

## 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 easy access to plant data using open database standards.

## Business Value

Complete and accurate plant data recording enables personnel to find plant performance improvement opportunities.

Wonderware Historian provides broad configuration options including; a single node on-premise installation to a Cloud based multi-tiered configuration, also high availability and disaster recovery options. Wonderware Historian meets your needs.



# Wonderware Historian



Wonderware® Historian® provides high performance, flexibility, scalability, and high reliability. Wonderware® Historian combines advanced data storage and compression techniques with an industry-standard query interface to ensure open and easy access to stored time-series information, enabling process and production decisions to be evaluated and made by the right people, in real time.

Wonderware Historian is the perfect companion to the world's leading HMI, InTouch®, and is offered in a number of configurations to meet the needs of any industrial facility, from a single facility to a multi-facility global enterprise.

Data stored in the Wonderware Historian is easily accessible with a range of reporting and data analysis clients that deliver Historian data to your desktop, or via the web, even to your smart

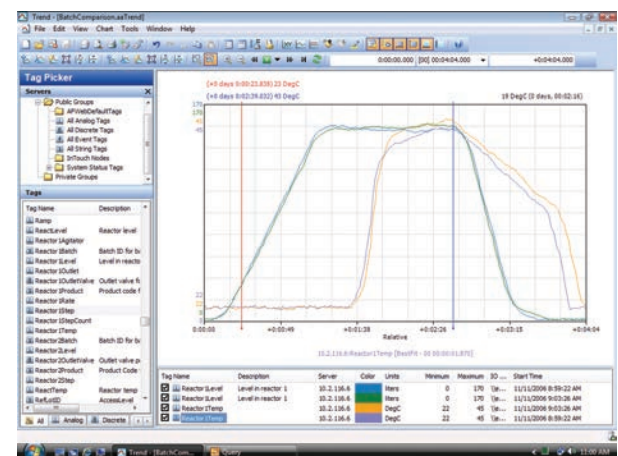
phone or tablet. Advanced data retrieval modes built into Wonderware Historian simplify report generation, saving valuable IT resources.

## HIGHLY SCALABLE AND FLEXIBLE

Wonderware Historian offers greater scalability and more deployment options than ever before. Regardless of the size of your operation, Historian has the scalability to collect and store all of your vital process data, up to 2,000,000 tags.

The Wonderware Historian can be deployed to a single facility or grow to be a multi-tier Historian capable of storing data locally and at the corporate level, facilitating the most demanding data reporting and analysis requirements.

With the ability to configure multi-level tiered Historian architectures, Wonderware Historian delivers the flexibility needed in modern networked infrastructures, with the ease of use expected from Wonderware.



## DATA INTEGRITY

In many industries like Upstream Oil & Gas or Water & Wastewater, facilities can be geographically dispersed or operate using low bandwidth data communications systems. Data can be intermittent, late or come in bursts straining the ability of a historian to keep up.

Wonderware Historian data storage engine can handle data bursts of late data with superior storage throughput and without adversely affecting system loading.



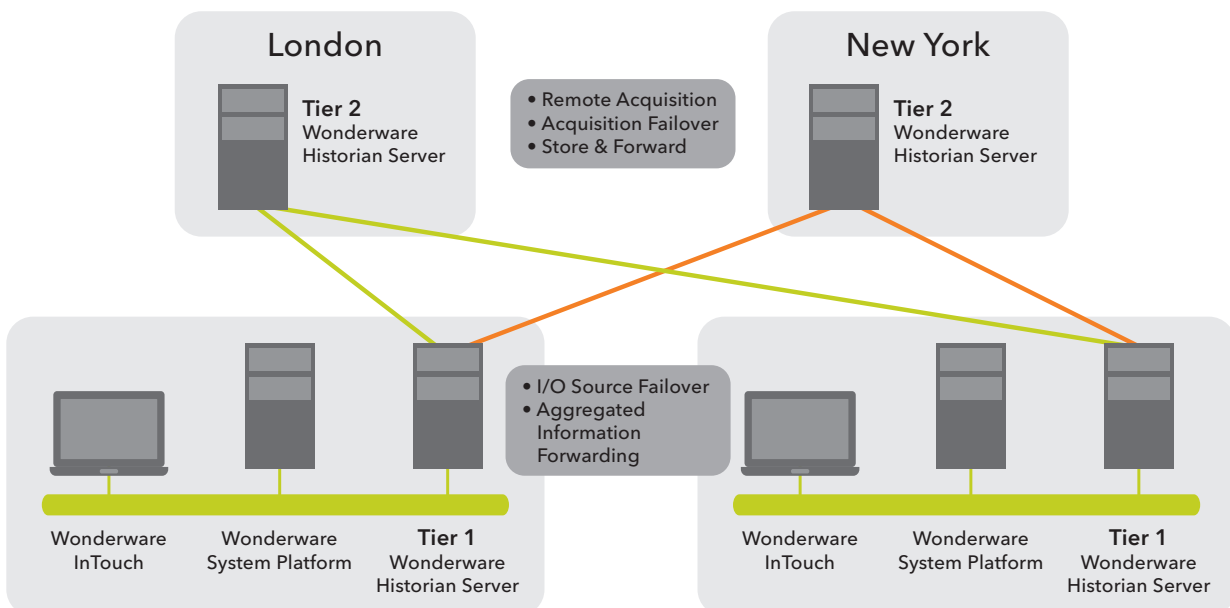
So regardless of your industry, Wonderware Historian delivers the high levels of data integrity required by today's most demanding companies.

## BUSINESS CONTINUITY

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

With Wonderware Historian it is simple to create distributed, multi-level 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 due to system failures or network downtime incidents.

