i n v e n s y s

Features

- Vibrant graphics
- Extensive symbol library
- Vector graphics
- Reusable standard applications
- React in real time
- Scalable architecture
- Enterprise-wide solution
- Actionable intelligence
- Secure
  – Historian with Store and Forward
  – 21 CFR Part 11
  – Microsoft Active Directory user authentication
- Applications
  – Heat treatment
  – Life sciences
  – Glass
  – Plastics
  – Water and waste treatment

Enterprise-wide Visualization and Historian with EurothermSuite®

ENTERPRISE-WIDE VISUALIZATION

Enterprise-wide Visualization gives power, flexibility, and scalability to engineers and developers from the smallest HMI application to the largest enterprise automation network, all within a consistent toolset.

OPERATIONS SERVER

Operations Server is a fully engineered Wonderware® InTouch® visualization application which provides server connectivity to the control network and allows applications to be distributed across geographical and organizational boundaries.

OPERATIONS VIEWER

Operations Viewer software is designed to provide real-time data to operators, engineers, supervisors, and managers in meaningful way. The simple to use display is a fast and intuitive HMI that consists of a pre-engineered InTouch HMI software client application.

PROJECT ORGANIZER

Project Organizer is a versatile scalable suite of software tools designed to simplify the configuration and visualization of flexible systems solutions.

Information Manager Historian Software is based on Wonderware Historian™ which unites high-speed data acquisition and storage with traditional relational database management systems. This provides easy access to plant data using open database standards such as SQL, ODBC and others.

Information Manager provides connectivity between the Eurotherm LIN control network and the business environment. Enterprise client systems can be distributed across multiple geographical and organizational boundaries while maintaining access to any process value via the Operations Server or Information Manager. Store and Forward provides a backup service from the hardware I/O up to the Historian servers.

WONDERWARE HISTORIAN CLIENT – TRENDING & ANALYSIS SOFTWARE

Wonderware Historian Client trending and analysis software provides plant data analysis and reporting solutions for Information Manager - giving better managed plant performance.

Eurotherm®

OPERATIONS SERVER AND VIEWER

- Contains the latest Wonderware InTouch software
- Comprehensive user authorization and security available via the Eurotherm 'Security Manager' software
- Supports Ethernet, ARCnet and serial connections
- Auditor features to meet 21 CFR Part 11 compliance

Operations Server and Viewer has a client/server architecture with specialized interfaces to provide fast and efficient alarm, and real time data transfer from control nodes to HMI screens. Operations Server provides direct connection to the control network supporting Ethernet TCP/IP stack, ARCnet and serial connections. Control network protocol support includes Eurotherm LIN and Modbus.

High Performance I/O Server
Access to all control data is available via the SuiteLink I/O server. Data is also optionally available via OPC and DDE. All tag block data is accessible with software license limiting the maximum number of blocks.

Alarm Provider
An alarm provider controls the distribution of all block alarms to provide alarm banner and summary displays, alarm printing, and alarm history. Support for master/backup server functionality is also available. Diagnostic displays are built-in.

Operator Alarm Group Sets
Dedicated alarm views for operator displays provide instant access to focused critical unit alarms.

Configuration
All configuration and system data is defined within the version controlled project database, removing the need for any duplication of configuration at the HMI nodes.

React and Respond in Real Time
As the ability to respond to plant changes is critical to your operation; timely viewing of system alarms and the ability to acknowledge them promptly can significantly reduce costly downtime, enable faster responses, and provide opportunities for a pre-emptive resolution to these situations. Tag browsers can match a user view of the plant; display navigation allows a user to define page access to match operator needs; detailed engineering pages allow secure access to all configuration data.

Operations Server
- Information available system wide
- Client server architecture with master/backup servers
- Integrated development environment with deployment facilities
- Open connectivity at I/O and system level
- OPC Server functionality
- Alarm integration
- Multiple alarm printers
- Tag browser
- Deployable security

Operations Viewer
- Auto-configured operator interface
- Tag names instantly available in both configuration and online environment
- Operator faceplates available for objects providing read/write capability
- Point pages give access to all tag engineering data
- Easy display navigation
- Real time trends
- Long term historian
- Mimics (vector graphics)
- Online tag browsing
- Remote desktop technologies

Actionable Intelligence
By providing the right information at the right time and in the right format, you can make timely, informed decisions, take corrective actions to reduce costs and operational incidents, and improve productivity across the entire operation. Intelligent graphic capabilities provide context to data, enables faster analysis, and facilitates better and more rapid understanding of displayed information.

