



Course Description: System Platform - Part 1 Application Server

The Wonderware *System Platform - Part 1* course is a four-day, instructor-led course designed to provide a fundamental understanding of the basic principles of Arcestra® and supply the knowledge necessary to develop and support applications for the Wonderware Application Server. The course utilizes a number of hands-on labs to reinforce concepts and features. The focus of this course is to illustrate the use of Arcestra® tools and services in the System Platform to develop a project utilizing connectivity to the field, data processing, scripts, alarms and history, using features and functionality such as Automation Objects, templates, template instances, Arcestra® Integrated Development Environment and QuickScript .NET. This course also provides a fundamental understanding of how to utilize the InTouch® Alarm DB Logger for real-time alarm recording as well as the security settings available for securing the applications.

OBJECTIVES

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

- Create new projects using Arcestra® Integrated Development Environment
- Model the plant floor using automation objects
- Work with the alarm and history configuration in the Galaxy
- Configure Arcestra® security in the Galaxy
- Troubleshoot Wonderware Application Server applications

AUDIENCE

This training class is targeted to engineers, application developers, system integrators, and other individuals whose jobs include creating and/or maintaining a Galaxy for use with the Wonderware System Platform.

PREREQUISITES

The prerequisites for this course are:

- Completion of Getting Started with Wonderware Application Sever web tutorial
 - http://www.wonderware.com/training/online_training/tutorials.asp
- InTouch® HMI Fundamentals of Application Development course
- Manufacturing industry experience

COURSE OUTLINE

Module 1 - Introduction

- Section 1 - Course Introduction
- Section 2 - Wonderware System Platform
 - Lab 1 - Creating a Galaxy
- Section 3 - The ArchestrA IDE
- Section 4 - Automation Objects
- Section 5 - System Requirements, Licensing and Support
- Section 6 - Application Planning
 - Lab 2 - Identifying the Mixer

Module 2 - Application Infrastructure

- Section 1 - The Plant Model
 - Lab 3 - Creating the Plant Model
- Section 2 - The Deployment Model
 - Lab 4 - Creating and Deploying the Deployment Model
- Section 3 - The Runtime Environment
 - Lab 5 - Using Object Viewer
- Section 4 - Connecting to the Field
 - Lab 6 - Connecting to the Field

Module 3 - Application Objects

- Section 1 - Templates and Instances
- Section 2 - The \$UserDefined Object
 - Lab 7 - Heat Exchanger
- Section 3 - Change Control and Propagation
 - Lab 8 - Change Control and Propagation
- Section 4 - The \$AnalogDevice Object
 - Lab 9 - Meter
- Section 5 - The \$DiscreteDevice Object
 - Lab 10 - Valve, Pump and Motor
- Section 6 - Containment
 - Lab 11 - Mixer

Module 4 - Extending the Objects

- Section 1 - UDAs
- Section 2 - Extensions
 - Lab 12 - Motor Speed
- Section 3 - Introduction to QuickScript .NET
 - Lab 13 - DDESuiteLinkClient Auto Reconnect
 - Lab 14 - Automatic Reference Configuration



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Module 5 - Alarms and History

Section 1 - Alarms

Lab 15 - Configuring Alarms

Section 2 - Historization

Lab 16 - Configuring History

Module 6 - Security

Section 1 - Security Overview

Lab 17 - Security

Module 7 - Galaxy Maintenance

Section 1 - Exporting and Importing Objects

Section 2 - Configuring Instances through a CSV File

Section 3 - System Management Console (SMC)

Section 4 - Network Account Utility

Module 8 - Device Integration Products

Section 1 - Wonderware I/O Servers

Section 2 - Data Access Servers

Section 3 - Device Integration Objects

Module 9 - Multi-Node Applications

Section 1 - Application Redundancy

Lab 18 - Configuring Application Redundancy

Section 2 - DI Redundancy

Lab 19 - Configuring the Redundant DI Object

Section 3 - Multi Node Application

Lab 20 - Convert to Network Environment