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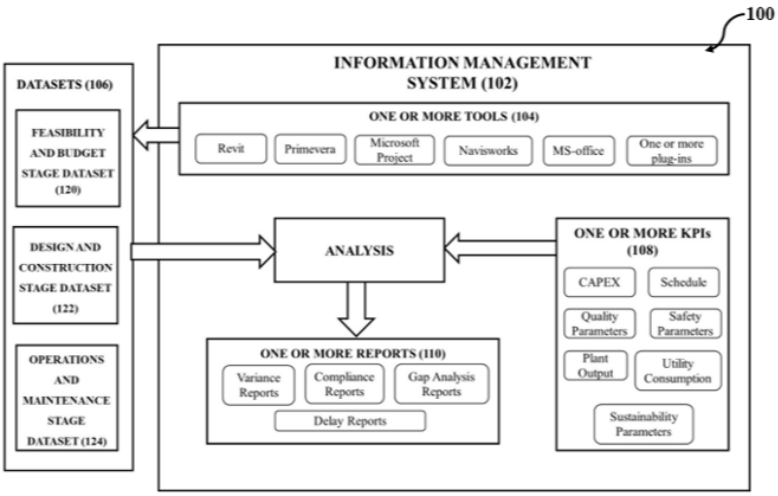
(54) Title: AN INFORMATION MANAGEMENT SYSTEM AND A METHOD OF MANAGING INFORMATION FOR A MANUFACTURING PLANT

(57) Abstract: Disclosed herein is a system 102 and method for managing information for a manufacturing plant. The system 102 comprises data blocks 220, wherein each data block containing dataset relating to a particular stage associated with a lifecycle of the manufacturing plant. The system 102 further comprises a processor 204 coupled with the data blocks 220. The processor 204 dynamically extracts datasets 106 corresponding to a plurality of stages associated with the lifecycle of the manufacturing plant. The system 102 further integrates the datasets 106 in such a manner that each dataset 106 becomes accessible to entities associated with the manufacturing plant. The system 102 further analyses the datasets 106 in accordance with one or more KPIs 108 so as to monitor performance of the one or more KPIs 108 during the lifecycle of manufacturing plant. Further, the system 102 generates report 110 based on the analysis.



FORM 2

THE PATENTS ACT 1970
(39 OF 1970)
&
The Patent Rules, 2003

Complete Specification

(See Section 10 and Rule 13)

1. TITLE OF THE INVENTION

AN INFORMATION MANAGEMENT SYSTEM AND A METHOD OF MANAGING INFORMATION FOR A MANUFACTURING PLANT

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3. PREAMBLE TO THE DESCRIPTION

COMPLETE

The following specification describes the invention and the manner in which it is to be performed

DESCRIPTION

TECHNICAL FIELD

[001] The present invention generally relates to the field of information management and more particularly to providing an information management system and method for a manufacturing plant.

BACKGROUND OF INVENTION

[002] The following description includes information that may be useful in understanding the present invention. It is not an admission that any of the information provided herein is prior art or relevant to the presently claimed invention, or that any publication specifically or implicitly referenced is prior art.

[003] Every manufacturing plant has a lifecycle starting from its conception to its operation that runs over a span of some years. Accordingly, the lifecycle of a manufacturing plant entails various stages starting from feasibility and budget stage to design and constructions stage and ultimately to operations stage. Various entities are involved at various different stages. For instance, the owner of the manufacturing plant along with a team of professionals would be involved in determining the feasibility of the manufacturing plant and budget based on credible data from the past projects. In the similar fashion, a team of professionals would be involved at the feasibility stage to make a plan for the manufacturing plant so as to satisfy certain baseline key performance indictors (KPIs) such as timelines, budget, safety parameters, quality parameters, utility consumption etc. Further, various different entities such as design consultants, engineers, original equipment manufacturers (OEMs), plant operators, stake holders etc. are associated with the manufacturing plant at various different stages of the lifecycle of the manufacturing plant.

[004] Thus, due to multiple stages associated with the manufacturing plant, a wide variety of data is available at each stage. However, it has commonly been observed that the data from one stage is not available for use at another stage. For instance, say during the operations stage, an equipment need to be added. So, if the information related to plant design or its capacity etc is not readily available, such decisions would be made on assumption or incomplete information. In other words, there is no single source where complete information of the manufacturing plant can be referred to across various stages of its lifecycle that can help in accurate decision making.

[005] Although, there are few tools available addressing specific stage/area of the manufacturing plant life cycle, there is no tool or platform that can allow inter-linking of the data from various stages so as to provide a holistic view of engineering, construction and operational parameters and provide accurate and relevant infrastructure and asset related performance details. For instance, the Engineering Document Management System (EDMS) manages documents release, however it handles only the engineering documentation of the manufacturing plant life cycle. Similarly, the Project Management tool manages the project execution phase of the engineering and construction of manufacturing plant and site execution and design changes are managed through a separate Request For Information (RFI) protocol Another technical challenge is handling the data being created at different stages. The data at the different stages are generated in different formats and also varies from one stage to another. For example, the data at the design stage may be different from the data generated at operation stage. Hence, to provide the holistic view of the functioning of the manufacturing plant, correlating the data from different stages is the technical challenge.

[006] There is, therefore, a need for a system that can facilitate workflow of data through various stages of the lifecycle of the manufacturing plant and also provide insightful reports and analysis about the functioning and/or performance of the manufacturing plant.