Vibrant Graphical Capabilities
Quickly and easily develop custom graphical views of your real-time industrial processes: With a comprehensive range of graphics primitives from which graphical symbols can be created, engineers have freedom to exercise their imagination and creativity to represent automation environments with style, utility, and efficiency.

ArchestrA symbols support embedded .NET controls and provide unrestricted application extensibility.

Extensive Symbol Libraries
The extensible ArchestrA symbol library provides over 500 professionally designed graphic symbols for your mimics.

A sophisticated graphical editor provides tools to create symbols and add custom properties.
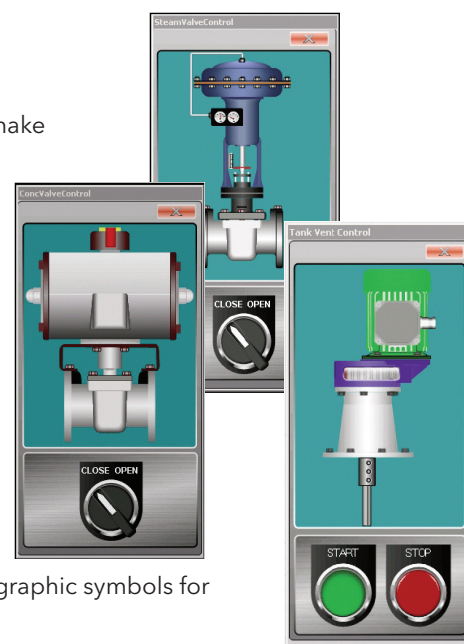
PROJECT ORGANIZER –
ENGINEERING TOOLS FOR AUTOMATION SYSTEMS

- Versatile scalable suite of software tools to match user requirements
- Designed to simplify the configuration and visualization of flexible systems solutions
- Saves engineering effort - structured to plan, understand, specify, write, and test a defined project environment
- Auto build features save configuration time
- IEC61131-3 and S88 methodology
- Intuitive operation
- Centralized database with single tag entry

The Project Organizer suite of tools provides you with a configuration, test, documentation, and, commissioning tool for all automation system instruments. It includes graphical configuration for continuous and sequencing control using IEC61131-3 languages such as function block diagram configuration, sequential function charts (SFC), and ladder logic for creation of actions and steps.

The addition of on-line configuration and an on-line monitoring facility enables users to view and interact with control and sequence strategies running within the instruments. Additional features have been added to simplify all elements of a configuration for one controller into a simple tree view. Implementation and test of your LIN control scheme becomes easier and faster than ever before.

For solutions using multiple devices, the project organizer provides additional tools to manage all elements of a project solution in one environment. The physical plant model, tags, I/O assignments, alarm groups, display, and data security are entered via appropriate displays and stored in a central relational database. A system check tool is available to ensure that the PC configuration matches the software requirements.
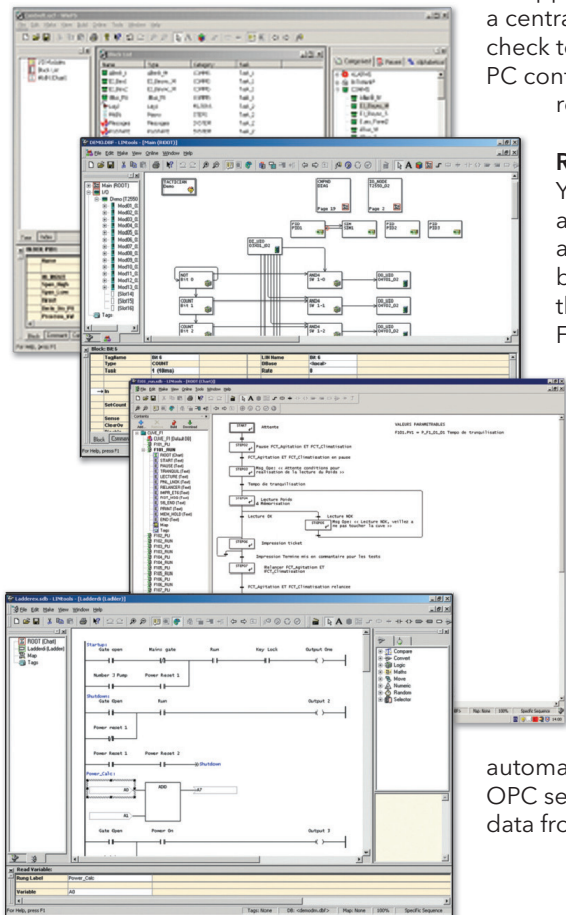
Reusable Standard Applications
You can create applications that adhere to company standards and are versatile enough to be deployed strategically throughout the organization. Features include a centralized application management environment, a robust centralized security model, extensibility capabilities and built-in diagnostics.

