

InTouch HMI Update 3

Course Description

The tag-based InTouch HMI 2017 Update 3 course is a 4-day, instructor-led class that explains how to create and configure a Modern InTouch application. The course provides a fundamental understanding of the basic principles of the Wonderware visualization module and the steps necessary to develop a Human Machine Interface (HMI) system for a plant floor. You are guided through setup, layout, best practice concepts, features, and functions of the InTouch HMI software platform. Hands-on labs reinforce concepts and features.

Objectives

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

- Create a Modern InTouch application
- Build an HMI with Situational Awareness symbols
- Construct a Key Performance Indicator display
- Configure a Communication Driver
- Establish communications with I/O-aware programs
- Create, export, and import tags
- Test and monitor tags
- Build a custom symbol
- Visualize and interact with data
- Configure InTouch alarms
- Present and manage live and historical alarms
- Configure security
- Historize and trend data
- Display real-time trend data
- Backup and restore an InTouch application
- Distribute an application to a production environment
- View ArchestrA graphics in a browser using Web Client

Target Audience

Individuals who need to configure or modify InTouch HMI applications

Prerequisites

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

- Industrial automation software concepts for InTouch HMI
- Microsoft Excel for exporting, modifying, and importing tags with a .csv file

Module 1 – Introduction

Section 1 – Course Introduction

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

Section 2 – InTouch Software Overview

This section will introduce the InTouch, explains the benefits of using InTouch, discusses its key capabilities, and provides an overview of its features.

Section 3 – System Requirements and Licensing

This section will describe the operating systems and other software requirements the host computer must meet prior to installing InTouch 2017 (version 17.3).

Section 4 – InTouch Application Types

This section will provide an overview of the different types of InTouch applications.

Module 2 – Window Layout and Basic Navigation

Section 1 – WindowMaker Overview

This section will provide an overview of using WindowMaker.

Section 2 – WindowViewer Overview

This section will provide an overview of the InTouch runtime environment, WindowViewer.

Section 3 – Configure and Test Navigation Using WindowMaker

This section will provide an overview of how to use WindowMaker to embed symbols in windows and apply animations to symbols. This section will also explain how to test animations that will navigate to different windows in runtime.

Module 3 – InTouch Tagname Dictionary

Section 1 – The Tagname Dictionary

This section will explain tag types and the Tagname Dictionary.

Section 2 – I/O Configuration

This section will discuss the data acquisition components of InTouch.

Section 3 – Tag Viewer

This section will describe the Tag Viewer and will explain how to view, save, and import watch windows. This section will also discuss dotfields, and explain how to interpret value, time, and quality information in a watch window.

Section 4 – DBDump and DBLoad

This section will explain how to use the DBDump and DBLoad utilities for bulk handling of InTouch tags.

Section 5 – Other Tag Management Utilities

This section will discuss the Cross Reference Utility and Tag use counts. It will explain how to find and delete tags.

Module 4 – Situational Awareness Visualization

Section 1 – HMI Displays with Situational Awareness

This section will explain the capabilities and usage of the Situational Awareness Library.

Section 2 – Element Styles

This section will discuss element styles and the Application Style Library. It will also explain how to import and export the Application Style Library.

Section 3 – Window Construction Using Symbol Editor

This section will explain the capabilities of the ArcestrA Symbol Editor for designing entire window graphic assemblies and custom graphics.

Section 4 – Custom Properties and Animations in Symbols

This section will provide a brief overview of the graphic tools in the ArcestrA Symbol Editor that pertain to adding custom properties and animations.

Module 5 – InTouch Alarms

Section 1 – InTouch Tagname Alarm Configuration

This section will explain how to configure a discrete alarm, and an analog limit alarm. This section will also discuss alarm dot fields, priority, groups, severity, and advanced alarm features.

Section 2 – Live Alarms Management

This section will describe alarm management, define alarm ack models, and discuss alarm query syntax. This section will also explain of the .NET Alarm Client features, discuss alarm inhibition, and compare alarm inhibition with alarm suppression.

Section 3 – Historical Alarms Management

This section will explain how to record alarms in a database and retrieve those alarms to view in the Alarm Client.

Module 6 – Data Logging and Trending

Section 1 – (Optional Path 1) InTouch History and Real-Time Trending

Optional Path 1 has been written for legacy InTouch history users. Select this learning path to learn how to use InTouch historical logging.

This section will discuss the built-in InTouch historical logging features. The features include how to enable InTouch history, visualizing InTouch history, and using HistData for exporting historical logs to .csv files. This section will go on to explain how to use the Trend Client .NET control for

real-time trending visualization.

Section 2 – (Optional Path 2) Using Historian with InTouch

Optional Path 2 has been written for Historian Server users. Select this learning path to learn how to use Historian data with InTouch.

This section will explain how to import tags into Historian Server using the Tag Importer Wizard in the ArchestrA System Management Console.

The section will go on to describe how to build a Historian Client Trend display in InTouch.

Section 3 – Trend Pen

This section will explain how to create a Trend Pen element to show the recent history from a field device.

Module 7 – Introduction to QuickScript

Section 1 – Introduction to InTouch QuickScript

This section will provide an overview of the various InTouch QuickScript types, and describe the features and functions that are unique to each QuickScript type. This section will also explain the QuickScript Editor.

Module 8 – Introduction to ArchestrA Symbol QuickScript .NET

Section 1 – ArchestrA Script Editor

This section will describe how to use the .NET script editor used by ArchestrA Symbols.

Section 2 – Show Graphic with InTouch Windows

This section will explain a scalable method to navigate an InTouch application.

Section 3 – Show Graphic and ArchestrA Symbols

This section will explain how to use advanced features of the ShowGraphic script function.

Section 4 – Dynamic Popup with ShowGraphic

This section will explain how to use advanced features of the ShowGraphic script function.

Module 9 – Security

Section 1 – OS Security Implementation

This section will discuss how to prepare your environment for using OS security. This section will also provide an overview of scripting for OS security.

Section 2 – Lock Down Your Application

This section will provide an overview of the Animation Links dialog box and explain Action Script methods you can use to secure your application. This section will also describe the function used to enable and disable the Alt, Escape, and Windows keys.

Module 10 – Application Maintenance

Section 1 – Manage ArchestrA Symbols

This section will explain how to manage ArchestrA symbols including exporting, importing, and restoring library symbols if accidentally deleted.

Section 2 – Application Backup and Restore

This section will explain how to export a Modern application to an .aaPKG file. This section will go on to explain how to import a Modern application from an .aaPKG file.

Module 11 – Application Publishing and Distribution

Section 1 – Application Publishing

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

Section 2 – Network Application Distribution

This section will explain how to configure Network Application Development (NAD) and how NAD delivers changes to the production machine.

Module 12 – Web Client

Section 1 – Web Client

This section will describe Web Client features and dependencies.