

OCT 29TH ,2025

AVEVA™ Unified Engineering

AVEVA California select Industrial Intelligence Summit

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Agenda

1. AVEVA™ Unified Engineering Overview
 - ❑ Process Simulation Integration
 - ❑ Process & Mechanical Discipline
 - ❑ Electrical & Instrumentation
 - ❑ E3D Modeling

CONNECT

Industrial intelligence for the connected industrial economy

Seamless experience



Applications and analytics

Design & build

Operate

Optimize

Ecosystem of developers and partners

Information

Engineering information

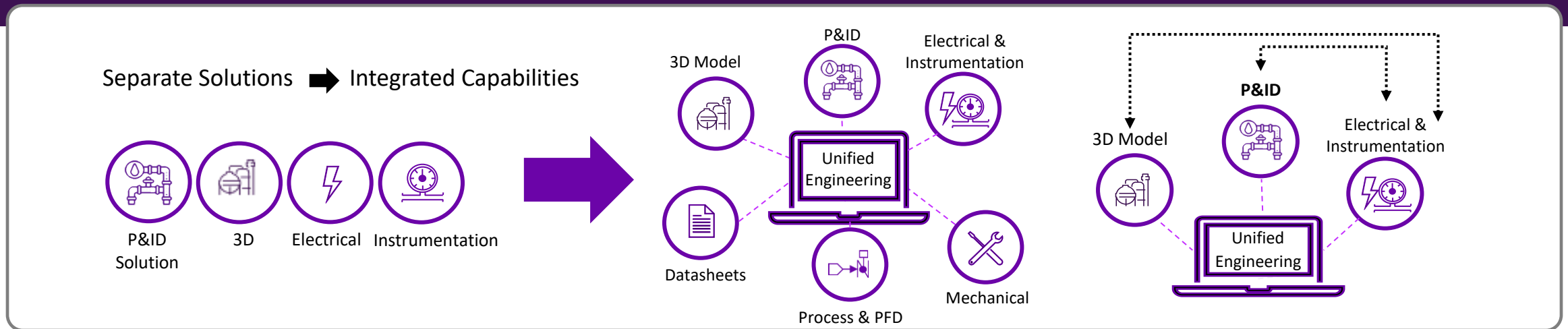
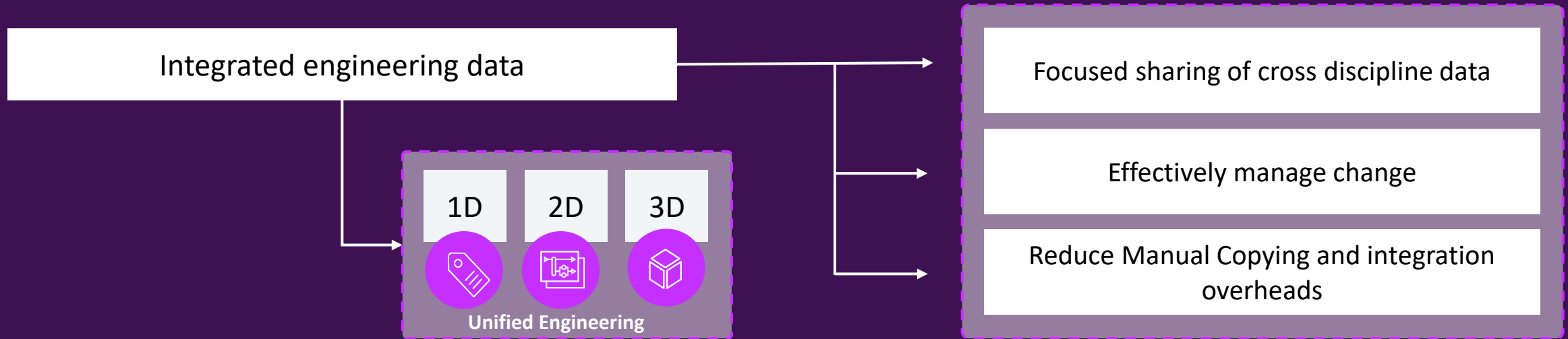


Operations information

Assets and devices



AVEVA™ Unified Engineering



High-level features and capabilities

Data-centric, multidiscipline, global engineering and design solution

AVEVA Unified Engineering

3D capabilities

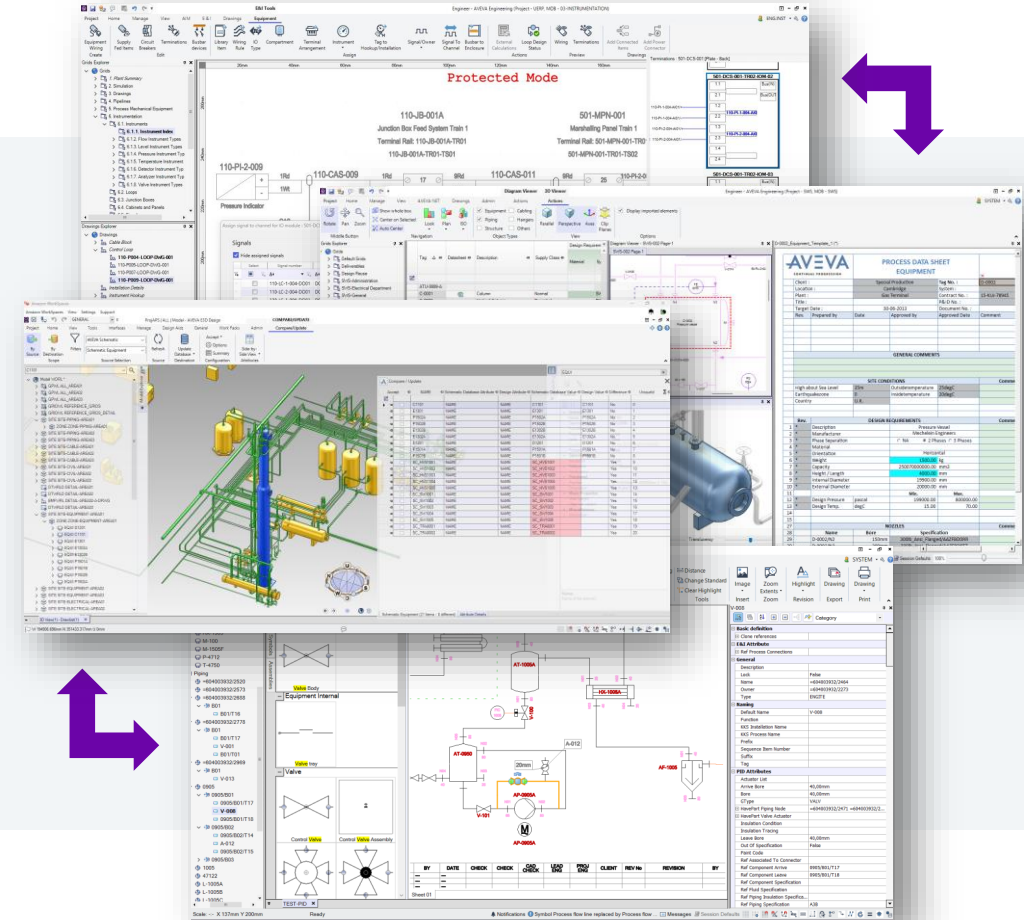
- Multidiscipline 3D modelling
- Piping
- Equipment
- Structures
- HVAC
- Cable routing
- Supports

