

TRAINING CATALOG

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TABLE OF CONTENTS

3	InTouch HMI
5	InTouch Edge HMI
7	Historian Server
9	Historian Client
11	.....	Application Server
13	.....	Operations Management Interface for System Platform
15	.....	InTouch for System Platform
17	.....	Operations Integration
18	.....	Dream Report
19	.....	ACP ThinManager
20	.....	Learning Bundles
21	.....	Technical Learning Paths

WONDERWARE INTOUCH HMI

CLASS DESCRIPTION

The InTouch HMI course is a 4-day instructor-led class designed to provide a fundamental understanding of the features and functionality of Wonderware InTouch. This course focuses on Modern InTouch application design and takes you from the basics of an InTouch Application (tags, alarms, IO) all the way through graphical best practices considerations.

PREREQUISITES

- Manufacturing industry experience (recommended)

AUDIENCE

- Plant floor operators and managers
- System administrators
- System integrators
- Other individuals who need to use the InTouch HMI software in manufacturing processes

OBJECTIVES

- Upon completion of this course, you will be able to:
- Create a Modern InTouch Application
- Construct a Key Performance Indicator display
- Configure a DA Server
- Establish communications with I/O-aware programs
- Create, export, and import tags
- Test and monitor tags
- Build custom symbols
- Visualize advanced interactive data presentations
- Configure InTouch Alarms
- Manage live and historical alarms
- Configure Security
- Configure, log, retrieve, and export InTouch history
- View data in Real-time Trends
- Back up and Restore an InTouch application
- Distribute an application to the production environment

PRICE

- \$2,400

COURSE OUTLINE:

- **Module 1 – Introduction**
 - + Section 1 – Course Introduction
 - Objectives and agenda, outlining Wonderware products and how InTouch meets the HMI requirements for visualization
 - + Section 2 – InTouch Software Overview
 - Introduction to InTouch HMI, the benefits of using InTouch, and key features and capabilities
 - + Section 3 – System Requirements and Licensing
 - Operating systems and other software requirements the host computer must meet prior to installing InTouch HMI
 - + Section 4 – InTouch Application Types
 - Defining types of InTouch applications
- **Module 2 – Window Layout and Basic Navigation**
 - + Section 1 – Window Design and Navigation using WindowMaker
 - Overview of WindowMaker and WindowViewer and designing a windows layout
- **Module 3 – InTouch Tagname Dictionary**
 - + Section 1 – The Tagname Dictionary
 - Tags and the Tagname Dictionary.
 - + Section 2 – I/O Configuration
 - Data acquisition components
 - + Section 3 – Tag Viewer

WONDERWARE INTOUCH HMI

COURSE OUTLINE (CONTINUED):

- View, save, import watch windows with Tag Viewer; and interpret value, time, and quality information with Dot Fields
- + Section 4 – DBDump and DBLoad
 - Using the DBDump and DBLoad utilities to streamline the development of large amount of tags
- + Section 5 – Miscellaneous Tag-Related Items
 - Cross Reference Utility, Tag use counts, and how to find and delete tags
- **Module 4 – Situational Awareness Visualization**
 - + Section 1 – HMI Displays with Situational Awareness
 - Capabilities and usage of the Situational Awareness Library
 - + Section 2 – Element Styles
 - How to use Graphic Overrides, Quality and Status, and Element Styles
 - + Section 3 – Window Construction Using Symbol Editor
 - Capabilities of the ArchestrA Symbol Editor for designing entire window graphic assemblies and custom graphics
 - + Section 4 – Custom Symbol Construction Using Custom Properties and Animations
 - How to build custom graphics by leveraging custom properties and animations
- **Module 5 – InTouch Alarms**
 - + Section 1 – InTouch Tagname Alarm Configuration
 - How to configure a discrete alarm and analog limit alarm, as well as Alarm .DotFields, Priority, Groups, and Severity
 - + Section 2 – Live Alarms Management
 - Alarm management, Alarm Ack Models, and Alarm Query syntax
 - Overview of .NET Alarm Client features, Alarm Inhibit, and a contrast of Inhibit with Suppression
 - + Section 3 – Historical Alarms Management
 - Events and Event Configuration
 - Configuration of the Alarm DB Logger Manager and .NET Alarm Client
- **Module 6 – Data Logging and Trending**
 - + Section 1 – InTouch History
 - InTouch Historical Logging with features and configuration of binary file circular storage LGH and IDX files of InTouch Historical Logging; plus an explanation of HistData for exporting Historical Logs to CSV files
 - + Section 2 – Real-Time Data Trends
 - Demonstration of the .NET Trend Client and an introduction to Trend Pens
- **Module 7 – Introduction to QuickScript**
 - + Section 1 – Introduction to InTouch QuickScript
 - QuickScript Editor and InTouch QuickScript types, features and functions
 - + Section 2 – Historical Trend Window Enhancement with QuickScript
 - History tracking enhancements using scripts and Live HistTrend functionality
 - Historical pen functionality used to track components of historical pens, Historical Pen Runtime selection and unassignment
 - + Section 3 – Scalable Window Navigation
 - Scalable method to navigate an InTouch Application
 - + Section 4 – Introduction to ArchestrA Symbol QuickScript.NET
 - ArchestrA scripting environment, execution types and triggers, and how to create Named Scripts in an ArchestrA symbol
 - + Section 5 – Angle Properties and Point Animation
 - StartAngle and SweepAngle properties for curves, chords, and arcs
 - + Section 6 – ShowGraphic Script Function
 - Features of the ShowGraphic function, HideGraphic function, and the dimension of a local tag with DIM ... AS
- **Module 8 – Security**
 - + Section 1 – OS Security Implementation
 - How to prepare your environment and introduction to scripting for OS security
 - + Section 2 – Locking Down Your Application
 - Animation Links dialog box and Action Script methods to secure application
 - Function used to enable and disable the Alt, Escape, and Windows keys
- **Module 9 – Application Maintenance and Distribution**
 - + Section 1 – Application Backup and Restore
 - How to export a Modern Application to an .aaPKG file and import a Modern Application from an .aaPKG file
 - + Section 2 – Application Publishing
 - How to publish your InTouch application for production environment
 - + Section 3 – Network Application Distribution
 - How to configure Network Application Development (NAD) and how NAD delivers changes to the production machine

