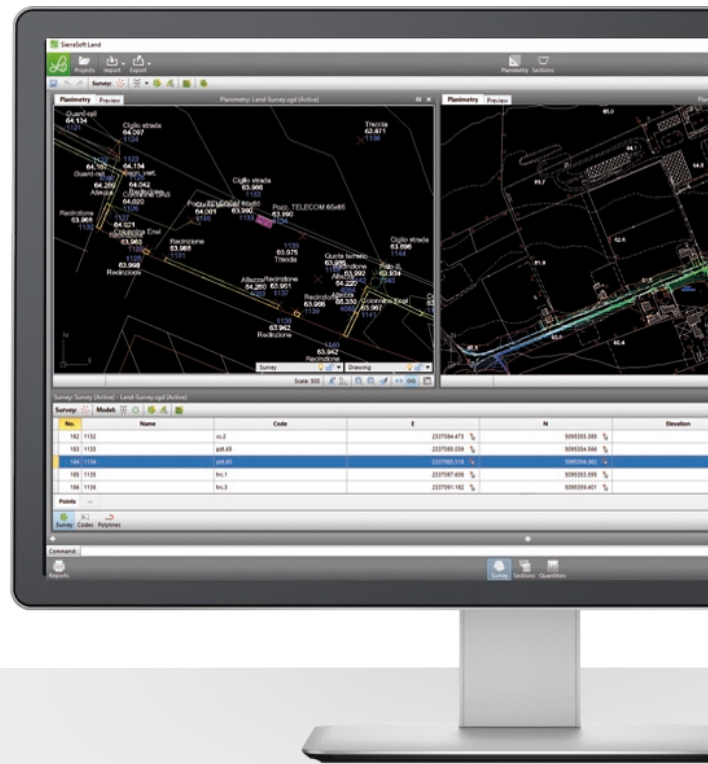


SierraSoft Land

BIM SOFTWARE FOR
LAND RESTITUTION,
MODELING AND ANALYSIS



SierraSoft Land is a BIM software for land restitution, modeling and analysis. With SierraSoft Land, you can handle land survey of any size carried out with various types of tools, such as total stations, GPS, laser scanners, and drones. The entire flow of rendering of acquired data, 3D surface modeling, and section and volume calculation is managed in SierraSoft Land in a simple and comprehensive way.



BIM FOR TOPOGRAPHY.

Share, collaborate, communicate.

SierraSoft Land is a BIM (Building Information Modeling) software for land restitution and modeling. BIM rendering and modelling takes place via the BIM exchange functionality, which is part of the M3 Framework, and is available exclusively with SierraSoft Subscription. BIM exchange is a powerful tool that allows the integration of topography, infrastructure and construction projects within the processes, guidelines, and tools used with BIM.



DATA ACQUISITION.

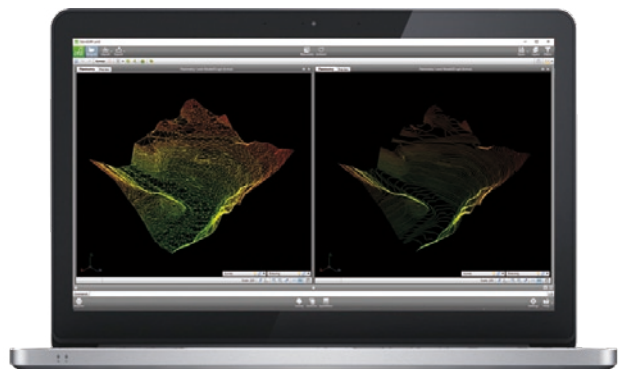
Use the data you have, without limitations.

Your work starts with the data you have, whether it's points surveyed with a total station, GPS, laser scanners, or drones. SierraSoft Land has the functions to import and make your information usable; you can have a few points or a huge survey, it will be easily manageable in both cases.

SURVEY RENDERING.

Manage all the information while completing and enhancing it.

If you have a traditional survey performed with points and you used codes, the entire design can be created automatically. If instead you have a point cloud, you can use the digital survey functions to survey as if you were in the countryside. You can also take advantage of the support features to render photos, satellite imagery, digital maps, and other models.



SURFACE MODELING.

Create accurate 3D terrain surfaces.

Generate accurate 3D surfaces with just a few steps, while maintaining control over the outcome. Thanks to its discontinuities management and high processing speed, you can easily manage small models up to the triangulation of a large point cloud. You can complete the job with contour lines.



CROSS SECTIONS.

Extract and manage sections of your 3D models.

The sections can be automatically extracted either along a direction or along a polygonal alignment. Through the extraction styles, you can extract complex sections using multiple 3D surfaces in one step.

VOLUMES.

Calculate volumes with the best method.

You can calculate volume with different methods, depending on your data and your goals. The calculation can be done either using a model's triangular surfaces or extracted sections. The calculation for triangular surfaces is quite simple to use and extremely precise.

POINT CLOUDS.

Upload and manage point clouds in a very simple way.

Easy handle one or more point clouds of any size. Loading and display are really fast, drawing and extraction functions occur in real time. With just a few click you can extract models and calculate volumes in many different ways. A special tool "SierraSoft Mass Data Converter" allows to convert LAS, XYZ, PTS and XCF files so that you are able to handle them with SierraSoft Land.

