OCT 18 2021

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Simulation & Learning Americas Advisory Board

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Meet the team

AVEVA Unified Learning



Andrea Macri

Pipeline Simulation



Alexander Troxell

AVEVA Dynamic Simulation



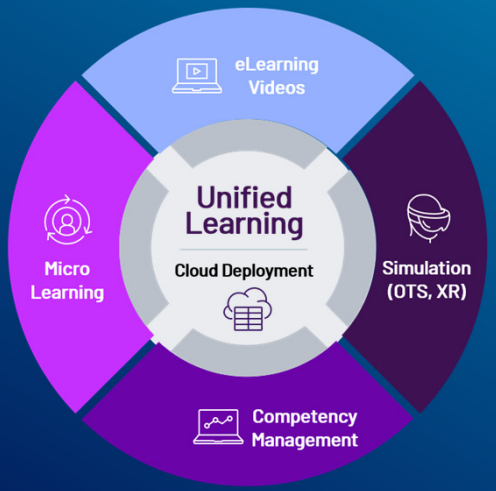
Andrea Macri

AVEVA Control Emulation



Janet Parker

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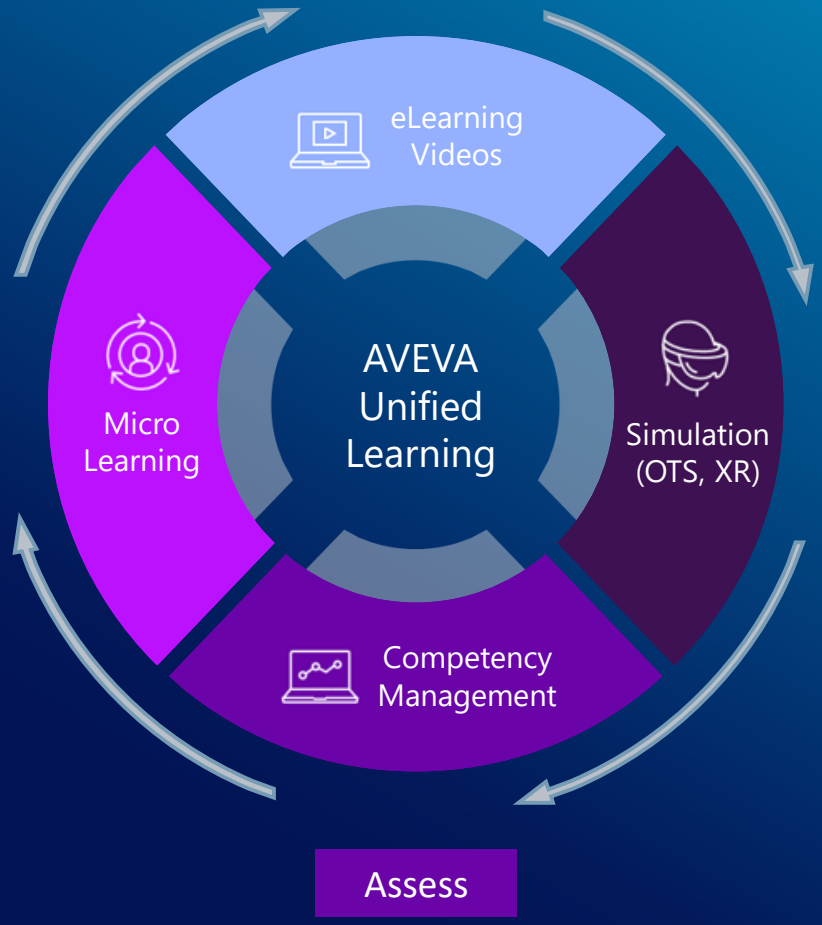
Cloud-First integrated and scalable platform for the deployment and management of industrial experiential training programs



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AVEVA Unified Learning

https://www.aveva.com/en/products/unified-learning/



LEARN

Targeted training content to build KNOWLEDGE

PRACTICE

Simulation and XR to allow people to EXPERIENCE risk situations and practice in safe environment

