GE Energy

System 1®
Optimization and
Diagnostic Platform

Data Historian

application package

Process Data Collection, Processing and Storage

The "Asset" Historian

The Data Historian application package for System 1* collects, processes and archives process data needed support root cause analysis, diagnostics and asset optimization. The "asset" data historian goes significantly beyond a "tag" historian with a vast array of integrated features.

Flexible User Interface

The historian user interface supports several views that organize process data. The Instrument Layout organizes process data by the data source and is provided for general viewing of your instrument assets in both a tree type list and a 3-dimensional graphic image format. An Enterprise Layout organizes process data by the asset and is provided for general viewing of your machinery assets in both a tree type list and a 3-dimensional graphic image format.

Real-time Data Collection and Display

The historian package includes the data collectors needed to collect real-time data from OPC, NetDDE, Modbus and GSM data sources. Current values for each process point can be collected, processed and archived at a maximum frequency of 1Hz. A data collector supports scaling of process point values from a hardware range to a full-scale range within the historian. A display scale range is also included to configure the included bar graph displays. Advanced plotting capabilities include real-time plots, historical multi variable trend plots and X versus Y plots. An integrated plot session manager enables users to define and save plot sessions.

Web Client Display

The historian package includes a user configurable web client display that supports real-time display of process data. A basic web display is created by default, however users can create and customize web pages to address specific needs.

Benefits

- Accelerate Root Cause Analysis
- Early identification of potential events
- Monitoring of existing problems
- Real-time condition status
- Improved communication of asset status

Capabilities

- Standard historian trending
- User configurable alarm generation
- Alarm/Event triggered data acquisition
- Data mining reports
- Flexible user notification
- User defined layout enterprise
- Alarm and event storage
- Asset based document management
- Scalable system architecture
- User definable reports
- Asset based journal entry
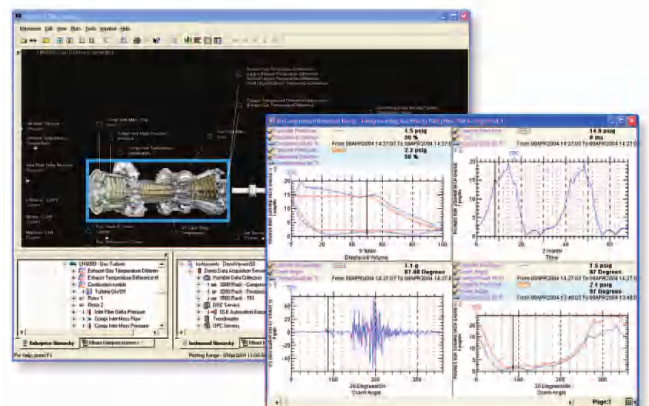
Alarm Set Point and Severity

Multiple alarms including over set point, under set point in band and out of band alarms can be configured for each process point. Additionally, a severity level can be selected for each configured alarm.

Collection Groups and Alarm Triggered Data Storage

A continuous cache of high-resolution data is maintained in an alarm buffer for each process point. A defined alarm triggers the archival of the data stored in the alarm buffer. Process points can also be grouped together to enable the collection of high-resolution alarm data for a group of points with any one point having an alarm condition. Collection and archival of alarm data improves diagnostics and root cause analysis. Historical database space is independently reserved for trend data and alarm data storage.

Alarm and Event Historian

An integrated event manager tracks and archives alarms, alarm acknowledgement, remote connections, configuration changes and other system events. Alarms and events are linked to the associated process points and can be indicated on trend plots to improve diagnostics and root cause analysis. Historical database space is independently reserved for alarm and event storage.

Alarm and Event Notification

The event notification server allows users to select the events, circumstances, and delivery metho ds that will result in a notification being pushed to specified recipients. Event notification is based on individual user, user group, event type and/or event severity. Additionally, users can subscribe to process point and system events using the included client application.

Improving Asset Reliability and Productivity

Advanced asset management tools like the Data Historian package, allow for continued operation of damaged or degraded equipment by giving machinery engineers and others a continuous view of the operating condition. Continuous critical observation of the asset means that continued production is still possible while the necessary repairs are planned. Performing repairs at more convenient times minimizes production losses and increases profitability.

Optimizing Asset Operation with Decision Support*

Decision Support functionality, built into every application package, allows machinery engineers or other personnel to automate the analysis of machinery condition and configure targeted advisories of equipment degradation or malfunction. Rules derived from the experience of plant engineers and operators can be used to continuously evaluate equipment condition. Additionally, targeted RulePaks for many types of equipment are available, allowing for more rapid implementation of this critical functionality. Utilizing Decision Support enables machinery engineers to spend more of their time resolving problems and optimizing the operation of assets.

Levels of Support

Installation, training, and support services are recommended to help you achieve the most value from this application package. We offer 3 distinct levels of support that include the following:

Bronze	24/7 Tech support from our outstanding team of professionals
	the latest software upgrades available
Silver	remote software optimization and machinery diagnostics
Gold	onsite asset care

For complete product specifications and ordering information:
— contact your local salesperson
— call 775-782-3611 and ask for "System 1" at the prompt
— e-mail us at system1info@ge.com
— visit our Web site at www.gepower.com/system1