INTOUCH HMI COMPREHENSIVE

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COURSE DESCRIPTION

The tag-based AVEVA™ InTouch HMI Comprehensive course is a 5-day, instructor-led class that explains how to create and configure a stand-alone InTouch application using Industrial Graphics. The course provides a fundamental understanding of the basic principles of InTouch HMI visualization software and the steps necessary to develop a human-machine interface (HMI) system for a plant floor or facility. You are guided through the 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 an InTouch application
- Build an HMI with situational awareness symbols
- Construct a key performance indicator display
- Configure an OI server
- Establish communications with I/O-aware programs
- Create, export, and import tags
- Test and monitor tags
- Build displays with pre-built library graphics
- Build displays with custom graphics
- Visualize and interact with data
- Present and manage live and historical alarms
- Configure and apply security to an application
- Log and trend historical data
- Display real-time trend data
- Back up and restore an application
- Distribute an application to a production environment
- View application windows and graphics in a browser

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 - INTOUCH HMI COMPREHENSIVE

MODULE 1 – INTRODUCTION
- Section 1 – Course Introduction
- Section 2 – InTouch Software Overview
- Section 3 – System Requirements and Licensing
- Section 4 – InTouch Application Types
- *Lab 1 - Creating the InTouch Application*

MODULE 2 – WINDOW LAYOUT AND BASIC NAVIGATION
- Section 1 – WindowMaker Overview
- Section 2 – WindowViewer Overview
- Section 3 – Configure and Test Navigation Using WindowMaker
- *Lab 2 - Setting Up Windows and Navigation*

MODULE 3 – INTOUCH TAGNAME DICTIONARY
- Section 1 – The Tagname Dictionary
- *Lab 3 - Defining Memory Tags*
- Section 2 – I/O Configuration
- *Lab 4 – Configuring the Communication Driver*
- *Lab 5 – I/O Access and I/O Tags*
- Section 3 – Tag Viewer
- *Lab 6 – Watching Tags with Tag Viewer*
- Section 4 – DBDump and DBLoad
- *Lab 7 – Exporting and Importing Tags*
- Section 5 – Other Tag Management Utilities

MODULE 4 – SITUATIONAL AWARENESS VISUALIZATION
- Section 1 – Industrial Graphics and Situational Awareness Visualization
- Section 2 – Element Styles
- *Lab 8 – Building a Dashboard*
- Section 3 – Window Construction Using the Graphic Editor
- *Lab 9 – Building the Mixer Operational Display*
- Section 4 – Custom Properties and Animations in Symbols
- *Lab 10 – Building a Command Symbol*
- Section 5 – HTML5 Widgets
- *Lab 11 – Creating a Carousel Dashboard*

MODULE 5 – INTOUCH ALARMS
- Section 1 – InTouch Tagname Alarm Configuration
- *Lab 12 – Configuring InTouch Alarms*
- Section 2 – Live Alarms Management
- *Lab 13 – Visualizing and Acknowledging Live Alarms*
- Section 3 – Historical Alarms Management
- *Lab 14 – Visualizing and Filtering Historical Alarms and Events*

MODULE 6 – DATA LOGGING AND TRENDING
- Section 1 – InTouch History and Real-Time Trending
- *Lab 15 – Logging Historical Data Using InTouch History*
- *Lab 16 – Trending Real-Time Data*
- Section 2 – Using Historian with InTouch
- *Lab 17 – Building a Historian Client Trend Display*
- Section 3 – Trend Pen
- *Lab 18 – Trending with Trend Pen*

MODULE 7 – INTRODUCTION TO QUICKSCRIPT
- Section 1 – Introduction to InTouch QuickScript
- *Lab 19 – Opening an Application with QuickScript*

MODULE 8 – INTRODUCTION TO INDUSTRIAL GRAPHIC QUICKSCRIPT.NET
- Section 1 – Industrial Graphic QuickScript.NET
- Section 2 – ShowGraphic and InTouch Windows
- *Lab 20 – Creating a Scalable Window Navigation Control*
- Section 3 – ShowGraphic and Industrial Graphics
- *Lab 21 – Building a Mixer Browser Using ShowGraphic*
- *Lab 22 – Creating a Context-Driven Alarm Window Using ShowGraphic*

MODULE 9 – SECURITY
- Section 1 – OS Security Implementation
- *Lab 23 – Setting Up and Using OS Security*
- Section 2 – Locking Down Your Application
- *Lab 24 – Locking Down Your Application*

MODULE 10 – APPLICATION DISTRIBUTION
- Section 1 – Network Application Distribution
- *Lab 25 – Distributing an InTouch Application*

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MODULE 11 – INTOUCH ALARMS
- Section 1 – Manage Industrial Graphics
- Section 2 – Convert Windows to Industrial Graphics and Frame Windows
- *Lab 26 – Converting Windows to Industrial Graphics and Frame Windows*
- Section 3 – Application Backup and Restore
- *Lab 27 – Backing Up and Restoring an InTouch Application*

MODULE 12 – WEB CLIENT
- Section 1 – Web Client
- *Lab 28 – Using the Web Client*