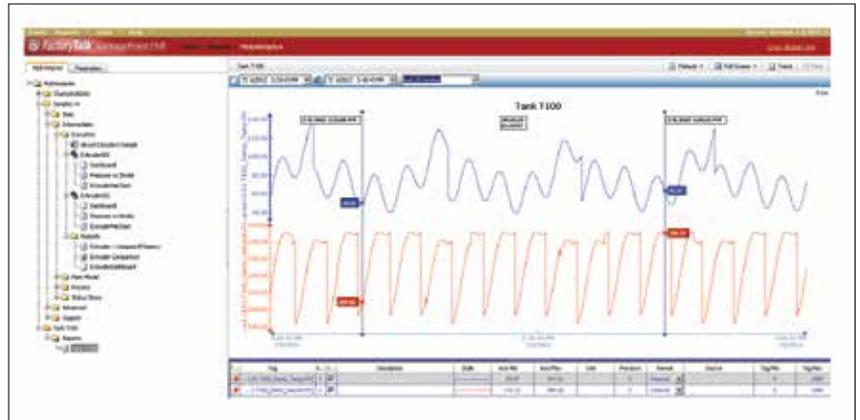


## Advantages

- Scalable real-time process historian
- Premier integration to FactoryTalk® and Integrated Architecture™ provides improved time to value
- Auto Discovery and Auto Configuration helps reduce deployment time and lowers total cost of ownership
- Asset modeling, event tracking and notification provide a rich data set with context for analytics applications
- Robust and reliable data collection application
- Powerful archive technology to help provide long-term data storage with fast, efficient data retrieval
- Comprehensive support for redundancy and high availability to ensure continuous access to data

*"FactoryTalk Historian SE provided us with the ability to automate data management. We were able to identify line interruptions and places we needed to take corrective action to open up our high-speed bottling line. Ultimately we were able to achieve a six-percent increase in efficiency on this line."*

*Production Manager,  
Soft drink bottling company*



Visualize Historian Data in FactoryTalk VantagePoint EMI Trend

## Secure, scalable, accessible: World-class Historian

Driving data-based decision making for a better bottom line.

Real-time access to reliable information is the key to improving productivity and efficiency. When you know what's happening on the plant floor, you can make better decisions—about process, time and material management—whatever key performance indicators (KPIs) you've identified as contributing to your continuous improvement objectives. The expanded capabilities of FactoryTalk® Historian SE provide you with the data capture, management and analytical capabilities to drive improved decision-making.

FactoryTalk Historian from Rockwell Automation® is an integrated toolkit for obtaining real-time process and production information. The platform supplies complex manufacturing data to a centralized location, providing insight into performance parameters from a single subassembly, to a production line, and across the enterprise. The system is also easy to adopt. It uses off-the-shelf interfaces, and it automates installation procedures with Logix control systems or can be configured for interoperability with other makes of legacy controls systems. As a result, FactoryTalk Historian SE is faster and easier to bring online than traditional historians.

For example, plant supervisors can view individual historical data for machines, process equipment or production lines on demand; production supervisors can analyze batch operations for an individual site against enterprise-wide corporate production parameters; enterprise managers can compare KPIs between locations. This enhanced visibility into the full breadth of enterprise data helps identify and correct sources of inefficiencies quickly, leading to improved manufacturing consistency, energy use, first-pass quality and other factors that impact your overall manufacturing results.



## FactoryTalk® Historian Site Edition



FactoryTalk Historian SE introduces a highly efficient system for automatically discovering data sources and relevant tags to historize and to configure these automatically with the most optimal parameters.

FactoryTalk Historian SE 5.0 introduced Framework (AF) as means to contextualize process data by associate process attributes to physical asset in your facility. The Asset definition includes process tags from the Data Archive, streaming event-based analytics and notification, and other data sources such as relational databases. You can use AF asset analytics to configure, schedule, and run calculations using Performance Equation (PE) expressions, rollup calculations, or other SQC calculation. Event Frames (EF) can capture event-based data through trigger conditions from the control system or user entered data.

### Features

Visualize your enterprise using the powerful data collection and analysis engine of FactoryTalk Historian SE and its extensive series of Microsoft®-compatible reporting tools.

Easy.

Automated Install and Configuration

FactoryTalk Historian will automatically install and configure itself on a standard FactoryTalk platform. It will auto-detect Logix and other Rockwell Automation controllers and automatically detect relevant tags to be historized. With FactoryTalk VantagePoint 7.0, tags can be configured and maintained from any device or web browser that is HTML5 compatible.

