



Proficy* Historian

High-performance process data logging, storage, and retrieval for better decision making, increased productivity and reduced costs

At the heart of our Operations Management Software solutions, Proficy* Historian combines fast speed, superior performance and exceptional connectivity.

Features

- Lower Total Cost of Ownership
 - True thin-client administration
 - Support for virtualization
- High Performance
 - Scale to 500,000 data points
 - Sub-second sampling
- All Types of Data Sources
 - Wide range of collectors, including OPC Alarms and Events
- Standard Interfaces for Data Access
 - Open access for ERP and MES applications
 - OLE DB, User API, SDK, and OPC HDA
- Highly Reliable System Architecture
 - Fault tolerant architecture
 - Support for Microsoft® Cluster Server
 - Redundant data collectors
- Advanced Data Management
 - Designed to help customers comply with FDA's 21 CFR Part 11
 - Calculation Collector
 - Server-to-Server Collector
- Third-Party Historian Collectors

Proficy Historian from GE Intelligent Platforms is a powerful plant-wide data historian that collects, archives and distributes tremendous volumes of real-time plant floor process information at extremely high speeds.

Increase Your Process Visibility

Built specifically for manufacturing and process data acquisition and presentation, Proficy Historian enables you to leverage increased process visibility for better and faster decisions, increased productivity and reduced costs.

Proficy Historian offers unique capabilities and benefits for a sustainable competitive advantage:

- Built-in Data Collection
- Fast Read/Write Performance Speeds
- High Data Compression
- Robust Redundancy for High Availability
- Quick Time to Value
- Enhanced Data Security

Improve Processes Across Your Business

Proficy Historian ties together islands of automation information without compromising data resolution. It enables an integrated view of your operations with accurate, real-time information.

For example, you can easily integrate with OLE DB-aware applications and query the data, alarms and events, and system and administrative information using standard SQL commands.

Additionally, Proficy Historian enables you to compare past production runs, analyze the data prior to a downtime event, and plot ideal production runs against in-process runs. You can easily generate reports and share information across your enterprise using standard web browser tools.

Tight and Seamless Integration With Proficy Software Suite

Our Proficy Operations Management software suite offers a full solution, from the plant floor to the business systems that run the company in ERP, CRM, and SCM.

Proficy Historian integrates seamlessly with a wide range of performance and execution applications within the suite, including:

- Historian Excel Add-In
- Proficy Real-Time Information Portal
- Proficy HMI/SCADA
- Proficy Plant Applications
- Proficy Troubleshooter



Proficy Historian

Built-in Data Collection That Leverages OPC and Specific Built-In Drivers to Legacy or Non-Standard Equipment

Proficy Historian includes built-in data collection capabilities and can capture data from multiple sensors and systems. It uses manufacturing standards such as Object Linking and Embedding for Process Control (OPC), which facilitates communications by providing a consistent method of accessing data across devices.

Instead of having to build custom software for every type of data source as required for other solutions, Proficy Historian does not need to know any of the details regarding the propriety data sources. It can instantly connect to any OPC-enabled solution to collect data, providing flexibility, time savings and reduced costs.

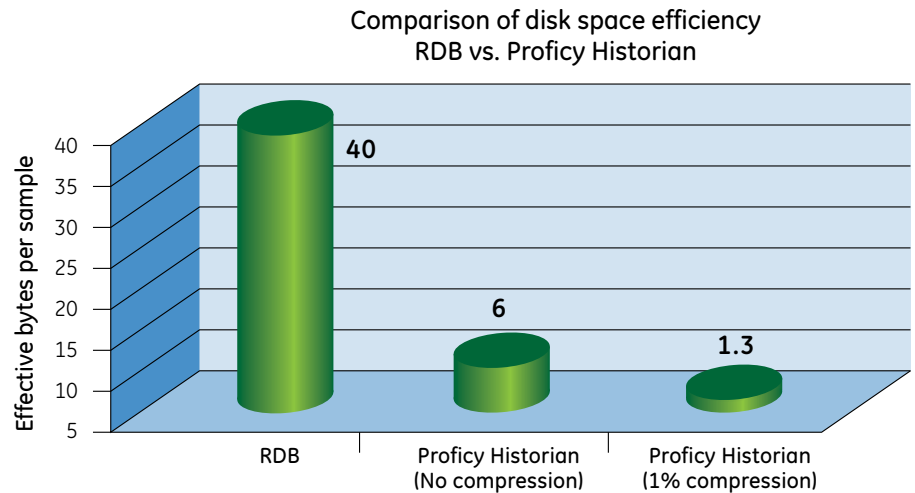
Faster Speeds

In contrast to the modest performance of relational databases for large data sets or associated periods of time, Proficy Historian provides a much faster read/write performance and “down to the millisecond” resolution for true real-time data.

Proficy Historian is built to store, and more importantly, retrieve production/process data in the way you need it. Its aggregation and retrieval methods would be difficult in other database technologies. This capability enables better responsiveness by quickly providing the granularity of data needed to analyze and solve intense process applications.

