AVEVA PI WORLD

Moving from On Premises to AVEVA™ Connect with AVEVA™ Unified Engineering

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AVEVA™ Unified Engineering on AVEVA™ Connect

Journey

Explore how to move an on-premises project into **AVEVA Unified Engineering** on **AVEVA Connect**.

Administration

Brief overview of the administration required to create our **AVEVA Unified Engineering** environments.

Products

Best practices to follow to when working in the **AVEVA Connect - Unified Engineering** Environment.

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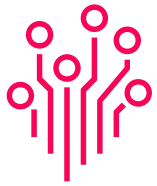
Common Project Challenges

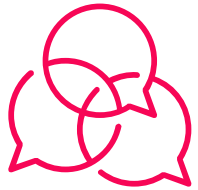


Project Data

is scattered in **multiple non standardized multi-brand** environments

IT Infrastructures

often very **rigid**, **expensive** and **unreliable** if not properly managed



Multiple Environments

require upfront investments in **hardware**, **software** and **high-profile staff** to maintain it and make them secure

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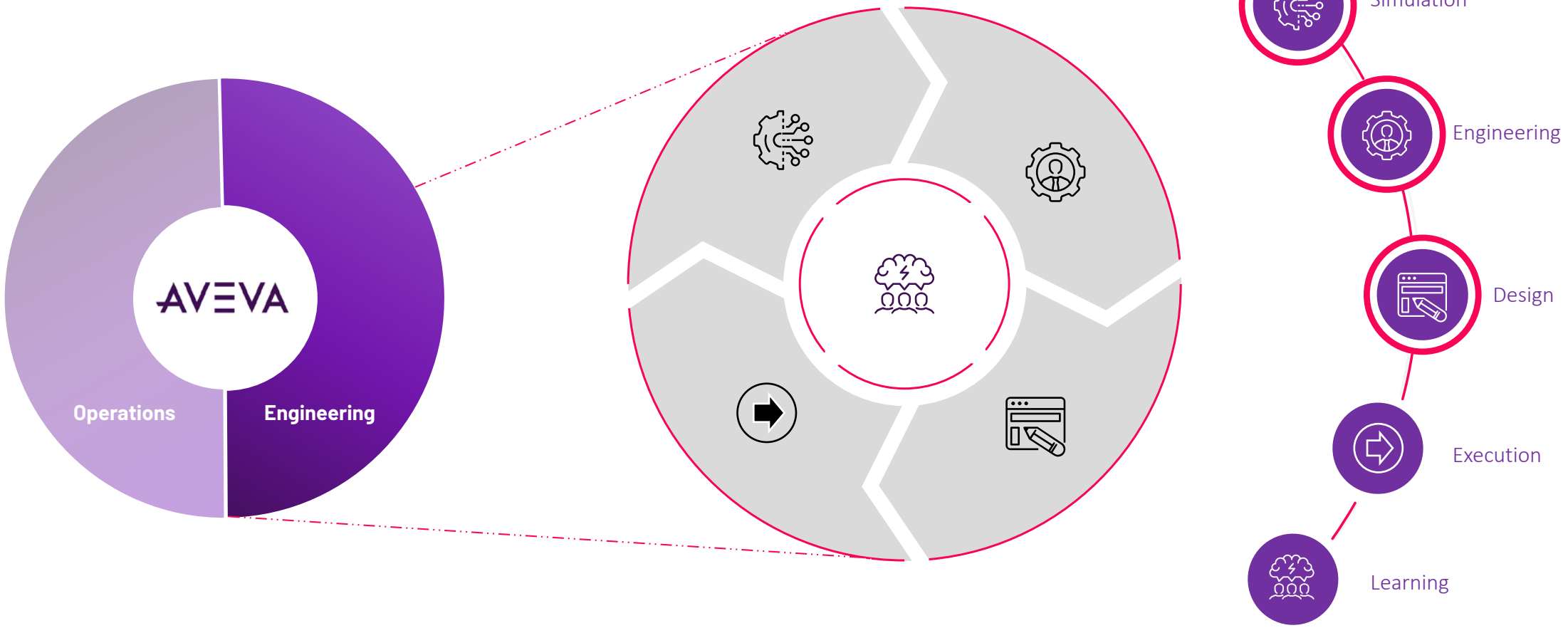
AVEVA Unified Engineering on AVEVA Connect

