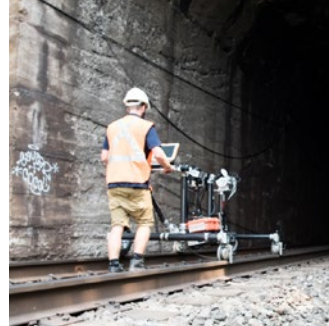


## IN-SITU ASSESSMENT / AS-BUILT APPROVAL

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 evalua-

tions. Owners, contractors, designers and construction supervisors can receive objective comprehensive information about the geometry and condition of the tunnel. The dibit tunnel scanner system is highly suited for in-situ assessments and as-built approvals.



### APPLICATIONS

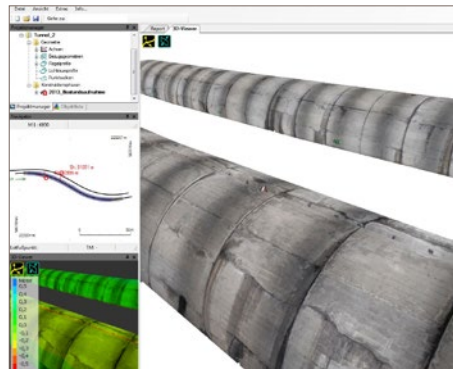
#### Recording In-situ Assessment

Geometrical Capture of:

- profiles, e.g. vaults, roadways
- dimensions, e.g. components, fixtures
- 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. cables, pipes, air flaps, sign-postings, security facilities



#### DIBIT SOFTWARE

- analysis of the tunnel surface in 2D- and 3D-views
- complete profile checks
- collision warning at clearance diagram check
- exact quantity survey
- true-color image documentation
- masking of pipes, cables, etc.
- damage information in conjunction with dibit TIS

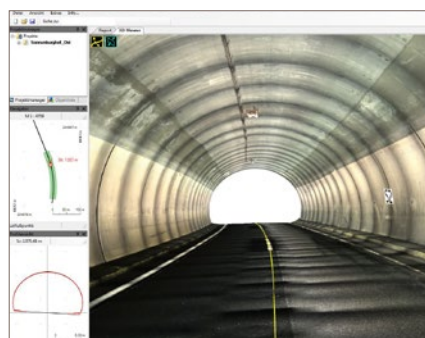
#### Recording As-built Approval

Geometrical and Visual Capture

- The geometrical and visual capture procedure is the same as for an in-situ assessment. In addition, component geometries are checked during a component testing to guarantee that the required specifications are maintained.

Automatic Component Testing

- block layers
- block joints depth and breadth
- recess depth and breadth

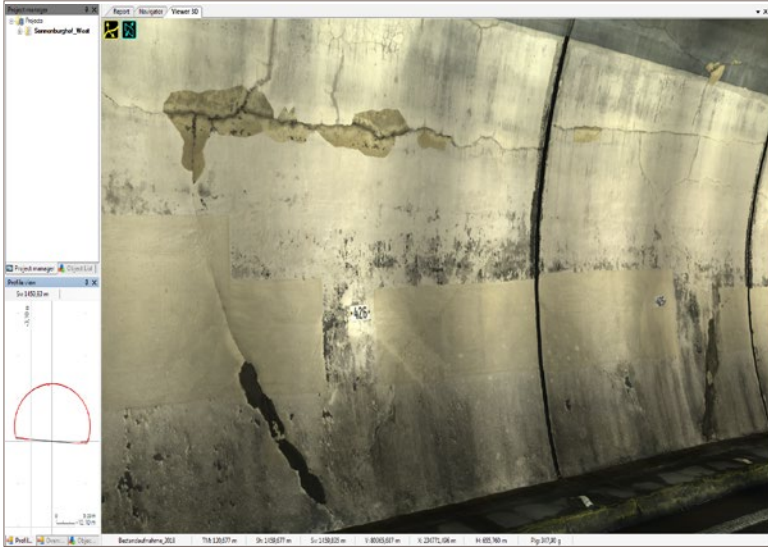


#### RESULTS

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

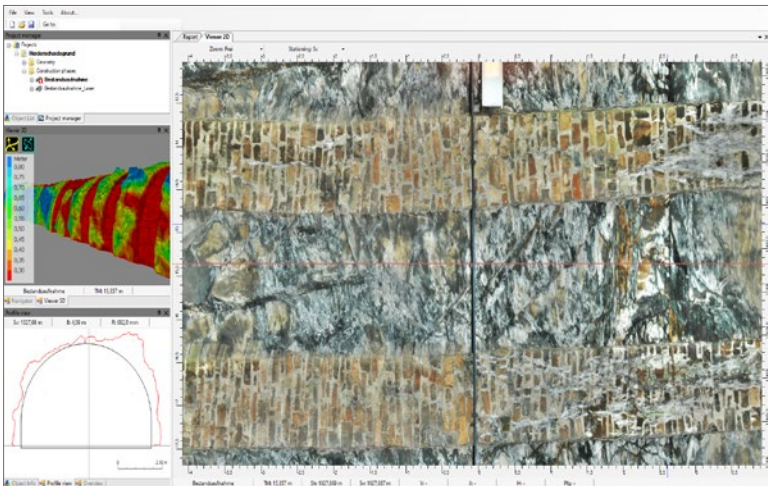


## IN-SITU ASSESSMENT/ AS-BUILT APPROVAL



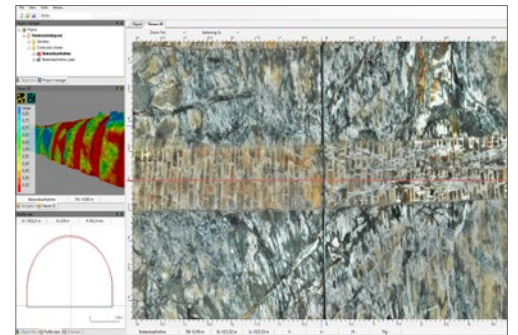
### Recording In-situ Assessment

- depiction of the tunnel vault via ortho image
- capturing of cracks and analysis of crack patterns



### Recording In-situ Assessment

- capture of material zones
- detailed analysis of material conditions



### Recording As-built Approval

- capture components of ring joints, concreting sections, niches and electric recesses (see dibit TIS)
- testing components of a particular electric recess with regard to predefined geometry values such as minimum depth

