been added. Claims 1-16 are now presented.

Election/Restrictions

5. Newly submitted claims 7-16 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The newly added claims are drawn to flagging and tracking sponsored work orders.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 7-16 have been withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 101

6. 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.

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7. Claims 1-6 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

8. 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 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).

9. In the Instant case Claims 1-6 are directed toward systems for planning and scheduling. As such all of the claims fall within one of the four statutory classes of invention.

10. In the Supreme Court Decision in *Alice Corporation Pty. Ltd. v CLS Bank International, et al.* the court outlined several examples of abstract ideas including fundamental economic practices, certain methods of organizing human activities, an idea of itself, and mathematical relationships. As per part 2A of the eligibility analysis, the examiner understands the invention of Claim 1 to be directed toward the abstract idea of planning and scheduling in an enterprise. The elements of Claim 1 that represent the Abstract idea include:

wherein the work orders can be moved from one work week section to another work week section, from unscheduled to scheduled, to short notice outage, to planned outage, and to backlog, wherein the work orders comprise work elements that are linked as predecessors and

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successors, and wherein the computing device controls the user interface to display linkages between the predecessors and the successor; and wherein one or more real-time performance indicators and metrics are calculated and displayed through the user interface, and wherein user selection of one or more of the real-time performance indicators and metrics displays one or more graphical representations of said one or more real-time performance indicators and metrics.

11. The Claims are similar to Abstract ideas that have been held ineligible by the courts. Namely, the claimed invention can be considered an idea of itself. Page 4 of the July 2015 Update on Subject Matter Eligibility states "The phrase "an idea 'of itself,'" is used to describe 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." In the instant case the moving or work orders to different categories can be performed by a human.

12. Further, the calculating of real-time performance indicators is recited at a high level of generality and given the broadest reasonable interpretation can be performed in the human mind, or by a human using a pen and paper. Further, in *Electric Power Group, LLC, v. Alstom* (830 F.3d 1350, 119 U.S.P.Q.2d 1739 (Fed. Cir. 2016)) the Federal Circuit found that "Here, the claims are clearly focused on the combination of those abstract-idea processes. The advance they purport to make is a process of gathering and analyzing information of a specified content, then displaying the results, and not any particular assertedly inventive technology for performing those functions. They are therefore directed to an abstract idea." In the instant case, the claims are similarly drawn to gathering data regarding performance indicators and metrics and analyzing information and then displaying the results of the analysis.

13. As per part 2B of the eligibility analysis, the claim as a whole is then analyzed to determine whether any element, or combination of elements, is sufficient to ensure that the claim amounts to significantly more than the exception. The claim recites the additional elements of:

A planning and scheduling system running on a computing device, the system comprising;

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a user interface, wherein said user interface provides a first screen format for schedulers and planners and a second screen format for maintenance supervisors; and
a computing device in communication with said user interface, said computing device being programmed to implement:
work week sections;
a scheduled job section;
an unscheduled job section;
a short notice outage section;
a planned outage section; and
dragging and dropping the work orders

14. However, the computer elements are recited at a high level of generality and given the broadest reasonable interpretation are simply generic computers performing generic computer functions.

15. Further, dragging and dropping is a conventional and well-known means for a user to interact with an interface, and not a technical improvement. As such, the claims merely amounts to the application or instructions to apply the abstract idea on a computer, and is considered to amount to nothing more than requiring a generic computer system (e.g. a generic processor) to merely carry out the abstract idea itself. As such, the claims when considered as a whole, are nothing more than the instruction to implement the abstract idea in a particular, albeit well-understood, routine and conventional technological environment.

16. Further Claims 2, 5 further limit that Abstract idea but fail to remedy the deficiencies of the parent claim as they do not impose any limitations that amount to significantly more than the abstract idea itself.

17. Accordingly, the Examiner concludes that there are no meaningful limitations in claims 1, 2, 5 that transform the judicial exception into a patent eligible application such that the claim amounts to significantly more than the judicial exception itself.

18. Further, Claim 3, 4, and 6 recite similar limitations and are rejected for similar reasons.

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19. The analysis above applies to all statutory categories of invention. As such, the presentment of claim 1 otherwise styled as a method or computer program product, for example, would be subject to the same analysis.

Claim Rejections - 35 USC § 103

20. The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

21. **Claim 1 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Kalantar US 2003/0088534 A1 in view of Scheer US 7,313,534 B2 in view or Clarke US 2002/0007297 A1.**

22. As per **Claim 1** Kalantar teaches a planning and scheduling system running on a computing device, the system comprising:
a user interface wherein said user interface provides a first screen format for schedulers and planners and a second screen format for maintenance supervisors; and (see at least Kalantar Figure 6, item 152. Further, para. 171 teaches upon a successful authentication of the second user, at step 1508, the central management server 130 generates a work status report for the second user based on a hierarchy level associated with the second user. For example, if the second user, according to the user records stored in the database 140, manages other users, then the work status report generated on the central management server 130 includes task status data associated with the work schedules for the four other users and the supervisory user. The examiner considers this to be a screen format for maintenance supervisors. Further, para. 157 teaches referring to FIG. 22, at step 1302, the central management server 130 receives a first set of information defining tasks to be performed and scheduled at the first

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facility 110. In one embodiment, a user, such as a supervisory user, may place a work order including the first set of information by accessing a web page associated with the central management server 130. In an alternative embodiment, the user may place the work order at a call center. A call center staff member may then access the central management server 130 to place a work order request using the web-based interface such as illustrated in reference to FIG. 18. The examiner considers this to be a screen format for schedulers and planners).

a computing device in communication with said user interface, said computing device being programmed to implement: (see at least Kalantar Figure 6)

work week sections; (see at least Kalantar Figure 19)

a scheduled job section; (see at least Kalantar Figure 19 that discloses scheduled jobs)

an unscheduled job section; (see at least Kalantar para. 79 that discloses task status identifiers employed on the central management server 130 to mark task records may indicate a variety of states. For example, status indicator values may include a task pending approval identifier, a new task request approved identifier, a new task request rejected identifier, a task unscheduled identifier, a task scheduled identifier, a task due identifier, a task not completed identifier, a task completed identifier, a task closed identifier, a task rescheduled identifier, a task cancelled identifier, a task approved identifier, a task rejected identifier, or a task forcefully approved identifier.)

a planned outage section; (see at least Kalantar para. 153 the central management server 130 may provide preventive maintenance services to customers having one or more facilities managed by the central management server 130. In one embodiment, the preventive maintenance may include scheduling regular inspections for a facility to pinpoint problems before they occur. For example, the management server 130 may schedule making repairs on a planned basis to avoid unexpected breakdowns)

Kalantar teaches tasks, wherein the tasks can be moved from one work week section to another work week section, (see at least para. 67 that teaches tasks can be rescheduled) from unscheduled to scheduled, (see at least para. 79 that teaches a task can be moved from unscheduled to scheduled) to planned outage, (see at least para. 154 that teaches moving tasks to preventative maintenance which the

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examiner considers to be a planned outage) and to backlog (see at least para. 79 that teaches a task can be moved to new task rejected which the examiner considers to be a backlog)

and wherein one or more real-time performance indicators and metrics are calculated and displayed

through the user interface, and wherein user selection of one or more of the real-time performance

indicators and metrics displays one or more graphical representations of said one or more real-time

performance indicators and metrics. Kalantar para. 78 teaches each task record stored in the database

140 may be marked with a task status identifier, and the central management server 130 may be

configured to monitor and update a status of each task stored in the database 140. Further, Fig. 19

discloses displaying the status (closed or late). The examiner considers the status to be a real-time

performance indicators and metrics. Further, para. 179 teaches a second user, such as a supervisory

user, may send a request for a work status report involving the first user's tasks in order to perform an

inspection stage. The second user may have a predetermined hierarchy level (such as a supervisory

access level) that allows the second user to receive the work status report. According to an exemplary

embodiment, the second user may request the work status report via the EMI unit 112. In such an

embodiment, the second user may login to the system using a user's identification number and selecting

the "Check-Out" selection icon 404. At step 1608, server 130 receives the request for a work status

report. In such an embodiment, when the central management server 130 successfully authenticates the

second user as a supervisory user at the first facility 110, the central management server 130 retrieves

work status records based on the hierarchy level of the second user. For example, if the second user

supervises three users, the central management server 130 retrieves the status for tasks associated with

the three users as well as the supervisory user, and compiles the retrieved records into a work status

report that is sent to the EMI unit 112. The examiner considers a supervisor requesting a work status

report to be a user selection of one or more of the real-time performance indicators)

Kalantar does not teach a short notice outage section or moving tasks to a short notice outage section;

However, Scheer column 45, lines 15-25 teaches a customer's condition monitoring system that detects a

deterioration of the widget on equipment XYZ and determines that maintenance should be scheduled.

The condition monitoring system interacts with the CMMS system 16 so that the CMMS system 16

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schedules a maintenance task to be done in eight days. The examiner considers maintenance that is required within a short timeframe (8 days) to repair a deteriorating condition to be a short notice outage section. Both Kalantar and Scheer are drawn to scheduling tasks. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the Applicant's invention to modify the teachings of Kalantar to include a short notice outage section as taught by Scheer to schedule maintenance and repair in response to detected conditions to perform repairs prior to failure. The added benefit is a more robust system.

Kalantar does not teach and work orders, wherein the work orders can be moved by dragging and dropping the work orders. However, Clarke teaches a user selects what-if button 710 to turn the what-if function on. Then, the user highlights one or more work cards to be rescheduled and, using a mouse or similar device, drags the task bars representing the work cards and then shifts the work cards back in time (dragging the task bars to the right) or forward in time (dragging the task bars to the left). This reschedules the work cards and the work order. Work cards that are linked are moved together (see Clarke para. 67). Both Kalantar and Clarke are drawn to scheduling tasks. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the Applicant's invention to modify the teachings of Kalantar to include work orders, wherein the work orders can be moved from one work week section to another work week section, from unscheduled to scheduled, to short notice outage, to planned outage, and to backlog, by dragging and dropping the work orders as taught by Clarke to provide an easy an intuitive interface for managing a schedule.

Kalantar does not teach wherein the work orders comprise work elements that are linked as predecessors and successors, and wherein the computing device controls the user interface to display linkages between the predecessors and the successors. However, Clarke para. 46 teaches work orders may be linked together based on dependency. Further, Fig. 10 teaches displaying linkages. Both Kalantar and Clarke are drawn to scheduling tasks. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the Applicant's invention to modify the teachings of Kalantar to include wherein the work orders comprise work elements that are linked as predecessors and successors, and wherein the computing device controls the user interface to display linkages between the predecessors

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and the successors as taught by Clarke to provide an easy an intuitive interface for managing a schedule and viewed related tasks.

23. As per **Claim 5** Kalantar teaches the planning and scheduling system of claim 1, wherein the second screen format is used to assign resources to the work within the work week.

(Kalantar para.123 teaches the work order request icon 1016 enables a user to enter new work orders including tasks to be performed at a predetermined facility. For example, a supervisory user may add a task to a facility record and to a user record in order to schedule the task for completion by the user corresponding to the user record. Other embodiments may permit the supervisory user to identify the task as a one-time only task or a recurring task that is regularly scheduled by processes in server 130)

24. Claim 2 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Kalantar US 2003/0088534 A1 in view of Scheer US 7,313,534 B2 in view or Clarke US 2002/0007297 A1 as applied to Claim 1 and in further view of Schweitzer US 2004/0078257 A1.

25. As per **Claim 2** Kalantar does not teach the planning and scheduling tool system of claim 1, wherein the computing device permits a user to drag and drop resources onto the work elements through the user interface. However, Schweitzer teaches user can drag and drop assignments to specific employees. Both Kalantar and Schweitzer are drawn to scheduling tasks. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the Applicant's invention to modify the teachings of Kalantar to include wherein the computing device permits a user to drag and resources onto the work elements through the user interface as taught by Schweitzer to provide an easy an intuitive interface for managing and assigning tasks.

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26. **Claims 3, 4 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Kalantar US 2003/0088534 A1 in view of Scheer US 7,313,534 B2 in view of Kall US 2003/0149608 A1.**

27. As per **Claim 3** Kalantar teaches a planning and scheduling system running on a computing device, the system comprising:
a user interface; a user interface wherein said user interface provides a first screen format for schedulers and planners and a second screen format for maintenance supervisors; and (see at least Kalantar Figure 6, item 152. Further, para. 171 teaches upon a successful authentication of the second user, at step 1508, the central management server 130 generates a work status report for the second user based on a hierarchy level associated with the second user. For example, if the second user, according to the user records stored in the database 140, manages other users, then the work status report generated on the central management server 130 includes task status data associated with the work schedules for the four other users and the supervisory user. The examiner considers this to be a screen format for maintenance supervisors. Further, para. 157 teaches referring to FIG. 22, at step 1302, the central management server 130 receives a first set of information defining tasks to be performed and scheduled at the first facility 110. In one embodiment, a user, such as a supervisory user, may place a work order including the first set of information by accessing a web page associated with the central management server 130. In an alternative embodiment, the user may place the work order at a call center. A call center staff member may then access the central management server 130 to place a work order request using the web-based interface such as illustrated in reference to FIG. 18. The examiner considers this to be a screen format for schedulers and planners).

and (see at least Kalantar Figure 6, item 152)

a computing device in communication with said user interface, said computing device being programmed to implement: (see at least Kalantar Figure 6)

work week sections; (see at least Kalantar Figure 19)

a scheduled job section; (see at least Kalantar Figure 19 that discloses scheduled jobs)

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an unscheduled job section; (see at least Kalantar para. 79 that discloses task status identifiers employed on the central management server 130 to mark task records may indicate a variety of states. For example, status indicator values may include a task pending approval identifier, a new task request approved identifier, a new task request rejected identifier, a task unscheduled identifier, a task scheduled identifier, a task due identifier, a task not completed identifier, a task completed identifier, a task closed identifier, a task rescheduled identifier, a task cancelled identifier, a task approved identifier, a task rejected identifier, or a task forcefully approved identifier.)

a planned outage section; (see at least Kalantar para. 153 the central management server 130 may provide preventive maintenance services to customers having one or more facilities managed by the central management server 130. In one embodiment, the preventive maintenance may include scheduling regular inspections for a facility to pinpoint problems before they occur. For example, the management server 130 may schedule making repairs on a planned basis to avoid unexpected breakdowns)

Kalantar teaches tasks, wherein the tasks can be moved from one work week section to another work week section, (see at least para. 67 that teaches tasks can be rescheduled) from unscheduled to scheduled, (see at least para. 79 that teaches a task can be moved from unscheduled to scheduled) to planned outage, (see at least para. 154 that teaches moving tasks to preventative maintenance which the examiner considers to be a planned outage) and to backlog (see at least para. 79 that teaches a task can be moved to new task rejected which the examiner considers to be a backlog)

wherein one or more real-time performance indicators and metrics are calculated and displayed through the user interface, and wherein user selection of one or more of the real-time performance indicators and metrics displays one or more graphical representations of said one or more real-time performance indicators and metrics. Kalantar para. 78 teaches each task record stored in the database 140 may be marked with a task status identifier, and the central management server 130 may be configured to monitor and update a status of each task stored in the database 140. Further, Fig. 19 discloses displaying the status (closed or late). Further, para. 150 teaches the central management server 130 may dynamically generate work status ranking and trend records based on a user's selection of a facility level. The examiner considers the dynamic status to be a real-time performance indicators and metrics.

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Further, para. 179 teaches a second user, such as a supervisory user, may send a request for a work status report involving the first user's tasks in order to perform an inspection stage. The second user may have a predetermined hierarchy level (such as a supervisory access level) that allows the second user to receive the work status report. According to an exemplary embodiment, the second user may request the work status report via the EMI unit 112. In such an embodiment, the second user may login to the system using a user's identification number and selecting the "Check-Out" selection icon 404. At step 1608, server 130 receives the request for a work status report. In such an embodiment, when the central management server 130 successfully authenticates the second user as a supervisory user at the first facility 110, the central management server 130 retrieves work status records based on the hierarchy level of the second user. For example, if the second user supervises three users, the central management server 130 retrieves the status for tasks associated with the three users as well as the supervisory user, and compiles the retrieved records into a work status report that is sent to the EMI unit 112. The examiner considers a supervisor requesting a work status report to be a user selection of one or more of the real-time performance indicators)

Kalantar does not teach a short notice outage section or moving tasks to a short notice outage section

However, Scheer column 45, lines 15-25 teaches a customer's condition monitoring system that detects a deterioration of the widget on equipment XYZ and determines that maintenance should be scheduled.

The condition monitoring system interacts with the CMMS system 16 so that the CMMS system 16 schedules a maintenance task to be done in eight days. The examiner considers maintenance that is required within a short timeframe (8 days) to repair a deteriorating condition to be a short notice outage section. Both Kalantar and Scheer are drawn to scheduling tasks. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the Applicant's invention to modify the teachings of Kalantar to include a short notice outage section or moving tasks to a short notice outage section as taught by Scheer to schedule maintenance and repair in response to detected conditions to perform repairs prior to failure. The added benefit is a more robust system,

Kalantar does not teach and work orders, wherein the work orders can be moved by dragging and

dropping the work orders. However, Kall Fig. 34 and para. 168 teach the use of drag and drop features to

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adjust work orders. Both Kalantar and Kall are drawn to scheduling tasks. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the Applicant's invention to modify the teachings of Kalantar to include and work orders, wherein the work orders can be moved by dragging and dropping the work order as taught by Kall to provide an easy, efficient and intuitive meant by which to reclassify work orders.

Kalantar does not teach and a work order creation automation screen on the user interface for creating the work orders, the computing device being configured to store logic for creation of the work orders, to interrogate a user through the work order creation automation screen for specific information regarding the work orders, and to create the work orders automatically from the logic and the specific information; and However, Kall Figure 11A teaches a work order items section that interrogates users regarding the necessary information to create a work order. Both Kalantar and Kall are drawn to scheduling tasks. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the Applicant's invention to modify the teachings of Kalantar to include a work order creation automation screen on the user interface for creating the work orders, the computing device being configured to store logic for creation of the work orders, to interrogate a user through the work order creation automation screen for specific information regarding the work orders, and to create the work orders automatically from the logic and the specific information as taught by Kall to provide an easy and standard interface through which users can enter work order information.

28. As per **Claim 4** Kalantar does not teach the planning and scheduling system of claim 3, wherein the computing device is further programmed to implement a screen for inputting of the logic to allow creation of the work order creation automation screen. However, Kall Figure 11A teaches a work order items section that interrogates users regarding the necessary information to create a work order. Both Kalantar and Kall are drawn to scheduling tasks. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the Applicant's invention to modify the teachings of Kalantar to include the computing device is further programmed to implement a screen for inputting of the logic to

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allow creation of the work order creation automation screen as taught by Kall to provide an easy and standard interface through which users can enter work order information.

29. As per **Claim 6** Kalantar teaches the planning and scheduling system of claim 1, wherein the second screen format is used to assign resources to the work within the work week.

(Kalantar para.123 teaches the work order request icon 1016 enables a user to enter new work orders including tasks to be performed at a predetermined facility. For example, a supervisory user may add a task to a facility record and to a user record in order to schedule the task for completion by the user corresponding to the user record. Other embodiments may permit the supervisory user to identify the task as a one-time only task or a recurring task that is regularly scheduled by processes in server 130)

Response to Arguments

30. Applicant's arguments filed 5/5/16 have been fully considered but they are not persuasive.

31. The Applicant argues "In a recent decision, *DDR Holdings, LLC v, Hotels.com*, 773 F.3d 1245 (Fed. Cir. 2015), the Federal Circuit affirmed the patentability of claims directed to software and outlined certain criteria for determining the scope of the *Alice* decision. In *DDR Holdings*, the contested claims were directed to an e-commerce outsourcing system and method that generated a composite website using visual elements of a host website and a third-party merchant. *Id.* at 1248; see also Example 2 of the 2014 Abstract Ideas Examples (Jan. 25, 2015) at pg. 4 (http://www.uspto.gov/patents/law/exam/abstract_idea_examples.pdf, the "2014 Guidance").

32. The claims at issue here are similarly rooted in computer technology, in that they recite specific systems and methods for automating the processes of work management at industrial sites that utilize Computerized Maintenance Management Systems (CMMS). See US 2014/0081697 at ¶ [0003]. Indeed, the specification notes that the specific problem of the existing computer technology addressed by the present invention is the optimization of processes through the limitation of manual typing. See *id.* at

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¶ [0004]. The Examiner appears to limit her examination to ¶ [0005] of the disclosure in assessing the advantages of the present invention. The Applicant respectfully notes that "¶ [0054] - [0058] of the specification offer a more specific delineation of the concrete features that distinguish the present invention from prior planning and scheduling systems and methods."

33. The examiner respectfully disagrees. Page 20 of the *DDR Holdings, LLC v. Hotels.com* Federal Circuit decision states, "But these claims stand apart because they do not merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet. Instead, the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks." The Examiner respectfully disagrees with Applicant's assertion that the claims present a solution necessarily rooted in the technology in order to overcome a problem specifically arising in the computer network (or other technological) realm. Applicant's claims seek to address a problem that existed and continues to exist outside of the realm of the technology associated with the additionally recited elements. The proposed solution is one that could have been implemented directly by a human performing analogous functions by hand and/or with the assistance of a general purpose computer applied to facilitate the functions at a high level of generality or with the assistance of additional elements performing well-known, conventional functions. In Applicant's claims, the central processor could be substituted with a human user and the underlying invention would result in a similar solution to the problem at hand. The rejected claims do not adhere to the same fact pattern seen in the *DDR Holdings, LLC v. Hotels.com* decision. In the *DDR Holdings* decision, the manner in which the network itself operated was changed to improve network operations. There is no actual improvement made to the operations or physical structure of the additional elements claimed in the instant application.