WONDERWARE INTOUCH EDGE HMI

CLASS DESCRIPTION

The InTouch Edge HMI (previously InTouch Machine Edition) course is a 4-day, instructor-led class designed to provide a fundamental understanding of the features and functionality of the InTouch Edge software. InTouch Edge enables end users and machine builders to quickly create intuitive, secure, and highly maintainable HMI applications for both intelligent machines and a variety of low level devices using embedded operating systems for up to 3,000 tags.

The course provides lectures and hands-on labs to supply and reinforce the knowledge needed to use InTouch Edge to develop an HMI for your plant floor environment using the software's basic elements. The HMI application will be developed using features such as Tags, Classes, Indirect Addressing, Animation, Symbols, Scripting, Alarms, Real Time and Historical Trending, Reports, Recipes (many types, including XML), and Store-and-Forward Historian (including the Wonderware Historian, PLC Drivers, Remote Troubleshooting, Remote Clients and Project Security, Application Backup).

PREREQUISITES

- Manufacturing industry experience
- Basic PLC experience
- Familiarity with personal computers and the Windows operating system

AUDIENCE

- Application developers
- Engineers
- System integrators
- OEMs/Machine builders

OBJECTIVES

- Upon completion of this course, you will be able to:
- Use InTouch Machine Edition to create a complete HMI application that includes basic navigation, push buttons, pilot lights, alarms, trends, recipes, scripting, PLC integration, and database connectivity
- Demonstrate a clear understanding of the InTouch Edge seamless integration with Wonderware System Platform and Wonderware Historian

PRICE

- \$2,400

COURSE OUTLINE:

- **Module 1 – General Concepts**
 - + Section 1 – Course Introduction
 - Overview of Wonderware InTouch Edge course and outlines
- **Module 2 – Installation and Licensing**
 - + Section 1 – Installation
 - + Section 2 – Licensing
- **Module 3 – Getting Started**
 - + Section 1 – The Development Environment
 - Overview of the modern Windows ribbon-based interface
 - + Section 2 – Tags and the Project Database
 - Tags as a core component of any InTouch Edge project
 - + Section 3 – Download to an Industrial Computer
 - How to download the InTouch Edge runtime software and your project to an industrial computer using Remote Management
- **Module 4 – Communicating with External Devices**
 - + Section 1 – Communication Drivers
 - Configuring communication of data with other systems
 - + Section 2 – OPC DA
 - OPC Client task/worksheet used to communicate with any system that implements the OPC Server protocol
 - + Section 3 – Tag integration
 - Directly integrate tags from a third-party control application or device into your InTouch Edge project

WONDERWARE INTOUCH EDGE HMI

COURSE OUTLINE (CONTINUED):

- + Section 4 – Monitoring and Troubleshooting
 - Remotely connect to a runtime running on a different machine from the InTouch Edge development environment
- **Module 5 – Screens and Graphics**
 - + Section 1 – Screens and Screen Groups
 - Displaying the status of the process by interacting with instrumentation
 - + Section 2 – Shapes
 - Shapes group provides tools which you can use to create polygons, rectangles, lines, and other objects for your screen
 - + Section 3 – Formatting
 - + Section 4 – Active Objects
 - Creating interactive objects
 - + Section 5 – Animations
 - Applying animations to a screen object or group of objects to modify the properties of the object during execution
 - + Section 6 – Libraries
 - + Section 7 – The Symbol Library
 - A large selection of premade symbols that are installed with the InTouch Edge development environment
 - + Section 8 – Project Symbols
 - Creating Your Own Project Symbols
 - + Section 9 – Project Localization
- **Module 6 – Scripting**
 - + Section 1 – Client-Side Scripts
 - Executing scripts on events, based on preconfigured subroutines
 - + Section 2 – Background Tasks
 - Using Background Scripts
- **Module 7 – Alarms and Events**
 - + Section 1 – Alarms
 - How to insert the Alarm task and the Alarm/Event Object
 - + Section 2 – Events
 - Logging and event-retrieval features of InTouch Edge
- **Module 8 – Data Logging and Display**
 - + Section 1 – Trend
 - How to insert Trend task and Trend object
 - + Section 2 – Grid
 - How to configure a Grid object to read Access Database values
- **Module 9 – Recipes and Reports**
 - + Section 1 – Recipes
 - Loading tag values from or saving tag values to an external file during runtime
 - + Section 2 – Reports
 - Design a report dynamically generated during runtime using current values of included tags
- **Module 10 – Project Security**
 - + Section 1 – Project Security
 - Configuring security settings for groups and users
 - + Section 2 – Protecting Your Intellectual Property
 - Configuring passwords on screens and worksheets
- **Module 11 – Remote Clients**
 - + Section 1 – Mobile Access
 - Using Mobile Access to deploy an HTML5-enhanced web interface that presents alarms, trends, etc. in a unified dashboard
 - + Section 2 – Web Thin Client
 - Accessing a project using Internet Explorer acting as a Thin Client
- **Module 12 – Using Databases**
 - + Section 1 – The Project Database
 - Configuring a project database for Alarms, Events, and Trends
 - + Section 2 – Database/ERP Task
 - Configuring a connection with an Access Database using a Database/ERP task

WONDERWARE HISTORIAN SERVER

CLASS DESCRIPTION

The Historian Serve course is a 2-day, instructor-led class designed to provide a fundamental understanding of the features and functionality of Wonderware Historian Server for both Application Server and InTouch tag-based applications.