2D capabilities

- PFD / P&ID
- Instrumentation
- Electrical
- Piping isometrics
- Layout / arrangement drawings

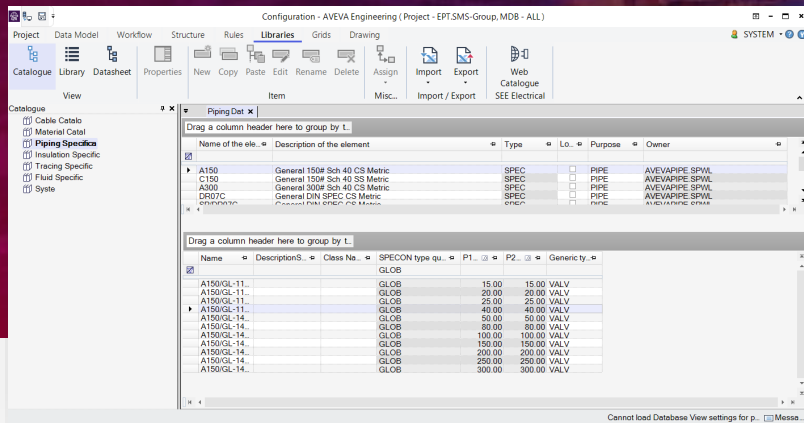
1D capabilities

- Engineering data model
- Process and mechanical datasheets
- Electrical and instrumentation datasheets
- Engineering lists (line list, valve list, cable schedule, etc.)



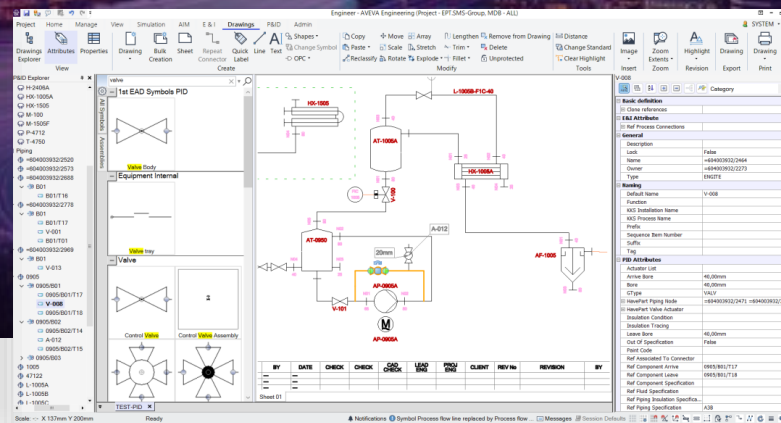
AVEVA engineering and schematics tools

Collaborate across engineering disciplines within a single data-centric solution for 1D, 2D design and engineering tools



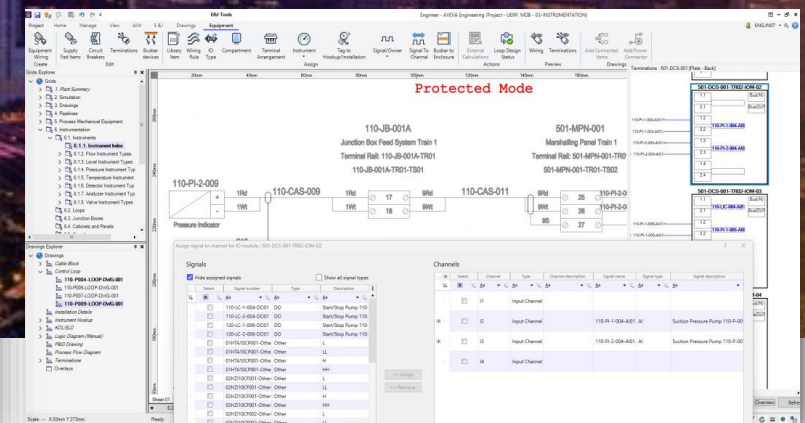
Datasheets and Lists

1D data including schedules and specifications



Process and Mechanical

Smart PFD (functional) & P&ID (physical)



High-level features and capabilities

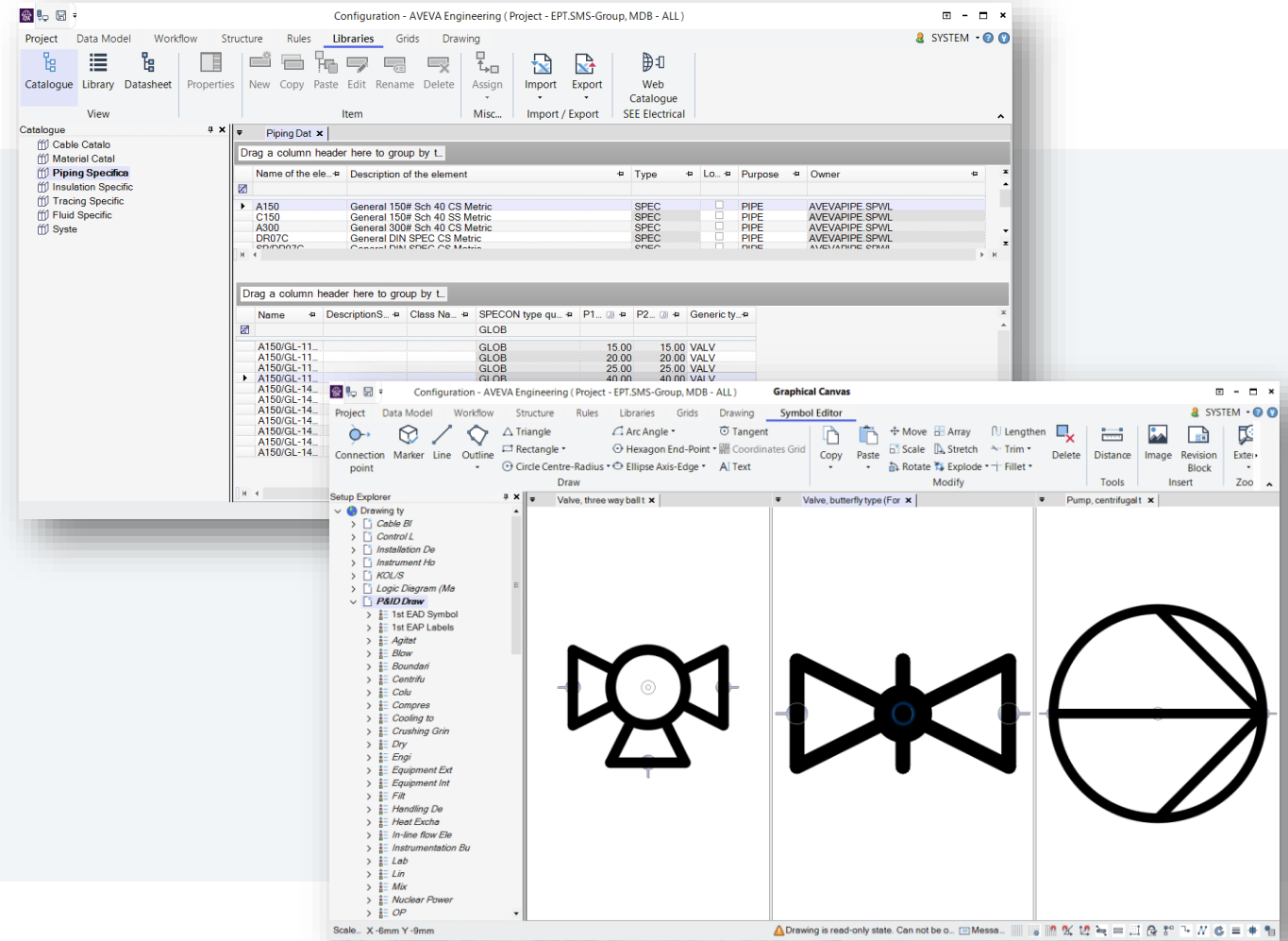
Unified platform ensuring real-time, concurrent, multidisciplinary design

