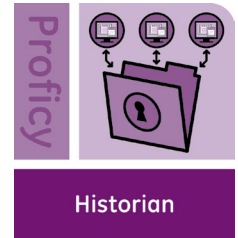# Proficy* Historian 6.0

Enterprise data management for your industrial time-series process data

For owners and operators of industrial equipment and processes, the Proficy Industrial Data Management (IDM) solution provides a more holistic view of industrial data to better support business decisions across the enterprise. The IDM solution, consisting of Proficy Historian and Proficy Historian Analysis, provides operational visibility in context through collection, storage, aggregation, analysis, and accessibility of key process data.

Unlike other process data historians, the Proficy IDM solution provides a market-leading distributed architecture, central management and administration, lower storage costs, and a wide range of industry-standard interfaces in a fully integrated solution.

As the foundation for the Industrial Internet, GE's Proficy Historian provides infinite horizontal scale and industry-leading performance.

Data mirroring and redundancy

Proficy Historian now provides mirroring of stored data on multiple nodes to provide high levels of data reliability as well as increased read performance. This feature enables high availability of the Proficy Historian Server, distributing reads across any of the mirrored nodes as well as data redundancy across multiple locations. The solution, therefore, provides seamless disaster recovery, since all nodes are active. With data mirroring, you can have continuous data read and write functionality.

Web-Enabled Proficy Historian Administrator Console

In addition to the Windows Administrator, Proficy Historian Administrator now operates in a Web-based environment. Secured through the use of certificates, HTTPS, and user authentication, the Proficy Historian Administrator Console provides interactive configuration management of mirror nodes, tags, collectors, data stores, and archives, along with a dashboard which displays the health of the system, where you can view the following diagnostic details in one convenient location:

Data Node Diagnostics – Displays the Proficy Historian Servers connected to the system.

Collector Diagnostics – Displays the details of faulty or potentially problematic collectors and other diagnostics.

Client Diagnostics – Displays the busiest or potentially problematic clients connected to the system.

Python Expression support in data collectors

Collector expressions allow data to be pre-processed and/or transformed using Python®, a modern and common scripting language. Python Expression Tags are used in cases where you do not want to store a raw data value but instead want to store only derived values from expressions. The expression library includes hundreds of functions and unit-of-measure conversions to speed up the delivery of your solution.

Features

- Distributed architecture
- Intelligent system diagnostic engine
- Web (HTML5)-based central administrative console
- Market-leading scalability and performance
- High-speed read and write performance
- Built-in collectors and collector toolkit
- Proprietary and highly efficient and secure storage format
- Patented compression algorithms
- Rich library of APIs
- Rich web analysis client

Benefits

- High availability with data redundancy
- Continuous and highly scalable data read and write functionality
- Reduced storage costs
- Seamless ingestion to Big Data ecosystem (Hadoop- and HDFS-compatible file structure)
- Time-saving dashboard means critical data finds you
- New Web UI provides "single pane of glass" for administration and analysis accessible anytime, anywhere

Specifications

Software Requirements
- Operating System - Servers
  - Microsoft® Windows® Server 2012 R2 (64-bit)
  - Microsoft® Windows® Server 2008 R2 (64-bit)
- Additional Software - Servers
  - Microsoft® Internet Information Services (IIS) 7.5 or 8.0
  - Microsoft® SQL Server® 2008 R2 SP2 or 2012, Standard, or Enterprise Edition (64-bit)
  - Proficy Connect 2.5 (Included)
- Operating System – Clients
  - Microsoft® Windows® 8 Professional, Microsoft® Windows® 7 Professional (32-bit or 64-bit)
- Additional Software – Clients
  - Internet Browsers, these versions and above: Microsoft® Internet Explorer® 11, Google Chrome™ 38, and Mozilla Firefox® 32

Hardware Requirements (Minimum)
- Servers
  - A 2.4 GHz clock speed Intel® Core™ i3 or i5 or i7 CPU or equivalent AMD® Phenom™ CPU with 8 GB RAM for a 32-bit Historian Server and 8 GB RAM for a 64-bit Historian Server. Dual Core and 64-bit operating system required for data mirroring and redundancy.
  - DVD-ROM drive
  - 100 Mbps TCP/IP-compatible network interface adapter for network communication and certain I/O drivers
  - 80 GB free hard drive space for the data archives, message files, buffer files, and log files used by the system
- Data Collector Nodes
  - A 2.0 GHz clock speed Intel® Core™ i3 or i5 or i7 (e5 or e7 for Enterprise) CPU or equivalent AMD® Phenom™ CPU with 2 GB RAM
  - 40 GB of free hard drive space to store buffered data
  - DVD-ROM drive
  - TCP/IP-compatible network interface adapter for network communication and certain I/O drivers
- Microsoft Cluster
  - A 2.6 GHz clock speed Intel® Core™ i3 or i5 or i7 or Xeon or equivalent AMD® Opteron™ CPU with minimum 8 GB RAM
  - 80 GB of local free hard drive space
  - 40 GB shared SCSI hard drive (RAID preferred)
  - Two 100Mbit TCP/IP-compatible network interface adapters for network communication and certain I/O drivers (One for public network, another for private network)
  - **NOTE:** The configuration of each server added to the cluster must be identical to the other servers in the cluster
- Clients
  - 2 GHz Intel® Pentium™ 5-based computer with 8 GB RAM
  - 20 GB HD free disk space
  - Network interface software for network communications
  - TCP/IP network protocol is required
  - SVGA or better color monitor and a 100% IBM-compatible 24-bit graphics card capable of 1024x768 resolution and at least 65535 colors
  - Two-button mouse with scroll wheel or compatible

Streaming calculation engine

For customers looking for deeper insight into process deviations and equipment performance requiring intensive analytics, our updated calculation engine is optimized for fast processing of time-series process data. It supports both in-line data processing and batch loads and is capable of providing rolling aggregates, data validation, simple and advanced alarming, look-up tables, and calculations for steam properties and pump curves, for example.

Ease of configuration

Have multiple sites and multiple Proficy Historian nodes to deploy? The installation wizard will step you through simplified installation and deployment so you are up and running in a matter of hours, not days.

Updated Web Client

Proficy Historian's visualization companion, Proficy Historian Analysis, has been completely revamped in HTML5 and includes support for run-time Python expressions and an improved data-analysis toolset that provides immediate value from Proficy Historian process data. By viewing trend data within context of a plant data model, you quickly can determine root causes and turn the data into actionable information.

Excel add-in improvements

Existing users of Excel add-in will be delighted with changes and updates to our Excel add-in, including improved query editing and tag searching, updated grid displays and ribbon bar, time-date shortcuts, and support for Microsoft® Office® 2013.

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