

INTRODUCTION

SIGHT POWER was established in 2010 by a group of businessmen, engineers, and scientists with practical experience in the development of analytical information and data modelling systems for mining and oil & gas industries, as well as in the design, assembly, and application of special C&I equipment.

Sight Power's development is focused on the implementation of DIGITAL MINE™ technology solutions. DIGITAL MINE is a system for collecting and processing detailed information about all operations and work processes at the enterprise and combining this information with modelling, monitoring, and distributed sensor systems into a unified corporate solution, based on an open architecture enterprise-level Mine Advisor™ client-server integration platform.



DATA COLLECTION

SIGHT POWER offers the only real-time mapping and data acquisition tools for underground mining. Our technologies are the most cost effective, agile, and time-efficient tools available on the market to survey and visually inspect underground tunnels and excavations as well as formerly inaccessible areas. Exploring beyond-line-of-sight gives true all-around awareness!

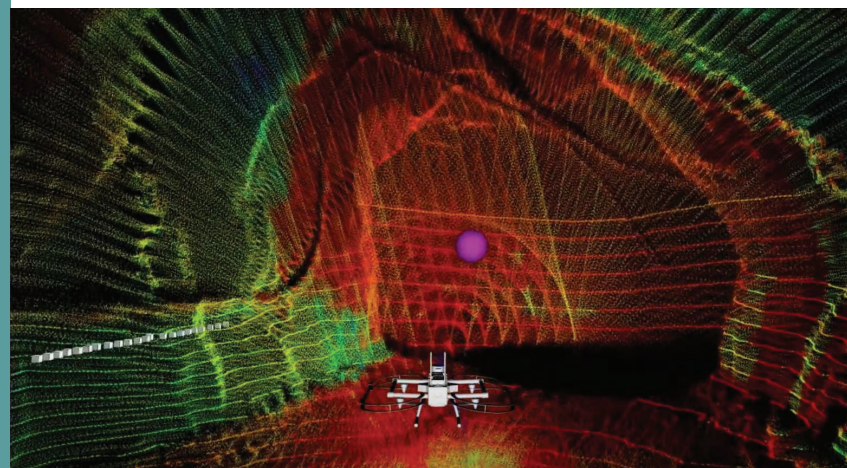
OUR TECH

Batomous laser scanning suite:

- Real-time laser mapping
- Access GPS-denied, constricted and inaccessible zones
- Laser based Beyond-Line-Of-Sight (BLOS) operation with Dual SLAM
- Provides surveys (mining, geotechnical, geological) more safely, faster and further
- Semi-autonomous workflow:
 - Prepare safe mission (assemble and arm)
 - Integration in mining automation systems and routine flights
- Execute multiple-task mission:
 - Navigate, gather, process and display all simultaneously
- Deliver immediate results: download data directly after landing

Flexible deployment options:

- Drone Enabled
- Handheld
- Vehicle mounted
- Backpack mounted





SightPower offers real-time, underground mapping and data acquisition technologies unlike any other. Safe and efficient inspection, mapping, and data capture underground is now possible with our real-time, 3D visualisation innovations.

Our agile, smart-drone technologies give you real-time access to areas that range from just below the surface, to deep, dangerous and previously inaccessible. We utilise non-GPS localization, SLAM and 3D point cloud generation tools.

Unleash your team's exploration capabilities with SightPower!

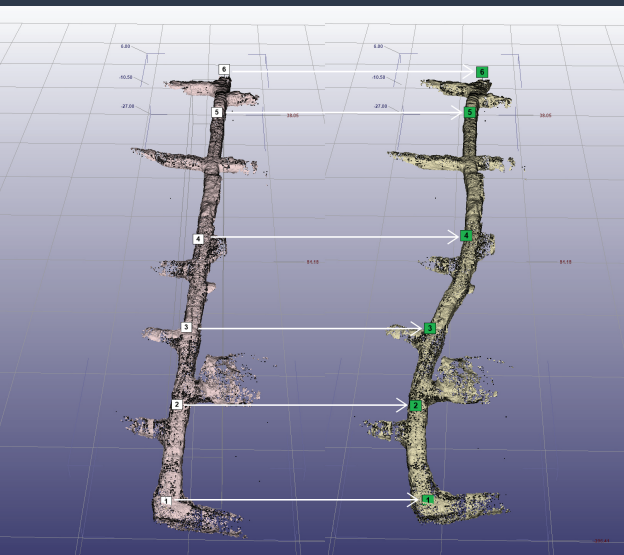
OPERATIONAL BENEFITS

- REDUCE CARBON FOOTPRINT
- ACCELERATE PRODUCTION TIME
- INCREASE SAFETY OF HUMAN WORKFORCE
- MINIMISE EXPLORATION RISKS
- INCREASE OPERATIONAL EFFICIENCY, EFFECTIVITY & PROFITABILITY
- OPTIMISE SEARCH & RESCUE MISSIONS
- REDUCE OPERATIONAL COSTS
- UNLOCK FULL POTENTIAL OF INACCESSIBLE AREAS
- OPTIMISE PRODUCTION FLOW



The most cost & time efficient way of inspection, mapping & data acquisition in underground mining!

