Proficy

Manufacturing Discrete

Proficy for Manufacturing Discrete 6.2

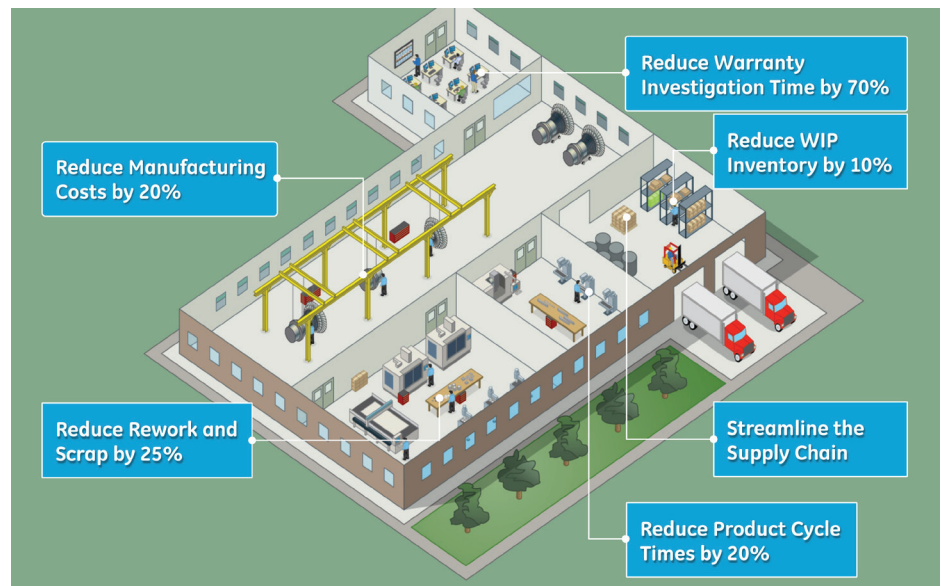## Manufacturing Execution Management Software

Benefits

- Produce products faster with digitized standard operating procedures
- Reduce Work in Process inventory through better WIP visibility and management
- Achieve tighter control on quality by digitally capturing quality data and ensuring the product is within specification
- Streamline the supply chain through managing outsourced operations and capturing supplier quality data
- Reduce warranty costs by ensuring product is manufactured correctly and having comprehensive "As Manufactured" product records

Features

- Standards-based (ISA 95) Unified Manufacturing Database
- Service Oriented Architecture (SOA) for easier enterprise connectivity
- Common visualization and reporting
- Business plant floor connectivity through B2MML
- Robust workflow engine to define and execute processes

The value of digitizing your process

Reduce Warranty Investigation Time by 70%

Reduce WIP Inventory by 10%

Reduce Manufacturing Costs by 20%

Reduce Rework and Scrap by 25%

Streamline the Supply Chain

Reduce Product Cycle Times by 20%

GE's Proficy* for Manufacturing Discrete (PfMD) 6.2 is a powerful software solution for complex discrete manufacturing environments. It takes your manufacturing execution to the next level through complete digitization of paper-based processes—helping you stay competitive.

Developed and honed within GE's manufacturing businesses, PfMD incorporates our best manufacturing practices, high-performance technologies, and more than 25 years of MES expertise.

PfMD is adaptable to multiple manufacturing environments—ranging from the production of long-cycle, complex products engineered to order to discrete products being configured to order.

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- Integrated with GE's Proficy Manufacturing suite for consistency across products
- Standard connectivity to ERP and PLM systems for rapid deployments
- Modularized to deploy in phases for near-term and long-term benefits
- Advanced architecture integrates with existing plant floor controls and operations

Capabilities

Digitizing work processes, PfMD enables the entire manufacturing work force, including operators, production supervisors, manufacturing engineers and quality engineers to produce products faster, more efficiently, and consistently.

PfMD has been designed to handle environments where over 100,000 routes, hundreds of thousands of documents, and tens of thousands of quality forms are required to support the products being produced.

In the area of production, PfMD provides:

- **Detailed Order Scheduling** – provides a plant floor finite capacity scheduling tool that allows production planners to assign capacities and optimize the scheduler for executing orders through interaction and "what if" scenarios. (This capability is packaged as Proficy Scheduler and is available standalone or as an option to PfMD.)

- **Product Management** - defines the products controlled by the PfMD system, including bill of materials required to manufacture each product and product variations.