Overview



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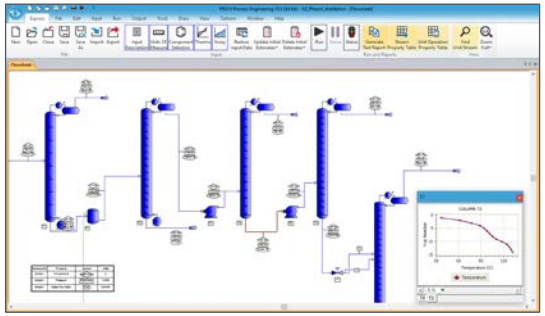
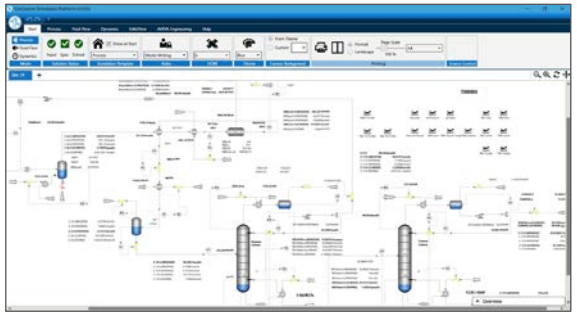
AVEVA Unified Engineering on AVEVA Connect

Key Solutions available on AVEVA Connect

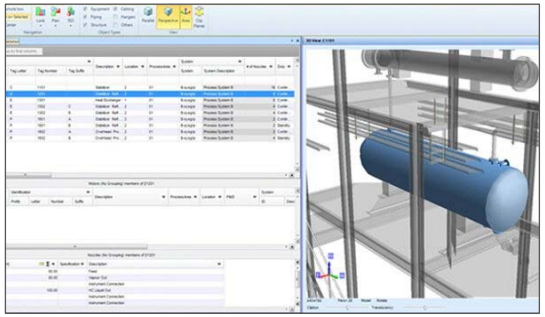
AVEVA™ PRO/II Simulation



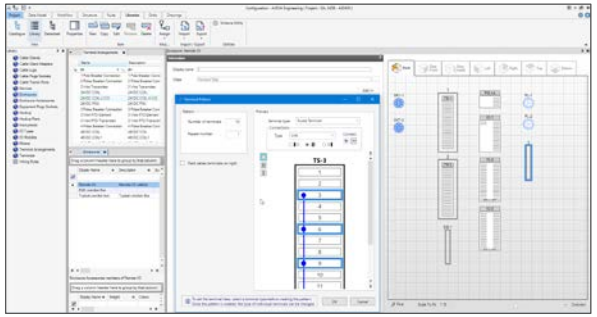
AVEVA™ Process Simulation



AVEVA™ Engineering



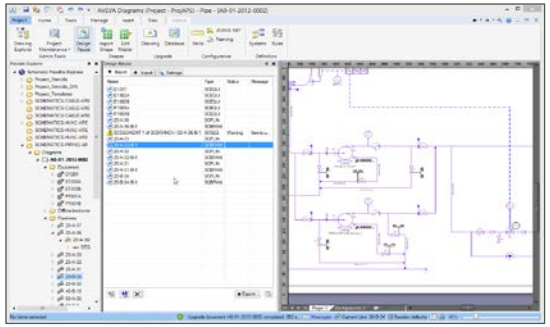
AVEVA™ Electrical and Instrumentation



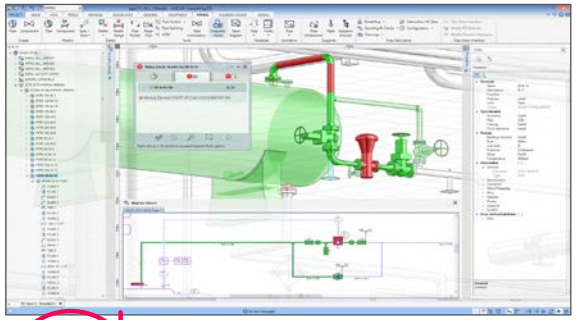
CONCEPTUAL DESIGN/PROCESS SIMULATION

FRONT END ENGINEERING DESIGN (FEED)

