# AVEVA™ Operations Management Interface 2020

## Course Description

The AVEVA™ Operations Management Interface 2020 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

*Promoting technical solutions to ensure your success with automation*

- o Security Deployment model
- o Plant model
- o 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

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### 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 Styles

This section explains how to work with the Galaxy Style Library.

## Module 4 – 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 5 – Application Customizations

### Section 1 – Layout and Pane Customizations

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

### Section 2 – Custom Navigation

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

### Section 3 – ContentPresenterApp

This section describes how to automatically generate graphic displays using the Content Presenter App in a ViewApp.

## Module 6 – 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 7 – 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 8 – 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 9 – 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 10 – 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 11 – .NET Controls Usage

### Section 1 – Introduction

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

# Module 12 – Scripting in Graphics

### Section 1 – Introduction

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

### Section 2 – Symbol Scripts

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

### 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.