

Proficy Workflow

Lean Your Production with GE

You know how to solve problems in your operations. Now, solve them faster with a powerful new toolset in the Proficy Software suite.

Based on GE and Microsoft® technology and expertise, Proficy Workflow is a user-configurable, dynamic decision-making engine for integrating automated and manual business and production processes across system and departmental boundaries – ensuring reliable, repeatable process execution.

With Proficy Workflow, you can define a process or “workflow” – normally comprised of a number of steps with a logical execution path. Each step can involve manual interaction with a user or be automated with your equipment. Proficy Workflow ensures the process is followed and records the outcome of the execution – all in a secure environment.

This technology crosses the boundaries between your production and business operations. Proficy Workflow will transform your thinking on all the workflows that exist within your facility, and now you have a tool for rapid development and deployment to digitize, monitor and manage them.

- Solve production problems immediately without demands on IT
- Capture manual and automated processes with one tool – without custom code
- Act quickly based on real-time events – “Manage by Exception”
- Replicate across your business using libraries and templates
- Close the loop between plant and enterprise systems
- Connect to any OPC data source
- Leverage proven GE and Microsoft technology and support

Use Proficy Workflow to:

- Orchestrate high-level processes and manage the data between systems
- Digitize GMP tasks
- Digitize SOPs and work instructions
- Implement HACCP monitoring procedures and corrective action
- Enable alarm and event response, corrective action
- Manual assembly error-proofing
- Set up lines, work cells and machines



Proficy Workflow – Connecting to Your Existing Systems

Adding Value to Any HMI System

- Alarm Corrective Action – Fix production faster and gain greater visibility
 - Workflows automatically send tasks to people or other systems to correct for alarms
- Rapid development of Digitized Work Instructions with Validated Entry
 - Ensure production complies with defined processes
- Eliminate Scripting for Defining Processes, Using Proficy Workflow instead
 - Approximately 30-50% faster than HMI scripting, and easier to maintain

Adding Value to Any MES System

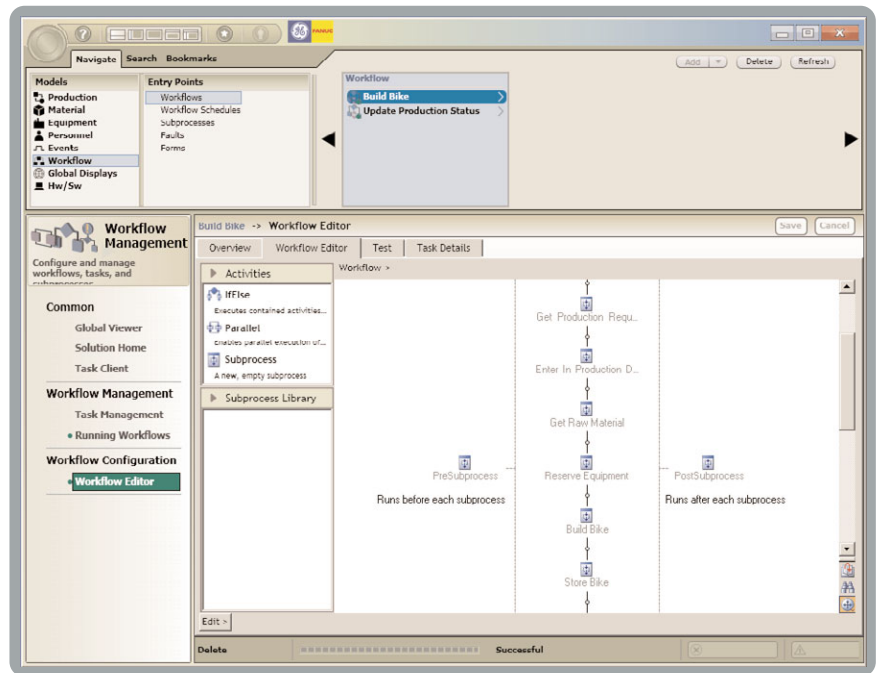
- Automate the process of Engineering Spec Changes
 - Changes are routed for approval and ensures everyone knows about critical changes
- Exception Management / Event Triggered Corrective Action Workflow
 - Take action only as needed, improve response time and record corrective actions
- Event Triggered QA Sampling Request
 - Digitize your QA plan, distribute sampling tasks across the plant and ensure compliance
- Enhance maintenance systems with work order workflows and EAM integration
- Eliminate scripting languages; achieve faster, broader development with workflows

Adding Value to Any ERP System

- Deliver information and functionality based on business processes and workforce roles
- Unify your disparate plant and business systems
- Synchronize sequences and business processes
- Collect data based on process response and takt time
- Drive process visibility – know where orders are at in the plant – right now

Adding Value as a Tool to Create and Manage Processes

- Digitized Work Instruction with Manual Data Entry
- Error-Proofing and Station-Level Control
- Data Conditioning from other systems, Middleware
- Build-To-Order Systems
- Manual Assembly Processes
- Material Staging
- Engineering Change Order
- Waste Stream Monitoring