Flexible.

Interoperable Data Collection Capabilities

FactoryTalk Historian can connect to virtually any control system or human-machine-interface (HMI) software and collect real-time data at high speeds and at full resolution.

Available.

Built-in Redundancy

FactoryTalk Historian supports several layers and methods for redundancy and high availability above hardware redundancy and Microsoft clustering. The first level collects data to the server using redundant interface nodes; the second level places servers in server "collectives," where interface nodes will feed both the primary server and secondary server.

Automated.

Simplified Calculation Engines and Totalizers

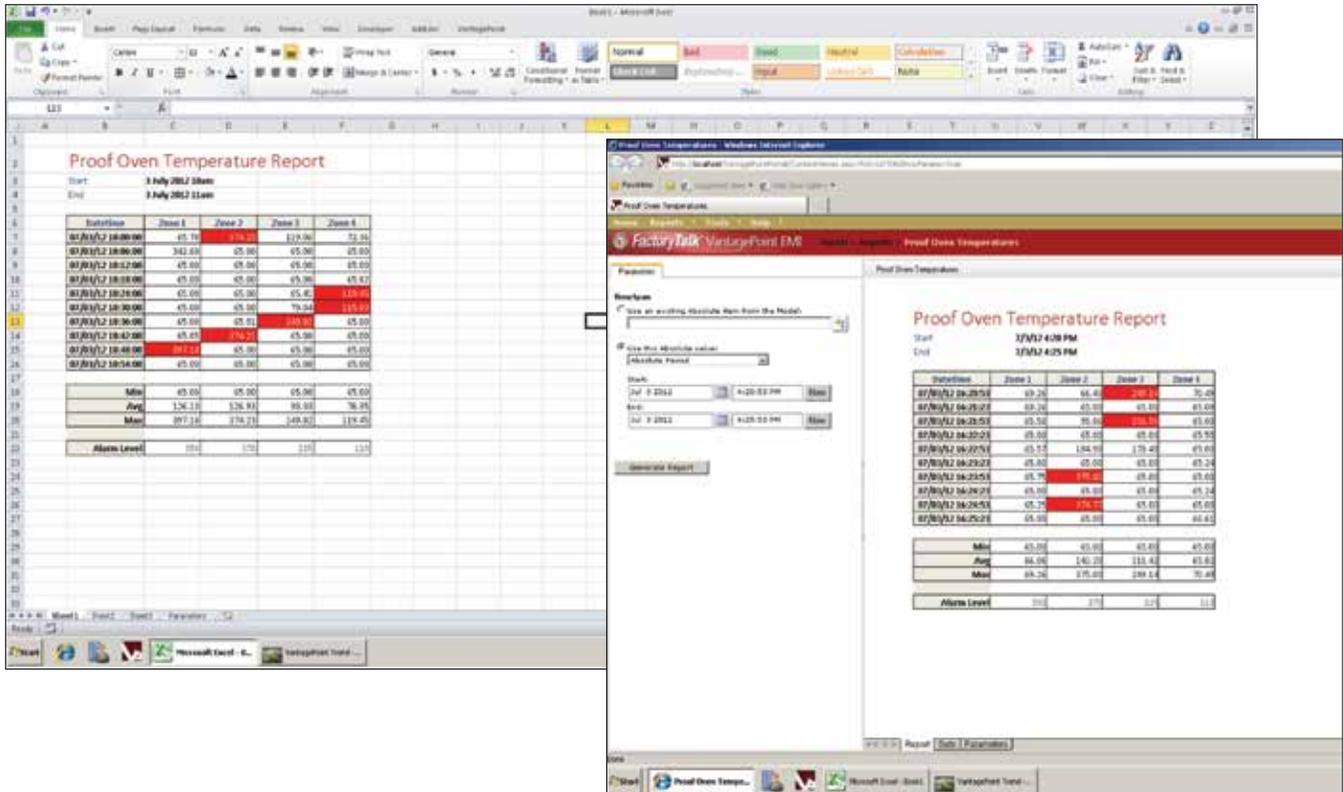
An embedded, advanced computing engine allows programming of complex calculations like asset efficiency, real-time cost accounting and batch summary. In addition, you can program communication applications such as alarming, emailing, and paging, and data integration programs or applications that do not require user intervention.

Reliable.

