Deformation Graphics 3D

# Axis3D DG3

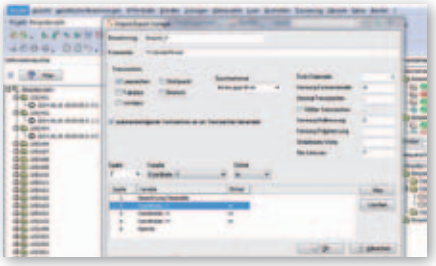
## PC-software to generate 3D graphics from monitoring data

**Customized data management:** Individual data structure design, according to project requirements.

**Comprehensive graphics:** Quick and easy interpretation of results by the project engineer.

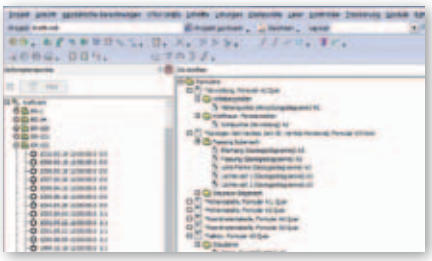
**Efficient plot generation:** Just a few mouse clicks to import current data into graphics and generate plots.

### Interfaces



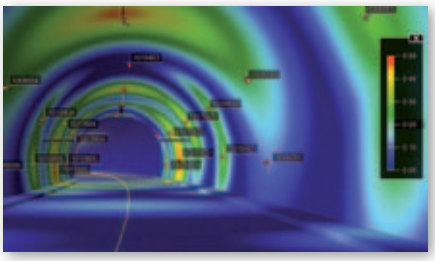
**User defined ASCII and CSV interfaces** are available to import/export monitoring data such as coordinates, distances, forces, and angles from any data source. Additional parameters such as precipitation , temperature, water level, or construction phase can also be imported. Interfaces for standard formats (e.g. GSI, RMGeo) are pre-defined.

### Data Management



Users can manage large volumes of data **individually and by project**. Distances, forces, and angles of various geotechnical sensors; deformation point coordinates; and additional, user defined parameters are stored **by epoch** . The clear data structure gives a **quick overview.**

### Graphics



A multitude of application-oriented **visualization options in 2D and 3D** facilitate the interpretation of extensive data sets on the PC or via the Internet. The generation of graphics is fast and straightforward, and they are easy to maintain. Decisions are based on reliable information and can be made quickly and confidently.

## System Information

**Hardware** (not included)
- PC with at least 2 USB ports
- 21″ screen (recommended)
- Three-button mouse

**Software**
- Axis3D PC software, incl. USB or SD dongle
- Languages: German, English; French (coming soon)
- Operating systems: Windows XP, Windows Vista, Windows 7, Windows 8 (32-bit and 64-bit, respectively)

**Related Products**
- Axis3D DGE - Deformation Graphics Editor
- Axis3D DGI - Deformation Graphics Import
- Axis3D DGO - Deformation Graphics Online
- Axis3D DGR - Deformation Graphics Real-Time
- Axis3D NET - Network Adjustment
- Axis3D SET - Sets of Angles
- Axis3D MON - Monitoring
- Axis3D AMO - Automated Monitoring
- Axis3D OBM - Tunnel Face Monitoring

## Axis3D DG3 Functionality

**General**
- Easy to use and flexible user interface
- 3D view of project incl. tunnel geometry, survey points, and measurement lines

**Import/Export Formats**
- Time-related data: coordinates, forces, angles, distances
- Additional parameters such as precipitation, temperature, water level, etc.
- Leica GSI8 and GSI16 data format (other manufacturers on request)
- RMGeo standard format
- Move3 standard format
- Eupalinos standard format
- Tunnelmonitor standard format (only export)
- Coordinate files sorted by columns (project and structures' coordinate system)
- User-defined ASCII and CSV formats sorted by column or lines

**Graphics**
- Display objects in 3D, showing deformations (color gradient, isolines, vectors)
- Vector deformation graphs in plan view
- Vector deformation graphs in front view
- Relative vector diagrams
- Settlement diagrams
- Time related diagrams
- Advancement related graphics (lines of influence)
- Cross-sections with deformation vectors
- Cross-sections for surface monitoring
- Tables
- Calculation of deformations with user-defined formulas
- All deformations can be shown in project or structure's coordinate system
- Display of alarm limits
- Convex hull polygons for vector diagrams
- Paper formats: A4 to A0; user-defined (e.g. US letter formats)
- Layout options: Lines, steps , columns
- Graphics layout can be further customized using *Axis3D Deformation Graphics Editor* or by Significant Software

**Geometry Manager (Axis3D GeoMan)**
- Analytical definition of the structure's geometry as per design
- Plausibility tests and 3D visualization
- Highly accurate transformation between project and structure's coordinate system

**Database**
- Time-related management of coordinates, forces, angles and distances, as well as additional parameters such as precipitation , temperature, water level
- Management of projects, monitoring cross-sections, structure's geometry, parameters, etc .
- Individual, project related data structure
- Database synchronization
- SQLite, Oracle, Microsoft SQL-Server, Interbase

## Customers

KELAG

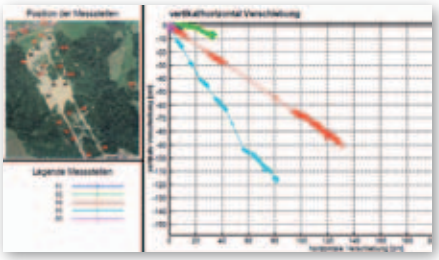
Stolitzka & Partner – Civil Engineers

Vorarlberger Illwerke AG

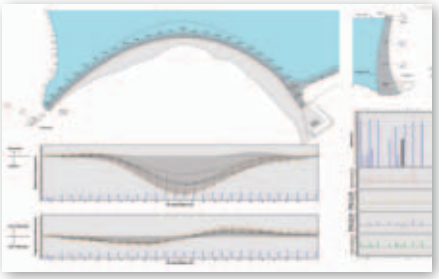
Salzburg AG

Kofler – Consulting Engineers

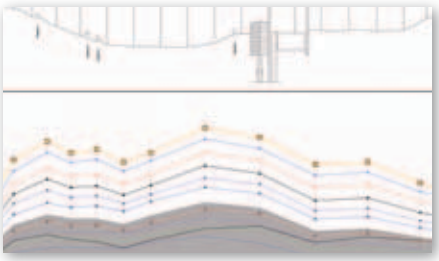
## Applications



**Mass Wasting**
3D coordinates from trigonometric and GNSS measurements, geotechnical sensors; Slopes, quarries, building pits



**Reservoirs**
3D coordinates, heights, geotechnical sensors; Dams, embankments, aqueducts



**Civil Engineering Structures**
3D coordinates, heights, geotechnical sensors; Bridges, tunnels, buildings, retaining walls

## Contact Information

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