# Wonderware InTouch



The world's favorite HMI and so much more...







# InTouch Goes Beyond the Ordinary HMI

Since 1987 Wonderware® InTouch® has been the world's number one human machine interface (HMI), offering market leading innovation, brilliant graphics, legendary ease of use, unsurpassed connectivity, the industry's best support and the broadest partner ecosystem.

Award winning InTouch software is an open and extensible Supervisory HMI and SCADA solution that enables you to quickly create standardized, reusable visualization applications and then deploy them across your entire enterprise without having to leave your office.

Used in over one-third of the world's industrial facilities, InTouch software continues to deliver business value by helping you:

- Maximize Situational Awareness
- Make Better Decisions
- Drive for Maximum Performance
- Capture expert knowledge
- Accelerate operator training
- Increase your Agility

- Lower Your Costs
- Reduce Risk and Stay Secure
- Securely access your system from any smart device, any time, anywhere

# The World's favorite HMI and so much more...

Wonderware InTouch delivers truly transformational value. By improving real-time visibility into your processes, InTouch greatly improves operator effectiveness and increases control of your processes to simplify and enforce standardization and change management.

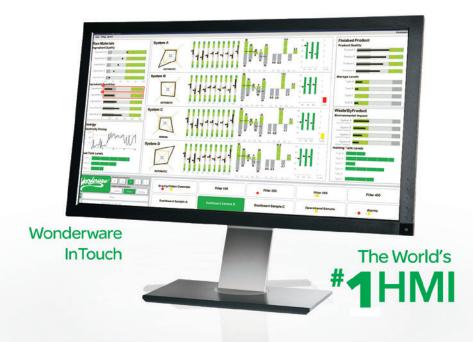
InTouch delivers a breakthrough in advanced engineering tools, delivering faster time to value, more effective HMI design, better trouble shooting, and ease of application maintenance. InTouch includes numerous new visual enhancements to improve the ability to identify and address abnormal situations before they impact operations. The powerful tools in InTouch go beyond the simplistic graphics provided by other vendors and enable application builders to focus on creating valuable content and to easily assemble effective HMI applications for simplicity, agility and performance.

While InTouch gives you the most powerful graphics tool available in any HMI, InTouch also makes it unbelievably easy to implement and encourage best practices to bring clarity, consistency and meaning to integrated data. With Wonderware InTouch, both experienced and entry-level operators are more easily able to identify, understand, react to and resolve abnormal situations, which also provides a unique solution to the industry-wide challenge of a retiring workforce.

The world's favorite HMI is also fully mobile - casual and remote web HMI and Mobile SCADA users can now view and control real-time plant floor operations data using a secure web browser from just about any "Smart" device such as tablets and smartphones.

We did triple the work in one-fourth the time because Wonderware software's repeatability and deployment of objects makes development easy."

Jeromy Peterson, Chief Operating Officer, CP Control Technologies





# **Unequaled Investment Protection**

Wonderware InTouch helps industrial companies, like yours, become more productive, save money, save time and reduce risk during the entire life of their system. An InTouch application implemented decades ago can still run, unchanged, on the latest InTouch software to give you the benefits of the latest hardware and operating system improvements with no re-engineering costs—no other company can make that claim.





The biggest challenge was to find a system that was easy to modify, could communicate with all types of equipment and the different manufacturer protocols we had to link together. With Wonderware software's powerful features and flexible communications capabilities, it proved to be the ideal solution to meet our needs."

Mark Osborn, Portland General Electric Distributed Resources Manager





# InTouch Brings It All Together

In today's modern industrial facilities there is a myriad of data sources — from field devices, to PLCs to full blown Distributed Control Systems (DCS). InTouch has been the leader in open systems since 1987 and has earned its reputation by connecting to more plant floor devices and systems than anyone. Industrial plants across the globe use InTouch instead of the software provided by their PLC suppliers. InTouch can connect to hundreds of available I/O and OPC servers and the Wonderware DA Server toolkit allows you to easily create specialized data servers if needed. No data is off limits to InTouch.

# Whatever you do, InTouch helps you...



Maximize

Productivity

Performance

standardization while minimizing application assembly and maintenance effort.

