

Welcome
to our
virtual world



When you're working on large upstream or downstream projects, it helps to know where you're headed. With Coffey's Virtual Reality applications, you're able to physically see the problem – and a range of proposed solutions – before you've left the design phase.

Virtual Reality can help to significantly reduce costs, because potential issues are identified earlier. It also means collaborative decision-making and risk-assessments are much easier to coordinate. And, because you're able to immerse yourself into the model, and visualise a project from every angle, training and corporate presentations become more sophisticated.

Investing in a new reality

Since 2006, we've significantly invested to develop world-class Virtual Reality applications and to train our consulting staff. We've combined our expertise in geosciences and project delivery with the best Virtual Reality software and hardware in the industry. And we continue to develop Virtual Reality content for both first and third person perspectives.

In countries like Brazil, we're a Virtual Reality pioneer, providing specialised services to large corporations and a range of construction projects.

In Latin America and Europe, we've formed technical and commercial distribution partnerships with leading organisations like Siemens, Virtualis, the Federal University of Ouro Preto, the Gorceix Foundation, the British Geological Survey and a range of government institutions.

How it works

Virtual Reality is an advanced interface technology that transforms the way digital data is used. We can integrate real project CAD, MCAD, GIS, geological, geotechnical, geochemical and geophysical datasets, as well as 3D scanner point clouds. Our Virtual Reality models engage users in real-time interactions with 3D modelling and will simulate existing or fictitious environments in realistic detail.

The software

Virtual Reality software interfaces with the user like a video game. Digital terrain models, aerial images, geological voxels and engineering and architecture CAD 3D models are integrated, to create detailed and realistic environments. Data is generated by specialised software like GoCAD, GeoSoft, Vulcan, ENCOM profile analyst, Promax (SEG-Y), PETREL, PDMS, PDS, Smart Plant 3D and SolidWorks.

Importantly, the software is easy-to-use because everything can be integrated into an intuitive, ready-to-use Virtual Reality software interface.

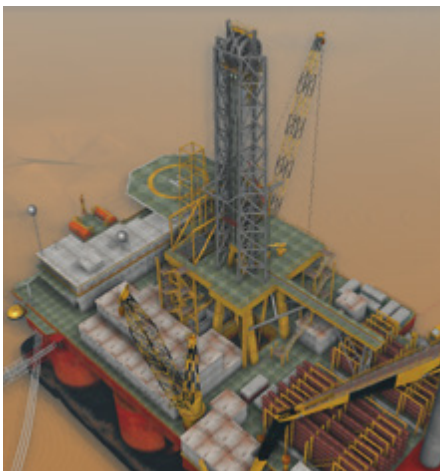
We're proud to be a vendor of the best Virtual Reality software on the market, including:

- Geovisionary: GIS, geotechnical, geological exploration and spatial planning
- Comos Walkinside: engineering project review and presentation, maintenance and operations, process simulation and immersive training.

The hardware

We can provide a variety of Virtual Reality hardware options, depending on your technological requirements and budget. These include:

- Multi channel projectors and projection types - straight, curved and 180 degrees
- Motion trackers
- Tactile and force feedback interfaces
- Head mounted displays
- On-demand simulation systems
- Full specifications for Virtual Reality solutions and situation rooms
- Cave automatic virtual environments.