High Data Compression

Proficy Historian comprises powerful compression algorithms, which enable you to store years of data easily and securely online—enhancing performance, reducing maintenance and lowering costs. For example, you can configure Proficy Historian without the active maintenance and back-up routines that a relational database requires. Archives can be automatically created, backed up, and purged—enabling extended use without the need for a database administrator.



NOTE:
This data represents a specific test on 400,000 samples logged to a standard RDB and Proficy Historian. Results will vary depending on the raw data set used and the RDB schema employed.

With no compression at all, Proficy Historian offers much higher disk space efficiency than an RDB. When using a 1% dead band compression, it delivers even greater efficiency for enhanced performance and reduced maintenance.

Quick Time to Value

When installing Proficy Historian, you can “normalize” the implementation, using standard interfaces to decrease implementation time by approximately 50%. You don’t need to manage or create data “schemas,” triggers, stored procedures or views—resulting in quick installation and configuration without custom coding or scripting.

Proficy Historian has a pre-built interface to the automation layer, providing a single environment whereby you only have to configure tags once, and you can store process data seamlessly in a secure, central location.

Enhanced Data Security

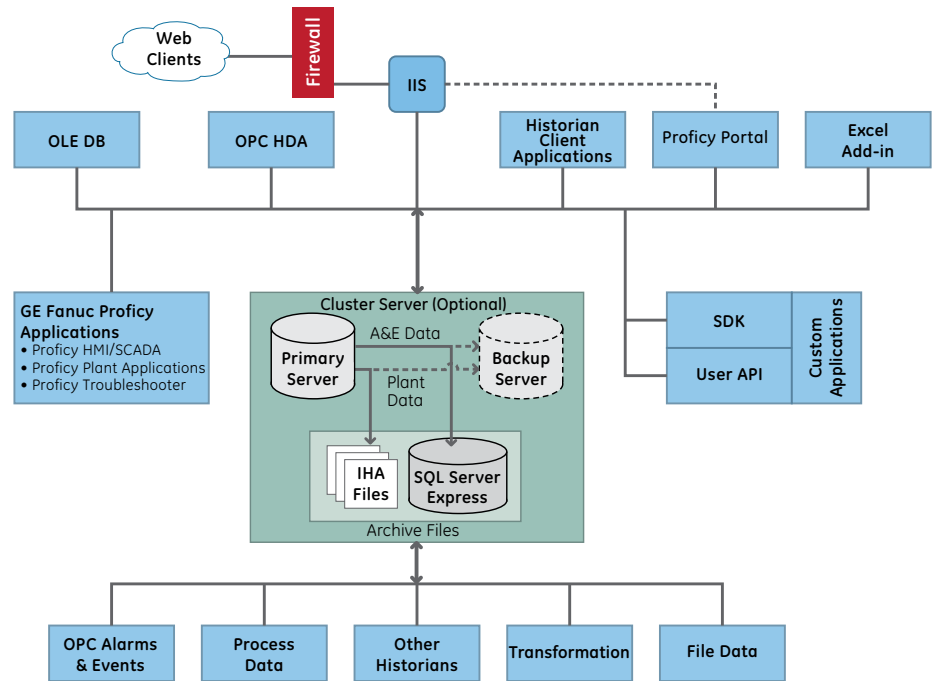
Less vulnerable to attacks from hackers and viruses such as SQL injection (or SQL insertion), Proficy Historian is designed to enforce higher standards of data security. It does not allow insert, update, or deletion of data through standard interfaces, and you can implement security for historians at the functional group or down at the tag level—a task that would be exceedingly difficult with an RDB.

Proficy Historian tracks just about all changes by default and helps address strict regulatory requirements such as the FDA’s 21 CFR Part 11 through features such as electronic signatures.

Robust Redundancy for High Availability

Proficy Historian offers clustering at the data store much like a relational database, as well as another level of redundancy at the collector function. If there are mission-critical data collection points, the collectors themselves can be configured in a redundant fashion.

The solution also addresses network and server disruptions through a “store and forward” capability, which buffers data at the collector should a disruption occur. The buffers are eventually uploaded when the server comes back online with automatic reconnection—ensuring no data loss.



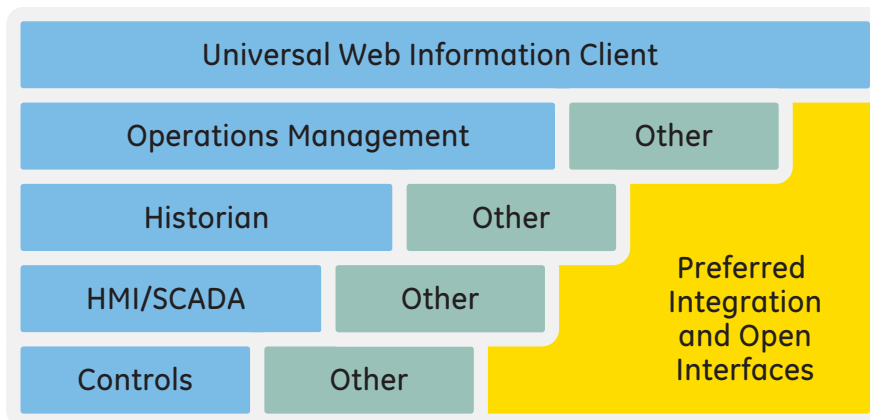
Proficy Historian system architecture

Open & Layered Philosophy

We recognize the significant investments that manufacturing companies have made in automation, information, and supervisory control systems.