# ...do it SAFER

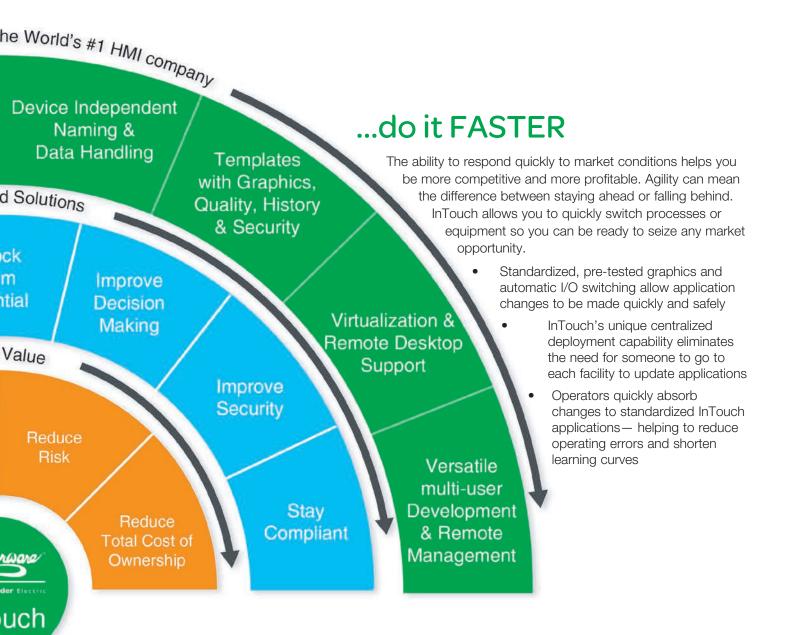
The unique features of Wonderware InTouch deliver highly contextualized and interpretive visual content and the most effective HMI applications and user interfaces for standardization, consistency, situational awareness and abnormal situation management.

Ease

Of Use

InTouch supports Microsoft integrated security, Active Directory and Smart Card technology. Within regulated and validated industries, InTouch applications help you meet the most stringent security requirements such as FDA 21 CFR Part 11.

InTouch supports the latest Microsoft and VMware virtualization technologies to minimize downtime and keep you in control.



# ...do it CHEAPER

InTouch saves you travel costs and engineering time by allowing you to build, test and deploy your InTouch applications from a central location. Standardization and reusable design within InTouch improves engineering efficiency, reduces training burden and minimizes the cost of future changes.

InTouch's support of Microsoft Remote Desktop Services and Hyper-V virtualization technologies reduce your hardware costs and improves your system's availability and disaster recovery capabilities.

Your investment in InTouch is also protected; an InTouch application created decades ago still runs on today's InTouch.

# Wonderware InTouch is Everywhere

Wonderware InTouch controls over 100,000 plants and factories around the world. InTouch has enabled these plants to achieve world-class performance, reduce costs and maintain product quality. Here are a few examples of the success enjoyed by our customers using InTouch.



# **New Belgium Brewing**

Application: New Belgium Brewing, brewers of Fat Tire ale and the third largest "craft brewery" in the US, undertook a significant project to improve their environmental sustainability.

In this innovative, award winning project, Wonderware InTouch plays a key role in visualizing, optimizing and controlling a wide range of plant operations including the entire wastewater treatment process, biogas production, solar power production and overall energy usage within the plant. Smart Grid is also part of this solution with the brewery able to reduce electrical demand during peak energy demand, benefitting both New Belgium Brewing and the local community.

Every project that we design, we think of the environment first. That's where Wonderware was able to offer the additional benefit of managing operations and helping us achieve high levels of sustainability."

- Igor Valuyev, Chief Electrical and Automations Engineer

# Pepsi Bottling Ventures of Garner

Application: Pepsi Bottling Ventures of Garner, North Carolina, produces over 30 million cases per year and is the #1 rated Pepsi bottling plant in North America. Their goal was to improve plant performance and provide greater visibility for plant operations and management. They also wanted to maintain high product quality levels, improve process reliability and reduce their environmental impact. It was also very important that the system they built be scalable.

