Wonderware Training

Course Descriptions

Wonderware System Platform, Part 1

The Wonderware System Platform - Part 1 course is a 4-day, instructor-led course that provides lectures and hands-on labs designed to provide a fundamental understanding of the basic principles of ArchestrA and supply the knowledge necessary to develop and support applications for Wonderware Application Server 3.1.

The focus of this course is to illustrate the use of ArchestrA 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, ArchestrA 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.

Objective

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

- Create new projects using ArchestrA Integrated Development Environment
- Model the plant floor using automation objects
- Work with the alarm and history configuration in the Galaxy
- Configure ArchestrA 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

- Completion of Getting Started with Wonderware Application Server web tutorial
  http://www.wonderware.com/training/online_training/tutorials.asp
- 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 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 - Modeling the Heat Exchanger
Section 3 - Change Control and Propagation
Lab 8 - Configuring Change Control and Propagation
Section 4 - The $AnalogDevice Object
Lab 9 - Modeling a Meter
Section 5 - The $DiscreteDevice Object
Lab 10 - Modeling a Valve, Pump, and Motor
Section 6 - Containment
Lab 11 - Creating the Mixer

Module 4 - Extending the Objects
Section 1 - UDAs
Section 2 - Extensions
Lab 12 - Configuring the Motor Speed
Section 3 - Introduction to QuickScript.NET
Lab 13 - Adding Auto Reconnect to DDESuiteLinkClient
Lab 14 - Configuring Automatic Reference

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 - Wonderware 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