AVEVA™ P&ID



AVEVA™ Diagrams



AVEVA™ E3D Design

FEED cont'd

DETAILED DESIGN

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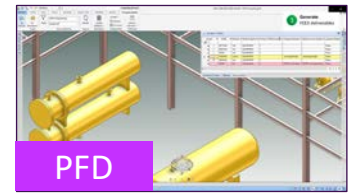
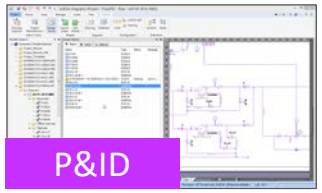
AVEVA Unified Engineering

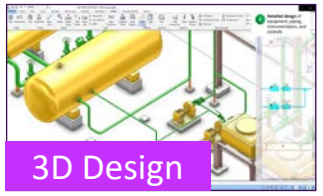
An improved workflow



3 **Generate** FEED deliverables



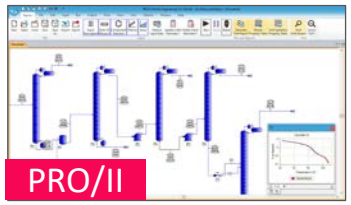
4 **Detailed design** of equipment, piping, instrumentation, and controls

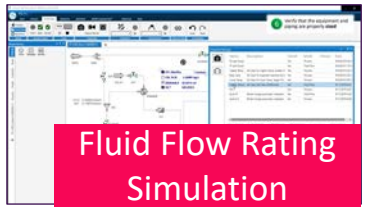


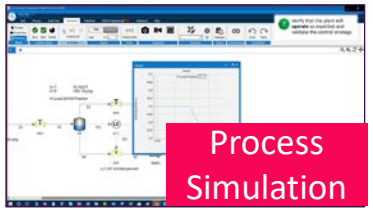
Engineering and 3D database

2 **Compare** multiple design cases with process stream data

5 **Equipment** Data back to simulation







1 **Simulate** plant heat and material balance

6 Verify that the equipment and piping are properly **sized**

7 Verify that the plant will **operate** as expected and validate the control strategy

Simulation changes made for Rating and Dynamics are automatically included in process simulation

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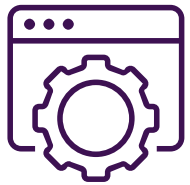
AVEVA Unified Engineering on AVEVA Connect

The Transition Journey

- To move on **AVEVA Unified Engineering** on **AVEVA Connect** is important to identify the following elements, to have a clear picture of the **environment infrastructure**:



Products

List all the **Products** and the product version **involved** in the project(s) for comparison with the current **AVEVA Unified Engineering** release.

Locations

Plan accordingly your **Execution Strategy** and work with our **Cloud Teams** to find the best infrastructure to fit the **project purpose**.

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AVEVA Unified Engineering on AVEVA Connect Setup

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AVEVA Unified Engineering on AVEVA Connect

Administrative Elements

- **AVEVA Connect** required the creation of the following administrative elements:

Folders

represent the **Asset Hierarchy** in specific **Global locations**.

Users

are used to login to the **AVEVA Unified Engineering** environments, inheriting permissions from the **Groups** they are part of.

Groups and Roles

define all the permissions and capabilities the **users** have within the environment.