SUMMARY OF THE INVENTION

[007] The present disclosure overcomes one or more shortcomings of the prior art and provides additional advantages discussed throughout the present disclosure. Additional features and advantages are realized through the techniques of the present disclosure. Other embodiments and aspects of the disclosure are described in detail herein and are considered a part of the claimed disclosure.

[008] In one non-limiting embodiment of the present disclosure, an information management system for a manufacturing plant is disclosed. The system comprises a plurality of data blocks, wherein each data block containing dataset relating to a particular stage associated with a lifecycle of the manufacturing plant. The system further comprises a processor coupled with the plurality of data blocks. The processor is configured to dynamically extract datasets from each data block. The processor is further configured to integrate the datasets in a standardized format. Further, the processor is further configured to analyse the integrated datasets using one or more respective KPIs associated with each stage of the lifecycle of the manufacturing plant.

Further, the processor is configured to generate a report indicating holistic performance of the manufacturing plant in accordance with the one or more KPIs.

[009] In one non-limiting embodiment of the present disclosure, a method of managing information in a manufacturing plant is disclosed. The method comprises dynamically extracting datasets from each data block. The method further comprises integrating the datasets in a standardized format. Further, the method comprises analysing the integrated datasets using one or more respective KPIs associated with each stage of the lifecycle of the manufacturing plant. The method further comprises generating a report (110) indicating holistic performance of the manufacturing plant in accordance with the one or more KPIs.

[0010] The foregoing summary is illustrative only and is not intended to be in any way limiting. In addition to the illustrative aspects, embodiments, and features described above, further aspects, embodiments, and features will become apparent by reference to the drawings and the following detailed description.

BRIEF DESCITPION OF DRAWINGS

[0011] The embodiments of the disclosure itself, as well as a preferred mode of use, further objectives and advantages thereof, will best be understood by reference to the following detailed description of an illustrative embodiment when read in conjunction with the accompanying drawings. One or more embodiments are now described, by way of example only, with reference to the accompanying drawings in which:

[0012] Figure 1 illustrates an environment **100** of an information management system for a manufacturing plant, in accordance with an embodiment of the present disclosure;

[0013] Figure 2 illustrates a block diagram **200** of the information management system, in accordance with an embodiment of the present disclosure; and

[0014] Figure 3 illustrates a flowchart **300** of a method of managing information of a manufacturing plant, in accordance with an embodiment of the present disclosure.

[0015] The figures depict embodiments of the disclosure for purposes of illustration only. One skilled in the art will readily recognize from the following description that alternative

embodiments of the structures and methods illustrated herein may be employed without departing from the principles of the disclosure described herein.

DETAILED DESCRIPTION OF THE INVENTION

[0016] The foregoing has broadly outlined the features and technical advantages of the present disclosure in order that the detailed description of the disclosure that follows may be better understood. It should be appreciated by those skilled in the art that the conception and specific embodiment disclosed may be readily utilized as a basis for modifying or designing other structures for carrying out the same purposes of the present disclosure.

[0017] The novel features which are believed to be characteristic of the disclosure, both as to its organization and method of operation, together with further objects and advantages will be better understood from the following description when considered in connection with the accompanying Figures. It is to be expressly understood, however, that each of the Figures is provided for the purpose of illustration and description only and is not intended as a definition of the limits of the present disclosure.

[0018] Disclosed herein is an information management system (hereinafter referred as "system") and a method for managing information for a manufacturing plant. The manufacturing plant goes through various stages during its lifecycle starting from determining the "feasibility" of setting up the manufacturing plant to making a plan to "designing" and constructing and ultimately handing over to "operations". After being operational, the manufacturing plant does not necessarily operate steadily and undergoes many changes and/or maintenance throughout its span of operation. This leads to a large amount of data being created at every stage related to capital expenditure (CAPEX), operational expenditure (OPEX), area statements, bill of quantities (BOQ), technical specifications, scheduled dates, checklists, quality guidelines, sustainability performance data, production data, original equipment manufacturer (OEM) data, utility metering data, plant models etc.

[0019] However, conventionally it has been observed that there are no means of inter-linking or integrating the data from various stages onto a common medium so as to be accessible to each and every person or entity associated with the manufacturing plant starting from owner to consultants to contractors to OEMs to operators etc. The lack of integrated data may prove to be detrimental while making key decisions about the manufacturing plant. For instance, if the team responsible for procuring machinery for the manufacturing plant is not aware of the

capital expenditure set for the purchase of machinery during feasibility stage, they may make the decision according to their own likes which may be way over the decided budget during the procurement stage and in turn might hamper profits. In other words, for a manufacturing plant to perform smoothly, it is necessary that the data at each stage is available for access to each and every person or entity associated with the manufacturing plant so that informed decisions can be made.

[0020] Further, apart from integrating data, it is essential that the performance of the manufacturing plant is monitored regularly in terms of certain predefined KPIs related to safety, output, utility consumption, expenditure, quality etc so as to be aware whether the KPIs are being complied with. Further, such monitoring may also help to understand if there is a gap between the expected performance and the actual performance and the reason behind it so that appropriate measures may be taken to rectify the situation.

