



# Proficy Historian 8.1 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 8.1 reduces costs with Historian ETL (Extract, Transfer, Load) for sophisticated file-oriented data transmission for Enterprise Historian, Remote Collector Management, and more. With Proficy Historian, you can take advantage of simple yet powerful features to unlock new value from your equipment and process data, and business models.

### 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 to hundreds of users and millions of machine data points
- 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
- Save time and costs with seamless ingestion to HDFS, adding time-series data to your big data analytics

## 01 Achieve data analysis in context

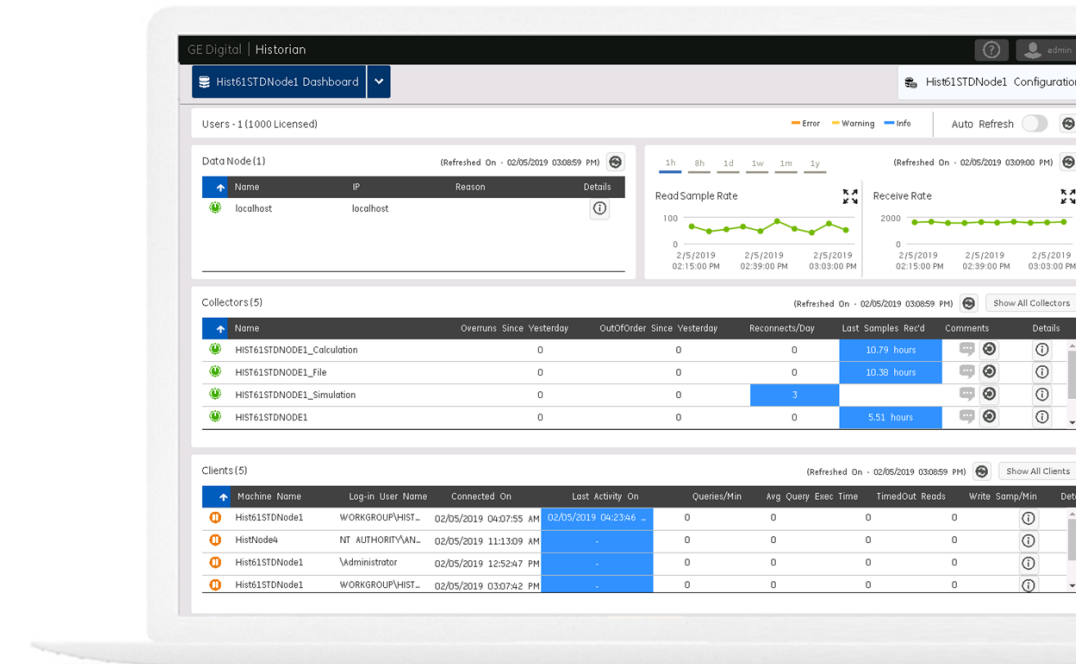
With Proficy Historian, users have the ability to analyze data in context via Proficy Operations Hub and the Historian Analysis run-time application, which are licensed with Proficy Historian 8.0 and later Standard and Enterprise versions. The combination of Proficy Historian and Proficy Operations Hub 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

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. With Version 8.1, cloud-enabled collectors enhance authentication through proxy services by supporting username and password authentication.

## 03 Simplification, ease of use, reduced costs

Proficy Historian installs in minutes and offers a small footprint yet scales to support hundreds of users and millions of individual machine data points. This new version introduces Historian ETL, a full set of file-oriented data Extraction, Transfer, and Loading tools for applications where a consistent connection is not possible or cost effective. Version 8.1 also offers secure-by-design remote collector management, which dramatically reduces the cost of supporting remote collector nodes. Lastly, the new version includes offline collector XML configuration automatic update, future data support per data store, and integration with the new online documentation portal.



The dashboard provides critical information from your data in a single view.

## 04 Faster configuration and easy connectivity for IIoT

Connect to your machine data with an existing collector or build your own using our SDK. Any collector can be configured to send data to your local Historian or to cloud-based Predix applications. Version 8.1 also supports hybrid on-prem/cloud data models with a new server-to-Azure IoT Hub Distributor that enables the transfer of data from a Historian server to an Azure IoT Hub end point, all while leveraging GE Digital's rich data aggregation and collection capabilities.