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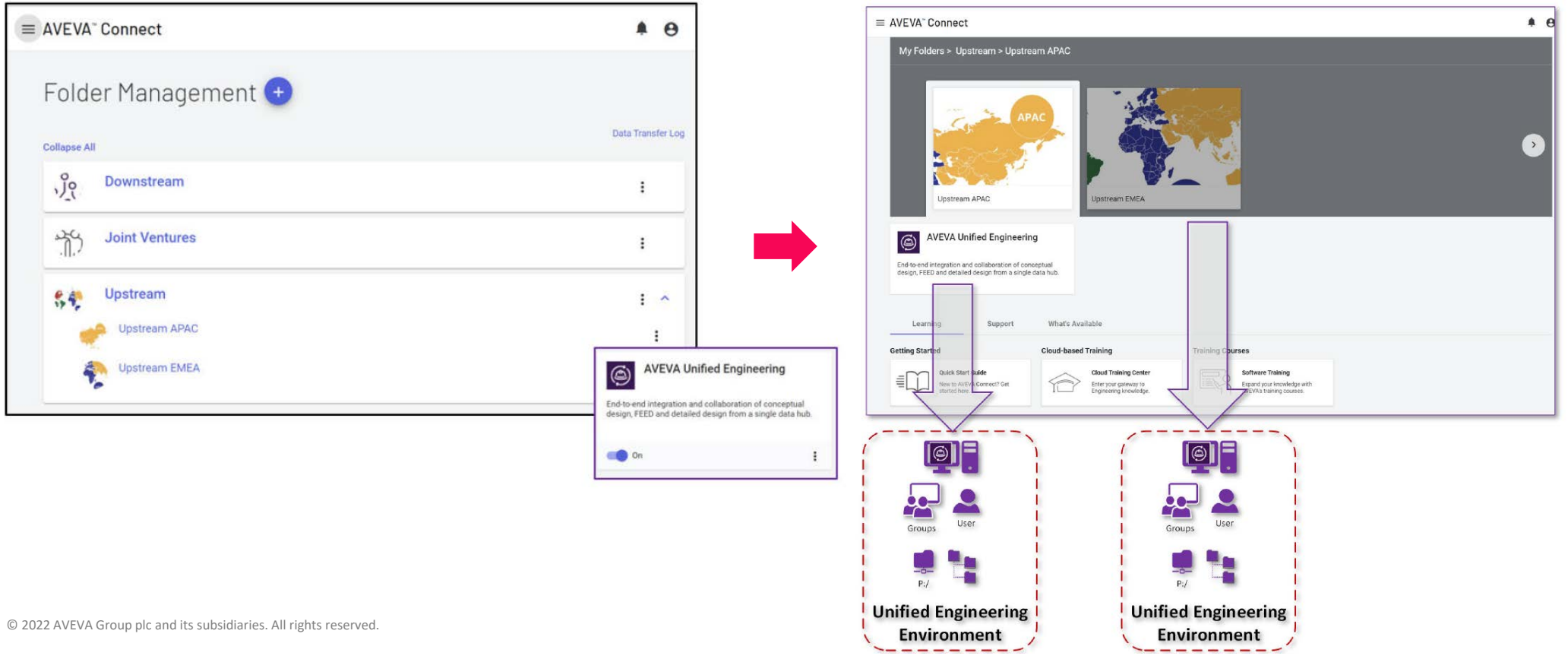
AVEVA Unified Engineering on AVEVA Connect

Folders

- Folders are used to represent your **Asset Hierarchy** in a specific location, giving the unique value to manage multiple standardized **Unified Engineering Environments** in different global locations in **AVEVA Connect**



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AVEVA Unified Engineering on AVEVA Connect

Users

- **Users** play an essential role in **AVEVA Connect**:

Identify

the utilizations within **AVEVA Connect**, associating the usernames with their **real IDs** for **billing**, **security** and **accesses** purposes.

Folders Visibility

is granted to each user if they belong to the right **Groups**.