[0021] The present disclosure understands this need and describes a system that integrates dynamically extracted data pertaining to various stages associated with the life cycle of the manufacturing plant and integrates them so as to be accessible by every person or entity associated with the manufacturing plant. The system also monitors the performance of the various KPIs throughout the lifecycle of the manufacturing plant by analysing the data at various stages amongst one another. The detailed working and explanation of the system is described in the upcoming paragraphs.

[0022] **Figure 1** shows an exemplary environment **100** of a system for a manufacturing plant, in accordance with an embodiment of the present disclosure. It must be understood to a person skilled in art that the system **102** may also be implemented in various environments, other than as shown in Fig. 1.

[0023] The detailed explanation of the exemplary environment **100** is explained in conjunction with **Figure 2** that shows a block diagram **200** of the system **102**, in accordance with an embodiment of the present disclosure. Although the present disclosure is explained considering that the system **102** is implemented on a server, it may be understood that the system **102** may be implemented as a tool or in a variety of computing systems, such as a laptop computer, a desktop computer, a notebook, a workstation, a mainframe computer, a server, a network server, a cloud-based computing environment.

[0024] In one implementation, the system **102** may comprise an I/O interface **202**, a processor **204**, a memory **206**, the units **208** and a plurality data blocks **220**. The processor **204** is coupled with the plurality of data blocks **220**. Each data block contains dataset relating to a particular stage associated with the lifecycle of the manufacturing plant. The memory **206** may be communicatively coupled to the processor **204** and the units **208**. Further, the memory **208** may store one or more tools **104** and one or more KPIs **108**. The significance and use of each of the stored quantities is explained in the upcoming paragraphs of the specification. The processor **204** may be implemented as one or more microprocessors, microcomputers, microcontrollers, digital signal processors, central processing units, state machines, logic circuitries, and/or any devices that manipulate signals based on operational instructions. Among other capabilities, the processor **204** is configured to fetch and execute computer-readable instructions stored in the memory **206**. The I/O interface **202** may include a variety of software and hardware interfaces, for example, a web interface, a graphical user interface, and the like. The I/O interface **202** may enable the system **102** to communicate with other computing devices, such as web servers and external data servers (not shown). The I/O interface **202** may facilitate multiple communications within a wide variety of networks and protocol types, including wired networks, for example, LAN, cable, etc., and wireless networks, such as WLAN, cellular, or satellite. The I/O interface **202** may include one or more ports for connecting many devices to one another or to another server.

[0025] In one implementation, the units **208** may comprise an extraction unit **210**, an integration unit **212**, an analysis unit **214**, a generation unit **216** and an output unit **218**. According to embodiments of present disclosure, these units **210-218** may comprise hardware components like processor, microprocessor, microcontrollers, application-specific integrated circuit for performing various operations of the system **102**. It must be understood to a person skilled in art that the processor **204** may perform all the functions of the units **210-218** according to various embodiments of the present disclosure.

[0026] Now referring back to **Figure 1**, the environment **100** shows the system **102** that dynamically extracts datasets **106** associated with the lifecycle of a manufacturing plant by employing one or more tools prestored in the memory **206** of the system **102**. The datasets **106** may comprise stage-wise information pertaining to a plurality of stages associated with the lifecycle of the manufacturing plant. In one embodiment, the datasets **106** may comprise at least one of feasibility and budget stage dataset **120**, a design and construction stage dataset

122 and an operations and maintenance stage dataset **124** depending on the stage the manufacturing plant is in its lifecycle. For instance, if the manufacturing plant has just completed its construction and has not yet begin operation, the datasets **106** would then not include the operations and maintenance stage dataset **124**. Further, in accordance with the exemplary embodiment **100**, the one or more tools **104** employed by the extraction unit **210** comprises at least one of Revit, Primevera, Microsoft Project, Navisworks, MS-office and one or more plug-ins. Furthermore, in one embodiment, the datasets **120-124** comprises information related to capital expenditure (CAPEX), operational expenditure (OPEX), area statements, bill of quantities (BOQ), technical specifications, scheduled dates, checklists, quality guidelines, sustainability performance data, production data, original equipment manufacturer (OEM) data, utility metering data, plant models and images. It may however be noted by a skilled person that the datasets **106** may comprise additional data other than the data mentioned above. In accordance with Figure 2, the dynamic extraction of the datasets **106** is performed by the extraction unit **210**.

[0027] The dynamic extraction and the subsequent working of the system **102** is explained hereafter by considering a manufacturing plant that is currently in its operations stage. However, to allow the manufacturing plant to reach operations and maintenance stage, it would have need to start with the feasibility and budget stage. In other words, an owner or a client, in order to meet a market demand for a certain product(s), would have decided to set up a manufacturing plant. In order to do so, he/she would have first determined the feasibility of the project based on data from past projects and prevailing market trends pertaining to cost, schedule and timelines. Post determining the feasibility, a group of professionals would have been employed in order to conjure a plan for the manufacturing plant in terms of certain base line stage-wise KPIs **108** such as CAPEX, schedule, quality parameters, safety parameters, sustainability parameters, plant output, and utility consumption. Further, various design consultants, OEMs, engineers, contractors etc would have been hired to design and construct the manufacturing plant before it is handed off to the operations and maintenance team.