34. The Applicant argues "Thus, the present invention does not monopolize the purportedly abstract concept of "scheduling and planning," as asserted by the Examiner. In fact, the Examiner's own citations to art in this Office Action conclusively demonstrate that "scheduling and planning" has been implemented in a number of other ways, and that the present invention does not genetically claim such processes. The

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Applicant notes, for example, that dragging and dropping of work orders, where the work orders are comprised of work elements that are linked as predecessors and successors, in a CMMS environment adds “a specific way to automate” a process that is “rooted in [the] computer technology” of that CMMS environment. *DDR Holdings*, F.3d at 1257-59.”

35. The examiner respectfully disagrees. The July 2015 Update: Subject Matter Eligibility, Section VI states – “while a preemptive claim may be ineligible, the absence of complete preemption does not guarantee that a claim is eligible”

36. “The courts do not use preemption as a stand-alone test for eligibility” (Even though the claims in *Flook* did not “wholly preempt the mathematical formula and the Claims in *Mayo* were directed to “narrow laws that may have limited applications” the Supreme Court nonetheless held them ineligible because they failed to amount to significantly more than the recited exceptions (*Flook* at 589-590 and *Mayo* at 1302). The Federal Circuit has followed the Supreme Court’s lead in rejecting arguments that a lack of total preemption equates with eligibility. See, e.g., *buySAFE*, 765 F.3d at 1355; *Ultramercial*, 772 F.3d at 716. Questions of preemption are resolved using the 2 part analysis. This analysis distinguishes between preemptive claims and claims that “integrate the building blocks into something more...the latter pose no comparable risk of pre-emption and therefore remain eligible” (*Alice* at 2358).

37. In the instant case the examiner has articulated the Abstract idea in the claims, and also articulated why the additional elements are not sufficient to “integrate the building blocks into something more” and as such, remain ineligible under U.S.C. 101.

38. The Applicant argues “Moreover, the USPTO, in Example 3, claim 1, of its 2014 Eligibility Guidance (Jan. 27, 2015) stated that a method directed to digital image processing was non-abstract because it included the step of comparison and conversion of generated data. See 2014 Guidance at pgs. 8-9. Similarly, with respect to claims 1-4, the claims go “beyond the mere concept of simply retrieving and combining data using a computer” because the present claims, as amended, recite the features of providing one or more performance indicators or metrics and displaying on-demand graphical representations of those real-time performance indicators and metrics. The current claims do not merely

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“use[] a processor and memory to perform the steps of calculating a mathematical operation and receiving and storing data.” 2014 Guidance at pg. 9.

39. Rather, as required by the 2014 Guidance, the present claims combine the customized mathematical analysis of data - real -time calculations for performance indicators - with the on-demand conversion of those performance indicators and metrics into graphical representations. See Guidance at pg. 9 (discussing the patent-eligibility of converted mathematical calculations). Support for these novel functionalities of the present invention can be exemplarily found in the specification at US 2014/0081697, ¶ [0057], [0137] - [0168], and FIG. 4. These features are therefore an improvement to the computer system, the CMMS, which is able to more efficiently process and manage work, and to another field of technology: work coordination and management.”

40. The examiner respectfully disagrees. The examiner asserts that task scheduling is a business practice, not a technology or a technical field. As such, the claims at best represent an improvement to the business process of task management. This is further evidenced by para. 5 of the Applicant's specification that states the invention is drawn to implementing a system that require little time to manipulate assignments and make changes to the schedule and planned status of all the work orders and all the maintenance resources. Further, nowhere in the claims or in the specification does the Applicant articulate any improvements to the functioning of the computer itself.

41. The Applicant argues “Moreover, even if the Applicant were to accept the Examiner's contention that the functions recited in the claims are routine and conventional, which it does not, the claims are still directed to patentable subject matter. In the USPTO July 2015 Update: Subject Matter Eligibility (*available at <http://www.uspto.gov/sites/default/files/documents/ieg-july-2015-update.pdf>*), the USPTO specifically highlights Example 3 of the 2014 Guidance as an illustration of “how generic computer components that individually perform merely generic computer functions (e.g., a CPU that performs mathematical calculations or a clock that produces time data) are able in combination to perform functions that are not generic computer functions and that amount to significantly more/” See pg. 2. The Examiner also appears to conclude, without evidence, that dragging and dropping of work orders that are ‘linked as predecessors

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and successors” is a routine and conventional computer function. The Applicant respectfully disagrees because it is not aware of any such operations appearing in generic computer systems and contends that creating and managing such linkages is a customized, specifically programmed operation that is highly dependent on the relationships between work orders and their attributes.”

42. The examiner respectfully disagrees. The May 2016 update requires carefully considering Applicant’s evidence rebutting a subject matter eligibility rejection. The guidance does not require the examiner to cite evidence that the additional elements are well-known and understood. Page 6 of the July 2015 Update on Subject Matter Eligibility states “The 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 that a claimed concept is a judicial exception, and in most cases resolve the ultimate legal conclusion on eligibility without making any factual findings. For example:

a. 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.

b. In Bilski, when affirming the Office's eligibility rejection (which was not supported by evidence), the Supreme Court cited several documents describing "hedging" (a high level description of the detailed concept in the claim). The documents were modern day textbooks (that were not prior art) cited as examples that "hedging" is "a fundamental economic practice long prevalent in our system of commerce and taught in any introductory finance class."¹⁷ These documents cannot be evidence, however, because the Supreme Court is an appellate court limited to review of the record created below, i.e., by the Office's rejection.

c. Alice Corp. followed a similar approach to Bilski, when affirming the Federal Circuit's en banc judgment that the claims were ineligible (which was not supported by evidence). In Alice Corp., the documents were textbooks and an article (only one of which qualified as prior art) cited as examples that using a third party intermediary is a building block of the modern economy.

d. 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,

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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.

43. Further, page 7 of the July 2015 Update on Subject Matter Eligibility states:

Courts have not identified a situation in which evidence was required to support a finding that the additional elements were well understood, routine or conventional, but rather treat the issue as a matter appropriate for judicial notice. As such, a rejection should only be made if an examiner relying on his or her expertise in the art can readily conclude in the Step 2B inquiry that the additional elements do not amount to significantly more.

As such, the examiner is not required to cite evidence that the claims are directed toward an Abstract idea, or that the additional elements are well understood, routine or conventional.

B. 35 U.S.C. § 103 Rejections

44. The Applicant argues “the Examiner’s references lack the ability to convert real-time statistics into graphical representations. ¶ [0021] of US 2014/0081697 (explaining that the present invention is “measuring key performance parameters to drive the schedule” and using that data by “scheduling the work against a work week and against the available labor resource”). The other references cited by the Examiner do not remedy the absence of disclosure in Kalantar, the primary reference used. For that reason, it is respectfully submitted that claims 1-4 are non-obvious.”

45. The examiner respectfully disagrees. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

46. In the instant case, the claim does not recite what the graphical representation comprises. As such, the examiner has applied the broadest reasonable interpretation of the Claims. Kalantar para. 78 teaches each task record stored in the database 140 may be marked with a task status identifier, and the

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central management server 130 may be configured to monitor and update a status of each task stored in the database 140. Further, Fig. 19 discloses displaying the status (closed or late). Further, para. 140 teaches the central management server 130 may dynamically generate work status ranking and trend records based on a user's selection of a facility level. The examiner considers displaying the status to be a graphical representation of a real-time performance indicators and metrics.

Conclusion

47. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DEIRDRE HATCHER whose telephone number is (571)270-5321. The examiner can normally be reached on Mon - Thursday and Every other Friday 7:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Choi can be reached on (571)272-6971. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DEIRDRE HATCHER/
Primary Examiner, Art Unit 3683

EAST Search History

EAST Search History (Prior Art)

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S41	3	((Kirk) near2 (Samsel)).INV.	US-PGPUB; USPAT; USOCR	OR	ON	2015/11/01 20:08

S42	14	("20020007297" "20020010615" "20020049563" "20020111842" "20020143601" "20020161674" "20030041087" "5787000" "5835898" "5970437" "6006171" "6421571" "7210119" "7225040").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2015/11/01 20:12
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S45	1	(14/024944).APP.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/11/22 22:18

EAST Search History (Interference)

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11/ 23/ 2016 11:31:05 AM**C:\ Users\ dhatcher\ Documents\ EAST\ Workspaces\ 14024944.wsp**

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Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete if Known	
				Application Number	14/024,944-Conf. #3683
				Filing Date	September 12, 2013
				First Named Inventor	John W. MCELROY
				Art Unit	N/A
				Examiner Name	Not Yet Assigned
Sheet	1	of	2	Attorney Docket Number	130733.00107

U. S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)				

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁵
		Country Code ³	Number ⁴ Kind Code ⁵ (if known)				

Examiner Signature	/Deirdre Hatcher/ (11/22/2016)	Date Considered	11/22/2016
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached

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Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>		<i>Complete if Known</i>			
		Application Number	14/024,944-Conf. #3683		
		Filing Date	September 12, 2013		
		First Named Inventor	John W. MCELROY		
		Art Unit	N/A		
		Examiner Name	Not Yet Assigned		
Sheet	2	of	2	Attorney Docket Number	130733.00107

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	A	M. DeCoster, EPRI Project Manager; Best Practice Guideline for Maintenance Planning and Scheduling, Final Report, December 2000; 84 pages.	
	B	M. Perakis, et al., Project Managers; 2001 EPRI International Maintenance Conference, Maintaining Reliable Electric Generation; Proceedings, August 2001; 448 pages.	

Examiner Signature	/Deirdre Hatcher/ (11/27/2016)	Date Considered	11/27/2016
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional); ² Applicant is to place a check mark here if English language Translation is attached.

Search Notes 	Application/Control No. 14024944	Applicant(s)/Patent Under Reexamination MCELROY ET AL.
	Examiner DEIRDRE HATCHER	Art Unit 3683

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner

SEARCH NOTES		
Search Notes	Date	Examiner
See East Search History	11/1/15	DH
Inventor Search	11/1/15	DH
See East Search History	11/22/16	DH

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

	/DEIRDRE HATCHER/ Primary Examiner.Art Unit 3683
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Non-Provisional Application of:
McElroy et al.

Application No.: 14/024,944

Confirmation No.: 3683

Filed: September 12, 2013

Art Unit: 3683

For: PLANNING AND SCHEDULING ASSISTANT

Examiner: Deidre D. Hatcher

AMENDMENT

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Madam:

In response to the Office Action mailed November 5, 2015, please amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims that begins at page 2 of this paper.

Remarks begin on page 8 of this paper.

Submitted herewith are a Petition for Extension of Time and the required fee. Should any additional fees be determined to be necessary in connection with the filing of this response, the Commissioner is hereby authorized and requested to charge Deposit Account No. 23-2185 for any such fees.

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior listings and versions of claims in this application.

1. (Currently Amended) A planning and scheduling system running on a computing device, the system comprising:

a user interface, wherein said user interface provides a first screen format for schedulers and planners and a second screen format for maintenance supervisors; and

a computing device in communication with said user interface, said computing device being programmed to implement:

work week sections;

a scheduled job section;

an unscheduled job section;

a short notice outage section;

a planned outage section; and

work orders, wherein the work orders can be moved from one work week section to another work week section, from unscheduled to scheduled, to short notice outage, to planned outage, and to backlog, by dragging and dropping the work orders, wherein the work orders comprise work elements that are linked as predecessors and successors, and wherein the computing device controls the user interface to display linkages between the predecessors and the successors; and

wherein one or more real-time performance indicators and metrics are calculated and displayed through the user interface, and wherein user selection of one or more of the real-time performance indicators and metrics displays one or more graphical representations of said one or more real-time performance indicators and metrics.

2. (Currently Amended) The planning and scheduling tool assistant system of claim 1, wherein the computing device permits a user to drag and drop resources onto the work elements through the user interface.

3. (Currently Amended) A planning and scheduling system running on a computing device, the system comprising:

a user interface, wherein said user interface provides a first screen format for schedulers and planners and a second screen format for maintenance supervisors; and

a computing device in communication with said user interface, said computing device being programmed to implement:

work week sections;

a scheduled job section;

an unscheduled job section;

a short notice outage section;

a planned outage section;

work orders, wherein the work orders can be moved from one work week section to another work week section, from unscheduled to scheduled, to short notice outage, to planned outage, and to backlog, by dragging and dropping the work orders; ~~and~~

a work order creation automation screen on the user interface for creating the work orders, the computing device being configured to store logic for creation of the work orders, to interrogate a user through the work order creation automation screen for specific information regarding the

work orders, and to create the work orders automatically from the logic and the specific information-; and

wherein one or more real-time performance indicators and metrics are calculated and displayed through the user interface, and wherein user selection of one or more of the real-time performance indicators and metrics displays one or more graphical representations of said one or more real-time performance indicators and metrics.

4. (Currently Amended) The planning and scheduling ~~tool-assistant~~ system of claim 3, wherein the computing device is further programmed to implement a screen for inputting of the logic to allow creation of the work order creation automation screen.

5. (New) The planning and scheduling system of claim 1, wherein the second screen format is used to assign resources to the work within the work week.

6. (New) The planning and scheduling system of claim 3, wherein the second screen format is used to assign resources to the work within the work week.

7. (New) A planning and scheduling system running on a computing device, the system comprising:

a user interface;

a computing device in communication with said user interface, said computing device being programmed to simultaneously display:

work week sections;

a scheduled job section;

an unscheduled job section;

a short notice outage section;

a planned outage section;

work orders, wherein the work orders can be moved from one work week to another work week from unscheduled to scheduled, to short notice outage, to planned outage, and to backlog, by dragging and dropping the work orders; and

wherein the system accepts the input of work orders comprised of sponsored work, flags said sponsored work, and tracks said sponsored work through the generation of a real-time key performance indicator.

8. (New) The scheduling and planning system of claim 7, wherein the user interface further provides a first screen format for schedulers and planners and a second screen format for maintenance supervisors.

9. (New) The scheduling and planning system of claim 7, wherein the user interface further provides selectable real-time metrics for which customized date ranges, content, crews can be assigned, and wherein the user interface may provide said real-time metrics as real-time graphical representations.

10. (New) The scheduling and planning system of claim 9, wherein the user interface utilizes the real-time metrics to construct and output a customized management report.

11. (New) The scheduling and planning system of claim 7, wherein the computing system further interfaces with a CMMS database, constructs a parallel database; and transmits real-time updates to a plurality of management variables to the CMMS database based on work order allocation and provisioning.

12. (New) A method for planning and scheduling tasks through the use of a networked computer system, the method comprising the steps of:

providing a first software module comprised of a user interface that may simultaneously display work week sections, a scheduled job section, an unscheduled job section, a short notice outage section, a planned outage section, and work orders;

wherein the work orders can be moved from one work week to another work week from unscheduled to scheduled, to short notice outage, to planned outage, and to backlog, by dragging and dropping the work orders; and

wherein the system accepts the input of work orders comprised of sponsored work, flags said sponsored work, and tracks said sponsored work through the generation of a real-time key performance indicator.

13. (New) The method for planning and scheduling of claim 12, wherein the first software module provides a first screen format for schedulers and planners and a second screen format for maintenance supervisors.

14. (New) The method for planning and scheduling of claim 12, further providing selectable real-time metrics for which customized date ranges, content, crews can be assigned, and wherein the first software module may provide said real-time metrics as real-time graphical representations.

15. (New) The method for planning and scheduling of claim 14, the first software module utilizes the real-time metrics to construct and output a customized management report.

16. (New) The method for planning and scheduling of claim 12, further comprising providing a second software module that performs the steps of:

interfacing with a CMMS database;

constructing a parallel database; and

transmitting real-time updates to a plurality of management variables to the CMMS database based on work order allocation and provisioning.

REMARKS**I. Introduction**

The Office Action mailed November 5, 2015, has been carefully considered. The present Amendment is intended to be a complete response thereto and to place the case in condition for allowance. Reconsideration of this application is respectfully requested. Claims 1-4 have been amended. New claims 5-16 have been added. Support for these claims can be found exemplarily at ¶¶ [0007] - [0018], ¶¶ [0053] - [0058], ¶¶ [0089] - [0090], ¶¶ [0121] - [0177], and ¶¶ [0261] - [0262] of the specification. No new matter has been added. Claims 1-16 are pending and at issue.

II. Status of the Claims

Claims 1-16 are pending. Independent claims 1 and 3 have been amended to address the Examiner's rejections. Support for the amendments to claims 1 and 3 is found exemplarily at ¶¶ [0007], [0009], [0017] - [0018], [0054] - [0057], and FIGs. 1-4 of the specification. Claim 2 has been amended to add a missing word, "drop," to recite the "drag and drop" functionality disclosed exemplarily at ¶ [0262] of the specification. Claim 4 has been amended to recite the "system," rather than "tool" of claim 3, for consistency.

III. Summary of the Office Action

In the Office Action, the Examiner rejected:

- 1) claims 1-4 under 35 U.S.C. § 101, as directed to an abstract idea;

- 2) claim 1 under 35 U.S.C. § 103(a) as obvious over Kalantar et al. (US 2003/0088534, hereinafter “Kalantar”) in view of Scheer et al. (U.S. Pat. No. 7,313,534, hereinafter “Scheer”), in further view of Clarke et al. (US 2002/0007297, hereinafter “Clarke”);
- 3) claim 2 under 35 U.S.C. § 103(a) as obvious over Kalantar in view of Scheer in further view of Schweitzer et al. (US 2004/0078257, hereinafter “Schweitzer”);
and
- 4) claims 3 and 4 under 35 U.S.C. § 103(a) as obvious over Kalantar in view of Scheer in further view of Kall et al. (US 2003/0149608, hereinafter “Kall”).

IV. Arguments

The Applicant respectfully traverses the rejections as follows.

A. 35 U.S.C. § 101 Rejections

Claims 1-4 have been rejected under 35 U.S.C. § 101 as directed to an abstract idea without significantly more. The Applicant respectfully traverses the Examiner’s rejection.

In a recent decision, *DDR Holdings, LLC v. Hotels.com*, 773 F.3d 1245 (Fed. Cir. 2015), the Federal Circuit affirmed the patentability of claims directed to software and outlined certain criteria for determining the scope of the *Alice* decision. In *DDR Holdings*, the contested claims were directed to an e-commerce outsourcing system and method that generated a composite website using visual elements of a host website and a third-party merchant. *Id.* at 1248; *see also* Example 2 of the 2014 Abstract Ideas Examples (Jan. 25, 2015) at pg. 4 (http://www.uspto.gov/patents/law/exam/abstract_idea_examples.pdf, the “2014 Guidance”).

The Federal Circuit found that the claims at issue recited “a specific way to automate” a process to “solve problems faced by websites on the Internet.” *Id.* at 1259. Based on this reasoning, the Federal Circuit ruled that claims “rooted in computer technology” are patentable when they recite a solution necessary “to overcome a problem specifically arising in the realm of computer networks.” *Id.* at 1257.

The claims at issue here are similarly rooted in computer technology, in that they recite specific systems and methods for automating the processes of work management at industrial sites that utilize Computerized Maintenance Management Systems (CMMS). *See* US 2014/0081697 at ¶ [0003]. Indeed, the specification notes that the specific problem of the existing computer technology addressed by the present invention is the optimization of processes through the limitation of manual typing. *See id.* at ¶ [0004]. The Examiner appears to limit her examination to ¶ [0005] of the disclosure in assessing the advantages of the present invention. The Applicant respectfully notes that ¶¶ [0054] – [0058] of the specification offer a more specific delineation of the concrete features that distinguish the present invention from prior planning and scheduling systems and methods.

Thus, the present invention does not monopolize the purportedly abstract concept of “scheduling and planning,” as asserted by the Examiner. In fact, the Examiner’s own citations to art in this Office Action conclusively demonstrate that “scheduling and planning” has been implemented in a number of other ways, and that the present invention does not generically claim such processes. The Applicant notes, for example, that dragging and dropping of work orders, where the work orders are comprised of work elements that are linked as predecessors and successors, in a CMMS environment adds “a specific way to automate” a process that is

“rooted in [the] computer technology” of that CMMS environment. *DDR Holdings*, F.3d at 1257-59.

Moreover, the USPTO, in Example 3, claim 1, of its 2014 Eligibility Guidance (Jan. 27, 2015) stated that a method directed to digital image processing was non-abstract because it included the step of comparison and conversion of generated data. *See* 2014 Guidance at pgs. 8-9. Similarly, with respect to claims 1-4, the claims go “beyond the mere concept of simply retrieving and combining data using a computer” because the present claims, as amended, recite the features of providing one or more performance indicators or metrics and displaying on-demand graphical representations of those real-time performance indicators and metrics. The current claims do not merely “use[] a processor and memory to perform the[] steps of calculating a mathematical operation and receiving and storing data.” 2014 Guidance at pg. 9.

Rather, as required by the 2014 Guidance, the present claims combine the customized mathematical analysis of data – real-time calculations for performance indicators – with the on-demand conversion of those performance indicators and metrics into graphical representations. *See* Guidance at pg. 9 (discussing the patent-eligibility of converted mathematical calculations). Support for these novel functionalities of the present invention can be exemplarily found in the specification at US 2014/0081697, ¶¶ [0057], [0137] – [0168], and FIG. 4. These features are therefore an improvement to the computer system, the CMMS, which is able to more efficiently process and manage work, and to another field of technology: work coordination and management.

Moreover, even if the Applicant were to accept the Examiner’s contention that the functions recited in the claims are routine and conventional, which it does not, the claims are still

directed to patentable subject matter. In the USPTO July 2015 Update: Subject Matter Eligibility (*available at* <http://www.uspto.gov/sites/default/files/documents/ieg-july-2015-update.pdf>), the USPTO specifically highlights Example 3 of the 2014 Guidance as an illustration of “how generic computer components that individually perform merely generic computer functions (e.g., a CPU that performs mathematical calculations or a clock that produces time data) are able in combination to perform functions that are not generic computer functions and that amount to significantly more.” *See* pg. 2. The Examiner also appears to conclude, without evidence, that dragging and dropping of work orders that are “linked as predecessors and successors” is a routine and conventional computer function. The Applicant respectfully disagrees because it is not aware of any such operations appearing in generic computer systems and contends that creating and managing such linkages is a customized, specifically programmed operation that is highly dependent on the relationships between work orders and their attributes.

