



**surveyors @ work**



3D LASER SCANNING

## Why 3D Laser Scanning?

3D Laser Scanning delivers uniquely accurate surveying of real-world environments that simply can't be achieved with traditional surveying.

Whilst conventional surveying allows the measurement of individual points at any given time, 3D Laser Scanning creates an accurate spatially correct 3D model or "point cloud" of the scanned site, which can be manipulated with software to register accurate measurable information.

If you are faced with the complex mapping of plant infrastructure, reverse engineering, mines, roads, bridges, railways, environmental vegetation, 3D Laser Scanning delivers invaluable information.

It certainly comes into its own when you are faced with dangerous sites where downtime of the infrastructure is precious and you require a complex three-dimensional spatial data set.

## Time and Cost Effective Applications

### Topographic / Civil / Mining / Rail

Accurate surveying of roads, bridges, highways and structures. 3D laser scanning provides the ultimate solution, safely and quickly.

### Coastal / Environmental / Vegetation Mapping & Monitoring

Capture real useable information for beaches, dunes, cliffs and significant vegetation. Perfect for accurately monitoring erosion and sediment transport models while providing volume shifts and surface analysis.

### Architectural, Heritage, Cultural & Archeological

The 3-dimensional scanning of architectural structures delivers an accurate record at a given point in time for assessing changes and movement over the years and provides a benchmark for future restoration following deterioration or damage.

### Clash Detection

Clash detection can cover a multitude of scenarios from piping to underground crusher chambers. Reporting includes complete 2D & 3D analysis, plus the benefit of a full 3D model showing design structures and point cloud clashes. These models can be viewed in our software packages and via the use of 3D joystick technology the model can be picked up, rotated, enlarged and edited to provide a visual 3D environment in which rectification and fabrication solutions can be quickly and easily resolved.

### Reverse Engineering & Replication

Fast accurate reverse engineering solutions with analysis and reporting using dedicated software packages.

### Railway

Provide complete 3D models of overhead lines, bridges, tunnels, signal posts, vegetation, lines and signs. The data can be measured, modelled and string lines extracted into CAD packages.

### Plant / Service Infrastructure (Water, Gas, Electricity, Chemical)

Maintenance assessments, design, planning and retrofitting machinery or infrastructure elements 3D scanning provides significant benefits.