GE
Measurement & Control

HMI to HMI Control Interface Upgrades

fact sheet

GE's Human Machine Interface (HMI) is the window to control system and unit performance. These HMIs provide information for operators and maintenance technicians to be viewed in a user-friendly platform.

GE offers an upgrade program that replaces aged HMIs with current, modern, and simple Windows 7 operating system or Windows Server 2008 based HMIs. Whether existing HMIs are used for operation of gas or steam turbines, generator excitation, compressors, heat recovery steam generators or the balance of plant equipment, GE's HMIs can be configured to match existing and future needs.

This upgrade solution is available to replace any existing HMI solutions, from the <I> DOS to today's unit. GE's migration strategies and execution plans maintain and enhance existing functionality for operations to minimize operational impact.

Enhanced Functionality, Sustained Product Support

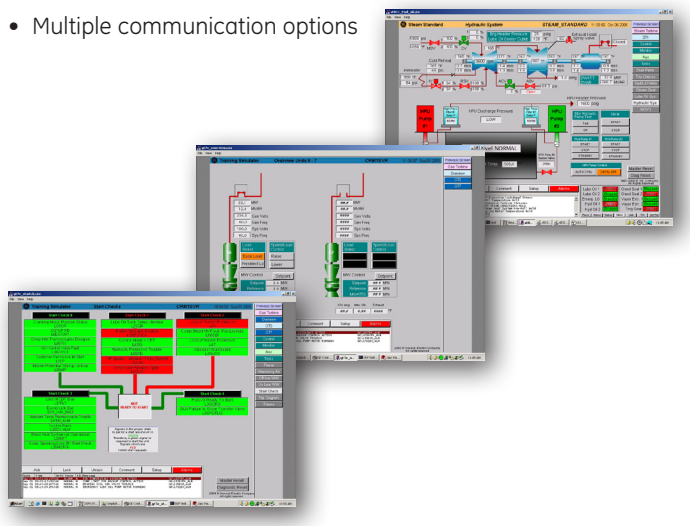
Support of older, non Windows 7 based operator and maintenance stations is becoming more difficult. Microsoft has stopped support of older operating systems and hardware providers continually upgrade their platforms with new and leading edge technology, abandoning older platforms.

GE's HMI upgrade process provides today's HMI standards while maintaining ease-of-use and familiar functionality. Graphic displays, dedicated alarm and event management functions combine with versatile trending and data analysis tools to deliver real-time monitoring and improved operator performance.

GE's engineers and field services personnel train continuously on the latest software packages, enabling precise and immediate service for your HMI. Additionally, a Technical Services Agreement (TSA) and or Cyber Asset Protection (CAP) agreement is available with ongoing updates. CAP updates include operating system updates, bug fixes, virus protection updates, and overall security updates to help ensure security and compliance with current and emerging cyber security standards.

Upgrade Benefits

- Improved operator interface graphics
- Improved alarm/event management
- Modern PC platforms, more hardware options
- Enablement of GE's cyber security program
- Fast service by a large pool of trained engineers
- Improved editors for applications and screens
- Application specific graphical objects
- Enhanced and visual network diagnostics
- Multiple communication options



Seamless System Integration

GE's HMIs are designed to be fully functional with the existing control system, including GE's Mark*V, Mark VI, Mark VIe, EX2000*, EX2100, and Ex2100e control systems. Stage link for Mark V or EX2000 controls remains easily connected to the new HMI. For sites with multiple HMIs, the PDH is used for file transfers and improved connectivity with third party computers. The latest HMIs provide a variety of additional protocols not available with the <I> product and are compatible with all versions of GSM.

The transition process keeps all of the existing operational functionality of the existing system to maintain operational familiarity.

Available Hardware Options

- **PC Hardware**

  Commercial Towers

  Rack Mount Servers (2U)

  Industrial Units (4U)

- **Monitors**

  Desktop LCD screens, standard or wide screen format

  Rack mounts, with or without touch screen

  Large screens

  1 to 4 Monitors per PC (Graphics card dependent)

  Local or remote screens.

- **Printers**

  Black and white or color lasers

  Dot matrix for alarm logging

- **TimeSynch Boards**

  IRIGB input or GPS receiver

Cyber Security

GE offers OS hardening on new HMIs to improve compliance with regulations and standards. Additional features include security attributes that can be assigned to individual users such as operation, view, or administration functions.

Flexible Communications Options

The HMI can communicate with other systems using OPC, PDXMIT, MODBUS® (Ethernet or Serial) or GSM interface. Other protocol options are also available.

Advanced Alarm Management – AlarmST

GE's HMI dedicated alarm management tool includes improved alarm reporting and enhanced visual aids such as symbols, color options, and alarm shelving. GE continues to improve on its implementation of the ISA 18.2 alarm standard.

Trender ST

GE's TrenderST* is specifically designed to display and aid interpretation of high speed unit data. Capture blocks are automatically upload from the controller. Time stamps are at microsecond resolution. Stacked traces with display of alarms are just some of the available features..

For complete product specifications and ordering information, contact your GE sales representative:

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