



# Historian 7.2 from GE Digital

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

## Best-in-class Historian solution from the edge to the cloud

Historian from GE Digital is a best-in-class historian software solution that collects your industrial time-series 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, Historian changes the way companies perform and compete by making data useful.

The new Historian 7.2 offers core enhancements to improve security, increase ease of use, and boost performance. You can take advantage of the solution's 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
- Support high availability with data redundancy
- Leverage continuous and highly scalable data read and write functionality
- Reduce storage costs
- Save time and costs with seamless ingestion to HDFS, adding time-series data to your big data analytics
- Take advantage of the time-saving dashboard, whereby critical data finds you

## 01 Improve data security

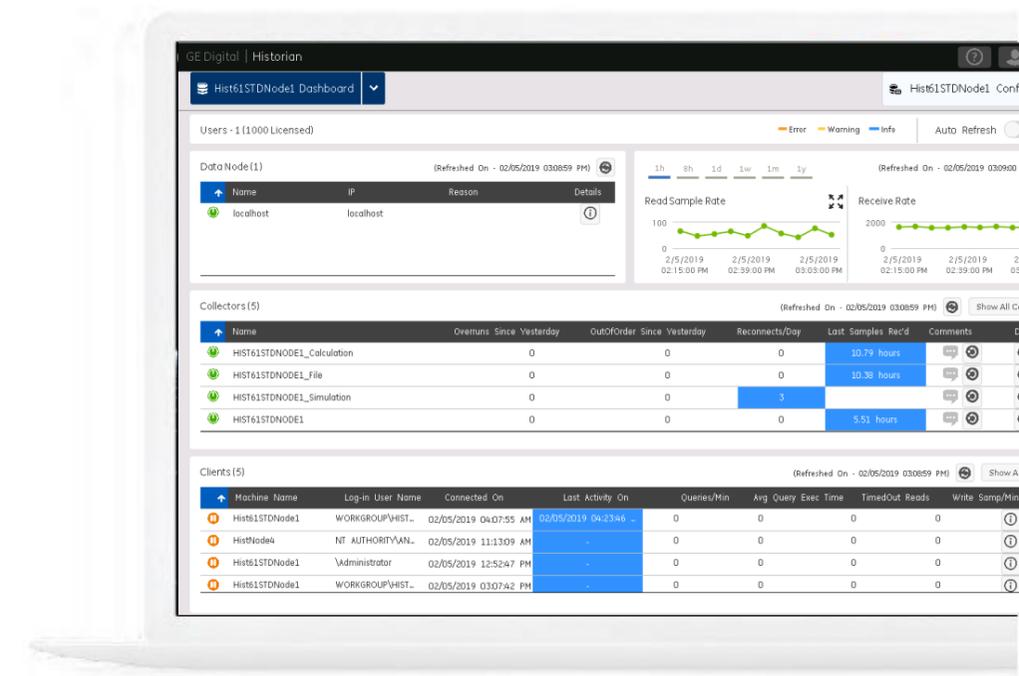
With data security as our highest priority, Historian 7.2 enhances the OPC UA collector to support user authentication. Historian also features integration with complex Active Directory to meet the needs of customers with complex nested domain arrangements. Users and administrators may belong to different organizations or domains. Additionally, domains may have sub-domains (multi-level) that need to inherit or refine on inherited permissions.

## 02 Simplification and ease of use

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 replaces Oracle Java with AdoptOpenJDK, which uses infrastructure, build and test scripts to produce pre-built binaries from OpenJDK class libraries. Version 7.2 also enhances the OPC HDA Historian server to support aggregate functions, which are easily used to process raw data and visualize trends.

## 03 Better performance

Boosting read performance, Version 7.2 enhances the existing-archive files defragmentation tool. Users can defragment existing archive files using a command line based tool. This reorganizes the data nodes of a tag bringing the data nodes together so that bigger reads can be performed, improving read performance. Defragmentation can be done on all versions of archives, and the resulting archive will be the latest version.



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 7.2 also introduces a bi-modal ODBC (SQL) collector.