ASSESS

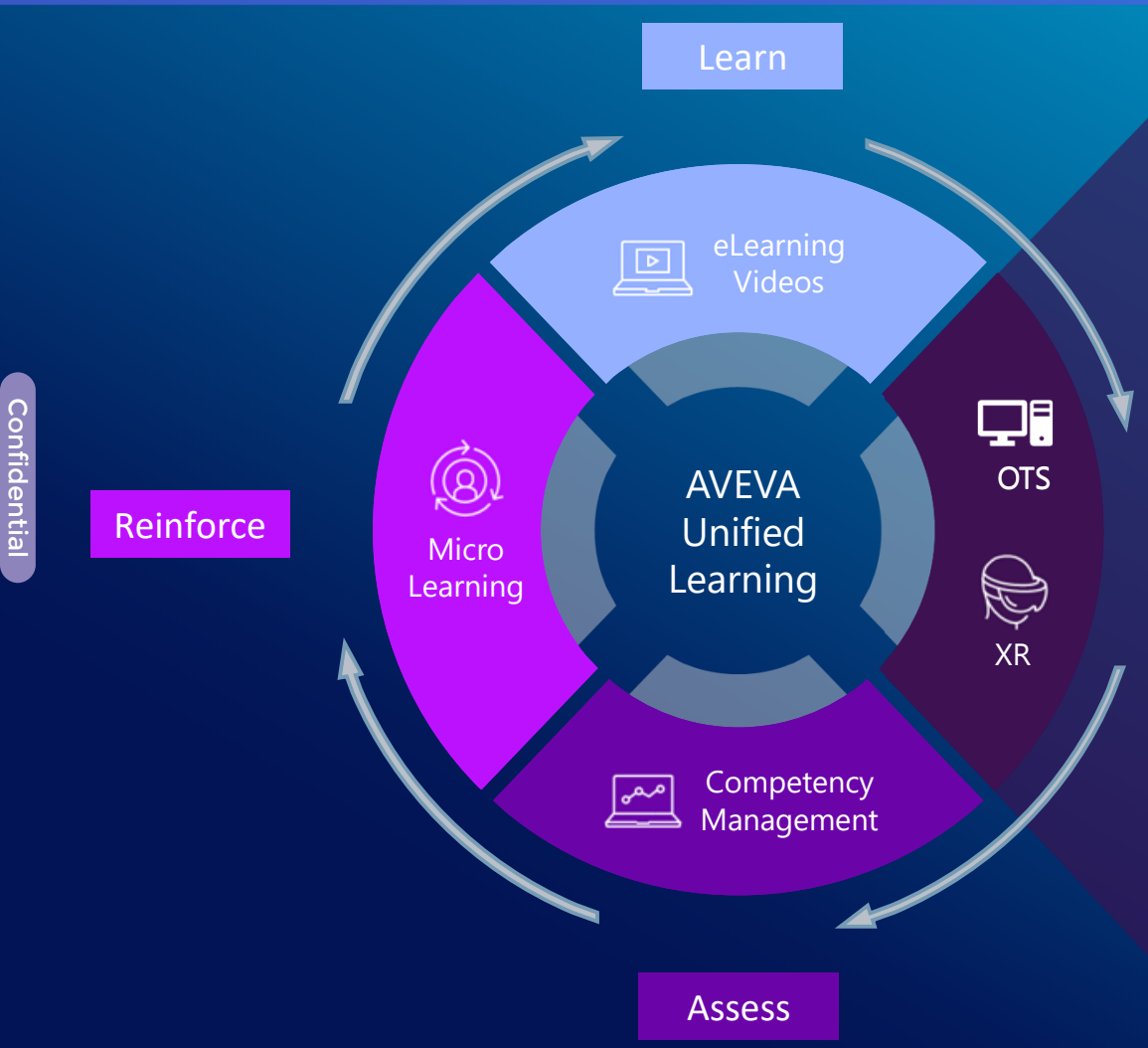
Built-in asessments managed by LMS to ensure competency