[0028] Since, during its lifecycle, the manufacturing plant undergoes through different stages and many changes, there exists enormous amount of data at each stage which is not just essential for the stage to which it corresponds but also to other stages in order to make accurate decisions. For instance, if the design consultant is not aware of the data at the design stage, he/she would not know of the KPIs **108** the owner has decided and therefore, might make

inaccurate decisions when it comes to designing the manufacturing plant. For instance, as one of the KPI, the owner wanted the manufacturing plant to be "green certified" to attain certain sustainability goals. Therefore, in order to attain green certification, the design consultant has to design the manufacturing plant in such a manner that it achieves the energy constraints required for getting a green certification. However, if this information is not available to the design consultant, he/she would make inaccurate design plans for the manufacturing plant. To avoid this, and to allow a synergy between various stages of the manufacturing plant, the integration unit **212** integrates the datasets **106** in a standardized format such a manner that each of the datasets **106** becomes accessible to entities associated with the manufacturing plant. According to an embodiment, the entities may comprise owner, consultants, contractors, OEMs, operators, engineers etc.

[0029] Apart from allowing the datasets **106** to be accessible to the entities associated with the manufacturing plant, the system **102** is also configured to provide insights regarding the functioning/performance of the manufacturing plant and generate reports that may facilitate insightful decision-making regarding the manufacturing plant. In order to achieve this, the analysis unit **214** may analyse the integrated datasets **106** amongst using the one or more KPIs **108**. The analysis may either be done in response to receiving a request from an entity requiring a certain type of analysis or it can be performed automatically by the analysis unit **214** as and when any of the datasets **106** are updated or modified. In one embodiment, the analysis unit **214** utilizes various statistical methods in order to analyse the datasets **106** using the one or more KPIs **108**. However, it may be understood by a skilled person that various other kinds of methodology may be employed to perform said analysis.

[0030] For instance, in one exemplary embodiment, an entity, for example the owner of the manufacturing plant notices that the plant output for a particular month is lower than the expected plant output. In such a scenario, the analysis unit **214** analyses the operations and maintenance dataset **124** for past few months to understand the reason for such drop. In another exemplary embodiment, if an entity associated with the manufacturing plant wants to add another manufacturing line and wants to determine the feasibility to do so, the analysis unit **214** analyses the feasibility and budget stage dataset **120**, and the design and construction stage dataset **122** in accordance with one another to examine the feasibility of adding another manufacturing line. Considering this example, the analysis unit **214** may first select the "area statements" information from the feasibility and budget stage dataset **120** and select "plant

models and images" information from the design and construction stage dataset **122.** Thereafter, the analysis unit **214** may correlate both the information (area statements and plant models and images) in view of one or more applicable KPIs **108**, for example "safety parameters", "sustainability parameters", and "plant output" to determine whether the existing dataset information (area statements and plant models and images) allows the adding of another manufacturing line. If during the analysis, any one of the KPIs **108** are not met, then entity would know beforehand about the feasibility of adding another manufacturing line. Also, the analysis may also help in tuning the existing dataset information (area statements and plant models and images) to add another manufacturing line.

[0031] In another exemplary embodiment, if an entity associated with the manufacturing plant simply wants to monitor the performance of the manufacturing plant in accordance with the one of more KPIs **108**. For instance, if the entity wants to know whether the base line safety parameters are being met, the analysis unit **214** analyses the design and construction stage dataset **122** and the operations and maintenance stage dataset **124** in order to determine whether there is a discrepancy with the baseline safety parameters set during the design stage and the safety parameters being executed at the different stages. In another exemplary embodiment, since a manufacturing plant undergoes many changes during its lifecycle, the datasets **106** are updated accordingly. In such a scenario, in order to analyse the performance of the manufacturing plant post the changes, the updated datasets are analysed in accordance with the one or more KPIs **108** to monitor the performance of the manufacturing plant due to the changes. It may however be noted by a skilled person that the scenarios mentioned above are merely exemplary and the analysis unit **214** may perform different kinds of analysis based on the requirement of an entity.

[0032] Now, once the analysis unit **214** has performed the analysis, the generation unit **216** generates report **110** based on the kind of analysis performed by the analysis unit **214**. In one embodiment, the generation unit **216** may generate "compliance report" indicating areas within the manufacturing plant where compliance initiatives are being met effectively and those areas in which more work is needed to meet the standards of regulation or internal controls. In another embodiment, the generation unit **216** may generate "gap analysis report" comparing current performance with the desired, expected performance in order to determine whether the manufacturing plant is meeting expectations and using its resources effectively. In another embodiment, the generation unit **216** may generate "variance report" comparing the planned

financial outcomes with the actual financial outcome of the manufacturing plant. In another embodiment, the generation unit **216** may generate "delay report" indicating the time delays occurring at one or more stages or with one or more processes associated with the manufacturing plant. Thus, the report 110 generated gives a holistic performance of the manufacturing plant. It may however be noted that the types of report generated by the generation unit **216** are merely exemplary and should not be construed to be limiting.

[0033] After the generation unit **216** generates the report **110**, the output unit **218** outputs the report **110** to the entities by means of at least one of emails, charts, videos and images. It may be understood to a skilled person in art that the output unit **218** may also output the report **110** in other formats.

[0034] Figure 3 depicts a method **300** for managing information in a manufacturing plant, in accordance with an embodiment of the present disclosure.

[0035] As illustrated in **Figure 3**, the method **300** includes one or more blocks illustrating a method for managing information in the manufacturing plant. The method **300** may be described in the general context of computer executable instructions. Generally, computer executable instructions may include routines, programs, objects, components, data structures, procedures, modules, and functions, which perform specific functions or implement specific abstract data types.

