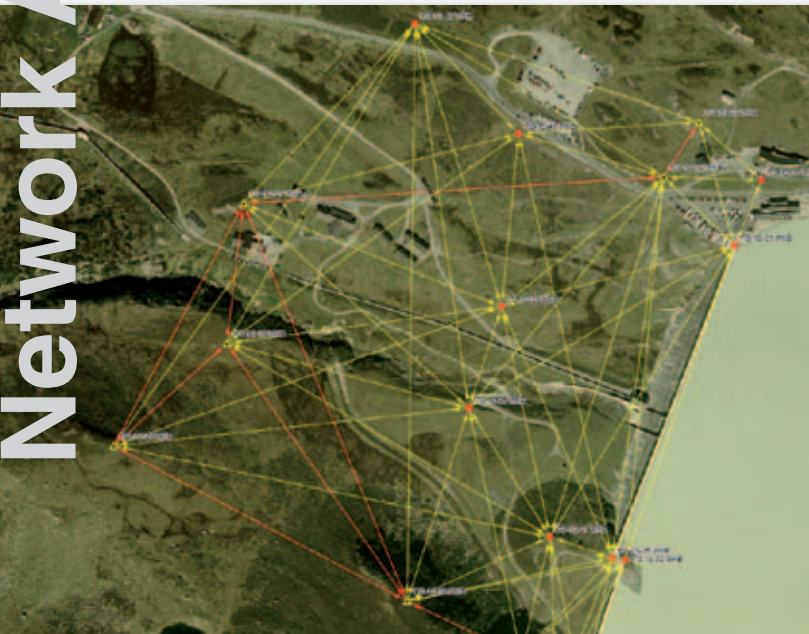


Axis3D NET

Network adjustment for demanding engineering surveys



Precise results: Tested calculation routines for reliable results.

Complex networks: Individual computation of weighting, scale factors, and refraction coefficients allow using heterogeneous data.

Easy error detection: Comprehensive routines find errors, even in complex networks.

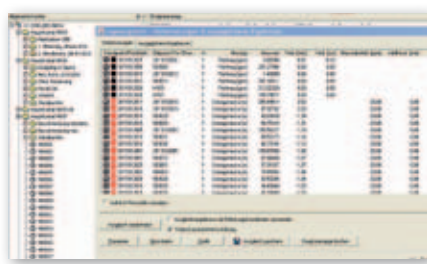
Efficient workflows: Intuitive user interface guides the user through the project and speeds work up considerably.

Measurement Data and Network Datum



Checking and cleanup of measurement data is simplified by **proven routines**, eliminating gross errors and mixed targets before the adjustment. Efforts for the definition of network datum are minimized due to **automatic calculation of approximate coordinates**.

Adjustment



Robust adjustment routines, including the calculation of additional parameters such as scale factors, refraction coefficients, or gyroscope constants, ensure **highest accuracy** results. The individual weighting of measurement data includes distance-related measurement and reference point accuracies, as well as centering errors. These sophisticated features, combined with an **intuitive user interface**, enable a professional analysis of measurement data.

Network Graphics



The graphic presentation of sightings and points, including error ellipses and height errors, gives a **comprehensive overview of the network**. As point IDs are shifted automatically to blank areas, the graphics stay clear, ensuring a good overview to judge the network design and quality at a glance. Export to scale as DXF or PDF files.

System Information

Hardware (not included)

- PC with at least 2 USB ports
- 21" screen (recommended)
- Three-button mouse

Software

- Axis3D NET 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 GTM - Geotechnical Monitoring
- Axis3D COS - Construction Surveying
- Axis3D SET - Sets of Angles
- Axis3D MON - Monitoring

Axis3D NET Functionality

General

- Easy to use and flexible user interface design
- Store entire adjustment projects for further calculations

Measurement Data

- Hz-Angles
- Distances
- V-Angles
- Leveling runs
- Gyroscope readings
- Comprehensive options for checking measurement data

Adjustment Results

- Coordinates of control points and new points
- Optional: multiple EDM scale factors and prism constants
- Optional: multiple refraction coefficients
- Optional: multiple gyroscope constants

Network Adjustment

- Separate calculation of position and height
- Unconstrained adjustment and subsequent transformation onto given control points
- Constrained adjustment with fixed control points
- Distance-related weighting of observations considering individual measurement accuracies and centering errors
- Display of residuals, misclosures, coordinate corrections, error information
- Variance component estimation
- Optional: meteorological and geometric distance reductions

3D Network Graphics

- Reference points, control points, and new points
- Sightings
- Error ellipses and height errors
- User-defined scale for network and error information
- Scalable symbols
- Automatic shift of point IDs for clear graphics
- DXF and PDF export

Database

- Management of control points and new points, adjustment parameters, etc.
- Individual, project related data structure
- Interfaces for data import/export
- Database synchronization
- SQLite, Oracle, Microsoft SQL-Server, Interbase

Customers

DIBIT Measuring Technique

Rhomberg Sersa Rail Group

Stolitzka & Partner Civil Engineers

Vorarlberger Illwerke AG

Applications



First-order Geodetic Networks



Precise Control Measurements



Complex Deformation Measurements

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