Master AVEVA™ Administration

Course Objectives

This comprehensive Master AVEVA™ Administration Program is designed to equip participants with the knowledge and practical skills required to configure, manage, and maintain AVEVA Administration, E3D Design, and Engineering environments. The course covers project setup, database management, system administration, catalogue and model configuration, clash management, drawing administration, and engineering data modeling. Participants will gain hands-on expertise in implementing standards, managing multi-discipline collaboration, and ensuring data integrity across complex projects. By the end of the course, learners will be capable of independently administering enterprise-level AVEVA environments.

Target Audience

- AVEVA Administrators and System Administrators
- E3D / PDMS Administrators and CAD Managers
- Engineering IT Support Professionals
- Lead Designers / Discipline Coordinators transitioning to Administration roles
- BIM / Digital Engineering Managers responsible for system configuration

Course Outcomes

Upon successful completion of this course, participants will be able to:

- Install, configure, and manage AVEVA Administration environments and project structures.
- Create and maintain databases, MDBs, user roles, teams, and access controls.
- Configure catalogue, model, fabrication, clash, supports, and drawing administration modules.
- Develop and manage AVEVA Engineering data models, naming rules, datasheets, and status configurations.
- Implement best practices for data integrity, security, system performance, and cross-discipline collaboration.

Couse Outline

The course comprises **96**-hours of theory and labs and is divided into **26** different Modules. Each chapter will be followed by hands-on lab exercises to reinforce learning and gauge understanding of the topics covered.

Part 1 - AVEVA™ Administration Fundamentals

Module 1 - AVEVA Products Environment

- Installation of AVEVA™ Administration
- Installation Directory
- Project Directory
- Default Directories
- Environment Initialization
- The evars.init File
- The custom_evars.bat File
- Projects.bat File
- The Project Evars File

Module 2 - Project Creation

- Project Creation Wizard
- Project Folders and Files
- Project Environment Variables
- Masked Projects
- AVEVA Supplied Projects
- Relocating a Project

Module 3 - Typical Project Administration

- Typical Project Administration
- Project Design Teams
- Project Databases
- Typical 3D Design Databases
- Typical 2D Drawing Databases
- Specialist Projects Databases
- Sharing Data Between Projects
- AVEVA™ Administration
- Admin
- Lexicon
- Admin Elements Form
- Configuring the Admin Elements Form

Module 4 – Teams & Users

- Administration Teams
- Modifying Users
- Copy User

Module 5 – Databases

- Database Creation
- Extract or Master Database
- Owning Teams
- Database Name & Types
- Top Level Element
- Access Mode
- Controlled Database
- Reference Only Database
- Database Protection
- Area Numbers & Database Numbers
- Deleting, Copying & Modifying Databases
- Foreign Databases
- Excluding Foreign Databases

Module 6 - Multiple Databases (MDB)

- MDB Overview
- Database Order in MDB
- Modifying an MDB
- Deferring Databases
- Copying an MDB
- Database Sets

Module 7 - Basic Project Maintenance

- Expunge
- Locking Projects
- Change Management
- Changing Passwords
- Miscellaneous Admin Functions

Module 8 - Customizing Databases

- The Dictionary Database
- User Defined Attributes (UDA)
- Creating a UDA Group (UGRO)
- User System Defined Attributes
- User Defined Element Types (UDET)
- Creating a UDET Element World (UDETTWL)
- Creating a UDET Group (UDETGR)

Part 2 - AVEVA™ E3D Design Administration

Module 9 - Systems Administration

- Project Access Using Active Directory (AD) Authentication
- Project Access in TTY Mode
- Data Access Control (DAC)
- Database Intellectual Rights Protection
- Database Integrity Checks (DICE)
- Database Reconfiguration
- Extract Databases

Module 10 - Catalogue Administration

- Paragon Structure and Overview
- Coding Systems
- Component Creation
- Specification Tables
- Specifications

Module 11 - Model Administration

- Purpose Attribute
- System Hierarchy
- Auto Colour Rules
- Auto Naming Rules
- Introduction to Hole Management
- Surface Treatment
- Standard Model Libraries
- Status Control
- Piping Assemblies

Module 12 - Pipe Fabrication Administration

- General Information
- Fabrication Machine Manager
- Pipe Spool Drawing Configuration
- Understanding Assembly Information

Module 13 - Clash Manager Administration

- Clash Manager Project Configuration
- Security Levels
- Elements and Clash Disciplines

- Clash Priorities and Classes
- Clash Acceptance
- Clash Groups

Module 14 - Supports Administration

- Project Configuration
- Support Standards
- Application Defaults
- Supports Ancillary Data
- Support Structure Data
- Framework Templates
- Supports Auto Naming
- Supports Drawing Production

Module 15 - Isodraft Administration

- Isometric Options Files
- Isodraft Symbol Libraries

Module 16 - Draw Administration

- Draw Access & System Defaults
- Draw Libraries
- Visual Styles
- Drawing Templates
- Symbol Libraries
- Symbolic Representation
- Label Administration
- AutoTag & Representation Rules
- Plot Styles

Part 3 - AVEVA™ Engineering Administration

Module 17 - AVEVA™ Engineering Setup Introduction

- Introduction
- AVEVA™ Engineering Project Data Setup – Admin Module
- AVEVA™ Engineering Data Setup – Configuration Module
- AVEVA™ Engineering Data Setup – AVEVA™ Engineering Application

Module 18 - Standard Project Data Setup

- Define Disciplines

- Define Databases
- Module Definitions

Module 19 - Developing a Data Model

- Developing a Data Model in AVEVA™ Engineering – Configuration Module
- Developing a Data Model
    - From Scratch
    - Create Classes
    - Create Attributes
    - Assigning Disciplines to Attributes
    - Create Class Associations
    - Create Lists of Values (LOVs)
- Define Attribute Reflection
- Export and Import Conceptual Data Model
- AVEVA™ Engineering Data Setup – Project Configurations
- Set Attributes to Store Tag Names

Module 20 - Status Definitions

- Create Status Configuration
- Create Status Configuration World Element (STAWLD)
- Create Status Definition Element (STADEF)
- Create Status Value Element (STAVAL)

Module 21 - Database Views

- Database Views Control
- Database Views Setup
- Database View Creation via Database Views Editor
- Database View Sets

Module 22 - Datasheet Template Definition

- Datasheet Configuration Overview
- Datasheet Template Creation
- Text Colour Definition
- Instance Colour Definition
- Reference Existing Template File
- Toolbox Standard Controls Mapping to Datasheet Template
- Sheet Type Definition in Datasheet Template
- Revision Block and Revision Mark Mapping to Datasheet Template
- List Datasheet Template Definition

Module 23 - Grids Definition

- Categories and Grid Management – Overview
- Define Grid – Layout
- Adding Colour to Grid Columns and Rows
- Roles Control
- Cross-Discipline Notifications for Reclassification, Copy and Duplicate with Referencing Item(s) of Tag

Module 24 - Project Explorer

- Flexible Explorer Configuration Structure
- Flexible Explorer Configuration without Reference to External PML Function Files
- Create a PBS (Project Breakdown Structure)

Module 25 – SQL & TMR Services Setup

- SQL Server Setup
- TMR Service Installation

Module 26 - Flexible Naming Rule Definition

- Introduction
- Naming Rules – Restricted Characters
- Process Industry Practices (PIP) Naming Rule Definition
- Kraftwerk-Kennzeichen System (KKS) Naming Rule Definition
- Counter Reservation in Naming Rules
- Counter Ranges Configuration
- Storage Rules
- Tag Notifications