For at least those reasons, the Applicant believes that claims 1-4 are directed to patentable subject matter. It is therefore respectfully requested that the Examiner withdraw the rejection.

B. 35 U.S.C. § 103 Rejections

The Examiner has also rejected claims 1-4 under 35 U.S.C. § 103(a) as obvious, citing Kalantar as the primary reference in all cases. The Applicant has considered the Examiner’s comments and in response, has amended independent claims 1 and 3 to include the additional features of a user interface that “provides a first screen format for schedulers and planners and a second screen format for maintenance supervisors,” as well as “real-time performance indicators and metrics” that may be selected through the user interface to display a graphical representation

of those performance indicators and metrics. Support in the specification for real-time performance indicators and metrics can be exemplarily found at ¶¶ [0007], [0009], [0017], [0057], and FIG. 4. Support in the specification for the first and second screen formats is exemplarily found in the specification at ¶¶ [0018], [0054] – [0057], and FIGs. 1, 2, and 3. US 2014/0081697.

The Applicant notes that the Examiner's references lack the ability to convert real-time statistics into graphical representations. *Cf.* ¶ [0021] of US 2014/0081697 (explaining that the present invention is “measuring key performance parameters to drive the schedule” and using that data by “scheduling the work against a work week and against the available labor resource”). The other references cited by the Examiner do not remedy the absence of disclosure in Kalantar, the primary reference used. For that reason, it is respectfully submitted that claims 1-4 are non-obvious.

V. New Claims 5-16

The Applicant has added claims 5-16, of which claims 7 and 12 are independent. At least due to the reasons listed in Section IV, these claims are also directed to patentable subject matter. Support for these new claims may be found, exemplarily, in currently pending claims 1-4 and in the specification at ¶¶ [0007], [0009], [0017], [0057], ¶¶ [0089] – [0090], ¶¶ [0121] – [0177], ¶¶ [0261] – [0262], and FIG. 4.

VI. Conclusion

All pending claims are believed to be allowable and favorable action is respectfully

requested. In the event that there are any questions relating to this Amendment or to the application in general, it would be appreciated if the examiner would telephone the undersigned attorney concerning such questions so that the prosecution of this application may be expedited.

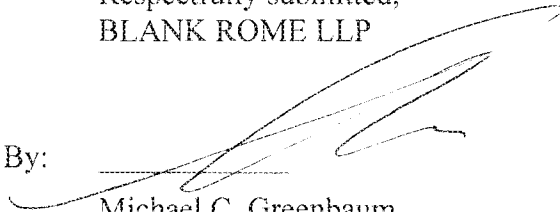
Please charge any shortage or credit any overpayment of fees to BLANK ROME LLP, Deposit Account No. 23-2185 (130733.00107). In the event that a petition for an extension of time is required to be submitted herewith and in the event that a separate petition does not accompany this response, applicant hereby petitions under 37 C.F.R. 1.136(a) for an extension of time for as many months as are required to render this submission timely.

Any fees due are authorized above.

Respectfully submitted,
BLANK ROME LLP

Date: May 5, 2016

By:



Michael C. Greenbaum
Reg. No. 28,419

BLANK ROME LLP
600 New Hampshire Avenue NW
Washington, DC 20037
Tel.: (202) 772-5800
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Docket No.: 130733.00107
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
John W. MCELROY et al.

Application No.: 14/024,944

Confirmation No.: 3683

Filed: September 12, 2013

Art Unit: N/A

For: PLANNING AND SCHEDULING TOOL
ASSISTANT

Examiner: Not Yet Assigned

INFORMATION DISCLOSURE STATEMENT (IDS)

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. § 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed more than three months after the U.S. filing date, OR more than three months after the date of entry of the national stage of a PCT application, AND after the mailing date of the first Office Action on the merits, whichever occurs first, but before the mailing date of any of a Final Office Action, a Notice of Allowance (37 C.F.R. § 1.97(c)) or an action that otherwise closes prosecution in the application.

Applicant submits herewith copies of foreign patents and non-patent literature in accordance with 37 C.F.R. § 1.98(a)(2).

130733.00107/102237128v.1


In accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 C.F.R. § 1.56(a) exists. In accordance with 37 C.F.R. § 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

It is submitted that the Information Disclosure Statement is in compliance with 37 C.F.R. § 1.98 and the Examiner is respectfully requested to consider the listed references.

Please charge our Credit Card in the amount of \$90.00 covering the fee set forth in 37 C.F.R. § 1.17(p). The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 23-2185, under Order No. 130733.00107.

Dated: May 5, 2016

Respectfully submitted,

Electronic signature: /Michael C. Greenbaum/
Michael C. Greenbaum 

Registration No.: 28,419

BLANK ROME LLP

Correspondence Customer Number: 27557

Attorney for Applicant

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO		<i>Complete if Known</i>	
		Application Number	14/024,944-Conf. #3683
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Filing Date	September 12, 2013
		First Named Inventor	John W. MCELROY
		Art Unit	N/A
		Examiner Name	Not Yet Assigned
		Attorney Docket Number	130733.00107
Sheet	2	of	2

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	A	M. DeCoster, EPRI Project Manager; Best Practice Guideline for Maintenance Planning and Scheduling, Final Report, December 2000; 84 pages.	
	B	M. Perakis, et al., Project Managers; 2001 EPRI International Maintenance Conference, Maintaining Reliable Electric Generation; Proceedings, August 2001; 448 pages.	

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional); ² Applicant is to place a check mark here if English language Translation is attached.

Electronic Patent Application Fee Transmittal

Application Number:	14024944
Filing Date:	12-Sep-2013
Title of Invention:	PLANNING AND SCHEDULING TOOL ASSISTANT
First Named Inventor/Applicant Name:	John W. McElroy
Filer:	Michael C. Greenbaum/Keyla Clements
Attorney Docket Number:	130733.00107

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Independent Claims in Excess of 3	2201	1	210	210

Miscellaneous-Filing:

Petition:

Patent-Appeals-and-Interference:

Post-Allowance-and-Post-Issuance:

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Extension - 3 months with \$0 paid	2253	1	700	700
Miscellaneous:				
Submission- Information Disclosure Stmt	2806	1	90	90
Total in USD (\$)				1000

Electronic Acknowledgement Receipt

EFS ID:	25700294
Application Number:	14024944
International Application Number:	
Confirmation Number:	3683
Title of Invention:	PLANNING AND SCHEDULING TOOL ASSISTANT
First Named Inventor/Applicant Name:	John W. McElroy
Customer Number:	27557
Filer:	Michael C. Greenbaum/Keyla Clements
Filer Authorized By:	Michael C. Greenbaum
Attorney Docket Number:	130733.00107
Receipt Date:	05-MAY-2016
Filing Date:	12-SEP-2013
Time Stamp:	18:36:42
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$1000
RAM confirmation Number	5137
Deposit Account	232185
Authorized User	GREENBAUM, MICHAEL C.

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 CFR 1.16 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 CFR 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 CFR 1.19 (Document supply fees)
 Charge any Additional Fees required under 37 CFR 1.20 (Post Issuance fees)
 Charge any Additional Fees required under 37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		13073300107Amendment.pdf	4199195 62884443e13219aa596824ea957572aa8830fd56	yes	20
Multipart Description/PDF files in .zip description					
	Document Description		Start	End	
	Transmittal Letter		1	1	
	Extension of Time		2	2	
	Amendment/Req. Reconsideration-After Non-Final Reject		3	3	
	Claims		4	9	
	Applicant Arguments/Remarks Made in an Amendment		10	16	
	Transmittal Letter		17	18	
	Information Disclosure Statement (IDS) Form (SB08)		19	20	
Warnings:					
Information:					
2	Non Patent Literature	EPRIPresentation.pdf	6946 766bb85a42fcec2b5922850b41d7fb645b90e19f	no	2
Warnings:					
Information:					
3	Non Patent Literature	BestPractice.pdf	7052 f40b9fc60cf813a744078131382b71c12ca30df1	no	2
Warnings:					
Information:					
4	Fee Worksheet (SB06)	fee-info.pdf	33897 2dc193770cdcef9dc472f2b0b0dddf2756d717a2	no	2
Warnings:					
Information:					

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

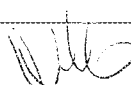
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

<h1>TRANSMITTAL FORM</h1> <p><i>(to be used for all correspondence after initial filing)</i></p>	Application Number	14/024,944-Conf. #3683
	Filing Date	September 12, 2013
	First Named Inventor	John W. MCELROY
	Art Unit	N/A
	Examiner Name	Not Yet Assigned
Total Number of Pages in This Submission	Attorney Docket Number	130733.00107

ENCLOSURES <i>(Check all that apply)</i>		
<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to TC
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input checked="" type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address	<input type="checkbox"/> Status Letter
<input checked="" type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Terminal Disclaimer	<input type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Request for Refund	
<input checked="" type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> CD, Number of CD(s) _____	
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> Landscape Table on CD	
<input type="checkbox"/> Reply to Missing Parts/ Incomplete Application	Remarks	
<input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	BLANK ROME LLP		
Signature	/Michael C. Greenbaum/ 		
Printed name	Michael C. Greenbaum		
Date	May 5, 2016	Reg. No.	28,419

PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)		Docket Number (Optional) 130733.00107	
Application Number 14/024,944-Conf. #3683		Filed September 12, 2013	
For PLANNING AND SCHEDULING TOOL ASSISTANT			
Art Unit 3683		Examiner D. D. Hatcher	
This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above-identified application. The requested extension and fee are as follows (check time period desired and enter the appropriate fee below):			
	Fee	Small Entity Fee	Micro Entity Fee
<input type="checkbox"/> One month (37 CFR 1.17(a)(1))	\$200	\$100	\$50
<input type="checkbox"/> Two months (37 CFR 1.17(a)(2))	\$600	\$300	\$150
<input checked="" type="checkbox"/> Three months (37 CFR 1.17(a)(3))	\$1,400	\$700	\$350
<input type="checkbox"/> Four months (37 CFR 1.17(a)(4))	\$2,200	\$1,100	\$550
<input type="checkbox"/> Five months (37 CFR 1.17(a)(5))	\$3,000	\$1,500	\$750
<input checked="" type="checkbox"/> Applicant asserts small entity status. See 37 CFR 1.27. <input type="checkbox"/> Applicant certifies micro entity status. See 37 CFR 1.29. Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously. <input type="checkbox"/> A check in the amount of the fee is enclosed. <input checked="" type="checkbox"/> Payment by credit card. Form PTO-2038 is attached. <input type="checkbox"/> The Director has already been authorized to charge fees in this application to a Deposit Account. <input checked="" type="checkbox"/> The Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number <u>23-2185</u> <input checked="" type="checkbox"/> Payment made via EFS-Web.			
WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.			
I am the			
<input type="checkbox"/> applicant.			
<input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>28,419</u>			
<input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number _____			
_____ /Michael C. Greenbaum/ Signature		_____ May 5, 2016 Date	
_____ Michael C. Greenbaum Typed or printed name		_____ (202) 772-5800 Telephone Number	
NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.			

* Total of 1 forms are submitted.

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 14/024,944	Filing Date 09/12/2013	<input type="checkbox"/> To be Mailed
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ENTITY: LARGE SMALL MICRO

APPLICATION AS FILED – PART I

FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)
<input type="checkbox"/> BASIC FEE <small>(37 CFR 1.16(a), (b), or (c))</small>	N/A	N/A	N/A	
<input type="checkbox"/> SEARCH FEE <small>(37 CFR 1.16(k), (l), or (m))</small>	N/A	N/A	N/A	
<input type="checkbox"/> EXAMINATION FEE <small>(37 CFR 1.16(o), (p), or (q))</small>	N/A	N/A	N/A	
TOTAL CLAIMS <small>(37 CFR 1.16(i))</small>	minus 20 =	*	X \$ =	
INDEPENDENT CLAIMS <small>(37 CFR 1.16(h))</small>	minus 3 =	*	X \$ =	
<input type="checkbox"/> APPLICATION SIZE FEE <small>(37 CFR 1.16(s))</small>	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT <small>(37 CFR 1.16(j))</small>				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

	(Column 1)	(Column 2)	(Column 3)	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)
AMENDMENT	05/05/2016	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR			
	Total <small>(37 CFR 1.16(i))</small>	* 16	Minus	** 20	= 0	X \$40 = 0
	Independent <small>(37 CFR 1.16(h))</small>	* 4	Minus	***3	= 1	X \$210 = 210
	<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>					
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>						
					TOTAL ADD'L FEE	210

	(Column 1)	(Column 2)	(Column 3)	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR			
	Total <small>(37 CFR 1.16(i))</small>	*	Minus	**	=	X \$ =
	Independent <small>(37 CFR 1.16(h))</small>	*	Minus	***	=	X \$ =
	<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>					
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>						
					TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
 ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
 *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/MARY PEOPLES/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
14/024,944 09/12/2013 John W. McElroy 130733.00107 3683

27557 7590 11/05/2015
BLANK ROME LLP
WATERGATE
600 NEW HAMPSHIRE AVENUE, N.W.
WASHINGTON, DC 20037

EXAMINER

HATCHER, DEIRDRE D

ART UNIT PAPER NUMBER

3683

NOTIFICATION DATE DELIVERY MODE

11/05/2015

ELECTRONIC

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.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Belay@blankrome.com
WashingtonDocketing@blankrome.com

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DETAILED ACTION

1. This communication is a **Non-Final Rejection** Office Action in response to the 9/12/13 filing of Application 14/024,944. Claims 1-4 are now presented.
2. The present application is being examined under the pre-AIA first to invent provisions.

Claim Rejections - 35 USC § 101

3. 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.

4. **Claims 1-4 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

5. 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 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).

6. In the Instant case Claims 1-4 are directed toward systems for planning and scheduling. As such all of the claims fall within one of the four statutory classes of invention.

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7. In the Supreme Court Decision in *Alice Corporation Pty. Ltd. v CLS Bank International, et al.* the court outlined several examples of abstract ideas including fundamental economic practices, certain methods of organizing human activities, an idea of itself, and mathematical relationships. However, this list merely presents examples of abstract ideas and is not meant to limit abstract ideas to these four categories. Eligibility does not hinge on whether or not the invention falls into one of the four exemplary categories outlined by the court. As such, the examiner understands the claimed invention to be directed toward the abstract idea of planning and scheduling in an enterprise..

8. The elements of the system of Claim 1 are: a user interface; a computing device programmed to implement a plurality of sections; work orders that can be manipulated via dragging and dropping, and also comprise links to predecessors and successors. The elements of the instant system, when taken alone, each execute in a manner routinely and conventionally expected of these elements (i.e. a user interface to input information, tasks grouped into categories, work orders that can be dragged and dropped and linked according to dependency).

9. The elements of the instant system, when taken in combination, together do not offer substantially more than the sum of the functions of the elements when each is taken alone. That is, the elements involved in the recited process undertake their roles in performance of their activities according to their generic functionalities which are well-understood, routine and conventional. The elements together execute in routinely and conventionally accepted coordinated manners and interact with their partner elements to achieve an overall outcome which, similarly, is merely the combined and coordinated execution of generic computer functionalities which are well-understood, routine and conventional activities previously known to the industry.

10. The claims as a whole, do not amount to significantly more than the abstract idea itself. This is because the claims do not affect an improvement to another technology or technical field; the claims do

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not amount to an improvement to the functioning of a computer itself; and the claims do not move beyond a general link of the use of an abstract idea to a particular technological environment. This is further evidenced by para. 5 of the Applicant's specification that states the invention enables planning and scheduling tools that are extremely easy to use and require little time to manipulate assignments and make changes to the schedule and planned status of all the work orders and all the maintenance resources. This advantage represents an improvement to a business' ability to perform manage task scheduling, but not an improvement to another technology or technical field or an improvement to the functioning of a computer itself.

11. The claim merely amounts to the application or instructions to apply the abstract idea (i.e. planning and scheduling) on a computer, and is considered to amount to nothing more than requiring a generic computer system (e.g. a generic processor) to merely carry out the abstract idea itself. As such, the claims when considered as a whole, are nothing more than the instruction to implement the abstract idea in a particular, albeit well-understood, routine and conventional technological environment.

12. Further Claims 2 further limits the Abstract idea of Claim 1, but fails to remedy the deficiencies of the parent claim it does not impose any limitations that amount to significantly more than the abstract idea itself.

13. Accordingly, the Examiner concludes that there are no meaningful limitations in claims 1-2 that transform the judicial exception into a patent eligible application such that the claim amounts to significantly more than the judicial exception itself.

14. Claims 3-4 recited similar limitations to those recited in Claim 1-2 and are rejected for similar reasons. Further, Claim 3 recites limitations drawn to a work order automation screen that provides user with guidance on what information is required to create a work order. This element is also routine and convention and not sufficient to transform the Abstract idea into a patent eligible one.

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Claim Rejections - 35 USC § 103

15. The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claim 1 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Kalantar US 2003/0088534 A1 in view of Scheer US 7,313,534 B2 in view or Clarke US 2002/0007297 A1.

17. As per **Claim 1** Kalantar teaches a planning and scheduling system running on a computing device, the system comprising:
a user interface; and (see at least Kalantar Figure 6, item 152)
a computing device in communication with said user interface, said computing device being programmed to implement: (see at least Kalantar Figure 6)
work week sections; (see at least Kalantar Figure 19)
a scheduled job section; (see at least Kalantar Figure 19 that discloses scheduled jobs)
an unscheduled job section; (see at least Kalantar para. 79 that discloses task status identifiers employed on the central management server 130 to mark task records may indicate a variety of states. For example, status indicator values may include a task pending approval identifier, a new task request approved identifier, a new task request rejected identifier, a task unscheduled identifier, a task scheduled identifier, a task due identifier, a task not completed identifier, a task completed identifier, a task closed identifier, a task rescheduled identifier, a task cancelled identifier, a task approved identifier, a task rejected identifier, or a task forcefully approved identifier.)

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a planned outage section; (see at least Kalantar para. 153 the central management server 130 may provide preventive maintenance services to customers having one or more facilities managed by the central management server 130. In one embodiment, the preventive maintenance may include scheduling regular inspections for a facility to pinpoint problems before they occur. For example, the management server 130 may schedule making repairs on a planned basis to avoid unexpected breakdowns)

Kalantar does not teach a short notice outage section or moving tasks to a short notice outage section;

However, Scheer column 45, lines 15-25 teaches a customer's condition monitoring system that detects a deterioration of the widget on equipment XYZ and determines that maintenance should be scheduled.

The condition monitoring system interacts with the CMMS system 16 so that the CMMS system 16 schedules a maintenance task to be done in eight days. The examiner considers maintenance that is required within a short timeframe (8 days) to repair a deteriorating condition to be a short notice outage section. Both Kalantar and Scheer are drawn to scheduling tasks. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the Applicant's invention to modify the teachings of Kalantar to include a short notice outage section as taught by Scheer to schedule maintenance and repair in response to detected conditions to perform repairs prior to failure. The added benefit is a more robust system.

Kalantar teaches tasks, wherein the tasks can be moved from one work week section to another work week section, (see at least para. 67 that teaches tasks can be rescheduled) from unscheduled to scheduled, (see at least para. 79 that teaches a task can be moved from unscheduled to scheduled) to planned outage, (see at least para. 154 that teaches moving tasks to preventative maintenance which the examiner considers to be a planned outage) and to backlog (see at least para. 79 that teaches a task can be moved to new task rejected which the examiner considers to be a backlog)

Kalantar does not teach and work orders, wherein the work orders can be moved by dragging and dropping the work orders. However, Clarke teaches a user selects what-if button 710 to turn the what-if function on. Then, the user highlights one or more work cards to be rescheduled and, using a mouse or similar device, drags the task bars representing the work cards and then shifts the work cards back in

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time (dragging the task bars to the right) or forward in time (dragging the task bars to the left). This reschedules the work cards and the work order. Work cards that are linked are moved together (see Clarke para. 67). Both Kalantar and Clarke are drawn to scheduling tasks. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the Applicant's invention to modify the teachings of Kalantar to include work orders, wherein the work orders can be moved from one work week section to another work week section, from unscheduled to scheduled, to short notice outage, to planned outage, and to backlog, by dragging and dropping the work orders as taught by Clarke to provide an easy an intuitive interface for managing a schedule.

Kalantar does not teach wherein the work orders comprise work elements that are linked as predecessors and successors, and wherein the computing device controls the user interface to display linkages between the predecessors and the successors. However, Clarke para. 46 teaches work orders may be linked together based on dependency. Further, Fig. 10 teaches displaying linkages. Both Kalantar and Clarke are drawn to scheduling tasks. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the Applicant's invention to modify the teachings of Kalantar to include wherein the work orders comprise work elements that are linked as predecessors and successors, and wherein the computing device controls the user interface to display linkages between the predecessors and the successors as taught by Clarke to provide an easy an intuitive interface for managing a schedule and viewed related tasks.

18. Claim 2 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Kalantar US 2003/0088534 A1 in view of Scheer US 7,313,534 B2 in view or Clarke US 2002/0007297 A1 as applied to Claim 1 and in further view of Schweitzer US 2004/0078257 A1.

19. As per **Claim 2** Kalantar does not teach the planning and scheduling tool assistant of claim 1, wherein the computing device permits a user to drag and resources onto the work elements through the user interface. However, Schweitzer teaches user can drag and drop assignments to specific employees.

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Both Kalantar and Schweitzer are drawn to scheduling tasks. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the Applicant's invention to modify the teachings of Kalantar to include wherein the computing device permits a user to drag and resources onto the work elements through the user interface as taught by Schweitzer to provide an easy and intuitive interface for managing and assigning tasks.