[0036] The order in which the method **300** is described is not intended to be construed as a limitation, and any number of the described method blocks may be combined in any order to implement the method. Additionally, individual blocks may be deleted from the methods without departing from the spirit and scope of the subject matter described.

[0037] At block **302**, the method **300** may include dynamically extracting datasets **106**, pertaining to a plurality of stages associated with the lifecycle of the manufacturing plant, from each data block **220**. The plurality of stages comprises at least one of a feasibility and budget stage, a design and construction stage, and an operations and maintenance stage. Further, each stage comprises one or more key performance indicators (KPIs) **108**.

[0038] At block **304**, the method **300** may include integrating the datasets **106** in a standardized format in such a manner that the datasets **106** becomes accessible to entities associated with the manufacturing plant.

[0039] At block **306**, the method **300** may include analyzing the integrated datasets **106** using the one or more KPIs **108** associated with each stage of the lifecycle of manufacturing plant. The analysis is performed when a request is received from an entity for analyzing dataset corresponding to one stage with respect to another dataset corresponding to another stage based on his/her requirement or at least one of the datasets **106** are updated during the lifecycle of the manufacturing plant.

[0040] At block **308**, the method **300** may include generating a report **110**, based on the analysis, indicating holistic performance of the manufacturing plant in accordance with the one or more KPIs **108**.

[0041] At block **310**, the method **300** may include providing the report **110** to the entities in form of at least one of charts, emails, videos and images. The report **110** comprises variance report, gap analysis report, compliance report, and delay report.

[0042] A description of an embodiment with several components in communication with each other does not imply that all such components are required. On the contrary, a variety of optional components are described to illustrate the wide variety of possible embodiments of the invention.

[0043] When a single device or article is described herein, it will be clear that more than one device/article (whether they cooperate) may be used in place of a single device/article. Similarly, where more than one device or article is described herein (whether they cooperate), it will be clear that a single device/article may be used in place of the more than one device or article or a different number of devices/articles may be used instead of the shown number of devices or programs. The functionality and/or the features of a device may be alternatively embodied by one or more other devices which are not explicitly described as having such functionality/features. Thus, other embodiments of the invention need not include the device itself.

[0044] Finally, the language used in the specification has been principally selected for readability and instructional purposes, and it may not have been selected to delineate or circumscribe the inventive subject matter. It is therefore intended that the scope of the invention be limited not by this detailed description, but rather by any claims that issue on an application based here on. Accordingly, the embodiments of the present invention are intended to be

illustrative, but not limiting, of the scope of the invention, which is set forth in the following claims.

[0045] While various aspects and embodiments have been disclosed herein, other aspects and embodiments will be apparent to those skilled in the art. The various aspects and embodiments disclosed herein are for purposes of illustration and are not intended to be limiting, with the true scope and spirit being indicated by the following claims.

WE CLAIM:

1. An information management system (102) for a manufacturing plant, wherein the system (102) comprises:

a plurality of data blocks (220), wherein each data block containing dataset relating to a particular stage associated with a lifecycle of the manufacturing plant;

a processor (204) coupled with the plurality of data blocks (220) and is configured to:

dynamically extract datasets (106) from each data block;

integrate the datasets (106) in a standardized format;

analyse the integrated datasets using one or more respective KPIs (108) associated with each stage of the lifecycle of the manufacturing plant; and

generate a report (110), based on the analysing, indicating holistic performance of the manufacturing plant in accordance with the one or more KPIs (108).

2. The system (102) as claimed in claim 1, wherein the stage comprises at least one of a feasibility and budget stage, a design and construction stage, and an operations and maintenance stage.

3. The system as claimed in claim 1, wherein the processor (204) analyses the integrated datasets when:

a request is received from an entity for analysing dataset corresponding to one stage with respect to another dataset corresponding to another stage based on his/her requirement; or

any one of the datasets (106) is updated during the lifecycle of the manufacturing plant.

4. The system (102) as claimed in claim 1, wherein the processor (204) is further configured to provide the report (110) to the entity in form of at least one of charts, emails, videos and images, wherein the report (110) comprises at least one of variance report, gap analysis report, compliance report, and delay report.

5. The system (102) as claimed in claim 1, wherein:

the datasets (106) comprise feasibility and budget stage dataset (120), a design and construction stage dataset (122) and an operations and maintenance stage dataset (124); and

the one or more KPIs (108) comprises at least one of CAPEX, schedule, quality parameters, safety parameters, sustainability parameters, plant output, and utility consumption

6. A method of managing information in a manufacturing plant, the method comprising:

performing, by a processor (204) coupled with a plurality of data blocks (220), wherein each data block containing dataset relating to a particular stage associated with a lifecycle of the manufacturing plant,

dynamically extracting datasets (106) from each data block;

integrating the datasets (106) in a standardized format;

analysing the integrated datasets using one or more respective KPIs (108) associated with each stage of the lifecycle of the manufacturing plant; and

generating a report (110), based on the analysing, indicating holistic performance of the manufacturing plant in accordance with the one or more KPIs (108).

7. The method as claimed in claim 6, wherein the stage comprises at least one of a feasibility and budget stage, a design and construction stage, and an operations and maintenance stage.

