

InTouch 8.0

Process Visualization



Wonderware® InTouch® 8.0 is a powerful graphical human-machine-interface (HMI) for industrial automation, process control and supervisory monitoring.



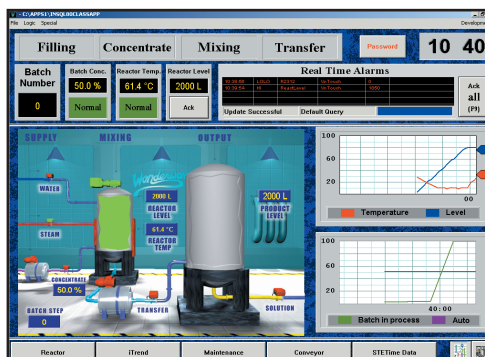
OVERVIEW

InTouch® HMI software is designed to visualize and control industrial processes. It offers engineers an easy-to-use development environment and extensive functionality to rapidly create, test and deploy powerful automation applications that connect and deliver real-time information. InTouch software is an open and extensible HMI that enables flexibility in custom application design while connectivity to the broadest set of automation devices in the industry.

POWER AND VERSATILITY

InTouch HMI gives users the capabilities and versatility that today's HMI and supervisory applications demand. Wonderware invests heavily in research and development to ensure the delivery of new, powerful and innovative products. The result: Companies can focus on running their business while its engineers leverage the latest software technologies. InTouch 8.0 reflects this innovation by offering three distinct versions and multiple configuration models, empowering companies to reduce their total cost of ownership and achieve a better return on investment.

InTouch software provides users with a versatile development environment and a



flexible architecture which empowers them to create agile applications for any automation application scenario. InTouch software is advantageous deployed on standalone machines; in a distributed server/client architecture; in applications leveraging FactorySuite® Industrial Application Server; and as a thin client application using Terminal Services.

InTouch is also the first HMI product to achieve the "Designed for WindowsXP" certification from Microsoft and can be used to create displays that may be viewed from workstations, PDAs and browsers.

A History of Protecting Engineering Investments

Collaborating with Wonderware, a hardware-independent industry leader with a strong customer focus, ensures worldwide application support.

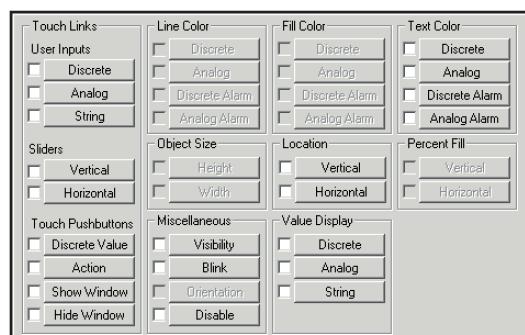


Powering intelligent plant decisions in real time.

Wonderware has installed more than 200,000 InTouch HMIs worldwide. Wonderware has a track record for protecting customers' application engineering investments by automatically migrating their applications to new versions of InTouch software. Wonderware also employs award-winning technical support and friendly sales staff worldwide. InTouch software meets today's industrial automation needs and grows into tomorrow.

EASE OF USE

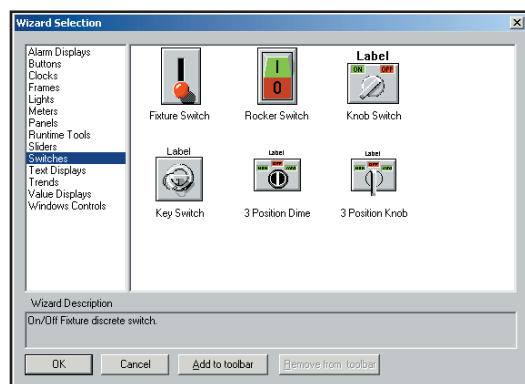
InTouch enables users to quickly create and deploy graphical representations of real-time industrial processes.



Simple Configuration

Graphical User Interface (GUI)

InTouch software enables users to quickly and easily develop custom graphical views of their processes. A user can develop graphics in InTouch WindowMaker™ with a variety of tools, which include standard graphical components, bitmap images, ActiveX controls and Symbol Factory—an advanced graphics library that contains thousands of pre-configured industrial images. All of these tools are easy-to-use and intuitive, so that users can quickly develop and deploy visualization applications.

