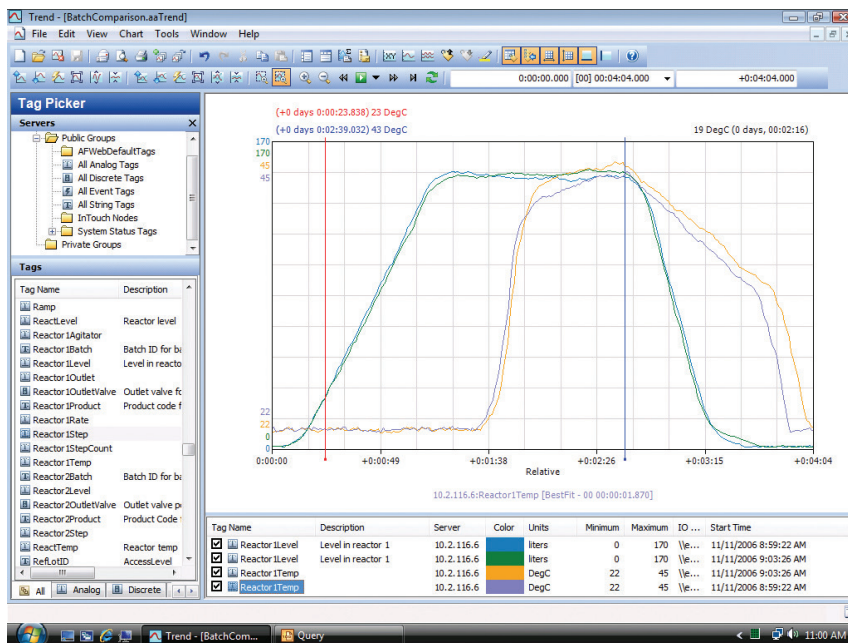# Wonderware Historian

Wonderware® Historian is a high-performance process historian, capable of storing huge volumes of data generated from today's industrial facilities. Historian easily retrieves and securely delivers information to desktop or mobile devices, enabling organizations to analyze processes anywhere at any time.

Wonderware by Schneider Electric

Wonderware Historian

SUMMARY

Wonderware Historian is the first, large-volume plant data historian to unite a high-speed data acquisition and storage system with a traditional relational database management system, facilitating access to plant data using open database standards.

BUSINESS VALUE

- A complete and accurate operational history provides a foundation for faster troubleshooting and easier discovery of high value process improvement opportunities.

- Flexible, scalable implementation options reduce IT costs and accelerate system ROI. High availability and disaster recovery options help ensure business continuity.

- Comprehensive reporting and data analysis options enable more team members to gain value from your process history and having access to data enhances collaboration.

Wonderware® Historian combines advanced data storage and compression techniques with an industry-standard query interface to ensure open access to all of your process, alarm and event data, enabling faster, more informed decisions while keeping your team fully informed on operational performance.

Wonderware Historian is the perfect companion to the world's leading HMI, Wonderware InTouch®, allowing you to easily store data coming from your HMI SCADA application. Historian is offered in a number of configurations to meet the needs of any industrial facility, from a single site to a multi-facility global enterprise.

Data stored in the Wonderware Historian is easily accessible using a comprehensive set of integrated reporting and data analysis tools. From your desktop, laptop, tablet or smart phone, Historian data is available 24/7 helping you better manage and improve your process.

Highly Scalable and Flexible
Wonderware Historian offers greater scalability and more deployment options than ever before. Historian can collect and store all of your vital process, alarm and event data up to 2 million tags.

Wonderware Historian can be deployed to monitor a single process or an entire facility. It can expand as a tiered Historian, capable of storing data locally and aggregating data at the corporate level to simplify the most demanding data reporting and analysis requirements.

Data Integrity
In many industries like Upstream Oil & Gas or Water & Wastewater, remote facilities are connected via low bandwidth data communications systems. Network efficiency is a key consideration. Wonderware Historian has increased network efficiency by up to 92% so all of your high resolution data is captured accurately every time.

Data can also be intermittent, late, or come in bursts, straining the ability of a historian to keep up. The high performance Wonderware Historian data storage engine can handle data bursts of late data without adversely affecting system loading. Wonderware Historian can even handle data coming in from systems with mismatched system clocks, preserving the correct data sequence automatically.

Regardless of your industry, Wonderware Historian delivers the high levels of data integrity required by today's most demanding companies.

Wonderware Historian

Business Continuity

Business continuity is a growing concern among leading industrial companies. How do you ensure that your plant historian keeps functioning if a computer system fails or if you experience a natural or man-made disaster?

With Wonderware Historian, it is simple to create distributed configurations that address your business continuity concerns. A 'Tier 2' system can serve as a data repository for backup of critical information, or multiple Tier 2 systems can enable replication of all of your historical data. Multiple Tier 1 systems can feed either their complete data stream or just summary, aggregated data, to one or more Tier 2 systems. Tiered architectures guard against possible data loss and provide valuable summary data for system performance analysis.

Data access and visualization is also ensured by our tiered historian approach. Connected instances of the Wonderware Historian Client, a data analysis and reporting application, automatically switch to a designated backup historian if the primary historian goes down. When the primary historian comes back online, all connected Historian Client instances automatically switch back to the primary server.

Tier 2
Wonderware Historian.
Centralized Reporting
and System of record.

Tier 1
Wonderware Historian.
Local trouble-shooting
and buffering.

> Tiered architectures guard against possible data loss and provide valuable summary data for system performance analysis.