8. The method as claimed in claim 6, wherein the analysing integrated datasets is performed when:

a request is received from an entity for analysing dataset corresponding to one stage with respect to another dataset corresponding to another stage based on his/her requirement; or

anyone of the datasets (106) is updated during the lifecycle of the manufacturing plant.

9. The method as claimed in claim 6, further comprising:

providing the report (110) to the entity in form of at least one of charts, emails, videos and images, wherein the reports (110) comprise at least one of variance reports, gap analysis reports, compliance reports, and delay reports.

10. The method as claimed in claim 6, wherein:

the datasets (106) comprise feasibility and budget stage dataset (120), a design and construction stage dataset (122) and an operations and maintenance stage dataset (124); and

the one or more KPIs comprises at least one of CAPEX, schedule, quality parameters, safety parameters, sustainability parameters, plant output, and utility consumption.

Dated this15th Day of June 2022

-- Digitally Signed--

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ABSTRACT

AN INFORMATION MANAGEMENT SYSTEM AND A METHOD OF MANAGING INFORMATION FOR A MANUFACTURING PLANT

Disclosed herein is a system **102** and method for managing information for a manufacturing plant. The system **102** comprises data blocks **220**, wherein each data block containing dataset relating to a particular stage associated with a lifecycle of the manufacturing plant. The system **102** further comprises a processor **204** coupled with the data blocks **220**. The processor **204** dynamically extracts datasets **106** corresponding to a plurality of stages associated with the lifecycle of the manufacturing plant. The system **102** further integrates the datasets **106** in such a manner that each dataset **106** becomes accessible to entities associated with the manufacturing plant. The system **102** further analyses the datasets **106** in accordance with one or more KPIs **108** so as to monitor performance of the one or more KPIs **108** during the lifecycle of manufacturing plant. Further, the system **102** generates report **110** based on the analysis.