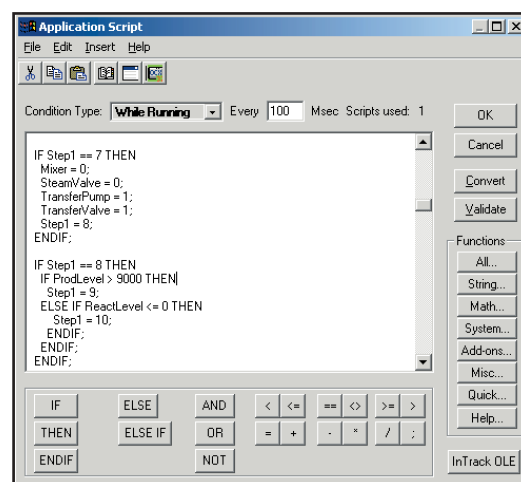


Powerful Wizards and Templates

Powerful QuickScript Editor

With the QuickScript Editor, an InTouch application can be extended and customized to address specific system requirements, making InTouch one of the most flexible HMI products on the market. Scripts may be configured to execute based on numerous parameters, such as specific process conditions, data changes, application events, window events, keyboard strokes, ActiveX events and more. The QuickScript environment also supports QuickFunctions, which allow users to develop a library of scripts that can be re-used, simplifying the application and resulting in decreased initial engineering and application maintenance time and simplified application deployment.

The QuickScript Editor is simple-to-use and allows users to completely customize how their applications behave. When creating scripts, users can click on buttons with commonly used expressions and structures, such as greater than, less than, for-next and if-then-else. Advanced functions, such as math, string conversion and others, are accessible through a Wizard, which prompts the user for the required arguments and ensures the correct syntax for the function. A built-in validation engine allows the user to validate scripts before deploying them, preventing runtime errors. In addition, for more advanced users, scripts can be written and edited directly in the script editor, or cut and pasted from other applications, encouraging re-use and saving engineering time. The QuickScript Editor gives users the flexibility to quickly and easily customize their applications. From a novice to an expert programmer, everybody can use InTouch scripting.



Easy-to-Use QuickScript Editor

Deployment

The InTouch Fast Switch allows application developers to switch back and forth between runtime and development environments at the click of a button. Developers can quickly determine how their applications will look and behave before deploying them into a production environment. In addition, the InTouch HMI can be started as a service, enabling automatic application start-up and continuous operation of the application through multiple log-on and log-off cycles.

Deployment of the InTouch application can be accomplished in many different ways, depending on user requirements. The most popular methods are discussed in the Architecture section.

UNRIVALED CONNECTIVITY

InTouch enables users to link to virtually any industrial automation control device by providing hundreds of I/O servers, more than any other HMI product available. Wonderware, together with more than 100 third-party product developers, offers the largest selection of 32-bit I/O servers for hundreds of the most popular control devices, including Allen-Bradley, Siemens, Modicon, Opto 22, Square D and others. All Wonderware servers provide Microsoft DDE communication, as well as Wonderware's SuiteLink™ protocol, to any InTouch application. The FactorySuite Toolkit also allows for the development of new or proprietary I/O or SuiteLink servers. Plus, Wonderware provides extensive support for OPC. The InTouch 8.0 and all other FactorySuite components are capable of being an OPC client for use with any OPC server.

ARCHITECTURE—EASIER SYSTEM DEPLOYMENT AND MAINTENANCE

Standalone

InTouch applications can be installed in a standalone environment—a single computer node. This is useful for companies that do not require many different operator stations for viewing and controlling the same industrial processes. Each node is completely self-contained and not dependent on any other computer for operation. These systems can also be networked.