REINFORCE

AI infused micro-learning reinforcement sessions to ingrain safe practeces and esure knowledge retainment

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AVEVA Unified Learning vs Operator Training Simulator





Operator Training Simulator is only part of the solution

Cloud ONLY

On-Premise ONLY

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AVEVA Unified Learning - Value Proposition

42%
Unscheduled downtime due to operator error

Challenges

Learning is the key

Challenges	AVEVA Unified Learning
Knowledge gap Shifting workforce Lack of key skills	**Experiential learning** Learn by doing with simulator activities (OTS and XR)
Inconsistent results Ineffective training	**Consistent results** Standard training material Learning Management System
Deployment Extensive hardware Resource intensive	**Cloud based** Huge saving in IT maintenance No hardware footprint

7x	50%	40-60%	50%	20-40%	15-20%
Increase in knowledge retention	Training Cost reduction	Reduction in learning time	Boost in productivity	Less impact of human error	Reduction in shutdown recovery time

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The 4 "A"s of AVEVA Unified Learning

ACCESSIBILITY

Any user can access the training, from anywhere in the world, at any time

AVAILABILITY

Training on the cloud is always ready, on demand, whenever required



APPLICABILITY

Specific, customized training can be offered more easily for users at different levels

AFFORDABILITY

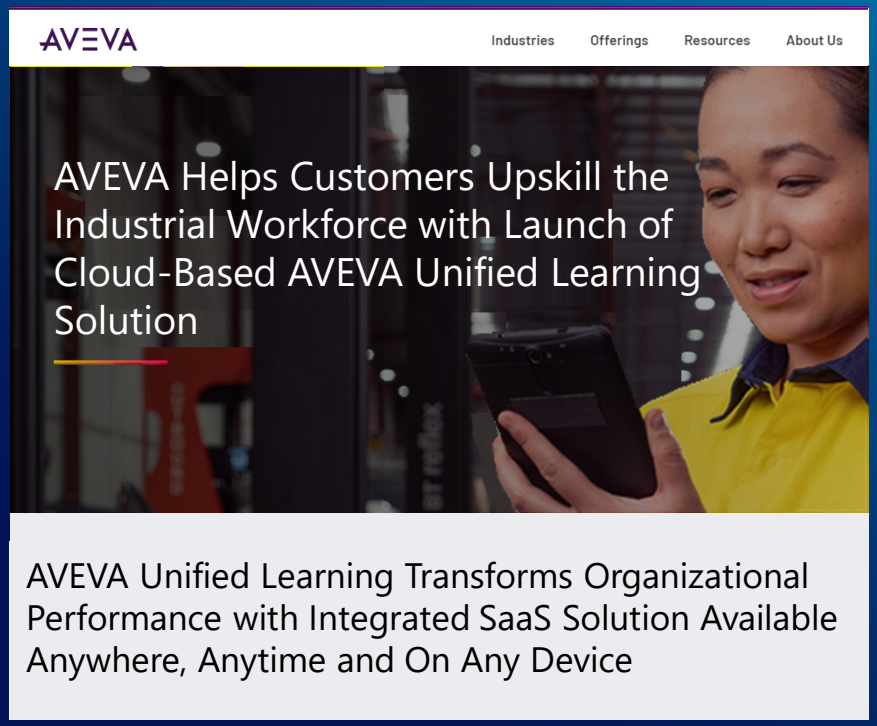
Less equipment , no travel expenses, scale up and down with pay-as-you-go options

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Press Release https://www.aveva.com/en/about/news/press-releases/2021/aveva-helps-customers-upskill-the-industrial-workforce-with-launch-of-cloud-based-aveva-unified-learning-solution/



AVEVA Unified Learning Transforms Organizational Performance with Integrated SaaS Solution Available Anywhere, Anytime and On Any Device



