

Plant Information Services

All manufacturer's can gain the benefits of Plant Intelligence, a plant-wide data historian that can be cost-efficiently scaled to meet the needs of large, small and medium-sized plants. Object Technologies CEM can deliver a plant information system designed to meet the needs of all manufacturers, regardless of whether their primary processes are discrete, process or batch. Object Technologies CEM specializes in the installation of three different systems: OSI PI, Intellution iHistorian and Wonderware IndustrialSQL.

OSI PI

OSI PI is a major component of enterprise systems for leading manufacturers of oil and gas, chemicals, electric power, pulp and paper, telecommunications, metal, minerals, discrete manufacturing, food and pharmaceuticals. PI is a three-tiered software system that fully automates the collection, storage, and presentation of manufacturing data. PI serves applications with real time data to the desktop. It is engineered within a Microsoft COM (Component Object Model) environment to provide objects that integrate into the familiar Microsoft client. OSI has employed ActiveX/COM technology deep into the design of its client/server system. Integration tools, which include ActiveX controls, ODBC, API's and SDK's, can be employed over the internet or in more traditional programming LAN environments.

OSI PI Key Features

- 100 to 100,000 Point Collection
- Swinging Door Data Compression, see definition below.
- Proven Interfaces to most control systems.
- Open Data Access
- Fault Tolerant Architecture
- Excel Add-in
- Exiting Third party Applications
- Industry Standard

The Compression method used by PI allows the historian to keep orders of magnitude more data on-line than conventional scanned systems. The data is more detailed than in a archiving system based on averages or periodic samples. The compression method is called "swinging door compression." Swinging door compression discards values that fall on a line connecting values that are recorded in the Archive. When a new value is received by the Snapshot Subsystem, the previous value is recorded only if any of the values since the last recorded value do not fall within the compression deviation blanket. The deviation blanket is a parallelogram extending between the last recorded value and the new value with a width equal to twice the compression deviation specification.

Intellution iHistorian

Intellution iHistorian is a plant-wide data historian that collects, archives and distributes tremendous volumes of real-time, plant floor process information at extremely high speed. iHistorian represents a leap in the performance, utility and affordability of plant-wide data historians. Scalable to 100,000 data points per server, iHistorian delivers high-volume data collection and retrieval, without sacrificing speed or performance. Extensible and economical, iHistorian gives you significantly greater visibility into your manufacturing operations so you can analyze and improve both your performance and your bottom line.

Intellution iHistorian Key Features

- Unlimited Point Collection
- Sub-Second Data Collection Rates
- Enhanced Data Compression
- Multiple Time Zone Support
- Time Stamp Resolution
- Fully Integrated with Intellution iFIX
- True Thin Client Administration
- Excel Add-in
- Designed for 21 CFR Part 11
- Simple Configuration
- Data Retrieval
- Open Archive Access
- Fault Tolerant Architecture

21CFR Part 11 Compliance

For regulated industries, the iHistorian is built to meet the requirements of the 21CFR Part 11 government code of regulations specification. This includes features like electronic signatures, audit functions and audit trail, store and forward, and data security.

Wonderware Industrial SQL

Wonderware IndustrialSQL Server is the world's first high-performance real-time database for factory data. It combines the power and flexibility of a relational database with the speed and compression of a real-time system to integrate the office with the factory floor. IndustrialSQL Server 7.1 is an extension to Microsoft SQL Server 7.0, acquiring plant data at dramatically increased speeds, reducing data storage volumes and integrating plant data with event, summary, production and configuration data. Access to complete plant information is available through hundreds of client applications, ensuring a level of openness and flexibility unmatched in the industrial software arena. New enhancements in IndustrialSQL Server 7.1 include improved performance and data storage management; improved event system with integrated summary sub-system; Delta re-import InTouch Tags; and IndustrialSQL I/O Server. IndustrialSQL Server provides a common point of access for production information, a single platform for the development of production applications, and a single interface to business systems. It runs on Microsoft Windows NT Server 4.0 SP5 and Windows 2000.

Wonderware IndustrialSQL Client applications include:

- ActiveFactory™. This is a full-featured suite of client applications that maximizes the value of the data in Wonderware's IndustrialSQL Server. ActiveFactory includes standalone applications Trend and View, and ActiveX objects iTrend and iQuery, for graphical visualization of the current plant state; standalone application Query provides ad hoc access to all of the data in InSQL; and two add-ins to Microsoft Office, Report and Workbook, that link InSQL data to the power of Microsoft Word and MS Excel®. ActiveFactory also allows dissemination of information via an Intranet and the Internet. More info...
- FactorySuite Partner and WonderTools clients. These tools, developed by independent software vendors, include statistical analysis tools, profiling tools, general reporting tools, mimic display tools, navigational tools, browser-based tools, replay tools, management reporting tools and general trending, graphing and charting tools.
- Generic SQL, ODBC, or OLE DB compliant applications. These applications include Crystal Reports and SQL Access in the FactorySuite, as well as generic tools like Microsoft Access, Excel, Word and Lotus, and more specialized statistical and mathematical analysis applications. Applications that leverage Microsoft's new universal data access initiative with OLE DB scripting can easily retrieve data from IndustrialSQL Server.
- Custom applications. These applications can be developed using any of the popular development environments including Visual Basic, Delphi, PowerBuilder and C++.