

Mapping the World with 3D Laser Mapping



The British Geological Survey (BGS) is to use a new laser scanner to map volcanoes, glaciers and other natural phenomena. The Riegl VZ-1000 purchased from 3D Laser Mapping will be used around the world to collect data for creating photorealistic fly-throughs, 3D height models and highly accurate area and volume calculations.

The BGS uses terrestrial laser scanners from Riegl across its operations because of their flexibility, range and portability. Laser scanning is a tool of modern geoscience and allows unprecedented resolution and accuracy. Remote measurement and monitoring are also essential in many of the dangerous and inhospitable environments BGS operates in.

The scan data captured with the latest system supplied by 3D Laser Mapping will be used to shape highly detailed 3D models in order to create a variety of products. These include digital elevation models (DEMs), virtual outcrop models (VOMs), cross sections, soil erosion maps and change models.

The BGS has been using terrestrial laser scanning for a variety of geoscientific applications for more than a decade and the technology has become an established part of its research capability. Laser scanning is used on projects around the world with applications including the monitoring of actively growing volcanic lava domes, rapidly retreating glaciers and coastal erosion and platform evolution. It is also an established tool for inland and coastal landslide modelling, mapping of geological structures and fault boundaries and rock stability and subsidence feature analysis.