Seeing the whole picture through Virtual Reality



Virtual Reality can improve transparency and increase community confidence



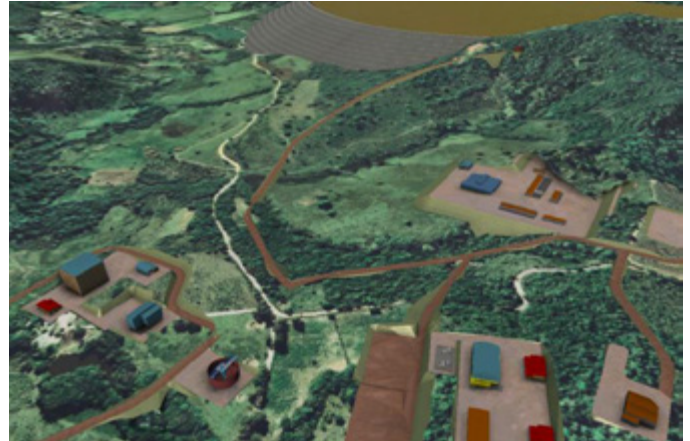
A Virtual Reality Centre

Our work your reality



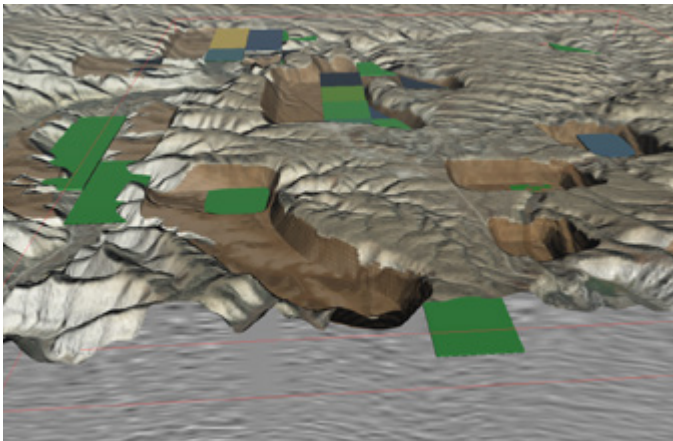
Safety training

We were engaged to identify the hardware and software required to set up a Virtual Reality Centre. We then project managed the construction. The benefit to staff was immediate. Trainees were able to practice operations and safety procedures in a real CAD data VR model, through virtual scenarios, even before the asset was built.



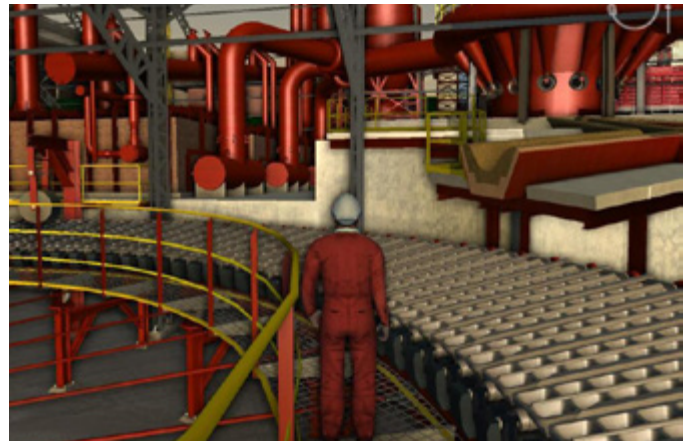
Visualising future environmental impacts

Virtual Reality provides our clients the ability to demonstrate to key stakeholders the impact of a resource development several years into operation. This enhanced transparency can help community groups to see the relationship between the development and the impact on its surroundings.



Conceptualising oil shale extraction

Working with our clients, we're able to develop and present conceptual plans and feasibility studies of underground oil shale mines through Virtual Reality.



Enhancing students learning experience

Students today don't need to physically endure the hot and noisy environment of processing and plant operations – now university lecturers can bring the plant to them. Brought into the class room are real textures and sounds. And previously inaccessible areas now become accessible.

Our Virtual Reality specialists focus on:

- Geological interpretation and planning
- Industrial engineering project prototyping for security reviews, layout and accessibility
- Mine engineering project prototyping to support collaborative discussion and project presentations
- 3D videos for presentations of future projects
- Geographic data integration in engineering and geological Virtual Reality models
- Simulations of current and future landscapes for the analysis and review of environmental impacts
- Integration of GIS and Virtual Reality technologies
- On-demand simulations
- Operational procedure training simulators
- Specification of complete Virtual Reality systems - software and hardware
- Geophysics 3D modelling
- Geochemical data interpretation
- Reserves and resources estimation
- Slope stability geotechnical studies and monitoring
- Environmental data geographic management systems
- Health, safety and environment
- Construction.

From finding oil to operating refineries - and everything between

Virtual Reality technology can be used in a number of areas and industries including:

- Exploration and appraisal
- Upstream oil and gas fields
- Pipelines, wells and production facilities
- LNG production
- Shipping
- Refining
- Bulk storage and logistics of refined products.

Every Coffey relationship is built on trust.

Whether it's in geosciences, project management or international development. Trust that's hard-earned through our proven expertise, our depth of global experience and our commitment to stay one-step ahead.

Our united group of specialists – many of whom are among the best in the world – take enormous pride in collaborating with our project partners. By digging deeper. Thinking smarter. And seeing further.

All so we can deliver the smartest solutions, every time.