Trimble Trident

SOFTWARE

TRANSFORM LAND MOBILE SENSOR DATA INTO GEOSPATIAL INTELLIGENCE

Trimble® Trident™ software efficiently processes and manages land mobile sensor data to produce accurate, detailed GIS and Survey deliverables.

Create Geospatial Intelligence

Mobile imaging and laser scanning systems create immense datasets that can quickly overwhelm manual workflows. Trimble Trident provides robust object positioning, measurement, point cloud classification, and data layer creation – ideal for the analysis of geo-referenced imagery and laser scanner data.

Industry-leading functions accelerate projects and increase productivity, including key automated processes such as modeling, sign and pole detection, lane marking detection, edge and breakline detection, road geometry, and clearance measurements.

Designed for Productivity

The Trident Imaging Hub provides powerful data processing and management capabilities. Optional modules feature highly-automated data extraction tailored for specific GIS, survey, and inventory workflows.



Trident Imaging Hub

Manage and analyze digital imagery and point clouds with confidence:

- Rapid loading of MX instrument data
- Precise application of postprocessed trajectories
- QA/QC tools
- RGB point cloud colorization
- Manual classification and information extraction from digital imagery and point clouds
- User-defined GIS data entry forms
- Projection of existing GIS database content on images and point clouds for easy data management
- Direct GIS database connection for multi-user data extraction and maintenance

Trident Factory

Automate roadway asset inventory, geometry and safety assessment:

- Optional module for Trident Imaging Hub
- Automated feature and change detection of poles, signs, and pavement markings
- Automated modeling of terrain, vertical and horizontal clearances, line-of-sight, roadway cross sections, edges and centerlines
- Land XML exports

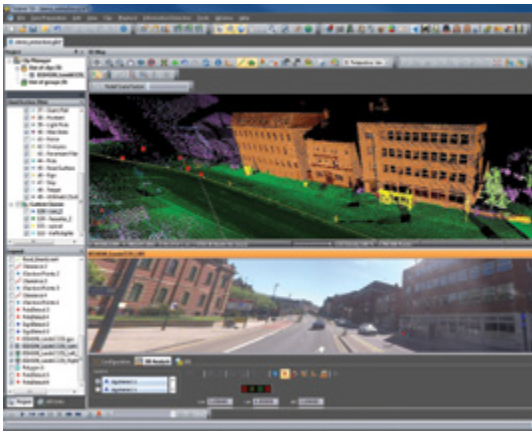
eCognition for Trident

Automated, highly-configurable feature extraction and analysis:

- Optional module for Trident Imaging Hub
- Analyzes and processes selected data in Trident using eCognition Rule Sets
- Results are directly displayed within Trident

Key Features

- Efficient visualization, navigation and processing of land mobile laser and image data sets
- Automated information extraction
- Powerful enterprise-level GIS database support





	MX7	MX2	MX8	Trident Imaging Hub	Trident Factory	eCognition for Trident
General features						
Project settings	✓	✓	✓	✓		
Coordinate System Manager	✓	✓	✓	✓		
Database connectivity	✓	✓	✓	✓		
Database handling options	✓	✓	✓	✓		
2D and 3D Display	✓	✓	✓	✓		
Image Viewing 2D and 3D	✓	✓	✓	✓		
Playback option	✓	✓	✓	✓		
Point Cloud Viewing 3D/w Region Of Interest		✓	✓	✓		
Blended Digital Imaging, Point Cloud, Vector information	✓	✓	✓	✓		
Annotation blending	✓	✓	✓	✓		
Point cloud coloring options		✓	✓	✓		
Camera Boresight Calibration with GCP	✓	✓	✓	✓		
Navigation options						
Digital Imaging/w Point Cloud Playback	✓	✓	✓	✓		
Different view orientation options	✓	✓	✓	✓		
Corridor Panning	✓	✓	✓	✓		
Tickmark Navigator (2DAnalyst + 3DMap)	✓	✓	✓	✓		
Drawing / feature extraction tools						
GPS to Linear Referencing Tool	✓	✓	✓	✓		
GIS Layer Form creation and handling tools	✓	✓	✓	✓		
Photogrammetric Feature Add / Delete (2 Click)	✓	✓	✓	✓		
Feature Add on pavement (1 Click)	✓	✓	✓	✓		
Various 3D vector editing and measurement tools	✓	✓	✓	✓		
Image Clipping Tool	✓	✓	✓	✓		
Manual Sign Recognition	✓	✓	✓	✓		
Sign Compiler and Library Viewer	✓	✓	✓	✓		
Data Import						
Navigation File import	✓	✓	✓	✓		
Esri SHP, CSV, DXF	✓	✓	✓	✓		
Point cloud format las 1.2*		✓	✓	✓		
Data Export						
Direct connection to external GIS	✓	✓	✓	✓		
ESRI SHP, CSV, DXF	✓	✓	✓	✓		
AVI / PGR to JPG Conversion (with Titling)	✓	✓	✓	✓		
AVI / PGR to TopoDOT export	✓	✓	✓	✓		
Point cloud format las 1.2, las 1.4	✓	✓	✓	✓		
Single and multiple image export	✓	✓	✓	✓		
Advanced Tools						
Laser Calibration tool		✓	✓	✓		
Laser Data Registration		✓	✓	✓		
Position Fix		✓	✓	✓		
Control / Target Detection		✓	✓	✓		
Point Cloud to Control / Target Registration		✓	✓	✓		
Point Cloud to Point Cloud Registration		✓	✓	✓		
Automated Plane detection and validation		✓	✓	✓		
Command line export for las 1.2		✓	✓	✓		
Point cloud classification tools		✓	✓	✓		
Single click object selection (lanes and cylindrical poles)		✓	✓	✓		
3DBox, rectangle and polygon selection		✓	✓	✓		
3D Breakline Extraction tool		✓	✓	✓		
RGB Laser Colorizer		✓	✓	✓		
Automated Extraction						
Image Pavement Mosaic Generation			✓		✓	
Pole Detection (with change detection)		✓	✓		✓	
Sign Detection (with change detection)		✓	✓		✓	
Edge Detection		✓	✓		✓	
Pavement Marking Detection			✓		✓	
Road Modeler (DTM, Cross Sections, Profiles)		✓	✓		✓	
Horizontal / Vertical Line of Sight		✓	✓		✓	
Horizontal / Vertical Clearances		✓	✓		✓	
Land XML Export		✓	✓		✓	
eCognition Rule Set Edge of Pavement		✓	✓			✓
eCognition Rule Set Ground classification		✓	✓			✓
eCognition Rule Set extendibility		✓	✓			✓
eCognition Server		✓	✓			✓

* Only viewing and editing but no export.

Contact your local Trimble Authorized Distribution Partner for more information

NORTH AMERICA
Trimble Navigation Limited
10368 Westmoor Dr
Westminster CO 80021
USA

EUROPE
Trimble Germany GmbH
Am Prime Parc 11
65479 Raunheim
GERMANY

ASIA-PACIFIC
Trimble Navigation
Singapore Pty Limited
80 Marine Parade Road
#22-06, Parkway Parade
Singapore 449269
SINGAPORE

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