That's why Proficy's open and layered approach provides an advantage—enabling interoperability with third-party solutions for faster time to value. There's no need for expensive interfaces and customized code.

Proficy Historian can layer on many different manufacturers' controls and HMI/SCADA platforms—providing the foundation to a full operations management solution.



Proficy Historian

Specifications

Hardware requirements

Historian Servers

- A Pentium® 4-based 2.0 GHz or better computer with 1 GB RAM
- A DVD-ROM drive
- 100 Mbit TCP/IP-compatible network interface adapter
- 80 GB free hard drive space

Data Collector nodes:

- A Pentium 4-based 2.0 GHz or better computer with 512 MB RAM
- 40 GB of free hard drive space
- A DVD-ROM drive
- TCP/IP-compatible network interface adapter

Microsoft Cluster service:

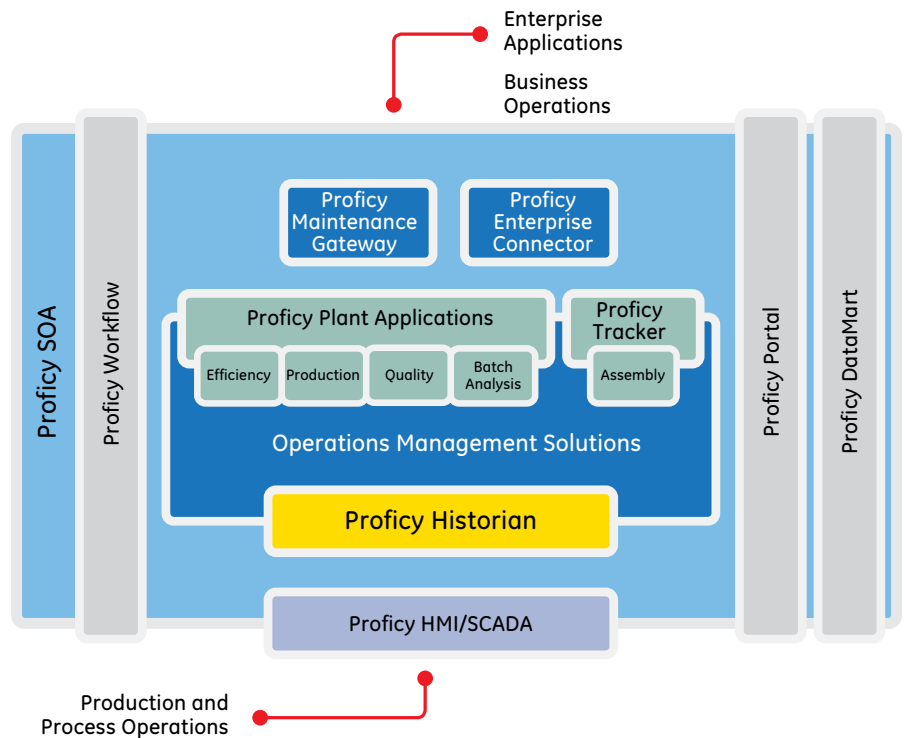
- A Pentium 4-based 2.0GHz or better computer with 1 GB of RAM
- 80 GB of local free hard drive space
- 40 GB shared SCSI hard drive (RAID preferred)
- Two 100 Mbit TCP/IP-compatible network interface adapters

NOTE: The configuration of each server added to the cluster must be identical to the other servers in the cluster.

Software Requirements

- Windows® XP Professional SP3, Windows Server 2003 SP 2, Windows Vista SP1 32-bit (Business, Ultimate and Enterprise), or Windows Server 2008-32 bit
- Windows 2008 Server 64-bit Edition (WoW64 -Historian 3.5 running as a 32-bit process)
- Internet Explorer v6.0, 7.0 or greater
- For systems with Historian Web Administrators, Microsoft IIS (Internet Information Server) is required
- Windows 2003 or higher is required for the Alarm and Event Archiver
- SQL Server 2005 SP2 or greater; SQL server 2008 required for "Use Existing SQL Server" option in alarm and event archiving configuration.
- The Historian Excel Add-In requires installation of Microsoft® Office 2003, Office 2007 SP1
- The Historian Web Administrator requires the Java Runtime Environment version 1.6 update

Functional Architecture



Proficy Historian is the foundation for optimized production and process operations. It offers tight and seamless integration with a wide range of performance and execution applications within the Proficy software suite.

GE Intelligent Platforms Contact Information

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www.ge-ip.com

