

# INTERACTIVE 3D SIMULATORS FOR THE ENERGY INDUSTRY



#### **KEY BENEFITS**

- The Next Best Thing To Real Equipment Extremely realistic interactive 3D virtual versions look, feel, sound and work exactly like the real thing... at any scale.
- **Better Operators** Boost operator knowledge management. Capture best practices. Accurately reflect site-specific and equipment-specific processes. Reduce operator errors and risk.
- More Bang For The Buck, Faster Speed up training efficiency and effectiveness. Decrease upfront training costs for new personnel adding extended personalized practice sessions.
- Greater Safety Compliance Up-to-date multi-device mobile 3D manuals improve Environment, Health & Safety (EH&S) compliance for safer shutdowns, turnarounds, lower emissions, and more.
- Maximum Operational Profit Minimize on-site training and associated costs including travel, accommodation, supervision.



# SIMULATORS PRODUCED TO DATE

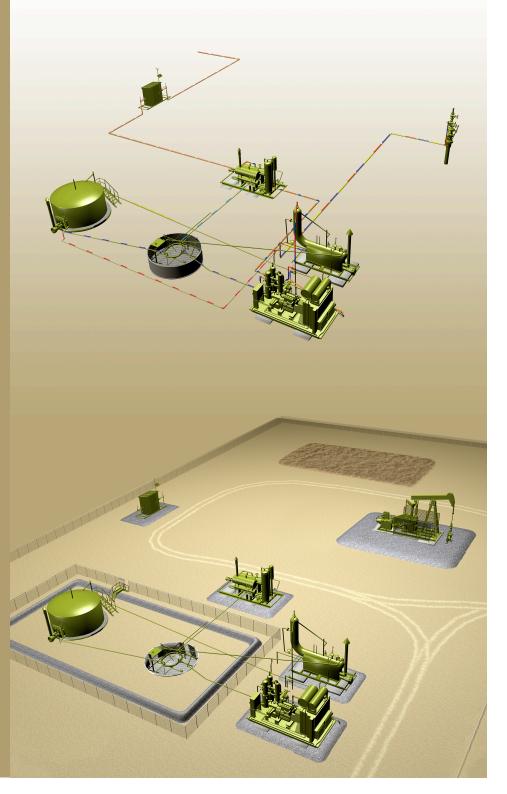
Well location surface equipment 3D simulators we produced so far include:

- Entire Location
- Wellhead Xmas Tree
- Pumping unit
- Compression unit
- L-PUD
- 1-stage Separator
- Dehydrator
- Tank
- Meter runs
- Plunger Lift

These were produced to train and certify lease operators in the oil & gas industry.

The interactive 3D simulators faithfully reproduce the working of existing equipment used in the petrochemical industry.

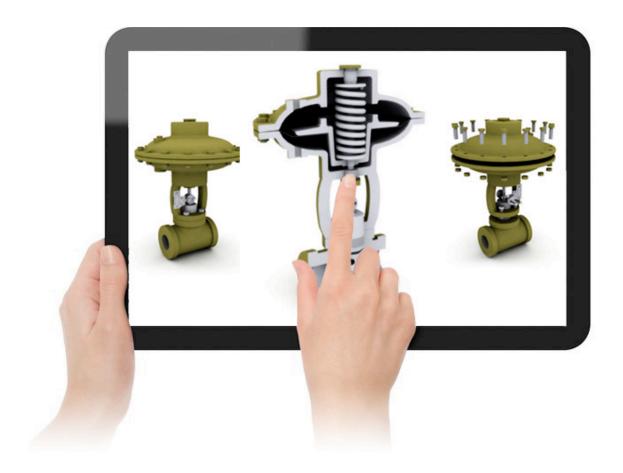
# OUR EXPERIENCE IN CREATING INNOVATIVE INTERACTIVE 3D SIMULATOR TRAINING SOLUTIONS



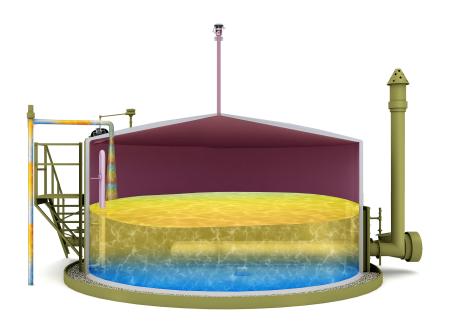
### **FEATURES**

#### INTERACTIVE — NATURAL — INTUITIVE

Interactive 3D real-time training simulators and manuals are ideally suited to the technical training of the operation of highly complex industrial equipment. Simulators allow students to literally see, hear, feel and interactively understand the inner workings of machines, systems and even entire installations such as refineries and power plants. From all sides and in fully animated interactive 3D cut views.



