



NAVIGATE Tunnelling

The TUnIS software upgrade for SLS provides the user with new, enhanced, and optimised features as well as minimized downtime that is achieved by optimized processes. Moreover, the upgrade offers data integrity and internal checks.

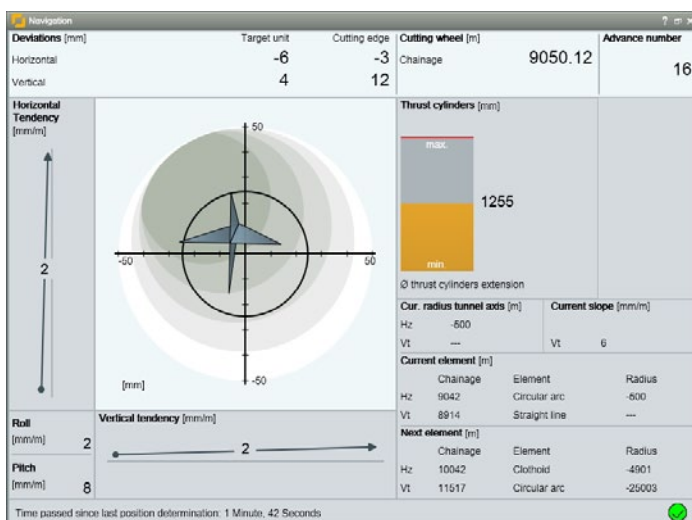
TUnIS software upgrade for SLS

TUnIS is the acronym for Tunnel and Underground Integrated Software structure. Upgrade of SLS-SL (Segmental Lining)/ SLS-HR (Hard Rock) including Ring Management Program for TUnIS Navigation including TUnIS Ring Sequencing.

TUnIS is a software platform for integrating various sensor systems that are used in tunnel construction projects.

TUnIS is particularly characterized by its well-arranged user interface and the consistent data preparation concept.

- Uniform appearance and optimized operating concept
- Modulare design
- Extensive user administration
- Data documentation according to current guidelines
- Standardised reports
- Integration of various data sources



Module "Navigation"

TUnIS software upgrade for SLS

Long-term experience and the constantly increasing demands by our customers have led to a continuous improved product portfolio and the most sold Navigation Systems for Tunnelling worldwide.

Enhanced features

New, enhanced, and optimized features:

- Cylinder navigation for overdetermined position calculation and continuous station determination
- Improved ring sequencing based on a wide variety of criteria
- Clearly arranged management and monitoring of several drive sections and several tunnelling machines within a single project
- Office application offering comprehensive analysis and documentation tools
- Visualization of the exact track or drift behaviour of the individual machine elements
- Configurable main view for extending the position indication by additional information

- Ring sequence calculations during current advance allow early analysis of critical situations
- Position determination possible also without system up and running (temporary compensation of component failures by means of cylinder navigation)

Internal checks

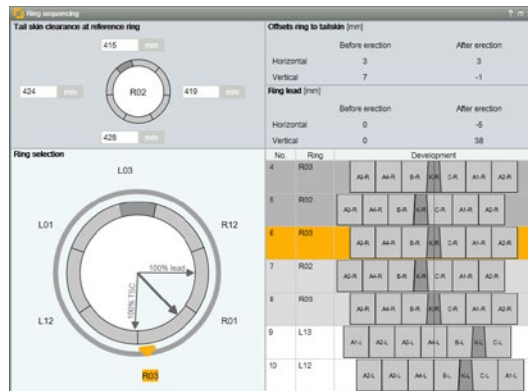
Data integrity and internal checks:

- Automatic database backup
- System recovery supported by software („Roll back“)
- Automatic system check by comprehensive internal plausibility checks and recording in message archive

Optimised processes

Minimized downtime by optimized processes:

- Improved laser modification routine enables advancing the total station during ongoing advance



Module
"Ring Sequencing"