- **Order Execution** - releases and executes the orders obtained from the higher level enterprise system and/or from Proficy Scheduler. Orders can be modified within PfMD to handle any changes.

- **Route Management** - provides the definition of routes, the operations associated with the routes, and the detailed operational steps.

- **Dispatch** - enables operations to be dispatched to lines and/or work cells based on the route definitions in the form of jobs to be executed. The queue of jobs associated with a line and/or a work cell is made up of comparable operations from multiple orders.

- **Labor Tracking** - tracks for cost accounting purposes as jobs are executed. Typically, the tracked labor feeds back to an enterprise-level system upon completion of jobs.

- **WIP Management** - provides up-to-date visibility of all work in process orders, including the current location and/or operation of each order released to manufacturing. WIP displays can be set up as plant floor marquees with automatic, time-based updating.

- **Manufacturing Instructions** – includes information for operations such as workflow-based process steps and/or instruction documents. The process steps can also include the execution of quality forms (see Quality Data Capture).

- **Documentation Management** - manages the documents utilized within the system, including the creation, modification, and revision control of documents, which can be routed through an approval process prior to production.
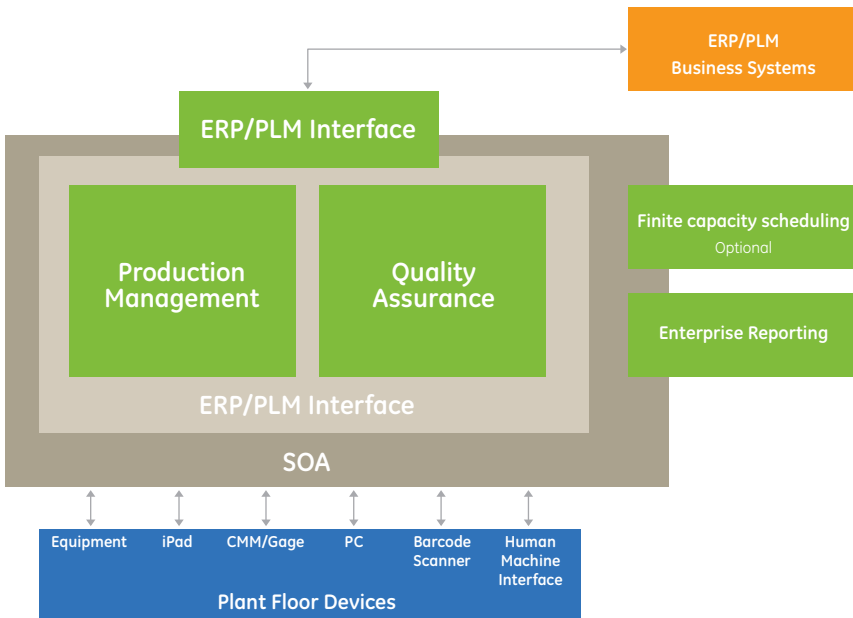
MES Digitization – Complex Discrete Manufacturing

GE's five-step journey to a full implementation to achieve ROI faster

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A simple and layered architecture adaptable to existing infrastructures

In the area of Quality, PfMD provides:

- **Genealogy and Traceability** - captures a permanent record of as-built product data, including the material/BOMs, along with all quality data and routes/operations.

- **Quality Data Capture†**- captures quality data associated with the product and/or process through quality forms.

- **Qualification and Certification Management†** - configures the qualifications and/or certification levels of equipment and personnel to ensure the right people and/or equipment are allowed to perform the operations (i.e., execute the jobs).

- **Approval Process** – ensures overall quality and can be established for both the configuration (e.g., approvals of route definitions, quality forms, and documents) and execution (e.g., routing of non-conformances, the validation of quality data and job completions) of the system.

†Included in Genealogy and Traceability

Helping you stay competitive

Digitizing your MES processes is a critical enabler for achieving effective operations and supply chain optimization. GE is committed to helping you stay competitive today and into the future. Let us help you succeed on the journey toward full digitization with PfMD.

www.ge-ip.com/discrete

About GE Intelligent Platforms

GE Intelligent Platforms is a division of GE that offers software, control systems, services, and expertise in automation and embedded computing. We offer a unique foundation of agile and reliable technology providing customers a sustainable competitive advantage in the industries they serve, including energy, water, consumer packaged goods, oil and gas, government and defense, and telecommunications. GE Intelligent Platforms is headquartered in Charlottesville, VA. For more information, visit www.ge-ip.com.

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