Centralized change tracking, control, and communication. Data access control and object revisioning control

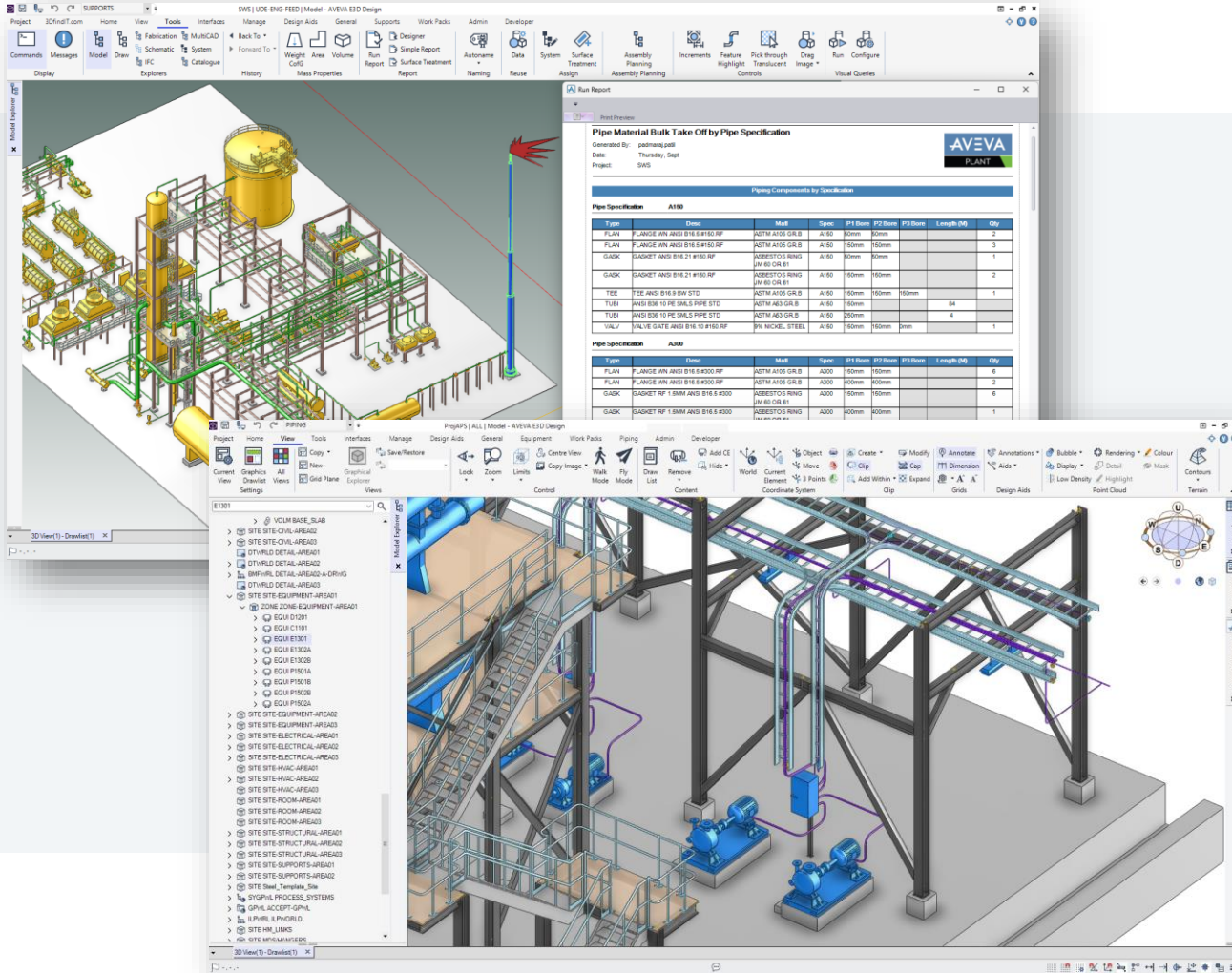
Configurable project standards and mandatory design rules across the entire project

Multiple, complex naming conventions supported for tag management of all engineering objects

Holistic data model, project breakdown structure, and data dictionary



High-level features and capabilities



Share configurations, templates, catalogues, design data, rules, and customizations between projects