The course provides lectures and hands-on labs to supply and reinforce the knowledge necessary to use Wonderware Historian Server for SCADA and factory data. This includes how to configure, historize, and retrieve data using multiple retrieval modes, local and remote summarization, replication, event monitoring, and other features.

PREREQUISITES

- Completion of the Wonderware Application Server or an InTouch course
- Manufacturing industry experience
- Knowledge of Transact-SQL would be helpful

AUDIENCE

- Application developers
- Engineers
- System integrators
- Consultants
- Individuals who need to historize, analyze, and maintain data from Application Server or InTouch

OBJECTIVES

- Upon completion of this course, you will be able to:
- Start and configure Historian Server
- Configure and historize Application Server and InTouch data
- Distinguish between retrieval modes
- Retrieve data with SQL queries
- Use time domain extensions in SQL queries
- Update and insert history data
- Create and configure events and retrieve event data
- Configure Historian tags for local summarization
- Use a Tier-2 Historian for replication and summarization
- Back up and restore Historian data

PRICE

- \$1,200

COURSE OUTLINE:

- **Module 1 – Introduction**
 - + Section 1 – Course Introduction
 - Overview of Wonderware Historian Server course and Wonderware software solutions
 - + Section 2 – Introduction to Historian Server
 - Primary functions and features of Historian Server
 - + Section 3 – System Requirements and Licensing
 - Overview of general hardware recommendations, software requirements, and licensing model for Historian
- **Module 2 – Historian Configuration**
 - + Section 1 – ArchestrA System Management Console
 - How ArchestrA System Management Console interface registers and starts Historian, with options and system parameters
 - + Section 2 – Historian and Application Server
 - How Historian Server integrates with Galaxy and configuration of platforms, engines, and object attributes for historization
 - + Section 3 – IDAS – Historian and InTouch
 - Basics of historizing data from tag-based InTouch applications
 - Tag Importer Wizard, storage options, and manual tag configuration

WONDERWARE HISTORIAN SERVER

COURSE OUTLINE (CONTINUED):

- **Module 3 – Data Retrieval**
 - + Section 1 – Data Retrieval Subsystem
 - Historian Server data retrieval subsystem, the Wonderware Historian OLE DB provider, and extension tables for history data syntax for basic SQL queries and those that include the OPENQUERY function
 - + Section 2 – Retrieval Modes
 - Historian Server retrieval modes, with a focus on Cyclic, Delta, Full, and BestFit
 - How to specify retrieval modes in SQL queries
 - + Section 3 – Retrieval Options
 - Historian Server retrieval options, with a focus on wwCycleCount, wwResolution, wwEdgeDetection, and wwFilter
 - + Section 4 – Advanced Retrieval Modes
 - Historian Server advanced retrieval modes, including Average, Counter, Integral, Interpolated, Maximum, Minimum, RoundTrip, Slope, and ValueState retrieval
- **Module 4 – Manual Data**
 - + Section 1 – Data Definitions
 - Defining Historian data categories - original versus revision data, as well as streamed versus non-streamed original data
 - + Section 2 – INSERT and UPDATE Query Syntax
 - Data versioning and INSERT and UPDATE query syntax
- **Module 5 – Historian Events**
 - + Section 1 – Classic Event Subsystem
 - Historian classic event subsystem and event tags, detectors, and actions
 - How to configure event tags and latency in event configuration
 - + Section 2 – Event Data Retrieval
 - Historian tables related to the classic event subsystem and how to retrieve event data with SQL queries
 - + Section 3 – Active Event
 - ActiveEvent ActiveX control and methods for triggering an external event using ActiveEvent
- **Module 6 – Summaries and Data Replication**
 - + Section 1 – Data Summarization
 - Concept of summarizing data, analog and state summary replication, and naming schemes for the replication process
 - + Section 2 – Tiered Historians
 - Concept of tiered Historians, replication to a Tier-2 Historian, simple replication, and naming schemes for the replication process
 - + Section 3 – Summarized and Replicated Data Retrieval
 - How to retrieve summarized and replicated data from Historian
 - AnalogSummaryHistory and StateSummaryHistory views
- **Module 7 – Historian Maintenance**
 - + Section 1 – History Block Maintenance
 - How to back up history blocks
 - + Section 2 – Historian Database Management
 - How and when to back up Historian Server databases

WONDERWARE HISTORIAN CLIENT

CLASS DESCRIPTION

The Wonderware Historian Client course is a 2-day, instructor-led class designed to provide a fundamental understanding of the features and functionality of the Wonderware Historian Client software. The course provides lectures and hands-on labs to supply and reinforce the knowledge necessary to use Wonderware Historian Client.

The Wonderware Historian Client trending, analysis, and reporting software offers a suite of data analysis and reporting clients that maximize the value of data stored on Wonderware Historian. Wonderware Historian Client enables individuals at all levels of an organization to easily access plant- and process-related data through simple point-and-click dialog boxes.