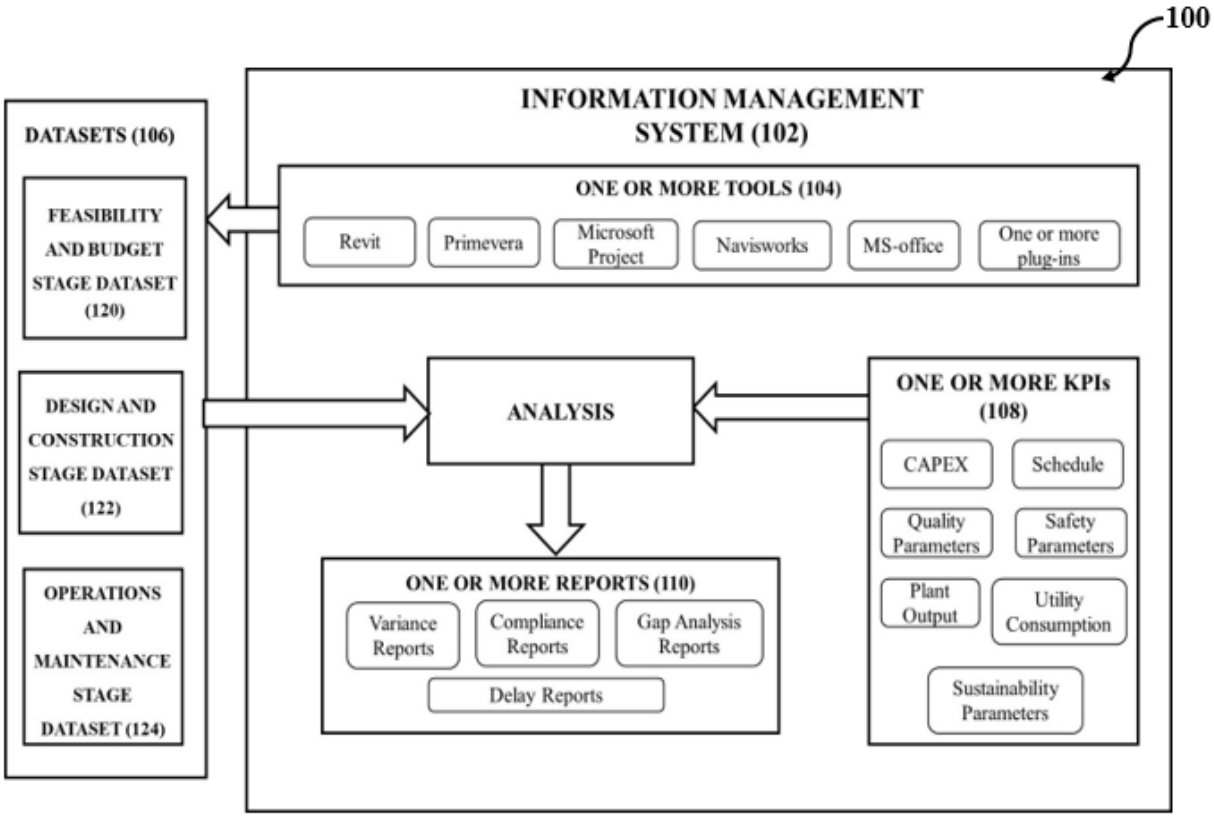

Figure 1

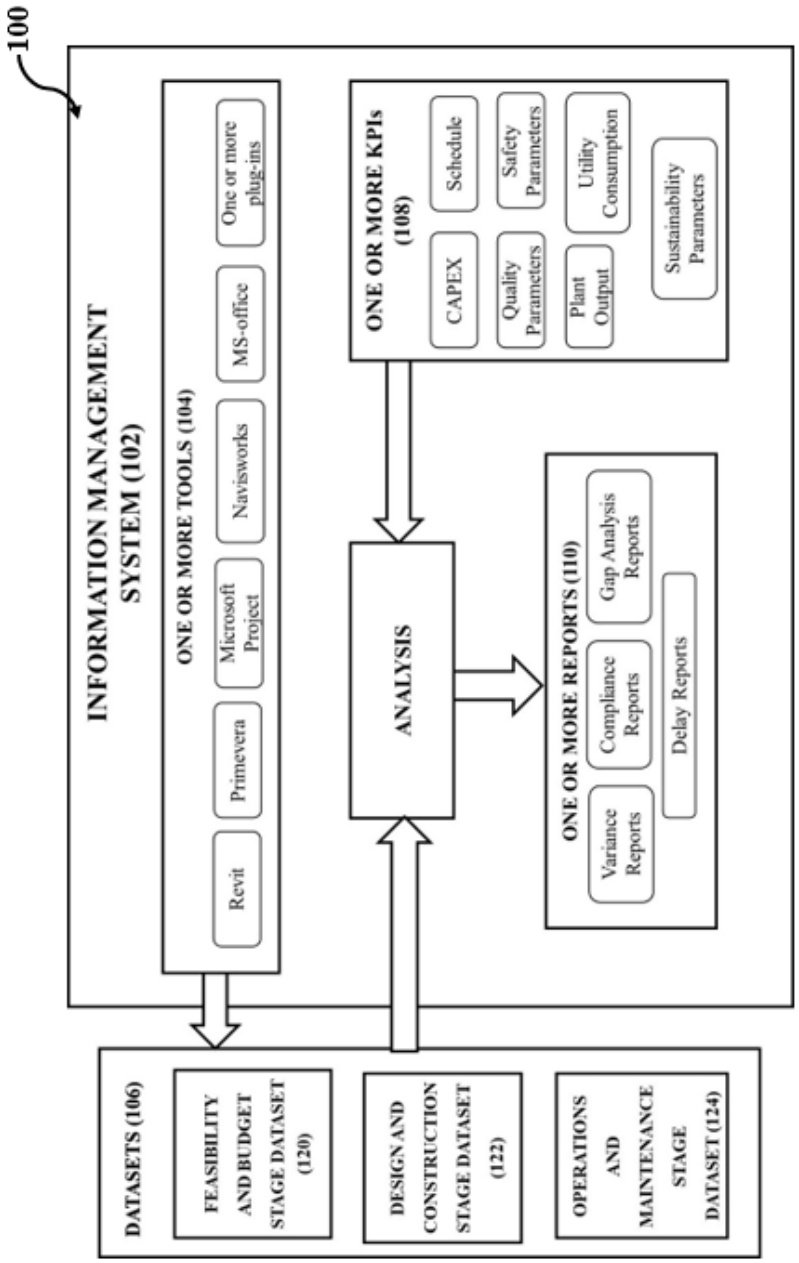

Figure 1

-- Digitally Signed--
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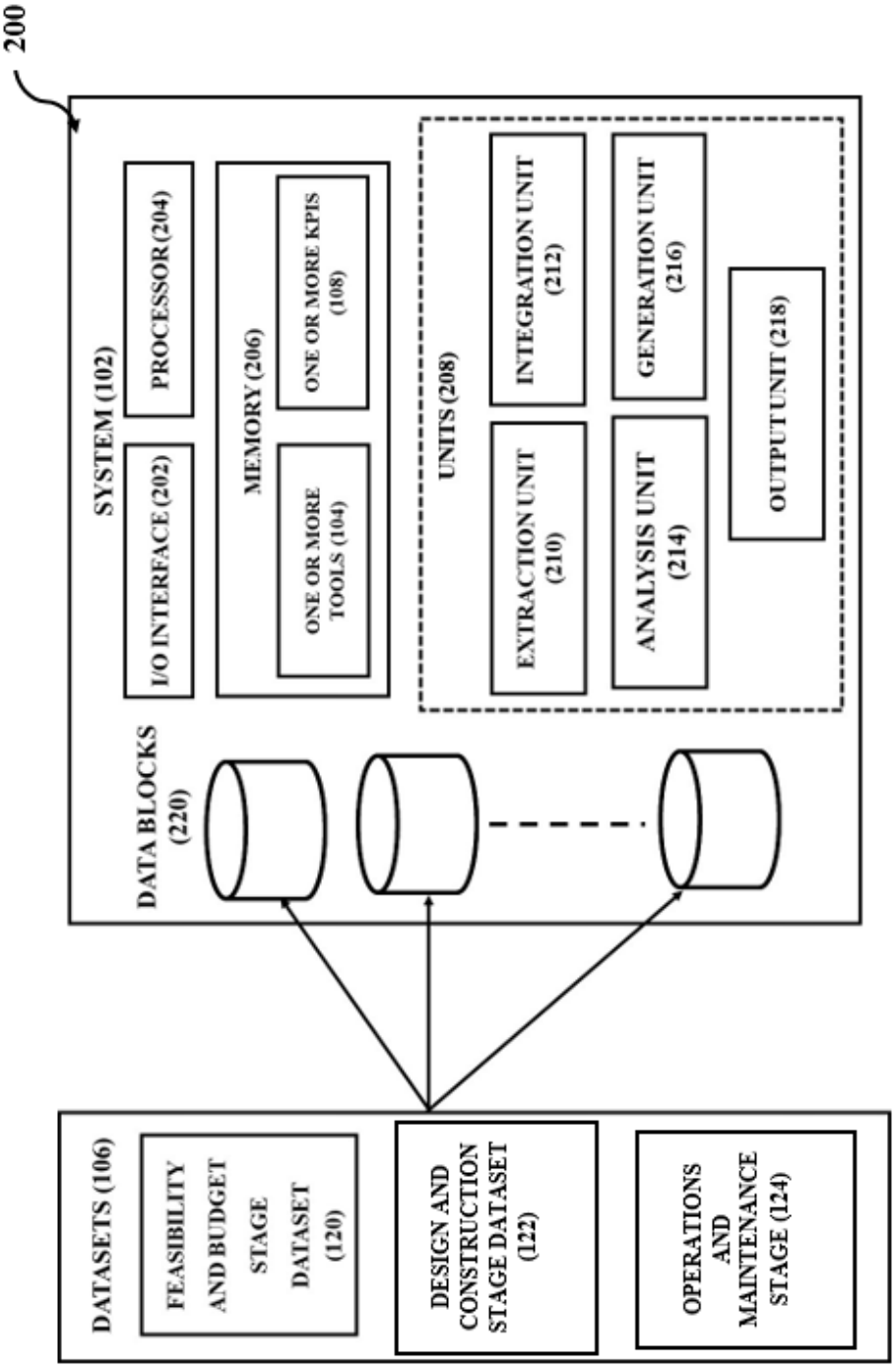