The solution featured Wonderware InTouch, System Platform and other Wonderware products and was installed on all five lines at the Garner facility. The system quickly provided them with accurate, real-time plant performance data. Besides improving basic operations, they wanted to drive sustainability goals. They recognize that good environmental practice is also good business: the less raw materials they use, the less waste they generate, the less energy they use, the lower their costs.



We have to make the right decisions everyday because it has a huge impact on our bottom line. Wonderware helps us make those decisions."

Scott Jamison,
 Vice President of Engineering



# **Portland General Electric**

Application: Portland General Electric supplies electric power to 2 million residents of Portland, Oregon. To ensure that it can provide residents with ample and affordable electrical power, Portland General Electric implemented a demand-response program using Wonderware industrial automation and information software. This system allows Portland General Electric reduce peak loads through automated connection of customer emergency stand by generators to the Portland General Electric grid.



The Wonderware solution is working great. To my knowledge there are no other utilities in the world that have the ability to start 40 megawatts of paralleled power generation located at numerous customer sites with a single mouse click."

- Mark Osborn, Distributed Resources Manager



# Spokane Water Department

Application: Spokane Water needed to replace their 80's era SCADA system with a modern, scalable and easily modifiable system. After selecting a Wonderware HMI SCADA system featuring InTouch and other Wonderware products, Spokane Water was able to reduce lost water to a very low 6%, enable remote facility monitoring reducing required travel by two thirds. The Wonderware's scalable architecture and object based implementation allows Spokane Water to build and maintain the system using in-house staff. The redundant Wonderware InTouch SCADA solution guarantees uninterrupted 24/7 operations.

The biggest selling point was the interface (InTouch) between the operator and the system — people who use it actually like it. The real value to us is that we have continuous monitoring and can identify problems more quickly."

Mark Cleveland, Operations Supervisor

# InTouch Fits Any Situation in Your Facility

Wonderware InTouch can be deployed to meet your specific requirements, from the traditional control room implementation with one or more monitors, to panel displays at an equipment location or manufacturing cell, to even a mobile operator moving through the facility using a tablet or smartphone.

InTouch Access Anywhere is a feature that provides access to InTouch applications via HTML5-compliant web browsers to enable visualization, collaboration and execution at various levels of the organization with zero client installation, zero maintenance and which enables users to securely troubleshoot plant equipment from any location, on any device at any time.

InTouch applications can be deployed remotely — no need to travel to install a new or updated InTouch application. Centralized application management via the Wonderware Integrated Development Environment (IDE), now included with InTouch, makes it easy to keep InTouch applications up-to-date and running trouble-free.

Virtualization is a hot topic today, and can save you a significant amount in convenience and hardware costs. No one in the industry offers more virtualization options than Wonderware, including the latest Microsoft virtualization technology, Hyper-V and VMware. InTouch leverages Hyper-V and VMware so you can set up redundant HMI applications locally or at a remote site for more cost effective high availability and disaster recovery options.

1 formerly Terminal Services

l've found the Wonderware software to be light years ahead of other software. It was very simple to pick up on the programming. I would say that the Wonderware software has given us a 15 to 20% reduction in our downtime."

Jason Gitt, General Manager, PVC Compounders















# InTouch is Your Real-Time Window into Your Most Critical Processes

How can you make better real-time decisions if you don't have real-time data from your most important production processes? Wonderware InTouch has been helping industrial companies visualize their production processes in real-time since 1987.

**Operators** use InTouch to visualize and control vital plant processes in real-time.

Managers use InTouch to better understand what is occurring in their plants so they can take action when truly needed.

**Engineers** and other **technical workers** use InTouch to detect and troubleshoot problems in their processes.

**Maintenance personnel** can use InTouch to monitor critical equipment and machines that are starting to degrade so they can be better prepared to repair them when needed — reducing unscheduled downtime and maintenance costs.

**Plant IT** can use InTouch's visualization capabilities to create system diagnostic displays so they can maintain these critical applications more effectively.

# Wonderware Delivers So Much More

Wonderware products are a comprehensive set of industrial software solutions that assist you on your path to greater business success. All Wonderware software solutions are tightly integrated to help improve your business today, and expand your operations in the future; so you can start small and grow your business at your own pace with peace of mind that Wonderware solutions will grow with you.