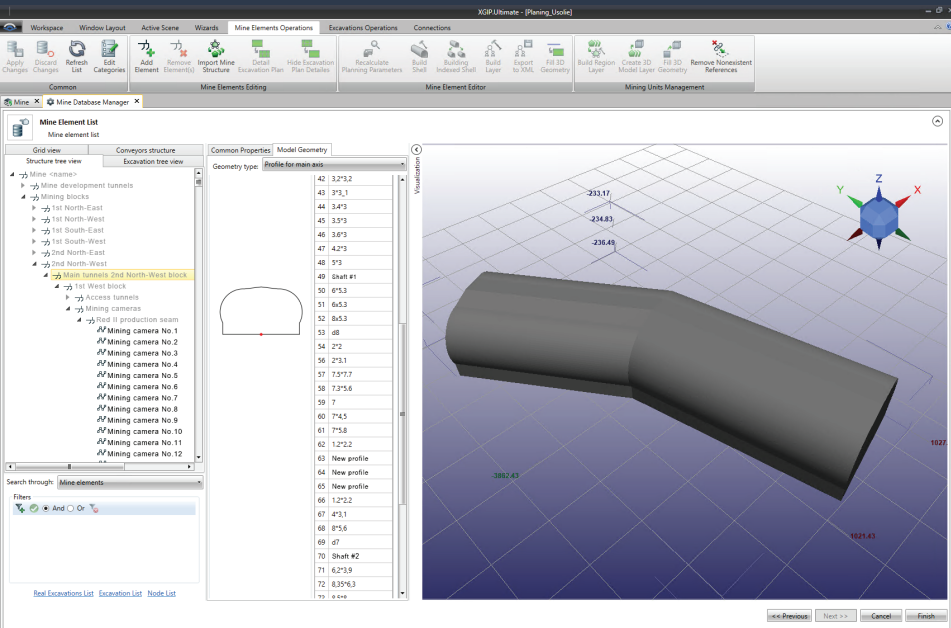
DATA PROCESSING AND MANAGEMENT



SightPower's Mine Advisor™ solution is the only consistent client-server system that fully supports LiDAR-based underground mine surveying for both autonomous and semi-manual data collection. It is not just a set of tools for LiDAR scan analysis, but a fully integrated system that manages digital twin of a mine along the timeline.

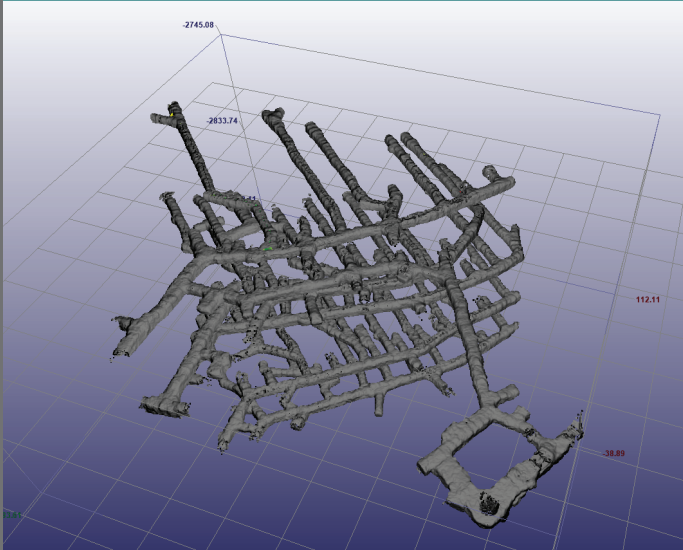
Mine Advisor™ system assists mine professionals with efficient processing of mobile laser scanning data as well as with well-organised data management tools to track all mine development history, calculate volumes of mining and development works, detect changes in mine plans and schedules, assist with geotechnical monitoring and geological mapping etc.

MINE ADVISOR™ PROVIDES INTEGRATION BETWEEN MOBILE SCANNING DATA PROCESSING AND ANY CONTEMPORARY GEOLOGICAL AND MINING PACKAGE AS WELL AS WITH MINE ADVISOR™ OWN MINING AND GEOLOGICAL INFORMATION SUPPORT SYSTEM

