



# Proficy Plant Applications 8.1 from GE Digital

Maximize operations management, improve production performance, and drive product quality

## Modern Manufacturing Execution System (MES) software to maximize operational effectiveness

Proficy Plant Applications from GE Digital is a powerful operations management solution for process, discrete, and mixed manufacturers – spanning food and beverage and consumer packaged goods to aviation and electronics. This MES solution collects and analyzes data, and helps manage highly automated, fast-moving processes as well as slower moving, labor-intensive jobs.

Proven and developed for 25+ years with thousands of implementations around the world, Proficy Plant Applications automates and integrates information-related activities for managing production execution and performance optimization. It helps balance competing priorities of production operations for maximized operational effectiveness and profitability. As a single, seamless MES solution across manufacturing environments, Proficy Plant Applications reduces costs and saves time.

Our new Version 8.1 features a contemporary Web UI with Proficy Operations Hub widgets including Waste and Schedule View, expanded discrete manufacturing capabilities, support for faster deployments with more out-of-the-box ERP integration, and much more.

### Outcomes

- Reduce costs and improve agility with one MES solution that uniquely serves your discrete, process, and mixed manufacturing requirements
- Boost operational effectiveness by understanding operations performance down to the individual asset
- Improve performance with capabilities designed to solve the toughest manufacturing challenges and support Continuous Improvement
- Drive precision with the ability to visualize, analyze, optimize, and execute with a closed-loop solution
- Ensure uncompromising quality with GE's renowned expertise in Lean and Six Sigma, as one of the largest manufacturers in the world
- Leverage faster deployment with commercial off-the-shelf (COTS) software, accelerating implementation and ROI

## 01 Efficiency Management

The Efficiency Management module tracks and monitors overall equipment effectiveness (OEE) and other critical key performance indicators, downtime, waste, and production counts, MTBF, MTTR, and more.

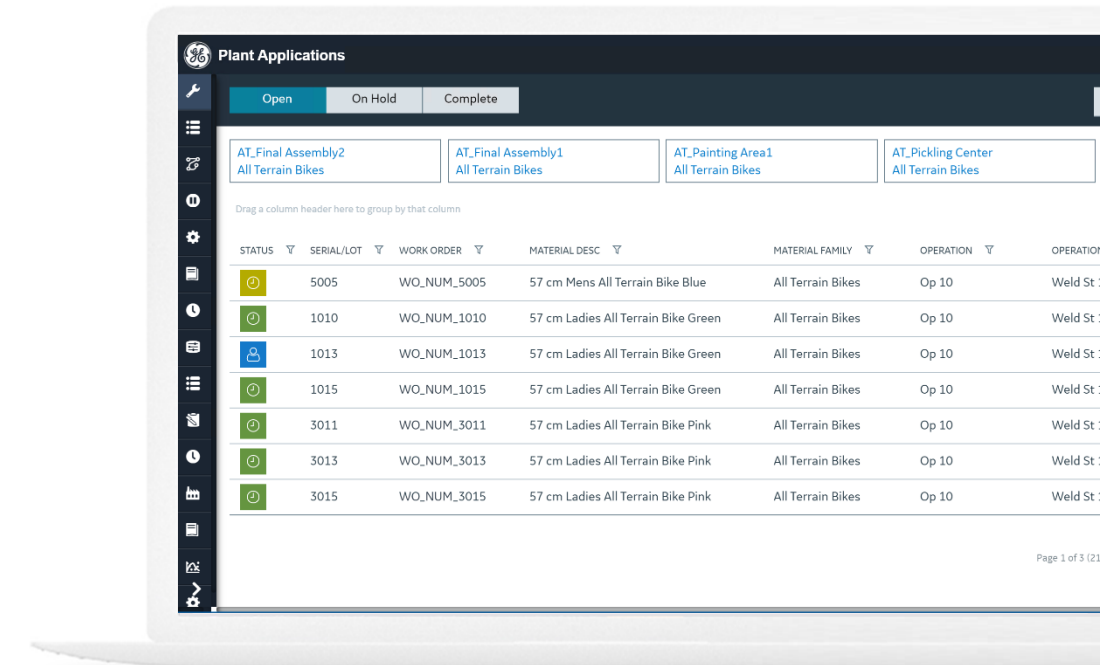
- Automatically or manually associate events with causes and then analyze to identify root causes
- Summarize and analyze data by context
- Correlate events and reasons to actual production parameters. Utilize standard & ad-hoc reports, and dashboards for real-time decisions

## 02 Production Management and Tracking

Define and revision control the route and operations required to make a specific product on a specific line. The Production Management module oversees production operations, including functions to control product flow between equipment, develop product genealogy reports, and make schedule changes to reduce excess inventory. It supports production schedule execution and product tracking against scheduled completion times with adjustments to optimize efficiencies. Production management supports full traceability of individual products through every step of the manufacturing process allowing for auditable genealogy and production reporting.