Users can also develop a library of reusable scripts that simplify the application; resulting in decreased initial engineering and application maintenance time as well as faster deployment. Generic SFC and Tag aliasing saves time in multi unit sequences.

Wonderware technology provides connection to virtually any industrial automation information system or device using hundreds of available I/O and OPC servers, Eurotherm provides a high performance I/O server to easily access data from its specialized devices.
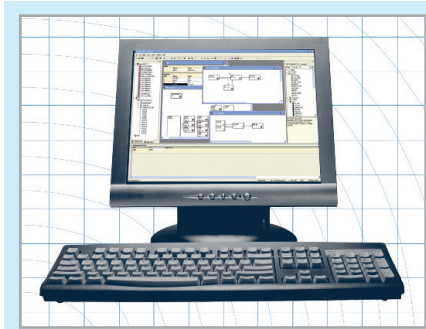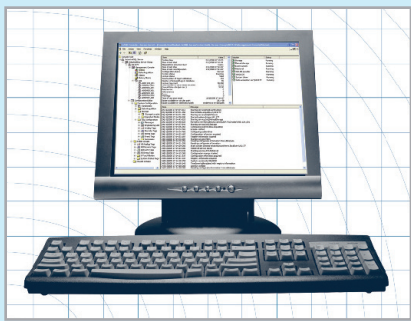
LINtools
- Common engineering tools
- Online commissioning with version control
- Automatic documentation
- Graphical configuration
- Large control module library
- User screen editor
- Setpoint program editor
- Network explorer
- Online reconfiguration support
- Online help with online manuals
- Modbus, Profibus, and Raw communications tools
- OPC server
- FTP services
- SNTP time synchronization
- Recording
- Application IP protection
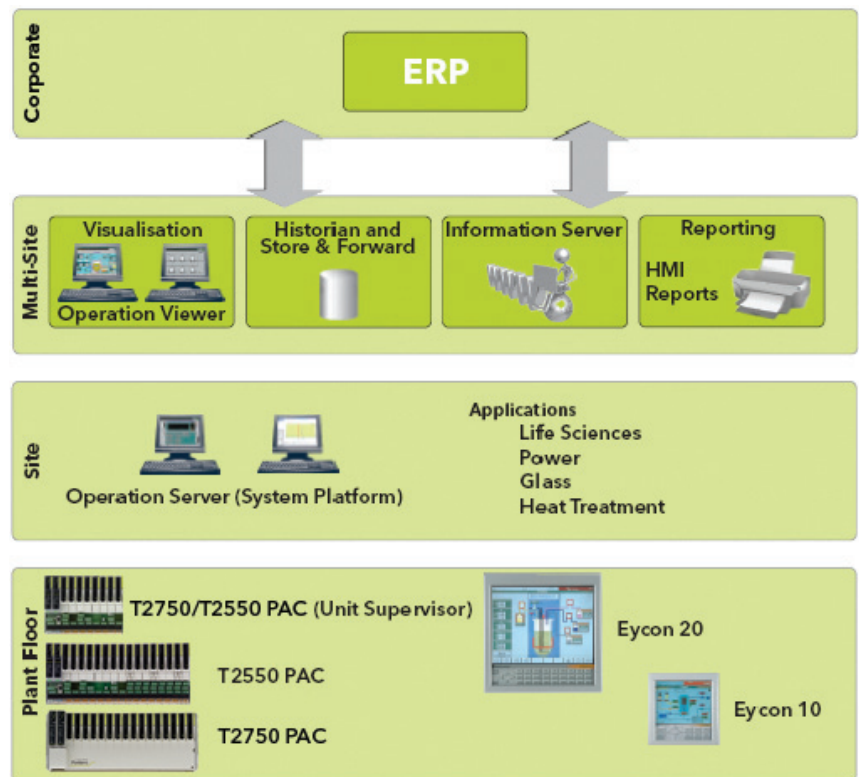
Project Organizer
- Project oriented integrated development environment
- Any system size - single node to multi-node, multi-network and redundant systems
- Wizards for simplified system configuration
- Auto generation of configuration files
- Substantial reduction in engineering effort
- Object oriented configuration tools
- I/O manager
- Import/export of tag lists
- Centralized configuration in relational database
- Mass edit of tag data
- Tag browsing capability
- Tag profiles to setup user access
- Easy store & forward configuration