Client/Server

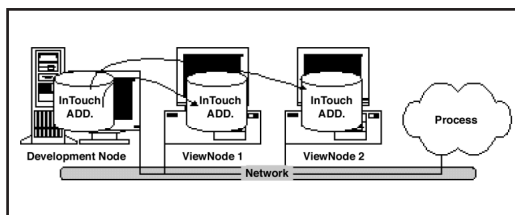
InTouch applications can also be installed in a client/server environment. This method saves time and money on software maintenance and administration. There are several different scenarios available, depending on the user's needs.

Tag Server Configuration

In this configuration, a company designates one computer as a tag server, or multiple computers as tag servers. The tag servers store the tagname dictionary (all the tags used in the InTouch applications), perform historical event logging, run QuickScripts, act as an alarm facility and connect to I/O data. Applications running on the client nodes (operator stations) connect to the tag servers to display the information.

Dynamic Network Application Development (NAD)

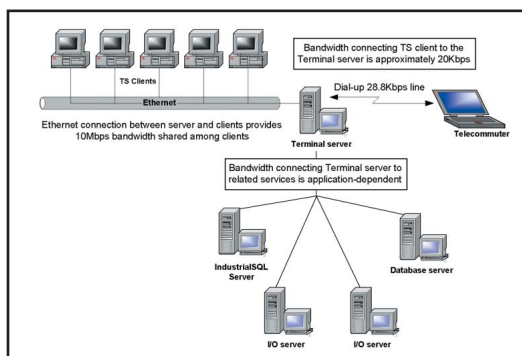
Dynamic NAD facilitates centralized maintenance of an InTouch application master copy by one network server. Each client node makes a local copy of the master application. This provides strong redundancy. If the server is unavailable, the client node keeps working—using its local copy of the application. Reconnections after the server reappears are transparent and seamless.



Another powerful NAD feature is that users can accept InTouch application changes at the client nodes, without shutting down the running InTouch application. The system alerts the operator when changes to the application are available and the operator can accept them when it is convenient. Once accepted, only the application components that were changed are downloaded and updated on the client nodes. If the operator chooses not to accept the configuration changes, the latest application will be downloaded the next time the system is restarted. Therefore, the operator is always using the most current application and can have the running application updated at any time, without incurring downtime or loss of visualization into the process.

Terminal Services

Terminal Services architectures permit centralized deployment, maintenance and management of software, re-use of hardware, high levels of security and client support for multiple operating systems. They include Windows® CE; Embedded Windows NT® (NTE); Windows for Workgroups 3.11, 95, 98 and NT 3.51 and 4.0; 2000; XP; Linux® and Unix® operating systems. In addition, customers can use thin-client terminals to extend the view into their processes. The thin-client terminals can be used in place of regular computer nodes to provide additional low-cost views into the application or replacements for indicating devices, such as chart recorders or temperature controllers. In addition, Terminal Services for InTouch applications can be run on PDAs. This enables the user to be mobile while still having a constant view and control over the application. The Terminal Services for InTouch HMI provides all of the benefits of thin-client technology while reducing the overall cost of system ownership.



InTouch View

Systems implementing the FactorySuite Industrial Application Server use InTouch as a view into the process. The Industrial Application Server greatly reduces the engineering efforts and time required to maintain and deploy large systems within one plant or across multiple plants. InTouch View is an ideal choice for customers looking to migrate existing applications into one large, feature-rich system. In this configuration, the Industrial Application Server handles all of the security, scripting, history and I/O, and InTouch View provides a low-cost HMI solution for visualizing the information.

ADDITIONAL DISTRIBUTED SYSTEM FEATURES

InTouch offers several additional features to enable better application design and control for distributed environments. From configuration to deployment, maintenance to multi-plant systems, InTouch has the tools you need for client/server systems.

Remote Tag Referencing

In order to fully exploit the benefits of the client/server architecture, the InTouch HMI enables the application developer to utilize Remote Tag Referencing. Remote Tag Referencing allows the developer to create the InTouch application without using any local tag names. At runtime, the client nodes connect to the tag server for their information. Remote Tag Referencing enables companies to save time and money, because users can create one template and re-use it several times throughout the application.

Distributed History

InTouch software includes a distributed historical trending system that allows you to dynamically specify a different historical file data source for each pen of a trend chart. This allows an operator to view both native InTouch history and IndustrialSQL Server™ history in the same trend. Distributed History trending enables a user to quickly analyze historical information on one screen saving time and allowing better analysis of multiple variables.

