Data Historian

Process Data Collection, Processing and Storage

The “Asset” Historian
The Data Historian application package for the System 1* platform collects, processes and archives process data needed to 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 1 Hz. 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 vs. 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 methods 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 makes it possible to continue production while the necessary repairs are planned. Performing repairs at more convenient times minimizes production losses and increases profitability.

Optimizing Asset Operation with Decision Support*
The Decision Support functionality built into every application package allows machinery engineers or other personnel to automate the analysis of machinery condition, and to 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 three distinct levels of support that include the following:

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<th>Level</th>
<th>Support Features</th>
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| 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 |

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