INFORMATION MANAGER HISTORIAN SOFTWARE

- Captures and stores all plant data all of the time
- Uses an embedded industry standard relational database
- Includes Wonderware Historian software
- Up to 300 times faster than a conventional relational database but only uses small amount of disk space
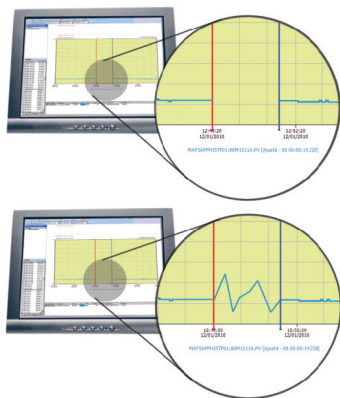- Obtain data from from our range of programmable automation controllers

- Real-time and historical plant information accessible to entire organization
- Minimises storage space and controls volume of data retrieved
- Embedded Microsoft SQL Server™ provides standard access via SQL queries
- OPC and SuiteLink LIN driver with built-in Server Security
- Totally integrated with Project Developer Database
- Integration with relational alarm database
- Contains Wonderware® Historian™ server
- All plant data acquired and stored at full resolution
- Real-time data (current plant values)
- Historic data (long term historian)
- Event data (operator changes)
- Alarm data (plant and system alarms)
- Summary data (hourly averages, maximum, etc.)
- 21 CFR Part 11 compliant

Information Manager provides system connectivity between the control network and the enterprise making data accessible to the entire organization. Enterprise clients systems can be distributed across multiple geographical and organizational boundaries, while maintaining access to any process value via the Operations Server or Information Manager. This allows applications to be distributed across the network and removes the need to duplicate data within each node. The Information Manager combines the power and flexibility of a relational database with the speed and compression of a real-time historian package, providing integration between office and plant floor. It embeds Microsoft SQL Server™ providing universal data access, a powerful relational engine, and tight integration with other Microsoft applications.

Engineers, maintenance managers, and plant operators can view, analyze, and present real-time, historical, and alarm information using Historian Client client applications. Other off-the-shelf software that supports SQL/ODBC interfaces can directly read data from the pre-built tables.

The database and stored procedures are automatically installed requiring no prior knowledge of relational databases or SQL. The Information Manager incorporates influential, pre-defined queries enabling users to search and find data. This facilitates understanding of the complex correlation between physical plant, manufacturing operating conditions, process events, product quality, and production efficiency.

Save Your Data with the Store & Forward Feature
If the network connection to the Wonderware Historian node - or the node itself - is lost, then the Store & Forward function is automatically activated. 'Store & Forward' is a self healing 21 CFR Part 11 data archiving system which automatically stores data, alarms and events during a communication failure in the Foxboro PAC hardware, Eycon HMI and Eurotherm 6000 Series Data Acquisition Units, then forwards this data to the configured data historian server once communication is reinstated. Alarms and events are generated at the source and are directed to the central alarm database.

The Foxboro PAC T2750/T2550 hardware provides dual redundant data acquisition using secure files created at the local level, which results in a secure electronic recording system with total data integrity.

Secure
Built-in features provide secure data storage and control access to any data field which match 21CFR Part 11 expectations for ERES (Electronic Records and Electronic Signatures).

The Eurotherm Security Manager ensures write access matches user defined authorization, and it can be linked to use Microsoft Active Directory user authentication.

A Better Approach to Plant Information Management
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, providing easy access to plant data using open database standards such as SQL, ODBC and others. Traditional relational database management systems do not meet the performance and functional needs of industrial information storage and management. The Wonderware Historian is designed to collect a wide variety of operations data at full resolution and very high data rates, store this data for an extended period of time, and deliver it for reporting, analysis, and visualization. These features exceed industrial requirements and help deliver to decision-makers at all levels of an organization, information needed to drive vital initiatives that improve plant and operational productivity.