Engineering Roles

will be determined reading from all the **Groups** each user belongs

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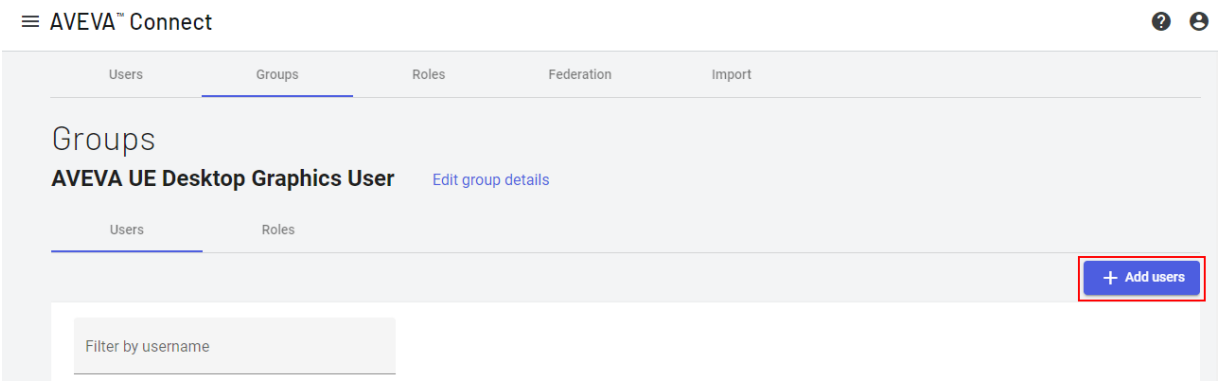
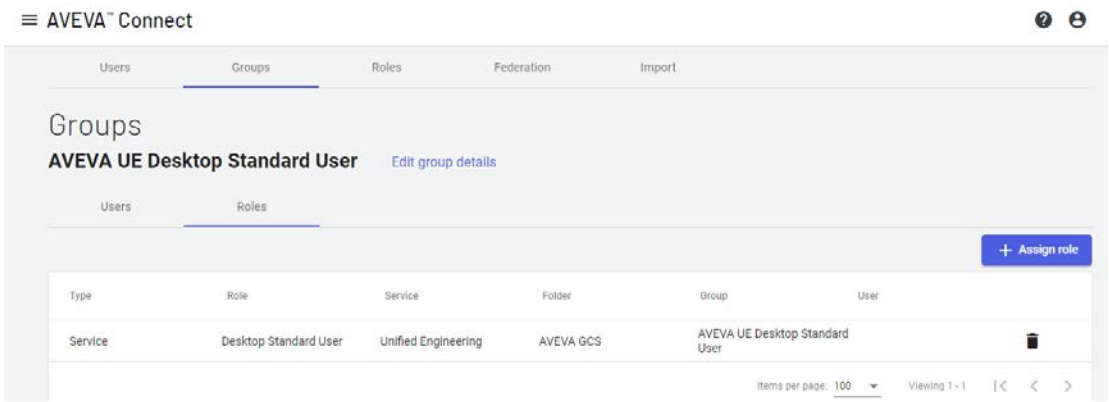
AVEVA Unified Engineering on AVEVA Connect

Groups and Roles Overview

- A **User** can be part of multiple **Groups**, inheriting all the permissions and capabilities given by the **Roles** associated to them.



- A **Group** may have multiple roles associated, adding multiple behaviours and permissions to the users part of it.



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AVEVA Unified Engineering on AVEVA Connect

Groups and Roles Defaults

Group Name	Behaviour/Access	Roles Assigned
AVEVA UE Catalogue Administrator	**AVEVA UE Catalogue Administrator** (AC Folder)	**Standard Customer**, **Standard Design**
AVEVA UE 2D Drafter (PID)	**AVEVA UE 2D Drafter** (PID) (AC Folder)	**Standard Customer**, **Standard Drafting PID**
AVEVA UE 2D Drafter (Diagrams)	**AVEVA UE 2D Drafter** (Diagrams) (AC Folder)	**Standard Customer**, **Standard Drafting Diagrams**, **Standard Visio**
AVEVA UE 3D Designer	**AVEVA UE 3D Designer** (AC Folder)	**Standard Customer**, **Standard Design**
AVEVA UE <*Discipline*> Designer	**AVEVA UE** <*Discipline*> **Designer** (AC Folder)	**Standard Customer**, **Standard** <Discipline> **Design**
AVEVA UE Project Controls	**AVEVA UE Project Controls** (AC Folder)	**Standard Customer**, **Standard Project Controls**