## Wonderware InTouch

Wonderware InTouch enables users to quickly & easily create and centrally manage standardized, reusable, industrial applications; maximizing return on engineering, shortening project times, reducing risk and significantly reducing total cost of ownership.

# **Wonderware System Platform**

Wonderware System Platform extends InTouch to provide scalability, redundancy and services for a robust industrial operating system. Wonderware System Platform provides a highly efficient and centralized, industrial software infrastructure that helps drive standards and helps you to develop, manage and maintain your industrial applications with exceptional scalability and openness.

# Embedded HMI Software for Smarter Machines

Wonderware InTouch Machine edition provides the perfect software solution for small footprint devices to meet the demanding requirements of embedded system and panel users, OEM suppliers, value added resellers, machine builders and system builders...all with the award-winning global support capabilities you have come to love and expect from Wonderware.

# **Wonderware MES**

Wonderware Manufacturing Execution Systems (MES) feature a complete set of functional capabilities for consistent and effective execution of operational activities, from product track & trace through work in progress and enterprise integration.

## **InBatch**

Wonderware InBatch is a comprehensive batch execution solution that manages and tracks equipment history, material genealogy, stringent security, web-based reporting and the ability to facilitate the design and implementation of systems that are compliant with the ISA S88 batch standard and FDA 21 CFR Part 11 regulations.

# Quality

Wonderware QI Analyst software is a complete statistical process control (SPC) software solution that provides powerful statistical techniques that empower every member of your team—from operators to quality professionals to decision—makers.

## **Wonderware Workflow**

Wonderware Workflow is an advanced workflow application that enables you to institutionalize work processes within your operational environment, helping you to ensure that standardized work activities are done by the right people, at right time, using the right processes.



# What's Behind the World's #1 HMI?

# Customer FIRST Program & World-class Customer Support

Our commitment to you doesn't stop at our products. By enrolling in our Customer FIRST program you gain access to our award winning support organization and are provided the latest products from Invensys.

Year after year we win awards for our customer service. You can rely on us to help keep your Invensys' systems running smoothly and productively.

Saving money is always important and Customer FIRST also helps you save money over the long term with innovative discounts and flexible funding options.

# The Industry's Leading Ecosystem

Our worldwide Partner Ecosystem has thousands of partners all with the goal of helping you succeed. They can not only help you with InTouch but with full breadth of Enterprise Control offering.

**Authorized Distributors** – Our distributors can assist you in the selection and purchase of the Wonderware and offerings.

**System Integrator Partners** – Our integrator partners can deliver cost effective solutions using our products, no matter what the industry.

**Industry Solution Partners** – We works closely with application software providers, OEMs and VARs to offer industry specific solutions.

**Partner Products** – These complementary products add value to solutions and expand the value to our customers.

# **Learning Services**



### Summary

InTouch is the world's #1

Human Machine Interface software solution.

- InTouch goes far beyond the ordinary HMI to deliver:
- · Legendary ease of use
- Unprecedented Engineering Simplicity
- Superior Operational Agility
- Real-time Performance Mastery
- Access from practically any device
- Market-leading innovation

#### Rusiness Value

InTouch enables users to quickly create and centrally manage standardized, reusable industrial applications to maximize the return on engineering, shorten project times, more clearly inform operators, reduce risk and significantly lower total cost of ownership.



# InTouch 2014 — What's New in the World's #1 HMI

### **Transformational Value**

Wonderware® InTouch® 2014, the newest version of the world's favorite Human Machine Interface (HMI) software, delivers truly transformational value. By improving real-time visibility into your processes, InTouch greatly improves operator effectiveness and increases control of your processes to simplify and enforce standardization and change management.

#### **Breakthrough Advanced Engineering Tools**

InTouch 2014 delivers a breakthrough in advanced engineering tools delivering faster time to value, more effective HMI design, better trouble shooting, and ease of application maintenance. InTouch includes numerous new visual enhancements to improve the ability to identify and address abnormal situations before they impact operations. The powerful new tools in InTouch 2014 are more than just a library of 'graphics'; they enable application builders to focus on creating content and to easily assemble effective HMI applications for simplicity, agility and performance.

### Realize → React → Resolve

InTouch 2014 makes it easy to implement and encourage best practices to bring clarity, consistency and meaning to integrated data. With InTouch 2014, both experienced and entry-level operators are more easily able to identify, understand, react to and resolve abnormal situations, which also provides a unique solution to the industry-wide challenge of a retiring workforce.