20. Claims 3, 4 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Kalantar US 2003/0088534 A1 in view of Scheer US 7,313,534 B2 in view of Kall US 2003/0149608 A1.

21. As per **Claim 3** Kalantar teaches a planning and scheduling system running on a computing device, the system comprising:
a user interface; and (see at least Kalantar Figure 6, item 152)
a computing device in communication with said user interface, said computing device being programmed to implement: (see at least Kalantar Figure 6)
work week sections; (see at least Kalantar Figure 19)
a scheduled job section; (see at least Kalantar Figure 19 that discloses scheduled jobs)
an unscheduled job section; (see at least Kalantar para. 79 that discloses task status identifiers employed on the central management server 130 to mark task records may indicate a variety of states. For example, status indicator values may include a task pending approval identifier, a new task request approved identifier, a new task request rejected identifier, a task unscheduled identifier, a task scheduled identifier, a task due identifier, a task not completed identifier, a task completed identifier, a task closed identifier, a task rescheduled identifier, a task cancelled identifier, a task approved identifier, a task rejected identifier, or a task forcefully approved identifier.)
a planned outage section; (see at least Kalantar para. 153 the central management server 130 may provide preventive maintenance services to customers having one or more facilities managed by the central management server 130. In one embodiment, the preventive maintenance may include scheduling

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regular inspections for a facility to pinpoint problems before they occur. For example, the management server 130 may schedule making repairs on a planned basis to avoid unexpected breakdowns)

Kalantar teaches tasks, wherein the tasks can be moved from one work week section to another work week section, (see at least para. 67 that teaches tasks can be rescheduled) from unscheduled to scheduled, (see at least para. 79 that teaches a task can be moved from unscheduled to scheduled) to planned outage, (see at least para. 154 that teaches moving tasks to preventative maintenance which the examiner considers to be a planned outage) and to backlog (see at least para. 79 that teaches a task can be moved to new task rejected which the examiner considers to be a backlog)

Kalantar does not teach a short notice outage section or moving tasks to a short notice outage section

However, Scheer column 45, lines 15-25 teaches a customer's condition monitoring system that detects a deterioration of the widget on equipment XYZ and determines that maintenance should be scheduled.

The condition monitoring system interacts with the CMMS system 16 so that the CMMS system 16 schedules a maintenance task to be done in eight days. The examiner considers maintenance that is required within a short timeframe (8 days) to repair a deteriorating condition to be a short notice outage section. Both Kalantar and Scheer are drawn to scheduling tasks. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the Applicant's invention to modify the teachings of Kalantar to include a short notice outage section or moving tasks to a short notice outage section as taught by Scheer to schedule maintenance and repair in response to detected conditions to perform repairs prior to failure. The added benefit is a more robust system,

Kalantar does not teach and work orders, wherein the work orders can be moved by dragging and dropping the work orders. However, Kall Fig. 34 and para. 168 teach the use of drag and drop features to adjust work orders. Both Kalantar and Kall are drawn to scheduling tasks. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the Applicant's invention to modify the teachings of Kalantar to include and work orders, wherein the work orders can be moved by dragging and dropping the work order as taught by Kall to provide an easy, efficient and intuitive means by which to reclassify work orders.

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Kalantar does not teach and a work order creation automation screen on the user interface for creating the work orders, the computing device being configured to store logic for creation of the work orders, to interrogate a user through the work order creation automation screen for specific information regarding the work orders, and to create the work orders automatically from the logic and the specific information.

However, Kall Figure 11A teaches a work order items section that interrogates users regarding the necessary information to create a work order. Both Kalantar and Kall are drawn to scheduling tasks. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the Applicant's invention to modify the teachings of Kalantar to include a work order creation automation screen on the user interface for creating the work orders, the computing device being configured to store logic for creation of the work orders, to interrogate a user through the work order creation automation screen for specific information regarding the work orders, and to create the work orders automatically from the logic and the specific information as taught by Kall to provide an easy and standard interface through which users can enter work order information.

22. As per **Claim 4** Kalantar does not teach the planning and scheduling tool assistant of claim 3, wherein the computing device is further programmed to implement a screen for inputting of the logic to allow creation of the work order creation automation screen. However, Kall Figure 11A teaches a work order items section that interrogates users regarding the necessary information to create a work order. Both Kalantar and Kall are drawn to scheduling tasks. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the Applicant's invention to modify the teachings of Kalantar to include the computing device is further programmed to implement a screen for inputting of the logic to allow creation of the work order creation automation screen as taught by Kall to provide an easy and standard interface through which users can enter work order information.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DEIRDRE HATCHER whose telephone number is (571)270-5321. The examiner can normally be reached on Mon - Thursday and Every other Friday 7:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Choi can be reached on (571)272-6971. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DEIRDRE HATCHER/
Examiner, Art Unit 3683

Notice of References Cited	Application/Control No. 14/024,944	Applicant(s)/Patent Under Reexamination MCELROY ET AL.	
	Examiner DEIRDRE HATCHER	Art Unit 3683	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-2003/0088534 A1	05-2003	Kalantar, Sayed Javad	G06Q10/06	706/50
*	B	US-2002/0007297 A1	01-2002	Clarke, Hernan Jose	G06Q10/06	705/7.14
*	C	US-7,313,534 B2	12-2007	Scheer, Robert H.	G06Q10/06316	705/7.26
*	D	US-2003/0149608 A1	08-2003	Kall, Jonathan J.	G06Q10/06	705/7.27
*	E	US-2004/0078257 A1	04-2004	Schweitzer, George H.	G06Q10/06	705/7.21
	F	US-				
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NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

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Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete if Known		
				Application Number	14/024,944-Conf. #3683	
Sheet		1	of	2	Attorney Docket Number	130733.00107

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)				
	A*	US-5,787,000		07-28-1998	Lilly et al.	
	B*	US-5,835,898		11-10-1998	Borg et al.	
	C*	US-5,970,437		10-19-1999	Gorman et al.	
	D*	US-6,006,171		12-21-1999	Vines et al.	
	E*	US-6,421,571		07-01-2002	Spriggs et al.	
	F*	US-7,210,119		04-24-2007	Pothos et al.	
	G*	US-7,225,040		05-01-2007	Eller et al.	
	H*	US-20020007297		01-17-2002	Clarke	
	I*	US-20020010615-A1		01-24-2002	Jacobs	
	J*	US-20020049563		04-25-2002	Vetter et al.	
	K*	US-20020111842		08-15-2002	Miles	
	L*	US-20020143601		10-03-2002	Sinex	
	M*	US-20020161674		10-31-2002	Scheer	
	N*	US-20030041087		02-27-2003	Pothos et al.	

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)					
	O**	WO-9905684-A1		02-04-1999	Foxboro Co		

Examiner Signature	/Deirdre Hatcher/ (11/02/2015)	Date Considered	11/02/2015
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. * CITE NO.: Those application(s) which are marked with an asterisk (*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. ** CITE NO.: Those document(s) which are marked with a double asterisk (**) next to the Cite No. are not supplied because they were previously cited by or submitted to the Office in a prior application relied upon in this application for an earlier filing date under 35 U.S.C. 120. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /D.H./

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Substitute for form 1449/PTO		Complete if Known	
		Application Number	14/024,944-Conf. #3683
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>		Filing Date	September 12, 2013
		First Named Inventor	John W. MCELROY
		Art Unit	N/A
		Examiner Name	Not Yet Assigned
		Attorney Docket Number	130733.00107
Sheet	2	of	2

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	P**	Chatfield, Carl, and Timothy Johnson. "Step by Step Microsoft Office Project 2003". Microsoft P, 2003.	
	Q**	A., Silver, Edward. "Inventory management and Production Planning and Scheduling. New York: Wiley, 1998.	

Examiner Signature	/Deirdre Hatcher/ (11/02/2015)	Date Considered	11/02/2015
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ** CITE NO.: Those document(s) which are marked with an double asterisk (**) next to the Cite No. are not supplied because they were previously cited by or submitted to the Office in a prior application relied upon in this application for an earlier filing date under 35 U.S.C. 120.

¹Applicant's unique citation designation number (optional) ²Applicant is to place a check mark here if English language Translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /D.H./

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	37	(project or program or job) near5 (manag\$5 or schedul\$6 or plan\$5) and schedules and unscheduled and planned and (unexpected or failure) and (drag\$4 same drop\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 14:48
S2	155	(project or program or job) near5 (manag\$5 or schedul\$6 or plan\$5) and schedules and unscheduled and planned and (unexpected or failure) and (@pd<"20030522" or @ad<"20030522" or @rlad<"20030522" or @rlpd<"20030522")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 14:56
S3	36	("20020007297" "20020143601" "20020161674" "5835898" "7225040" "20020111842" "20030041087" "6421571" "20020010615" "20020049563" "6006171" "5787000" "5970437" "7210119").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 15:29
S4	722	(project or program or job) near5 (manag\$5 or schedul\$6 or plan\$5) and schedules and planned and (unschedul\$4 or unexpect\$4 or failure) and (drag\$4 same drop\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 15:33
S5	412	S4 and (@pd<"20030522" or @ad<"20030522" or @rlad<"20030522" or @rlpd<"20030522")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 15:34
S6	186	S4 and (@pd<"20030522" or @ad<"20030522" or @rlad<"20030522" or @rlpd<"20030522")and 705/\$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 15:38
S7	186	S4 and (@pd<"20030522" or @ad<"20030522" or @rlad<"20030522" or @rlpd<"20030522") and 705/\$.ccls. and maintenance	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 15:40
S8	555	(project or program or job) near5	US-PGPUB;	OR	ON	2015/11/01

		(manag\$5 or schedul\$6 or plan\$5) and schedules and planned and (unschedul\$4 or unexpect\$4 or failure) and (drag\$4 same drop\$4) and maintenance	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			15:40
S9	186	S8 and (@pd<"20030522" or @ad<"20030522" or @rlad<"20030522" or @rlpd<"20030522") and 705/\$.ccls. and maintenance	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 15:40
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S11	120	S8 and (@pd<"20030522" or @ad<"20030522" or @rlad<"20030522" or @rlpd<"20030522") and 705/\$.ccls. and maintenance and 705/\$.ccls. and (work near3 (order or request))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 15:49
S12	38	(project or program or job) near5 (manag\$5 or schedul\$6 or plan\$5) and schedules and planned and unschedul\$4 and (unexpect\$4 or failure or repair or fix) and (drag\$4 same drop\$4) and maintenance	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 15:53
S13	1	S12 and (@pd<"20030522" or @ad<"20030522" or @rlad<"20030522" or @rlpd<"20030522") and 705/\$.ccls. and maintenance and 705/\$.ccls. and (work near3 (order or request))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 15:53
S14	57	(project or program or job) near5 (manag\$5 or schedul\$6 or plan\$5) and (schedul\$4 or planned) and unschedul\$4 and (unexpect\$4 or failure or repair or fix) and (drag\$4 same drop\$4) and maintenance	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 15:57
S15	1117	(project or program or job) near5 (manag\$5 or schedul\$6 or plan\$5) and (schedul\$4 or planned) and unschedul\$4 and (unexpect\$4 or failure or repair or fix) and maintenance	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 15:57
S16	37	S15 and (@pd<"20030522" or @ad<"20030522" or @rlad<"20030522" or @rlpd<"20030522") and 705/\$.ccls. and maintenance and 705/\$.ccls. and (work near3 (order or request)) and maintenance	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	2015/11/01 15:58

			IBM_TDB			
S17	24	(US-20020091972-\$ or US-20030088534-\$ or US-20040083195-\$ or US-20070208604-\$ or US-20010032103-\$ or US-20020035495-\$ or US-20040030590-\$ or US-20020059320-\$ or US-20020143421-\$ or US-20040254764-\$ or US-20030041087-\$ or US-20070143134-\$ or US-20020007297-\$ or US-20040078257-\$).did. or (US-7225040-\$ or US-8209205-\$ or US-7813993-\$ or US-5890134-\$ or US-7340328-\$ or US-6954737-\$ or US-6578005-\$ or US-7283971-\$ or US-7313534-\$ or US-8266066-\$).did.	US-PGPUB; USPAT	OR	ON	2015/11/01 16:51
S18	2000	"I3" and (work near5 (order or request))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 16:53
S19	24	(US-20020091972-\$ or US-20030088534-\$ or US-20040083195-\$ or US-20070208604-\$ or US-20010032103-\$ or US-20020035495-\$ or US-20040030590-\$ or US-20020059320-\$ or US-20020143421-\$ or US-20040254764-\$ or US-20030041087-\$ or US-20070143134-\$ or US-20020007297-\$ or US-20040078257-\$).did. or (US-7225040-\$ or US-8209205-\$ or US-7813993-\$ or US-5890134-\$ or US-7340328-\$ or US-6954737-\$ or US-6578005-\$ or US-7283971-\$ or US-7313534-\$ or US-8266066-\$).did.	US-PGPUB; USPAT	OR	ON	2015/11/01 16:53
S20	16	S19 and (work near5 (order or request))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 16:53
S21	7	S19 and (drag\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 17:00
S22	23	S19 and (depend\$4 or link\$4 or predecessor or successor)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 17:03
S23	27	(project or program or job) near5 (manag\$5 or schedul\$6 or plan\$5) and (schedul\$4 or planned) and unschedul\$4 and (unexpect\$4 or failure or repair or fix) and (drag\$4 same drop\$4) and	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2015/11/01 18:21

		(dependent or link\$4 or predecessors) with (task or job or work)	DERWENT; IBM_TDB			
S24	0	S23 and (@pd<"20030522" or @ad<"20030522" or @rlad<"20030522" or @rlpd<"20030522") and 705/\$.ccls. and maintenance and 705/\$.ccls. and (work near3 (order or request)) and maintenance	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 18:22
S25	2187	(project or program or job) near5 (manag\$5 or schedul\$6 or plan\$5) and (drag\$4 same drop\$4) and (dependent or link\$4 or predecessors or successors) with (task or job or work)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 18:23
S26	128	S25 and (@pd<"20030522" or @ad<"20030522" or @rlad<"20030522" or @rlpd<"20030522") and 705/\$.ccls. and maintenance and 705/\$.ccls. and (work near3 (order or request)) and maintenance	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 18:23
S27	35	(project or program or job) near5 (manag\$5 or schedul\$6 or plan\$5) and schedules and (drag\$4 near6 (resources or employee or woker) near6 (task or job or activity or assignment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 18:34
S28	1	S27 and (@pd<"20030522" or @ad<"20030522" or @rlad<"20030522" or @rlpd<"20030522") and 705/\$.ccls. and maintenance and 705/\$.ccls. and (work near3 (order or request)) and maintenance	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 18:35
S29	49	(project or program or job) near5 (manag\$5 or schedul\$6 or plan\$5) and schedules and (drag\$4 near10 (resources or employee or woker) near10 (task or job or activity or assignment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 18:36
S30	1	S29 and (@pd<"20030522" or @ad<"20030522" or @rlad<"20030522" or @rlpd<"20030522") and 705/\$.ccls. and maintenance and 705/\$.ccls. and (work near3 (order or request)) and maintenance	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 18:36
S31	61	(project or program or job) near5 (manag\$5 or schedul\$6 or plan\$5) and (drag\$4 near10 (resources or employee or woker) near10 (task or job or activity or assignment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 18:36
S32	1	S31 and (@pd<"20030522" or @ad<"20030522" or @rlad<"20030522" or @rlpd<"20030522") and 705/\$.ccls.	US-PGPUB; USPAT; USOCR;	OR	ON	2015/11/01 18:36

		and maintenance and 705/\$.ccls. and (work near3 (order or request)) and maintenance	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S33	241	(project or program or job) near5 (manag\$5 or schedul\$6 or plan\$5) and ((drag\$4 or drop\$4) near10 (resources or employee or woker or member) near10 (task or job or activity or assignment or work))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 18:37
S34	4	S33 and (@pd<"20030522" or @ad<"20030522" or @rlad<"20030522" or @rlpd<"20030522") and 705/\$.ccls. and maintenance and 705/\$.ccls. and (work near3 (order or request)) and maintenance	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 18:37
S35	28	(project or program or job) near5 (manag\$5 or schedul\$6 or plan\$5) and (drag\$4 same drop\$4) and (work near2 order) near4 (prompt or template or form)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 19:37
S36	3	S35 and (@pd<"20030522" or @ad<"20030522" or @rlad<"20030522" or @rlpd<"20030522") and 705/\$.ccls. and maintenance and 705/\$.ccls. and (work near3 (order or request)) and maintenance	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 19:37
S37	36	(project or program or job) near5 (manag\$5 or schedul\$6 or plan\$5) and (drag\$4 same drop\$4) and (work near2 (request or description or order)) near4 (prompt or template or form)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 19:39
S38	7	S37 and (@pd<"20030522" or @ad<"20030522" or @rlad<"20030522" or @rlpd<"20030522")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/11/01 19:39
S39	151	((John) near2 (McElroy)).INV.	US-PGPUB; USPAT; USOCR	OR	ON	2015/11/01 20:08
S40	9	((Sean) near2 (McElroy)).INV.	US-PGPUB; USPAT; USOCR	OR	ON	2015/11/01 20:08
S41	3	((Kirk) near2 (Samsel)).INV.	US-PGPUB; USPAT; USOCR	OR	ON	2015/11/01 20:08
S42	14	("20020007297" "20020010615" "20020049563" "20020111842" "20020143601" "20020161674" "20030041087" "5787000" "5835898" "5970437" "6006171" "6421571"	US-PGPUB; USPAT; USOCR	OR	ON	2015/11/01 20:12

"7210119" | "7225040").PN.

EAST Search History (Interference)

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11 / 2 / 2015 8:22:20 AM

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BIB DATA SHEET

CONFIRMATION NO. 3683

SERIAL NUMBER	FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
14/024,944	09/12/2013	705	3683	130733.00107
	RULE			

APPLICANTS

P&RO Solutions, Inc., Newtown Square, PA;

INVENTORS

John W. McElroy, Newtown Square, PA;
 Sean P. McElroy, Newtown Square, PA;
 Kirk Samsel, Newtown Square, PA;

**** CONTINUING DATA *******

This application is a CIP of 13/531,859 06/25/2012 ABN
 which is a CON of 10/851,663 05/24/2004 PAT 8209205
 which claims benefit of 60/472,414 05/22/2003
 and claims benefit of 60/483,111 06/30/2003

**** FOREIGN APPLICATIONS *******

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** ** SMALL ENTITY ****

09/27/2013

Foreign Priority claimed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Met after Allowance	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
35 USC 119(a-d) conditions met <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		PA	7	4	2
Verified and /DEIRDRE D HATCHER/	Initials				
Acknowledged _____	Examiner's Signature				


ADDRESS

BLANK ROME LLP
 WATERGATE
 600 NEW HAMPSHIRE AVENUE, N.W.
 WASHINGTON, DC 20037
 UNITED STATES

TITLE

PLANNING AND SCHEDULING TOOL ASSISTANT

FILING FEE RECEIVED 800	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	<input type="checkbox"/> All Fees
		<input type="checkbox"/> 1.16 Fees (Filing)
		<input type="checkbox"/> 1.17 Fees (Processing Ext. of time)
		<input type="checkbox"/> 1.18 Fees (Issue)
		<input type="checkbox"/> Other _____
		<input type="checkbox"/> Credit

Search Notes 	Application/Control No. 14024944	Applicant(s)/Patent Under Reexamination MCELROY ET AL.
	Examiner DEIRDRE HATCHER	Art Unit 3683

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner

SEARCH NOTES		
Search Notes	Date	Examiner
See East Search History	11/1/15	DH
Inventor Search	11/1/15	DH

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

/DEIRDRE HATCHER/ Examiner.Art Unit 3683	
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Table with 4 columns: APPLICATION NUMBER (14/024,944), FILING OR 371(C) DATE (09/12/2013), FIRST NAMED APPLICANT (John W. McElroy), ATTY. DOCKET NO./TITLE (130733.00107)

CONFIRMATION NO. 3683

PUBLICATION NOTICE



27557
BLANK ROME LLP
WATERGATE
600 NEW HAMPSHIRE AVENUE, N.W.
WASHINGTON, DC 20037

Title: PLANNING AND SCHEDULING TOOL ASSISTANT

Publication No. US-2014-0081697-A1
Publication Date: 03/20/2014

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently http://www.uspto.gov/patft/.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently http://pair.uspto.gov/. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number
14/024,944

APPLICATION AS FILED - PART I

(Column 1) (Column 2)

FOR	NUMBER FILED	NUMBER EXTRA
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A
TOTAL CLAIMS (37 CFR 1.16(j))	4	minus 20 = *
INDEPENDENT CLAIMS (37 CFR 1.16(h))	2	minus 3 = *
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).	
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))		

* If the difference in column 1 is less than zero, enter "0" in column 2.