Scale efficiently and effectively

Advanced work packaging (AWP) capabilities to support construction planning

Manage concurrent projects

AI/ML learning module inbuilt directly into the user interface

Automatic cable routing



High-level features and capabilities

AVEVA Unified Engineering Default Configuration

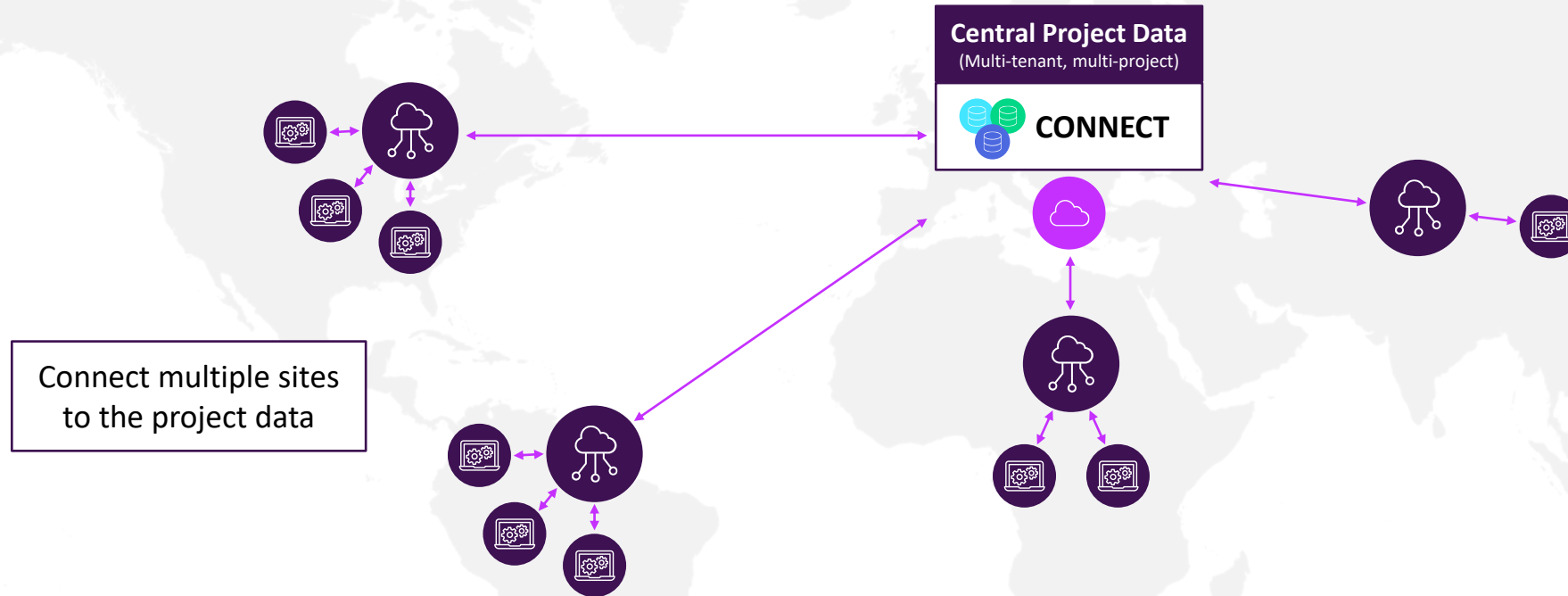
The AVEVA Unified Engineering Default Configuration is designed to support the implementation of Process, Mechanical, Electrical, and Instrumentation deliverables. AVEVA Unified Engineering Default Configuration 1.0 is intended for use in conjunction with AVEVA Unified Engineering 3.0 or later.

The configuration provides examples of best practices in the implementation of the AVEVA Unified Engineering.

AVEVA's Default Configuration includes the following:

- A rich data model that is capable of representing thousands of equipment types, components, and their relationships to each other.
- Discipline-specific views to the data model that allow engineers and designers to efficiently populate and manage technical data.
- Templates for traditional engineering deliverables, such as lists and datasheet templates informed by industry standards.
- Symbol libraries and Catalogues that are mapped to the rich data model.

High-level features and capabilities



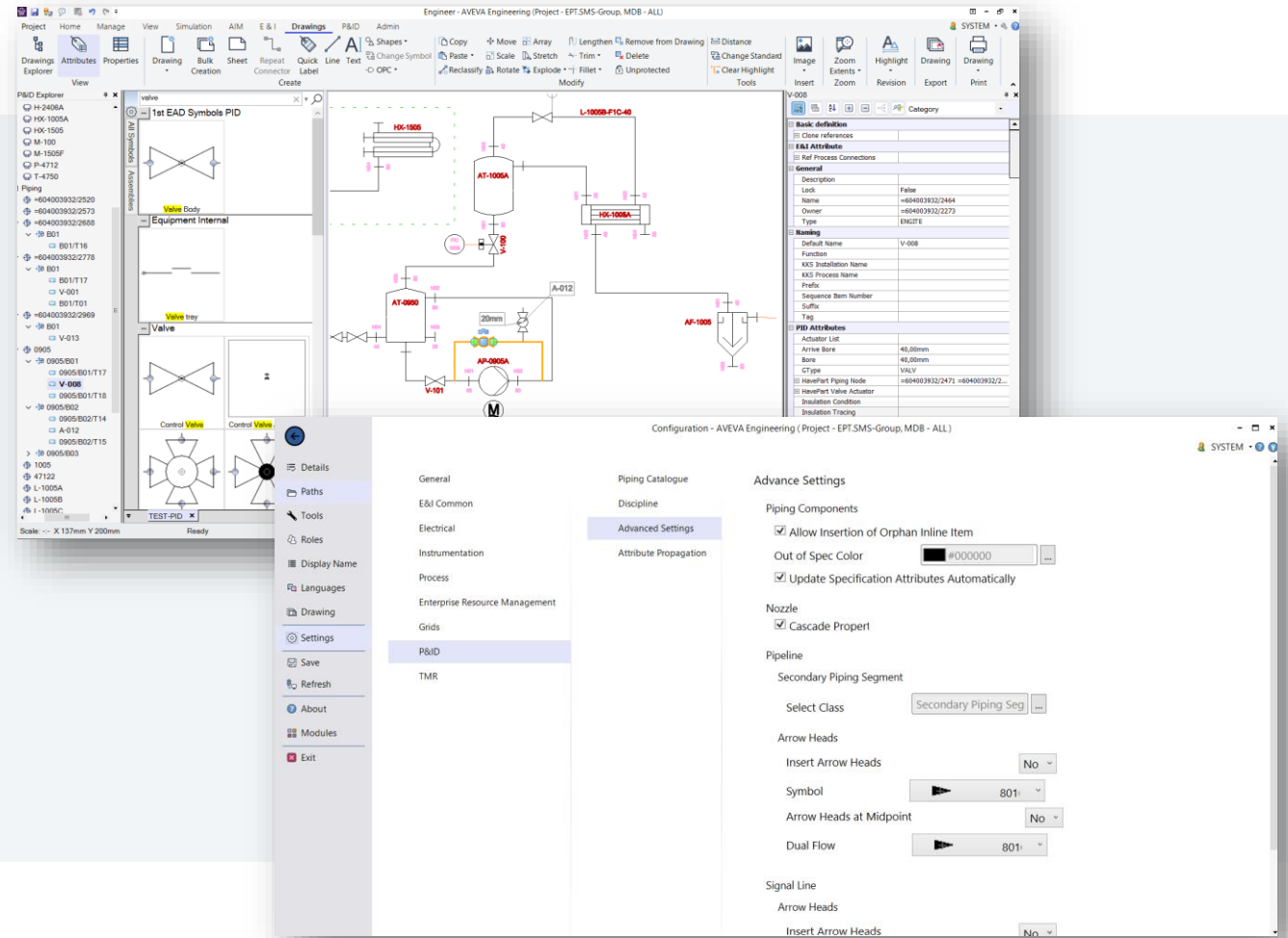
Process and mechanical disciplines – P&ID and PFD

Intelligent, data-centric tools for creating and managing your 2D process drawings efficiently