PREREQUISITES

- Knowledge of InTouch
- Knowledge of Wonderware Historian
- Knowledge of Microsoft Office Excel and Microsoft Word
- Experience in manufacturing industry

AUDIENCE

- Plant floor operators
- Plant managers
- Individuals whose jobs include using Wonderware Historian data for assessment and reporting within production or administrative environments

OBJECTIVES

- Upon completion of this course, you will be able to:
- Retrieve Wonderware Historian data with the help of Wonderware Historian Client
- Use data in its appropriate context, including historical and real-time trend manipulation, and production-related reporting within Microsoft Excel and Word

PRICE

- \$1,200

COURSE OUTLINE:

- **Module 1 – Introduction**
 - + Section 1 – Course Introduction
 - Fundamentals of the Wonderware Historian Client 2014 R2 Software course, objectives of the course, intended audience, prerequisites, and course agenda
 - + Section 2 – Introduction to Wonderware Historian Client
 - Wonderware Historian Client applications, main features, hardware requirements, and licensing
 - + Section 3 – Introduction to Wonderware Historian Server
 - Main features of Wonderware Historian Server, network considerations, hardware and software requirements, and licensing strategies
 - + Section 4 – System Requirements, Licensing, and Support
 - Recommended system requirements and licensing information
- **Module 2 – Wonderware Historian Client Trend**
 - + Section 1 – Introduction to Wonderware Historian Client Trend
 - Features of Wonderware Historian Client Trend and how to create and configure trends using Historian Client Trend
 - + Section 2 – Public and Private Groups
 - Function of Public and Private Groups folders that are used in Wonderware Historian Trend Client to store and share tags
 - + Section 3 – Time Offset and Target Regions
 - How to configure time offset and target region in a trend for tag configuration
 - + Section 4 – Retrieval Styles and Data Transformations in Trend
 - Necessary steps to configure Retrieval styles and create Custom Retrieval styles in Wonderware Historian Client Trend
- **Module 3 – Wonderware Historian Client Workbook**
 - + Section 1 – Introduction to Wonderware Historian Client Workbook
 - Basic functionality of Wonderware Historian Client Workbook

WONDERWARE HISTORIAN CLIENT

COURSE OUTLINE (CONTINUED):

- + Section 2 – Historian Event Retrieval
 - Various event tag selection methods and the Historian event retrieval functionality
- + Section 3 – Enhanced Workbook with Excel Functionality
 - How to use the features of enhanced workbook with Excel functionality to create reports to get data for a specified shift
- **Module 4 – Wonderware Historian Client Query**
 - + Section 1 – Introduction to Wonderware Historian Client Query
 - Wonderware Historian Client Query uses and operation
- **Module 5 – Wonderware Historian Client Report**
 - + Section 1 – Introduction to Wonderware Historian Client Report
 - Uses and operation of Wonderware Historian Client Report
 - + Section 2 – Use of Wildcards in Reports
 - Use of wildcards for time options and report editing
- **Module 6 – Wonderware Historian Client ActiveX Controls**
 - + Section 1 – Wonderware Historian Client Controls

WONDERWARE APPLICATION SERVER

CLASS DESCRIPTION

The Application Server course is a 4-day, instructor-led class designed to provide a fundamental understanding of the features and functionality of Wonderware Application Server. This course provides you with the basic skills to plan, implement, and support an Application Server Project – including many new version 2017 features.

The class will demonstrate how to use Wonderware Application Server to utilize the ArchestrA technology to connect to field devices, process data, run scripts, handle alarms, and historize alarms and events. This is achieved using Automation Objects, templates, instances, the ArchestrA Integrated Development Environment (IDE), and the QuickScript .NET scripting engine.

This course also provides a fundamental understanding of Galaxy maintenance, real-time alarm recording and security settings, and how to setup redundancy..

PREREQUISITES

- Manufacturing industry experience
- Audience
- Application developers
- Engineers
- System integrators
- Other individuals who use Application Server in their manufacturing processes

OBJECTIVES

- Upon completion of this course, you will be able to:
- Create and deploy new applications using ArchestrA IDE
- Model the plant floor using automation objects
- Acquire data from field devices
- Work with alarm and history configuration in a Galaxy
- Define the security model for a Galaxy
- Configure application-level and device integration redundancy

PRICE

- \$2,400

COURSE OUTLINE:

- **Module 1 – Introduction**
 - + Section 1 – Course Introduction
 - Overview of Wonderware Application Server and Device Integration products, the course objectives, and agenda
 - + Section 2 – System Platform Overview
 - Architecture, components, and services that comprise System Platform and its Clients
 - + Section 3 – Application Server Overview
 - Introduction to Application Server, its concepts and associated terminology
 - Description of a Galaxy, how it relates to the Galaxy Database and Repository, and how a Galaxy is created
 - + Section 4 – The ArchestrA IDE
 - Introduction to ArchestrA IDE, its toolboxes and toolsets, menus, toolbar items, and Application Views
 - + Section 5 – Automation Objects
 - Various types of objects in a Galaxy, what they represent, and how they are utilized
 - Purpose of Checking Out and Checking In an object
 - + Section 6 – System Requirements and Licensing
 - Description of System Platform topology and the Network Account Utility
 - System requirements necessary Application Server and Licensing model
 - Discussion of virtualization support is also provided
- **Module 2 – Application Planning**
 - + Section 1 – Application Planning
 - Suggested project workflow, identifying field devices and functional requirements, defining naming conventions, planning templates, area, security, and deployment models

WONDERWARE APPLICATION SERVER

COURSE OUTLINE (CONTINUED):

