DATASHEET

AVEVA™ P&ID and AVEVA™ Diagrams

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

AVEVA P&ID and AVEVA Diagrams give teams the tools they need to quickly build intelligent process schematics directly into a central project database, forming the foundation of a digital twin. With a single source of truth located in CONNECT, AVEVA's industrial intelligence platform, multidiscipline teams can easily collaborate and store information right in the cloud.

From small initiatives to large-scale engineering projects that involve thousands of diagrams for one single asset design, AVEVA customers have used these schematic tools for a diverse range of applications across all plant and marine sectors, including nuclear. Users can easily integrate piping and instrumentation diagrams and heating ventilation and air conditioning into the central project database, streamlining processes while ensuring accuracy.

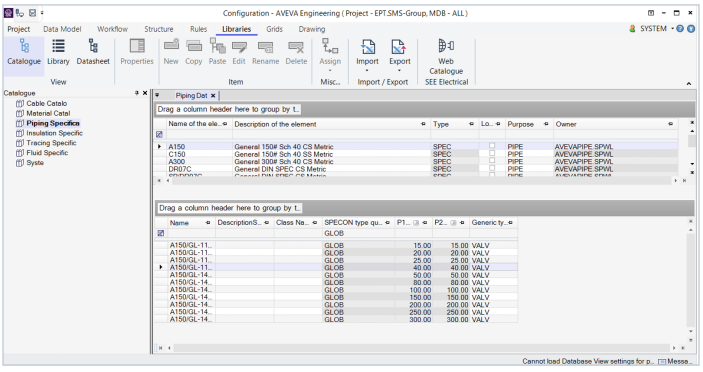
AVEVA P&ID and AVEVA Diagrams are available as a part of AVEVA™ Unified Engineering, AVEVA's comprehensive, 1D, 2D, and 3D engineering and design solution. By situating all engineering tools into a common tech stack, AVEVA Unified Engineering empowers teams to continuously build the foundation of the digital twin and seamlessly collaborate so they can track, demonstrate, and deliver better, more efficient project outcomes.

AVEVA

Rapid business benefits enable bottom-line results

- Create designs efficiently — and without worry
  - Simple, intuitive interface enables easy adoption
  - Teams can work from one dataset, reducing errors and version control issues
  - Advanced naming and formatting rules reduce the amount of effort needed to produce P&ID variants
  - Intelligent data is created automatically as the design is drafted
  - Quickly and easily bulk-modify existing data to save valuable time
  - Configurable, automatic error-checking reduces or even eliminates errors
- Simplify digital twin creation
  - Intelligent, data-centric tools
  - Share data on a common technology platform across all disciplines using AVEVA Unified Engineering
  - Enable continuous digital handover
  - Give engineers, designers, and all project stakeholders transparent insights into project status

Aker Carbon Capture used AVEVA Unified Engineering in the cloud to reduce the cost of medium-sized offerings by 90% compared to nine years ago.



Piping specification catalogues are directly integrated with the AVEVA Unified Engineering 3D design tools

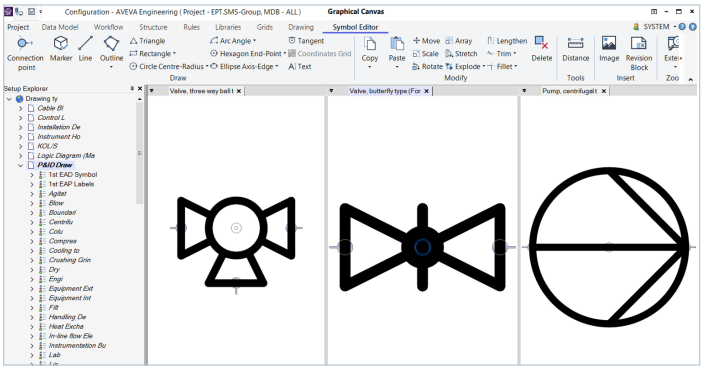
A simple, efficient, and customizable user experience

- Quick configuration and deployment configured and deployed
- Users have access to an intuitive graphical user interface that promotes easy adoption
- Import and upgrade legacy drawings, eliminating the need to redraft
- Copy and paste previously referenced project designs into new projects, saving time and reducing errors
- A “draw once” approach allows users to easily save, create templates of repeated design parts, and reinsert groups of data into created P&IDs, such as graphical assemblies, piping tags, assemblies, UDAs, and dataset assemblies
- Easy-to-use symbol editor allows users to create custom intelligent symbols and import and upgrade non-intelligent symbols to intelligent symbols
- Intelligent page connectors enable users to quickly navigate between created schematics
- Digital reporting utilities allow users to produce design and commissioning reports
- Users can also change the colors of multiple items within drawings based on P&ID attributes and automatically report fluid circulation information using valve and pipe data isolation
- Automated design functions, reporting, and deliverables allow users to generate and merge pipelines across sheets as well as define and create line, equipment, materials, and instrument lists
- Users can create diagrams against background drawings, such as general arrangement drawings

Learn how SBM Offshore leverages AVEVA Unified Engineering to digitize its engineering data and optimize FPSO production.