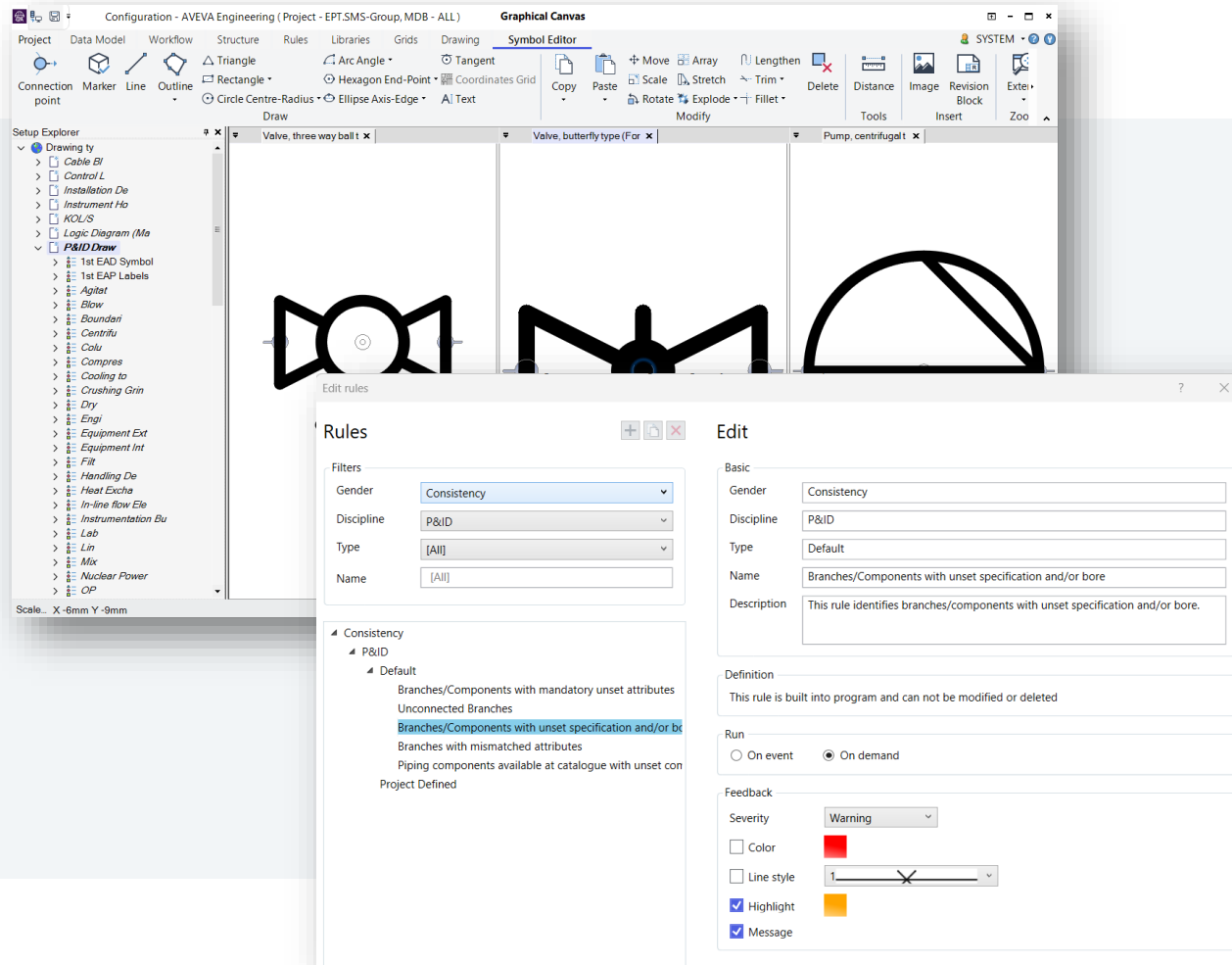
Integrated with process simulation tools, to intelligently manage simulation data as part of functional and engineering design with configurable data propagation

Intelligent PFD creation with drag-and-drop association of elements, or creation directly from simulation view or data matrices (spreadsheets)

Single, common, data-centric design environment removes discipline barriers



Process and mechanical disciplines



Modern UI with inbuilt design canvas

Advanced configurable formatting and administration rules

Stream and multiphase stream design

Heat and mass balance (H&MB) PFD to P&ID item association, design and data propagation

Free-drafting and full specification-driven design

Integration with procurement tools

Import DEXPI ISO 15926

Process and mechanical disciplines

Rapid templatzation of repeated parts. Reuse of previous project designs

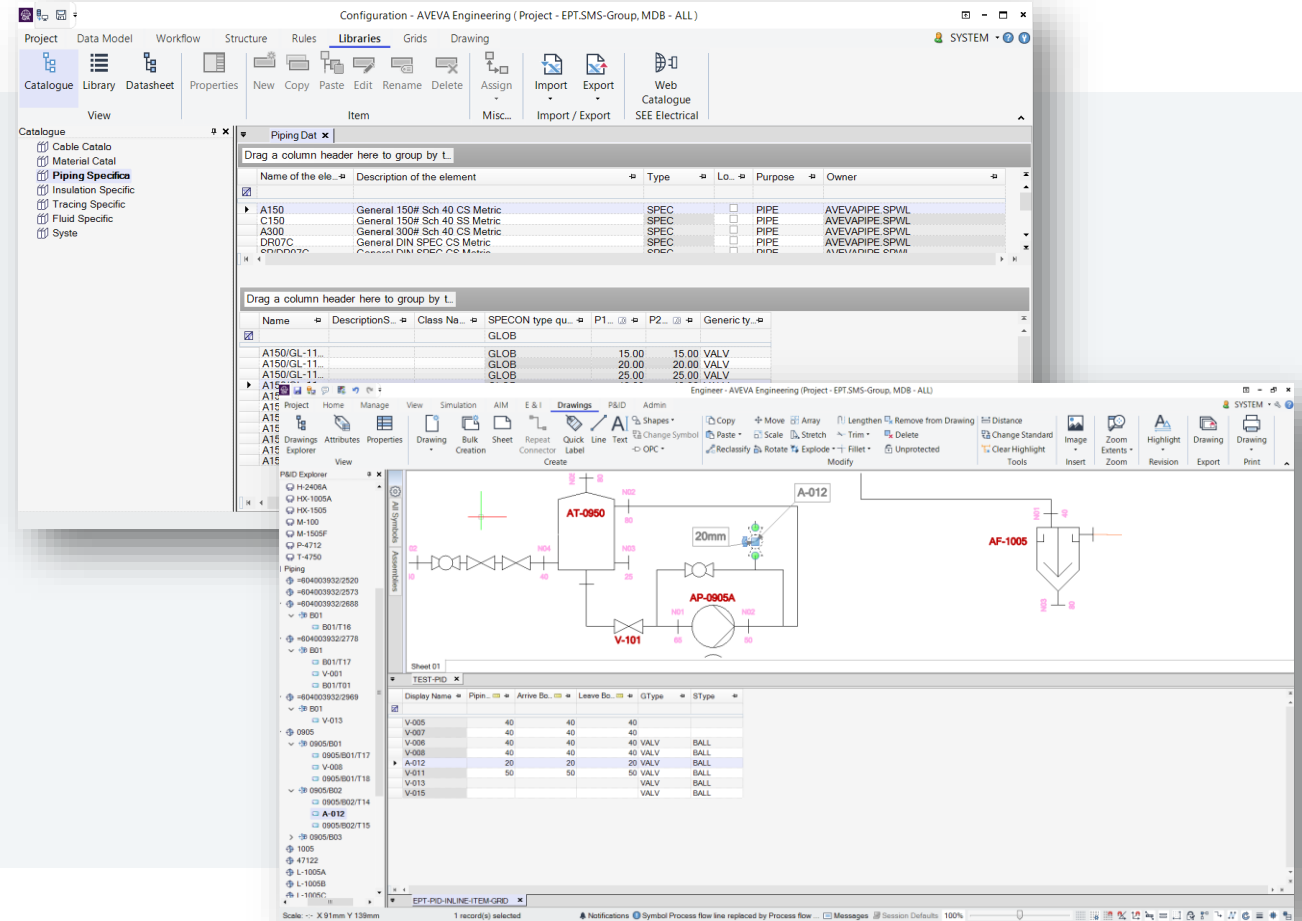
Pipe hierarchy control with data propagation across pipe characteristics and components