- + Section 2 – Case Study
 - Simulated manufacturing environment to be used throughout training and naming convention used in simulated process
- **Module 3 – Application Infrastructure**
 - + Section 1 – The Area Model
 - Importance of employing plant model, explanation of Area Objects, utilization of Model View in the ArchestrA IDE
 - + Section 2 – The Deployment Model
 - Hosting relationship between objects and different object states in a Galaxy – explanation of the \$WinPlatform and \$AppEngine objects and a discussion on the Deployment View in the ArchestrA IDE is also provided
 - + Section 3 – The Runtime Environment
 - Explanation of the Runtime environment, Object Viewer, and Platform Manager
 - Attribute referencing and how to upload changes from the Runtime environment to the configuration database
 - + Section 4 – Device Integration Products
 - Introduction to Device Integration Servers and Device Integration Objects, communication protocols, and I/O addressing
 - Discussion of the use of Advanced Communication Management
- **Module 4 – Application Objects**
 - + Section 1 – Introduction to Application Objects
 - + Section 2 – Enhancing Objects With Attributes
 - Attributes page and the configuration options available for application objects
 - + Section 3 – Change Control and Propagation
 - Attribute locking and unlocking, and how template changes can propagate to previously derived objects
 - + Section 4 – Containment
 - Containment and its relationship with Templates and application objects
 - Discussion of modeling approaches
- **Module 5 – Alarms and History**
 - + Section 1 – Alarms Overview
 - How ArchestrA handles alarms and events, Alarm Extensions, and alarm related attributes.
 - + Section 2 – Historization
 - How ArchestrA handles historization of data, history-related attributes, and the Store-and-Forward functionality
- **Module 6 – Galaxy Maintenance**
 - + Section 1 – Objects Export and Import
 - How to export and import objects from and to a Galaxy for reuse in other projects, upgrade to new versions, or revert to previous configuration
 - + Section 2 – Galaxy Dump and Galaxy Load
 - How to use Galaxy Dump and Galaxy Load features of ArchestrA IDE for bulk modification or creation of object instances
 - + Section 3 – System Management Console
 - Introduction to SMC and utilization of Backup and Restore operations using Galaxy Database manager
 - Discussion of ArchestrA Logger and Log Viewer
- **Module 7 – Security**
 - + Section 1 – Security Overview
 - How ArchestrA handles security, security audit trail, authentication modes, and General and Operational permissions
 - Explanation of Security Classifications and how they relate to Operational permissions
- **Module 8 – Redundancy**
 - + Section 1 – Application Redundancy
 - Terminology, topology, and concepts of application redundancy and how it should be configured
 - + Section 2 – Device Integration Redundancy
 - Terminology and concepts of device integration redundancy and how it should be configured
- **Module 9 – Introduction to QuickScript.NET**
 - + Section 1 – Introduction to Scripting
 - Scripting environment, QuickScript.NET language, execution types, and triggers
 - + Section 2 – Variables and Control Statements
 - Variables usage, data types, and control statements

WONDERWARE OPERATIONS MANAGEMENT INTERFACE

CLASS DESCRIPTION

The Operations Management Interface for System Platform 2017 course is a 3-day instructor-led class designed to provide a fundamental understanding of the features and functionality of the new InTouch OMI offering. Learn how to fully utilize the world's first Operations Management Interface (OMI)– a revolutionary way to build rich, modern user experiences across all platforms with simple and reusable HMI content using System Platform 2017.

PREREQUISITES

- Knowledge of using the ArchestrA IDE
- Familiarity with the Attributes tab in the Object Editor
- Experience configuring attribute Features
- Experience using and creating ArchestrA Symbols
- Knowledge of working with attribute references
- Experience using and creating Symbol Wizards
- Basic knowledge of using and creating scripts
- Familiarity with the Deployment model
- Familiarity with the Plant model

AUDIENCE

- Existing System Platform users who want to learn about InTouch OMI 2017

OBJECTIVES

- Upon completion of this course, you will be able to:
- Describe the visualization components provided with InTouch OMI
- Work with screen profiles, layouts, and panes
- Create and deploy a ViewApp object
- Work with InTouch OMI in runtime
- Work with content types to enhance navigation in a ViewApp
- Use the Faceplate feature in ArchestrA Symbols
- Implement the Historical Playback feature in a ViewApp
- Implement ViewApp security
- Use ArchestrA Apps

PRICE

- \$1,800

COURSE OUTLINE:

- **Module 1 – Introduction to InTouch OMI**
 - + Section 1 – Course Introduction
 - This section describes the objectives, prerequisites, intended audience, and agenda for this course.
 - + Section 2 – InTouch OMI Overview
 - This section introduces InTouch OMI features and components
 - + Section 3 – System Requirements and Licensing
 - This section provides system requirements for the InTouch OMI 2017 software and introduces the licensing model.
- **Module 2 – ViewApp, Screen Profiles, and Layouts**
 - + Section 1 – Introduction
 - This section introduces screen profiles, layouts, and panes and describes how they work as part of the framework for a ViewApp.
 - + Section 2 – Screen Profiles
 - This section explains how to create screen profiles and configure them using the Screen Profile Editor.
 - + Section 3 – Layouts and Panes
 - This section describes how to create layouts and panes and configure them using the Layout Editor.
 - + Section 4 – ViewApp
 - This section explains how to create and configure a ViewApp using the ViewApp Editor.

