Proficy Historian 9.0 from GE Digital

Powerful industrial time-series and A&E data collection for on-premise and cloud-based storage & analysis

Best-in-class Historian from edge to cloud with data analysis in context

Proficy Historian from GE Digital is a best-in-class historian software solution that collects your industrial time-series and Alarms & Events (A&E) data needed to analyze asset and process performance, so you can drive greater business value.

The emergence of cloud-based Industrial Internet of Things (IIoT) and big data solutions has spurred continued investment in our Historian. With decades of experience and thousands of successful customer installations around the world, Proficy Historian changes the way companies perform and compete by making data useful.

The new Proficy Historian 9.0 enhances usability, configurability and maintainability with significant architectural improvements. Version 9.0 features a completely simplified collector installation process, new collector configuration UX, centralized admin of remote collectors, and remote configuration and management of cloud collectors. Version 9.0 also further enables enterprise-scale deployments, supports on prem / third-party cloud data models, provides an OPC UA server, and more.

Outcomes

- Achieve fast time to value with simple installation and easy-to-use web clients with integrated tag searching and drag-and drop features
- Secure-by-design data collection and storage
- Small, powerful footprint, scaling from small applications to hundreds of users and 100 million data points / tags
- Take advantage of data analysis in asset model context with the time-saving trend analysis card
- Support high availability with data redundancy
- Leverage continuous and highly scalable data read and write functionality
- Central management of remote data collectors to reduce maintenance costs and downtime

01 Achieve data analysis in context for optimization & continuous improvement

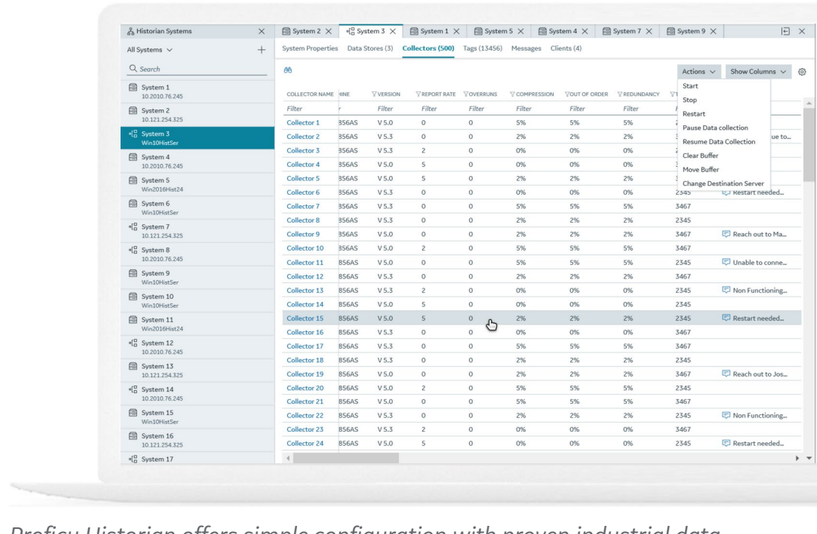
With Proficy Historian, users can analyze data in context via Proficy Operations Hub and the Historian Analysis run-time application, which are available for license at no additional cost with Proficy Historian Standard and Enterprise versions. The combination of Proficy Historian and Proficy Operations Hub provides a powerful data management solution with asset model context and visualization. Users receive data aggregation across multiple sources or historians, ability to define an asset model including tag mapping, and advanced trend analysis. Proficy Historian also includes an Excel Add-In for Proficy Operations Hub, enabling users to query historical data based on the asset model.

02 Improve data security & enable enterprise-wide industrial data management

With data security as our highest priority, Proficy Historian offers common and shared User Account Authentication (UAA). Integrated with LDAP, this feature eases security, allowing users to choose the common UAA deployed by other products in their application. Additionally, for enterprise-wide deployments, Version 9.0 features a new model for cross-enterprise data access, cloud-like elastic computing on prem, and scalability to 100 million tags.

03 Simplification, ease of use, reduced costs

Proficy Historian installs in minutes and offers a small footprint yet scales to support hundreds of users across an enterprise. This new version significantly simplifies the collector installation process, deploys the new Remote Collector Manager on each server when collectors are installed, provides a new HTML5-based configuration and management app, and introduces collector support for compression over the wire, useful for low bandwidth or metered connections by reducing bytes over the network by about 80%.