SMALL ENTITY

RATE(\$)	FEE(\$)
N/A	70
N/A	300
N/A	360
x 40 =	0.00
x 210 =	0.00
	0.00
	0.00
TOTAL	730

OR OTHER THAN SMALL ENTITY

RATE(\$)	FEE(\$)
N/A	
N/A	
N/A	
TOTAL	

APPLICATION AS AMENDED - PART II

(Column 1) (Column 2) (Column 3)

AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total (37 CFR 1.16(i))	*	Minus	**
Independent (37 CFR 1.16(h))	*	Minus	***	=
Application Size Fee (37 CFR 1.16(s))				
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))				

SMALL ENTITY

RATE(\$)	ADDITIONAL FEE(\$)
x =	
x =	
TOTAL ADD'L FEE	

OR OTHER THAN SMALL ENTITY

RATE(\$)	ADDITIONAL FEE(\$)
x =	
x =	
TOTAL ADD'L FEE	

(Column 1) (Column 2) (Column 3)

AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total (37 CFR 1.16(i))	*	Minus	**
Independent (37 CFR 1.16(h))	*	Minus	***	=
Application Size Fee (37 CFR 1.16(s))				
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))				

SMALL ENTITY

RATE(\$)	ADDITIONAL FEE(\$)
x =	
x =	
TOTAL ADD'L FEE	

OR OTHER THAN SMALL ENTITY

RATE(\$)	ADDITIONAL FEE(\$)
x =	
x =	
TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 7 columns: APPLICATION NUMBER, FILING or 371(c) DATE, GRP ART UNIT, FIL FEE REC'D, ATTY. DOCKET NO, TOT CLAIMS, IND CLAIMS. Row 1: 14/024,944, 09/12/2013, 3623, 800, 130733.00107, 4, 2

CONFIRMATION NO. 3683

UPDATED FILING RECEIPT



27557
BLANK ROME LLP
WATERGATE
600 NEW HAMPSHIRE AVENUE, N.W.
WASHINGTON, DC 20037

Date Mailed: 12/06/2013

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections

Inventor(s)

John W. McElroy, Newtown Square, PA;
Sean P. McElroy, Newtown Square, PA;
Kirk Samsel, Newtown Square, PA;

Applicant(s)

P&RO Solutions, Inc., Newtown Square, PA

Assignment For Published Patent Application

P&RO Solutions, Inc., Newtown Square, PA

Power of Attorney: None

Domestic Priority data as claimed by applicant

This application is a CIP of 13/531,859 06/25/2012 ABN
which is a CON of 10/851,663 05/24/2004 PAT 8209205
which claims benefit of 60/472,414 05/22/2003
and claims benefit of 60/483,111 06/30/2003

Foreign Applications for which priority is claimed (You may be eligible to benefit from the Patent Prosecution Highway program at the USPTO. Please see http://www.uspto.gov for more information.) - None.

Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access - A proper Authorization to Permit Access to Application by Participating Offices (PTO/SB/39 or its equivalent) has been received by the USPTO.

If Required, Foreign Filing License Granted: 09/27/2013

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 14/024,944**

Projected Publication Date: 03/20/2014

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

PLANNING AND SCHEDULING TOOL ASSISTANT

Preliminary Class

705

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

SelectUSA

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop technology, manufacture products, deliver services, and grow your business, visit <http://www.SelectUSA.gov> or call +1-202-482-6800.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 4 columns: APPLICATION NUMBER (14/024,944), FILING OR 371(C) DATE (09/12/2013), FIRST NAMED APPLICANT (John W. McElroy), ATTY. DOCKET NO./TITLE (130733.00107)

CONFIRMATION NO. 3683

27557
BLANK ROME LLP
WATERGATE
600 NEW HAMPSHIRE AVENUE, N.W.
WASHINGTON, DC 20037

NOTICE



Date Mailed: 12/06/2013

INFORMATIONAL NOTICE TO APPLICANT

Applicant is notified that the above-identified application contains the deficiencies noted below. No period for reply is set forth in this notice for correction of these deficiencies. However, if a deficiency relates to the inventor's oath or declaration, the applicant must file an oath or declaration in compliance with 37 CFR 1.63, or a substitute statement in compliance with 37 CFR 1.64, executed by or with respect to each actual inventor no later than the expiration of the time period set in the "Notice of Allowability" to avoid abandonment. See 37 CFR 1.53(f).

The item(s) indicated below are also required and should be submitted with any reply to this notice to avoid further processing delays.

A new inventor's oath or declaration that identifies this application (e.g., by Application Number and filing date) is required. The inventor's oath or declaration does not comply with 37 CFR 1.63 in that it:

- does not state that the above-identified application was made or authorized to be made by the person executing the oath or declaration.

John W. McElroy
Sean P. McElroy
Kirk Samsel



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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P.O. Box 1450
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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
14/024,944	09/12/2013	John W. McElroy	130733.00107

**CONFIRMATION NO. 3683
IMPROPER CPOA LETTER**

27557
BLANK ROME LLP
WATERGATE
600 NEW HAMPSHIRE AVENUE, N.W.
WASHINGTON, DC 20037



Date Mailed: 12/06/2013

NOTICE REGARDING POWER OF ATTORNEY

This is in response to the power of attorney filed 12/02/2013. The power of attorney in this application is not accepted for the reason(s) listed below:

- The power of attorney from the inventors has not been accepted because the power of attorney must be signed by the applicant for patent. See 37 CFR 1.32(b)(4).

/ydemisse/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

Docket No.: 130733.00107
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
John W. MCELROY et al.

Application No.: 14/024,944

Confirmation No.: 3683

Filed: September 12, 2013

Art Unit: N/A

For: PLANNING AND SCHEDULING TOOL
ASSISTANT

Examiner: Not Yet Assigned

RESPONSE TO NOTICE TO FILE MISSING PARTS OF APPLICATION

MS Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Madam:

In response to the Notice to File Missing Parts of Application – Filing Date Granted mailed October 2, 2013, Applicant respectfully submits a Combined Declaration and Power of Attorney and Information Disclosure Statement.

Please charge our Deposit Account No. 23-2185 in the amount of \$800.00 covering the fees. The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 23-2185, under Order No. 130733.00107.

Dated: December 2, 2013

Respectfully submitted,



Electronic signature: /david.j.edmondson/
David J. Edmondson

Registration No.: 35,126

BLANK ROME LLP

Correspondence Customer Number: 27557

Attorney for Applicant

Docket No.: 130733.00107
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
John W. MCELROY et al.

Application No.: 14/024,944

Confirmation No.: 3683

Filed: September 12, 2013

Art Unit: N/A

For: PLANNING AND SCHEDULING TOOL
ASSISTANT

Examiner: Not Yet Assigned

RESPONSE TO NOTICE TO FILE MISSING PARTS OF APPLICATION

MS Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Madam:

In response to the Notice to File Missing Parts of Application – Filing Date Granted mailed October 2, 2013, Applicant respectfully submits a Combined Declaration and Power of Attorney and Information Disclosure Statement.

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Dated: December 2, 2013

Respectfully submitted,



Electronic signature: /david.j.edmondson/
David J. Edmondson

Registration No.: 35,126

BLANK ROME LLP

Correspondence Customer Number: 27557

Attorney for Applicant

Attorney Docket: 062750-00104

DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, mailing address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

PLANNING AND SCHEDULING TOOL ASSISTANT

the specification of which

is attached hereto

was filed on May 24, 2004 as United States Application Number or PCT International Application Number 10/851,663 and (if applicable) was amended on _____

I hereby authorize our attorneys to insert the serial number assigned to this application.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR §1.56.

I hereby claim foreign priority benefits under 35 U.S.C. §119(a)-(d) or §365(b) of any foreign application(s) for patent or inventor's certificate, or §365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed.

PRIOR FOREIGN/PCT APPLICATION(S) AND ANY PRIORITY CLAIMS UNDER 35 USC §119			
APPLICATION NO.	COUNTRY	DAY/MONTH/YEAR FILED	PRIORITY CLAIMED

I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below.

PROVISIONAL APPLICATION(S) UNDER 35 U.S.C. §119(e)	
APPLICATION NUMBER	FILING DATE
60/472,414	May 22, 2003
60/483,111	June 30, 2003

I hereby claim the benefit under 35 U.S.C. §120 of any United States application, or §365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. §112.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR §1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application.

PRIOR U.S./PCT INTERNATIONAL APPLICATION(S) DESIGNATED FOR BENEFIT UNDER 35 U.S.C. §120		
APPLICATION NO.	FILING DATE	STATUS — PATENTED, PENDING, ABANDONED

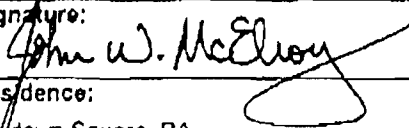
I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith: Victor M. Wigman, Reg. No. 25,201; George C. Myers, Jr., Reg. No. 27,040; Donald R. Greene, Reg. No. 22,470; Michael C. Greenbaum, Reg. No. 28,419; Charles R. Wolfe, Jr., Reg. No. 28,680; Michael D. White, Reg. No. 32,795; Brian C. Jones, Reg. No. 37,857; David J. Edmondson, Reg. No. 35,126; Denise C. Lane, Reg. No. 42,780; Peter Weissman, Reg. No. 40,220; Brian WM. Higgins, Reg. No. 48,443; Minh-Quan K. Pham, Reg. No. 50,594; Thomas L. Willis, Jr., Reg. No. 53,778; Tara L. Hoffman, Reg. No. 46,510; and Mark D. Pratt, Reg. No. 45,794.

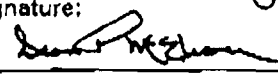
Correspondence Address:

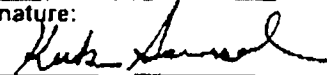
Blank Rome LLP
600 New Hampshire Avenue, N.W.
Washington, DC 20037
TEL (202) 772-5800 FAX (202) 572-8398
Customer No: 27557

Attorney Docket: 062750-00104

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of sole or first inventor (given name, family name): John W. McElroy	
Signature: 	Date: 15 JAN 2005
Residence: Newtown Square, PA	Citizenship: US
Mailing Address: 51 Street Road, Newtown Square, PA 19073	

Full Name of additional joint inventor (given name, family name): Sean P. McElroy	
Signature: 	Date: 08 FEB 2005
Residence: Draper, Utah	Citizenship: US
Mailing Address: Same as residence.	

Full Name of additional joint inventor (given name, family name): Kirk Samsel	
Signature: 	Date: 08 FEB 2005
Residence: Denver, CO.	Citizenship: US
Mailing Address: Same as residence.	

Full Name of additional joint inventor (given name, family name):	
Signature:	Date:
Residence:	Citizenship:
Mailing Address: Same as residence.	

Full Name of additional joint inventor (given name, family name):	
Signature:	Date:
Residence:	Citizenship:
Mailing Address: Same as residence.	

Additional joint inventors are named on separately numbered sheets attached hereto.

BR 06/04

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
John W. MCELROY et al.

Application No.: 14/024,944

Confirmation No.: 3683

Filed: September 12, 2013

Art Unit: N/A

For: PLANNING AND SCHEDULING TOOL
ASSISTANT

Examiner: Not Yet Assigned

INFORMATION DISCLOSURE STATEMENT (IDS)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Madam:

Pursuant to 37 C.F.R. § 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed within three months of the U.S. filing date (37 C.F.R. § 1.97(b)(1)).

In accordance with 37 C.F.R. § 1.98(a)(2)(ii), Applicants have not submitted copies of U.S. patents and U.S. patent applications. Applicants submit herewith copies of foreign patents and non-patent literature in accordance with 37 C.F.R. § 1.98(a)(2).

The following documents cited in the attached form PTO/SB/08:

Doc Number	Ctry	Non-Patent Literature Documents
9905684	WO	
		Chatfield, Carl, and Timothy Johnson. "Step by Step Microsoft Office Project 2003". Microsoft P, 2003.
		A., Silver, Edward. "Inventory management and Production Planning and Scheduling. New York: Wiley, 1998.

are not supplied because they were previously cited by or submitted to the Office in prior application numbers 13/531,859 filed June 25, 2012, 10/851663 filed May 24, 2004 and relied upon in this application for an earlier filing date under 35 U.S.C. § 120.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 23-2185, under Order No. 130733.00107.

Dated: December 2, 2013

Respectfully submitted,



Electronic signature: /david j. edmondson/
 David J. Edmondson
 Registration No.: 35,126
 BLANK ROME LLP
 Correspondence Customer Number: 27557
 Attorney for Applicant

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known		
				Application Number	14/024,944-Conf. #3683	
Sheet		2	of	2	Filing Date	September 12, 2013
					First Named Inventor	John W. MCELROY
					Art Unit	N/A
					Examiner Name	Not Yet Assigned
					Attorney Docket Number	130733.00107

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	P**	Chatfield, Carl, and Timothy Johnson. "Step by Step Microsoft Office Project 2003". Microsoft P, 2003.	
	Q**	A., Silver, Edward. "Inventory management and Production Planning and Scheduling. New York: Wiley, 1998.	

Examiner Signature	Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ** CITE NO.: Those document(s) which are marked with an double asterisk (**) next to the Cite No. are not supplied because they were previously cited by or submitted to the Office in a prior application relied upon in this application for an earlier filing date under 35 U.S.C. 120.

¹Applicant's unique citation designation number (optional) ²Applicant is to place a check mark here if English language Translation is attached.

Electronic Patent Application Fee Transmittal

Application Number:	14024944
Filing Date:	12-Sep-2013
Title of Invention:	PLANNING AND SCHEDULING TOOL ASSISTANT
First Named Inventor/Applicant Name:	John W. McElroy
Filer:	David J. Edmondson/Frances Purnell
Attorney Docket Number:	130733.00107

Filed as Small Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Utility filing Fee (Electronic filing)	4011	1	70	70
Utility Search Fee	2111	1	300	300
Utility Examination Fee	2311	1	360	360

Pages:

Claims:

Miscellaneous-Filing:

Late Filing Fee for Oath or Declaration	2051	1	70	70
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Petition:

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				800

Electronic Acknowledgement Receipt

EFS ID:	17539804
Application Number:	14024944
International Application Number:	
Confirmation Number:	3683
Title of Invention:	PLANNING AND SCHEDULING TOOL ASSISTANT
First Named Inventor/Applicant Name:	John W. McElroy
Customer Number:	27557
Filer:	David J. Edmondson/Frances Purnell
Filer Authorized By:	David J. Edmondson
Attorney Docket Number:	130733.00107
Receipt Date:	02-DEC-2013
Filing Date:	12-SEP-2013
Time Stamp:	15:29:23
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$800
RAM confirmation Number	2280
Deposit Account	232185
Authorized User	EDMONDSON, DAVID J.

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		13073300107response_1.PDF	483415 0c015647dd78cb473d15946069b8754b828a569	yes	4
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Miscellaneous Incoming Letter		1	1	
	Applicant Response to Pre-Exam Formalities Notice		2	2	
	Oath or Declaration filed		3	4	
Warnings:					
Information:					
2		13073300107ids_2.PDF	342488 4615181e1a478ca629751b270180b5349d664340	yes	4
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Transmittal Letter		1	2	
	Information Disclosure Statement (IDS) Form (SB08)		3	4	
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	36853 0304a6ab22c1cbd7de9a7318ae69147292af6bec	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			862756		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.


New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<h1>TRANSMITTAL FORM</h1> <p><i>(to be used for all correspondence after initial filing)</i></p>	Application Number	14/024,944-Conf. #3683
	Filing Date	September 12, 2013
	First Named Inventor	John W. MCELROY
	Art Unit	N/A
	Examiner Name	Not Yet Assigned
Total Number of Pages in This Submission	Attorney Docket Number	130733.00107

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input checked="" type="checkbox"/> Reply to Missing Parts/ Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please Identify below): Declaration USPTO Form SB08
Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	BLANK ROME LLP		
Signature	/david j. edmondson/ 		
Printed name	David J. Edmondson		
Date	December 2, 2013	Reg. No.	35,126

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number
14/024,944

APPLICATION AS FILED - PART I

(Column 1) (Column 2)

FOR	NUMBER FILED	NUMBER EXTRA
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A
TOTAL CLAIMS (37 CFR 1.16(j))	4	minus 20 = *
INDEPENDENT CLAIMS (37 CFR 1.16(h))	2	minus 3 = *
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).	
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))		

* If the difference in column 1 is less than zero, enter "0" in column 2.

SMALL ENTITY

RATE(\$)	FEE(\$)
N/A	70
N/A	300
N/A	360
x 40 =	0.00
x 210 =	0.00
	0.00
	0.00
TOTAL	730

OR OTHER THAN SMALL ENTITY

RATE(\$)	FEE(\$)
N/A	
N/A	
N/A	
TOTAL	

APPLICATION AS AMENDED - PART II

(Column 1) (Column 2) (Column 3)

AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total (37 CFR 1.16(i))	*	Minus **	=
	Independent (37 CFR 1.16(h))	*	Minus ***	=
	Application Size Fee (37 CFR 1.16(s))			
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))				

SMALL ENTITY

RATE(\$)	ADDITIONAL FEE(\$)
x =	
x =	
TOTAL ADD'L FEE	

OR OTHER THAN SMALL ENTITY

RATE(\$)	ADDITIONAL FEE(\$)
x =	
x =	
TOTAL ADD'L FEE	

(Column 1) (Column 2) (Column 3)

AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total (37 CFR 1.16(i))	*	Minus **	=
	Independent (37 CFR 1.16(h))	*	Minus ***	=
	Application Size Fee (37 CFR 1.16(s))			
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))				

SMALL ENTITY

RATE(\$)	ADDITIONAL FEE(\$)
x =	
x =	
TOTAL ADD'L FEE	

OR OTHER THAN SMALL ENTITY

RATE(\$)	ADDITIONAL FEE(\$)
x =	
x =	
TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
 ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
 *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
 The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 4 columns: APPLICATION NUMBER (14/024,944), FILING OR 371(C) DATE (09/12/2013), FIRST NAMED APPLICANT (John W. McElroy), ATTY. DOCKET NO./TITLE (130733.00107)

CONFIRMATION NO. 3683

FORMALITIES LETTER



27557
BLANK ROME LLP
WATERGATE
600 NEW HAMPSHIRE AVENUE, N.W.
WASHINGTON, DC 20037

Date Mailed: 10/02/2013

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

Items Required To Avoid Abandonment:

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given TWO MONTHS from the date of this Notice within which to file all required items below to avoid abandonment.

- The statutory basic filing fee is missing. Applicant must submit \$70 to complete the basic filing fee for a small entity.

The applicant needs to satisfy supplemental fees problems indicated below.

The required item(s) identified below must be timely submitted to avoid abandonment:

- A surcharge (for late submission of the basic filing fee, search fee, examination fee or inventor's oath or declaration) as set forth in 37 CFR 1.16(f) of \$ 70 for a small entity in compliance with 37 CFR 1.27, must be submitted.

SUMMARY OF FEES DUE:

Total fee(s) required within TWO MONTHS from the date of this Notice is \$ 800 for a small entity

- \$ 70 Statutory basic filing fee.
\$ 70 Surcharge.
The application search fee has not been paid. Applicant must submit \$ 300 to complete the search fee.
The application examination fee has not been paid. Applicant must submit \$ 360 to complete the examination fee for a small entity in compliance with 37 CFR 1.27.

Items Required To Avoid Processing Delays:

Applicant is notified that the above-identified application contains the deficiencies noted below. No period for reply is set forth in this notice for correction of these deficiencies. However, if a deficiency relates to the inventor's oath or declaration, the applicant must file an oath or declaration in compliance with 37 CFR 1.63, or a substitute statement in compliance with 37 CFR 1.64, executed by or with respect to each actual inventor no later than the expiration of the time period set in the "Notice of Allowability" to avoid abandonment.

- A properly executed inventor's oath or declaration has not been received for the following inventor(s):

John W. McElroy
Sean P. McElroy
Kirk Samsel

Applicant may submit the inventor's oath or declaration at any time before the Notice of Allowance and Fee(s) Due, PTOL-85, is mailed.

Replies must be received in the USPTO within the set time period or must include a proper Certificate of Mailing or Transmission under 37 CFR 1.8 with a mailing or transmission date within the set time period. For more information and a suggested format, see Form PTO/SB/92 and MPEP 512.

Replies should be mailed to:

Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web.
<https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html>

For more information about EFS-Web please call the USPTO Electronic Business Center at **1-866-217-9197** or visit our website at <http://www.uspto.gov/ebc>.

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

/tle/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 7 columns: APPLICATION NUMBER, FILING or 371(c) DATE, GRP ART UNIT, FIL FEE REC'D, ATTY. DOCKET NO, TOT CLAIMS, IND CLAIMS. Row 1: 14/024,944, 09/12/2013, 3623, 0.00, 130733.00107, 4, 2

CONFIRMATION NO. 3683

FILING RECEIPT



27557
BLANK ROME LLP
WATERGATE
600 NEW HAMPSHIRE AVENUE, N.W.
WASHINGTON, DC 20037

Date Mailed: 10/02/2013

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections

Inventor(s)

John W. McElroy, Newtown Square, PA;
Sean P. McElroy, Newtown Square, PA;
Kirk Samsel, Newtown Square, PA;

Applicant(s)

P&RO Solutions, Inc., Newtown Square, PA

Assignment For Published Patent Application

P&RO Solutions, Inc., Newtown Square, PA

Power of Attorney: None

Domestic Priority data as claimed by applicant

This application is a CIP of 13/531,859 06/25/2012
which is a CON of 10/851,663 05/24/2004 PAT 8209205
which claims benefit of 60/472,414 05/22/2003
and claims benefit of 60/483,111 06/30/2003

Foreign Applications for which priority is claimed (You may be eligible to benefit from the Patent Prosecution Highway program at the USPTO. Please see http://www.uspto.gov for more information.) - None.

Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access - A proper Authorization to Permit Access to Application by Participating Offices (PTO/SB/39 or its equivalent) has been received by the USPTO.

