SIROVISION UNDERGROUND

A new chapter
In underground
Structural
Mapping

OVERVIEW

Sirovision Underground is an integrated hardware and software system for the mapping and analysis of rock structures and mineralogy in underground topography. The system comprises a specially designed Stereo Camera for capturing stereo photographs, and software for the generation and analysis of 3D images. This technology was developed by the prestigious Commonwealth Scientific and Industrial Research Organisation (CSIRO) in Australia and is commercialised globally by Datamine under an exclusive agreement.

WHO USES SIROVISION UNDERGROUND?

• **Geologists**

• **Mining Engineers**

• **Geotechnical Engineers**

WHY USE THE SIROVISION STEREO CAMERA?

Designed for purpose: The Sirovision Stereo Camera is unique in that it enables the capture of stereo photographs of underground lithology with one press of a button

Speed: A single heading can be captured in less than 4 minutes causing minimal disruption to the mining cycle

Easy to Use: Requires only two days training for technical staff

Improves Safety: Minimal "at face" time required to capture 3D digital record of the rock mass. The whole 3D heading can be mapped and analysed in the office

ACCURACY

- **Spatial Accuracy:** to within 3cm
- **Mapping accuracy:** better than +/- 0.5o for dip
- **Angle and direction**
- **Range:** 3 to 12 metres

STEREO CAMERA FEATURES

- **Twin 16 megapixel digital SLR cameras** delivering high resolution true colour 3D images
- **Durable and robust.** Molded shell is water, dust and corrosion resistant
- **USB connectivity**
- **Transportable** by one person
- **Self-contained** light and laser guidance systems
- **Rechargeable / replaceable** long lasting batteries.

SOFTWARE FEATURES

- Generates spatially accurate 3D images of underground headings
- Tools to digitally map structure directly onto the 3D surface producing immediate
- Geotechnical characteristics
- Visualise discontinuity orientation data using spherical projections, rose plots and statistical analysis tools alongside their
- Real world physical characteristics such as persistence and location in 3D space
- The Slope Stability Analysis tool provides automated detection of unstable wedges and blocks based on rock density, pore pressure, cohesion and friction data
- The Mineral Classification tool automatically maps the surface area of selected ore and mineral bodies

BOOK A DEMO

To book a free demo of Datamine's Sirovision Unerground, contact your local Datamine office.

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