AVEVA™ Operations Management Interface 2023

Course Description

The AVEVA™ Operations Management Interface 2023 course is a 4-day, instructor-led class designed to provide an overview of the features and functionalities released with the AVEVA Operations Management Interface software. It covers the components and capabilities of the software, as well as topics to help you build and deploy an AVEVA Operations Management Interface visualization application for System Platform. It also introduces tools for creating graphics, visualizing alarms and events, visualizing trends and history, and implementing security in an AVEVA Operations Management Interface application. Hands-on labs are provided to reinforce the knowledge necessary to use the software.

Objectives

Upon completion of this course, you will be able to:
- Describe AVEVA Operations Management Interface visualization components
- Create display layouts for visualization applications
- Create and run visualization applications
- Describe situational awareness concepts
- Create and use graphics
- Create and use namespaces and attributes
- Implement navigation for visualization applications
- Implement visualization application security
- Implement alarm visualization
- Implement trend visualization
- Implement historical playback visualization

Audience

Individuals who need to configure or modify AVEVA Operations Management Interface applications

Prerequisites

Knowledge of the following tools, features, and technologies is required:
- Industrial automation software concepts
- From the AVEVA™ Application Server software product:
    - System Platform IDE
    - Automation objects
    - Alarms of attributes
    - Historization of attributes
    - Security
    - Deployment model
    - Plant model
    - QuickScript .NET scripting language

Course Outline

Module 1 – Introduction

Section 1 – Course Introduction
This section describes the objectives, prerequisites, intended audience, and agenda for the course.

Section 2 – System Platform Overview
This section describes fundamental concepts about AVEVA System Platform, including its clients, components, and services. It also introduces ArchestrA technology.

Section 3 – Visualization Overview
This section introduces visualization concepts and describes AVEVA Operations Management Interface as one of the visualization clients of AVEVA Application Server.

Section 4 – Encrypted Communication
This section describes the encrypted communication for end-to-end communication between server and client software applications.

Section 5 – System Requirements and Licensing
This section describes system requirements for System Platform software and introduces the licensing model.

Module 2 – Getting Started

Section 1 – Introduction
This section introduces features and components of AVEVA Operations Management Interface, including screen profiles, layouts, and panes, and describes how they work as part of the framework for a ViewApp.

Section 2 – Screen Profiles
This section describes how to create and configure screen profiles and screens using the Screen Profile Editor.

Section 3 – Layouts and Panes
This section describes how to create and configure layouts and panes using the Layout Editor.

Section 4 – ViewApps
This section introduces the ViewApp object, including its editor, capabilities, and components.

Module 3 – Industrial Graphics

Section 1 – Introduction to Industrial Graphics
This section introduces industrial graphics, including managing them in the System Platform IDE and the out-of-the-box symbol libraries provided with Application Server. It also provides an overview of Situational Awareness concepts.

Section 2 – Graphic Editor
This section describes the Graphic Editor, including an overview of its interface and configuration of embedded symbols.

Section 3 – Industrial Graphics with Objects
This section describes using and managing symbols with automation objects.

Section 4 – Tools and Animations
This section describes element tools and menus available in the Graphic Editor, symbol and graphic element properties, and visualization and interaction animations.

Section 5 – Custom Properties
This section provides an overview of custom properties for symbols.

Section 6 – Galaxy Style Libraries
This section explains how to work with Galaxy Style Libraries.

Module 4 – ViewApp Application Customizations

Section 1 – Link a Layout as Content in an Object

This section describes how to link a layout to an asset or template as content. It explains how autofill works within the scope of the object and the ViewApp.

Section 2 – Layout and Pane Customizations

This section describes options for customizing the appearance, navigation, and runtime behaviors for layouts and panes.

Section 3 – Custom Navigation

This section describes how to customize the built-in navigation in a ViewApp.

Module 5 – External Content

Section 1 – Introduction to External Content

This section introduces using external content in ViewApps, including how to create, configure, and manage external content items.

Module 6 – Widgets

Section 1 – Introduction

This section introduces using widgets in your ViewApps. It describes the widgets provided out-of-thebox with Application Server, as well as how to import other widgets into a Galaxy.

Module 7 – ViewApp Namespaces

Section 1 – Introduction

This section introduces ViewApp namespaces, describes predefined namespaces and attributes available for a ViewApp, and describes using MyViewApp as a reserved keyword to reference namespaces and attributes.

Section 2 – Custom ViewApp Namespaces and Attributes

This section describes how to manage and configure ViewApp namespace attributes using the ViewApp Namespace Editor.

Module 8 – Security

Section 1 – Security Overview

This section provides an overview of security in Application Server, including authentication modes, permissions, roles, and users.

Section 2 – ViewApp Security

This section describes how to implement security in a ViewApp.

Section 3 – Signed Writes

This section describes security classifications for object attributes, including configuring Secured Writes and Verified Writes and using them at runtime.

Module 9 – Alarms and Events Visualization

Section 1 – Alarming Overview

This section provides an overview of alarms and events.

Section 2 – Live Alarm Visualization

This section describes how to use the AlarmApp to display and manage alarms and events in a ViewApp. It also describes how to customize the appearance and runtime behavior of the AlarmApp.

Section 3 – Logged Alarms and Events Visualization

This section introduces alarm and event logging, and describes how to configure the AlarmApp to display logged alarms and events.

Module 10 – Trends

Section 1 – Historization Overview

This section provides an overview of historization and introduces viewing trend data in a ViewApp.

Section 2 – Real-Time Trending

This section describes the Trend Pen element for symbols and introduces trend pen symbols from the Situational Awareness Library.

Section 3 – Historical Trending

This section describes using the InSightApp and the HistoricalTrendApp for historical trending in a ViewApp.

Module 11 – 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 a ViewApp.

Module 12 – .NET Controls Usage

Section 1 – Introduction

This section describes importing external controls as OMI Apps for use in ViewApps and exposing certain controls by including a manifest file.

Module 13 – Scripting in Graphics

Section 1 – Introduction

This section provides an overview of the scripting environment and introduces symbol scripts and layout scripts.

Section 2 – Symbol Scripts

This section describes predefined and named symbol scripts, explains script triggers, and describes the Action Scripts animation.

Section 3 – Layout Scripts

This section describes predefined and named layout scripts, including script triggers and the Event Handler.

Section 4 – Graphic Client Functions

This section explains the ShowContent(), Hide Content(), ShowGraphic(), HideGraphic(), and HideSelf() script functions.