Equipment can be manipulated, examined, operated, (dis)assembled. All in real time, very much like in real life. In complex processes or installations, specific equipment can be switched off or out with immediate visualization of how this affects the flows of liquids and gasses around the site.



#### **VISUAL EFFECTS**

Realistically animated liquid flows, gases, heating flames, vents, fires, explosions and more.



#### **BUILT-IN NARRATIONS**

Narrated lessons as well as highly detailed and hyperlinked text descriptions of the processes are built-in.





#### **VCR CONTROLS**

Using VCR-style controls, simulator training is playable in the manner of linear video in addition to fully interactive usage.

#### **CUT VIEWS**

State-of-the-art training solutions and 3D manuals enable trainers, students, operators, inspectors etc. to explain, examine, explore and troubleshoot working equipment and their internal processes from any cut-view angle during all phases of operation.

#### **ON-LINE & OFF-LINE**

Available on-line & off-line on various devices including smart-phones, tablets, laptops, so that all users can access them wherever they physically are on the planet.

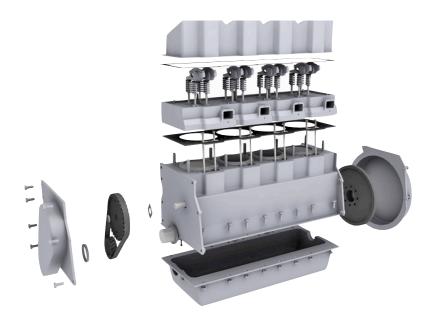
#### **CONVENIENT TRAINING TOOL**

Instructors can pause each lesson at any moment, rotate the simulated equipment to show it from all sides, zoom in and out at will,... and proceed with the lesson.



#### **ASSEMBLY & DISASSEMBLY EXERCISES**

Our simulators convert boring assembly and disassembly lessons into an interesting, engaging, interactive game.



# IMMERSIVE CLASSROOMS WITH PROJECTED STEREO 3D, IMMERSIVE VIRTUAL REALITY, AUGMENTED REALITY

All of our simulators can work in stereo 3D mode.



#### **VIRTUAL SAFETY DRILLS WITH VIRTUAL HAZARDS**

Using photorealistic 3D simulators, you can review highly hazardous situations from the safety of the classroom and train safety drills over and over until they become second nature.



#### **BUILT-IN FORMULAS**

We built various formulas into our existing simulators, including a gas flow formula for the MR3 simulator and a formula for minimum lift calculations for the Plunger Lift simulator.

Using these formulas it is possible to see the reaction of the flow as a user interacts with the valves of the equipment.

#### SO MUCH MORE THAN MERE ANIMATIONS

Note that our interactive 3D simulators do far far more than single-viewpoint animation and linear or interactive dimensional rotation. Our simulators include such (interactive) features as:

- interactive equipment operation and well-yield optimization
- showing/hiding of cut-views
- adding/removing of equipment to a well location optimizing for different stages of well exploitation
- linear process demonstrations with voice-over narration
- step-by-step demonstration of start-up, maintenance and troubleshooting procedures
- · visualization of hazardous conditions and accidents
- visualization of sub-surface activities and processes
- interactive assembly/dis-assembly exercises (with scoring)



## **GET A DEMO & A FREE QUOTE**

Pricing depends on complexity of the equipment, the amount of material that needs to be interactively visualized as well as the built-in interactivities.

Our multi-lingual team of project managers and simulator designers can interface with you in fluent English, Spanish, French, German, Russian or Dutch. Other languages are possible upon request.

We will be happy to give you live guided on-line demonstrations of our existing simulators upon simple request.

#### **CONTACT US**

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