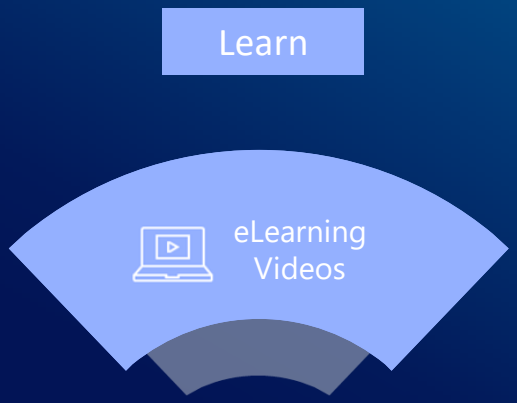
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LEARN - eLearning videos and exercises

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Acquire knowledge through targeted eLearning and video content on process understanding, relevant procedures, policies and references.

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PRACTICE – Generic and custom experiential learning

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Practice

Learn by doing with simulator activities (OTS and XR) and repetition on operating procedures, abnormal conditions, start-up, shutdown and more.

Master fundamentals with generic content

- Process Competency Training
- Pipeline Competency Training
- Generic XR for training

Improve operations and safety by training on customized solutions

- Custom emulated or stimulated OTS
- Custom XR for training

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Process Competency Training

Ready-made simulation-based courses for industrial processes

CLOUD BASED



SELF-PACED OR INSTRUCTOR-LED



BUILT-IN ASSESSMENTS



AVAILABLE ON-DEMAND

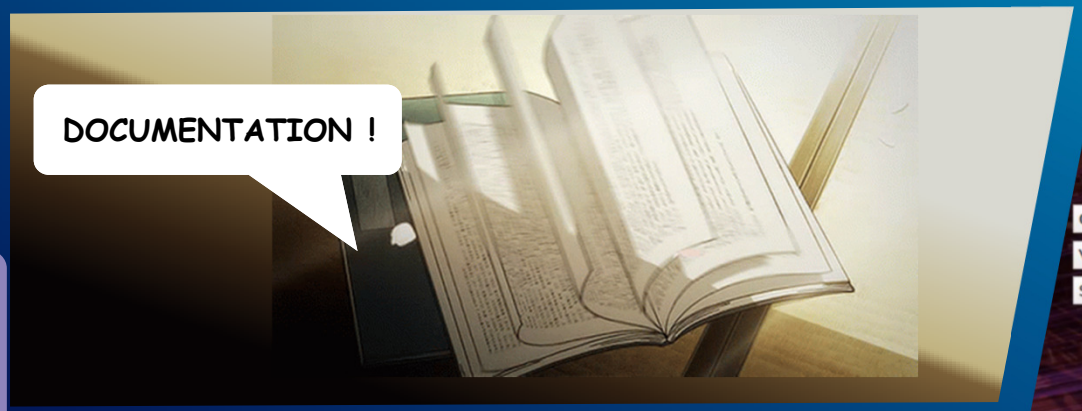


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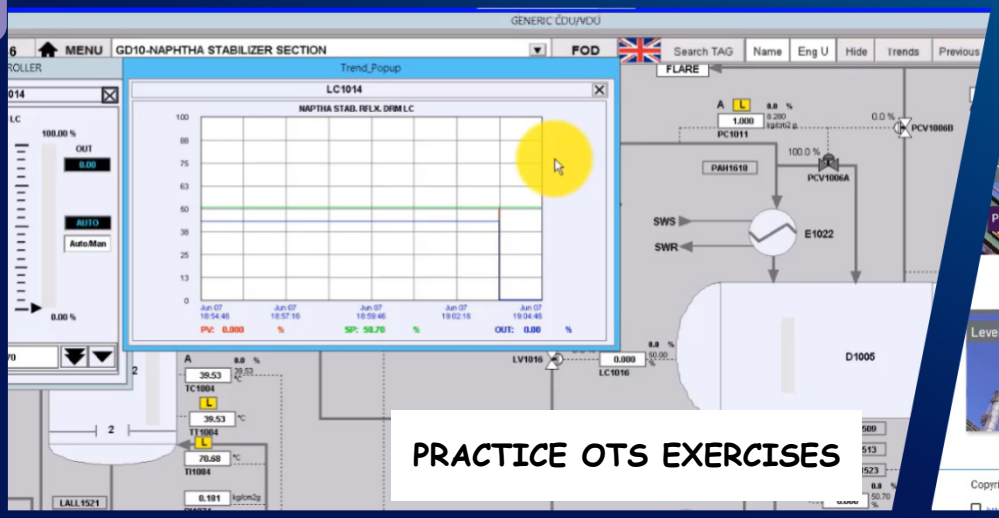
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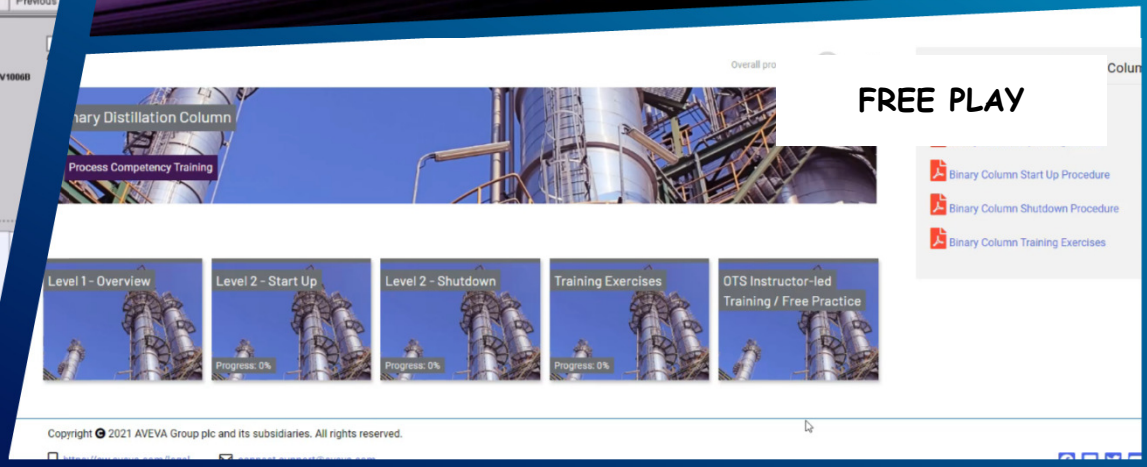
Process Competency Training

Everything you need in one container









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Process Competency Training