List assigned/unassigned design items

Standard CAD commands such as copy, paste, mirror, rotate, etc.

Plant breakdown structure (PBS), allows direct vision and configuration of design architecture

Automated design functions, reporting, and deliverables generation



Electrical and Instrumentation Disciplines

Functions and capabilities



Electrical and instrumentation disciplines

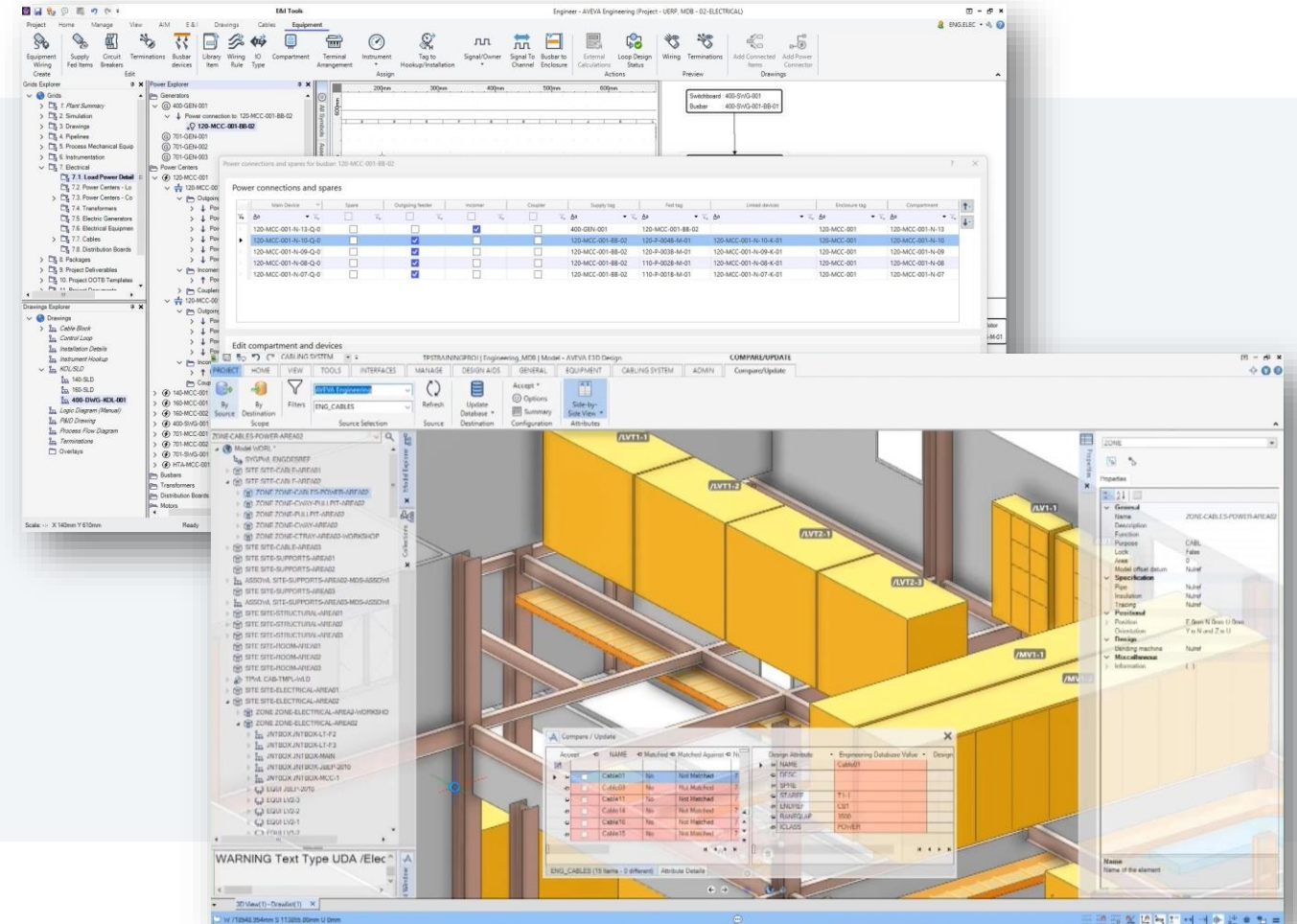
Create and manage high-quality electrical and instrumentation data and deliverables with multi-discipline teams

Out of the box model based on ISO 15926
Configurable electrical and instrumentation data model and class library

Single, common, data-centric design environment removes discipline barriers.

