

# **Axis3D SET**

### Field solution for efficient sets of angles measurements



**Short measuring times:** Save time by measuring automatically.

**Intuitive user interface:** Workflow optimized for fieldwork – developed by surveyors for surveyors.

**Smart:** On-board software for Leica Geosystems total stations TPS1200, TM/TS30, Viva and Nova total stations. No additional hardware necessary.

**Reliable:** Accuracy information is displayed immediately.

Measurement quality can be checked in the field.

# **Measure Learning Set**



The first set defines the target points and the measurement order. Each point is assigned an individual automatic target recognition (ATR) status, prism and constant, target height, temperature, and humidity value. After setting up the total station (with coordinates), automatic positioning to target points with known coordinates is possible.

# Automatic Set Measurement



The instrument positions the telescope to the target points as defined in the first set, using the assigned target heights and prism types. Depending on the selected ATR status the points are measured automatically or manually. Points that are no longer available can be skipped.

### **Control**



A **preliminary adjustment** is automatically calculated after completing the sets of angles measurements. Maximum errors and residuals are displayed. Results can be **checked in the field** and – if required – additional sets can be measured to increase accuracy.



## **System Information**

#### Hardware

- Leica Geosystems TPS1200 total station
- Leica Geosystems TM/TS30 total station
- Leica Geosystems Viva total station
- Leica Geosystems Nova total station

#### Software

 Axis3D SET on-board software for Leica Geosystems TPS1200, TM/TS30, Viva and Nova total stations

#### **Related Products**

- Axis3D COS Construction Surveying
- Axis3D GTM Geotechnical Monitoring
- Axis3D NET Network Adjustment

### **Applications**



**Basic Geodetic Networks** 

### **Axis3D SET Functionality**

#### General

- Measurement data stored in ASCII files in Leica GSI8 or GSI16 format, and the on-board database (Viva and Nova)
- Point coding consistent with other Axis3D products
- Making use of Leica Viva Imaging functionality (coming soon)
- Optional: logging of all activities on the total station
- Program continues after power fail

### **Learning Set**

- Unlimited number of target points and sets
- One- or two-face measurements
- Automatic positioning to points with known coordinates
- Manual positioning to points without coordinates
- Measure entire set with pre-defined target positions (optional)
- Individual automatic target recognition (ATR) status, prism and constant, target height, temperature, and humidity value for each point
- Learning set is not stored as part of the sets of angles measurement

#### **Sets of Angles Measurement**

- Measurement method: all points are measured in face one as defined in the learning set, followed by measurements to all points in face two in reverse order
- Automatic positioning to each point.
   Measurements according to the defined
   ATR status, prism type, and target height
- The ATR status of individual points can be changed during measurements.
- Skip points that become unavailable

### **Checking Results**

- Automatic preliminary station adjustment after measurements are completed
- Display of maximum residuals for Hzangle, V-angle, and distance with the affected target point
- Display of mean errors as well as vertical index error
- Measure additional sets based on the learning set (optional)



**Geodetic Control Measurements** 



**Deformation Measurements** 

## Contact Information

### www.axis3D.eu

### **Customers**

**Geodata Group** 

**Rhomberg Sersa Rail Group** 

IVB - Ingenieurgesellschaft

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