Progressive learning for all levels



Level 3 Expert

- Malfunctions
- Troubleshooting

Level 2 Advanced

- Start-up procedure
- Process optimization
- Changes in external parameters
- Shutdown procedure

Level 1 Beginner

- Process overview
- Control overview

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Roadmap

Available Now



1. Crude Distillation Unit / Vacuum Distillation Unit
2. Delayed Coker Unit
3. Naphtha Hydrotreater / Continuous Catalytic Reformer Unit
4. Sulphur Management Unit
5. Diesel Hydrotreater Unit
6. Fluidized Catalytic Cracking Unit
7. Binary Distillation Column
8. Combined Cycle Power Plant

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Roadmap

Coming Soon (FY2022)



9. Ammonia Unit (coming soon)
10. Hydrocracking Unit (coming soon)
11. Generic Copper Concentrator (coming soon)
12. Multi-stream Distillation Column
13. Hydrogen Plant

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Roadmap

Coming Next (FY2023)



14. Forced Draft Furnace
15. Centrifugal Compressor
16. Reciprocating Compressor
17. Generic Boiler Drum
18. Ultra Super Critical Power Plant
19. Circulated Fluidized Bed Boiler Power Plant
20. Auxiliary Boiler
21. LNG modules

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Pipeline Competency Training

Crude Pipeline System







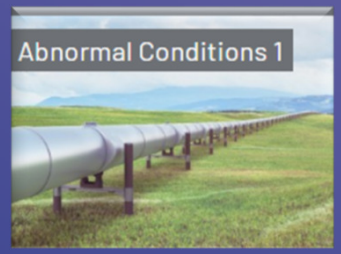


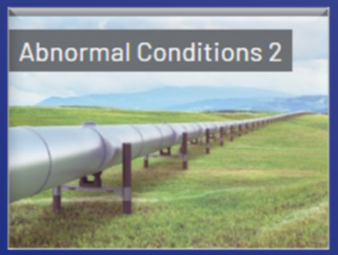
This course contains exercises on a pre-configured 300-mile crude pipeline that cover normal and abnormal operating conditions.