- Complete and accurate plant data records enable plant personnel to find plant performance improvement opportunities
- Blend plant data with business metrics to more effectively communicate plant performance and reach your business objectives
- Reports from a variety of Wonderware software solutions can be viewed via Information Server web clients
- Local and remote .NET components can be integrated into HMI mimics and web clients

Store Plant Data with Unconventional 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. Conventional relational database technology is not suited to the demanding plant-floor environment. The innovative Wonderware Historian combines front-end, high-speed data collection with time series extensions to an embedded Microsoft SQL Server relational database. The "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.

Expand Your Applications with Astonishing Scalability
The Wonderware Historian is fully scalable to meet the data demands of even the largest plants. Its broad scalability allows plants to start small and grow applications over time in a controlled and systematic manner.

Collect Plant Data Immediately Out of the Box
Designed as a shrink-wrapped solution, Wonderware Historian software installs quickly and immediately begins to collect valuable plant data. Wonderware is known throughout the industry as a leader in providing industrial automation software that is easy to set up and use.
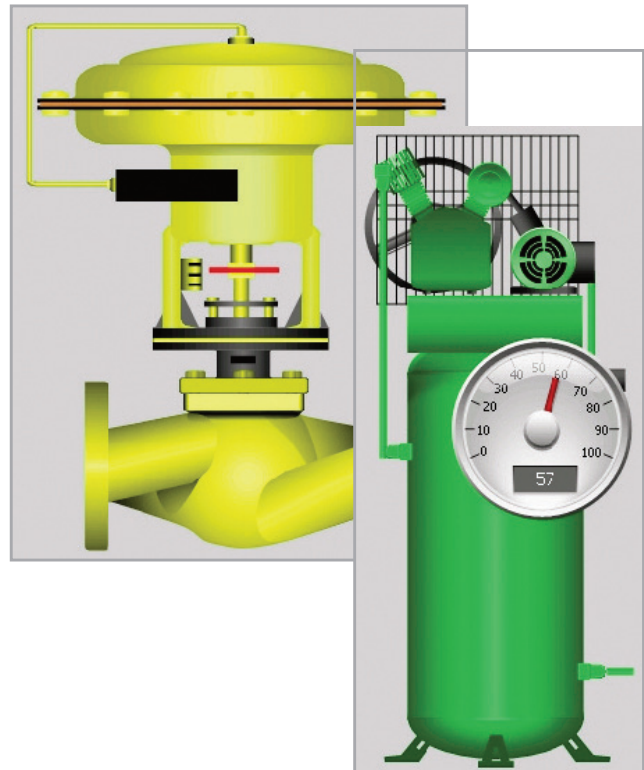
Build Queries Faster and More Efficiently
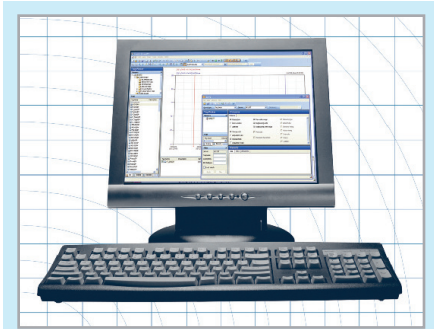## with New Advanced Data Retrieval Modes
Now offering more efficient and flexible queries than ever before the open, high-speed Wonderware Historian offers advanced data retrieval modes.

- Time-in-state
- Best fit
- Time-weighted average
- Integral
- Slope
- Counter

WONDERWARE HISTORIAN CLIENT TRENDING & ANALYSIS SOFTWARE

- Boost profitability
- Improve competitiveness
- Improve market agility & flexibility
- Uses Wonderware Historian Client

Wonderware Historian Client trending and analysis software provides plant data analysis and reporting solutions for Information Manager - giving better managed plant performance.

Wonderware Historian Client applications
- Trend - powerful data analysis tool
- A desktop tool that presents all types of plant data in a graphical format
- Query - easy access to all your plant data

Every user has data requirements that are constantly changing. Though routine reports cover a wide range of needs, special reports are always a requirement.
- Workbook and Report
- Wonderware Historian Client Workbook is a Microsoft Excel add-in that provides plant data connectivity
- Custom application development
- Manufacturing and industrial operations are generally custom designed for their purpose

- Powerful data analysis tool (Trend)
- Easy access to all plant data (Query)
- Workbook and Report
- Custom application
- Improve plant productivity, agility and performance
- Proactively identify process inefficiencies and simplify plant performance reporting
- Contains Wonderware Historian server
- Produce on demand and scheduled reports for regulatory compliance and management

Most plants have customized control systems and industrial applications to optimize the performance of the facility.