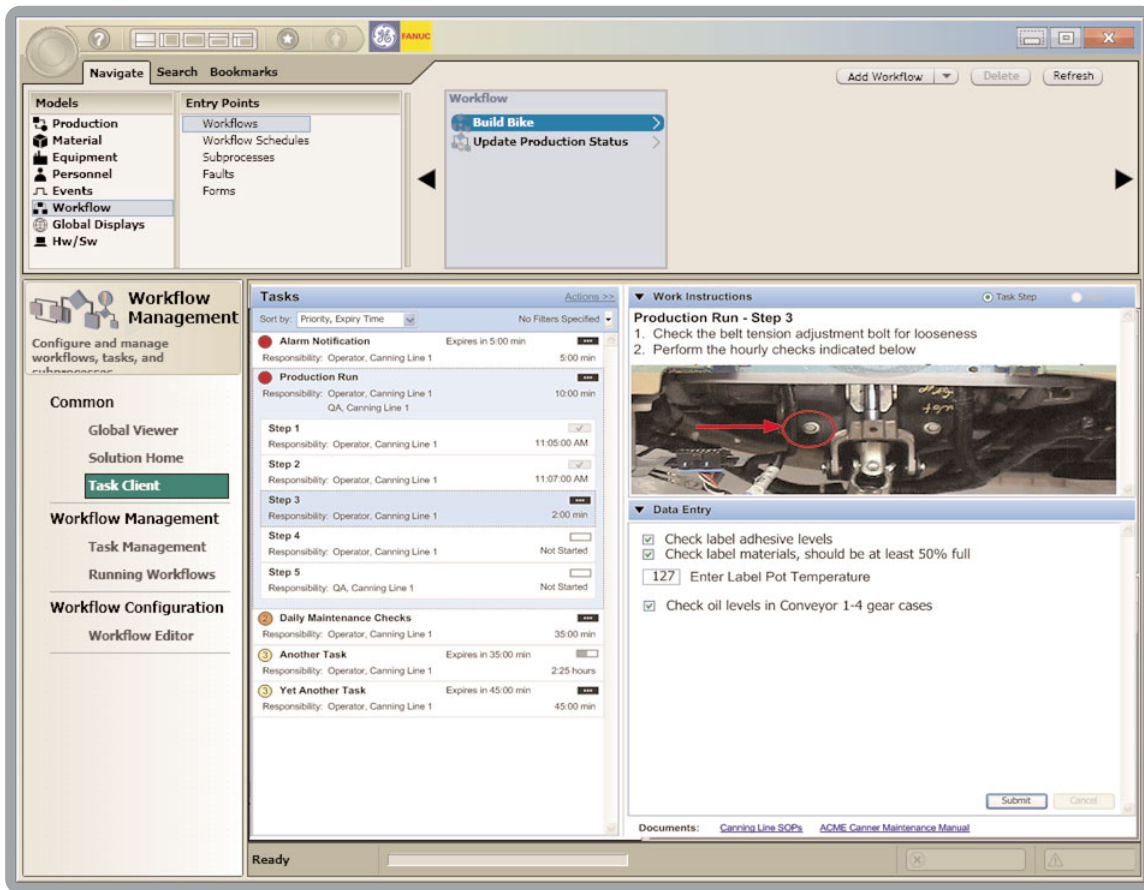


“As barriers to exchanging information between automation systems, operations management and enterprise systems come down, manufacturers, processors, and OEMs are seeking tools that maximize the impact that this information will have on productivity, business opportunities, and lifecycle costs.

“A key tool that will enable today’s plants and factories to realize this strategy for operational excellence is the ability to define the process or workflow steps required to achieve a logical execution path. Proficy Workflow appears to meet this criteria of a tool that will help move manufacturers, processors, and OEMs to a single environment where the existing systems are connected and interacting with each other to maximize the information value of each asset, which will positively impact plant and factory productivity and profitability.”



Craig Resnick
Research Director
ARC Advisory Group



Improving Your Production Operations

- Benchmark, improve, and control processes
- Standardize processes and metrics across automated and non-automated production assets
- Operate plant by exception
- Reduce resource requirements
- Improve cycle times
- Achieve Just-In-Time information and documents for process execution
- Reduce WIP inventory
- Achieve Right-First-Time with Error-Proofing, reduce re-work
- Comply with regulations
- Perform tasks only when statistically required
- Improve quality and on-time deliveries
- Integrate maintenance and operating procedures
- Bridge S88 systems and non-S88 systems together
- Implement S95 without being constrained by S95 or forced into re-engineering where re-engineering is not necessary

Example Use Cases

Use Case #1 – Lean Your Processes

Document and execute processes – digitizing workflows – to improve, eliminate and automate steps. Workflow records date/time and who performed the work, closing the loop for process improvement with factual data.

Use Case #2 – Manage Production Specifications

Changes to specifications can trigger a workflow that will route the changes through a number of approvers, such as the Quality Control Manager and then to the Production Manager for final approval and notification.

