

AVEVA™ Unified Engineering

Harness the power of the only truly data-centric 1D, 2D, 3D engineering and design tools.

AVEVA Unified Engineering is a multidisciplinary, data-centric engineering and design solution. Allowing your teams and contractors to work on the same data at the same time.

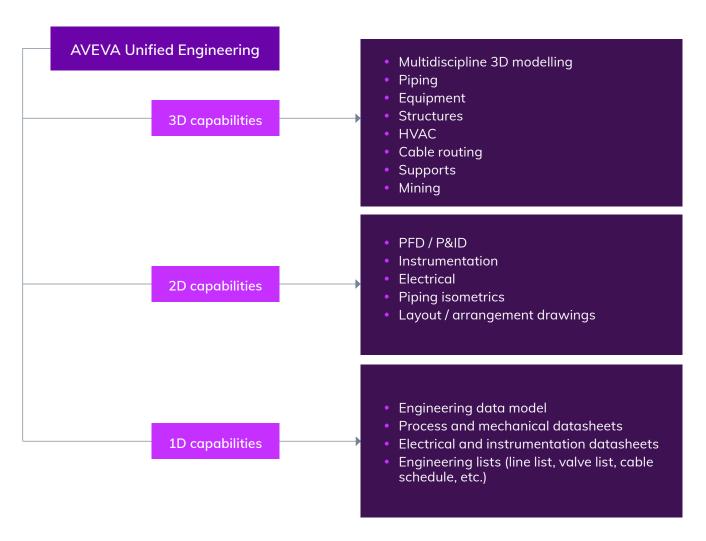
- Facilitate project transparency
- Build a bridge of digital communication between asset owners and their contractors
- Lay the foundation for an asset's digital twin
- Enable continuous digital handover
- Create contracting communities where organizations and users can bring their own software credits to work on a collaborative project
- Ensure project data validity and remove cross-discipline confusions



As per Gartner[®], "Business leaders want to better understand the value that software engineering teams are delivering. Software engineering leaders have an opportunity to translate engineering data into business insights."¹

AVEVA Unified Engineering overview

Utilizing cloud technology, AVEVA Unified Engineering allows you to easily unify your global project teams across disciplines, sites, regions, and organizations. AVEVA Unified Engineering centralizes the following solutions into a single technology stack:



¹Gartner, Top 5 Strategic Technology Trends in Software Engineering for 2024; by Joachim Herschmann, Manjunath Bhat, Frank O'Connor, Arun Batchu, Bill Blosen, 15 May 2024, GARTNER is a registered trademark and service mark of Gartner, Inc. and/or its affiliates in the U.S. and internationally and is used herein with permission. All rights reserved.



The only truly data-centric, 1D, 2D, 3D design tools



Truly collaborative multidiscipline design:

Have your engineering disciplines work in near real-time from the same data anywhere in the world. No more staged design document handovers and coordination bottlenecks. All engineering and design work across disciplines is done on the same data at the same time.



Deploy and grow fast:

AVEVA Unified Engineering is available to be deployed and licensed as SaaS through our industrial cloud platform CONNECT. Adopt, test and grow as the tools scale with no appreciable limit on project size or complexity.



Industrial AI tools:

Augment your project efficiency with a host of AI tools purpose-built for use in the engineering and design of complex capital projects, including; generative design AI, LLM design assistance, and predicative design.



Open and agnostic:

AVEVA Unified Engineering intakes data from any tool, including directly via interface, with number of 3rd-party tools.



Robust data:

Rigorous data sense checks, change management, and other fit-forpurpose tools developed from years of industry experience allow for more correct designs, faster.



Realize assets, not just documents:

Use data across project phases, bringing in AVEVA™ Process
Simulation data from concept into design, and then pushing forward design data from AVEVA Unified Engineering into procurement and construction with AVEVA™ Enterprise Resource Management.



Asset life cycle management (ALM):

ALM takes traditional product lifecycle management (PLM) solution capabilities, typically used in discrete industries and delivers them, fit-for-purpose to teams working on large capital projects. ALM is designed with capability for your asset's lifecycle; from concept to decommissioning.





"End users will have the ability to navigate seamlessly between all the information sets in a single, connected environment. They won't have to waste time figuring out which system they need to go to in order to access the information they need."

Kieth Tallent Global Services Manager, KBR

Create the foundation for a connected, living digital twin

By having all your project engineering and design data as a single, live database you lay the foundation for a complete digital asset. A true digital representation of the future physical installation allows you and your team to conduct continuous digital handover, rather than traditional discrete, document-based handover. Digital handover speeds up project completion and delivers a persistent, meaningful asset for use over the complete asset life cycle, rather than having design-stage documentation that is filed and forgotten.

Allowing your teams to evolve, to move past the intensive, manual process of document proofing and handover. Saving time and money, while also creating secure project transparency and cross-stakeholder communication.

Creating the basis for a digital twin with AVEVA Unified Engineering allows you to connect with the full AVEVA platform of industrial solutions, including operations software with predictive analytics, AI tools, and GHG tracking.

Flexible, efficient, scalable, and sustainable

Improve your project sustainability outcomes from the very beginning of the first concept of your project asset's lifetime. Drive project efficiency, reduce waste and risk, optimize schedules, automate deliverables, and reduce time on-site.

AVEVA Unified Engineering not only deploys quickly and efficiently across regions and disciplines, it also scales comfortably with project size. Templatize and re-use design work on similar projects, and intake and work with data directly from multiple third-party sources. Significantly reduce traditional software infrastructure requirements and administration costs for your teams.



Artificial Intelligence (AI)

AVEVA Unified Engineering has a host of inbuilt AI tools, designed to allow users to work more efficiently and effectively. Our AI tools augment user experience, assisting users to work smarter and faster.

Industrial AI assistant – AVEVA Proprietary cloud-based AI chat assistant

Talk directly to your engineering and design tools via Al to assist your teams with their project work. Soften the on-boarding process for new staff, and capture and propagate institutional knowledge throughout your organization.

Predictive design AI assistant – Train ML models using your own data

Easily create your own machine learning (ML) models that address your own bespoke challenges without the need for coding. Upload your data, determine your parameters, and train and test your own models to optimize your in-house processes.

Generative design AI assistant – In-built AI algorithms to build 3D models faster

Use AI to analyze design constraints and generate optimized layout options, for example pipe routing. Enabling faster, more informed decision-making, and ultimately more efficient designs ready for construction.

Intelligent Point Cloud Framework – Cloudbased AI classification of 3D laser scan data

AVEVA Unified Engineering automatically reads, imports, and displays point cloud data augmented with AI classification using AVEVATM Point Cloud Manager and our industrial cloud platform, CONNECT. The augmented point cloud data is available in context, directly alongside the projects' integrated engineering and design data.



Hear from our customers



Tecnicas Reunidas

creates its 3D plant designs in the cloud, which has enabled the company to create clashfree 3D models accessible by teams across the world, helping the company avoid rework and extra costs.

Read more



Aker Carbon Capture

uses AVEVA Unified Engineering in the cloud to create efficient and replicable designs for carbon capture units. The cloud-based software allows teams to collaborate across time zones, resulting in an increase in operational efficiency and a reduction in engineering hours.

Read more



Wood

CTO Darren Martin said, "Our vision, through working with AVEVA, is to design and build projects safer, more sustainably and faster, and ultimately reduce costs."

Read more

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