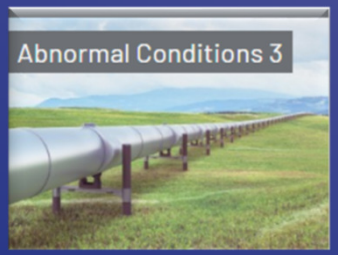
10 hours to complete.













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Pipeline Competency Training

Refined Products Pipeline System







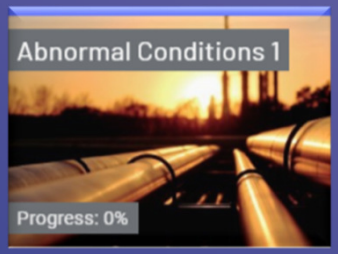


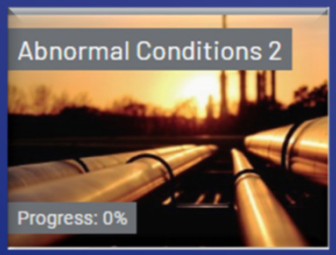
This course contains exercises on a pre-configured 300-mile refined products pipeline that cover normal and abnormal operating conditions.

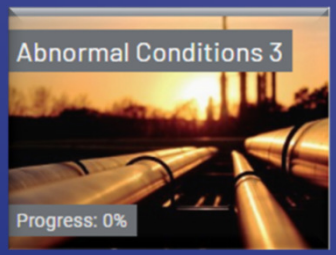
10 hours to complete.

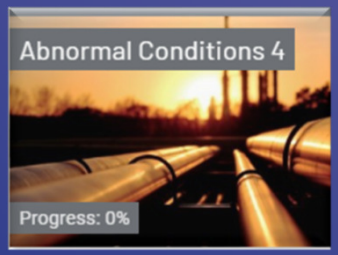












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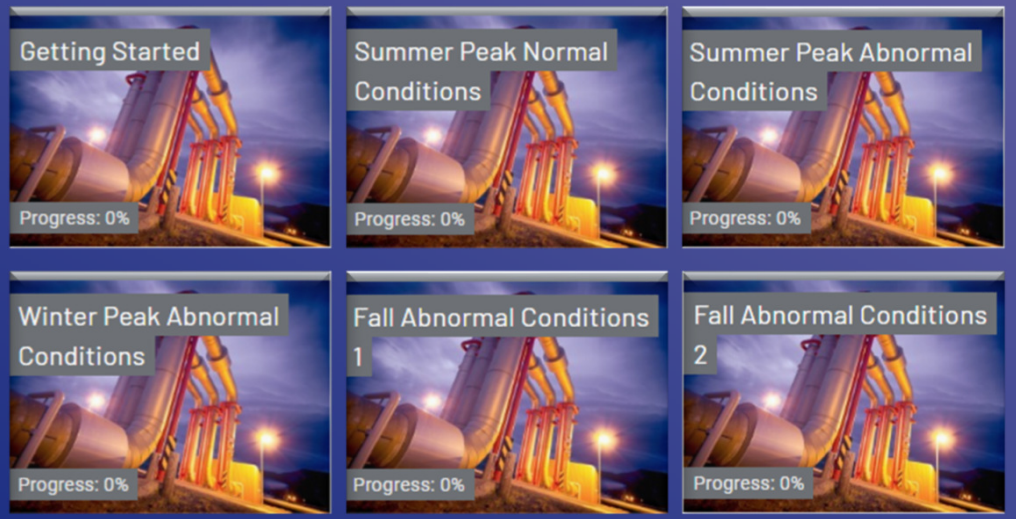
Pipeline Competency Training

Natural Gas Pipeline System



This course contains exercises on a pre-configured 200-mile natural gas pipeline network that cover normal and abnormal operating conditions.

