



**TUNNEL**  
SUPERVISION

ANYTIME, ANYWHERE



# DETAILED CONTROL & COMPLETE OVERVIEW

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ANYTIME, ANYWHERE





# TUNNEL SUPERVISION

## — AROUND THE WORLD —

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- Tunnel Supervision software has been used in a variety international projects including large hydropower schemes, and railway and highway tunnels. The inherent versatility of the software allows tailoring to specific project needs, making the software easy to use at any construction site.
- Used by the Construction Supervision for the excavation of 4.2km long double tube railway tunnel excavated by 10m diameter Earth Pressure Balance Machine in Ejpovice Project in Czech Republic, since 2014.
- Used by the Contractor for NATM excavation of Povážský Chlmec tunnel – 2.4km long double tube highway tunnel of 14m span in Slovakia – in order to improve his work efficiency and to speed up construction progress, since 2015.
- For construction of 70km long tunnelling system in Kárahnjúkar Hydropower Project a predecessor of Tunnel Supervision was used.

# CONSTRUCTION WORKS

## ALL INFORMATION IN ONE PLACE

Full data management is provided to the project team including:

- Construction Progress / Schedule
- Activities & Delays, Production Rates
- Quality of Works, Tests
- Site Diaries & Photo documentation
- Various Site Documentation
- Measurement of Payment Items
- TBM Performance Data

The enhanced Statistics module allows evaluating of a wide range of data at a glance.

Tunnel Supervision has been developed by Tunnel Engineers over the course of underground works ranging from minor rehabilitation works to significant mega projects.



# CONSTRUCTION SCHEDULE

## — UNDER CONTROL —

Tunnel Supervision monitors actual construction progress and compares it with the expected schedule.

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Users can get quickly overview of progress as well as detailed reports.

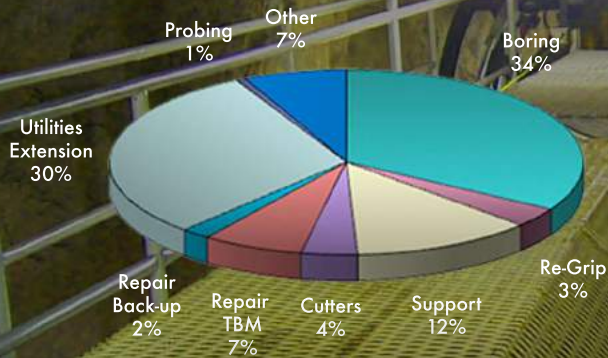


# TBM UTILIZATION

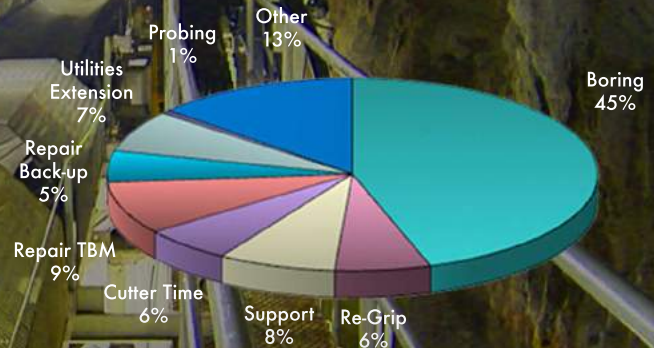
## ACTUAL & EXPECTED

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### Actual Production & Utilisation



### Expected Production & Utilisation



Example of Production and Utilization Chart of a TBM. Similarly Activities & Delays are provided for conventionally excavated tunnels. P&U are automatically calculated within a user specified time period, for specific rock support and/or bore classes, or for other required parameters.

A comparison between actual and tendered values is part of a standard report.

# QUALITY & QUANTITY

## — UNDER CONTROL —

Tunnel Supervision helps site personnel to be more efficient in controlling project quality. With Tunnel Supervision, all quality-related items are available in one place:

- tests results
- photos and detailed comments
- site documentation such as for example letters, non-conformance notifications

# ACTIVITIES & DELAYS

## EVALUATING EVENTS

Understanding what actually happens at all times of the construction process is of critical importance to the management team. The timely awareness and evaluation of activities & delays is fundamental for correct decision-making. It is also a great advantage to be able to analyse construction productivity at any time in the past.



Tunnel Supervision helps to get all data from dark underground and reveal them at full light. It is a crucial source of information for claim management.

# SITE DIARY & PHOTOS

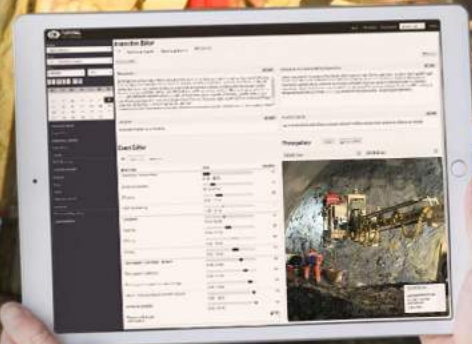
— ALL IN ONE PLACE —

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Site diary consists of particular inspection records that are produced by Inspectors, Engineers and other personnel during their site work.

Different aspects of works can be logged into a predefined structured report with the option to attach photos and comments.

Tunnel Supervision software makes possible the storing, organizing, tracking, analysing, comparing, evaluating and reporting of a wide variety of data related to construction works.



# USE

Construction teams can record, share and analyse information with use of Tunnel Supervision software in an efficient, comprehensible and reliable way.

Once Tunnel Supervision software is embedded in a project supervision quality is enriched; data and information sharing are boosted; construction schedule, quality and quantity of works are kept under tight control; delays are more quickly addressed and minimized. Consequently the cost and risks of a project is reduced.

# SUPPORT

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Experienced practitioners in tunnelling assisted by software engineers provide 24/7 support.

Tunnel Supervision software is set up and can be tailored according specific project needs.

Support is provided at site as required, including training and updates.





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