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AVEVA Unified Engineering on AVEVA Connect

Groups and Roles Defaults – part II

Group Name	Behaviour/Access	Roles Assigned
AVEVA UE Project Management	**AVEVA UE Project Management** (AC Folder)	**Standard Customer, Standard Project Management**
AVEVA UE Simulations Engineer	**AVEVA UE Simulations Engineer** (AC Folder)	**Standard Customer, Standard Simulations**
AVEVA UE Desktop Graphics User	**AVEVA UE Desktop Graphics User** (AC Folder) / Used to assign a **Graphic Environnent** to the **User**	**Desktop Graphics User**
AVEVA UE Desktop Standard User	**AVEVA UE Desktop Standard User** (AC Folder) / Used to assign a **Standard Environnent** to the **User**	**Desktop Standard User**

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Questions?

Please wait for the microphone

- State your name and company

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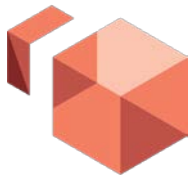
AVEVA Unified Engineering on AVEVA Connect

The Environment creation

- The users, once configured by the **Administrator**, will be able to launch the **AVEVA Unified Engineering Environment Creation Wizard** from the **AVEVA Unified Engineering** folder tile**:**

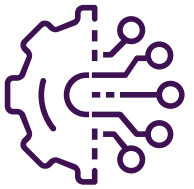


Amazon Workspaces

must be installed in all the users' machines to open the **AVEVA Unified Engineering** environments

AVEVA™ Unified Engineering Desktop

must be installed to give the users the capability to **create** the environment and to **access** it using the **AVEVA Connect** credentials



Launch Unified Engineering

environment once the **driven creation procedure** is complete.

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AVEVA Unified Engineering on AVEVA Connect

The Project Drive

- In the **AVEVA Unified Engineering** Cloud environment the **Project drive** is structured to store all the **Engineering project** and **data**:

Project drive is the shared Folder for Project and Product Data, containing the following subfolders:

AVEVA Files contains the default standard Products configurations

ElecInstr contains all the **AVEVA™ Electrical and Instrumentation** projects and defaults

Engineering contains all the **AVEVA Dabacon** projects

Miscellaneous contains **Cloud** specific configurations

PID contains all the **AVEVA™ P&ID** projects

Simulations contains the structure to support **AVEVA Unified Engineering – FEED Integration**

Project Files contains all the **Engineering Data** divided by **discipline** and driven by **Groups** permissions

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AVEVA Unified Engineering on AVEVA Connect

Additional Drives

- In addition to the Project drive, these **additional drives** can be found in the AVEVA™ Unified Engineering environment:

C Drive

Local storage for **Windows** and **software** installations

D Drive

Local storage for **User Data** (user profiles, desktop icons, document and Download)

L Drive

Shared storage for **laser data**

During official upgrades and maintenance, the data on C:\ drive is completely replaced. Therefore, users must not save anything relevant in it.

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AVEVA

AVEVA Unified Engineering on AVEVA Connect

Default Projects

- By default, the following **Dabacon projects** in an **AVEVA Unified Engineering** environment are deployed:

APS

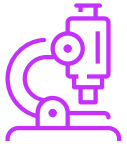
AVEVA™ Plant Sample contains typical project data to be used as sample file only

ACP

AVEVA Plant Sample Catalogue contains typical project catalogue data to be used as sample file only

ASP

AVEVA™ Engineering SEED Sample can be used as starter project



ATP

AVEVA Engineering Sample used to demonstrate the **AVEVA Engineering** key functionalities

AVEVA Sample Projects (APS, ACP) should always remain untouched and used only as sample data.

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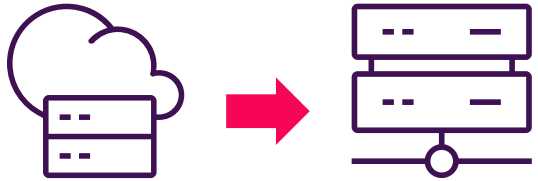
AVEVA Unified Engineering on AVEVA Connect

Files Upload/Download

- **Engineering Projects** and **data** can be uploaded easily into the **AVEVA Unified Engineering** environment:

Third-party cloud storage tools are supported (**Microsoft OneDrive**, **Dropbox**, etc..)



