



Historian (InSQL) Server Basic Training Course

Historian (InSQL) Server is Wonderware's open relational database for plant and process data.

Historian (InSQL) Server acquires and stores process data at full resolution and integrates real-time and historic plant data together with configuration, event, summary, and associated production data to client applications on the desktop. Historian (InSQL) Server combines the power, openness and flexibility of Microsoft SQL Server with the high-speed acquisition and efficient data compression characteristics of a real-time system. The use of SQL as the standard interface between the back end (server) and front end (client) computers ensures a level of openness and flexibility unmatched in the industrial software arena - truly linking the office with the factory floor for the first time.

As a database server, Historian (InSQL) Server is an extension of Microsoft SQL Server, providing more than an order of magnitude increase in acquisition speeds, a corresponding reduction in storage volume, and elegant extensions to structured query language (SQL) for querying time series data.

From the plant perspective, Historian (InSQL) Server is core to Wonderware's FactorySuite, integrating with InTouch and acquiring data from most popular control and acquisition devices via Wonderware I/O Servers.

During this course attendees will learn:

- Minimum hardware requirements and how to install and configure Historian (InSQL) Server (and MSSQL Server)
- that data abounds – and how to access it through effective use of the various extension tables
- some of the fundamental data access tools (client tools) and how to use them
- to use the SQL Query Analyzer and InSQL Server extensions for querying real time data .
- Basic information about the Event System and use it to configure Analog Specific Value and Generic SQL Event Detectors, and Event Actions
- Basic usage of the Historian (InSQL) Server's ActiveX controls, and how to install/use the ActiveX tools to retrieve live process data
- Some effective strategies for Back-Up, Restoration, Monitoring, and Troubleshooting Historian (InSQL) Server, and address performance issues.

This intensive three-day course will provide a basic understanding of the capabilities of InSQL as well as a foundation on which to build solid applications using Historian (InSQL) Server with other FactorySuite products.

Course Pre-requisites

Each student should have the following skills or they will be unable to keep up and benefit from the course.

- Basic understanding of database architecture and design criteria
- Good working knowledge of Windows NT and/or Windows 2000
- Basic understanding of loading/unloading ActiveX objects and their methods, properties and events
- Concepts of writing detailed procedures

While a detailed knowledge of the SQL programming language is unnecessary, exposure to MSSQL Server would be helpful though not mandatory.

Course Modules

MODULE 1 – INTRODUCTION

Module Objective

Introduces and describes course and product elements, describes Wonderware's FactorySuite 2000™, explains plant databases background/history, briefly summarizes a survey of current solutions, and introduces Historian (InSQL) Server.

MODULE 2 – INSTALL HISTORIAN (INSQL) SERVER

Module Objective

Minimum hardware requirements are discussed and the student will learn how to install and configure Historian (InSQL) Server (including MS SQL Server).

MODULE 3 – NETWORK COMMUNICATION & DATA IMPORT

Module Objective

Describe the concepts necessary to connect Historian (InSQL) Server to the outside world.

MODULE 4 – WONDERWARE ACTIVEFACTORY: THE FACE OF INSQL

Module Objective

Describe Historian (InSQL) Server client tools and use them in applied data retrieval exercises.

MODULE 5 – MICROSOFT SQL SERVER

Module Objective

After an explanation of Microsoft SQL Server, show Service Manager, Enterprise Manager, client configurations and SQL and extensions to retrieve data.

MODULE 6 – HISTORIAN (INSQL) SERVER

Module Objective

Explains basic Transact-SQL and InSQL extensions, and how to use Transact-SQL and Historian (InSQL) Server extensions to retrieve real-time data via Query Analyzer.

MODULE 7 – EVENT SYSTEM

Module Objective

Describes the Event System and how to use it to configure Analog Specific Value and Generic SQL Event Detectors, and Event Actions.

MODULE 8 – ACTIVEX CONTROLS FOR INSQL

Module Objective

Explanation of the Historian (InSQL) Server's ActiveX controls, and how to install/use the ActiveX tools to retrieve live process data.

MODULE 9 – MAINTENANCE AND DIAGNOSTICS

Module Objective

A description of some effective strategies for Back-Up, Restoration, Monitoring, and Troubleshooting Historian (InSQL) Server, and address performance issues.