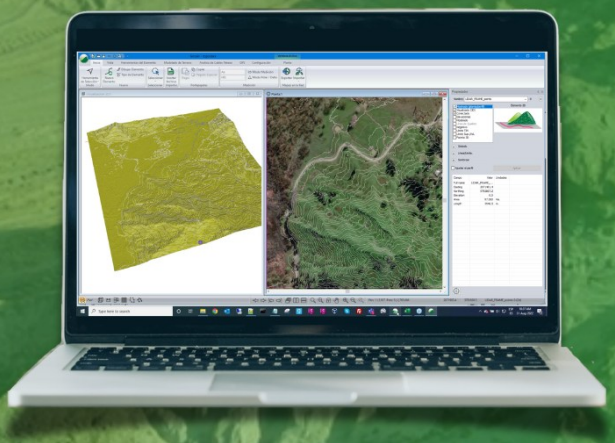
Softree
Engineering an Easier Way

TerrainTools®

Engineering & 3D Mapping Software



3D mapping and site design software. Create 3D terrain models and engineering designs for a wide variety of projects.

With **Terrain Tools** you can:

- Work with a wide variety of survey data formats
- Import and combine multiple georeferenced data sources
- Create digital terrain models with contours
- Calculate stockpile and various earthwork volumes
- Design graded pads
- Design ponds
- Design pits with benching
- Fix crossing breaklines
- Create cut/fill maps
- Create output sheets
- ***And so much more!***

Engineering an Easier Way

Proven and field-tested, our software is used by thousands of consultants, companies, universities and governments worldwide. Our software works hard behind the scenes so that our users can always enjoy a simple and intuitive interface.

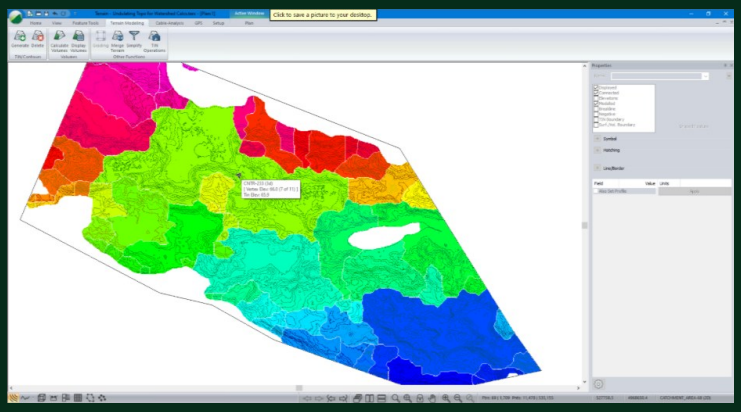
Compatible

Terrain Tools reads and writes a variety of open and proprietary formats, including LandXML, shapefiles, DXF, and CSV (for use in CAD and GIS workflows). It also supports field equipment used in data collection and design review, such as machine control systems, Avenza Maps, GPS units, laser rangefinders, and Windows tablets.

More than just mapping

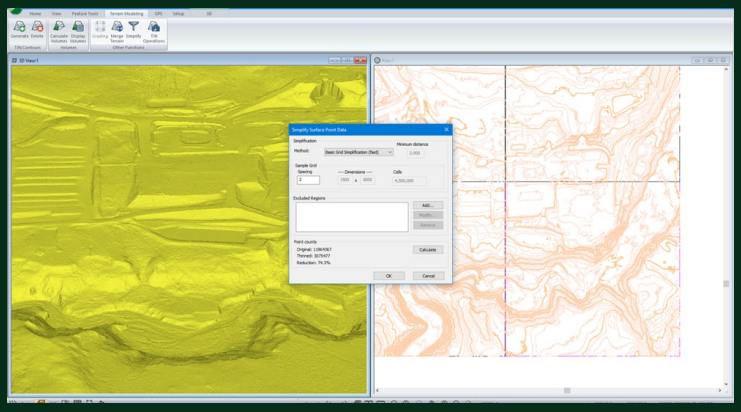
Hydrology Tools

- The Terrain module includes tools for modeling surface flow paths, generating watershed areas, identifying drainage points, detecting streams, and locating ponded depressions.
- Enables better drainage design and water management.