Figure 2

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DLF 3rd Block, 2nd Floor,
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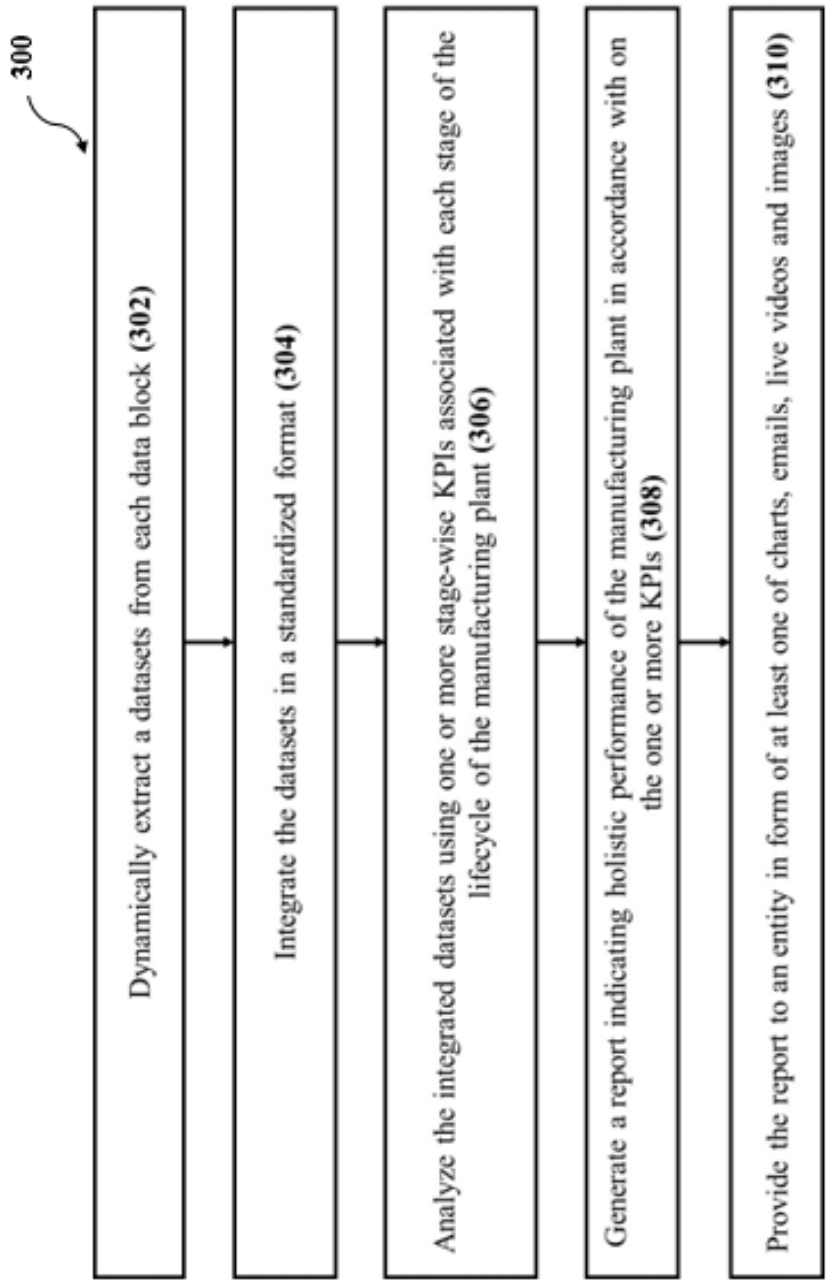

Figure 3

-- Digitally Signed--

Bhanu Prasad (INPA No: 3253)
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