High Performance Features
Store Plant Data with Amazing Speed and Remarkable Efficiency

Wonderware Historian captures plant data hundreds of times faster than a standard database system and saves data in a fraction of the space using our history block technology.
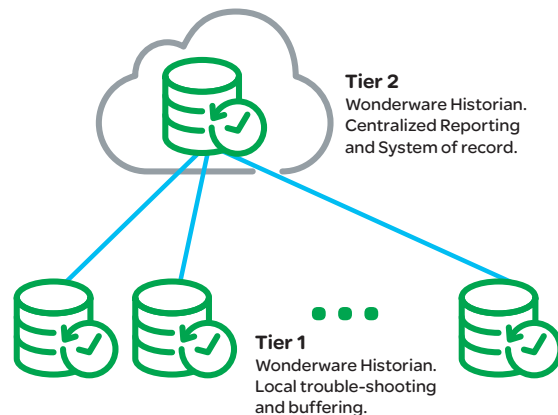
Because of the differences between time series information and conventional transactional data, conventional relational database technology is often not suited to the plant-floor environment. The Wonderware Historian is designed to manage the continuum of values experienced in time-series data, along with alarm and event data, providing a single data repository for your operational records. Our storage engine also provides 5x the storage performance over traditional relational databases. This means Historian can capture very high resolution data on a large number of data tags ensuring you have the data you need to understand and solve the most difficult process and equipment problems.

Wonderware Historian combines front-end, high-speed data collection with time series extensions to an embedded Microsoft® SQL Server® relational database to optimize both storage and retrieval performance. Wonderware Historian does not store data directly in Microsoft SQL Server tables, but instead utilizes highly optimized "history blocks" technology. This means that you don't have to purge your database as the size of your database grows – ever. You can move or transfer history blocks using Windows Explorer®. History block setup is improved so system management is easier than ever.

Additionally, our patented "swinging door" data storage algorithm greatly reduces data storage requirements while preserving important data features.

**Capture Complete Data Records,
Even from Slow or Intermittent Networks**

Wonderware Historian captures the complete data record (process, alarm, events) with its fault-tolerant data acquisition system. It is ideal for SCADA, geographically dispersed facilities or other applications that use slow or intermittent data networks. Wonderware Historian can acquire and store data collected by remote terminal units (RTUs), providing more complete data records for SCADA operations.

"The Wonderware Historian storage engine provides 5x the storage performance over traditional relational databases."
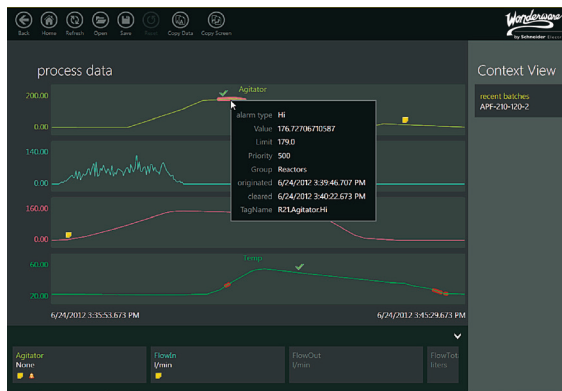
Wonderware Historian

Build Queries Faster and More Efficiently with Advanced Data Retrieval Modes
Wonderware Historian has built-in advanced data retrieval modes that can make your data report queries easier to build, more efficient and more powerful. Wonderware Historian offers the following advanced data retrieval modes:

- Time-in-state
- Slope
- Interpolated
- Best fit
- Time-weighted average
- Integral
- Counter
- Cyclic and delta
- Full
- Minimum, maximum, average
- Value state
- Round trip

Choices for Data Analysis and Reporting

Being able to use data is just as important as storing it. Wonderware provides many ways to access and visualize your process data. **Historian Client** provides a great desktop tool for viewing data trends and basic reports. **Information Server** displays Historian data in many ways via convenient web delivery. **Wonderware Intelligence** leverages Tableau® business analytics for powerful self service process analysis capabilities. **Dream Report** is a configuration-based reporting application that anyone can use out the box to create production or regulatory compliance reports. For mobile workers, SmartGlance delivers Historian and other plant data to smart phones or tablets.

> Wonderware has all your data analysis and reporting needs covered.

Data in the Cloud

Wonderware Historian Online Edition is one of the first true plant data historians available on a cloud platform. Schneider Electric has partnered with Microsoft to offer Wonderware Historian Software as a Service (SaaS), running on the highly secure Microsoft Azure Cloud Services environment. The Wonderware Historian Online Edition allows data from local Historians to be aggregated and stored on a secure cloud-based Historian server. Users can utilize process data without the security concerns of accessing data behind the control network firewall. Also, since Schneider Electric does most of the work, you don't have to tie up valuable capital or in-house IT resources to administer the system. Schneider Electric keeps the software current, and we include Historian Client and SmartGlance mobile reporting clients to make it easy to view the aggregated data regardless of your location.

For customers wishing to host their entire Historian architecture in the cloud, we offer Wonderware Online — a managed reporting and analysis solution from Schneider Electric.

Customer Support and Services

The Customer FIRST Services Program makes it easy to receive the latest Wonderware software and associated applications. To learn more about this valuable program, which maintains and often increases the value of your industrial software applications, please contact your local Wonderware sales representative.

Learn more about Wonderware Historian Client. Contact your Wonderware distributor today, or visit
http://software.invensys.com/products/wonderware/production-information-management/historian