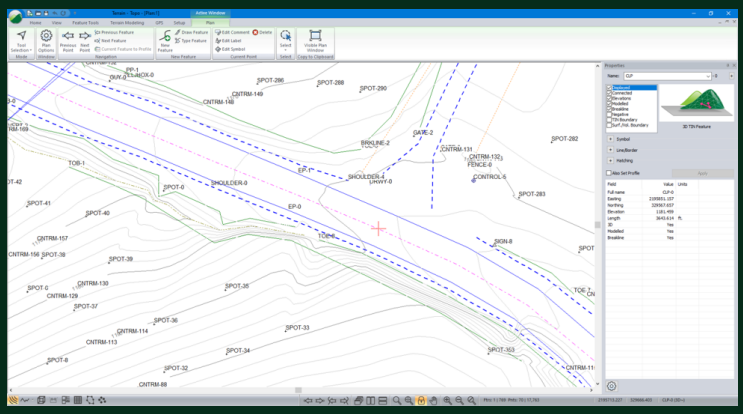
LiDAR Import & Thinning Control

- Create surface models from large LiDAR and UAV datasets—supports over 10 million points.
- Includes LiDAR thinning tools, with options to thin outside of areas of interest, including: polygons, coordinate ranges, or corridors.



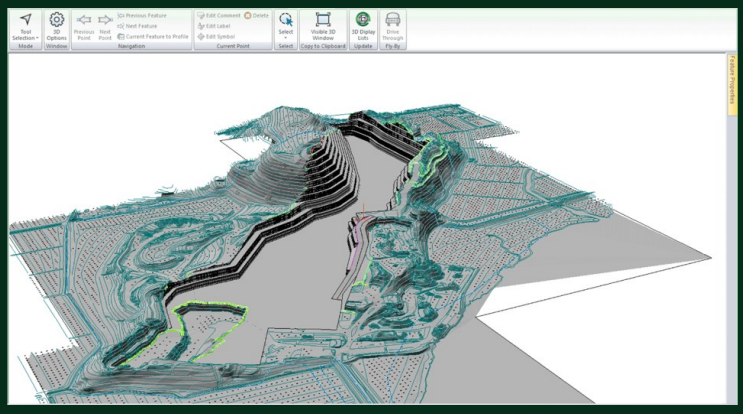
Survey Data Entry & Management

- Import and manage multiple survey and file formats, including Total Station, LiDAR, ASCII, DWG, DGN, USGS DEM, LandXML, and common image types (TIFF, BMP, JPG).
- Automatically process Total Station data with control over linear features, breaklines, and symbology.

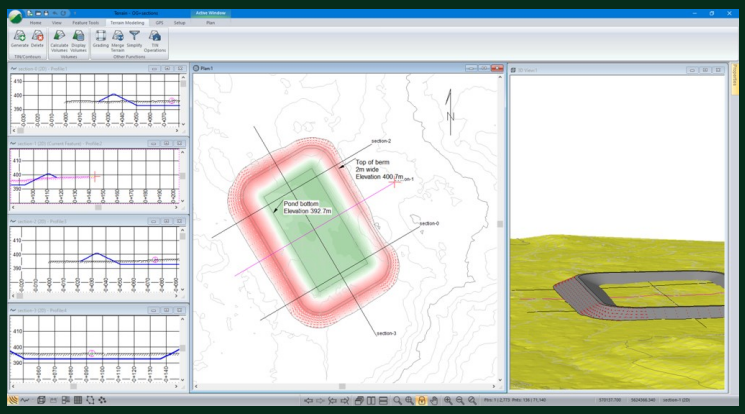


Digital Terrain & Surface Modelling

- Create 3D surfaces and Digital Terrain Models (DTM) using breaklines and boundary areas.
- Generate and update contours at custom intervals, with full control over color, line style, and labeling.