7 hours to complete.



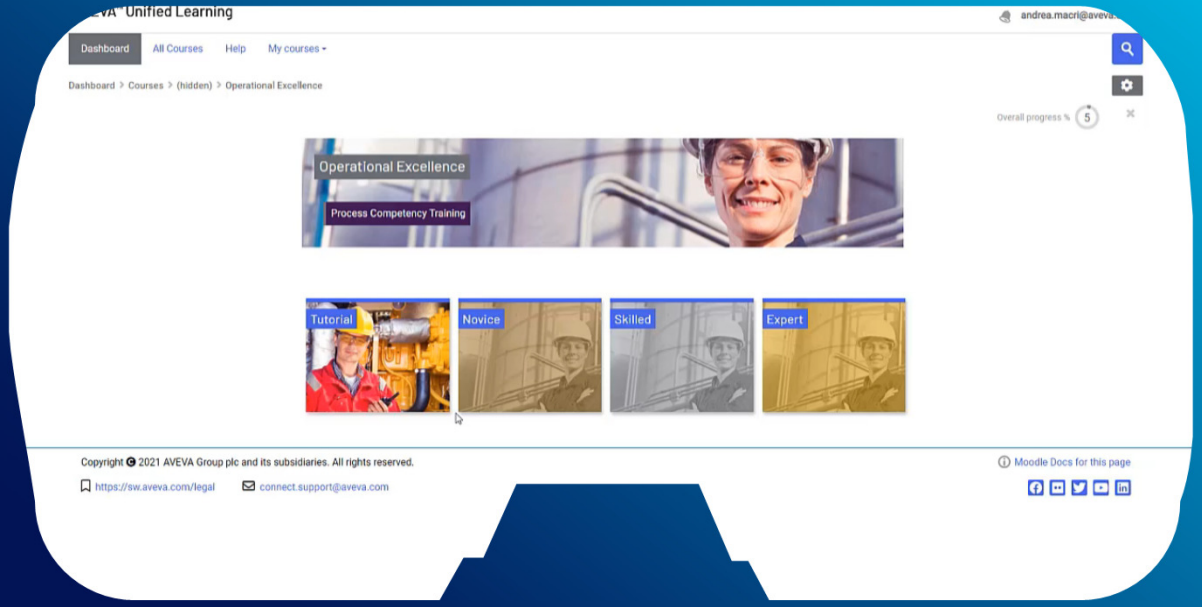
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Generic XR content

XR-based simulation drives excellence for operators

The AVEVA XR system takes a behavioral approach, in which operators can be trained and evaluated on decision-making and real-time choices when faced with unexpected or infrequent situations in the simulated plant.





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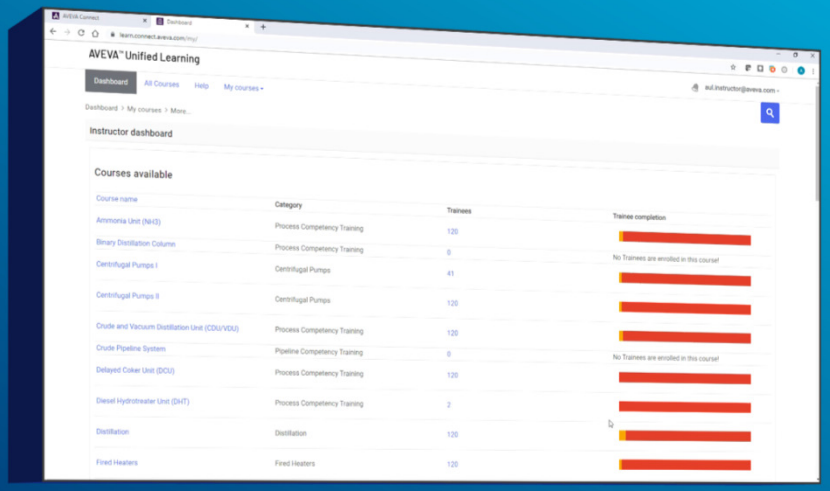
ASSESS – Learning Management System

