



# Historian HD 3.0 from GE Digital

Big data historian for your Hadoop® system, enabling time-saving fleet-level insights

## Leverage the power of industrial analytics

You've been collecting process data for decades and your storage costs are growing. IT says data reads and reporting requirements are interfering with production. Users say queries are taking longer or are impractical. Your data scientists claim it takes months to create data sets required to answer complicated questions. Your executives say the big questions are not being asked or answered, and you have inherited islands of information across multiple plants.

If these sound like familiar challenges, consider Historian HD from GE Digital, which allows a native method to move historian data from a Windows® environment to a Hadoop® Distributed File System (HDFS) in batch format.

### Outcomes

Historian HD helps users who have large data sets of time series process data:

- Track years of data across the entire enterprise
- Compare behavior of production lines and fleets of equipment
- Detect trends and patterns never before seen
- Reduce infrastructure costs
- Reduce the time it takes to create the proper data set for advanced analytics
- Transpose historian data into an open data source but keep it in a highly compressed format in an HDFS cluster

### 01 Save time

Achieve fast time to value as there is no coding required to migrate your historian data to Historian HD.

### 02 Have minimal impact on network storage costs and time

Leverage efficiency in moving compressed files across networks. In the journey from Windows to Hadoop®, your Historian data remains highly compressed in its native proprietary and GE patented file format.

### 03 Lower investment costs

Combine all of your plant historian data into a single HDFS data warehouse. Investment in HDFS is cheaper than with traditional Windows-based systems.

### 04 Gain insights from your industrial big data

Remove the pressures of big data queries off production systems. The high availability, scalability and fault tolerance of an HDFS system help remove the barriers to big data, making the impractical or impossible, possible.



Unlock new value from your machine data and business models.

*"What used to take months now takes hours; Historian HD greatly improves our productivity, allowing us to provide substantial savings to our customers."*

**Eric Pool, Director of Data and Analytics Infrastructure, GE Power Digital**





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## Features

- Provides a native method to move GE's Historian data from a Windows® computing environment to a Linux-based Hadoop® HDFS cluster
- Fault tolerant, scalable, simple
- Easily deployable architecture
- Browser-based clients, including MapReduce and HAWQ
- Works on Cloudera, Pivotal, Hortonworks distributions
- Extensibility engine to create MapReduce Extensions
- Cloudera certified method to extract native Historian files to open source (Parquet)
- Includes administrative tools to manage and automate the environment

## Hardware Requirements

Typically, GE's Historian HD cluster will contain a number of rack-mounted server class computers with:

- Two six-core or eight-core 2.6 GHz CPUs
- 48 to 94 GB of ECC RAM
- 8 to 12 7,200 RPM 2TB SATA disk drives
- A typical server class computer that has been used for this purpose is the HP ProLiant DL380.
- Needs a minimum of one name node and three data nodes