# PROBLEMS SOLVED

#### **Adapt to Change**

Today's operations and plants are becoming larger and more complex with expanded data requirements, increased monitoring load, more alarms, and greater agility requirements. What's more, the role of the operator is expanding, which increases the knowledge and expertise requirement yet reduces the time available to dive deeply into any one area. Knowing "what happened" is no longer sufficient; operators need the ability to better interpret and understand information, to know "why," and to proactively determine how real time changes may affect the future.

#### **Increase Operator Understanding**

The industrial world is moving towards organizational empowerment. With workforce transition, experienced workers retiring in greater numbers and younger operators joining the workforce, the need for accelerated knowledge transfer to turn novice workers into experienced workers is greater than ever.

#### **Predictive Capability**

Wonderware InTouch 2014 essentially adds years of experience to operators by enhancing the ability to see trends as they are forming, logically predict what may happen, take corrective actions to address problems before they get out of hand, and avoid catastrophic events; all in less time and with greater accuracy and confidence than alternative solutions.

# IMPROVED REAL-TIME VISIBILITY INTO YOUR PROCESS

# Achieve improved operator awareness and productivity, reduce operational risks, response time, and system downtime

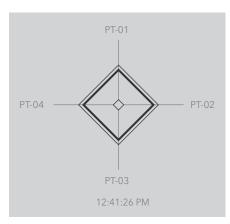
Wonderware InTouch 2014 brings real-time visibility to a new level and transforms the way industrial user interfaces and HMIs are defined, moving from merely presenting data to the next evolution of displaying Information in context. Instead of developing just a library of "symbols", the new features of InTouch enable application developers to focus on creating highly contextualized and interpretive visual content and assembling the most effective HMI applications and user interfaces for operational excellence and abnormal situation management. With InTouch 2014, the success rate of exception handling can be improved by 37% and the total time required to complete tasks can be reduced by 41%.

Situational Awareness Symbol Wizards: InTouch 2014 includes an easy to use extensive set of ArchestrA® Graphics that provides the necessary information in a clear and intuitive way, enhancing abnormal situation awareness while minimizing errors by allowing operators to more clearly understand their environment and maximize productivity. The Situational Awareness Library with Symbol Wizards makes it easy for application developers to create highly intuitive visual content and custom applications specific to an event. Utilizing this Library can improve operator situation interpretation time 40% faster.

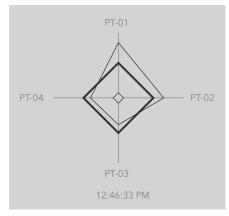
- Dashboard Symbols
- Alarm Symbols
- Equipment Symbols
- Input Symbols
- Instrumentation Symbols
- Status Symbols
- Advanced Symbols Polar Star
- Equipment Symbols Valves, Agitator, Tank
- Many other Symbols Level Meter, Hand Switch, Output Bar, etc.

Situational Awareness Library of Symbols fully leverages the new Alarm Borders, Element Styles, Symbol Wizards, and the Animations described below. In addition, the Symbols can be customized to meet any customer specific needs or standards. For example, use a library Symbol to immediately accomplish 80% of what you need, then customize the remaining 20%, saving engineering time and capitalizing on Invensys™ symbol design best practices.

One of the new advanced Wizards is the Polar Star which shows a set of related process values on 'spokes' that form a visual polygon. As values change along the length of the spokes, the changing shape of the polar star's polygon is easily recognizable by operators who can react quickly to abnormal process conditions. Each spoke contains a set of custom properties to set value set points, alarm limits, and coordinate set point locations for the normalized process value. When a process value changes from its set point location on a spoke, the animation changes the shape of the polar star polygon.

