iFIX® 2024 – PROFICY® HMI/SCADA SOFTWARE

GE VERNOVA

Improve productivity & process control with new generation iFIX featuring native HTML5, MQTT & analytics

Modern, industrial-strength HMI & SCADA for today's connected workers

With just a glance, operators should be able to recognize which information requires their attention and what action needs to be taken. They need to know quickly what problems have arisen and how they can address them efficiently. You can enable connected workers with proven and innovative iFIX HMI/SCADA. Used by thousands of industrial organizations around the world, iFIX is part of the Proficy family from GE Vernova.

iFIX delivers faster time to insight and greater efficiency for your operations while speeding time-value for system integrators.

Explore our new generation iFIX 2024 featuring up to 80% reduction in alarm generation and distribution time during floods, integrated advisory analytics, up to 80% improvement in Workspace startup, and much more.

With capabilities beyond your traditional HMI, native HTML5 means less installation and maintenance effort, easier mobility, responsive design, added value with modern web functionality, secure by design, and rich information where and when you need it – on the device of your choice, in the control room or out in the field.

OUTCOMES BY DESIGN

- Reduce development and deployment time and costs with native HTML5, Object Orientation, and a unified configuration environment – including the ability to automatically create iFIX and Proficy Historian tags
- Optimize with advisory analytics such as alarm pattern recognition
- Speed operator response with modern screens, centralized visualization, and ISA 18.2 alarm management
- Reduce troubleshooting time with higher situational awareness, using High Performance HMI layouts and context-driven navigation based on a model structure
- Improve output for OEMs, system integrators, and end users with flexibility and extensibility – easy-to-create, repeatable projects
- Minimize maintenance time and costs with Web-based configuration and advanced lifecycle management
- Provide real-time data to your supply chain through secure-by-design, standards-based communication
- Ensure highest reliable uptime with native SCADA redundancy

01 Accelerate with native HTML5, centralized configuration & lifecycle management

iFIX's centralized Web-based configuration environment allows users to:

- Quickly connect to structured data sources like PLCs; browse the PLC asset hierarchy as well as other IGS and OPC UA data sources; create objects, model templates such as tanks and pumps, instances of objects, and PDB tags
- Use a modern Web-based structured database manager and model
- Visualize iFIX pictures and graphical objects in model context
- Automatically creating tags in iFIX and Proficy Historian

Access and manage the data from all you iFIX nodes across your network from a single Web browser instance, using secure-by-design digital certifications and ensuring trust between the Web client and SCADA servers. Multiple HMI/SCADA developers can work simultaneously on the same project from a Web browser anywhere on the network. Audit logs can track changes to help ensure compliance to your highest standards.

02 Leverage templates for process industries, advisory analytics & High Performance

To help engineers quickly create the right user experience, iFIX provides modern sample systems (Water/Wastewater, Food & Beverage, Pharmaceuticals, Chemicals, Power) as well as predefined objects and templates designed using High Performance HMI concepts.

Take advantage of rich, ISA standards-based capabilities such as High Performance Dynamos, alarm shelving, and model-based visualization that decrease development time and costs while improving operator response for higher uptime and quality.

Furthermore, optimize with advanced analytics out of the box such as alarm pattern recognition, PID control loop tuning, and sensor health.

03 Achieve visualization where you need it, anywhere, any time

Thanks to our wide range of HTML5-compatible clients such as Proficy Operations Hub and Proficy Webspace, iFIX screens can deliver information anywhere, any time, on a desktop, tablet, or smartphone – regardless of the form factor.

04 Reduce risk with secure-by-design innovation & best practices: on-prem to cloud

Cloud-based, on-prem or hybrid architecture, iFIX leverages open and secure standards such as OPC UA, digital certificates, and Web tokens, which means you can deploy with confidence. Visit our Cyber Security Trust Center to learn about our practices.

Based on GE Vernova's Red Team Penetration testing, iFIX further reduces security risks with ACL permissions on files, shared memory and registry settings, awareness of install updates when upgrading through automatic prompts, and many other security-related capabilities.

Additionally, rely on GE Vernova's iFIX Secure Deployment Guide for best practice recommendations.

> *"What we like about iFIX is that there is a large user base, and we feel very confident that it's a product that will be around for a long time. We enjoy [GE Vernova's] commitment to the product and all their improvements."*
>
> Nicholas Buono, IT Manager, Southeast Morris County Municipal Utilities Authority

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New in Version 2024

Advisory Analytics

- Advanced alarm analytics – alarm pattern recognition and troubleshooting
- PID control loop health monitoring
- Sensor health

Alarm Generation & Distribution Performance

- Up to 80% reduction in alarm generation and distribution time during alarm floods
- Increased network packet size and compression for more alarms in a single packet – speeds network throughput
- Refactor alarm distribution for faster communication with clients
- Better understand system with diagnostics

