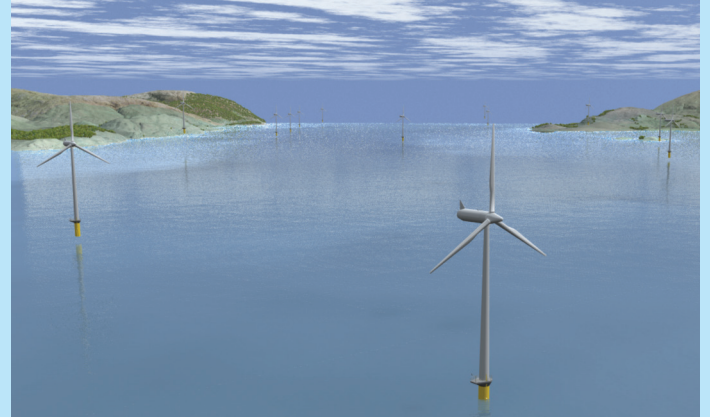
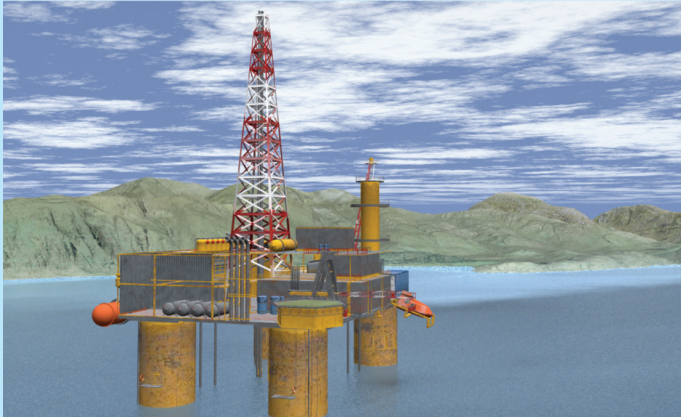


3D Visualization for the Offshore Oil, Gas and Renewable Energy Industries



Who are we?

We provide visualization services to a wide range of environmental agencies (including Scottish Government) primarily through our custom Virtual Landscape Theatre – www.hutton.ac.uk/learning/exhibits/vlt – an immersive visualization facility. Drawing on our experience and scientific knowledge we can now offer quality visualization services to the offshore industries. Macaulay Scientific Consulting, the commercial arm of the James Hutton Institute, provides a wide variety of services to the Oil and Gas Industry, Environmental Sector and other industrial sectors.

Why visualize?

Environments in which people and equipment are expected to work and operate, such as sub-sea or remote regions, can be very difficult, if not dangerous, to access and comprehend. Visualization allows us to understand and manipulate complex data in three dimensions and to support best practice planning and decision-making.

What data can be visualized?

Data for 3D visualization can be sourced from multi-beam bathymetry, site survey data, aerial and satellite imagery, geo-referenced maps and navigational charts, Ordnance Survey terrain data, GIS, LIDAR and UAV data. All data is fully geo-referenced at all times.

What do we visualize?

On/offshore industrial facilities and structures, oil and gas rigs, wind turbines and proposed arrays, accommodation units, meteorological masts, well parts, equipment, navigational lighting, cable and pipe export routes, the receiving environment – ocean, seabed topography, sediments, geological strata, nature conservation designations, fish and shellfish resources, archaeology, sea states, sun, fog, time-of-day, clouds, roads, rivers, buildings, people and animals.

What activities can we demonstrate?

Activities we can model include drilling, casing installation, cementation processes, oil and gas extraction, refining processes, transportation, processes, operation of tools and equipment.

What are our outputs?

Three-dimensional maps and models, realistic static renderings up to billboard size (.tiff, .jpg, .png), 3D interactive fly-throughs for PCs and/or immerse environments (Octaga VRML/Vega Prime Open Flight), cut aways and animations for video and web, tailor-made PowerPoint presentations and training and promotional videos.

Who is the audience?

Clients, sub-contractors, Health and Safety Executive, Search and Rescue, local authorities, public agencies, stakeholders and communities.

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