Accurate Archiving with Optimized Data Store

FactoryTalk Historian uses tag and historical archiving. This method records only those data points that exceed an acceptable range of values and reduces the required amount of stored data points, while maintaining accuracy. Data archive storage and retrieval is optimized to maximize performance even with large amounts of data (1 GB or higher).





Secure.

### System-Wide Transport Security

Transport security uses Windows SSPI for encryption to provide confidentiality and signing of messages for integrity. Windows based transport security uses symmetric key encryption and hash based message authentication codes.

### Boost Performance

- Monitor materials consumption and production (raw, intermediates, final product utilities, etc.). Help reduce the amount of materials lost due to overproduction, as well as help reduce materials lost during operation product or grade changes.
- Monitor or calculate effective equipment usage and performance. Detect degradation of performance, initiate alerts or requests for operations and maintenance actions.
- Help improve transformation of raw materials to product and overall equipment effectiveness and utilization.
- Help improve scheduling and tactical execution of equipment maintenance.
- Provide real-time operation and production data to other supply-chain management functions (maintenance, scheduling, accounting, etc.).

### Reduce Time-to-Market

- Monitor and analyze operation and product quality in accord with specifications and operations and product constraints.

- Help reduce time to execute grade or product changes.
- Help reduce product waste, recycle and blending. Increase effective equipment capacity and positively impact materials cost management.
- Help improve product development by collecting and evaluating data related to new operation actions, materials, equipment, equipment capabilities and procedures.
- Identify operation or production bottlenecks and improve operating efficiency to avoid unnecessary capital spending.

### Increase Compliance

- Facilitate, validate and document performance within regulatory or permitted boundaries.
- Help reduce validation by including in OEM delivery and testing.
- Comprehensive auditing capability for tracking configuration changes and data modification.

### Maximize Delivery Quality and Continuous Process Improvement

- Document actual vs. model production and identify deviations.
- Analyze for new process and operational boundaries when throughput, material or equipment changes occur.
- Identify sources of operation and product quality issues.
- Increase effective (downstream) capacity by identifying and isolating off-spec product earlier (upstream) in production.

## FactoryTalk Services

FactoryTalk® Services deliver value. They are a shared set of common features that enables superior interoperability and commonality between applications for reduced engineering, operations and training costs, while extending the life of existing investments. The FactoryTalk Services provide a solid foundation for today and a path for the future.

	Activation	Directory	Security*	Diagnostics	Audit	Live Data	Alarms & Events
FactoryTalk Historian SE	3	3	(3)	3	3	3	

\* Historian SE supports Windows integrated security model that can be utilized through FactoryTalk Security Windows linked users.

## Client and Server Requirements

### Interfaces & Clients

- Windows 2016 SP1 (64 bit)
- Windows 2012 R2 SP1 (64 bit)
- Windows 2008 R2 SP1 (64 bit)
- Windows 10 Pro (32 & 64 bit)
- Windows 7 Pro SP1 (32 & 64 bit)

### Server

- Windows 2016 SP1 (64 bit)
- Windows 2012 R2 SP1 (64 bit)
- Windows 2008 R2 SP1 (64 bit)
- SQL Server 2016 Express or Standard Edition

## Case Study

### Excellent Visibility Drives Consistency and Quality Improvements as Manufacturer Goes Global

The power of information-driven manufacturing operations management is well documented. Driving bottom-line performance improvements across a manufacturing enterprise is a direct result of the ability to visualize, gather and analyze production data. For one high-tech manufacturer, achieving its stringent, first-pass quality requirements required it to make critical improvements in its ability to manage its supply chain and to improve process consistency across several newly opened global production facilities. FactoryTalk® Historian SE provided the toolset the manufacturer needed to achieve those performance goals.

“Our production facilities—and our supply chain—literally cover the globe,” said Plant Manager Steve Marsh. “The tools that FactoryTalk Historian SE provided us gave us the visibility we needed to identify areas that needed improvement and to collaborate on problem-solving. It’s made us much more responsive and able to get ahead of potential issues before they can affect production.”

The application provided plant managers visibility into every aspect of its supply chain. A tagging system providing rapidly available genealogy for subassemblies coming from suppliers and performance data for parts installed in its customers’ plants. In addition, performance data could easily be compared among existing plants and those that had recently come online in new locations. Machine, labor or process inefficiencies could be identified and corrected to bring across-the-enterprise improvements in key performance indicators.

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[www.rockwellautomation.com](http://www.rockwellautomation.com)

### Power, Control and Information Solutions Headquarters

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

Europe/Middle East/Africa: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640

Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846