- Web Server - maximizes return on information

Creating data reports and trend plots alone are not enough. Information becomes valuable to the enterprise when it is shared. Decisions can be made more quickly when everyone involved sees the same information.

Bringing Plant Data to Everyone's Desktop
Wonderware Historian Client software includes a suite of client applications that maximise the value of the data stored in the Information Manager Historian. In addition, Wonderware Historian Client enables individuals at all levels of an organization to easily access plant and process data using simple point and click dialogs. Historian Client can disseminate information across a network, intranet, or the internet.

Using corporate information highways, Wonderware Historian Client software analyses trending data over time, performs numerical data analysis using Microsoft® Excel, offers comprehensive data reporting using Microsoft Word, and provides ad-hoc access to historical and real-time information on the plant floor.

Improving plant performance through better Enterprise Manufacturing Intelligence can be greatly accelerated by the use of a system for managing plant performance. This often takes the form of an integrated plant information system that provides real-time and historical plant data to plant decision makers and their support personnel.

HMI REPORTS

HMI Reports provides an intuitive reporting package to develop and print reports using the secure data directly from the Foxboro PAC hardware, the Eycon HMI, and the 6000 Series Data Acquisition Units which are integrated with data from the central Historian databases. The package includes a report studio for configuring report projects and a run-time execution module to generate and print reports in many different formats to printers, file servers, and via e-mail. HMI reports are also optionally available as a web portal.
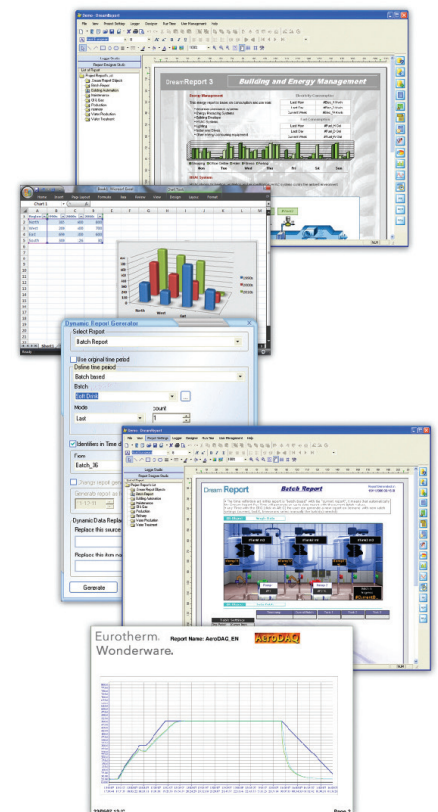
OPC SERVERS AND I/O DRIVERS

OPC Server for:
- Modbus devices
- Eurotherm LIN devices
- I/O drivers
- Wonderware® SuiteLink™ protocol
- Includes advanced communication diagnostic and monitoring tools

Open communication with Eurotherm products and specialized I/O drivers for leading software packages.

Supports
- Eurotherm LIN protocol over Ethernet TCP/IP (ELIN)
- Modbus TCP and Modbus RTU (over serial) communications
- Can communicate to any Modbus RTU communicating device

Other drivers
- Supports Wonderware device integration tools
- SecureData - UHH ODBC access for communications to MES / ERP databases
- Full systems OPC server connectivity built on Factory Suite gateway technology

WEB ACCESS - INFORMATION SERVER

Customized Content to Acquire Specific Information

The Wonderware Information Server can be customized so that different people can easily access the information they need. For instance; maintenance staff can use it to create detailed equipment drawings and downtime reports, or a vice president of operations could use it to review plant efficiency information from various manufacturing lines and plants. To provide this personalized information, the content management administrator need only access the server once then drag and drop the links to custom panels that provide views for the users. This capability eliminates the need to duplicate information in multiple places. Content management personalization enables Wonderware Information Server users to quickly access only the information they need and decide precisely how they want to view it. It features extensive drill-down capabilities and the ability to change the display format.