One single source of truth ensures accurate project data

- AVEVA Unified Engineering serves as a centralized, up-to-date information hub in the cloud, ensuring users have access to the most recent and accurate data
- Integrated checking functionality allows users to configure warnings based on various equipment groups, preserving data integrity while preventing inconsistencies and duplications
- Configurable, centralized project administration ensures consistent applications of project rules on a project-wide basis
- Specification-driven P&IDs allow users to utilize PML functions to filter specification data from AVEVA™ E3D Design, AVEVA's 3D design tool that is part of AVEVA Unified Engineering, and import the contents of that report, ensuring project quality and eliminating duplication
  - Configure and insert symbols based on piping specification
  - View the enforced list of valid bore diameters when inserting reducer symbols
- Users can save drawing revision documents at key stages, select and visually compare two different versions, and restore data to a previous version, preventing rework and ensuring documents are readily available for review
- A simplified approach to admin task management allows users to share tasks across engineering and design applications in AVEVA Unified Engineering



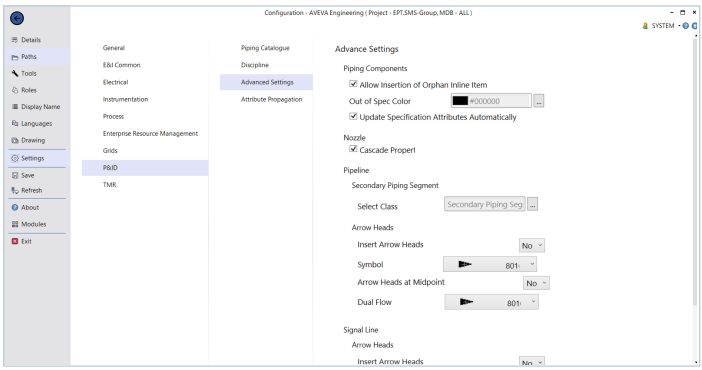
Symbols can be managed and configured with the inbuilt drawing DRAW graphic canvas

See how Yinson uses AVEVA Unified Engineering to increase maintenance efficiency and sustainability.

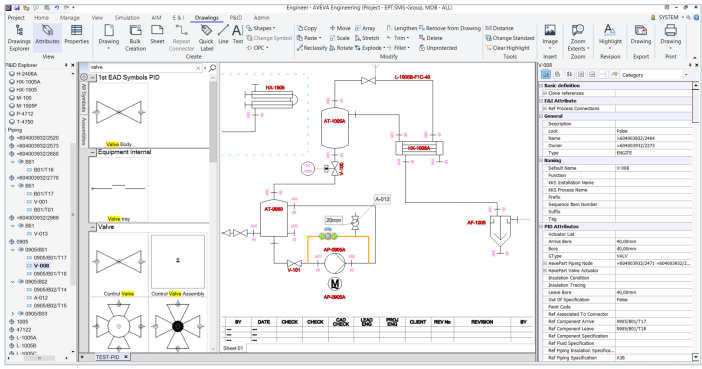
A centralized approach supports integration with key tools and industry standards

- A synchronized, integrated approach across disciplines and 1D, 2D, and 3D design dimensions
  - By centralizing project information into one single database, AVEVA Unified Engineering's integrated approach allows users to easily move between tools
  - Quickly comparing schematic data against the 3D model allows users to create and modify 3D components right from the P&IDs
- Easily import and export using DEXPI ISO 15926 standards
- Flexible project configuration allows users to leverage most industry naming standards, such as ISA, KKS, or PIP, and configure attributes such as line styles, layers, colors, and fonts
- A Microsoft Excel interface allows users to rapidly extract, bulk edit, and update values in Excel and then import those values on a project-wide or individual P&ID basis
  - Automatic validation identifies inconsistencies and prevents unauthorized edits
  - Changes are automatically highlighted when importing and exporting data
  - Properties, units, tag formats, and graphics can be set centrally and automatically updated in existing P&IDs
  - Multiple deliverable generation output formats such as MS Excel, CSV, DWG, and DNG

Learn how Veolia used AVEVA Unified Engineering to reduce tender response time from 24 days to 24 hours.



Advanced configuration settings are available for each project discipline



Detailed graphical environment including; P&ID explorer, symbol palettes, graphical canvas with highlight and zoom functions, and editable attribute window

Are you ready to deliver better, more efficient projects?
Talk to an AVEVA expert today.