VNE Project

Virtual Natural Environments





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The VNE Project is an innovative web platform that provides access to virtual geological environments. Its main objective is to develop a global library of virtual sites of geological interest, including outcrops or mining ventures, offering detailed visual representations and valuable additional information. The platform is accessible through web browsers and supports multiple devices, including laptops, PCs, smartphones, tablets, and VR headsets. It aims to make geology worldwide accessible and understandable for students, researchers, investors and enthusiasts.



Functionalities and Uses





COURSES:

Teachers can use the platform to explain different geological contexts and processes.

CONSULTATIONS:

Geoscientists can use the platform to consult information about different outcrops and geological contexts.

SEARCHES:

You can search for specific information about different geological contexts.

ANALOGS:

Geoscientists and engineers can use the platform to study analogs of reservoirs or mineral deposits

CLASSES:

Students can use the platform to get closer to geology and learn about different contexts and geological examples.

CONFERENCES:

The platform can be used to present research and findings at conferences and meetings.

FIELD TRIPS:

The platform can be used (via web or download) during conventional field trips, allowing on-site access to complementary information appendix explanations at different levels (students, professionals, or tourists).

¿How it works?



Technical Features of Virtual Environments

Our platform has the following technical features that enhance the user experience:

- *I. WEB ACCESS :* The platform is accessible through any web browser, making it easy to use without the need to download or install additional software.
- 2. MULTIPLE DEVICES: The platform is compatible with a variety of devices, including laptops, PCs, smartphones, tablets, and VR glasses, allowing users to access the platform from anywhere and at any time.
- **3. GUIDANCE WITHIN THE PLATFORM:** The platform has a call feature that allows users to participate in live guided tours, enhancing interactivity and learning.
- **4. 360 and 360 3D environments:** Users can explore virtual outcrops through 360-degree views, providing an immersive and more realistic experience.

- **5. 3D MODELS:** The platform includes 3D models of the outcrops, allowing users to examine the outcrops in detail and at various scales.
- **6. MULTIMEDIA:** The platform includes a variety of multimedia elements, such as photos, videos, and animations, which help in understanding the different geological contexts.
- 7. NAVIGABILITY: The platform has an intuitive and friendly user interface, making it easy to use for every users, regardless of their technical skill level.
- 8. VR AVAILABLE FOR OCULUS QUEST AND SIMILAR: For an even more immersive experience, the platform is compatible with almost all virtual reality devices like Oculus Quest, allowing users to explore the outcrops as if they were really there.

OUR SERVICES

Design of Customized Virtual Environments

We create custom virtual environments designed according to your specific needs. Whether you need an environment for a research project, for teaching, or for project presentation, we can build it for you.

Custom Course Organization

We organize customized training courses that focus on specific topics in geology. These courses can be synchronous, self-guided, or hybrid, depending on your needs and preferences.



3d Outcrop Models

We create detailed 3D models of geological outcrops. These models can be used for teaching, research, or project presentation.

Mining

We set up the virtual environment of your mining project to promote it through guided virtual tours. This service can be helpful for introducing mining projects to investors, regulators, and a general audience.

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Data Integration

We can integrate a variety of geological data into our virtual environments. This can include data from maps, stratigraphic columns, photos, geological transects, seismic lines, and pertinent observations. All the process is guided by specialists using geological criteria.



Tourism

We add value to sites of geological interest so that tourists can visit virtually or in person. This service can enrich the tourist experience, allowing visitors to understand and appreciate the geology of the place in a deeper and more attractive way.

¿Want to visit some examples?

www.immersive.gcsargentina.com

USER: user2 PASSWORD: user2_2023

• NEUQUEN BASIN:

Here you can find a huge environment with more than 100 localities. With large amount of information, photos, 3D Models, columns, etc. A world class school basin for teaching earth sciences.

• PLAYA BONITA:

This was our first project for students during Covid-19 Pandemia confinement. It is a virtual environment including a self-guided tour with explanations.

• CUYO BASIN:

This project is ongoing. Under a collaboration program between Chengdu University (China) and UNS (Argentina). Bachelors are working on this Triassic Basin Virtual Environment.

• ORDOS BASIN:

This field environment was performed for the XXI International Sedimentological Congress held in Beijing, organized by the International Association of Sedimentologists (IAS).

VIRTUAL ENVIRONMENT FOR MINING



Virtual field visits:

This platform allows visiting the project from anywhere in the world. You can choose between synchronous (guided in real-time) and self-guided tours (with embedded explanations).





Presentations:

Companies can access all the projects and retrieve available information from anywhere for use in business presentations, technical meetings, conferences, or training



Information Library

Each virtual environment or project can be used as a resource to search for and download information. All relevant information such as maps, cross-sections, analyses, publications, or any multimedia materials (PDFs, videos) can be incorporated into each environment or project.

YPF YPF

Detail picture



Diagrams / maps / pdf





3D model outcrop

Project Catalog

Companies can access and share all their projects and retrieve available information from anywhere for use in their webpage, business presentations, technical meetings, conferences, or training.

Virtual Environment Access

Web resource

 $\langle \checkmark \rangle$

Virtual environments serve as an innovative tool on company websites, offering an interactive and engaging means to access to the information. They intricately highlight the key features and attributes of their properties, providing visitors with an immersive experience that enhances understanding and appreciation.



Augmented Reality

Available information for project visitors with real-time augmented reality information





Virtual induction tours for safety at the project.



COLLABORATIVE WORKFLOW

1-Start point



2-Field data acquisition



4-Assembly of additional information



5-Commissioning and evaluation with the team



3-Virtual environment design



6-Access to the virtual tour



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OUR SERVICES

Creation of the virtual environment:

In collaboration with professionals from the company, we conduct a survey on selected areas (360 photos, drone footage, 3D digital models). Then, all relevant information (explanations, maps, analyses, etc.) can be *incorporated*



This service includes maintaining the resource on the web on secure servers. This service is not applicable if companies use their own servers.

Updates

Each virtual environment or project can be updated as many times as necessary (new results, press releases, new discoveries, etc.)



VR Signage

For augmented reality tours, signage is designed and placed in the project to access information. These are typically small signs with a QR code



Training and Education

Although the environments are very intuitive and easy to use, a brief training is recommended to optimize the resource in its various aspects

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Contact us

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··· </> Mariano Arcuri

<u>marcuri@gcsargentina.com</u>

www.immersive.gcsargentina.com