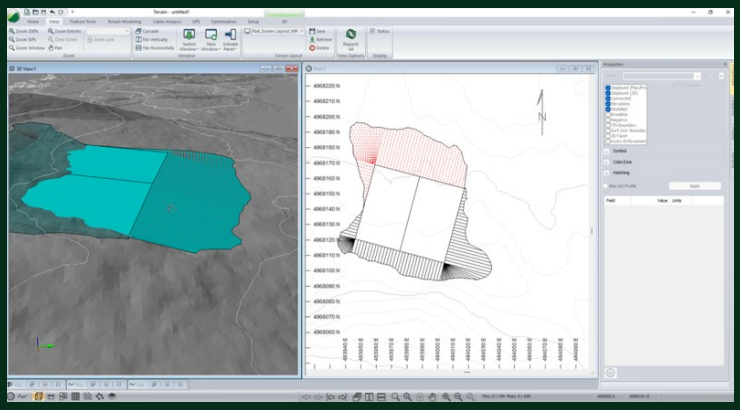


3D mapping for engineers



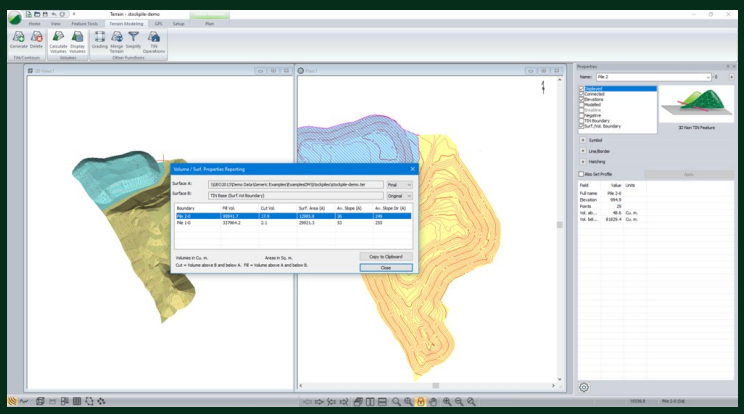
Site Design& Grading Functions

- Design site plans for bridges, culverts, fish passages, and stream restoration projects.
- Simplify site design with intuitive grading tools and creation of features like ponds, pads, and pits.



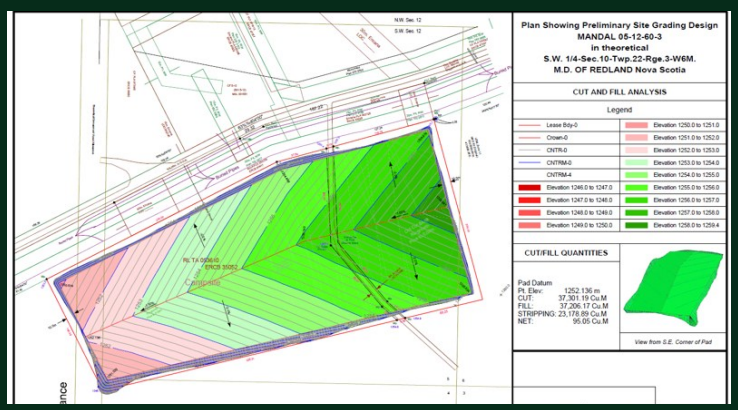
Grading & Auto-balance

- Grade features by projecting slopes to a target surface and creating daylight lines.
- Automatically generate TIN surfaces and calculate cut/fill volumes.
- Use Auto-balance to adjust elevations for balanced earthwork — ideal for pads, landings, and site design.



Easily Calculate Earthwork Volumes

- Calculate stockpile and earthwork volumes using the average end-area method.
- Compute volumes between surfaces or within boundary-defined areas.
- Analyze boundary polygons for surface area, volume, average slope, and aspect.



Output

- Customize output sheets with plan and profile views, title blocks, legends, and more.
- Export directly for use with Avenza PDF Maps.

Key Benefits

Quick learning curve

Be up and running in hours with little or no training with Terrain Tools' easy user interface.

Powerful for big datasets

Comfortably processes LiDAR data sets with millions of points. Setup boundaries and selectively thin points.

Engineering design functions

More than just mapping. Functions include: site grading, earthwork structure design and calculations.

Easy user-interface

When it comes to menus, dialogs, modes, buttons and options our philosophy is "the fewer the better".

Compatible

Move information seamlessly between other applications with DWG, Shape and LandXML formats.

Systems Requirements

- Windows 7, 8, 8.1, 10, or 11 Operating System
- 4 GB system RAM (8 GB recommended)
- Minimum 800 x 600 resolution (more recommended)
- Processor or motherboard built-in video is adequate
- 1 GB disk space

File Format Compatibility

- **IMPORT:** .TIF, .JPG, .BMP, .SHP, Mr.SID, ECW, LAS, .LAZ, .GPX, .GML, .ASCII, Excel, .DXF, .DWG, USGS DEM, SDTS, .TXT, .CSV, LandXML, .DGN, .KMZ, .KML, .POL, .JP2
- **EXPORT:** .SHP, .ASCII, Excel, .DXF, .DWG, .JPG, .DGN, .KMZ, TIF, JPG, BMP and LandXML.

Used by Leading Companies Worldwide

1,700+ Companies | 5,000+ Users | 70+ Countries

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