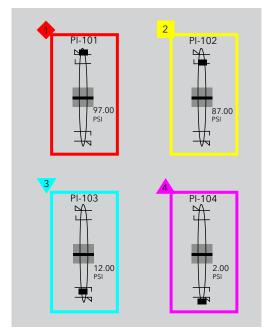


Polar Star - normal



Polar Star - abnormal

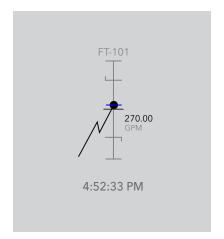
Alarm Annunciations: Alarm Annunciations are 'Triple Coded' to convey critical information in three ways: Color, Shape, and Text. This ensures unambiguous interpretation of alarms for faster operator reaction time and fewer mistakes. Color coded Alarm border animations around graphics clearly indicate the level of alarm state to help operators quickly identify abnormal situations and take corrective action in the proper order of priority. Alarm border animations can be configured to blink, remain solid, or change based on UnAcked, Acked, or return to normal situations. Severity Levels indicated by unique shape, color, and level number are displayed directly next to a Symbol for quick, clear, concise information contextualization. These animation capabilities are delivered fully configured and fully functional and require no scripting.



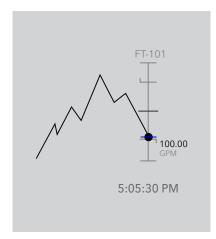
Triple Coded for faster

Operator reaction and prioritization.

**Trend Pen:** Trend Pen is a new animated graphic element that enables an operator to immediately identify not only a current data value but also the recent data historical trend in a specific absolute fixed time range (e.g. 8am to 5pm) or in a moving window time range (e.g. last hour), enabling an operator to instantly distinguish recent activity and dramatically improve predictability of potential future events and handling 'potential' issues before they become full alarms or events. An operator can return to their screen and see a quick historical trend of what happened while they were away.







Three snapshots over time of a Trend Pen.

## GREATER CONTROL OF YOUR PROCESSES

Facilitate business-wide standardization, tighter integration, and faster knowledge transfer

**Symbol Locking:** Symbol Locking supports enforcement of corporate graphic standards and consistency of applications across the enterprise while allowing and tracking any necessary customizations at lower levels of the business.

**Element Styles:** Typically, HMI applications are developed over time and by many engineers, which could lead to inconsistent standards, use of colors, text, and alarm or event indicators. Element Styles ensure a customer defined HMI look and feel across the enterprise regardless of whom or when it was designed. Every screen across the enterprise can have the same methodology for presenting information in context so that any operator in any plant will understand information in the same consistent manner. Create standardized colors, indicators, text formats, and more to improve operator training, reduce operator confusion, and enable operators to more quickly orient to the critical information without the need for interpretation. All this is engineered and managed in a single user friendly Element Styles Editor tool.

Using the centralized management and deployment capability of the Development Studio, one click can update your applications globally.

- Element Styles (Set Standards) Functionality in ArchestrA Graphics
- InTouch Supports Element Styles Animation within embedded ArchestrA Graphics symbols
- Implement Element Styles standards in Situational Awareness Library Symbols

The two screens below are identical except for Element Style. Create customer-defined standardized colors, indicators, text formats, and more for your entire application in one Editor Tool.



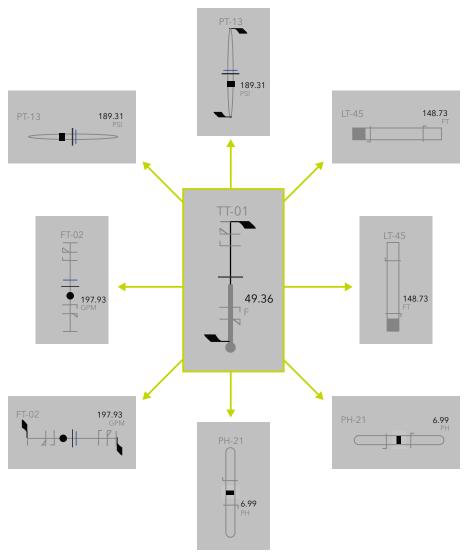


## HIGHER ENGINEERING PRODUCTIVITY

Advanced engineering tools for faster application development, quicker troubleshooting, increased productivity, and easier application maintenance

**Symbol Wizards:** The new patent-pending Symbol Wizards enable maximum flexibility and standardization in configuration and orientation of symbols while minimizing application assembly and maintenance effort. Symbol Wizards enable engineers to choose custom configuration options such as graphical elements, scripts, and custom properties and automatically assemble them into a single composite symbol. Composite symbols with multiple configurations reduce the number of required ArchestrA Symbols that need to be created for an application.