Microsoft OneDrive Sync App is included for Windows File Explorer synchronization of files and/or folders with **on-premises** Desktops.

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AVEVA Unified Engineering Products

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AVEVA Unified Engineering on AVEVA Connect

Products Considerations – AVEVA™ E3D Design

- **AVEVA E3D Design** version **must** be communicated **before** the deployment is started
- For **existing projects** check with our **Cloud experts** your deployment structure, strategy and scope
- **Global** architectures are available for **Complex Project scopes** as additional service
- For high customized environments contact our **Cloud Experts** about the possibility to lift them in **AVEVA Unified Engineering**
- Certify all the **Report Designer reports** prior to upload them in the Unified Engineering Cloud Environments.

- If **AVEVA™ Engineering Integration Services** is needed for integration, please contact our 24/7 Cloud Support team and give all the details about the services needed in the backend.

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AVEVA Unified Engineering on AVEVA Connect

Products Considerations – AVEVA™ Diagrams

- **Microsoft Visio 2016 licenses** can be provided prior **agreement** with AVEVA
- For **existing complex projects** check with our **Cloud experts** your deployment structure, strategy and scope
- For high customized environments contact our **Cloud Experts** about the possibility to lift them in **AVEVA Unified Engineering**

- If **AVEVA Engineering Integration Services** is needed for any integration, please contact our 24/7 Cloud Support team and give all the details about the services needed in the backend.

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AVEVA Unified Engineering on AVEVA Connect

Products Considerations – AVEVA™ Engineering

- Organize the **disciplines subfolders** to collect all the **Engineering deliverables** in an ordered way
- **FEED Integration** quick setup with referenced **SEED Project**
- **SEED Project** offers a quick starting point for the **E&I** and **FEED Modules**
- **Certify** all the VBA embedded script in the **External Calculation Templates** prior to upload them in the Unified Engineering Cloud Environments
- If the **Cross-Discipline notifications** feature is used in an existing project, be sure to consume all these notifications before to move the project in AVEVA Unified Engineering

- **Tag Management System** Services details has to be communicated to AVEVA to be deployed
- If **AVEVA Engineering Integration Services** is used for any integrations, please contact our 24/7 Cloud Support team and give all the details about the services needed in the backend

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AVEVA Unified Engineering on AVEVA Connect

Products Considerations – AVEVA™ Engineering - E&I Module

- Organize the **disciplines subfolders** to collect all the Engineering deliverables in an ordered way
- As on-premises all the **E&I features** for the configuration and the production of **E&I deliverables** (Single Line Diagram, Motor Schematic diagrams, Termination Drawings, Installation details drawings, Hook-up drawings, Instruments Lists, Control Loops lists and drawings, etc) and BoM for all the items defined in the Configuration module
- **Certify** all the VBA embedded script in the **External Calculation Templates** prior to upload them in the Unified Engineering Cloud Environments

- **Tag Management System** Services details has to be communicated to AVEVA to be deployed
- If **AVEVA Engineering Integration Services** is used for any integration, please contact our 24/7 Cloud Support team and give all the details about the services needed in the backend

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AVEVA™ Unified Engineering on AVEVA™ Connect

Products Considerations – AVEVA™ Electrical and Instrumentation

- Organize the **disciplines subfolders** to collect all the Engineering deliverables in an ordered way
- An **Autodesk AutoCAD standalone single user license** should be purchased by our customers directly from Autodesk to be used in each Cloud Unified Engineering environment
- As on-premises all the **E&I features** for the configuration and the production of **E&I deliverables** (Single Line Diagram, Motor Schematic diagrams, Termination Drawings, Installation details drawings, Hook-up drawings, Instruments Lists, Control Loops lists and drawings, etc)

- SQL database and Credentials list should be provided to our Cloud Support to be implemented.
- If **AVEVA™ Integration Services** is used for any integration, please contact our 24/7 Cloud Support team and give all the details about the services needed in the backend.

