

InTouch 2014 – Part 1

Course Description

The InTouch 2014 – Part 1 tag-based course is a 5-day, instructor-led class focused on Managed InTouch application design. The course uses lectures and hands-on labs to provide a fundamental understanding of the basic principles of the Wonderware visualization module and the steps to develop a Human Machine Interface (HMI) system for your specific plant floor. You are guided through setup, layout, best practice concepts, features, and functions of the InTouch software platform. Hands-on labs reinforce concepts and features.

Objectives

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

- Build a complete Managed InTouch application following best practices
- Use WindowMaker to create windows and configure your InTouch application
- Create and import tags, and use the Tagname Dictionary
- Establish communications with I/O-aware programs
- Build and customize graphics
- Embed ArchestrA symbols into a Managed InTouch application
- Animate graphics and text with Animation Links
- Use the scripting editor to create QuickScripts
- Add alarm functionality to an application
- Implement InTouch security in an application
- View data in Realtime Trends and Historical Trends
- Back up and distribute your application
- Develop an HMI for your specific plant floor environment using InTouch

Audience

Plant floor operators and managers, system administrators, system integrators, and other individuals who need to use the InTouch HMI software in manufacturing processes

Prerequisites

- Familiarity with Microsoft Windows
- Manufacturing industry experience (recommended)

Course Outline

Module 1 – Introduction

Section 1 – Course Introduction

This section will familiarize you with the objectives and agenda for this course. It also outlines Wonderware products and how InTouch meets the human-machine interface requirements for visualization.

Section 2 – InTouch and ArchestrA IDE Overview

This section introduces the InTouch HMI, the benefits of using InTouch, and its key capabilities. It also provides an overview of its features.

Section 3 – System Requirements and Licensing

This section describes the operating systems and other software requirements the host computer must meet prior to installing InTouch HMI 2014 (version 11).

Module 2 – Using WindowMaker and WindowViewer

Section 1 – Using WindowMaker

This section provides an overview of WindowMaker and how to configure WindowMaker components. It also describes how to design windows and set application preferences.

Section 2 – Using WindowViewer

This section describes your application visualization node and defines WindowViewer components and features.

Section 3 – Window Properties and Behaviors

This section discusses window properties and how they can be configured using the options available in the Window Properties dialog box.

Section 4 – Data Content Portal

This section explores the fundamentals of designing an InTouch application. You will also learn how to integrate data connectivity into your application, and view the results in WindowViewer.

Section 5 – Tagname Dictionary and Data Sources

This section explores tags and the Tagname Dictionary in more detail. It also describes data sources and how they are used, and how to create data Access Names.

Section 6 – Tag Viewer

This section describes the Tag Viewer and how to view, save, and import watch windows. It also discusses Dot Fields and how to interpret value, time, and quality information in a watch window.

Section 7 – Large-Scale Tag Manipulation

This section explores using the DBDump and DBLoad utilities to streamline the development of large amount of tags containing similar functionality.

Section 8 – Finding and Deleting Tags

There are several ways to maintain and edit links and tags. This section discusses the various methods such as the InTouch Cross Reference Utility, updating user counts, and deleting, substituting, and converting tagnames.

Module 3 – Data Presentation

Section 1 – Working with ArcestrA Symbols

This section describes how to embed an ArcestrA graphic in a window in your InTouch application. Then, it describes how to link tags and fields to graphics and configure custom properties to streamline how they are viewed in WindowMaker.

Section 2 – Using the ArcestrA Symbol Editor

This section discusses symbol duplication and editing. It also describes the ArcestrA symbol editor features.

Section 3 – ArcestrA Symbol Custom Properties

This section describes custom ArcestrA symbol animation and the flexibility available when using custom properties.

Section 4 – ArcestrA Symbol Animation

This section describes best practices in ArcestrA symbol animation, including the use of \$System tags present in all InTouch applications.

Section 5 – ArcestrA Symbol Status and Quality

This section describes methods for monitoring the graphic representation of quality and data status.

Module 4 – Alarms and Events

Section 1 – Enabling and Configuring Alarms

This section describes methods to enable and configure alarms for discrete and analog tags.

Section 2 – Alarm Client

This section describes configuration and implementation methods for the Alarm Client. It also describes Alarm Client features such as right-click and context menu capabilities.

Section 3 – Alarm DB Logger

This section describes the Alarm DB Logger utility and how to configure the Alarm Client to connect to the logger utility.

Section 4 – Alarm Printing

This section describes alarm printer configuration and best practices for printed alarm output.

Module 5 – Data Tracking and Trending

Section 1 – Historical Trend

This section introduces InTouch historical logging, and explains the historical trend configuration options.

Section 2 – Trend Client

This section describes the ArcestrA **Trend Client** symbol, which is used to show real-time values on a chart in WindowViewer. The ArcestrA **Trend Client** is one of the symbols provided in the ArcestrA symbol editor.

Section 3 – Trend Pen

This section describes the ArcestrA **Trend Pen** animation, which is used to show a succession of process values as a trend line consisting of current and historical data.

Module 6 – Application Security

Section 1 – InTouch Security

This section provides an overview of ArcestrA, InTouch, and Operating System security models. The InTouch-based security model is then described in greater detail. Additional security options through runtime environment customizations have also been explained here.

Module 7 – Enhancing Your Application with QuickScript

Section 1 – Introduction to QuickScript

This section explains and defines the various InTouch QuickScript types, and features and functions that are unique to a particular QuickScript type. It also describes the features and functions of the QuickScript Editor.

Section 2 – Enhancing Security with QuickScript

This section describes the InTouch Script Editor functionality. It also describes the Animation Links dialog box and Action Script methods you can use to secure your application.

Section 3 – Using the EnableDisableKeys() Function

This section describes the function used to enable and disable the **Alt**, **Escape**, and **Windows** keys.

Section 4 – Enhancing History with QuickScript

This section describes history tracking enhancements using scripts, and includes Live HistTrend functionality. This section also describes historical pen functionality used to track components of historical pens, Historical Pen Runtime selection and unassignment, and configuration of multiple scripts using Action Script animation.

Section 5 – Action and Named Scripts

This section describes action and named scripts, which are used to associate key clicks or specified key combinations with an action.

Section 6 – Startangle and Sweepangle

This section describes the **Startangle** and **Sweepangle** functions, which you use to define the angle of a 2-point pie.

Module 8 – Application Distribution

Section 1 – Application Deployment

This section describes how to deploy your InTouch application for runtime operators.

Section 2 – Application Publishing

This section discusses how to publish your InTouch application for your production environment.

Module 9 – Putting It All Together

Section 1 – Building a New Process

In this section, you review important features of InTouch software covered in this class. You then apply what you have learned as you design, build, and animate a process using InTouch.