WONDERWARE OPERATIONS MANAGEMENT INTERFACE

COURSE OUTLINE (CONTINUED):

- **Module 3 – Content Types**
 - + Section 1 – Content Types
 - This section describes how to use content types to specify where content will be displayed in a ViewApp.
- **Module 4 – Custom Navigation**
 - + Section 1 – Custom Navigation
 - This section describes how to customize the built-in navigation in a ViewApp.
- **Module 5 – Faceplates**
 - + Section 1 – Faceplate Mode
 - This section describes how to use the Faceplate feature in an ArchestrA Symbol.
- **Module 6 – Historical Playback**
 - + Section 1 – Historical Playback
 - This section describes how to configure and start the historical playback service and how to implement historical playback in an InTouch OMI ViewApp.
- **Module 7 – ViewApp Security**
 - + Section 1 – Introduction to ViewApp Security
 - This section introduces how to implement security for a ViewApp.
- **Module 8 – ArchestrA Apps**
 - + Section 1 – Introduction to ArchestrA Apps
 - This section introduces ArchestrA Apps.
 - + Section 2 – Map App
 - This section describes the Map App ArchestrA App and its configuration

WONDERWARE INTOUCH FOR SYSTEM PLATFORM

CLASS DESCRIPTION

The InTouch for System Platform course is a 4-day, instructor-led class designed to provide a fundamental understanding of how InTouch provides visualization to plant Galaxy data using ArchestrA symbols within the Wonderware Application Server software.

The focus of this course is to illustrate the use of visualization tools in Wonderware Application Server to provide a Human Machine Interface (HMI) with connectivity to the Galaxy, graphic symbols, animations, and scripting features and functionality in InTouch WindowMaker, ArchestrA symbols, the ArchestrA Symbol Editor, and QuickScript .NET.

The course provides lectures and hands-on labs to provide a fundamental understanding of and reinforce how to design graphics and windows, apply alarm, trending, and history controls for visualization; and secure an InTouch application.

PREREQUISITES

- Completion of Application Server course
- Manufacturing industry experience
- Recommended: Completion of Historian Client course (For better understanding of Historian Client Trend)

AUDIENCE

- Application developers
- Engineers
- System integrators
- Other individuals who use Application Server in their manufacturing processes

OBJECTIVES

- Upon completion of this course, you will be able to:
- Create and deploy Managed InTouch applications using the ArchestrA IDE
- Use ArchestrA Situational Awareness symbols
- Embed ArchestrA symbols in automation objects and reference the object's attributes
- Use ArchestrA symbols in a containment relationship
- Create ArchestrA symbols
- Work with the ArchestrA Alarm Client control for alarm visualization
- Work with the ArchestrA Situational Awareness trend pen symbols for customized trending
- Use the ArchestrA Trend Client control for real-time trending
- Work with the Historian Client Trend control for real-time trending
- Apply ArchestrA security in a Managed InTouch application

PRICE

- \$2,400

COURSE OUTLINE:

- **Module 1 – Introduction**
 - + Section 1 – Course Introduction
 - Overview of Wonderware InTouch for System Platform course and outlines, and ArchestrA visualization
 - + Section 2 – System Platform Overview
 - Fundamental concepts and architecture of Wonderware System Platform
 - + Section 3 – ArchestrA Visualization Overview
 - Introduction to ArchestrA graphics and creation of Managed InTouch application
 - + Section 4 – System Requirements and Licensing
 - Explanation of system requirements for System Platform and the licensing model
- **Module 2 – Application Design Basics**
 - + Section 1 – ArchestrA Visualization Objects
 - Introduction to InTouchViewApp and ViewEngine objects
 - + Section 2 – Development Environment and InTouch Windows
 - Overview of features of WindowMaker environment and its settings

WONDERWARE INTOUCH FOR SYSTEM PLATFORM

COURSE OUTLINE (CONTINUED):

- + Section 3 – Runtime Environment and Application Design
 - Overview of InTouch WindowViewer and its settings, as well as ViewEngine
- **Module 3 – ArchestrA Symbol Basics**
 - + Section 1 – ArchestrA Symbol Overview
 - ArchestrA graphics and Graphic Toolbox
 - + Section 2 – Situational Awareness Symbols–
 - Situational Awareness philosophy and Situational Awareness symbols
 - + Section 3 – Element Styles
 - Element style configuration in Galaxy Style Library, element style updates at runtime, and import/export of element styles
 - + Section 4 – ArchestrA Symbols with Objects
 - How to manage ArchestrA symbols in automation objects and containment relationships between automation objects
 - How to use ArchestrA symbols in a contained object within a symbol in the container object
 - + Section 5 – ArchestrA Symbol Editor
 - Creation and manipulation of graphic objects, lines, outlines, text objects, images, and bitmaps in ArchestrA Symbol Editor
 - + Section 6 – The OwningObject Property
 - Introduction to OwningObject property
- **Module 4 – ArchestrA Symbols Creation**
 - + Section 1 – Tools and Animations
 - Overview of graphic tools in ArchestrA Symbol Editor, visualization animations, and interaction animations
 - Element style tool as a property of the element, how to apply Element Styles, and element style animation
 - + Section 2 – Custom Properties
 - Custom properties in ArchestrA symbol and how to link custom properties to external sources
 - + Section 3 – Quality and Status Display
 - Status element and its application in monitoring data status and quality in runtime
 - Quality and status display override in the Galaxy Style Library
 - + Section 4 – Scripts in ArchestrA Symbols
 - Scripting environment, execution types and triggers, and ShowGraphic-related functions
- **Module 5 – Alarm Visualization**
 - + Section 1 – ArchestrA Alarming
 - How ArchestrA handles alarms and events, and an overview of Alarm Border animation and Alarms aggregation
 - + Section 2 – Live Alarms Visualization
 - How to visualize live alarms using the ArchestrA Alarm control available from within the ArchestrA Symbol Editor
 - + Section 3 – Logged Alarms Visualization
 - How to visualize logged alarms in the alarm database
- **Module 6 – Trend Visualization**
 - + Section 1 – Historization Review
 - Historization overview (Covered in the Wonderware Application Server course)
 - + Section 2 – ArchestrA Situational Awareness Trend Symbols
 - Introduction to two Situational Awareness symbols for trending and how to configure them
 - + Section 3 – ArchestrA Trend Client Control
 - ArchestrA Trend control available within the ArchestrA Symbol Editor
 - + Section 4 – Historian Client Trend Control
 - Historian Client .NET controls available for use in ArchestrA symbols.
- **Module 7 – Security**
 - + Section 1 – Security Overview
 - ArchestrA security, authentication modes, general and operational permissions, security classifications, the security audit trail, and InTouch security-related tags and script functions
 - + Section 2 – Signed Writes
 - 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
 - Customization of the runtime environment to more fully secure and protect the application. It also describes how to configure the InTouch runtime environment for inactivity function, and introduces the EnableDisableKeys() script function