Other Alarm Capability Enhancements

- Security areas flexibility
- Alarm counters evolution

Enhanced Visualization

- Aspect ratio scaling
- Click zones

Centralized Management

- Centralized license management
- Centralized registration improvements

Start-Up Performance

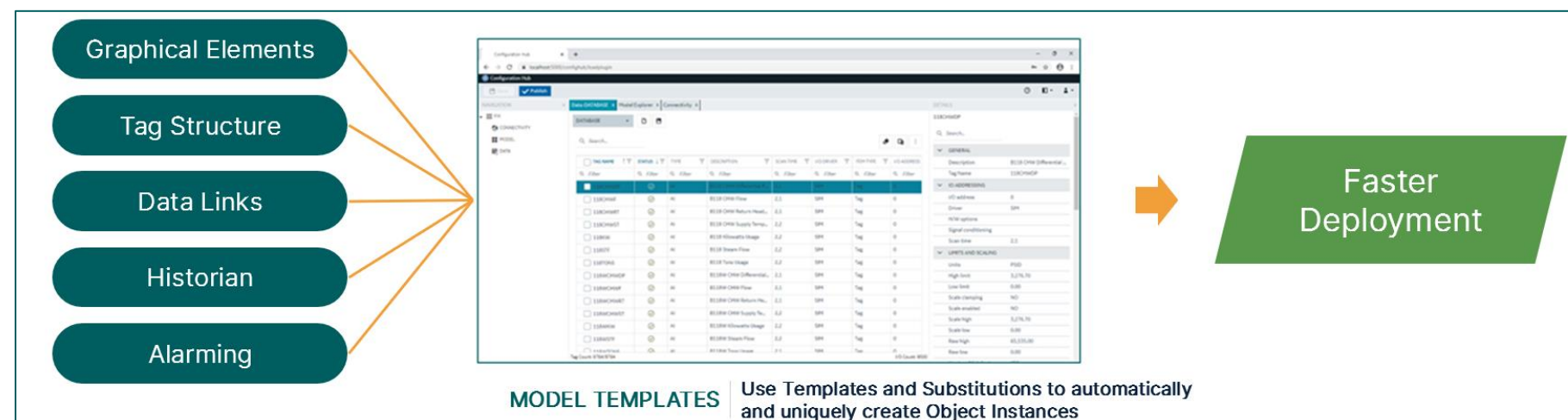- Up to 80% improvement through Workspace start-up performance enhancements

iFIX: Powerful Features & Continuous Innovation

- Open and flexible client / server HMI/SCADA that provides machine-level and supervisory control of process equipment
- High-speed scanning, alarm and control with modern, ISA 101 High Performance visualization
- The right information at the right time to keep plants running with high efficiency
- Consolidate disparate data and applications into a single interface tied to a singular model context
- UX for processing and interacting with Operations, driving transparency of information and better decision-making, efficient actions, and faster training
- Easily combine iFIX, other OT systems plus IT systems with Proficy Operations Hub, adding information such as PDFs, videos, SQL tables, work orders, etc. for a richer operator experience
- Native HTML5 graphics designer and lightweight scalable Runtime for a better, faster way to develop
- Native HTML5 allows for designing once and deploying across different display technologies, reducing configuration and maintenance efforts
- Reduced hardware costs, centralize operations and facilitate remote access through cloud infrastructure (Azure VM, AWS VM and hybrid cloud)
- Local, remote over LAN, WAN, or Internet, including VPN

- Encrypted communication from your Web client using SSL / digital certificate, IT security friendly, cloud ready
- Variety of client options, native thick and thin
- Scalable – flexible sizing to unlimited points / tags, enterprise visibility & highly distributed architectures
- Central Web-based configuration: unified Proficy development environment to configure your iFIX node
- Common model, common security reduces configuration – SCADA, historian and visualization
- Project encapsulation and central deployment
- Project component deployment
- Object orientation: native modelling in iFIX
- Simplified authentication management and improved security including SSO and nested AD groups
- Web DBM: Web-based database manager, modern look and feel, improves productivity
- Proficy Historian Essentials storage of time-series data generated by your SCADA system
- Complete library of visualization tools to support any situation, applied in dozens of industries
- High Performance HMI featuring dozens of pre-wired Dynamo libraries to jump start development. Also includes Water, Food & Beverage, Pharmaceuticals, Chemicals, and Power packaged examples
- CFR 21 Part 11 support (eSig) option
- Advanced alarm management including ISA 18.2 alarm shelving

- MQTT5 client: MQTT to OPC UA translator normalizes OT data connectivity; brings data from smart IoT sensors/devices into SCADA and subscribes to MQTT message bus data
- OPC UA server included along with native OPC UA client driver (optional)
- Leverage over 70 basic drivers with our Industrial Gateway Server (IGS) option
- Native high availability option to reduce downtime through SCADA Synchronization
- Geo-separated failover capability including cloud backup; TCP/IP failover enables failover across networks/sites, supports architectural flexibility and eases disaster recovery
- Improved single server scale: 64,000 tags per data type
- iFIX for IOT (embedded)
- Learn about fully integrated optional solutions:
  - Proficy Historian, upgrade from Essentials to Standard or Enterprise
  - Proficy Webspace, native iFIX experience in a browser
  - iFIX Productivity Tools, free with iFIX Standard/Plus

Consult product documentation for hardware/software requirements. Confirm standard vs optional features with GE Vernova representative. Specifications are subject to change without notice. Results and functionality vary, depending on existing hardware/software, applications, implementation, and other factors.

- Graphical Elements
- Tag Structure
- Data Links
- Historian
- Alarming

Faster Deployment

MODEL TEMPLATES Use Templates and Substitutions to automatically and uniquely create Object Instances

Save time and speed deployment by building a common model in Configuration Hub, included with iFIX HMI/SCADA..

LEARN MORE ABOUT iFIX

GET FREE TRIAL

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