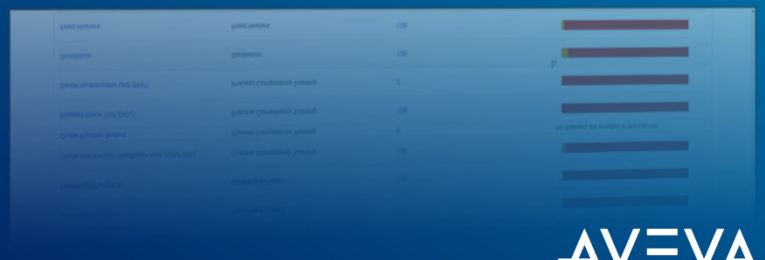
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Assess

Integrated evaluations score procedural compliance, execution quality, operations time goals and knowledge retention, all within an easy-to-use learning management interface.





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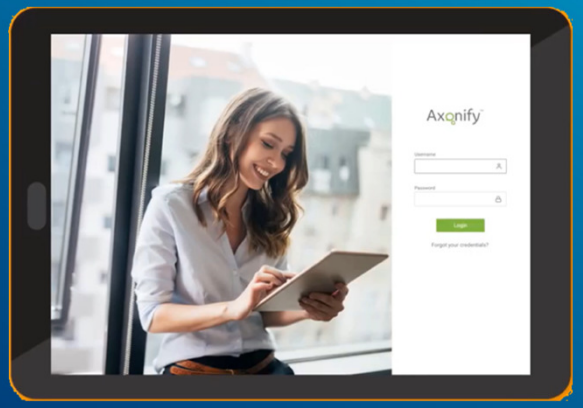
REINFORCE – AI infused micro-learning

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Sustain competence and drive behavior change with short, frequent reinforcement sessions that fit into the daily workflow

Axonify™



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Roadmap

On Development



- Single-box ITS (OTS + XR)
- Multiple HMI screens in one operator station as browser tabs
- Multiple Operator Workstations for stimulated OTS
- Option to route user to closest data center
- OTS instructor-led training with multiple trainees
- Instructor station for pipeline trainer

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Roadmap

Coming Soon



- Integrate Learning Monitoring Tool with LMS
- Ability for the user to configure training exercises in the LMS
- Capability for admin to add, update and manage content
- Improve usage report
- Scheduler for launching OTS sessions at a given time
- Allow instructors to enter grade for instructor-led training
- Ability to link to external LMS systems
- Reduce OTS application loading time

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Roadmap

Coming Next



- Multi-box ITS (OTS + XR)
- Link training activities to competency plan
- Improve enrolment mechanisms
- Wonderware Historian for stimulated OTS with SE Controls
- Allow control check-out capability for stimulated OTS
- Tighter integration with Axonify for micro-learning
- Unified Learning platform to support multiple languages

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Roadmap

Under Consideration



- Unified Simulation to Unified Learning integration
- Stimulated OTS with control systems other than SE
- ETAP as simulation for delivering electrical learning modules
- QR code for Field Operators
- Integration with AVEVA Teamwork for connected worker
- Option to publish certificates on LinkedIn

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AVEVA is a global leader in industrial software, driving digital transformation and sustainability. By connecting the power of information and artificial intelligence with human insight, AVEVA enables teams to use their data to unlock new value. We call this Performance Intelligence. AVEVA's comprehensive portfolio enables more than 20,000 industrial enterprises to engineer smarter, operate better and drive sustainable efficiency. AVEVA supports customers through a trusted ecosystem that includes 5,500 partners and 5,700 certified developers around the world. The company is headquartered in Cambridge, UK, with over 6,500 employees and 90 offices in over 40 countries.

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