VERTECHS

XRSIM

XRSim Training Platform

The oil and gas sector is defined by highly complex systems and tightly coupled workflows, where even minor errors in judgment can trigger cascading safety risks. As operations accelerate and teams become increasingly globalized, traditional methods – drawings, in-person meetings, and linear communication – struggle to keep pace.

The industry faces three persistent challenges: delayed decision-making during emergency response; inefficient cross-regional collaboration through video conferencing and static documents; limited knowledge retention and transfer, making systematic training difficult.

From onboarding and skill development to cross-disciplinary decision-making among senior experts, the industry urgently needs a new foundation for immersive collaboration – one that integrates training, scenario replication, and real-time teamwork.

To address these challenges, Vertechs has launched the XRSim Training Platform, combining mixed reality, advanced graphics engines, and artificial intelligence.

XRSim is not just an immersive training tool; it is a platform for cross-regional, multi-role collaboration – transforming virtual space into the most reliable digital operations site.

ADVANTAGES

- Enhanced Local & Remote Collaboration

  XRSim enables multiple users, regardless of location, to enter the same virtual workspace in real time. Teams can view, manipulate, and annotate 3D system models collaboratively, enabling immersive shared understanding and task rehearsal that significantly improves decision-making speed and accuracy.

- Zero-Risk Simulation Training

  High-risk scenarios such as blowouts, toxic gas leaks, or heavy equipment failures can be safely simulated. Employees can rehearse response strategies repeatedly in a zero-risk virtual environment, reducing operational errors and strengthening overall safety culture.

- Reduced Training Costs

  By minimizing reliance on costly equipment, senior trainers, and specialized facilities, XRSim enables remote deployment and repeated reuse – dramatically lowering infrastructure, operations, and training expenses.

- Hands-On Realism, Anytime

  With highly immersive environments, natural hand gestures, and lifelike workflows, XRSim allows users to practice complex tasks repeatedly – building both technical proficiency and confidence in decision-making under pressure.

- Modular and Scalable

  Built on a modular architecture with flexible content management, XRSim supports rapid updates and feature extensions, ensuring adaptability across evolving operational needs.

- AI-Driven Insights and Analytics

  XRSim automatically records training sessions and user interactions. AI-driven analytics provide automated scoring, behavioral insights, personalized knowledge recommendations, and natural language interaction – delivering a smarter, more tailored training experience.

- Flexible Hardware Support

  XRSim works with mainstream lightweight MR headsets and multiple computing platforms, including web streaming. Users enjoy a seamless experience without needing high-end hardware,

ensuring easy deployment in diverse environments.

XRSIM LITE – PORTABLE, ACCESSIBLE, ANYWHERE

Best suited for: basic training, mobile demonstrations, and cross-location teamwork

XRSim Lite is designed for flexibility, delivering portable collaboration and immersive training through lightweight headsets. Users can instantly access shared virtual environments to review structures, conduct design reviews, or run task rehearsals – anytime, anywhere. Enables immersive, real-time, multi-user interaction that seamlessly integrates people, environments, and equipment.

- Use Case: Remote Collaboration, Real-Time Co-Building

  Energy projects often require multidisciplinary experts to collaborate remotely. Traditional reliance

on in-person reviews is costly, time-consuming, and difficult to scale. XRSim Lite provides an immersive shared workspace where experts can simulate, discuss, and annotate systems in real time – redefining communication and dramatically improving project responsiveness and team agility.

- Use Case: Lightweight Deployment, Immersive Learning

  With compact mixed-reality devices, XRSim Lite allows trainees to access virtual environments from any location. Users can visualize workflows, practice tasks, and interact through natural gestures – boosting efficiency, accelerating skills transfer, and lowering deployment barriers.

XRSIM CORE – RECONSTRUCTING COMPLEXITY, BUILDING COMPETENCY

Best suited for: high-risk scenario training, complex workflow rehearsals, and full-cycle competency development.

XRSim Core is designed for advanced training and high-stakes operations, providing systemic, end-to-end capability development. Simulates critical events such as blowouts, high-pressure gas leaks,

and lifting accidents – scenarios too dangerous or costly to replicate in reality. Establishes a standardized, replicable, and scalable training ecosystem, built on four pillars:

- High-Risk Scenario Simulation: safe replication of extreme operational environments
- Collaborative Operations: real-time, multi-role teamwork with AI-driven detection of coordination gaps
- AI-Driven Evaluation: automated scoring, performance tracking, and instant feedback
- Hardware Integration: realistic device controls that replicate authentic tactile responses, ensuring every action mirrors field conditions

Through continuous AI-powered data analysis, XRSim Core generates personalized growth paths for individuals and optimization insights for teams – turning extreme risks into measurable competencies.

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Contact Us

engineering@vertechs.com

Chengdu | Dammam | Houston | Calgary | Hong Kong

www.vertechs.com