Proficy Historian offers simple configuration with proven industrial data management capabilities to reduce costs and speed deployment.

04 Faster configuration and easy connectivity for IoT applications

Connect to your machine data with an existing collector or build your own using our SDK. Version 9.0 supports MQTT end points and enhanced hybrid on-prem/cloud data models with the ability to select data, frequency, and rate of change, all while leveraging GE Digital's rich data aggregation and collection capabilities. Collectors can send data to your local Historian or to cloud-based Predix, AWS, Google, and Azure applications. Furthermore, this new version includes an optionally installed OPC UA server that supports HDA, DA, installation on a server node or separate machine, and password and certificate-based security.

> *"Proficy Historian is the heart of the [system]. This solution allows more accurate data to be implemented in real time for each machine and product."*
>
> **Hervé Husson, Automation and Industrial IT (A2i) Manager, Terreal**

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Features

- Collects industrial data at very high speed, normalizes data and stores it securely, distributes, and allows for fast retrieval and analysis
- 24/7 availability: avoid downtime and information gaps; stability and reliability for continuous improvement data analysis as well as mission-critical applications

New in Version 9.0

- Dramatic simplification of collector installation and management: completely simplified collector installation process, new collector configuration UX, centralized admin of remote collectors, remote configuration & management of cloud collectors
- Enterprise-scale deployments enhancements: new model for cross enterprise data access, cloud-like elastic computing on-prem, scalable from 100 tags to 100 Million tags
- Hybrid on premise / third-party cloud data model: select data, frequency, rate of change; support for MQTT end points
- OPC UA server that supports HDA, DA, installation on a server node or separate machine, and password and certificate-based security

Proficy Historian: Best-in-class industrial data management that scales to millions of tags

- Easily deployable mirrored architecture based on GE's U.S.-patented highly efficient and secure storage format
- Alarms & Events database, allowing retrieval of A&E in correlation to time-series data
- Intelligent system diagnostic engine and dashboard
- Browser-based central administrative console and trend client
- Multi-threaded for high performance
- Scales from small to millions of tags
- Ability to perform complex, multi-site industrial information management
- Data in context: Proficy Operations Hub Server and HTML5 Historian Analysis run-time application available for license at no additional cost with Proficy Historian Standard or Enterprise versions
- Native collectors including MQTT collector
- Store and forward capability
- Historian ETL – Extract, Transfer, Load
- Remote Collector Management
- High availability
- Highly efficient data compression: collector compression at the source (deadband) and archive compression at the server
- Flat or traditional hierarchical architecture; horizontal scalability with distributed server architecture
- Secure-by-design storage
- S95 model support
- Condition-based collection
- Server-to-server aggregation
- UAA/OAuth2 Java Web Token security model
- Predix, AWS, Google, and Azure cloud connectivity
- Server-to-Azure IoT Hub Distributor
- Cloudera certified method to move and query data in HDFS / Hadoop to Parquet
- APIs to track version information of collectors, Query Results API, Write Tag API, Rename API
- Public REST API and Java API
- One-click configuration with CIMPLICITY and iFIX
- Excel Add In
- Little to no DB admin required
- Support for storage of Future Data

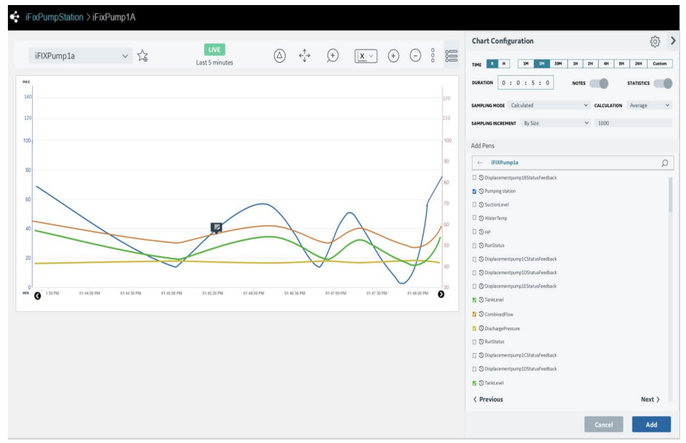
Requirements

The following requirements are not comprehensive. Please refer to the online product documentation for requirements information or contact GE Digital related to your application.

