

INSPECTION / EVIDENCE OF STATE

The dibit tunnel scanner system provides a complete geometrical and visual depiction of the recorded tunnel surface at a specific time. Tunnel scanner recordings are a high-quality as-built documentation. The efficient dibit software allows for easy, quick and versatile data evaluations.

Operators of infrastructural systems receive objective comprehensive information about the condition of their tunnels. The dibit tunnel scanner system is highly suited for routine inspections of tunnels.









Applications

First-pass Recording (High Definition 1 x 1 mm)

Geometrical Capture of:

- ☐ profiles, e.g. vaults, roadways
- ☐ dimensions, e.g. components, fixtures
- \square stations, e.g. joints, niches

Visual Capture of:

- ☐ material zones, e.g. rocks, bricks
- ☐ components, e.g. blocks, joints, niches, tunnel enlargements, rock bolts
- ☐ rehabilitation areas, e.g. grouting of cracks
- ☐ areas of damage, e.g. cracks, spalls, water ingresses
- ☐ installations, e.g. cable, pipes, air flaps, sign-postings, security facilities

Dibit Software

- ☐ analysis of the tunnel surface in 2D- and 3D-views
- comparison of different epoch data
- complete profile checks and clearance diagram check
- □ an exact quantity survey
- ☐ true-color image documentation
- ☐ masking of pipes, cables, etc.
- damage information in conjunction with dibit TIS

Subsequent-pass Recording (High Definition 1 x 1 mm)

- ☐ Geometrical and Visual Capture

 The geometric and visual capturing proceeds as in the first-pass. Subsequent-pass recordings serve for determination of variations (damaged areas and deformations) and are compared to the first-pass.
- Automated Detection of Cracks
 The automated detection of new cracks and crack growth.

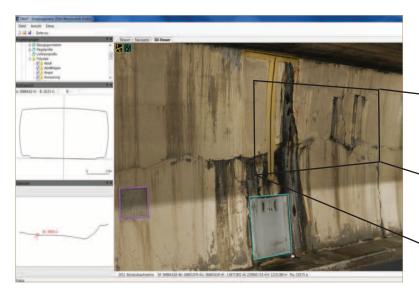


Results

- ☐ comprehensive true-color 3D-model
- □ cross sections
- □ contour maps
- □ ortho-images
- ☐ lists of calculation results in Microsoft Excel format



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First-Pass Recording

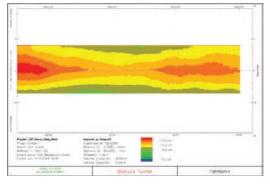
- $\ \square$ capture of damaged areas and components
- $\hfill \square$ analysis of crack patterns and capturing of crack lengths



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Subsequent-Pass Recording

- capture of deformations and alterations of damage-patterns
- $\hfill \square$ depiction of road deformations due to invert uplift
- $\ \square$ crack growth



Results

- ☐ mapping of cracks, components and damaged areas (see dibit TIS)
- ☐ AutoCAD plan of crack-patterns