If Required, Foreign Filing License Granted: 09/27/2013

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 14/024,944**

Projected Publication Date: To Be Determined - pending completion of Missing Parts

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

PLANNING AND SCHEDULING TOOL ASSISTANT

Preliminary Class

705

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

SelectUSA

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop technology, manufacture products, deliver services, and grow your business, visit <http://www.SelectUSA.gov> or call +1-202-482-6800.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

UTILITY PATENT APPLICATION TRANSMITTAL	<i>Attorney Docket No.</i> 130733.00107
	<i>First Named Inventor</i> John W. MCELROY
(ONLY FOR NEW NONPROVISIONAL APPLICATIONS UNDER 37 CFR 1.53(B))	<i>Title</i> PLANNING AND SCHEDULING TOOL ASSISTANT
	<i>Express Mail Label No.</i>

APPLICATION ELEMENTS <i>See MPEP chapter 600 concerning utility patent application contents.</i>	Commissioner of Patents ADDRESS TO: P.O. Box 1450 Alexandria, VA 22313-1450
--	---

1. **Fee Transmittal Form**
(PTO/SB/17 or equivalent)
2. **Applicant asserts small entity status.**
See 37 CFR 1.27
3. **Applicant certifies micro entity status.** *See 37 CFR 1.29.*
Applicant must attach form PTO/SB/15A or B or equivalent.
4. **Specification** [Total Pages 32]
*Both the claims and abstract must start on a new page.
(See MPEP § 608.01(a) for information on the preferred arrangement)*
5. **Drawing(s)** (35 U.S.C. 113) [Total Sheets 7]
6. **Inventor's Oath or Declaration** [Total Pages]
(Including substitute statements under 37 CFR 1.64 and assignments serving as an oath or declaration under 37 CFR 1.63(e))
 - a. Newly executed (original or copy)
 - b. A copy from a prior application (37 CFR 1.63(d))
7. **Application Data Sheet** **See note below.*
See 37 CFR 1.76 (PTO/AIA/14 or equivalent)
8. **CD-ROM or CD-R**
In duplicate, large table, or Computer Program (Appendix)
 - Landscape Table on CD
9. **Nucleotide and/or Amino Acid Sequence Submission**
(if applicable, items a. – c. are required)
 - a. Computer Readable Form (CRF)
 - b. Specification Sequence Listing on:
 - i. CD-ROM or CD-R (2 copies); or
 - ii. Paper
 - c. Statements verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

10. **Assignment Papers**
(cover sheet & document(s))

Name of Assignee
11. **37 CFR 3.73(c) Statement** **Power of Attorney**
(when there is an assignee)
12. **English Translation Document** *(if applicable)*
13. **Information Disclosure Statement**
(PTO/SB/08 or PTO-1449)
 Copies of citations attached
14. **Preliminary Amendment**
15. **Return Receipt Postcard**
(MPEP § 503) (Should be specifically itemized)
16. **Certified Copy of Priority Document(s)**
(if foreign priority is claimed)
17. **Nonpublication Request**
Under 35 U.S.C.122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or equivalent.
18. **Other:**

***Note:** (1) Benefit claims under 37 CFR 1.78 and foreign priority claims under 1.55 **must** be included in an Application Data Sheet (ADS).
 (2) For applications filed under 35 U.S.C. 111, the application must contain an ADS specifying the applicant if the applicant is an assignee, person to whom the inventor is under an obligation to assign, or person who otherwise shows sufficient proprietary interest in the matter. See 37 CFR 1.46(b).

18. CORRESPONDENCE ADDRESS

The address associated with Customer Number: 27557 **OR** Correspondence address below

Name	
Address	
City	State
Country	Zip Code
Telephone	Email

Signature	/david j. edmondson/	Date	September 12, 2013
Name (Print/Type)	David J. Edmondson	Registration No. (Attorney/Agent)	35,126

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	130733.00107
		Application Number	
Title of Invention	PLANNING AND SCHEDULING TOOL ASSISTANT		
<p>The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76. This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.</p>			

Secrecy Order 37 CFR 5.2

<input type="checkbox"/>	Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)
--------------------------	---

Inventor Information:

Inventor 1					<input type="button" value="Remove"/>
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
Mr.	John	W.	MCELROY		
Residence Information (Select One) <input checked="" type="radio"/> US Residency <input type="radio"/> Non US Residency <input type="radio"/> Active US Military Service					
City		State/Province		Country of Residence	
Mailing Address of Inventor:					
Address 1		51 Street Road			
Address 2					
City	Newtown Square	State/Province	PA		
Postal Code	19073	Country i	US		
Inventor 2					<input type="button" value="Remove"/>
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
Mr.	Sean	P.	MCELROY		
Residence Information (Select One) <input checked="" type="radio"/> US Residency <input type="radio"/> Non US Residency <input type="radio"/> Active US Military Service					
City		State/Province		Country of Residence	
Mailing Address of Inventor:					
Address 1		51 Street Road			
Address 2					
City	Newtown Square	State/Province	PA		
Postal Code	19073	Country i	US		
Inventor 3					<input type="button" value="Remove"/>
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
Mr.	Kirk		SAMSEL		
Residence Information (Select One) <input checked="" type="radio"/> US Residency <input type="radio"/> Non US Residency <input type="radio"/> Active US Military Service					

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	130733.00107
	Application Number	
Title of Invention	PLANNING AND SCHEDULING TOOL ASSISTANT	

City	Newtown Square	State/Province	PA	Country of Residence	US
------	----------------	----------------	----	----------------------	----

Mailing Address of Inventor:

Address 1	51 Street Road				
Address 2					
City	Newtown Square	State/Province	PA		
Postal Code	19073	Country	US		

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button.

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below. For further information see 37 CFR 1.33(a).

An Address is being provided for the correspondence information of this application.

Customer Number	27557			
Email Address		<input type="button" value="Add Email"/>	<input type="button" value="Remove Email"/>	

Application Information:

Title of the Invention	PLANNING AND SCHEDULING TOOL ASSISTANT			
Attorney Docket Number	130733.00107	Small Entity Status Claimed <input checked="" type="checkbox"/>		
Application Type	Nonprovisional			
Subject Matter	Utility			
Total Number of Drawing Sheets (if any)		Suggested Figure for Publication (if any)		

Publication Information:

Request Early Publication (Fee required at time of Request 37 CFR 1.219)

Request Not to Publish. I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32). Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer number will be used for the Representative Information during processing.

Please Select One:	<input checked="" type="radio"/> Customer Number	<input type="radio"/> US Patent Practitioner	<input type="radio"/> Limited Recognition (37 CFR 11.9)
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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	130733.00107
		Application Number	
Title of Invention	PLANNING AND SCHEDULING TOOL ASSISTANT		
Customer Number	27557		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c) or indicate National Stage entry from a PCT application. Providing this information in the application data sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.

Prior Application Status	Pending		<input type="button" value="Remove"/>		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)		
	Continuation in part of	13531859	2012-06-25		
Prior Application Status	Patented		<input type="button" value="Remove"/>		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
13531859	Continuation of	10851663	2004-05-24	8209205	2012-06-26
Prior Application Status	Patented		<input type="button" value="Remove"/>		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
10851663	non provisional of	60472414	2003-05-22		
Prior Application Status	Expired		<input type="button" value="Remove"/>		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)		
10851663	non provisional of	60483111	2003-06-30		

Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the **Add** button.

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55(d). When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)¹ the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(h)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

<input type="button" value="Remove"/>			
Application Number	Country ¹	Filing Date (YYYY-MM-DD)	Access Code ¹ (if applicable)

Additional Foreign Priority Data may be generated within this form by selecting the **Add** button.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	130733.00107
	Application Number	
Title of Invention	PLANNING AND SCHEDULING TOOL ASSISTANT	

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.

NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

Authorization to Permit Access:

Authorization to Permit Access to the Instant Application by the Participating Offices

If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the instant patent application is filed access to the instant patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the instant patent application is filed to have access to the instant patent application.

In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the instant patent application with respect to: 1) the instant patent application-as-filed; 2) any foreign application to which the instant patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the instant patent application; and 3) any U.S. application-as-filed from which benefit is sought in the instant patent application.

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Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Applicant 1

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

<input checked="" type="radio"/> Assignee	<input type="radio"/> Legal Representative under 35 U.S.C. 117	<input type="radio"/> Joint Inventor
<input type="radio"/> Person to whom the inventor is obligated to assign.	<input type="radio"/> Person who shows sufficient proprietary interest	

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	130733.00107
		Application Number	
Title of Invention	PLANNING AND SCHEDULING TOOL ASSISTANT		

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor :

If the Applicant is an Organization check here.

Organization Name | P&RO Solutions, Inc.

Mailing Address Information For Applicant:

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Email Address			

Additional Applicant Data may be generated within this form by selecting the Add button.

Non-Applicant Assignee Information:

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Assignee 1

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	130733.00107
		Application Number	
Title of Invention	PLANNING AND SCHEDULING TOOL ASSISTANT		

Mailing Address Information For Non-Applicant Assignee:			
Address 1			
Address 2			
City		State/Province	
Country ⁱ		Postal Code	
Phone Number		Fax Number	
Email Address			
Additional Assignee Data may be generated within this form by selecting the Add button.			

Signature:

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Signature	/david j. edmondson/ 			Date (YYYY-MM-DD)	2013-09-12
First Name	David	Last Name	Edmondson	Registration Number	35126
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PLANNING AND SCHEDULING TOOL ASSISTANT

Reference to Related Applications

The present application is a continuation-in-part of U.S. Patent Application No. 13,531,859, currently pending, which is a continuation of U.S. Patent Application No. 5 10/851,663, filed May 24, 2004, now U.S. Patent No. 8,209,205, which claims the benefit of U.S. Provisional Application Nos. 60/472,414, filed May 22, 2003, and 60/483,111, filed June 30, 2003. The disclosures of the above applications are hereby incorporated by reference in their entireties into the present disclosure.

Field of the Invention

10 The present invention is directed to a computerized planning and scheduling system and more particularly to such a system for increasing efficiency in industrial environments.

Description of Related Art

Industrial Assets, such as plant equipment or major equipment, require maintenance from time to time to repair broken components, perform preventive tasks to minimize failures, and to 15 replace worn out equipment. The discrete nature of this work – repair this pump, lubricate that motor – is controlled at most, if not all, industrial sites with some work management system or CMMS (Computerized Maintenance Management System). The discrete piece of work is identified in the CMMS as a Work Order (WO) (eg: Work Order to repair pump.) At most industrial sites the number of work orders generated per week can be large. These work orders 20 must be laid out in a schedule for the limited maintenance resources in an efficient manner so that the WO can be planned and may be completed with little wasted effort.

Most CMMS systems will allow Work Orders to be assigned schedule dates for intended completion. In order to do this, various navigation schemes must be executed through the

software and manual typing must be done. This method of attempted scheduling and planning is tedious and cumbersome for those folks in the industrial facility charged with scheduling and accomplishing the work.

In these days of highly limited resources (manpower), there should be little tolerance of wasted and inefficient tasking. The scheduling and planning tools must be extremely easy to use and require little time to manipulate assignments and make changes to the schedule and planned status of all the work orders and all the maintenance resources.

The following references are related to the general field of the present invention. Their pertinence will be discussed below.

<u>PATENT OR PUBLICATION NO. (U.S. unless otherwise specified)</u>	<u>INVENTOR(S)</u>
6,421,571B1	Spriggs, et al.
6,006,171	Vines, et al.
5,970,437	Gorman, et al.
5,835,898	Borg, et al.
5,787,000	Lilly, et al.
2003/0041087A1	Pothos, et al.
2002/0161674A1	Scheer
2002/0143601A1	Sinex
2002/0111842A1	Miles
2002/0049563A1	Vetter, et al.
2002/0010615A1	Jacobs
2002/0007297A1	Clarke
WO 99/05684	Vines, et al.

10

Summary of the Invention

It is an object of the invention to overcome the above-noted deficiencies of the prior art.

It is a further object of the invention to provide the following advantages:

- A. for the process of Work Week Management where the schedule of work is managed to
5 the week.
- B. Real Time, on screen, performance indicators or metrics for the success of the Work
Week
- C. Drag and Drop Work Orders into a designated Work Week
- D. Color coding Work Order status within the Work Week
- 10 E. Throttle control of Sponsored work
- F. Work Week Assignment Form and Work Week Management Form – key screens

To achieve the above and other objects, the present invention is directed to a planning
and scheduling tool assistant (PaSTA) designed for the Schedulers, Planners, and Maintenance
Supervisors in an Industrial facility to extremely quickly move work order schedules, status
15 planning, and manage resources for optimum utilization.

Additionally, key performance indicators or metrics on performance on how well the
organization is doing is also cumbersome if not impossible in the current practice in these
industrial organizations. PaSTA is designed to provide those key performance indicators simply
and automatically.

20 PaSTA is also designed to throttle the very inefficient and ineffective “sponsored” work
that enters the work schedule at the last minute and enters with no planning of the work
completed.

The variables of this management include worker, crew, Work Order, Dates, Planning Status, planner, dates, etc.

PaSTA operates by interfacing with the CMMS database in a thoroughly interactive process. PaSTA constructs a parallel database and reads and feedbacks to the CMMS database frequently to stay current and accurate. For most users of PaSTA, they will not perceive that they are using anything else but the CMMS database. Typically, although not necessarily, the user will run PaSTA on a networked computer, likely one running Windows, and will use PaSTA as a front end to a CMMS database on a remote server.

The present invention offers the following features:

1. Drag and drop movement of work orders from work-week to work-week, from unscheduled to scheduled, to short notice outage plan, to planned outage plan, to backlog. Because the screen has side by side unscheduled and multiple weeks presented, it is very easy to drag and drop work into any given week or to the holding buckets of short notice outage plan, planned outage plan, and backlog. When work orders are dropped into a given work-week, real time indication of resource loading are visible so that the scheduler will know they have not overloaded the work group with too much work.

2. Color coding based on status of planning the work order. That is, the determination of whether the work order is ready to work and is fully planned. For instance, a green background will indicate that the work order is complete and ready to work (e.g., parts are available, operations clearance requirements are set, interactions with other groups has been identified and planned, etc.). A yellow background indicates that a planner assigned and planning underway. Pink indicates no planner is assigned, and planning is not started. Red indicates emergency work and blue indicates sponsored work.

3. Throttle control of sponsored work, which is the highly disruptive work created and entered into a completely planned week of work (i.e., actually sponsored into getting done by somebody at the site requesting it get done now). This is very inefficient work for resources to be dedicated to and must be minimized. The assistant tracks and throttles those events by immediately flagging them, holding the organization accountable to it, and generates a real time key performance indicator.

4. Real Time Automated Metrics are provided. These key performance indicators are immediately available to users to track critical performance criteria in execution of work. These metrics are completely automated on the same screens as the work schedule is presented. Full automation and filtering of the data allows management to see group, department, and organization wide performance on any combination of over 20 different performance indicators over any time period with the click of the mouse.

5. Two basic screen formats are critically designed. One screen (Work Week Assignment Tool) is for the scheduling and planning activities by the schedulers and planners. The second screen (Work Week Management Form) is for the maintenance supervisor to execute the work week.

The advantages that the present invention offers over the above-cited prior art will now be considered.

Borg, et al:

Borg discloses manufacturing scheduling where drag and drop feature applies to work area and open time line – spatial and then determines bottlenecks in manufacturing process. Key here is the real time indication of that bottleneck – not particularly measuring the performance of

a schedule. The manufacturing process is not start and stop process but a continuous process and the concepts of work week management are not applicable

In the present invention, drag and drop allows Work Orders to be assigned into a scheduled work week where the intent is to measure the performance of the work team executing the work week. Work Week Management infers that there is a start and stop to the collective work being performed. A thru F still are distinguished – although C becomes constrained to work week management.

Vines, et al:

Vines discloses a maintenance management that couples a Work Order Generation system with a Process Control System. The intent here is to automatically generate a Work Order based on the condition of the components being monitored by the Process Control System. There is no scheduling function other than in the creation of the work order a desired due date is required based on predetermined intervals. Management of the labor force is not part of the disclosure

In the present invention, all elements of A thru F are unique as PaSTA begins at the point in the process that the Work Order has already been created, where Vines, et al stop – the creation of the Work Order.

Spriggs, et al:

Spriggs discloses an online monitoring system intended to monitor the process condition of components. It is not a work management system

In the present invention, elements A thru F are unique in that we disclose a work management system.

Gorman, et al:

Gorman discloses a system designed to show the relation of components in an operating environment. The intent is to recognize the interrelationship of these components as maintenance work is being performed. This knowledge is used to properly isolate the equipment so that it can be worked on safely and the interrelationship understood.

5 In the present invention, all elements A thru F are unique in that we disclose a work management system.

Lilly, et al:

Lilly discloses a Work Order Management system that provides for each work order to be planned. That is all necessary resources to accomplish the work are prescribed and documented
10 in the disclosed system. A desired start date and desired finish date are entered also.

In the present invention, all elements A thru F are unique in that we are scheduling the work against a work week and against the available labor resource and measuring key performance parameters to drive the schedule. The closest piece here is in our D where we are statusing the planning of the work orders with color coding which Lilly does not do.

15 ***Pothos, et al:***

Pothos discloses a system to intended to manage maintenance resources spatially – across a wide territory and to optimize the work in sequence against location of work. A Gaant chart is the result for each labor resource showing the optimized sequence of work for that single resource.

20 In the present invnetion, all elements A thru F are unique in that we are getting work orders optimized in a work week management timing sequence. Work Orders are dragged and dropped into a work week and then schedule performance is measured. Sponsored work is throttled.

Scheer, et al.

Scheer discloses a system for supply chain management with the intent of optimizing a just in time inventory system for repair parts.

5 In the present invention, all elements A thru F are unique in that we disclose a work management system.

Sinex, et al

Sinex discloses a system that assigns work to a qualified work person. This assures that quality work will be performed and that an auditable documentation is available to prove workers are qualified to perform the repairs assigned.

10 In the present invention, all elements A thru F are unique in that we disclose a work management system that assigns work orders into a work week for a group of resources and then measures the effectiveness of the group's work week schedule thus creating work week management.

Miles, et al:

15 Miles discloses a system of work order management intended to create access for customers and vendors so that control of work at the user site, customer site, and vendor site is all coordinated. This system meets the need for integrated resource management with a work order.

20 In the present invention, all elements A thru F are unique in that we disclose a work management system that assigns work orders into a work group of resources and then measures the effectiveness of the group's work week schedule thus creating work week management.

Jacobs, et al:

Jacobs discloses a system intended to control the work of a mobile workforce and optimize the work assuring qualified workers are assigned and optimizing the sequence work based on location. This patent appears to have overlap with Pothos and Sinex.

In the present invention, all elements A thru F are unique in that we disclose a work management system that assigns work orders into a work group of resources and then measures the effectiveness of the group's work week schedule thus creating work week management.

Clarke, et al:

Clarke discloses a system intended to manage work orders against available resources. The system requires manual entry to manage that balance between work and resource. The system performs identical functions of many commercially available work management systems.

In the present invention, all elements A thru F are unique in that we disclose a work management system whose goal is similar to Clarke but performs uniquely. The functions that are unique are those delineated in A thru F.

Vetter, et al:

Vetter discloses a system for work management intended to optimize operating equipment while other equipment can be maintained. The approach is to isolate the equipment to be worked on while minimizing the impact on the entire operating system which the equipment being worked on is part.

In the present invention, all elements A thru F are unique in that we disclose a work management system that assigns work orders into a work group of resources and then measures the effectiveness of the group's work week schedule thus creating work week management.

Brief Description of the Drawings

A preferred embodiment of the present invention will be set forth in detail with reference to the drawings, in which:

Fig. 1 is an annotated screen shot showing a work week assignment tool according to the
5 preferred embodiment;

Fig. 2 is an annotated screen shot showing the work week assignment tool with work orders coded;

Fig. 3 is a screen shot of a work week management form;

Fig. 4 is a screen shot of the work week management form with a display of a graph;

10 Fig. 5 is a screen shot of a projects screen showing linkage between work elements;

Fig. 6 is a screen shot of a work order creation automation screen; and

Fig. 7 is a screen shot of a screen for creating the automation.

Detailed Description of the Preferred Embodiment

A preferred embodiment of the present invention will be set forth in detail with reference to the drawings, in which like reference numerals refer to like elements or steps throughout.

Five key aspects of the preferred embodiment will be described with reference to Figs. 1-4. The combination of the five key aspects is considered to be a sixth key aspect. Additional aspects will be described with reference to Figs. 5-7.

The first key aspect is the ability to assign work orders to a work week (or other suitable unit of time) by drag-and-drop. Fig. 1 shows an annotated screen shot of a work week assignment tool 100. On the right is a list 102 of unscheduled jobs. On the left is a list 104 of scheduled jobs, grouped by work week. Using the work week assignment tool, a user can easily click on an unscheduled job with a mouse and drag it to a desired work week.

The second key aspect of coding (e.g., color coding) of the status of planning of each work order. Fig. 2 shows a screen shot of the work week assignment tool 100 with the work orders color coded. The color codes can be assigned in any suitable manner, of which the following is an illustrative example: pink = no planner is assigned and planning not started; yellow = planner assigned, planning underway; and green = planning complete, work order ready to work.

The third key aspect is throttle control of sponsored work. Fig. 3 shows a screen shot of a work week management form 300, which includes a planned work pane 301, an indirected work pane 302, and an emergent work pane 304. In the emergent work pane 304, a work order 306 is color coded (e.g., dark blue) to identify it as sponsored work – anyone creating sponsored work must sign their name to that sponsoring.

The fourth key aspect is real-time automated metrics. The work week management form 300 of Fig. 3 includes an area 308 listing key performance indicators or metrics and a real-time value of each. As shown in Fig. 4, clicking on any of the metrics results in the display of a graph 402 of the metric to the user.

5 The fifth key aspect is the provision of two basic screen formats critically designed - one for the scheduling and planning activities by the "schedulers and planners" (Work Week Assignment Tool 100) - and second for the maintenance supervisor to execute the work week (Work Week Management Form 300).

Details of the operation of PaSTA will now be disclosed.

10 PaSTA creates the discipline driving the best practice process of work-week management. In addition the organization's planning and scheduling efforts will reap great benefits around: rhythm, budgets, morale, cost etc.

As shown in Fig. 1, the work week assignment tool includes the following functionality:

Crew: Allows user to select a desired crew

15 Week of: Allows user to select the desired week with the arrow or a drop down calendar. The weeks are designated T0, T1,

Planned Unavailable Time This area is used for hours that are not tracked on work orders (WO), i.e. vacation, holiday, sick leave, off days, operations, etc.

20 Unplanned Unavailable Time This area is used for hours that occurred during T0 that were not scheduled, i.e. training, meetings, emergency vacation, etc.

The PaSTA program is started in the normal way for the operating system. For example, in Windows, the user can double-click a screen shortcut or use the "Start" button. Enter user name (This is set by PaSTA system administrator. This can be anything, suggest using your

system log on name.). Enter Password (This can be anything, it will never change. If this is a first time login into PaSTA you will be asked to confirm your password.)