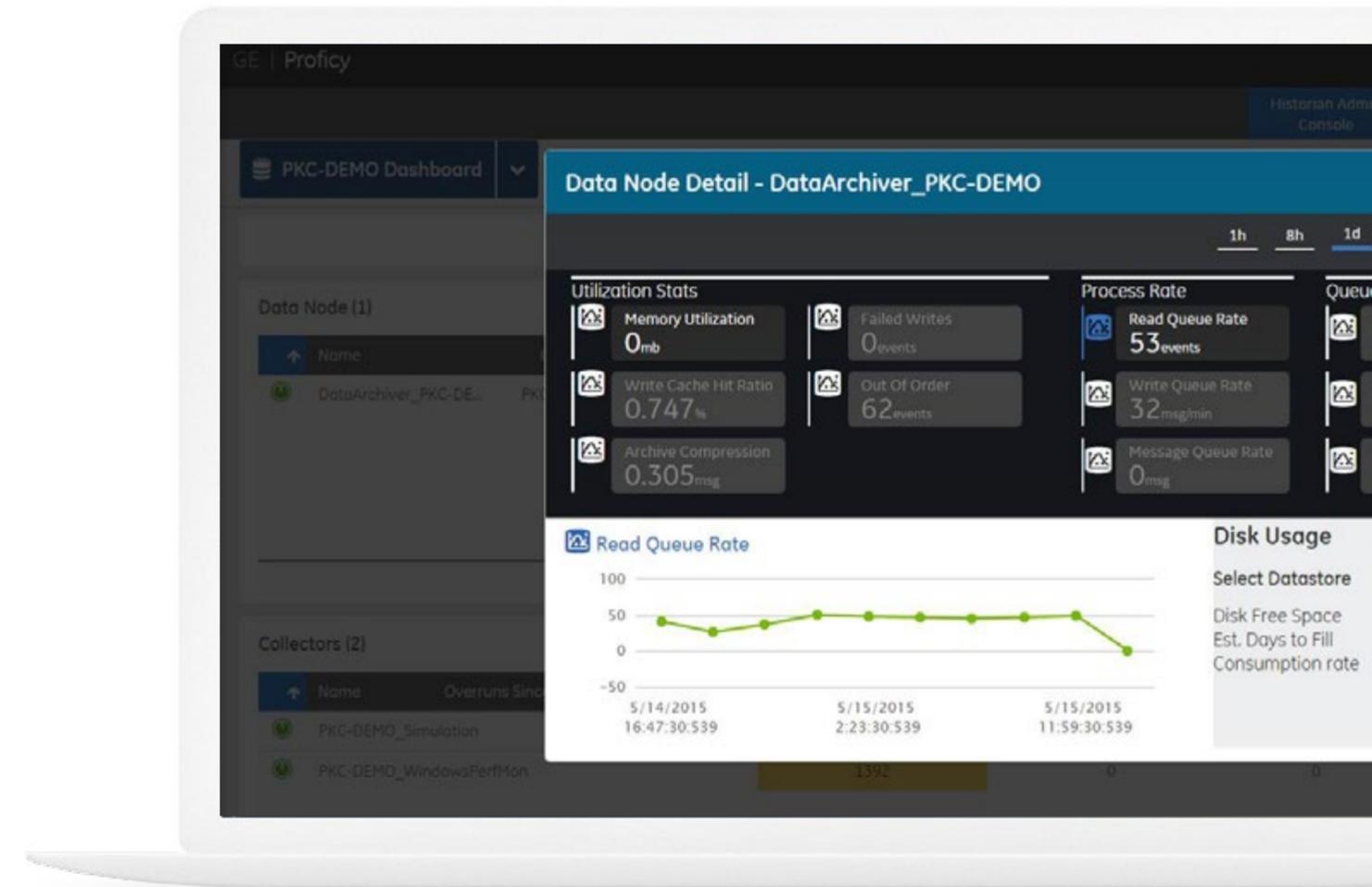
## Software Requirements

- GE's Historian 5.5 or greater
- Pivotal HD, Hortonworks HDP 2.3.0.0-2557, Cloudera CDH5 (Running YARN or MRv1)
- PostgreSQL® 9.2.9
- Java® Runtime Environment (JRE) 7
- Apache™ Tomcat® 7
- Microsoft® Windows® Internet Explorer® 8 or higher for Client Browsers

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

Find out how Historian HD can help you get started on your big data journey for intelligent insights.

CONTACT US



Historian HD can help you leverage the opportunity of industrial big data and IIoT.



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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 team will help develop a collaborative, multi-generational plan that will marry your existing investments to the right process 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.

[GlobalCare Support Services](#) Let us help by ensuring that your business continues to operate at its highest efficiency, all while mitigating risks to your investments.

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

### Related Products

First, understand how your machines are currently performing. Then improve your performance, while reducing costs and minimizing risks. Finally, optimize your performance by making step-change improvements in your maintenance efficiency and effectiveness.



#### [Historian](#)

Get Predix IIoT connectivity and data management with Historian, which optimizes asset and plant performance through time series industrial data collection and aggregation.

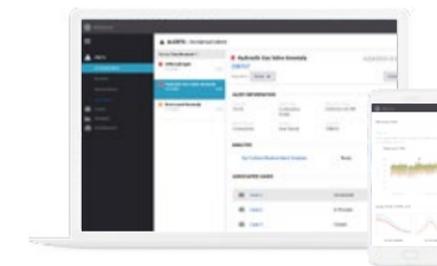


#### [HMI and SCADA](#)

Take your operations to the next level with GE's proven HMI and SCADA solutions, powered by the Industrial Internet.

### 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.



#### [Asset Performance Management Powered by Predix](#)

Move from reactive to proactive maintenance to reduce unplanned downtime, minimize maintenance costs, improve efficiency and extend asset life with APM.



#### [Machine & Equipment Health](#)

Get a unified view of operations—anytime and anywhere.

#### 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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