Dynamic Resolution Conversion (DRC)

Dynamic Resolution Conversion (DRC) enables users to develop applications in one screen resolution and run them at another, without affecting the original application. The applications can also be run at a user-defined resolution, instead of the display resolution. In addition, DRC allows customers to take advantage of multiple monitors within an application without worrying about where the windows will appear. Users can save time by creating an application once and deploying it anywhere, on displays of any size—without redesigning, copying or modifying the original application.

Distributed Time Zones

The InTouch HMI provides services to both the distributed history and alarm systems, permitting value viewing in the local time. This is important because it eliminates confusion over when events occurred when applications become larger and span multiple physical areas.

OPEN AND ACCESSIBLE DEVELOPMENT ENVIRONMENT

Wonderware has taken advantage of standards in communication technology and married them with the Microsoft technologies of the future, bringing the application developer a more open and accessible development environment. The InTouch gives

users access to all the latest device communications protocols, including Wonderware's SuiteLink™ protocol, OPC, and standard DDE, fastDDE and NetDDE. In addition, InTouch is also an ActiveX container. It allows an InTouch user to install third-party ActiveX controls and use them in any application window with simple point-and-click configuration, no programming required.

FEATURES AND BENEFITS

SECURITY MODELS

Access-Level Password Security

InTouch can be configured to use an access-level password security model that enables the developer of the InTouch application to group users into access levels with different passwords and then assign the access levels to windows and tags. This gives the developer the ability to limit the users' capabilities in the InTouch application, based on their areas of responsibility and authority.



Strong Security for Applications

Microsoft Windows NT Authentication

The InTouch 8.0 enables the application developer to use the Microsoft Windows NT for authentication. This enables developers to grant permissions to InTouch users on a domain controller or the local computer, based on user identity and group affiliations. This fully integrated approach to application security reduces the amount of required by the IT department to administer and maintain security passwords and user names.

FDA 21 CFR Part 11

In addition, InTouch 8.0 software includes authentication fields that are necessary for customers who need to comply with FDA 21 CFR Part 11 and other regulations. New security script functions and



variables have been added to version 8.0, making it easier for customers to comply with government regulations and to establish plant security policies.

FactorySuite A² Industrial Application Server Security

For customers who have adopted the FactorySuite A²™ Industrial Application Server, the InTouch 8.0 HMI also offers complete integration with the Archestra™ security model employed by the Industrial Application Server.

DESIGNED FOR WINDOWS XP

Microsoft Windows XP Logo Certification



InTouch 8.0 is the first HMI to qualify for the "Designed for Windows XP" logo. This means that InTouch applications will install and run on the Windows XP platform seamlessly.

Version 8.0 also leverages new XP features and system administrators can easily install and remove drivers from the XP platform.

ALARMS—MORE VIEWING OPTIONS, ADDITIONAL FEATURES AND BENEFITS

Knowledge about system alarms and the ability to acknowledge them in a timely manner can save a company hours of costly downtime. Operators need to view alarms and track what occurred throughout the entire manufacturing process in order to minimize and be accountable for losses. InTouch software offers three different alarm views that can be used together or separately in the application.

THREE VIEWS INTO ALARMS

Distributed Alarm Display

The Distributed Alarm Object enables operators to select and pre-configure alarm views at runtime. This display shows summary (current) alarms.

Database View Control

The Database View Control displays alarms that have been logged to the InTouch Alarm Logger Database. The InTouch 8.0 HMI offers improved queries and more advanced date/time formatting. The display shows historical (session) alarms.

Alarm Viewer Control

The Alarm Viewer Control is an ActiveX control that provides both summary (current)

ADDITIONAL FEATURES

Tagname Browser

The Tagname Browser allows the user to select tagnames and tagname fields from any FactorySuite application, such as another InTouch node, InControl™ real-time control software, InBatch™ flexible batching software, IndustrialSQL Server™ real-time historian or any other tagname source that supports the InTouch Tagname Dictionary interface. This enables quick configuration between applications, saving time for the developer and synchronizing tagnames for easier administration and maintenance.

