An introduction to the next generation P&ID environment

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An introduction to the next generation P&ID tool

Challenge

- Reduce Capital Expenditure
- Project efficiency and quality
- Increase efficiency and productivity
- Fast & efficient
- Mature FEED

Solution

- Next Generation P&ID powered by AVEVA™ Engineering on Unified Engineering will deliver a completely new user experience for P&ID drafting

Results

- Holistic Configurable Class hierarchy Conceptual model
- Multidisciplinary Engineering environment
- Embedded AVEVA DRAW graphic engine using underlying live data
- Data sustainability from Simulation to Functional and Detail design project lifecycle
Next generation P&ID discipline, finalizing AVEVA Engineering (R)evolution from siloed integrated discipline applications to a multi-disciplinary data centric holistic environment.
AVEVA Engineering (R)evolution - Multi Disciplinary Platform

Holistic Multi Discipline Class Hierarchy

Tag Manager

Efficient Control & Workflow

Draw Based Engine with Underlying Data

Configurable Templates, Borders, Symbols

Data driven, Dynamic & Parametric Symbols

Intelligent labelling and Dynamic tables
AVEVA Engineering (R)evolution - Multi Disciplinary Business Logic

- FEED Process
  - Mechanical
- AVEVA Process Simulation
  - Process cases
- Simulation item
  - Functional item
  - Engineering item
- Electrical
  - Cable sizing with ETAP
- Instrumentation
  - IGE+XAO Panel Design
- E3D Design
  - Pipe Specification
- PFD & P&ID

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What is AVEVA Engineering Next Generation P&ID?

- An efficient Multi-disciplinary Engineering Environment
- A User-friendly Draw embedded graphic canvas
- A new Data driven Engineering holistic environment
- A best-in-Class Project lifecycle workflow
What is AVEVA Engineering Next Generation P&ID?

An efficient Multi disciplinary with A User-friendly Draw embedded graphic canvas

- Configurable Class Model & Connectivity data propagation
- Free drafting to Spec Driven management
- Advanced Impact analytics
- Intelligent labelling & dynamic table
- Data Driven & flow sensitive Symbols
- Design, Formatting & Consistency rules
- Symbols
What is AVEVA Engineering Next Generation P&ID?

A Best-in-class project lifecycle workflow for data sharing and integrity
What is AVEVA Engineering Next Generation P&ID?

An efficient Multi-disciplinary Engineering Environment
- Project creation with Library content reference and Engineering facilities
- Drawing, Typicals & Patterns configuration
- Pipe Specification configuration with E3D integration facilities
- Configurable Class Model & Connectivity data propagation

A User-friendly Draw embedded graphic canvas
- Easy and fast free drafting environment with Standard CAD commands.
- Advanced UI with PBS, Ribbon bar, Powerwheel, unassigned items & item list facilities
- Symbols and assemblies auto-orientation and flow sensitive

A new Data driven Engineering holistic environment
- Multidisciplinary underlying up to date information
- Data driven symbols & lines style
- Intelligent labelling & Dynamic Tables
- User Define rules
- For Consistency and Formatting rules
- For Data propagation

A best-in-Class Project lifecycle workflow
- Multi disciplinary holistic environment
- Process simulation, PFD to P&ID data & E3D Data propagation
- Instrumentation graphical definition & association
- DEXPI Legacy data migration

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Unified Engineering
2023/24 Projected Feature Delivery

Unified Engineering 1.0 (incl. E3D Design 4.0.0)
- E3D Design: Spectrum enabled
- 64-bit
- Structures: Bent Plate
- Draw: Intelligent Tables
- Draw: AVEVA Whitespace Optimizer support
- Draw: Single Line Representation
- Piping: PCF interface
- Piping: AVEVA Process Simulation Export Interface
- Inclusion of Pointcloud Manager 23.1
- MultiCAD Import: Support for new CAD format versions
- BuildingSmart IFC certified 2x3 Export

Unified Engineering 2.0
- Structures: Analysis Interface
- Mining: Conveyor Improvements
- HVAC Redesign (for production)
- MultiCAD Import: Support for new CAD format versions

Unified Engineering 3.0
- Browser Access Option
- Communities/Data Sharing X-Account Permissions
- Isometrics: Draw based deliverable
- Piping: Sub-components
- Piping: Improved P&ID design integration
- Piping & Structures: Auto-Generative Design
- Inclusion of Pointcloud Manager x.x
- Engineering: Spectrum enabled
- Engineering: E&I On Dabacon Updates
- Engineering: Next Gen P&ID

Lighthouse Customer Program
- Q2 2024
- On-Prem
- 4-6 weeks max for 10-15 customers
- AVEVA Engineering workflows evaluation (all disciplines in relation with P&ID)

Roadmap based upon current requirement understanding and feature scope.
Please note delivery targets are subject to PO/Stakeholder verification of feature and passing of quality gateways.
Questions?
Please wait for the microphone.
State your name and company.

Please remember to...
Navigate to this session in the mobile app to complete the survey.

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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.

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