



# Feature Matrix

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## TRIMBLE 4D CONTROL VERSION 6.5 SOFTWARE

Trimble 4D Control™ (T4D) software offers flexible edition options tailored to address different project requirements needed by specialized monitoring consultants, land surveyors, construction companies, dam and mining operators:

- **T4D Access:** Seamlessly bring semi-automated total station data from Trimble Access Monitoring or 3rd party total stations into T4D for automated analysis and reporting using T4D Web; Upgrade to a fully automated system with T4D Advanced while maintaining historical data for charting and reporting.
- **T4D Field:** Enables easy integration into a third-party system with efficient total station setup support for automated monitoring, data processing of total station measurements, and output of processed coordinates.
- **T4D Intermediate:** Manual total station data processing, network adjustment of total station data, processing of GNSS receiver data, integrated processing of total station and GNSS receiver data, data management (administrative web application), and data storage in a Microsoft SQL database.
- **T4D Advanced:** Adds support for geotechnical sensor management and a front-end web interface for project management, data visualization, reporting and alarming.
- **T4D Geotechnical:** Complete package for geotechnical automated monitoring, including analysis, reporting, visualization, and alarming. Supports geotechnical sensors using the gateway-based method in T4D Web.

The new T4D 6.5 version comes with an enhanced Rail module addressing diverse customer requirements and project specifications that differ across regions and projects:

- **T4D Rail:** Add-on module for real-time rail track monitoring that streamlines project configuration, reporting, and alarming of rail track geometry combined with the Trimble Access Track Gauge Survey app or GEDO CE system, now supporting tiltmeters and total station monitoring without the as-built data.

Blue text denotes new or enhanced features in T4D v6.5



Category	Feature	Access	Field	Intermediate	Advanced	Geotechnical
Optical/total station (TS)	Post-processed TS data	x		x	x	
	TS control		x	x	x	
	Support for Settop M1 (no data loss)		x	x	x	
	Processing data of single TS	x	x	x	x	
	Support external temperature sensor		x	x	x	x
	Integrity check on observations		x	x	x	
	Automatic and scheduled compensator calibration		x	x	x	
	Alarming (TS)	x	x	x	x	
	Output of processed coordinates and statistical information	x	x	x	x	
	Reporting of 1,2 and 3 sigma errors	x	x	x	x	
	GKA file total station data importer	x	x	x	x	
	Trimble VISION support		x	x	x	
	Enhanced site setup workflow		x	x	x	
	Network adjustment (multiple TS)				x	x
	Stored time series of processed results	x			x	x
GNSS	Receiver connection and control			x	x	
	Non-Trimble receiver connection			x	x	
	RTK processing (VRS and baseline)			x	x	
	Postprocessing			x	x	
	Alarming (GNSS)			x	x	
	Stored time series of processed results			x	x	
	Trimble CenterPoint RTX Postprocessing			x	x	
	Support for the MPS865 and SP90m			x	x	
Optical + GNSS	Raw data storage			x	x	
	FTP mirroring of stored raw data			x	x	
	Real-time raw data routing			x	x	
	Combined processing optical and GNSS			x	x	

Category	Feature	Access	Field	Intermediate	Advanced	Geotechnical
	Combined network adjustment			x	x	
Web Application	Project and sensor management	x		x	x	x
	Account management	x			x	x
	Charts	x			x	x
	Scatter plots	x			x	
	Map views	x			x	x
	Custom and composite views	x			x	x
	Webcam support	x			x	x
	Sensor groups and bulk creation	x			x	x
	Scheduled reporting	x			x	x
	Comprehensive analysis capabilities	x			x	x
	Advanced alarming capabilities	x			x	x
	Calculation sensor support				x	x
	Alignment-based monitoring	x			x	
	Visual inspection tool for TS image	x			x	
	Coordinate monitoring	x		x	x	
	<b>Windows authentication to SQL Server and Active Directory</b>	<b>x</b>		<b>x</b>	<b>x</b>	<b>x</b>
Geotechnical & more	Sensor agnostic file import				x	x
	Inclinometer sensor chain support				x	x
	Alarming (Geotech Sensors)				x	x
	Gateway-based sensor connection				x	x
	Measurand ShapeArray support				x	x
	Syscom Rock & MR3003C vibration sensor support				x	
	<b>Syscom MR3003DMS &amp; MR3003SB acceleration sensor support</b>				<b>x</b>	

The following **sensor nodes** are included with T4D editions. Additional nodes can be purchased based on project requirements.

Category	Sensor Node Type	Access	Field	Intermediate	Advanced	Geotechnical
Included Sensor Nodes	TS Node	N/A	1	1	1	
	GNSS Receiver Node	N/A		1	1	
	Geotech Node	N/A			5	5

The following module is available to be added to T4D: **Rail module**

Rail module can be added onto T4D Advanced, T4D Access and **T4D Geotech** editions. The main features of the module are:

- Import of the rail geometry as-built (\*.track file ) collected with the TA Track Gauge Survey app or GEDO CE
- Automated offset calculation of between rail heads and monitoring prisms
- Support of main rail track geometry parameters (cant, twist, hz/vt versines, hz/vt displacements)
- Pre-configuration of rail sections
- Rail specific visualization across epochs or chainages for analysis
- Support automated and semi-automated total station monitoring with track's as-built
- **Support automated and semi-automated total station monitoring without track's as-built**
- **Support of tiltmeters for rail monitoring**