- Historian Server – May be physical hardware or a Virtual Machine (including VM on the cloud) that is equivalent to the minimum physical hardware requirements. For physical hardware, minimum requirements: 2.4 GHz clock-speed Intel Core i3 or i5 or i7 CPU or equivalent AMD Phenom CPU with 8 GB RAM for a 64-bit Historian Server; 80 GB free hard-drive space for the data archives, message files, buffer files, and log files used by the System; 100 Mbps TCP/IP compatible network interface adapter for network communication and certain I/O drivers.
- Operating Systems (64-bit systems only for your Historian Server): Windows Server 2019, Windows Server 2016, Windows Server 2012 R2, Windows 8.1 and 10, Windows 10 IoT
- Microsoft Excel (32 bit & 64 bit) 2019 , 2016, 2013, 2010
- Collectors: Calculation, CygNet, File, iFIX, MQTT, ODBC, OPC, OPC HDA, OPC UA Data Access, OSI PI (& OSI PI Distributor), Server-to-Server, Wonderware. Notes: To collect data from CIMPLICITY, you must use the Historian OPC collector with the CIMPLICITY OPC Server. See documentation for list of Bi-Modal Collectors. Majority of collectors can write to cloud.
- SQL Server 2012 SP3; SQL Server 2014 SP1 (E/S/P); SQL Server 2016 (E/S/P); SQL Server 2017 (E/S/P), SQL Server 2019

Hardware and software requirements are partially representative and may vary by customer deployment. Please consult the product documentation for more details.

Proficy Historian includes use of Proficy Operations Hub's Asset Model mapping and Trend Analysis App for centralized data analysis in context.



Both your IT department and end users will love the ease of deployment, scalability, simplicity, and speed of getting the data and value out of Proficy Historian.

LEARN MORE

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Services

In the world of Industrial Internet of Things (IIoT), organizations are able to optimize productivity, reduce costs, and achieve Operational Excellence. While this is an exciting time for opportunity and growth, it can also bring on new challenges, questions, and uncertainty. No matter where you are on your IIoT journey, GE Digital has the right services offering for you.

Advisory Services We can help you plan and start your IIoT journey in a way that aligns to your specific business outcomes.

Managed Services We can help you maintain your critical machines from one of our remote locations around the world using model-based predictive analytic technology.

Implementation Services Our experienced global Automation partners can implement a collaborative, multi-generational program that marries your existing investments to the right enhancements and technology.

Education Services We specialize in education services to ensure that you're leveraging our solutions to the fullest extent with our training and certificate programs.

Acceleration Plans Let us help by ensuring that your business continues to operate at its highest efficiency, all while mitigating risks to your investments.

Security Services Our solutions provide industrial-grade security for a wide range of OT network and application topologies.

Related Products

GE Digital's Proficy suite helps you precisely monitor, control, and visualize every aspect of your operations, enabling operators to make the best decisions faster.

iFIX

Gain visibility into your operations and secure agility for smarter decision making that drives results.

CIMPLICITY

Drive real-time visibility for smart operators with true client-server based visualization and control.

Proficy Operations Hub

A centralized environment for aggregating and visualizing contextual and situational information for industrial applications – supporting rapid application development & rich displays for faster response.

Continue your Digital Transformation journey

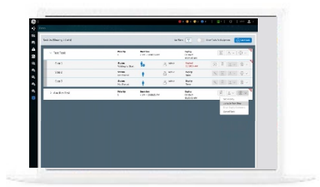
Transforming your business requires foundational innovations that lay the groundwork for future success. It requires connecting assets and processes securely to drive operational efficiencies, reduce unplanned downtime and improve performance.

Predix

Innovate and transform your business with the cloud-based operating system for the Industrial Internet, purpose-built for industry.

Proficy Plant Applications

Maximize overall equipment effectiveness (OEE), improve production scheduling, and ensure product quality by leveraging real time production data



Proficy Workflow

Guide operators with dynamic, interactive electronic work instructions and eSOPs for more consistent operations and optimized processes.

About GE

GE (NYSE: GE) is the world's Digital Industrial Company, transforming industry with software-defined machines and solutions that are connected, responsive and predictive. GE is organized around a global exchange of knowledge, the "GE Store," through which each business shares and accesses the same technology, markets, structure and intellect. Each invention further fuels innovation and application across our industrial sectors. With people, services, technology and scale, GE delivers better outcomes for customers by speaking the language of industry.

Contact

www.ge.com/digital