

InTouch for System Platform 2017 Update 3

Course Description

The InTouch for System Platform 2017 Update 3 course is a 4-day, instructor-led class designed to provide an overview of the features and functionalities released with InTouch for System Platform. It covers the components and capabilities of the software, as well as topics to help you build and deploy an InTouch for System Platform visualization application. It also introduces tools for creating graphics, visualizing alarms and events, visualizing trends and history, and implementing security in an InTouch for System Platform application. Hands-on labs are provided to reinforce the knowledge necessary to use the InTouch for System Platform software.

Objectives

Upon completion of this course, you will be able to:

- Describe InTouch for System Platform visualization components
- Create and run visualization applications
- Describe situational awareness concepts
- Create and use graphics
- Implement navigation for visualization applications
- Implement alarm visualization
- Implement real-time and historical trending
- Implement visualization application security
- View graphics in a browser

Audience

Individuals who need to configure or modify InTouch for System Platform applications.

Prerequisites

Knowledge of the following tools, features, and technologies is required:

- Industrial automation software concepts
- From the Application Server software product:
 - ArcestrA IDE
 - Automation Objects
 - Alarms of attributes
 - Historization of attributes
 - Security
 - Deployment model
 - Plant model
 - QuickScript .NET scripting language

Course Outline

Module 1 – Introduction

Section 1 – Course Introduction

This section describes the Wonderware InTouch for System Platform course.

Section 2 – System Platform Overview

This section describes fundamental concepts about Wonderware System Platform, including its clients, components, and services. It also introduces the ArcestrA technology.

Section 3 – ArcestrA Visualization Overview

This section introduces ArcestrA graphics and explains how to create a Managed InTouch application.

Section 4 – Encrypted Communication

This section describes encrypted communication for end-to-end communication between server and client software applications.

Section 5 – System Requirements and Licensing

This section describes system requirements for System Platform and introduces the licensing model.

Module 2 – Getting Started

Section 1 – Introduction

This section introduces the InTouchViewApp and ViewEngine objects.

Section 2 – Development Environment and InTouch Windows

This section provides a brief overview of the features of the WindowMaker environment and its settings, and describes InTouch windows.

Section 3 – Runtime Environment and Application Design

This section provides a brief overview of the InTouch WindowViewer and the ViewEngine, and describes some WindowViewer settings.

Module 3 – ArcestrA Symbols

Section 1 – ArcestrA Symbol Overview

This section provides a brief overview of ArcestrA graphics and introduces the Graphic Toolbox. A description of the situational awareness philosophy is also provided.

Section 2 –Symbol Editor

This section covers the creation and manipulation of graphic objects, lines and outlines, and text objects using the Symbol Editor.

Section 3 – ArcestrA Symbols with Objects

This section provides a brief overview of using ArcestrA symbols in objects. It introduces how to manage ArcestrA symbols in Automation objects and reviews containment relationships between Automation objects. This section also introduces how to use ArcestrA symbols in a contained object that is within a symbol in the container object.

Section 4 – Tools and Animations

This section provides an overview of the graphic tools in the Symbol Editor, visualization animations, and interaction animations.

Section 5 – The OwningObject Property

This section introduces the OwningObject property.

Section 6 – Custom Properties

This section provides a brief overview of custom properties in an ArcestrA symbol and describes how to link custom properties to external sources.

Section 7 – Scripts in ArcestrA Symbols

This section provides a brief overview of the scripting environment, explains execution types and triggers, and introduces ShowGraphic functions.

Section 8 – Galaxy Styles

This section explains the Galaxy Style library and how to override Element Styles, how to update element styles at runtime, and how to import and export element styles. A brief overview of the Quality and Status element and its application in monitoring data status and quality in runtime is also provided.

Module 4 – Alarms and Events Visualization

Section 1 – ArcestrA Alarming Overview

This section provides a brief overview of alarms and events and explains how ArcestrA handles them. An introduction to the Alarm Border animation, and Alarms aggregation, severity, and shelving is also provided.

Section 2 – Live Alarms Visualization

This section explains how to visualize live alarms and recent alarms and events by using the Alarm client control available in the Symbol Editor.

Section 3 – Logged Alarms and Events Visualization

This section explains how to visualize logged alarms and events in the alarm database and explains how they are historized.

Module 5 – Trend Visualization

Section 1 – ArcestrA Historization Overview

This section provides a brief overview of the concept of historization covered in the Wonderware Application Server course.

Section 2 – Real-Time Trending

This section introduces the Trend pen and two situational awareness symbols for trending and explains how to configure them.

Section 3 – ArcestrA Trend Client Control

This section provides a brief overview of the ArcestrA Trend client control available from within the Symbol Editor.

Section 4 – Historian Client Trend Control

This section provides a brief overview of the Historian Client .NET controls available for use in ArcestrA symbols.

Module 6 – Security

Section 1 – Security Overview

This section provides a brief review of ArcestrA security, authentication modes, general and operational permissions, security classifications, the security audit trail, and InTouch security tags and script functions.

Section 2 – Signed Writes

This section provides a brief overview of the Secured Write and Verified Write security classifications, the Can Verify Writes Operational permission, and the Secured Write and Verified Write dialog boxes.

Section 3 – Customization of the Runtime Environment

This section explains how to customize the runtime environment to more fully secure and protect the application. It also describes how to configure the InTouch runtime environment for inactivity and introduces the EnableDisableKeys() script function.

Module 7 – Web Client

Section 1 – Web Client Overview

This section explains the Web Client features and dependencies and how to configure them. A description of how to enable, launch, and navigate the Web Client is also provided.