Quickly and Easily Build a Plant Intelligence Web Solution

An integral part of the Wonderware Historian, the Wonderware Information Server enables plant personnel to quickly and easily build a plant intelligence web content server because it provides the entire content management framework, home page, and configuration tools out of the box. The Wonderware Information Server builds the entire content management infrastructure upon installation. Straight from the home page content management administrators can point and click to configure the content and instantly obtain real-time and historical plant information. In fact, the Wonderware Information Server was designed to be configured by users with no programming knowledge. In addition, Wonderware Information Server web analysis software offers several advanced capabilities.

- Content management personalization and customization
- Intelligent content linking
- Dynamic formatting
- Integrated security
- Support for Web Services
- Centralized software administration and management
- Multi-view windows
- Extensive search capabilities
- Multilingual support

World-class Products

The extensive hardware range includes:
- **Programmable Automation Controller**
  Cost effective solution with fault tolerant option to provide high availability
- **Visual Supervisor**
  Provides innovative multifunctional control, recording and visualization
- **Data Management**
  Provides easy, secure and adaptable data recording
- **Advanced Controllers**
  Give world class excellence in control with clear, user friendly operator interfaces
- **Power Controllers**
  Single and multi-phase thyristor control, differing firing modes and encompassing advanced technologies. Predictive Load Management will help to reduce your energy costs

Customer Support and Lifetime Services

Invensys provides a range of Lifetime Services to ensure optimum performance of your investment, including engineering, calibration, commissioning, training, and maintenance contracts.

Ordering Codes

EurothermSuite Operations Server

OPSS1F	**1**	**2** A	**3** C	**4** E	**5**

	Basic Product
OPSS1F	Operation with EurothermSuite Software

1	**Type**
-A	Operator
-B	Development server, 75 LIN Blocks per server, includes Developer and EPS
-C	Development server, 150 LIN Blocks per server, includes Developer and EPS
-D	Development server, 300 LIN Blocks per server, includes Developer and EPS
-E	Development server, 1000 LIN Blocks per server, includes Developer and EPS
-F	Development server, 2000 LIN Blocks per server, includes Developer and EPS
-N	Development server, 4000 LIN Blocks per server, includes Developer and EPS
-H	Run Time server, 75 LIN Blocks per server, includes Developer and EPS
-J	Run Time server, 150 LIN Blocks per server, includes Developer and EPS
-K	Run Time server, 300 LIN Blocks per server, includes Developer and EPS
-L	Run Time server, 1000 LIN Blocks per server, includes Developer and EPS
-M	Run Time server, 2000 LIN Blocks per server, includes Developer and EPS
-P	Run Time server, 4000 LIN Blocks per server, includes Developer and EPS

2	**Software Features**
A	Auditor option

3	**Documentation Suppy**
C	CD

4	**Language**
E	English

5	**Software Version**
4	InTouch version 9.5
10	InTouch version 10.1

Unit Solution Software Inc. EPS200 and Project Organizer

T560F	**1**	**2**	**3**	**4** C	**5** 4

	Basic Product
T560F	Unit Solution Software

1	**USB Card**
-5	With Arcnet USB card
0	No card supplied

2	**License Type**
L	Full software license
U	Update from previous versions (T500/T550)

3	**Number of LIN Blocks Supported via OPC Server**
A	20 LIN Blocks
B	100 LIN Blocks
C	200 LIN Blocks
D	300 LIN Blocks
L	600 LIN Blocks
M	1000 LIN Blocks
E	Wonderware LIN Suitelink I/O driver, 75 LIN Blocks
F	Wonderware LIN Suitelink I/O driver, 150 LIN Blocks
G	Wonderware LIN Suitelink I/O driver, 300 LIN Blocks
H	Wonderware LIN Suitelink I/O driver, 1000 LIN Blocks
J	Wonderware LIN Suitelink I/O driver, 2000 LIN Blocks
K	Wonderware LIN Suitelink I/O driver, 4000 LIN Blocks

4	**Language**
C	CD ROM with online manuals

5	**Software Version**
4	Version 4.xX

Information Manager

InfMg1F	**1**	**2** C	**3** E	**4** 2

	Basic Product
InfMg1F	Information Manager with EurothermSuite Software

1	**Type**
-A	Information Manager, 100 points, includes Developer and EPS
-B	Information Manager, 500 points, includes Developer and EPS
-C	Information Manager, 5000 points, includes Developer and EPS
-D	Information Manager, 25000 points, includes Developer and EPS
-E	Remote IDAS server

2	**Documentation Suppy**
C	CD

3	**Language**
E	English

4	**Software Version**
2	Historian version 9.0