Leica Cyclone II TOPO 2.0
Fast mapping from laser scans... for everyone!

Breakthrough Leica Cyclone II TOPO 2.0 software lets any survey CAD technician quickly create accurate topographic maps from rich point cloud data.
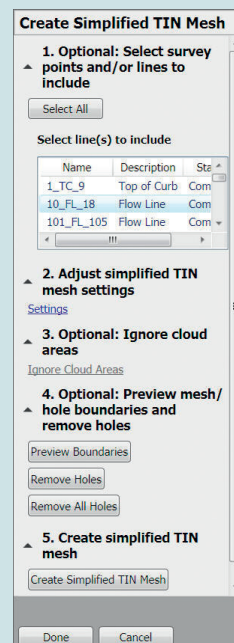
The next-generation software overcomes the final obstacle for taking full advantage of the compelling benefits of High-Definition Surveying (HDS™): making office work easy. Cyclone II TOPO 2.0 is a dramatic leap forward over the challenging process of 3D navigation and viewing of point clouds.

Now, CAD techs don't have to be 3D or laser scanning specialists to produce maps and surfaces from point cloud data as fast as or faster than using conventional methods. The learning curve is short and map creation is fast and accurate. To achieve this in Cyclone II TOPO 2.0, Leica Geosystems has combined major point cloud software innovations – in friendliness and automation – with the familiarity of standard CAD tech 2D mapping tools and terminology.

Fast, easy, accurate filed-to-finish

- Automatically finds ground points on the point cloud, finds boundary, fills holes, and generates a TIN mesh from the ground cloud
- Familiar 2D plan view or friendly perspective view as the primary work area
- Intelligent auxiliary views for optimised smartPick which automatically provides "highest", "lowest", "closest", "edge", "flow line", "line stripe", and "ground" points*
- Cross sectioning has the ability to follow a line
  * Patents Pending

Create Simplified TIN Mesh

1. Optional: Select survey points and/or lines to include

Select All

Select line(s) to include

Name	Description	Sta
1_TC_9	Top of Curb	Com
10_FL_18	Flow Line	Com
101_FL_105	Flow Line	Com

2. Adjust simplified TIN mesh settings
Settings

3. Optional: Ignore cloud areas
Ignore Cloud Areas

4. Optional: Preview mesh/hole boundaries and remove holes
Preview Boundaries
Remove Holes
Remove All Holes

5. Create simplified TIN mesh
Create Simplified TIN Mesh

Done   Cancel

- when it has to be **right**

Leica Geosystems

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Virtual surveying made fast and easy

High-Definition Surveys produce dense laser scan data sets that give the appearance of a virtual site on a computer screen.
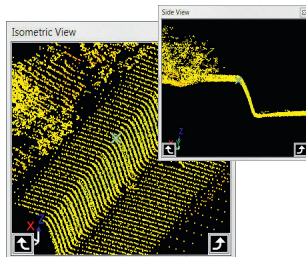
The benefits are evident:

- Extraordinary completeness
- Ability to map sites in the office without having to walk them in the field
- Imagery that provides additional QA
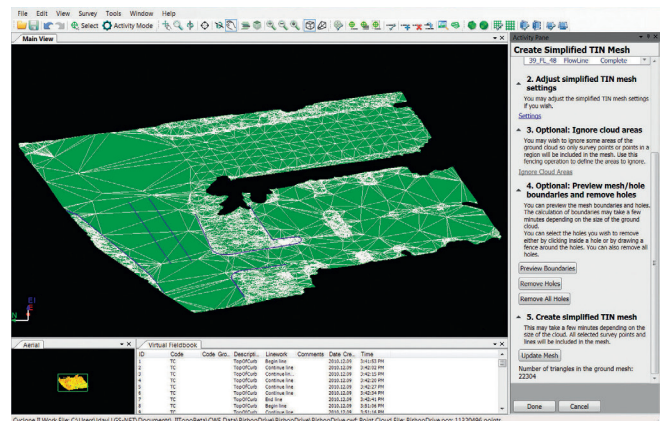- Powerful visualisation

The challenge for survey CAD techs has been how to convert that virtual site comprised of 3D laser scan data into 2D mapping deliverables... efficiently, with confidence, and without having to be a 3D specialist. Next-generation Leica Cyclone II TOPO 2.0, developed by Leica Geosystems – the acknowledged industry leader, is the first software to squarely beat that challenge.

Friendly, Familiar Viewing

Leica Cyclone II TOPO 2.0 provides a breakthrough viewing environment. It lets survey CAD techs work in a familiar, map-like, top down 2D view, while automatically offering up auxiliary isometric and Intelligent-2D-Section Views™ of topographic interest.

Now, moving around and finding what you want in point cloud data is managed automatically, making it fast and easy-to-learn. Familiar vertical exaggeration tools provide added confidence for ensuring accurate results.

Automatic Cloud Clean-Up

Automatically removes buildings, cars, trees, noise, and generates a TIN surface.

Automatically finds the ground from the point cloud in preparation of generating a TIN mesh. With one click of a button, the automated process will find the Ground Cloud, generate borders, fill holes, and construct a TIN mesh using the specified break lines, all in a matter of minutes.

Plug-and-Play workflow

Cyclone II TOPO 2.0 lets organizations leverage their existing mapping deliverable software, final map making workflows, and CAD tech experience.

- Directly import feature codes lists from XLS, TXT, and Leica GeoOffice files
- Use familiar feature coding methods to build a map-making list of coded points
- Export coded data to post processing tools or DXF and LandXML for final map creation

Leica Cyclone II TOPO 2.0 Specifications

Formats	Import Code Lists: ASCII (.txt), DBX, Import Control Data: ASCII (.txt) Export Coded Points: FBK, ASCII (.txt), DBX, Export Lines, Points and Text via DXF with layer control Export TIN surfaces via DXF and LandXML
Point Selection Filters	SmartPick™ automatically provides "highest", "lowest", "closest to", "edge", "flow line", "line stripe", and "ground" points* Points on grid: Automated selection inside fence area *Interpolated
Visualization Features	Horizontal and vertical cross-sections with the ability to follow a line Vertical exaggeration Pan, zoom, rotate, tilt Automated auxiliary views with X-sections and 3D limit boxes
Survey Tools	Feature Coding: Numbered and alphanumeric indexing, note and attribute support, multiple codes per point, linework coding management

Hardware and System requirements:
Leica Cyclone II TOPO 2.0 requires scan project data in a format that can be generated by any one of the Leica Cyclone modules. This includes the free Cyclone VIEWER module when installed with Leica Cyclone II TOPO 2.0 software.

Supported operating systems:
Windows 7 (32 or 64)

Computer hardware:
1 GHz Processor (or faster)
1 GB RAM (or more)
OpenGL accelerated graphics card
Mouse pointing device (wheel mouse suggested)

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- when it has to be **right**

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