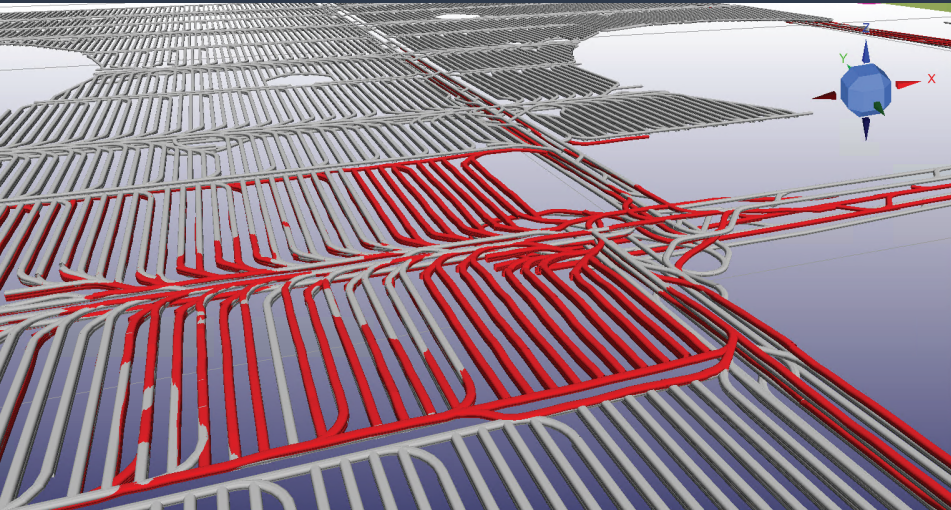


Mine Advisor™ software package is a complete stand-alone system capable of performing a full data processing, 3D modelling and analytics cycle without the need for any third-party software. Flexible interface and user-friendly settings algorithms allow to fine-tune the use of the system within the established mine working process.

Mine Advisor™ can be used as an ancillary support system for mine design, mine planning, detailed geological modelling, mine ventilation modelling and other engineering tasks by providing an opportunity to quickly analyze actual mine geometry as well as the position and topology of each and every mine working and excavation.



FUNCTIONALITY AND CAPABILITY



Topological model of underground mine

Topological model is a core feature of the system. The model is based on an existing surveying network and describes a way surveying points relate to the tunnels. This model is used as a backbone of a digital twin, and all the scans and processed geometries are referenced to it.

Raw scans management

System provides central storage for all scans (new and historical). Scans are organized in accordance with mine structure allowing easy access and comparison.

Scan processing

Special set of feature extraction tools is designed specifically for underground tunnels, allowing quick reconstruction of a tunnel surface. All new-built geometry models are referenced to a topological model (keeping reference to original raw scan as well). All extracted geometries can be shown as unified 3D object.

Change detection

Since all the scans and geometries are kept it becomes possible to review model of a whole mine on any given date and to compare it to actual model of a mine.

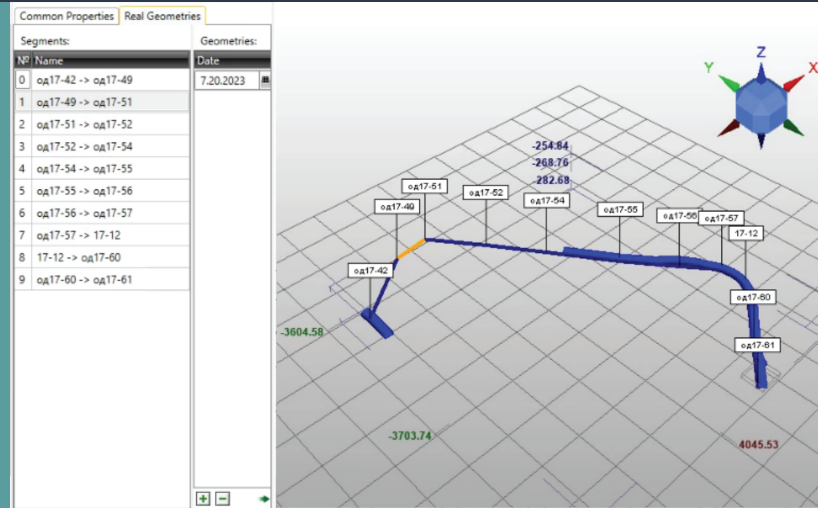
Adjustable reporting and customized analytics

Surveying reports can be adjusted to a mine's requirements and generated accordingly to pre-defined schedules. Special customized analytics can be added upon request.

Powerful visualization

- Combination of spatial models of any data types and volumes in one scene
- No-limits presentation of full mine 3D and 4D model with all geometries and LiDAR surveying data
- Back-end rendering
- Unlimited access to information
- AR and MR holographic visualisation

Information about mine status in visual or document form can be reached with appropriate credentials from any point of the world through any standard browser.



Operational control and geometric monitoring of an underground mine based on a real-time mine's status!

OUR PARTNERS



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RAMJACK Technology Solutions is a specialised system integrator dedicated to operations technology for the mining industry in harsh, remote and challenging regions. Ramjack acquired Swedish hi-tech start-up InkonoVA in 2022 to expand their technology stack.



INKONOVA

Founded in Stockholm, **INKONOVA** began innovating tilt-rotor systems for racing drones before switching focus to become the world's first developer of drone solutions for underground mines. Today, InkonoVA develops both underground robotics for inspection as well as 3D mapping solutions with SLAM-based technologies.

SightPower and Ramjack formed the partnership to offer the global mining industry the complete one-stop-shop solution for u/g mine mapping, data processing and 3D modelling, big data management, and analytics.