The next screen to appear is the Front Page: (single click on the parse to go to the desired screen. To exit the program click on 'x' in the upper right corner or File - exit.)

5 Work Week Management Assignment:

Schedule, unscheduled work

Reschedule, scheduled work

Unschedule work

Search for work orders

10 Schedule for different crews

Sort and edit work orders

Review schedule, unscheduled work by unit and system

Work Week Management:

View a crew's work week

15 View a work week by system and unit

Reschedule work

Unschedule work

Search for work orders

Shift work to a different crew

20 Sort and edit work orders

Set daily schedule

Set indirect work

Manage emergent work and unplanned, unavailable time

Export a Schedule:

Export to Primavera

Management Reports:

Reports, charts and trends are accessed

5 Administration:

Only administrators have access to this area. This area allows the administrator to:

1. Set up users
2. Edit interfaces

Update: allows level 3 users to update PaSTA

10 Update Labor Hours: allows level 3 users to update all the actual hour. Three possible scenarios:

1. WOs (work orders) scheduled in T(0) are populated with hours
2. WOs not scheduled in T(0) or unscheduled are copied into T0 as sponsored work, sponsored by and labor update. The WO(s) will remain in their original schedule or unscheduled

15 location.

3. WOs not in PaSTA will be placed on an exceptions list.

View Exceptions List: Displays all WOs not in PaSTA that had hours charged to them during T0

1. How to schedule work into T(?) weeks

20 Log onto PaSTA and click on the Work Week Assignment Tool:

1.1 Update

Look in the 'Last Updated' window. If PaSTA has not been recently updated click on the 'Update' button. You will be asked if you want to import new records, YES. This process may

take several minutes, depending on the number of records to be imported. The counter on the lower left of the screen will tell you how many records have been imported and the total to be imported.

1.2 Choosing a crew / unit / system to modify

5 First choose the crew, unit or system from the drop down list, located on the top left side of the screen

Then filter by: All, current crew or date initiated, located top right side, left drop down

Then, if desired, sub filter by: All, Planner Assigned and Ready, Planner Assigned and Not Ready, No Planner Assigned or Status = C (complete)

10 1.3 Scheduling work into T(?) weeks

Choose a work order by left clicking on it and dragging it to the desired week.

Note: Holding down the shift key while dragging a work order is the same as using the 'copy to' function

Or

15 Left click on the work order, then right click and choose from the menu to either 'move to' or 'copy to'

'move to' will move the work order from one 'grid' to another

'copy to' will leave the work order in the originating 'grid' and also place it into T week desired

20 1.4 View scheduled work on the Work Week Management Form

Left click on the 'work week management form'

1.5 Work Week Management Form

1.5.1 Indirect work Area

First, fill in the 'Indirect Work' and 'Planned Unavailable Time'. This will set the total net hours available to schedule.

Type in the total hours that will not be available during the week, by day

Schedule indirect work orders (IM) by placing the daily IM hours into the corresponding
5 days of the week

Note: The '#' sign before each day of the week is the total number of resources to be used that day for that particular work order. The hours placed under the days of the week are total duration hours for the day.

1.5.2 Planned Area

10 Fill in the scheduled hour for each work order (total duration hours per day)

Review all work orders to ensure that they are complete and properly coded

Ensure that Planned Hours (P Hrs) are correct

The foremen provide the days of the week and work hours to the coordinator in order to build the schedule.

15 Note: The '#' sign before each day of the week is the total number of resources to be used that day for that particular work order. The hours placed under the days of the week are total duration hours for the day.

1.5.3 Metrics

This area displays leading metrics.

20 1. Ensure that the number of 'Gross Available Manpower Hrs' is correct (the number of resources in a crew times the number of hours in a week, e.g. 10 resources x 40 hours = 400 gross available hours)

2. Once a week, input the 'Back Log Man Hrs' and '# Of Back Log Work Orders'.

This should be done at the same time each week, Friday morning before the Friday work control meeting.

2. How to update T0 week

5 2.1 Emergent Work (emergency – sponsored) Work Week Assignment Tool

To place emergent work into week T0 start on the 'Work Week Assignment Form'. Drag the desired work order from the unscheduled side (right side) or from a (T?) week into the T0-week. When this happens a message box will appear asking you to set the work order to either emergency work (E) or sponsored work (S) and enter the name of the person requesting the
10 work.

Emergency (E) work is coded red and sponsored (S) work is coded blue

2.2 Emergent Work (emergency – sponsored) Work Week Management Form

2.2.1 Emergency and Sponsored work

After emergent work has been added to T0 it will be placed into the 'Emergent Work'
15 section of the Work Week Management Form.

2.2.2 Unplanned Unavailable Time

It is necessary to identify all hours, during T0, that were unplanned and place them in the 'Unplanned Unavailable Time' section.

The total amount of overtime accrued during the week will to be entered into the
20 'Overtime' section during the labor update.

Note: It is important that progress, 'Prog', is captured for each WO. The '#' sign before each day of the week is the total number of resources to be used that day for that particular work order. The hours placed under the days of the week are total duration hours for that day.

2.3 Planned work area updating:

Actual hours (A Hrs) include straight time and over time will be updated via the labor update.

8 hrs of straight time and 2 hrs of over time = 10 actual hours worked

5 Note: Ensure that all actual hours (A Hrs) are accurate and complete

Ensure that the progress (Prog) for each work order is accurate.

C (complete) = all work planned for the week is complete. This does not have to mean that the job is complete or that the work order is closed in the CMMS

R (rolled) = a job that was not worked or completed and had to be rolled to another week.

10 A 'C' will be placed in the Prog if the WO was closed during T0

Note: Once you have set the schedule for the work week do not readjust the scheduled hours (you can move the hours to a different day but, this in is not recommended). The foremen are responsible for the T0 schedule. The foremen are responsible for all work on the schedule and updating the coordinators with actual hours and whether work is complete or rolled to
15 another week.

3. Metrics and Trend charts

3.1 Metrics Definitions:

Gross Available Manpower Hrs =

of craft in the crew (excluding the foreman) x 8 hrs per day x 5 days per week

20 Total Unavailable Manpower Hrs =

"IM" (Indirect Maintenance) + the planned unavailable time

Net Available Manpower Hrs =

Gross available manpower hrs – total available manpower hrs

Backlog Man Hours =

Current open backlog work order man hrs (excluding annual and maintenance shutdown hours)

Of Backlog Work Orders =

5 Current open backlog work order count for the crew (excluding annual and maintenance outage work orders)

Resource Utilization =

[Actual hrs charged (includes OT) + emergent hrs] / [Gross available man hrs + unplanned overtime]

10 Backlog Weeks =

Backlog man hrs / Gross available manpower hrs

Sponsored WO =

Total number of sponsored (S) work orders

PM Compliance (%) =

15 # of completed PM work orders (Prog = C) / # of scheduled PM's work orders

SA Compliance =

of completed SA work orders (Prog = C) / # of scheduled SA work orders

EN Compliance =

of completed EN work orders (Prog = C) / # of scheduled EN work orders

20 Actual Hrs =

Total 'Planned Work' actual hours (straight time and overtime hours) that have been charged to scheduled work

Actual Unplanned Hrs =

Total hrs (straight time and overtime) charged to 'Emergent Work' + 'Unplanned Unavailable time'

Scheduled Work =

Total scheduled hrs for 'Planned Work' for the week

5 %Scheduled =

Total scheduled hrs, for the week / Net available man hrs, for the week

Net Hrs Accounted =

[Actual hrs (scheduled work + IM's + planned unavailable + emergent work + unplanned unavailable)] / [Gross available man hrs + unplanned overtime hrs]

10 Indirect Work =

Sum of actual hrs for indirect work "IM's" (excluding foremen's time) / Gross available manpower hrs (excluding foremen's time)

CM Hrs =

15 Actual hrs charged against scheduled "CM" WO's / Total actual hrs charged (planned + emergent)

PM Hrs =

Actual hrs charged against scheduled "PM" WO's / Total actual hours charged (planned + emergent)

PR Hrs = (Proactive hours)

20 Actual hrs charged against scheduled "PR" WO's / Total actual hrs charged (planned + emergent)

CD Hrs = (Condition Directive)

Actual hrs charged against scheduled "CD" WO's / Total actual hrs charged (planned + emergent)

SA Hrs =

5 Actual hrs charged against scheduled SA WO's / Total actual hrs charged (planned + emergent)

EN Hrs =

Actual hrs charged against scheduled EN WO's / Total actual hrs charged (planned + emergent)

Sponsored Hrs =

10 Total hrs charged against Sponsored work / Total actual hrs charged (planned + emergent)

Emergency Hrs =

Total hrs charged against Emergency work / Total actual hrs charged (planned + emergent)

15 Sch. Compliance WO# =

Work orders completed (Prog = C) / Work orders scheduled

Sch. Compliance Hrs =

Completed actual hrs (Prog = C) / Scheduled hrs for scheduled activities

Planning Effectiveness =

20 $1 - [\text{Absolute value of (scheduled - actual hrs)} / \text{Scheduled hrs (Prog = C)}]$

WO Completed w/out Hours =

Total number of completed jobs (Prog = C) with no actual hrs

3.2 Trends:

To access trends, click on the desired leading metric (this builds a trend chart for that metric). Or use Management Reports, Front Page

To add additional metrics, change date range and/or crew select 'Report' from the file menu bar located top left of the screen and select:

5 Range – allows the desired date range to be selected

10 week (default)

1 year

Custom date range

Content – allows the desired crews and metrics to be selected

10 Crews: choose one or several crews using the shift or control keys or select the all button at the bottom right to select all crews.

Content: choose as many metrics as required (one to all). All metrics are weighted numbers; the raw numbers are used for calculations.

4. Right click menus

15 4.1 Right clicks for the Work Week Assignment Tool

Below are the menu items associated with 'right clicks' on the Work Week Assignment grids. The user needs to left click on a row and then right click on that record (This ensures that the desired record is selected). Once the user right clicks the record it will be highlighted.

20 Note: If the record does not highlight, then left click on it again. Once highlighted, right click again.

Assign Planner...

Choose the initials of the person assigned to the record. If no one was previously assigned, the record will change from light red to yellow.

Planning complete & Planning Not Complete

Planning complete changes the record from yellow to green & planning not complete revises the green to yellow.

Note: This indicates that all the planning has taken place, i.e. all materials, parts, craft and venders coordination. If you right click on a green record the user has the option to set the record to “Planning not Complete”.

Move to...

Allows a record to be moved to another week and/or crew.

Copy to...

Allows a record to be left where it is and be copied to another week and/or crew.

Note: Records cannot be moved from T0, only copied.

Delete

This will remove the record from PaSTA.

Note: This should only be used if you have copied a record and did not intend to or if you no longer want to see the record in PaSTA. If a record is deleted by accident you will have to go the system used to create and track work tasks and reschedule the work order and update PaSTA, this will bring the work order back into PaSTA. A message will display if you try to delete the last instance of that record. You will be prompted to continue or not.

WO View...

This will display all jobs with the same work order number, regardless of whether it's scheduled or not or been assigned to a crew. The user can select the record and click on the SEEK, lower left corner, and the user will be taken to where the WO is scheduled/unscheduled.

Sort...

Allows the data to be sorted in one to three different columns in ascending or descending order.

4.2 Work Week Assignment Tool: scroll bars

The right click menu for the scroll bars is as follows:

5 Scroll Here:

Moves the scroll bar to where you right clicked

Page Left:

Moves the scroll bar one step to the left

Page Right:

10 Move the scroll bar one step to the right

Scroll Left & Scroll Right:

Moves the scroll bar to the left or right

4.3 Right click: Work Week Management Form

Set Emergent Code

15 This allows the user to set the emergent code:

E – emergency work

S – sponsored work

None – moves work from the emergent section to the planned section

Note: The ‘None’ code is used only if there is a scheduling mistake. (i.e. In T0 a record
20 was deleted from the planned section and had to be reinstated. It could only be rescheduled as
emergent work. This would allow the record to be placed back into the planned area.)

Unscheduled

Takes the selected record and places it back on the unscheduled side of the Work Week Assignment Tool.

Note: If a record is already unscheduled, a message will be displayed that the work is already unscheduled. This indicates that it would be ok to delete the record from the Work Week

5 Management Form.

Rollover

This allows the user to 'roll' work out of T0 into a future week.

Note: Work important enough to work this week should be moved to the next week, barring any parts or material issues. This function is the same as the 'copy to...' function. The record will remain in T0 and will be exported to the desired week and an R will be placed in the Prog column.

4.4 Right click: WO View and Find

This will allow the user to 'Copy To...', 'Move To...' and 'Sort...' the current result sets.

5. Drop down menus

15 5.1 File

Find, Print Preview..., Print and Close

Find

This allows the user to search the entire PaSTA database using the following criteria:

WO ID (work order number): This will find all records with the same work order number.

WO Description: This will find all records that contain what you type in the description

Asset Name: This will find all records with the asset name the user enters.

Misc

This will find any open work orders that are two weeks or older inside of PaSTA. (e.g. a work order that was scheduled three months ago but was never worked)

Results of Find and Misc

The result of the find feature returns the following screen. From here the user can filter, 5 move, copy and sort by using the right click features (page 18)

Print Preview

This will allow the user to view the print job before sending to the printer

Print

This will send the job to the printer directly.

10 Note: Once the job is sent to the printer, the user can continue to use PaSTA. Just click back on the PaSTA screen and continue to work.

5.2 View

Setting and Refresh

Setting

15 The default setting is to load all grids automatically. (A grid is any area inside of PaSTA that contains records) If users only want to load certain grids on demand uncheck the box in 'settings'. When this is unchecked the grids on the work week assignment form will appear blank. When the user clicks on the 'lighting bolt' next to that grid, that grid will be loaded only. This is useful in speeding up the load time of the screen, if there are large amount so 20 records in the grids. (This is only available on the work week assignment form.)

Refresh

This will force all the grids to be reloaded and calculation to be recalculated. This only needs to be done if it appears that a action taken by the user did not happen. Additionally the user can refresh one grid at a time by pressing the 'lighting bolt' icon next to that grid.

Three levels of users are distinguished.

5 Level One Users are those who only require to view and print out PaSTA schedule.

Level one user can view and print the following:

1. Work week management tool
2. Work week management form
3. Management reports

10 Level one user does not have access to the right click menus and are unable to schedule or edit records on either the work week management tool or work week management form. Level one users also do not have access to the administration section nor the primavera export. All other actions are available to level one user.

Level two users have all the permissions of level one users in addition to level three users
15 on the work week management form.

Level three users are administrators and have full access. In particular, level three users can add users by clicking on the plus and subtract users by highlighting a record and clicking on the minus.

In particular, the three levels can do the following:

20 Level three:

Read/write on the work week assignment form and work week management tool

Update PaSTA

Update

Right click menus on both forms

Level two:

Read on work week assignment form

Read/write on the work week management tool

5 Right click menus on the work week assignment form

Level one:

Read both forms

Print from both forms

Note: The Administrator box should only be checked when adding additional PaSTA
10 administrators. (See administrator below)

Crews and workers can be manually added, or they can be updated automatically from EMPAC. The same is true for resources.

Figure 5 shows a projects screen 500 showing the linkage 502 of individual work elements 504, showing predecessors and successors in a Gantt chart format. The functionality
15 provided links the required sequencing of work activities established in the Gantt chart back to the work week management requirements necessary to adequately manage the resources working on projects. Resources can be dragged and dropped onto the sequenced work elements.

Figure 6 shows a work order creation automation screen 600, where the logic of troubleshooting is simply input into the device, resulting in a simple interrogatory automated
20 screen soliciting more precise details from the work order initiator, thereby increasing the intelligence for more adequate and appropriate planning. The screen includes workflow forms 602, a flow chart 604, and an area 606 for interrogating the work order initiator through radio buttons, text boxes, or any other suitable interface elements.

Figure 7 shows a simple creation screen 700 which creates the automation of troubleshooting and then creates the screens (such as screen 600 of Fig. 6) that interrogate the initiator of the work to certain questions, resulting in an greatly improved work order that can be adequately planned. The screen 700 uses drop-down boxes 702, text boxes 704, or any other
5 suitable interface elements.

While a preferred embodiment has been set forth above, those skilled in the art who have reviewed the present disclosure will readily appreciate that other embodiments can be realized within the scope of the invention. For example, platforms other than those disclosed can be used. Also, elements of the user interfaces can be rearranged. Therefore, the present invention
10 should be construed as limited only by the appended claims.

What is claimed is:

1. A planning and scheduling system running on a computing device, the system comprising:

a user interface; and

5 a computing device in communication with said user interface, said computing device being programmed to implement:

work week sections;

a scheduled job section;

an unscheduled job section;

10 a short notice outage section;

a planned outage section; and

work orders, wherein the work orders can be moved from one work week section to another work week section, from unscheduled to scheduled, to short notice outage, to planned outage, and to backlog, by dragging and dropping the work orders, wherein the work orders
15 comprise work elements that are linked as predecessors and successors, and wherein the computing device controls the user interface to display linkages between the predecessors and the successors.

2. The planning and scheduling tool assistant of claim 1, wherein the computing device permits a user to drag and resources onto the work elements through the user interface.

20 3. A planning and scheduling system running on a computing device, the system comprising:

a user interface; and

a computing device in communication with said user interface, said computing device being programmed to implement:

work week sections;

a scheduled job section;

5 an unscheduled job section;

a short notice outage section;

a planned outage section;

work orders, wherein the work orders can be moved from one work week section to another work week section, from unscheduled to scheduled, to short notice outage, to planned
10 outage, and to backlog, by dragging and dropping the work orders; and

a work order creation automation screen on the user interface for creating the work orders, the computing device being configured to store logic for creation of the work orders, to interrogate a user through the work order creation automation screen for specific information regarding the work orders, and to create the work orders automatically from the logic and the
15 specific information.

4. The planning and scheduling tool assistant of claim 3, wherein the computing device is further programmed to implement a screen for inputting of the logic to allow creation of the work order creation automation screen.

20

Abstract of the Disclosure

Schedulers, Planners, and Maintenance Supervisors in an Industrial facility can use the user interface of the present invention to extremely quickly move work order schedules, status planning, and manage resources. Additionally, key performance indicators or metrics on performance on how well the organization is doing is also cumbersome if not impossible in the current practice in these industrial organizations. The variables of this management include worker, crew, Work Order, Dates, Planning Status, planner, dates, etc. (see tech manual and summary sheets). The invention operates by interfacing with the Computerized Maintenance Management System (CMMS) database in a thoroughly interactive process. The local program constructs a parallel database and reads and feedbacks to the CMMS database frequently to stay current and accurate.

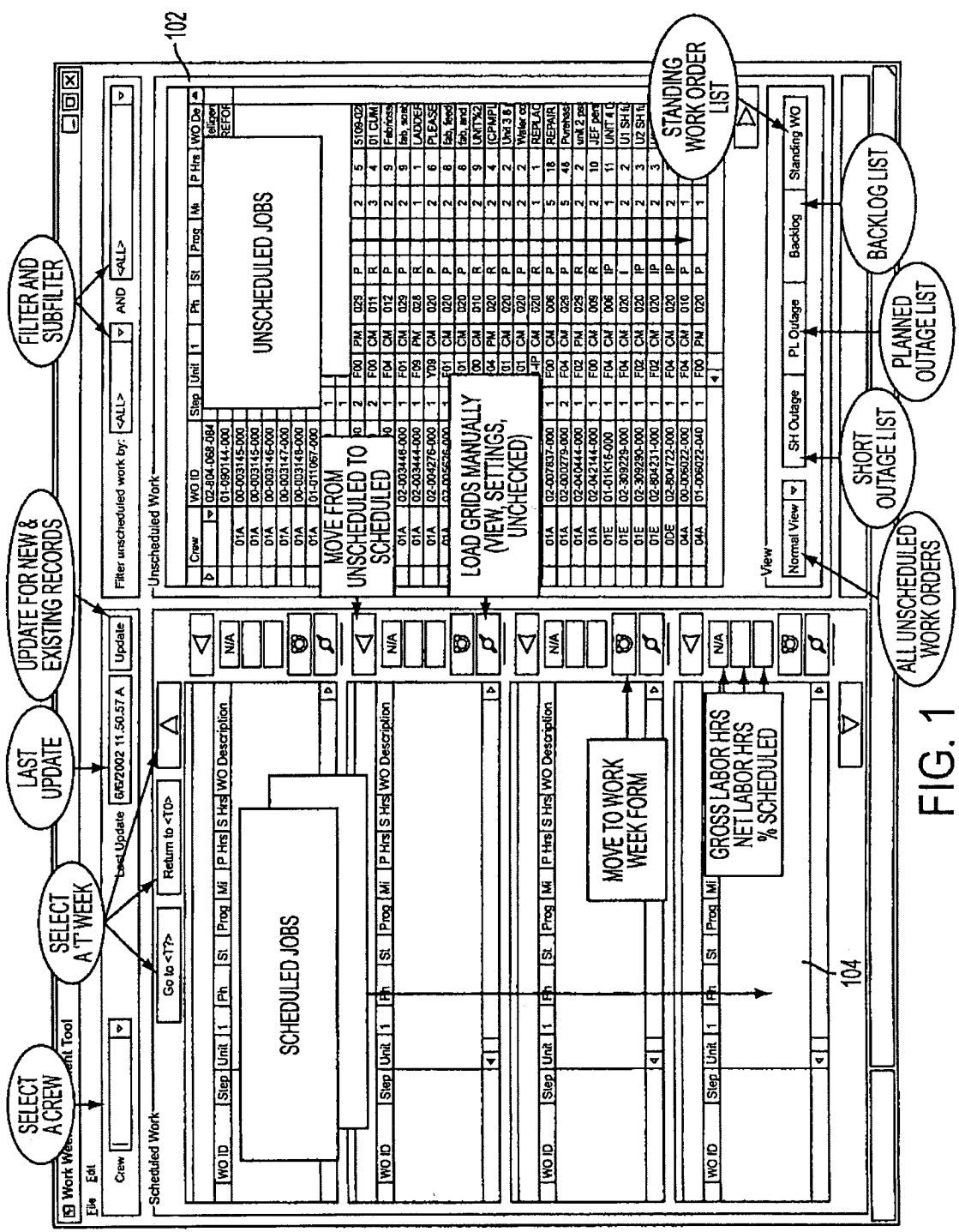


FIG. 1

300

308

Work Week Management Form

File Crew TMD2 Week of 2/11/02

Gross Available Manpower Hrs: ???
 Total Available Manpower Hrs: ???
 Net Available Manpower Hrs: ???
 Back Log Man Hrs: N/A
 # Of Back Log Work Orders: N/A
 Resource Utilization: ???