"GE's 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 7.2: Replacement of Oracle Java with AdoptOpenJDK, enhanced OPC HDA Historian server to support aggregate functions, enhanced OPC-UA collector to support user authentication, new bi-modal ODBC (SQL) collector, enhanced PI Collector to support PI Snapshot
- Version 7.1: Integration with complex Active Directories (AD) arrangements, archive file defragmentation tool, new web-based online Help and standalone Help, data recovery in OPC HDA Collector, improved Search functionality, enhanced installation of OPC Collectors, and support for long-tag names and descriptions in iFIX.
- 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

## Hardware Requirements

The following Hardware Requirements are not comprehensive. Please refer to the Getting Started Guide or Product Manager 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 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).

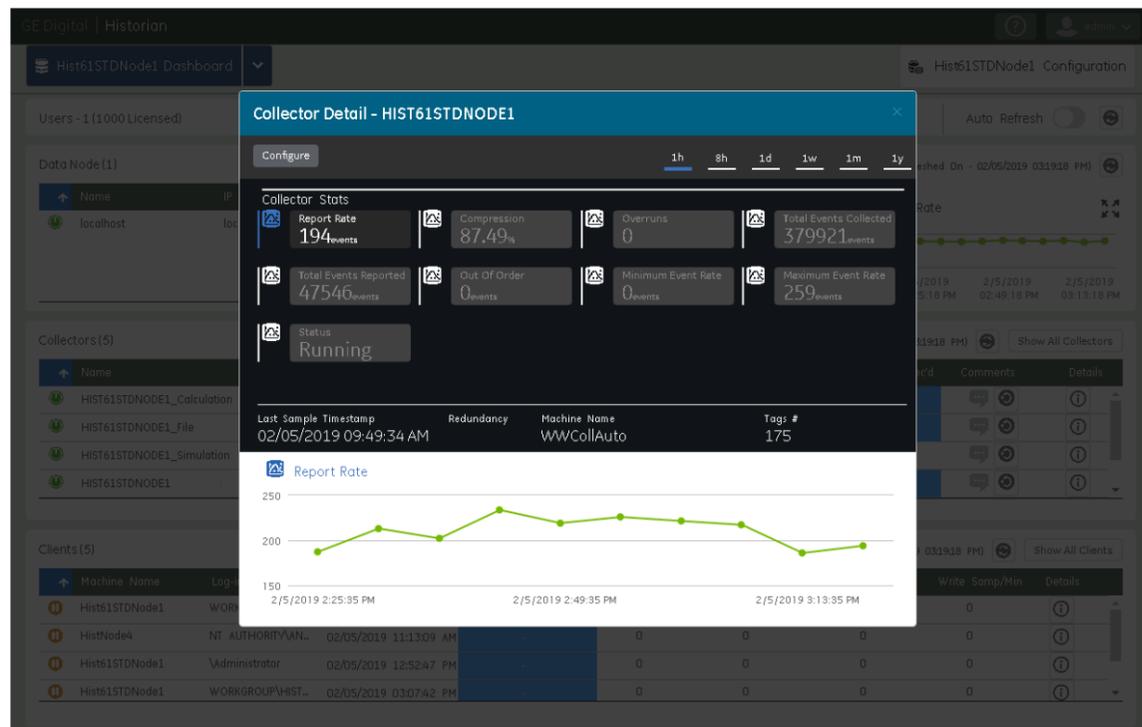
Note: The configuration of each server added to the cluster must be identical to the other servers in the cluster.

## Software Requirements

- Operating Systems (64-bit systems only for your Historian Server): Windows Server 2019, Windows Server 2016, Windows Server 2012, Windows Server 2008 R2, Windows 7, 8.1, and 10
- Microsoft Excel 2016, 2013, 2010 (32 & 64 bit); 2007 (32 bit only)
- Browsers for Web Admin and Web Trend Tool Client Access: IE 11, Chrome 39+, Firefox 46+ . Browsers for Historian Help: IE 11, 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, 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 2008 R2 SP2 (S/E); SQL Server 2008 (E); SQL Server 2008 R2; SQL Server 2012 SP3; SQL Server 2014 SP1 (E/S/P); SQL Server 2016 (E/S/P); SQL Server 2017 (E/S/P)
- VMware ESXi: 5.0 and above



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 GE's 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.

[Wurltech Security Services](#) Our solutions provide industrial-grade security for a wide range of OT network and application topologies.

## Related Products

GE Digital's HMI and SCADA 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.

### [Operations Hub](#)

A centralized environment for aggregating and visualizing contextual and situational information for industrial applications – supporting rapid application development and rich displays for faster operational response and better decision making

## Continue your IIoT 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.

### [Plant Applications](#)

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

### [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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