

OpTrend and iHMI Upgrades

fact sheet

GE Energy's Human-Machine Interface (iHMI) is the window to the control system, allowing operator and maintenance screens to be viewed on one, user-friendly interface. Upgrading outdated OpTrend and iHMI stations simplifies operation and delivers enhanced functionality from GE's latest Proficy™ HMI/SCADA iFIX® software suite. Built on a Windows®-based operating system, upgrades are available for gas, steam, and hydro applications for both generator and mechanical drives. This includes one-for-one replacements as well as new configurations to take advantage of modern networking, communications, and web interfaces.

Enhanced Functionality, Sustained Product Support

Support of OpTrend systems has become severely limited. These systems use an outdated version of Apple-based software that is not compatible with current software applications. GE Energy has the tools required to convert your OpTrend files to a current iFIX application. This simple and reliable upgrade path to a modern iHMI enables vastly improved graphics, screen navigation, alarm management, and overall ease of operation. Animated, full-color graphic displays, enhanced alarm and event management, and versatile trending and data analysis tools deliver real-time monitoring and performance evaluation of the system. You can also receive an embedded, fully integrated Proficy Historian™ with scalable data storage capability and a wide variety of data collectors, such as OPC and OSI PI. And, unlike OpTrend, the iHMI can be networked with multiple units, creating a multi-unit historian that can interface with your plant historian or even be supplied separately as your plant historian.

You will also be able to keep your software up-to date with current GE and industry standards with critical iHMI upgrades accessed through our iHMI offering. GE Energy's engineers

are trained on the latest software packages, enabling precise and immediate service for your specific HMI. Additionally, our HMI Maintenance Program is available with regular updates that can be installed from CD-ROM. Updates include software enhancements, bug fixes, virus protection updates, and overall security updates to assist your site in meeting new government security standards.

Upgrade Benefits

- Improved operator interface with enhanced graphics, alarm/event management, trending, logging, export, web interface tools
- Long-term data analysis capability with embedded and fully integrated Historian
- Improved plant integration with new network and communications options
- Readily available support and service with current GE HMI/SCADA standards
- Improved life-cycle support with options for:
 - HMI Maintenance Program
 - Cyber-security program to adhere to emerging agency standards
 - Remote monitoring program



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Seamless System Integration

Integration of a new iHMI with your existing control system begins with converting existing OpTrend files to iFIX (or, the existing Intellution Fix32, version 6.15 files to iFIX) with our proprietary software tools. Graphics and alarm management are provided and can be adapted to take advantage of new capabilities, such as integrating multi-unit control for a power block. Inherent client/server capability and a wide range of network and communications options enable you to replace in-kind your existing system, add remote capability, integrate third-party instrumentation and monitoring systems, or driven-load equipment.

Turbine operation is typically implemented as before, reducing the need for additional training. Updated graphic and screen navigation enhancements simplify the task, enabling quicker learning of the system for control room operators. Similarly, no maintenance changes are required — you simply need to become familiar with the new trending, logging, and Historian tools that facilitate more efficient diagnosis of issues and more effective equipment maintenance.

Hardware Options

A variety of hardware options are available for tower or rack mount enclosures, including:

- **PC Hardware:** Processor, hard drive, keyboard, mouse, internal speakers, CD-RW and floppy, up to six USB ports, one serial port, one parallel port, and two Ethernet ports
- **Monitors:** Desktop screens, desktop LCD screens available in panel and rack mount (with or without touch screen), and dual monitors
- **Printers:** Black and white or color lasers, inkjet (8½ x 11), and dot matrix for logging
- **Time-Synch Boards:** IRIG-B input or GPS receiver with flexible communications options

A variety of protocol options are available for communicating with plant equipment including:

Feature	MODBUS	GSM	OPC	DNP 3.0	CAN
Physical Layer	Serial/ Ethernet	Ethernet	Ethernet	Serial/ Ethernet	Ethernet
Client/Server	Client/ Server	Server	Server	Yes	Server
Time Tags		Yes	Yes		Yes
Alarm Queue & Commands		Yes	Yes		Yes
Alarm/Event Exception Reports		Yes	Yes		Yes

HMI client to PI server interfaces are also available. Using PI API node buffering, the server interface transmits 500 points at 1Hz without local time tags.

Contact your GE Energy representative today for complete product specifications and ordering information.

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