Intelligent schematics data managed concurrently with the 3D engineering data

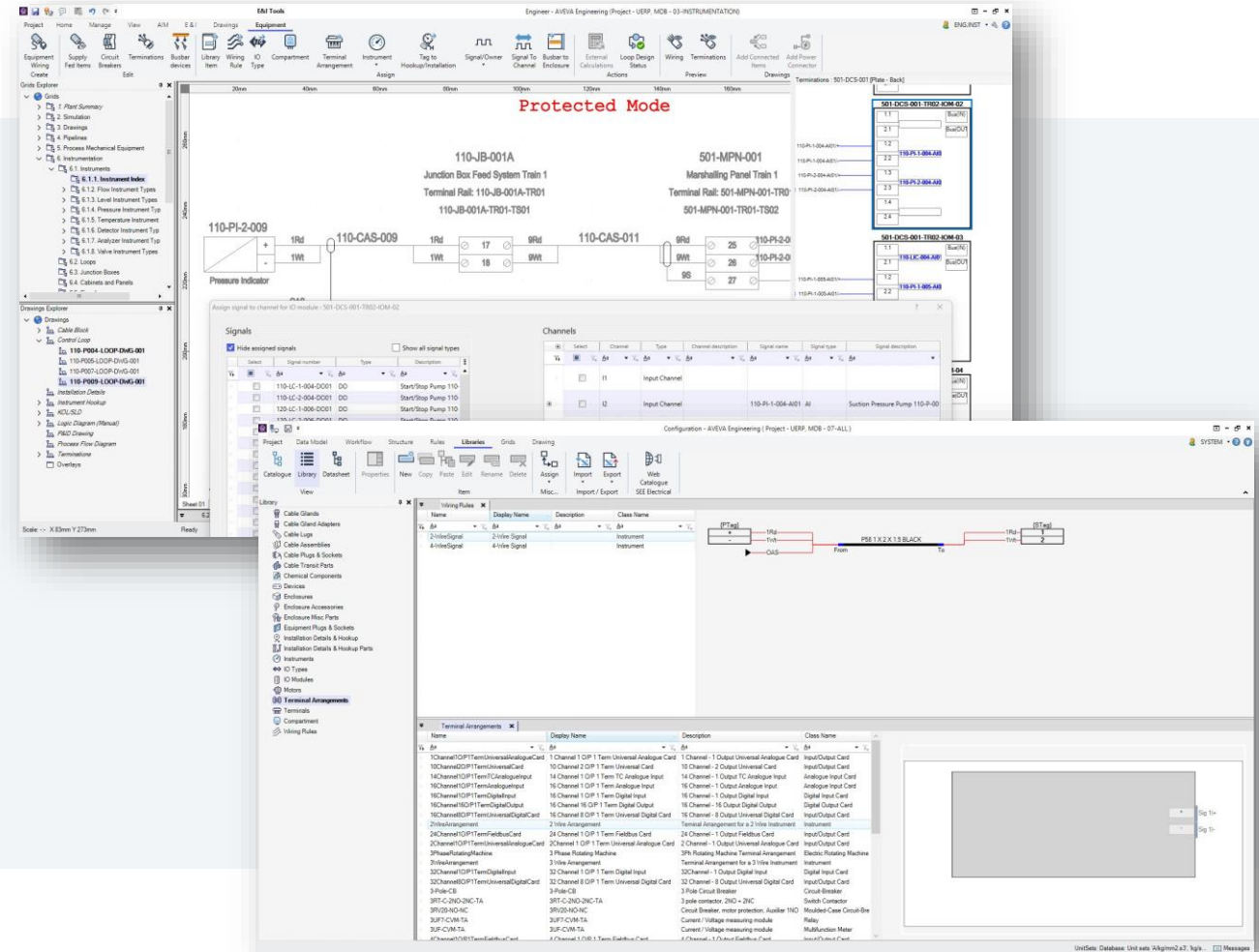
Schematic diagrams containing both electrical and instrumentation objects for the creation of complex deliverables



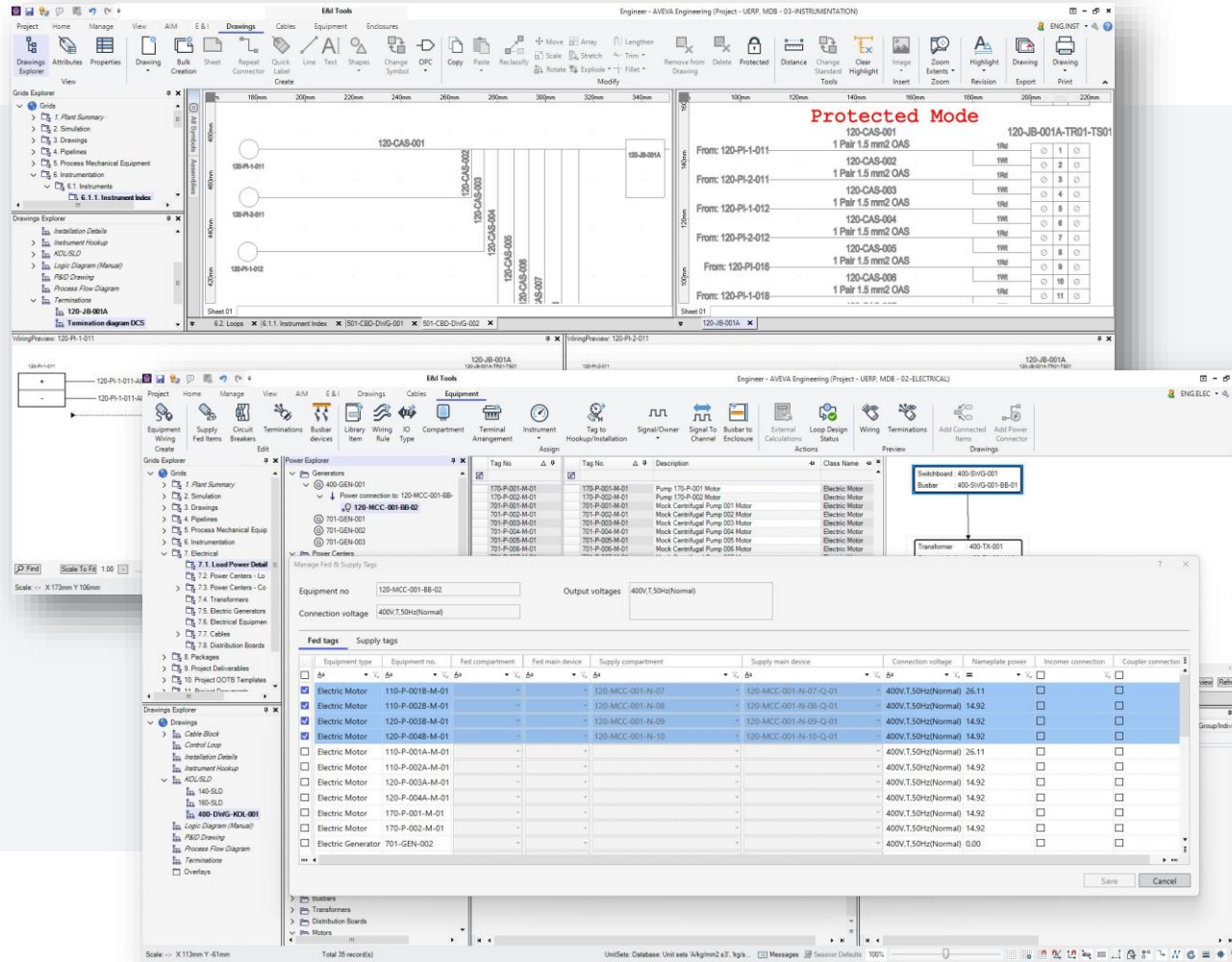
Creation and management of complex components across multi-dimension design

- Instrumentation datasheets and lists
- Loops
- Instruments
- Junction boxes (JB)
- Marshaling cabinets
- Motor control centers (MCC)
- Switchboards (SWBDS)
- Distribution boards (DB)
- Panels
- Loads
- Supplies
- Incomers
- Couplers
- Control systems – I/O modules and lists

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Electrical and instrumentation disciplines



Cable sizing to any design standard including using external calculations (e.g. via MS Excel)

Signal schematic creation on any electrical and instrumentation object

Signal (I/O) list can be generated across the entire project

Accurate design lengths, installation method, and cable layout used to perform cable sizing. 'Round-trip' design data for accurate cabling and design

