



# Proficiency Plant Applications 2023 from GE Digital

Increase efficiency and reduce costs with one seamless MES across process, discrete and mixed manufacturing

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

Proficiency Plant Applications is a powerful operations management solution for process, discrete, and mixed manufacturers – spanning food and beverage and consumer packaged goods to aviation and automotive. Part of the Proficiency Smart Factory suite, 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, Proficiency 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, Proficiency Plant Applications reduces costs and saves time.

The new Version 2023 reduces time to solution, improves UX, and expands functionality including discrete manufacturing capabilities. New features include zero downtime web client updates, new and enhanced out-of-the-box web UI views, significant additions to non-conformance management, new BOM-related capabilities, 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 and optimization with GE's renowned expertise in Lean, 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.

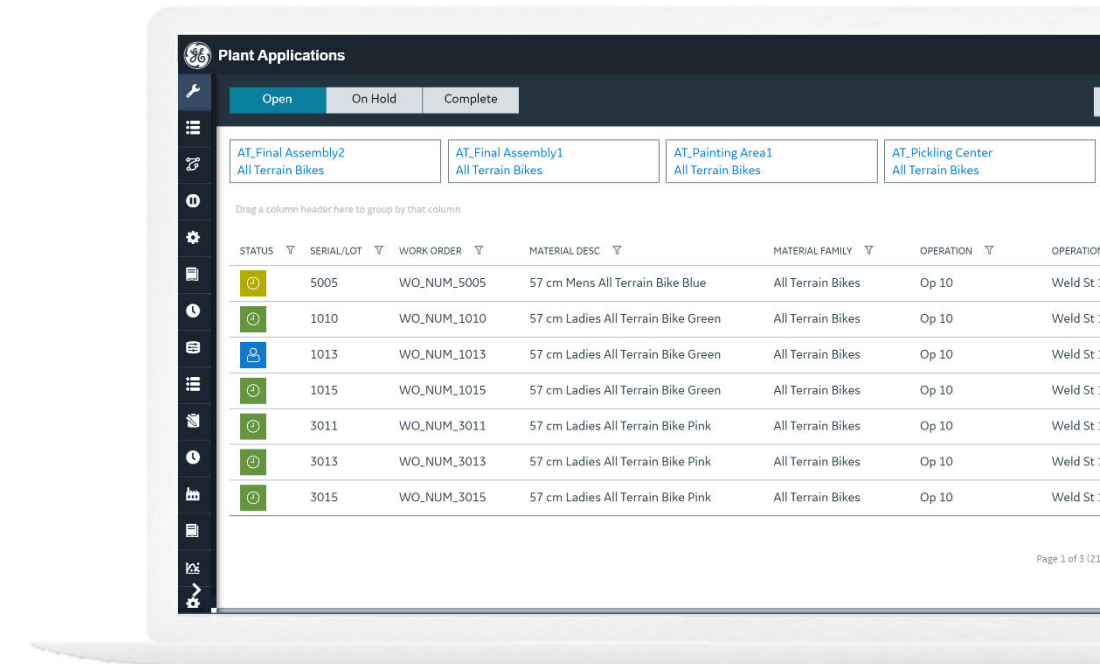
- Automatically or manually associate events with causes and then analyze to identify root causes
- Summarize and analyze data by context
- Correlate events and reasons to actual production parameters. Utilize standard & ad-hoc reports, and dashboards for real-time decisions

## 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 & Batch Analysis

The Quality Management module drives consistent quality in products, providing real-time trends, statistics, SPC, and notifications. 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 attaches operator comments, specifications, recipes, and procedure documents. The Batch Analysis module supports ISA-88 recipe analysis for products as formulation (BOM), procedures, and equipment; provides analysis of scheduled/completed recipes; and generates EBR.



### Level-Up with Proficiency Plant Applications

- Recognized as a Leader by Gartner, ABI Research & Quadrant (QKS)
- Gartner Peer Review Insights: 100% would recommend GE Digital\*
- Faster time to value: dozens of out-of-the-box screens for process, discrete, and mixed manufacturing environments
- Rich visualization: easily customize MES screens without writing code
- Manage large enterprises including mixed/diverse manufacturing, multi-sites, and global
- Run in private or public cloud and/or on-prem
- Proven MES, expert support, and real results

*"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 2023

#### Faster time to solution

- Even smoother installs and upgrades with faster installer startup, fewer inputs, and splitting up Tomcat into multiple instances
- Zero downtime web client updates

#### Better user experience & expanded functionality

- New and enhanced out-of-the-box web UI views
- Other updates: custom tabs in Activities, Work Order Manager and Genealogy; Autolog – multi-column event editing; support for Web Report Server on Chrome, Safari, Edge and Firefox; and smaller overall system memory requirements and disk footprint