## 03 Quality Management

The Quality Management module ensures consistent quality in your products, providing real-time trends, statistics, SPC, and notifications to control quality levels. It integrates process, inspection, and test data from both manual and automated sources and houses this information in one, integrated place – including support for 21 CFR Part 11. Quality Management also attaches operator comments, specifications, recipes, and procedure documents to this information.



Proficy Plant Applications helps you understand operations performance using simplified displays optimized to enhance operator productivity.

## 04 Batch Analysis

With our unique layered applications approach and interface to standards-based commercially available batch execution systems, the Batch Analysis module is a great fit for both new and existing systems. It supports ISA-88 recipe analysis for products as formulation (BOM), procedures, and equipment. Batch Analysis also provides analysis of scheduled and completed recipes and generates electronic batch records (EBR) to help increase the overall quality and consistency of products.

*"We further developed our by-the-numbers approach by creating a downtime dashboard – which tracks each line by shift, downtime percentage, and cost of downtime – to create friendly competition amongst factory operators and encourage production efficiency improvements."*

**Don M. Cormier, Vice President, U.S. Information Systems and Quality Assurance, Toray Plastics (America), Inc.**

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## Features

### New in Version 8.1

- New Applications: Receiving Inspection, Time Booking, Waste Management (replaces thick client Waste), Process Order Execution (replaces thick client Production Scheduler), Approval Cockpit
- Discrete Enhancements: lot-based discrete work order execution including lot splits, various improvements to discrete interfaces including major elements in Non-Conformance and Order Management, support for multiple labor types on operations, in progress work order editor, attach files/videos/images, configurable mandatory variable data collection in Activities, enhanced authorization capabilities, integration entry points
- Architectural Enhancements: Non-Docker and Docker installs for both process and discrete, support for AWS RDS (Relational Database Services)
- ERP B2MML messages added
- New language support: Czech, Arabic, Chinese, Japanese, Vietnamese

### Achieve Faster ROI with Proven MES

- Clearly shows areas/causes of productivity losses such as defects, waste, and downtime
- Scalable MES platform for all manufacturing environments – continuous, discrete and hybrid
- Turns production data into performance metrics – monitors automatically & manages consistently
- Operations performance management best practices from the world's leading companies
- Standards-based (S95) unified manufacturing database
- Frees operators from collecting, logging, and interpreting information manually
- Extensive reporting & analysis tools find problems and drive activities for improvements
- Service oriented architecture for easier enterprise connectivity & fast deployment
- Familiar user interface with advanced features designed for future growth

### Other Capabilities and Features

- Track order completion status
- Load set points automatically
- Manage material delivery to the process
- Track true/actual resource consumption and feed back to ERP
- Drive label printing and identification
- Assure product genealogy/traceability
- Track and analyze batch processing information
- Integrate log-sheet information for real-time performance and quality management
- Improve consistency, drive out variability with simple SPC/SQC
- Send COAs to customers automatically
- Support regulatory and internal compliance (energy, environmental, food safety, costs, etc.) – including eSignature capabilities and 21 CFR Part 11 support
- Drive manual and automated work processes

## Software Requirements

- Operating systems:
  - Microsoft Windows 10 for client installations (64 bit)
  - Microsoft Windows Server 2019, 2016 or 2012 R2 for server installations (64 bit)
- Microsoft SQL Server 2019 (with mandate Cumulative Update 4 installed), 2017, and 2016 (64 bit)

## Hardware Requirements

Minimum:

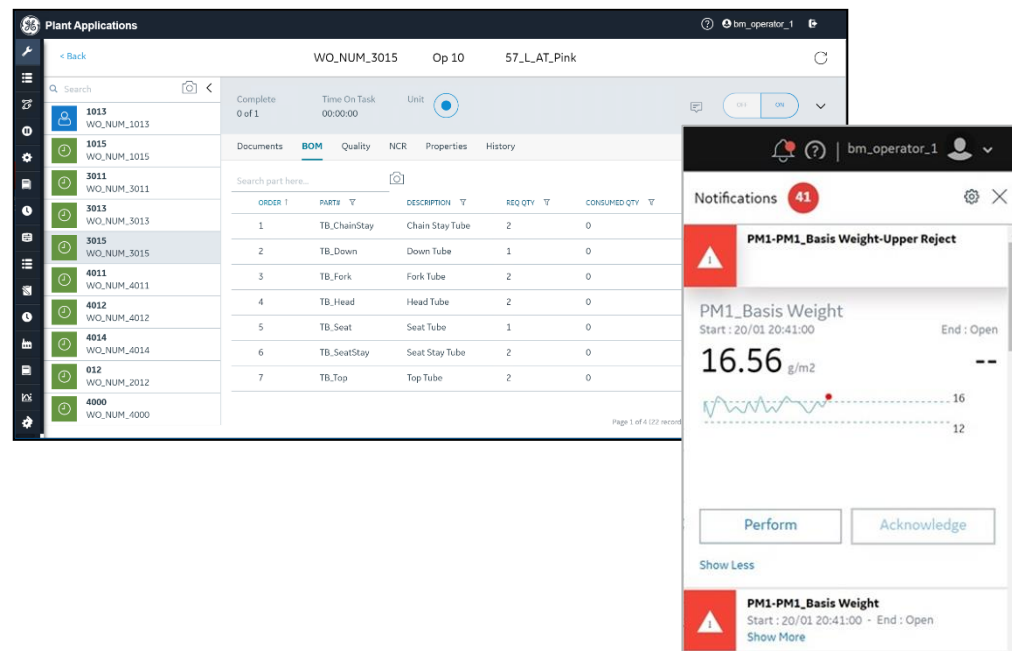
- 4 CPUs with 3.0 GHz processor each
- 16 GB RAM (Optimization of memory allocation needs to be to SQL Server)
- 1 TB hard drive (minimum 7.2KRPM)

For a standard implementation, GE recommends the following:

- 10 Cores with 2.6 GHz processor each
- 32 GB RAM (Optimization of memory allocation needs to be to SQL Server)
- 4 TB hard drive (minimum 7.2KRPM)

Hardware and software requirements listed above are a partial representation. Requirements may vary by user deployment. Please consult the [product documentation](#) for more details.

Empower the modern Digital Worker and operating teams with easy, flexible access to their manufacturing data for better decision making – including real-time interaction on mobile devices.



Learn how Proficiency Plant Applications helps you balance the tradeoffs between competing production priorities and maximize your operational effectiveness.

LEARN MORE



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## Services

In the world of Industrial Internet of Things (IIoT), organizations are able to optimize productivity, reduce costs, and achieve Operational Excellence. While this is an exciting time for opportunity and growth, it can also bring on new challenges, questions, and uncertainty. No matter where you are on your IIoT journey, GE Digital has the right services offering for you.

**Advisory Services** We can help you plan and start your IIoT journey in a way that aligns to your specific business outcomes.

**Managed Services** We can help you maintain your critical machines from one of our remote locations around the world using model-based predictive analytic technology.

**Implementation Services** Our experienced global Automation partners can implement a collaborative, multi-generational program that marries your existing investments to the right enhancements and technology.

**Education Services** We specialize in education services to ensure that you're leveraging our solutions to the fullest extent with our training and certificate programs.

**Acceleration Plans** Let us help by ensuring that your business continues to operate at its highest efficiency, all while mitigating risks to your investments.

**Security Services** Our solutions provide industrial-grade security for a wide range of OT network and application topologies.

## Related Products for Your Digital Transformation Journey

GE Digital's Proficiency suite helps you precisely monitor, control, and visualize every aspect of your operations, enabling operators to make the best decisions faster. Transforming your business requires foundational innovations that lay the groundwork for future success.



### Proficiency Operations Hub

Aggregate and visualize contextual and situational information for industrial applications – supporting rapid application development and rich displays for faster operational response & better decision making



### Predix Manufacturing Data Cloud

Achieve an unprecedented ability to create connected factories that provide a cloud-hosted enterprise manufacturing system of record while optimizing your on-prem MES data footprint and performance



### iFIX

Gain visibility into your operations and secure agility for smarter decision making that drives results with industry-leading HMI/SCADA used around the world.



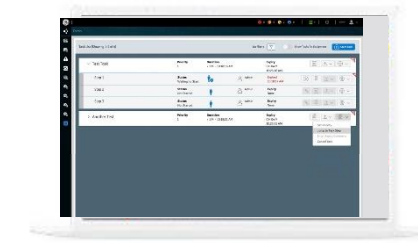
### Proficiency Historian

Optimize asset and plant performance through time-series and A&E industrial data collection and aggregation. Improve decision-making with advanced trend analysis.



### CIMPLICITY

Drive real-time visibility for smart operators with true client-server based visualization and control with proven HMI/SCADA used by the largest industrial organizations



### Proficiency Workflow

Guide operators with dynamic, interactive electronic work instructions and eSOPs for more consistent operations and optimized processes.

#### About GE

GE (NYSE: GE) is the world's Digital Industrial Company, transforming industry with software-defined machines and solutions that are connected, responsive and predictive. GE is organized around a global exchange of knowledge, the "GE Store," through which each business shares and accesses the same technology, markets, structure and intellect. Each invention further fuels innovation and application across our industrial sectors. With people, services, technology and scale, GE delivers better outcomes for customers by speaking the language of industry.

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#### Contact

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