*"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

- **Version 8.1:** Historian ETL – Extract, Transfer, Load. Remote Collector Management – start, stop, restart collector, configure/deploy new collector instance. Other new features: Server-to-Azure IoT Hub Distributor, support for storage of Future Data, integration with documentation portal, username/password support for proxy-based authentication, offline collector XML configuration automatic update, and A&E enhancements
- **Version 8.0:** License for Proficiency Operations Hub Server and HTML5 Historian Analysis run-time application (free with Proficiency Historian Standard or Enterprise) with features including ability to define an asset model, tag mapping, and advanced trend analysis with annotations. Other new features: Excel Add-In for Proficiency Operations Hub, common UAA service, APIs to track version information of collectors, Query Results API, Write Tag API, Rename Tag API, MQTT collector, and Java APIs
- 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
- UAA/OAuth2 Java Web Token security model
- Multi-threaded for high performance
- Scales to millions of tags
- Predix cloud and other client connectivity
- Cloudera certified method to move and query data in HDFS / Hadoop to Parquet
- Public REST API and Java API

## Hardware Requirements

The following hardware requirements are not comprehensive. Please refer to the Getting Started Guide or GE Digital for complete requirements information related to your application.

- **Standard Historian Server – Minimum** 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.
- **Data Collector Node – Minimum** 2.0 GHz clock speed Intel Core i3 or i5 or i7 CPU or equivalent AMD Phenom CPU with 2 GB RAM; 40 GB of free hard-drive space to store buffered data; TCP/IP compatible network interface adapter for network communication and certain I/O drivers.
- **Microsoft Cluster Service – Minimum** 2.6 GHz clock-speed Intel Core i3 or i5 or i7 or Xeon or equivalent AMD Opteron CPU with minimum 8 GBRAM; 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.

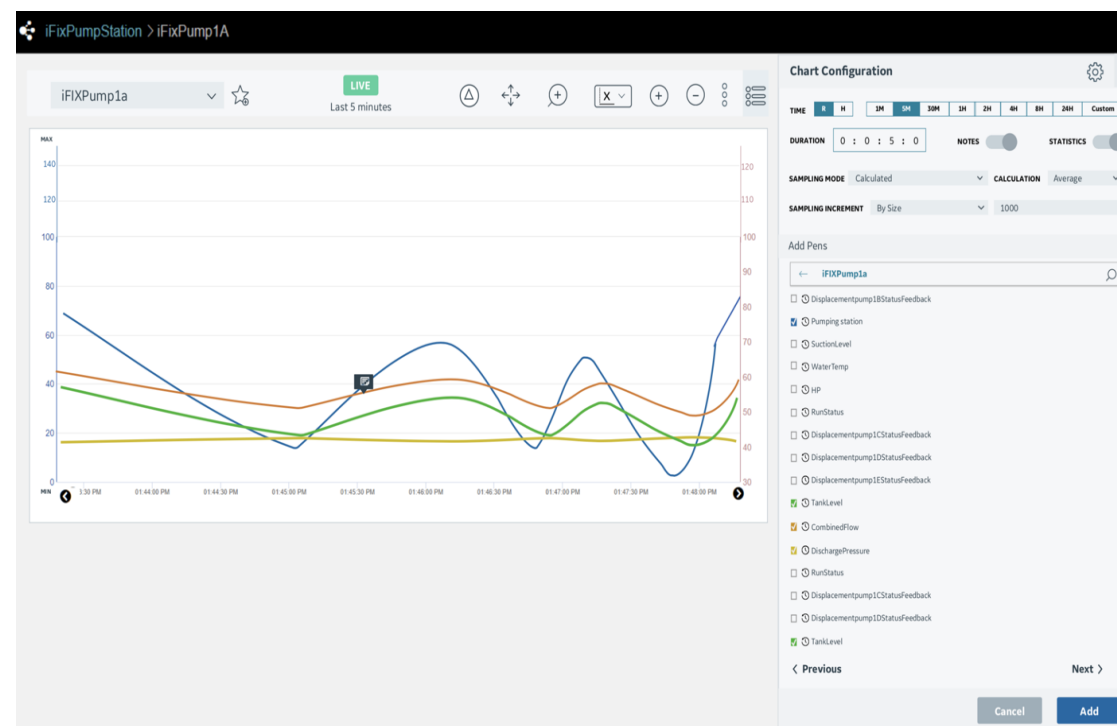
## Software Requirements

- 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
- Browsers for Web Admin and Web Trend Tool Client Access: Chrome 39+, Firefox 46+ . Browsers for Historian Help: Chrome 39+, Firefox 46+, Microsoft Edge 40
- Web Server: Microsoft .NET Framework 4.5.2; Historian Client Tools 7.0 or greater; OLE DB, User API, and Historian Client Access Assembly

## Other Information

- 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
- VMware ESXi: 5.0 and above

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



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

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 Proficiency 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 Proficiency 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.



### [Proficiency 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

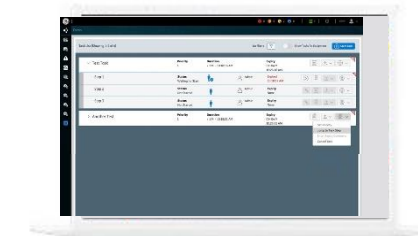


### [Predix](#)

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

### [Proficiency Plant Applications](#)

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



### [Proficiency 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.

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