Automatic Application Backup

When existing applications require conversion to run on newer versions of InTouch software, this backup feature protects the older application on the previous software version from being overwritten. If necessary, the user can revert to the Backup Directory.

Alarm Printing Options

The InTouch HMI enables alarm printing from any printer defined by Windows. It includes support for USB and network printers.

FactoryFocus

The FactoryFocus™ graphic monitoring software provides a view-only runtime version of the InTouch 8.0 HMI. It gives managers and supervisors the ability to view a continuous HMI application process in real time. System security is increased with the view-only capability because no data can be changed. InTouch applications do not require modification to use the InTouch FactoryFocus software.

Tagname Cross-Referencing

The Tagname Cross-Referencing function allows users to analyze tagname, SuperTag and remote tag reference usage. It indicates the window or QuickScript in which a specific tagname or reference is used. For convenience, the Tagname Cross Reference window can remain open in the WindowMaker™ editing program, while the developer performs other tasks. It also allows for direct viewing of any QuickScript or QuickFunction in which a tagname is found.

Local Variables

InTouch 8.0 QuickScripts and QuickFunctions support the use of local variables to store temporary results and create complex calculations with intermediate scripting values. Using local variables in QuickScripts and QuickFunctions does not decrease the licensed tagname count.

Instrument Failure Monitoring

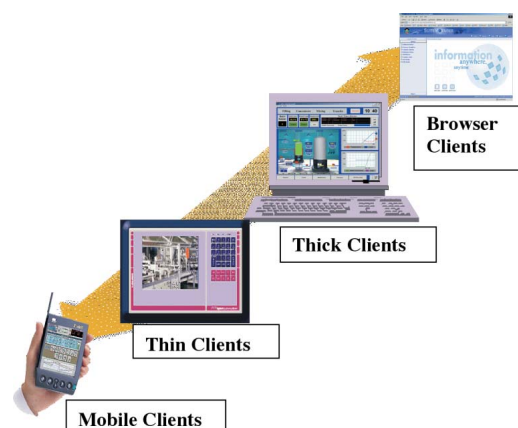
Wonderware InTouch 8.0 software supports several tagname dot fields, including .RawValue, .MinRaw and .MaxRaw. Any operator can use these dot fields in InTouch QuickScripts to monitor instrument values and determine if instruments are operating out-of-range or out-of-calibration or have failed.

VTQ

VTQ refers to the data Value, with associated Timestamp and Quality, of I/O-type tagnames provided by an I/O Server. Through standard SuiteLink protocols, the time and quality stamps are available as 19-dot fields for tags and may be referenced in animation links and scripts. The VTQ model employed is compatible with the OPC standard.

INTEGRATION WITH FACTORYSUITE COMPONENTS

InTouch 8.0 functions as the universal FactorySuite client. It can be used as a front-end for InTrack™ production-tracking software, InBatch batching software, the IndustrialSQL Server real-time historian, InControl real-time control software, DT Analyst™ asset-utilization software and the FactorySuite A² Industrial Application Server. InTouch graphical windows can be viewed over a PDA, using Terminal Services for InTouch, or over a browser, using the SuiteVoyager™ industrial portal. In addition, client tools such as ActiveFactory™ analysis tools, QI Analyst™ quality-analysis software and SCADAAlarm™ event-notification software collaborate with the InTouch HMI to provide additional information about the industrial process.



Agile Applications

SYSTEM REQUIREMENTS

To run InTouch 8.0 software, we recommend the following minimum hardware and software configurations:

HARDWARE

Minimum

- 400 MHz Pentium II
- 256 MB of RAM, plus 5 bytes RAM per 5K tags
- 2 GB Free Hard Disk Space

Suggested

- 1.2 GHz Pentium III or greater
- 512 MB of RAM

OPERATING SYSTEMS

Microsoft Windows 2000 Professional, Server or Advanced Server with SP3* or Microsoft Windows XP with SP1*

*Please check the Wonderware compatibility matrix as future versions of the operating systems and service packs are released.

Contact Wonderware or your local Distributor for information about software products for industrial automation.
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