Use Case #3 – Sample Requests

When a certain condition arises – such as a combination of variables outside a limit, or a time window lapses – Proficy Workflow can send a request to QA to perform tests or take samples. Likewise, you can trigger a workflow through any alarming capabilities of connected plant applications or systems.

Use Case #4 – Corrective Action

A “Proof of Effectiveness” loop in ISO-900x can be digitized with Proficy Workflow to respond to problems and events, and all the execution data and data entry will be captured and stored for later analysis.

Use Case #5 – Downtime Reasons – On-the-fly

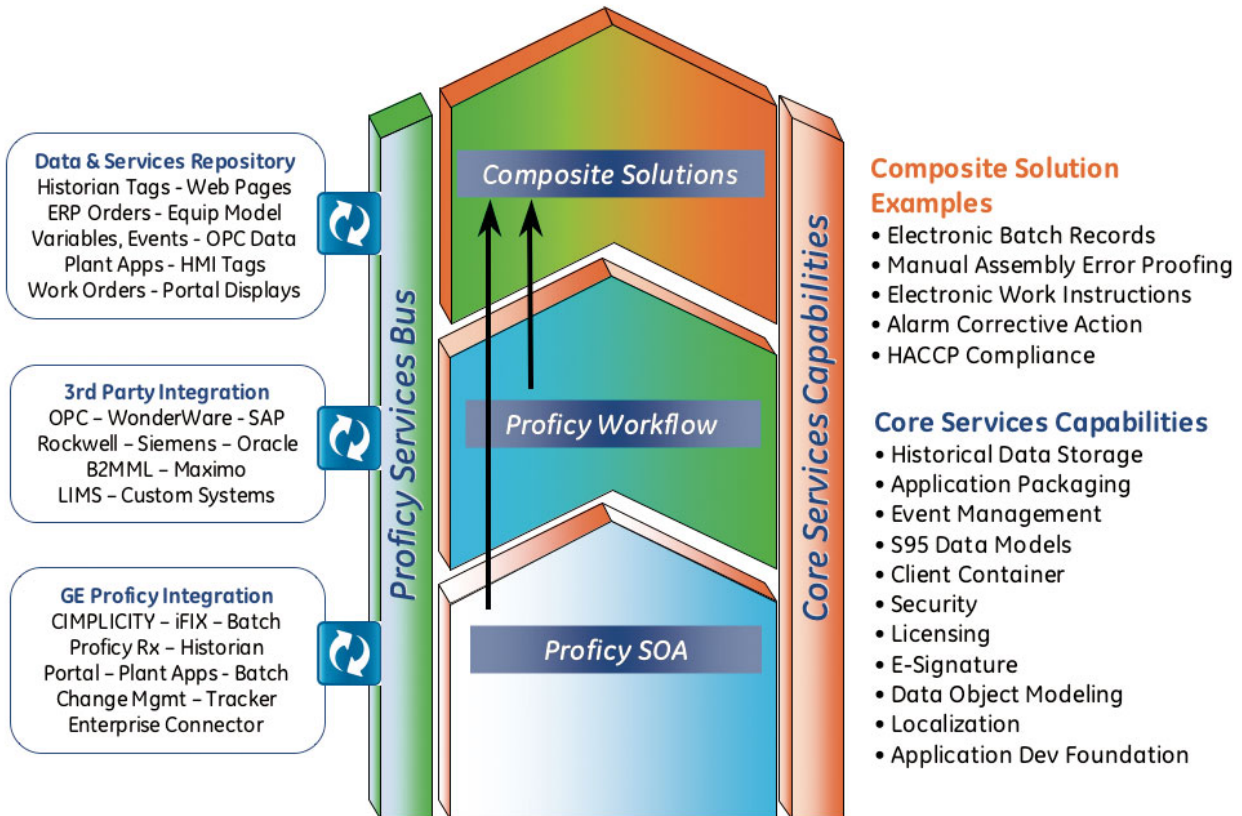
As your plant systems generate downtime events, Proficy Workflow can evaluate conditions at that moment in time and infer downtime reason codes and write the downtime reasons back to those systems.

Powered by Proficy SOA

An Industrial Service Oriented Architecture

- Centralized Configuration and Management Environment
- Diverse Client and 3rd Party Hosting Container
- Real-Time Services Bus
- Service Provider Interface for 3rd Party and Legacy System Integration
- Global Data and Services Repository
- Role-Based Security
- Event Services
- Diagnostic Services
- Object-Relational Persistence Engine
- S88/S95 Data Models
- Application Development Foundation

Proficy SOA Enables Composite Solutions



GE Fanuc Intelligent Platforms Information Centers

Americas:
1 800 GE FANUC or 434 978 5100

Asia Pacific:
86 21 3222 4555

Europe, Middle East and Africa:
800 1 GE FANUC or 800 1 4332682
or 1 780 401 7717

Europe, Middle East and Africa (CNC):
352 727979 1

Additional Resources

For more information, please visit the GE Fanuc web site at:

www.gefanuc.com

