

GEDO SCAN

RELATIVE KINEMATIC LASER SCANNING

The Trimble GEDO Scan system is a modern and efficient purely relative kinematic scanning system for obtaining detailed information about the track and surrounding features. High-resolution relative three-dimensional data can be obtained quickly and precisely for clearance analysis and documentation.

TRIMBLE GEDO SYSTEMS

Trimble GEDO systems can be used for various applications in measuring, recording and analyzing track position and track quality, as well as for construction and maintenance activities. The instruments and software of the Trimble GEDO systems are specifically designed for the various surveying tasks on railway lines and simplify the work in the field and in the office. Using standard data formats, information can be exchanged with leading software products for track planning and track maintenance machinery.

SYSTEMAUSSTATTUNG

Trimble GEDO Scan

Software for controlling the measurement process with control of the laser scanner and acquisition of the sensor values from the track measurement trolley. A three-dimensional point cloud is generated, which can be used for purely relative verification of the clearance in tunnels or at bottlenecks.

Trimble GEDO Scan Office

Software for pre-processing and analyzing Trimble GEDO Scan measurements. Clearance analyses are possible with static clearance envelopes. Cross-sections can be generated along the track axis and exported as DXF plots with automatic dimensioning.

Additional functions are available in GEDO Scan Office to determine the distances to the adjacent track, to platform edges and to the overhead line.

APPLICATIONS

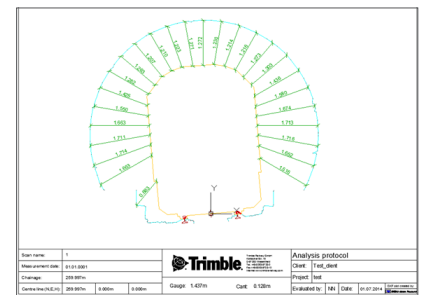
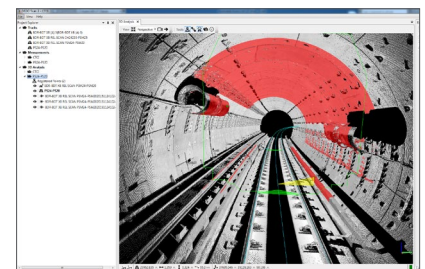
Execution of construction work, operation and maintenance

- ▶ Clearance analysis with static clearance envelopes for monitoring during construction work
- ▶ Documentation of bottlenecks for the infrastructure operator (e.g. WinLUE for LIRA and Clearroute)
- ▶ Clearance analysis for extra-wide transports and cross-border rail traffic



Key Benefits

- ▶ Use of a universal track measuring device with modular expansion options
- ▶ Helical scan method for three-dimensional detection of objects along the track
- ▶ Modular design for optimum adaptation to the measuring task
- ▶ High productivity and flexibility lowers costs and reduces personnel expenses
- ▶ Adjacent track detection for tracks visible in the scan
- ▶ Overhead line detection and distance measurement
- ▶ Station view for easy point cloud navigation



Find out more:
gedo.trimble.com



GEDO SCAN

RELATIVE KINEMATIC LASER SCANNING

GENERAL	
APPLICATIONS	
	Clearance inspection after completion of a construction project Recording and documentation of bottlenecks Clearance analysis during regular operation
PERFORMANCE	
Relative accuracy	< 5 mm in 7 m distance
Measurement speed	up to 5.000 m/h
SYSTEM REQUIREMENTS	
Supported instruments	Trimble GX50 laser scanner Trimble TX6/TX8 laser scanner
Controllers	Trimble TSC7, T7 and T100 controllers (Windows® OS)

TRIMBLE GEDO CE 2.0	
Description	Track-mounted trolley (Extensions are possible)
Gauges	1.000 mm, 1.067 mm, 1.435 mm, 1.520 mm 1.524 mm, 1.600 mm, 1.668 mm, 1.676 mm (other gauges on request)
Weight	24,8 kg ⁽¹⁾
GAUGE MEASUREMENT	
Range	-20 mm to +60 mm
Accuracy	±0,3 mm
CANT MEASUREMENT	
Range	±9° or ±235 mm at 1.435 mm track gauge
Accuracy	±0.5 mm (static)
BATTERY	
Type	Trimble S-Series Li-Ion, rechargeable
Life	6 - 8 h (hot-swappable)
COMMUNICATION	
Connection to control unit	Bluetooth®
IMU / GX50	WLAN
TRIMBLE GEDO GX50 SINGLE HEAD LASERSCANNER	
Measurement range	0,6 m up to 80 m
Accuracy ⁽²⁾ / Precision ⁽³⁾	2 mm / 2,5 mm @ 30 m
Measurement rate	500 kHz
Scanning speed	120 Hz
Field of view	345°
Battery life	4,5 h (Single Head)



⁽¹⁾ incl. Trimble GEDO GX50 Single Head laser scanner
⁽²⁾ Accuracy is the degree of correspondence between a measured value and its actual (true) value
⁽³⁾ Precision is the degree to which further measurements show the same results

Specifications subject to change without notice.

NORTH AMERICA
 Trimble Inc.
 10368 Westmoor Dr
 Westminster CO 80021
 USA

EUROPE
 Trimble Railway GmbH
 Korbacherstraße 15
 97353 Wiesentheid
 GERMANY
gedo.trimble.com

ASIA-PACIFIC
 Trimble Navigation
 Singapore PTE Limited
 3 HarbourFront Place
 #13-02 HarbourFront Tower Two
 Singapore 099254
 SINGAPORE