Data access is also ensured by our tiered historian approach. The Wonderware Historian Client will automatically switch to a designated backup historian if the primary historian goes down. When the primary historian comes back online, all connected Historian Clients automatically switch back to the primary server.



## HIGH PERFORMANCE FEATURES

### Store Plant Data with Amazing Speed and Remarkable Efficiency

Wonderware Historian software captures plant data hundreds of times faster than a standard database system and saves data in a fraction of the space.

Because of the differences between time series information and conventional transactional record-based data typical of a commercial enterprise, conventional relational database technology is not suited to the plant-floor environment. The innovative Wonderware Historian is designed to manage the continuum of values experienced in time-series data, which is inherently different from the isolated sample style information in a typical database.

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 a highly optimized file system separate from the relational database.

Additionally, our “swinging door” data storage algorithm greatly reduces data storage requirements while preserving important data features. It also fully integrates event, summary and production data along with database configuration information.

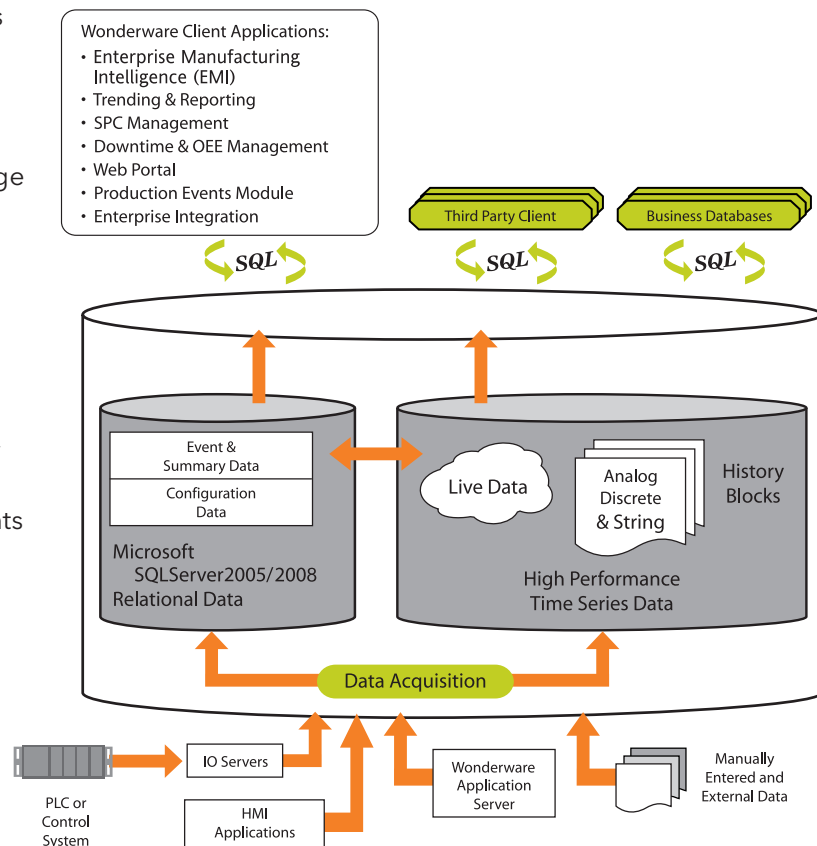
### Capture Complete Data Records, Even from Slow or Intermittent Networks

Wonderware Historian captures complete data records with its fault-tolerant data acquisition system, which is appropriate 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.

### Build Queries Faster and More Efficiently with Advanced Data Retrieval Modes

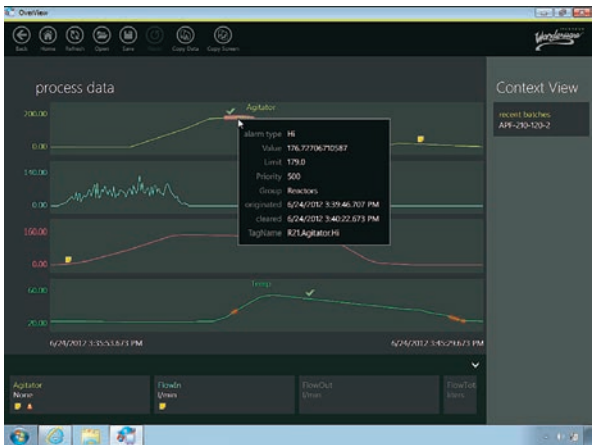
Wonderware Historian has built-in advanced data retrieval modes that can make your data report queries more efficient and more powerful. Wonderware Historian offers the following advanced data retrieval modes:

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



## DATA ANALYSIS AND REPORTING

Being able to use data is just as important as storing it. So 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. For mobile workers, SmartGlance delivers Historian data reports to their smart phones or tablets. Wonderware has all your data analysis needs covered.



## DATA ON THE CLOUD

Wonderware Historian Online Edition is one of the first true plant data historians available on the "Cloud". Invensys has partnered with Microsoft to offer the Wonderware Historian as a software as a service (SaaS) running on the highly secure Microsoft Windows Azure Cloud Services environment. The Wonderware Historian Online Edition allows data from local Historians to be aggregated and stored on an easily accessible, but secure cloud-based tier two Historian server. Users can access process data without the security concerns of accessing data behind the control network firewall.

Also, since Invensys does most of the work, you don't have to tie up valuable capital or in-house IT resources administrating the system. We keep 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.

## CUSTOMER SUPPORT AND SERVICES

The Invensys 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 Invensys sales representative.

**Learn more about Wonderware Historian. Contact your Wonderware distributor today!**



Invensys • 10900 Equity Drive, Houston, TX 77041 • Tel: (713) 329-1600 • Fax: (713) 329-1700 • [iom.invensys.com](http://iom.invensys.com)

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