COMOS Walkinside Immersive Training Simulator

Agenda

- Company Introduction
- Why 3D Visualization?
- What is COMOS Walkinside?
- 3D Visualization for Field Operator Training
- Customer Reference
- Conclusion
Siemens AG
Organizational setup

Energy
- Fossil Power Generation
- Wind Power
- Solar & Hydro
- Oil & Gas
- Energy Service
- Power Transmission

Healthcare
- Imaging & Therapy Systems
- Clinical Products
- Diagnostics
- Customer Solutions

Industry
- Industry Automation
- Drive Technologies
- Customer Services

Infrastructure & Cities
- Rail Systems
- Mobility and Logistics
- Low and Medium Voltage
- Smart Grid
- Building Technologies
- OSRAM 1)

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1) In fiscal 2011, Siemens announced its intention to publicly list OSRAM and, as an anchor shareholder, to hold a minority stake in OSRAM AG over the long term.
COMOS Industry Solutions stands for comprehensive software solutions aimed at increasing productivity and innovation in the process industry.
COMOS – Making data work.
Data consistency through globally unique object orientation

End-to-end data flow over the entire lifecycle
- All data related to the same component forms a unit – an object
- Modified object specifications are stored in a central, reliable and consistent database

Resulting advantages
- Integrated and consistent plant management
- Optimized engineering processes
- Reduced data complexity
- Shorter process cycle times
- Close interaction between engineering and operation
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Why 3D Visualization?
Process plant 3D visualization

- Reduce engineering costs
- More effective communication with stakeholders
- Immersive Training to improve operator readiness
- Reduce operational costs
- Improve HSE by using Immersive Training
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What is COMOS Walkinside?

3D Virtual Reality software for real-time visualization of massive process plant 3D models

Engineering Reviews & Presentations

Immersive Training for operators

3D asset portal
What is COMOS Walkinside?

- Easy-to-Use: Game-like navigation
- Fluid navigation & rendering of massive 3D models
- 3D model intelligence
- COMOS Integration
- Add-on Modules: 3D Stereo, CFD Flacs, OSIsoft PI, OPC Server, Immersive Training Simulator
What is COMOS Walkinside?
3D visualization for projects

- PR – Customer presentations
- Internal Design Reviews
- External Design Reviews with customers
- Sharing 3D model with customers
- Use 3D Model during construction & commissioning
What is COMOS Walkinside?
Support for virtual reality hardware

3D stereo in virtual reality auditorium or with LCD screens / projectors

Head Mounted Device support (Sensics)

Game Pad controller
What is COMOS Walkinside?  
3D visualization for operations

- Visualize maintenance data and other plant information (Inspection, Real-Time DCS, ...)
- Access up-to-date engineering data in COMOS
- Use 3D model to prepare work in the plant
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3D Visualization for Field Operator Training
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Training familiarization

Standard Operating Procedures (SOP) training

HSE incident training
3D Visualization for Field Operator Training
COMOS Walkinside Immersive Training Simulator – USP’s

Massive 3D model support for plant specific training

Customer prepares training content

Automation 3D model preparation
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“TOTAL has deployed a 3D Immersive Training Simulator for the Pazflor FPSO in Angola”
Customer Reference
Total Pazflor ITS Project

• Dedicated ITS training room at Total E&P Training Center in Luanda (Angola)

• Installation and first ITS training course in January 2011

Setup:
• 1 Instructor station
• 5 Trainee stations + spare
• Dedicated LAN network
Customer Reference
Total Pazflor ITS Project

- First Total ITS training room instructor participated during the 3D model validation, FAT and SAT
- Second ITS training room instructor was trained in Angola
- ITS training scenarios were developed by ITS instructors
  - Average one day for Field Operators to get familiar with the ITS software
Customer Reference
Total Pazflor ITS Project

- 24 Field Operators trained on the ITS
- ITS training replaced onsite visits and training for Field Operators in the shipyard
- Field Operators spent 5 weeks on the ITS training system as part of their training.

Benefits:

- Operators were familiar with the FPSO when they went offshore first time.
- They could immediately focus on their work to prepare the startup instead of losing time finding their way around the FPSO.
- The 3D model is still used onboard the FPSO, e.g. to locate valves
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Conclusion
Conclusion

1. The 3D engineering CAD model has become an asset for Owner-Operators.

2. COMOS and COMOS Walkinside can be used throughout the complete plant lifecycle by EPC’s and Owner-Operators.

3. COMOS Walkinside’s ease-of-use makes it suitable for use by non-CAD experts such as project engineers, maintenance staff, field operators, etc.

4. The COMOS Walkinside Immersive Training Simulator allows to train Field Personnel in an efficient way, contributing to faster start-up of the new facility.

5. COMOS Walkinside is the best-in-class 3D VR software for process plants.
Contact

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