

InTouch for System Platform 2014 – Part 2

Course Description

The InTouch for System Platform 2014 - Part 2 course is a 3-day, instructor-led class designed to provide a continued understanding of how Wonderware Application Server provides visualization for your plant Galaxy data using ArcestrA symbols within the Wonderware InTouch for System Platform software.

This course is a continuation of the subjects and themes of the InTouch for System Platform 2014 - Part 1 course and continues to illustrate the use of visualization tools in Wonderware Application Server to provide a Human Machine Interface (HMI) utilizing connectivity to the Galaxy, graphic symbols, animations, scripting features, and functionality found in InTouch WindowMaker, ArcestrA symbols, the ArcestrA Symbol Editor, and QuickScript.NET.

The course provides lectures and hands-on labs to supply and reinforce the knowledge necessary to use alarm, trending, and history controls for visualization, and how to secure an InTouch application.

Objectives

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

- Create and deploy managed InTouch applications using the ArcestrA IDE
- Use the Situational Awareness Library (SAL)
- Import Galaxy Styles
- Apply Symbol Wizard tools for creating advanced ArcestrA symbols
- Use additional components of ArcestrA graphics, such as Trend Pen animations, Point animations, and Start and Sweep Angles
- Implement Alarm Severities using SAL graphics
- Use .NET controls within an ArcestrA symbol
- Use the ArcestrA Alarm Client, Trend Client, and Historian Trend Client as .NET controls
- Work with the Show Symbol and Show Graphic functions
- Apply ArcestrA security using script functionality for Signed Writes and Signed Alarms
- Implement the features of Runtime Language Selection

Audience

Application developers, engineers, system integrators, consultants, and other individuals who need to develop InTouch HMI applications for use with System Platform

Prerequisites

- Completion of the InTouch for System Platform - Part 1 course
- Completion of the Application Server course
- Manufacturing industry experience
- Some graphical design experience is helpful

Course Outline

Module 1 – Introduction

Section 1 – Course Introduction

This section identifies the objectives and agenda for the InTouch for System Platform– Part 2 course.

Section 2 – System Platform Review

This section provides an overview of the components of Wonderware System Platform and the benefits of an integrated ArcestrA architectural environment.

Section 3 – ArcestrA Visualization Overview

This section reviews the components of the existing InTouch application, creating ArcestrA graphics, graphical Containment, Element Styles, and the Galaxy Style Library. This section also introduces the Situational Awareness Library and its graphical concepts.

Section 4 – System Requirements and Licensing

This section provides a detailed explanation of the system requirements necessary for the Wonderware System Platform and the Licensing model.

Module 2 – Advanced ArcestrA Graphic Functionality

Section 1 – Point Animations and Sweep Angles

This section introduces Point Animations and Start and Sweep angles for arcs, chords, and pies.

Section 2 – Trend Pen Animations

This section introduces Trend Pen animations and explains how to work with Trend Pens.

Section 3 – Alarm Severity Animations

This section reviews alarm severities and introduces alarm options found in the Advanced option for Situational Awareness Library meters.

Module 3 – Client Controls

Section 1 – Introduction to Client Controls

This section describes .NET controls, including properties, methods, and events. It also explains how to use .NET controls within an ArcestrA symbol.

Section 2 – The Alarm Client as a .NET Control

This section reviews the Alarm Client and describes the Alarm Client methods and properties.

Section 3 – Historian Client Trend .NET Control

This section reviews the implementation of the Historian Client Trend .NET control and describes Trend methods and properties.

Module 4 – Advanced Data Navigation

Section 1 – Show Symbol and Hide Symbol Animations

This section provides a brief overview of ShowSymbol and HideSymbol animations. It also describes the Associate Galaxy graphics options of the \$InTouchViewApp.

Section 2 – ShowGraphic Script Function

This section explains the purpose of the ShowGraphic command, compares it to Show Symbol, and describes the Help associated with this command.

Module 5 – Symbol Wizards

Section 1 – Introduction to the Symbol Wizard

This section introduces the Symbol Wizard tool, including Choice Groups and Choices, Options, and Layers.

Section 2 – Symbol Wizards, Scripts, and Custom Properties

This section introduces User Created layers and rules for layers and options.

Module 6 – Security

Section 1 – Review of Security Basics

This section provides a brief overview of ArcestrA security, including security type, users, and roles.

Section 2 – Signed Writes

This section reviews Secured Write and Verified Write functionality.

Section 3 – Signed Alarms

This section reviews signing alarms from the Alarm Client. It also introduces the SignedAlarmAck() script function, which works independently from the Alarm Client.

Appendix A – Runtime Language Switching

Section 1 – Runtime Language Switching Overview

This section provides a brief overview of how to configure multiple languages and how to switch between languages at runtime.