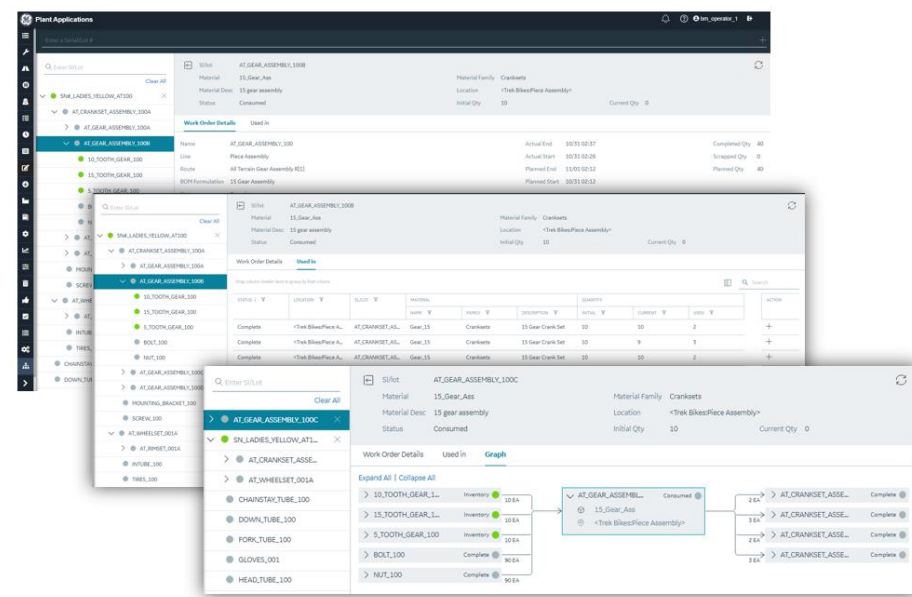
#### Expanded discrete manufacturing capabilities

- Non-conformance management additions: custom dispositions, capturing out of reject quality variables on non-conformance creation, dispositioning integrated into Approval Cockpit, and templated groups of operations for rework
- New BOM-related capabilities: substitutions, BOM quality splits & mandatory BOM items for mutually exclusive sets
- Limited availability of product variables

### Proficiency Plant Applications: Improve efficiency, quality and performance with proven MES

- Scalable MES platform for all manufacturing environments – process, discrete and mixed
- Single pane of glass: use out-of-the-box apps and no-code / low-code Rapid Application Development (RAD) environment to customize operator and supervisor views
- Contemporary Web UI with widgets improves operator response and collaboration
- Built-in ERP integration includes Material Receipt Download, Inbound Work Order, BOM Consumption, and ~20 other messages
- Clearly shows areas/causes of productivity losses such as defects, waste, and downtime
- 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
- Browser-based apps & functionality: Alarm View, Order Management, Non-Conformance, Genealogy (displays BOM consumption, source, used-in), Receiving Inspection, Time Booking, Waste Management, Process Order Execution, Approval Cockpit, Bill of Materials (BOM) Editor, In-Progress Work Order Editor
- Designed for mobile: support for Apple/iPads, Android and Windows tablets
- Attach files/videos/images to work orders, lots, downtime, Activities, and more
- Standard and highly scalable Enterprise Editions to support large and small plants / enterprises; support for up to 500 concurrent users
- Run on-prem and/or private or public cloud. Hosted Efficiency Management, Production Management and Quality Management modules available
- Support for Azure SQL Database Managed Instance and AWS RDS (Relational Database Services)
- Service-oriented architecture for easier enterprise connectivity and fast deployment
- Extensive reporting and analysis tools find problems and drive activities for improvements
- Track order completion status

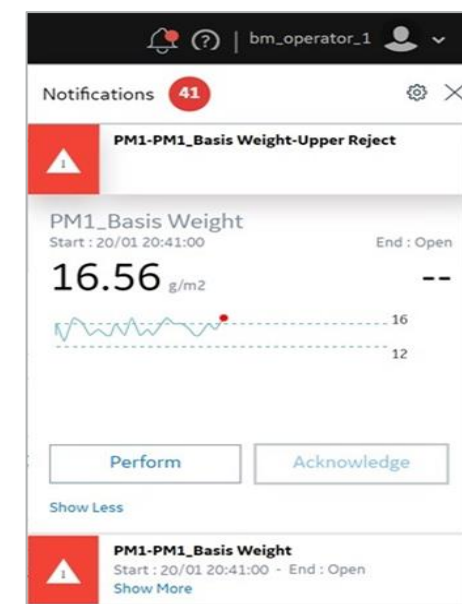
- Support regulatory and internal compliance (energy, environmental, food safety, costs, etc.) – including eSignature capabilities and 21 CFR Part 11 support
- Assure product genealogy/traceability
- Track and analyze batch processing information
- Support for optional, parallel and mutually exclusive operations
- Integrate log-sheet information for real-time performance and quality management
- Improve consistency, drive out variability with simple SPC/SQC
- Support for multiple labor types on operations
- Drive label printing and identification
- Secure by design including enhanced authorization capabilities
- Support for Unicode – database and Web displays
- Support for 20+ languages, additional languages can be added with ~3 months notice
- Global systems integrator ecosystem and GE Digital's Professional Services for cost-effective implementations and maintenance
- Extensive online and in-person training options



Empower the modern Connected Worker and operating teams with easy, flexible access to their manufacturing data for better decision making.

To the left, see our newly enhanced Genealogy app.

To the right, see our real-time interaction on mobile devices.



\*As of 10/2022 (rolling 12-month metric)

For detailed Hardware and Software Requirements, please consult the [product documentation](#).

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.

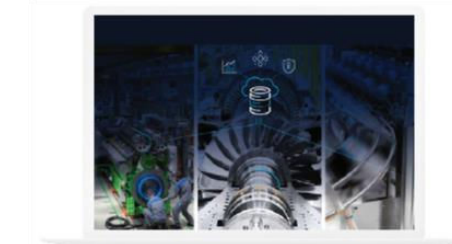
## Related Products for Your Digital Transformation Journey

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



### Proficiency 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 Orchestration Hub

Increase throughput with accurate manufacturing product data across the enterprise, helping companies overcome supply chain issues and meeting changing customer demands.

#### 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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