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AVEVA Unified Engineering on AVEVA Connect

Products Considerations – AVEVA™ P&ID

- An **Autodesk AutoCAD standalone single user license** should be purchased by our customers directly from Autodesk to be used in each Cloud Unified Engineering environment
- For **existing projects** check with our **Cloud experts** your deployment structure, strategy and scope
- **AVEVA P&ID** generates automatically the xml files required for **Schematic Model Manager**
- **ISO 15926 Dexpi** export is available as on premise

- SQL database and Credentials list should be provided to our Cloud Support to be implemented.
- If **AVEVA Engineering Integration Services** is used for any integration, please contact our 24/7 Cloud Support team and give all the details about the services needed in the backend.

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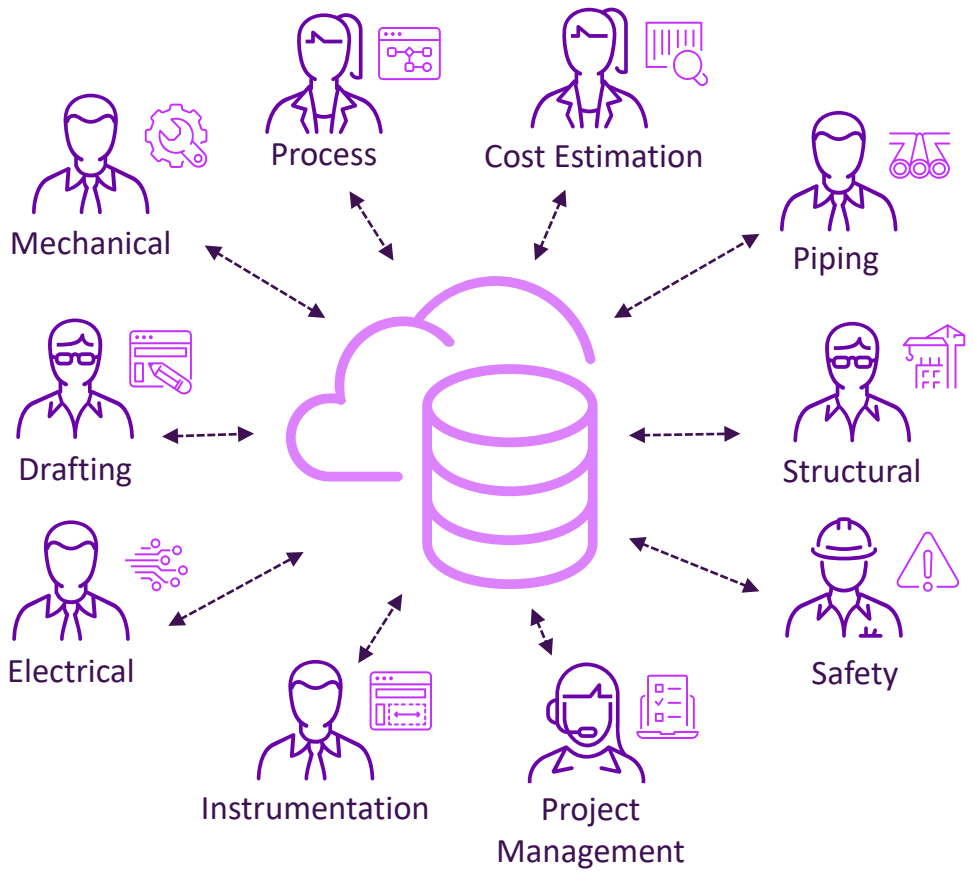
AVEVA Unified Engineering on AVEVA Connect

Key Benefits



+30% Engineering efficiency
20% Reduction in project schedule
+50% Faster FEED Stage
5% Saving in Total Installed Cost

- Reduce overall IT costs
- Fast deployment and scalable
- Multi-site Environment standardization

Considerable savings across 3 years compared to On-Premise solutions.

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AVEVA

“When we shift our perception, our experience changes.”

Lindsay Wagner

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