Again, no programming or external toolkit needed as Symbol Wizards are defined, created, and managed in a single environment.



Each Symbol Wizard can be easily configured into many different visual and functional symbols.

**Animation Capabilities:** InTouch 2014 includes the ability to animate many of the Graphics and Element Styles. Graphic animations are directly linked to real-time data values to dynamically reshape the multi-point Graphic elements as data changes. This animation capability automates high level geometric mathematical formulas to enable engineers to create animated Pie Charts, Polar Stars, Polylines, Curves, Polygons, and Closed Curves that visually reshape in real-time. Direct, indirect, and associated relationships of multiple data points can be visually represented in a graphic to enable operators to clearly understand when a process is within acceptable boundaries or which part of the process is out of alignment or possibly moving out of alignment. This animation transforms mere static graphics into contextually rich moving pictures to make them even more effective.

- Supports a number of built-in animations, including Points Animation (polygons, rectangles, polar star), Element Styles Animation, Start / Sweep Angle Animation of Arc, Chord and Pie graphic elements.
- Enables the implementation of Element Styles standards in Situational Awareness Library and other symbols

**Content-aware Script Editor:** A comprehensive new "Auto-Complete" behavior in the Script Editor anticipates the engineer's next move and provides intelligent choices that match the likely intent. InTouch 2014 consolidates all scripting work within one development environment and helps shorten script engineering time by 40%.

Some of the new features are as follows:

- Auto-complete in Script Editors and Graphic Editor Expressions
- · Line-numbers, Multi-level undo, automatic syntax checking
- Multi level Undo-Redo
- · Line Numbering
- · Consistent color coding
- Syntax error indication

**Quick Script Exception Handling:** InTouch 2014 enables rapid trouble shooting and debugging of scripts using powerful exception handling. It comes with new Logging functions for error, warning, and trace to simplify the process of debugging scripts.

**XML Import or Export Capability:** Expanding further upon Invensys' Open Format philosophy, InTouch 2014 now permits publishing of graphic elements in an open format schema to support the programmatic import and export of graphic elements and most animations with advanced editors.

# SUPPORT OF INNOVATIVE, NEW TECHNOLOGIES

### Always on the leading edge of supporting the latest technologies

InTouch 2014 supports the latest Microsoft operating systems: Windows 8 and Windows Server 2012 and the newest mobile platform from Microsoft: Windows 7 Embedded.

InTouch 2014 supports HTML 5, the global standard markup language for structuring and presenting content in web browsers. InTouch Access Anywhere, the newest extension of InTouch, is based on HTML 5 technology and provides access to InTouch applications via HTML5-compliant web browsers. InTouch Access Anywhere enables visualization, collaboration and execution at various levels of your organization with zero client installation and zero maintenance. InTouch Access Anywhere enables users to securely troubleshoot plant equipment from any location, on any device, at any time. Now your mobile workers can take InTouch 2014 applications with them anywhere in the plant, helping them stay informed and in control of all your vital processes.

# 

- Desktops
- Laptops
- Tablets
- Smart phones
- Smart TVs
- · And more!



- Safari
- Google Chrome
- Internet Explorer
- Firefox
- Opera
- And more!

InTouch 2014 also supports the latest database technology from Microsoft.

- Microsoft SQL Server 2012 SP1 (both 32 and 64bit)
- Microsoft SQL Express 2012 SP1
- Microsoft SQL Express 2008 SP2 ?Express 2012? (both 32 and 64bit) with SQL Server Management Studio Express (SSMSE). SSMSE provides a convenient graphical management console for managing back-ups, security configuration, Alarm History and many other functions. SQL Express provides a smaller software footprint requiring less disk space and is simple to install and configure.

Contact your Wonderware distributor today to learn more about upgrading to InTouch 2014.

#### **Sample screens of Situational Awareness Symbols**

The top screen indicates normal readings.

The Target Graphics are different from one screen to the other, indicating that the situation has changed.

The Pie Charts are different from one screen to the other, indicating that the situation has changed.

Also, the bottom screen contains two pink square symbols which indicate that there are two abnormal states for the operator to realize, react to, and resolve.





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