

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 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
- $\hfill\square$ stations, e.g. joints, niches

Visual Capture of:

- $\hfill\square$ 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
- \Box installations, e.g. cable, pipes, air flaps, sign-postings, security facilities

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.
- Semi-automated Detection of Cracks The semi-automated detection of new cracks and crack growth.



DIBIT SOFTWARE

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

RESULTS

- □ comprehensive true-color 3D-model
- $\hfill\square$ cross sections
- \Box contour maps
- □ ortho-images
- □ lists of calculation results in Microsoft Excel format





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First-Pass Recording

 capture of damaged areas and components
analysis of crack patterns and capturing of crack lengths







Subsequent-Pass Recording

- □ capture of deformations and alterations of damage-patterns
- □ depiction of road deformations due to invert uplift
- \Box crack growth



Results

- mapping of cracks, components and damaged areas (see dibit TIS)
- $\hfill\square$ AutoCAD plan of crack-patterns

