

## Project Capability

### Tunnels

The **MissionOS** platform has been employed extensively for the management of data on some of the world's largest tunnel projects. Easily accessible, yet powerful architecture gives tunnel professionals ready access to the latest data from borings, design prediction, production and instrumentation results.



Image Courtesy of Dragages-Hong Kong

Tunnelling and underground construction works contain extensive amounts of data generated from site investigation, instrumentation & monitoring, as well as construction itself.

Successful delivery of these projects requires a thorough understanding and interpretation of the information being received in real-time.

The **MissionOS** platform is a market proven system that has been implemented on large urban tunnel projects worldwide for risk management, machine process control, shift reporting and observational engineering feedback.

With unparalleled flexibility for data integration and analysis, the **MissionOS** is proving to be the tool of choice for tunnel professionals worldwide.

Maxwell GeoSystems continues to develop enhancements and tools tailored specific to the clients' needs.

Our team of experts in tunnelling, instrumentation and computer programming, work closely with clients to provide solutions for reducing uncertainties and minimising risks on projects.

#### Key Capabilities Include:

- Real time upload of data including instrumentation and monitoring, TBM operation and more with fully transparent data processing capability.
- 2D and 3D rendering of geological and geotechnical borehole data.
- Display construction progress as well as instrumentation on maps and sections.
- Generate contours of ground surface deformation, geological surfaces, groundwater tables and other parameters for a more comprehensive visualization of ground conditions and behaviour.
- Leading edge BIM visualization capabilities to explore spatial relationships and reduce uncertainties.
- Highly flexible graphing engine for combining data of all types with drawings, comments and programme information to increase understanding.
- Powerful analytical tools including prediction and proximity functions to aid decision making, risk assessment and performance evaluation.
- Featuring a TBM dashboard to view and analyse real-time operation.
- Customizable report designer that automatically updates as new data is collected. Combine any plot types with tables, fields, maps and sections for efficient communication between parties.
- Easy and simple shift reporting to identify critical activities pertaining to production performance.
- Configurable metadata models to manage all forms of site reporting and keep data live for team sharing and analysis

Category	Tunnels	MissionOS System	Mission Monitor
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