



Trimble Access Rail Module Stakeout

TRACK SURVEY AND STAKEOUT

GENERAL	
APPLICATIONS	
	Stakeout of the design track position with adjacent marking Stakeout for turnout installation Stakeout of platform edges or objects with track reference Control survey Track adjustment with low daily output Clearance control and preservation of evidence Data collection for creation of stakeout reports
SYSTEM REQUIREMENTS	
Supported instruments ⁽¹⁾	Trimble S-series total stations (i.e. S7, S9) Trimble scanning total stations (i.e. SX10, SX12) Trimble GNSS systems (i.e. R10, R12, R12i)
Controllers	Trimble TSC7, T7 and T100 controllers (Windows® OS) Trimble TSC5 (Android OS)
Trimble Access Version	2021.00 or above (for Windows OS) 2023.10 or above (for Android OS)

⁽¹⁾ Analog to the support in Trimble Access

⁽²⁾ Additional license required



TRACK ALIGNMENT DEFINITION	
TRACK ALIGNMENT	
Digital import formats	LandXML (*.xml), Verm.esn (*.tra/* gra), CARD/1 (*.bag/* crd), Ascii-Bahn (*.aba), ProRail (*.trc), iGleis, TopoRail, DB track data (*.mdb) ⁽²⁾ and more
Geometry data	Horizontal alignment, vertical alignment, cant, chainage line, gauge extension, precamber bridge construction
HORIZONTAL ALIGNMENT	
Definition	Track center line
Elements	Straight line, circular arc, direction change and transition curves
Transition curves	Clothoid, Bloss, Schramm parabola, Bloss (half wave), Schramm (half wave), Wiener Bogen®, cosinusoidal curve, cubic parabola (e.g. Italy, Korea, NSW), West Rail Cubic
VERTICAL ALIGNMENT	
Definition	Gradient
PVI's	Without curvature, circular or parabolic rounding
Chainage reference	To center line or chainage line
CANT/SUPERELEVATION	
Definition	Rail height above vertical alignment, support of X-ramps
Ramp types	Linear, Bloss, Schramm parabola, Bloss (half wave), Schramm (half wave), Wiener Bogen®, cosinusoidal curve
CHAINAGE LINE	
Definition	Horizontal alignment for primary chainage reference
Elements	Similar to horizontal alignment, station equations (forward and backward)
TRACK ALIGNMENT MEASUREMENTS AND STAKEOUT	
TRACK SURVEY	
Survey	Real-time transformation based on track alignment
	Live display of horizontal and elevated offset to the design alignment
	Customized display of information and display of tangent points
Display	Graphical overview map of track alignment with tangent points and measurement point display
	Video display for total stations with Vision technology
STAKEOUT	
Reference values	Input of chainage, lateral and height offset to design
	Processing of stakeout lists
	Tangent point selection from map or list view
	Stakeout with constant chainage interval
REPORTS	
	Logging in ASCII-file
	Generation of stakeout report

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