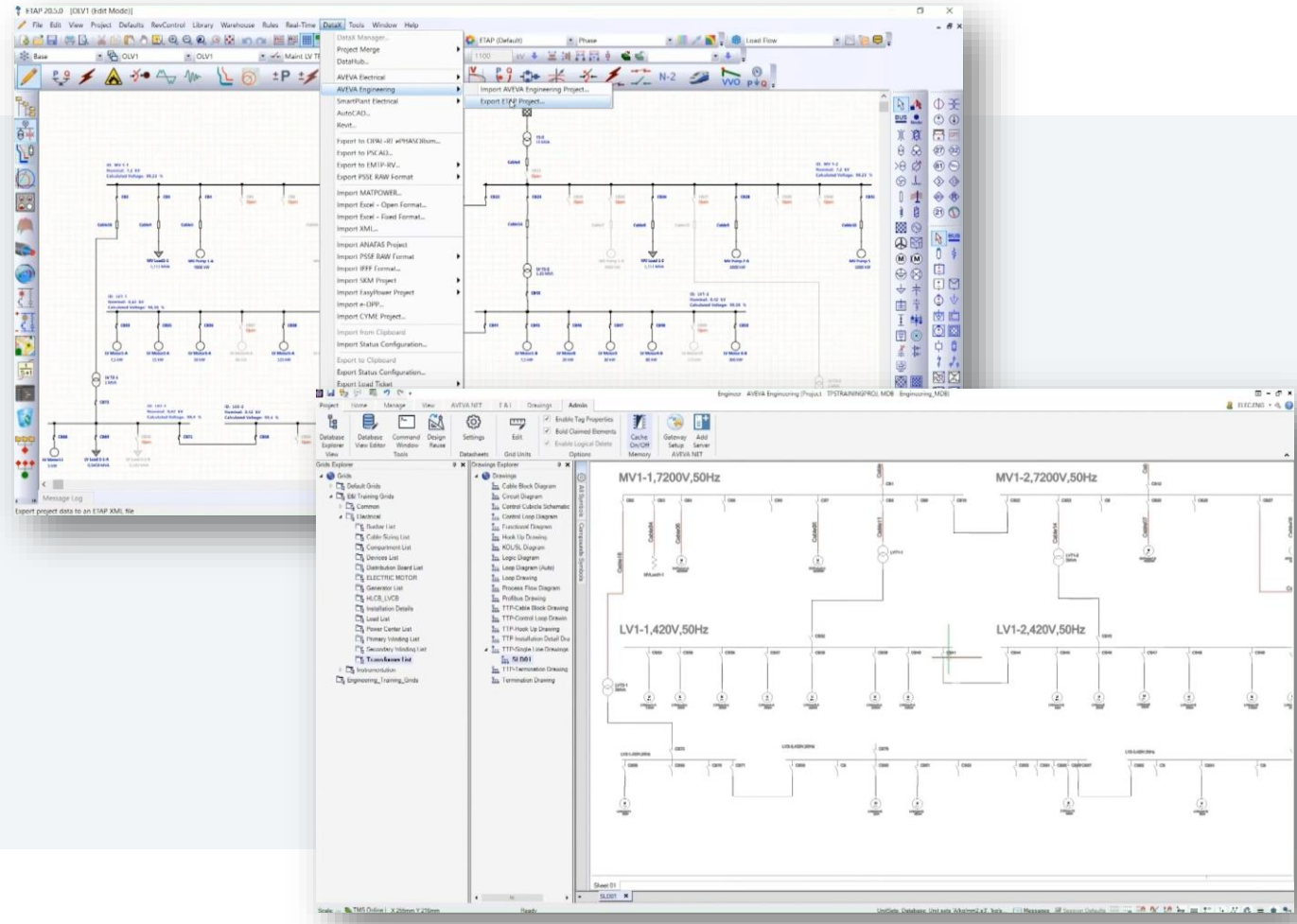
Load flow calculations with multiple facilities to create load schedules and DB reports

Electrical and instrumentation disciplines

Initiate projects in either AVEVA or ETAP tools
and move seamlessly between

ETAP integration

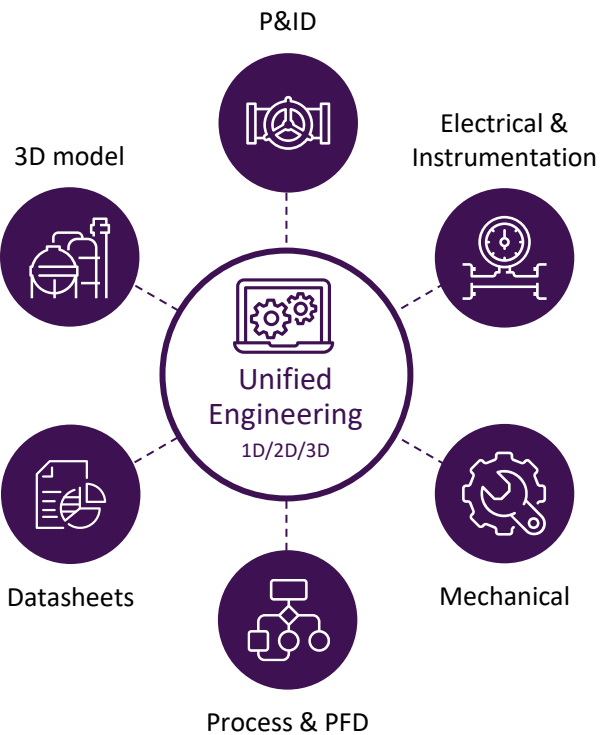
- SEE Electrical 3D Panel integration
- Network electrical analysis
- Cable sizing
- Certified Calculations
- eCatalogue access
- 2D panel layouts
- 3D panel layouts
- Wiring diagrams
- Internal panel wiring
- Management of cabinet compartments with typical layout creation / templatisation



Deployment of AVEVA™ Unified Engineering



Deployment of AVEVA™ Unified Engineering





Hybrid

Hybrid Cloud

Name Allocation Manager (NAM) and License as a Service (LaaS) hosted in CONNECT. Software and project data fully hosted by customer





Project Hybrid

Project Data Hybrid Cloud

Software installed on-prem, project data in the cloud using the CONNECT data service





Online

Online (Q4 2025)

All applications are accessible via online access. Fully Hosted SaaS.



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ABOUT AVEVA

AVEVA is a world leader in industrial software, providing engineering and operational solutions across multiple industries, including oil and gas, chemical, pharmaceutical, power and utilities, marine, renewables, and food and beverage. Our agnostic and open architecture helps organizations design, build, operate, maintain and optimize the complete lifecycle of complex industrial assets, from production plants and offshore platforms to manufactured consumer goods.

Over 20,000 enterprises in over 100 countries rely on AVEVA to help them deliver life's essentials: safe and reliable energy, food, medicines, infrastructure and more. By connecting people with trusted information and AI-enriched insights, AVEVA enables teams to engineer efficiently and optimize operations, driving growth and sustainability.

Named as one of the world's most innovative companies, AVEVA supports customers with open solutions and the expertise of more than 6,400 employees, 5,000 partners and 5,700 certified developers. The company is headquartered in Cambridge, UK.

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