WONDERWARE OPERATIONS INTEGRATION

CLASS DESCRIPTION

The Wonderware Operations Integration course is a 2-day, instructor-led course that will prepare students to work with Wonderware OI Servers and introduce the new feature called Auto-Build – the ability to utilize the structure in your PLC programming to automatically create your equipment structure in System Platform. Additionally, the course covers the following topics:

- Understanding common configuration settings across Wonderware OI Servers
- Licensing and activation of the OI Server
- Establishing PLC communication
- Testing and backing up the configuration
- Basic troubleshooting techniques

The course will also prepare students to set up, license, activate, and backup common OI Server configurations. Moving beyond initial configuration, students will learn how to access PLC data in various ways.

PREREQUISITES

- Basic knowledge of Wonderware concepts
- Experience in the manufacturing industry
- Basic knowledge of PLCs

AUDIENCE

- Plant floor operators
- Plant managers
- Individuals whose jobs include configuring, activating, and troubleshooting DAServers
- This course will greatly benefit new users and can be an excellent refresher for veteran users

PRICE

- \$1,200

COURSE OUTLINE:

- **Module 1 – Device Integration Foundation**
 - + Section 1 – DAServers and Client Protocols
 - + Section 2 – Current DAServers and Licensing
 - Lab 1 – Licensing and Activating a DAServer
 - + Section 3 – Configuring the DAServer
 - Lab 2 – Building a DAServer Configuration
 - + Section 4 – What are Configuration Sets
 - Lab 3 – Working with Configuration Sets
- **Module 2 – PLC Communication with InTouch**
 - + Section 5 – DAServers with the InTouch HMI
 - Lab 4 – Creating an Access Name
 - + Section 6 – Monitoring PLC Communication with InTouch
 - Lab 5 – Monitoring PLC Communication with \$SYS\$ Tags
 - Lab 6 – Monitoring PLC Communication with a Heartbeat Tag
 - + Section 7 – I/O Failover and Secondary Data Sources
 - Lab 7 – Controlling I/O Failover in InTouch
- **Module 3 – PLC Communication in System Platform**
 - + Section 8 – The DDE/Suitelink Client Object
 - Lab 8 – Configuring the DDE Suitelink Client Object
 - Lab 9 – Creating Automatic Reconnect with the DDE Suitelink Client
 - + Section 9 – Redundant I/O Sources with Application Server
 - Lab 10 – Configuring the RDI Object
- **Additional Information**
 - + Wonderware Operations Integration Servers
 - + Auto-Build Functionality

OCEAN DATA SYSTEMS DREAM REPORT

CLASS DESCRIPTION

This 2-Day, instructor-led course offers a detailed overview of Dream Report and its extensive reporting capabilities. With native connectivity to most Wonderware products, Dream Report is an easy to use, point and click reporting solution that enables the design, scheduling and production of appealing and informative dynamic reports - without requiring special IT or programming skills.

PREREQUISITES

- Knowledge of Historian Server

AUDIENCE

- Application developers
- Engineers
- System integrators
- Consultants
- Individuals who need to historize, analyze, and maintain data from Application Server or InTouch

PRICE

- \$1,200

COURSE OUTLINE:

- Introduction
 - + Product Architecture and Installation
- Communication Drivers
 - + Connecting to Data Sources
- Logger Studio
 - + Creating Logging Groups
- Reports & Report Settings
- Simple Statistical Objects
- Advanced SQL Condition
- Time Period Definition
- Batch Reports
- Tables
- Line Charts
- Multi-Tag Aggregation
- Export Reports to Excel
- User Management
- System Fields
 - + Date/Time
 - + Page Number
 - + Dynamic Text
- Report Version Control
- Web Portal
- Web Objects and Web Forms

ACP THINMANAGER

CLASS DESCRIPTION

The ACP ThinManager course is a 2-day, instructor-led class focused on the fundamental functionality of ThinManager 9.0. You are guided through setup, layout, best practice concepts, features, and functions of the ThinManager software. Hands-on labs reinforce concepts and features.