Back Log Weeks: ???
 Sponsored WO: ???
 Emergency WO: ???
 PM Compliance: N/A
 SA Compliance: N/A
 EN Compliance: ???

Actual Hrs: ???
 Actual Unplanned Hrs: ???
 Scheduled Work: ???
 % Scheduled: ???
 Net Hrs. Accounted: ???
 Injured Work: ???

Sponsor Hrs: ???
 Emergency Hrs: ???
 Sch. Compliance WO: ???
 Sch. Compliance Hrs: ???
 Planning Effectiveness: ???
 WO Completed wo Hours: ???

CM Hrs: ???
 PM Hrs: ???
 CO Hrs: ???
 SA Hrs: ???
 EN Hrs: ???

WO ID	Shop	T	Unit	Pr	SI	Pro	M	P	Hrs	S	Hrs	A	Hrs	Description
02-000222-000	1	CM	F00	006	C	C	4	8	30	30	30	30	30	77 FLY ASH PUMP CHECK VALVE I
02-000476-000	1	CM	F00	013	R	C	2	4	16	8	8	8	8	PABUP NEW OIL WAGON IN TOOL
02-000680-000	1	PM	F00	012	R	F	1	3	3	3	3	3	3	RAW WATER STRAINERS, 3RD FLG
02-000615-000	1	CM	F00	011	R	F	2	1	2	2	2	2	2	FITTERS TO PPE UP NEW HYDROG
02-000626-000	1	CM	F00	015	R	C	1	1	1	2	2	2	2	PEDESTAL GRINDER INSPECTION
02-001369-000	1	CO	F00	013	R	C	2	7.5	22	20	20	20	20	COMPRESSOR T-3 AFTER COOL
02-000577-000	1	PM	F01	012	R	C	2	8	16	16	16	16	16	UNIT 1-9 AND OLD SHIFT ENG. OFF
02-001364-000	1	CM	F02	005	R	C	2	4	8	8	8	8	8	ZABFP-08 BELLY DRAIN GASKET
02-001720-000	1	CM	F04	010	A	C	2	8	16	16	16	16	16	777 4 HPH #1 RAW GRESS 77777777
02-000680-000	1	CM	F00	012	R	F	2	3	3	3	3	3	3	RAW WATER STRAINERS, 3RD FLG

Planned Work

WO ID	Shop	T	Unit	Pr	SI	Pro	M	P	Hrs	S	Hrs	A	Hrs	Description
02-000222-000	1	CM	F00	006	C	C	4	8	30	30	30	30	30	77 FLY ASH PUMP CHECK VALVE I
02-000476-000	1	CM	F00	013	R	C	2	4	16	8	8	8	8	PABUP NEW OIL WAGON IN TOOL
02-000680-000	1	PM	F00	012	R	F	1	3	3	3	3	3	3	RAW WATER STRAINERS, 3RD FLG
02-000615-000	1	CM	F00	011	R	F	2	1	2	2	2	2	2	FITTERS TO PPE UP NEW HYDROG
02-000626-000	1	CM	F00	015	R	C	1	1	1	2	2	2	2	PEDESTAL GRINDER INSPECTION
02-001369-000	1	CO	F00	013	R	C	2	7.5	22	20	20	20	20	COMPRESSOR T-3 AFTER COOL
02-000577-000	1	PM	F01	012	R	C	2	8	16	16	16	16	16	UNIT 1-9 AND OLD SHIFT ENG. OFF
02-001364-000	1	CM	F02	005	R	C	2	4	8	8	8	8	8	ZABFP-08 BELLY DRAIN GASKET
02-001720-000	1	CM	F04	010	A	C	2	8	16	16	16	16	16	777 4 HPH #1 RAW GRESS 77777777
02-000680-000	1	CM	F00	012	R	F	2	3	3	3	3	3	3	RAW WATER STRAINERS, 3RD FLG

Emergent Work

WO ID	Shop	T	Unit	Pr	SI	Pro	M	P	Hrs	S	Hrs	A	Hrs	Description
02-000222-000	1	CM	F00	006	C	C	4	8	30	30	30	30	30	77 FLY ASH PUMP CHECK VALVE I
02-000476-000	1	CM	F00	013	R	C	2	4	16	8	8	8	8	PABUP NEW OIL WAGON IN TOOL
02-000680-000	1	PM	F00	012	R	F	1	3	3	3	3	3	3	RAW WATER STRAINERS, 3RD FLG
02-000615-000	1	CM	F00	011	R	F	2	1	2	2	2	2	2	FITTERS TO PPE UP NEW HYDROG
02-000626-000	1	PM	F00	015	R	C	1	1	1	2	2	2	2	PEDESTAL GRINDER INSPECTION

Other Unavailable Time

M	T	W	TH	F	S	SU
16	16	16	16	16	16	16

Unavailability Time

M	T	W	TH	F	S	SU

301

302

306

304

FIG. 3

Work Week Management Form
File View

Crew: **TM02**

Back Log Manpower Hrs: 490

Total Available Manpower Hrs: 777

Net Available Manpower Hrs: 777

Back Log Man Hrs: 0

Of Back Log Work Orders: 0

Resource Utilization: 777

Week of: **3/18/02**

Back Log Weeks: 777

Sponsored WO: 777

Emergency WO: 777

PM Compliance: 777

SA Compliance: 777

EN Compliance: 777

Actual Hrs: 777

Actual Unplanned Hrs: 777

Scheduled Work: 777

% Scheduled: 777

Net Hrs. Accounted: 777

Indirect Work: 777

Sponsor Hrs: 777

Emergency Hrs: 777

Sch Compliance WO: 777

Sch Compliance Hrs: 777

Planning Effectiveness: 777

WO Completed wo Hours: 777

WO ID	Step	T	U	M	P	S	Hrs	A	Hrs	Description
02-000851-000	1	CM	F08	014	R					
02-001060-000	1	CM	F03	013	R					
02-001632-000	1	CM	F09	014	R					
02-001634-000	1	CM	F07	013	R					
02-001711-000	1	CM	F03	000	R					
02-001716-000	1	CM	F07	000	R					
02-001778-000	1	PM	F00	015	R					

WO ID	Step	T	U	M	P	S	Hrs	A	Hrs	Description
01-012690-000	1	M	F00	014	R					
01-012756-000	1	M	F00	015	R					
01-012762-000	1	M	F00	016	R					
01-012800-000	3	M	F00	014	R					
01-012800-000	1	M	F00	014	R					

WO ID	Step	T	U	M	P	S	Hrs	A	Hrs	Description
01-012690-000	1	CM	F00	014	R					
01-012756-000	1	CM	F00	015	R					
01-012762-000	1	CM	F00	016	R					
01-012800-000	1	CM	F00	014	R					

Planned Work

WO ID	Step	T	U	M	P	S	Hrs	A	Hrs	Description
02-000851-000	1	CM	F08	014	R					
02-001060-000	1	CM	F03	013	R					
02-001632-000	1	CM	F09	014	R					
02-001634-000	1	CM	F07	013	R					
02-001711-000	1	CM	F03	000	R					
02-001716-000	1	CM	F07	000	R					
02-001778-000	1	PM	F00	015	R					

Emergent Work

WO ID	Step	T	U	M	P	S	Hrs	A	Hrs	Description
01-012690-000	1	CM	F00	014	R					
01-012756-000	1	CM	F00	015	R					
01-012762-000	1	CM	F00	016	R					
01-012800-000	3	M	F00	014	R					
01-012800-000	1	M	F00	014	R					

Planned Unavailable Time

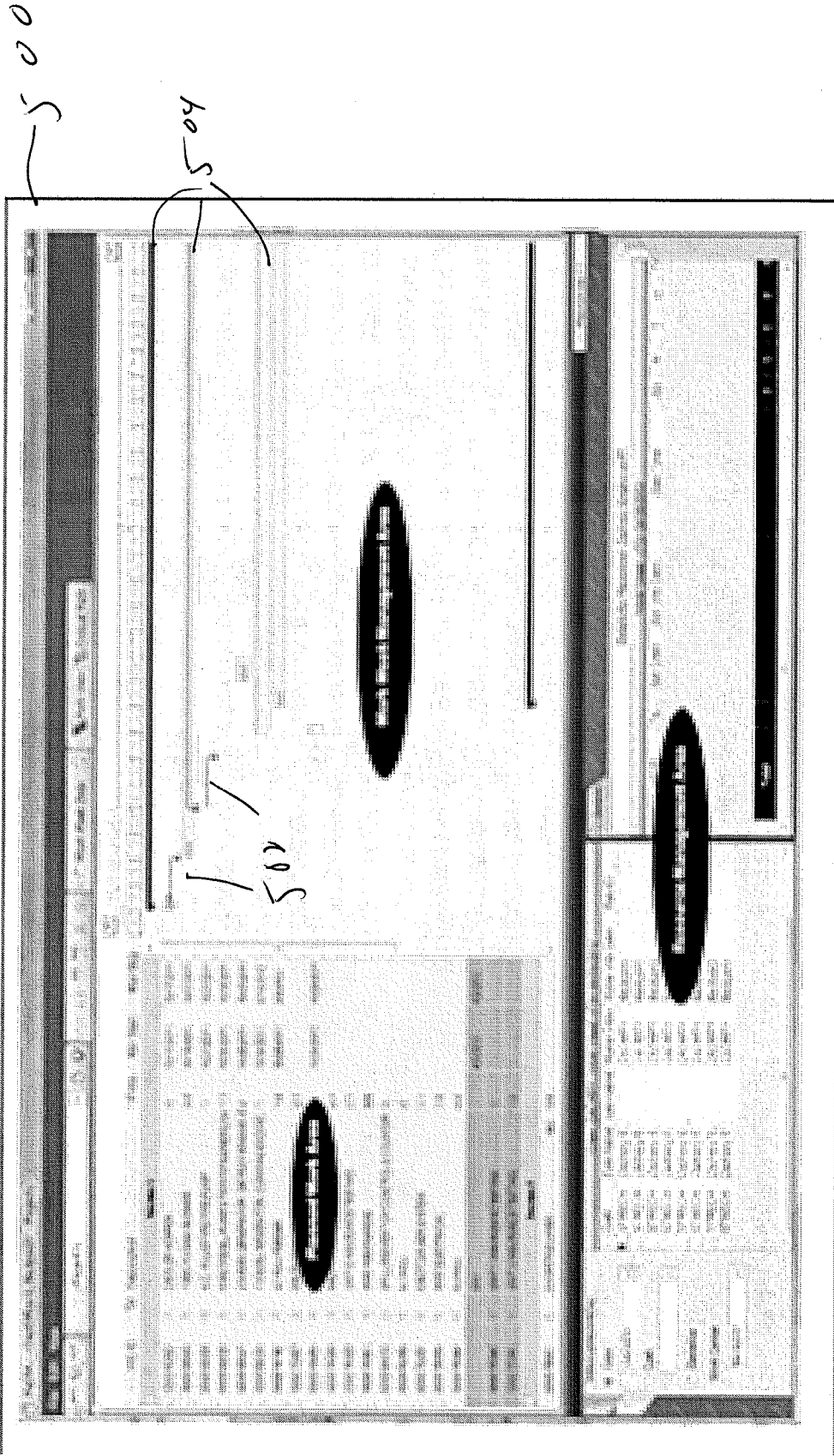
Category	M	T	W	TH	F	S	SU
Vacation	1	2	3	4	5	6	7
Holiday	8	9	10	11	12	13	14
Other Leave	15	16	17	18	19	20	21
Sick	22	23	24	25	26	27	28
Off Days	29	30	31	32	33	34	35
Operations	36	37	38	39	40	41	42
Total	97	2	3	4	5	6	7

Unplanned Unavailable Time

Category	M	T	W	TH	F	S	SU
Vacation	1	2	3	4	5	6	7
Holiday	8	9	10	11	12	13	14
Other Leave	15	16	17	18	19	20	21
Sick	22	23	24	25	26	27	28
Training	29	30	31	32	33	34	35
Community	36	37	38	39	40	41	42
House Keeping	43	44	45	46	47	48	49
Operations	50	51	52	53	54	55	56
Total	13	10	5	4	3	2	1
Overtime	3	6	6	6	6	6	6

FIG. 4

Figure 5



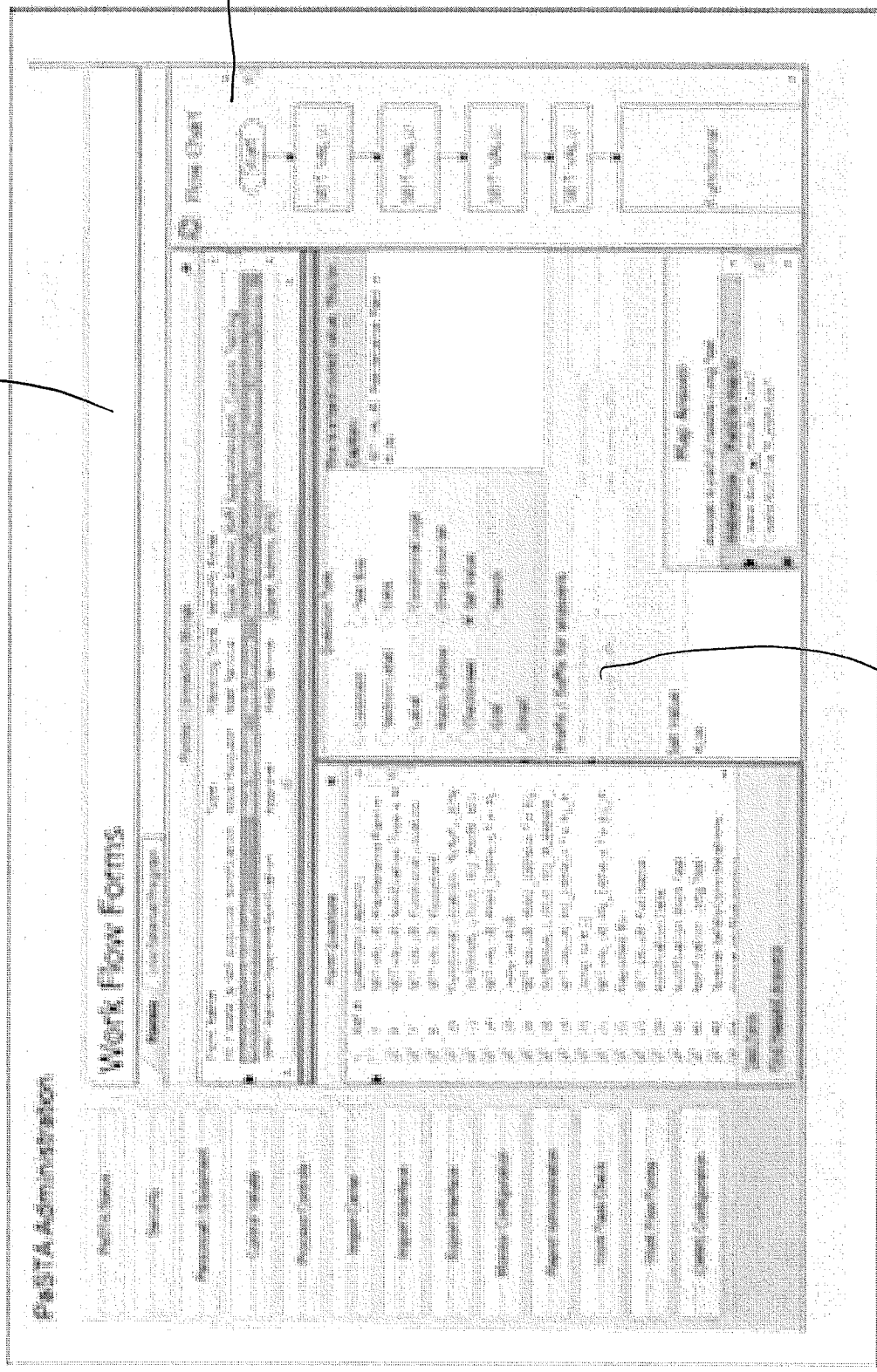
600

600

600

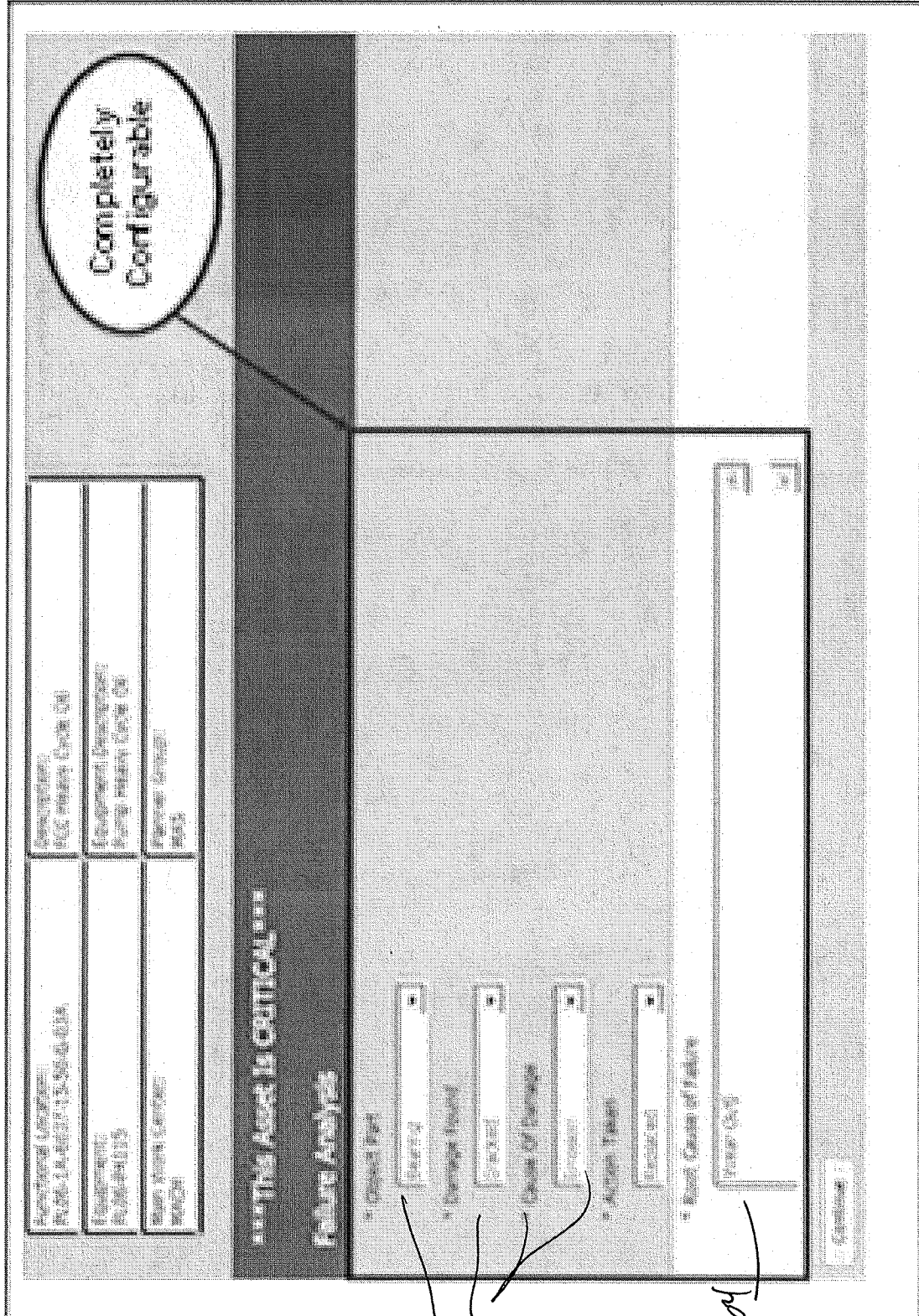
600

Figure 6



700,

Figure 7



Electronic Acknowledgement Receipt

EFS ID:	16834879
Application Number:	14024944
International Application Number:	
Confirmation Number:	3683
Title of Invention:	PLANNING AND SCHEDULING TOOL ASSISTANT
First Named Inventor/Applicant Name:	John W. MCELROY
Customer Number:	27557
Filer:	David J. Edmondson/Frances Purnell
Filer Authorized By:	David J. Edmondson
Attorney Docket Number:	130733.00107
Receipt Date:	12-SEP-2013
Filing Date:	
Time Stamp:	13:30:06
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		13073300107TRANSMITTALS1.pdf	1310975 <small>727d61d1d52aa9fbf2e7afd23b3071cbbdb08a2fc</small>	yes	8

Multipart Description/PDF files in .zip description			
	Document Description	Start	End
	Transmittal of New Application	1	1
	Application Data Sheet	2	8

Warnings:

Information:

2	Specification	13073300107SPEC1.pdf	3113298 2380108df43292e0a773ad50a2a9d108bda99d91	no	32
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Warnings:

Information:

3	Drawings-only black and white line drawings	13073300107DRAWINGS1.pdf	1569126 1c3e8c8a2240bcdb4a42c848e1d66e275eca64ee	no	7
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Warnings:

Information:

Total Files Size (in bytes):			5993399		
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This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.