PREREQUISITES

- Manufacturing industry experience (recommended)

AUDIENCE

- Application developers
- Engineers
- System integrators
- Consultants

PRICE

- \$1,200

COURSE OUTLINE:

- Setup Overview
- ThinManager Functions
- The ThinManager Interface
 - + Menus
- Configuration Lab
 - + Defining Terminal Servers and Display Clients
 - + Terminal Configuration Wizard
- Connecting Terminals
 - + The Boot Process
 - + Adding Hardware and Thin Clients
- User Account Lab
 - + Non-Domain and Domain User Account Auto-Login
- Display Client Lab
- MultiSession and Hotkey Lab
- Applying Display Client Changes
- Failover Versus Redundancy
- Terminal Groups
 - + Configuration Wizard
 - + Adding and Removing a Terminal to the Group
- Modules and Packages
- Multiple Monitors
- ThinManager Installation Lab
- ThinManager Licensing Lab
- ThinManager Upgrade Lab
- Reports and Schedules
 - + Creating, printing, customizing reports
- Scheduling
- Shadow Lab
- ThinManager Server Configuration
- WinTMC Lab
 - + Installation and Configuration of WinTMC

WONDERWARE MIDWEST LEARNING BUNDLES

Take advantage of special pricing when you participate in more than one class. Our Learning Bundles group classes together at a discounted rate so that you can achieve your learning goals without breaking budget.

Bundles are not redeemable with other promotions or discounts. All classes must be completed by a single individual and scheduled within one year of the date of purchase.

BUILD YOUR OWN LEARNING BUNDLE

Register for any **3**
classes and receive a

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discount.

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classes and receive a

30%
discount.

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classes and receive a

35%
discount.

Pricing varies – request a quote today!

Please contact Leah Muenchow with any questions:

Leah.Muenchow@wonderwaremidwest.com

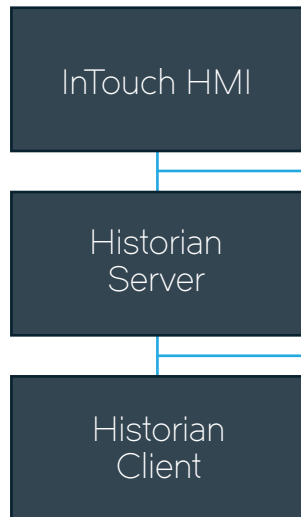
262.432.1162

WONDERWARE TECHNICAL LEARNING PATHS

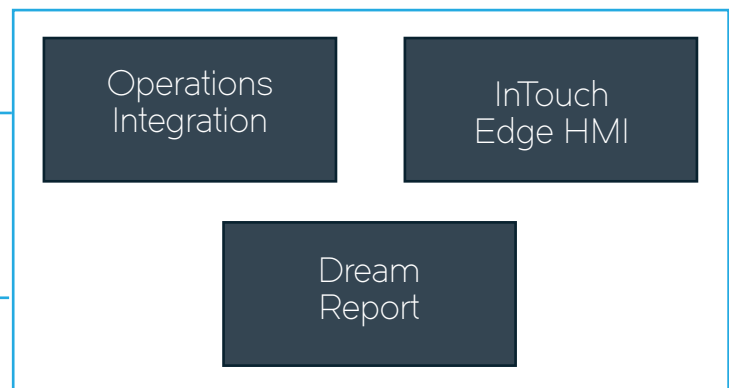
Not sure where to start your Wonderware training program? The Technical Learning Paths below provide the recommended order of classes for both InTouch and System Platform users.

INTOUCH LEARNING PATH

START HERE

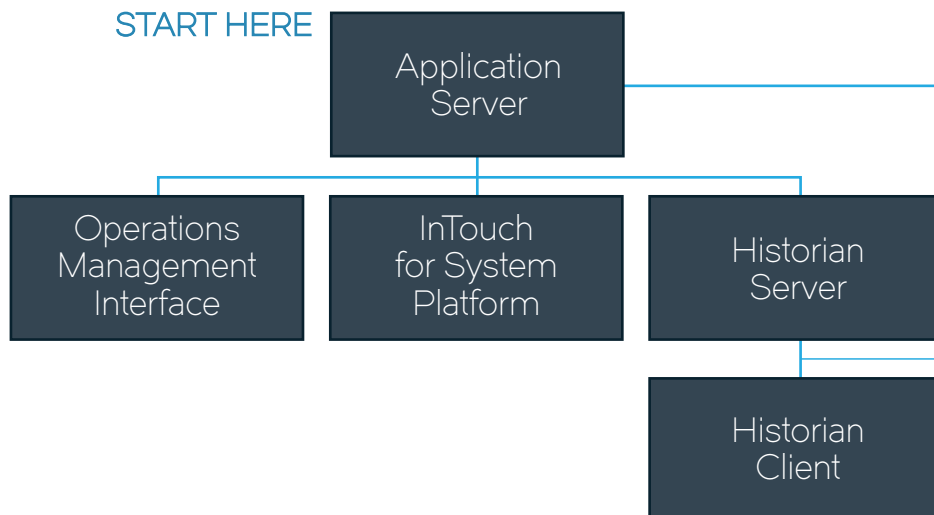


STAND-ALONE

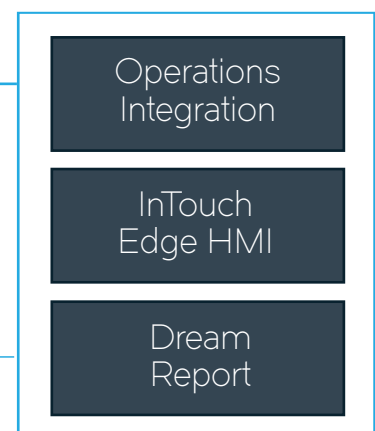


SYSTEM PLATFORM LEARNING PATH

START HERE



STAND-ALONE



Please contact Leah Muenchow with any questions:

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