MULTI. MULTI. MULTI.

Multiply your workspace.

Expand the space where you manage your surveys and models at will: split your work between multiple windows, pages, or monitors. All data and views are synchronized in real time. Begin a drawing in one window and continue it in another on a separate monitor. Discover a new dimension for working.

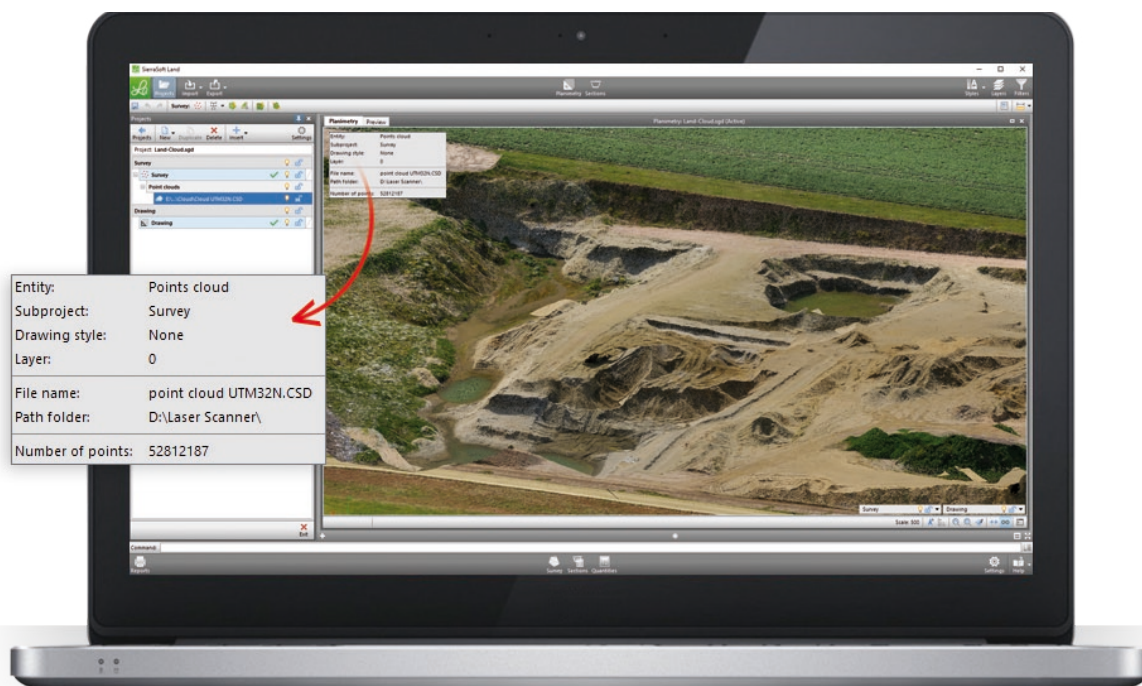
MEGA PROJECTS.

When size matters.

With SierraSoft Land, you can manage large amounts of data. Hundreds of surveys and models; thousands of sections and topographic points; millions of triangles and point clouds. Your memory only holds what you need, and data is automatically compressed on your disk to create smaller archives. Your projects will have no limits.



Discover more on
SierraSoft Land
webpage!



SYSTEM REQUIREMENTS

- Microsoft® Windows 10, Windows 8, Windows 7.
- 32 bit (x86) or 64 bit (x64) processor 1 GHz or more.
- 2 GB minimum RAM (4 GB recommended).
- 2 GB hard disk space.
- Display Resolution 1280x1024 True Color (1600x1050 or more recommended).
- Browser Windows Internet Explorer® 9.0 (or later).
- DVD-ROM.

GENERAL

- M3 framework Platform.
- Ergonomic Interface.
- Customized sliding toolbar.
- Management of multiple windows, multi pages and multi monitors.
- Standard windows and full screen working method.
- Intelligent Command line.
- SmartSave system for the secure saving of data.
- International unit of measure management (Metrics and Imperials).
- SmartHelp system for learning by doing.

AVAILABLE LANGUAGES

- Software: English, Italian, Spanish, Portuguese, German, French, Greek.
- Sample files: Italian.
- Getting Started Guide: English, Italian.
- User Manual: English, Italian.
- SmartHelp: English, Italian.

BIM

- Technology: SierraSoft BIM exchange.
- BIM kind: Full BIM + Open BIM.
- BIM sector: BIM for Infrastructure.
- BIM dimensions: 3D, 4D, 5D.
- BIM level: 2nd level.
- Formats: IFC, LandXML, other "common" or "familiar" formats.
- SierraSoft Land complies with 2014/24 / EU Directive from the European Parliament.

CAD

- High-performance 3D graphic engine.
- Full 3D CAD.
- Insertion of drawing elements (lines, arches, texts, blocks etc.).
- Tools for editing drawing elements (drag, cut, etc.).
- Tools for drawing analysis (distance, angles, etc.).
- Advanced drawing and editing functions.
- Subprojects management.
- WBS management.
- View mode: drawing and realistic.
- Management of drawing styles.
- Cloud storage (BIM exchange is required).
- 3D visualization and perspective with shading.

IMAGES AND PICTURES

- Management of raster images: upload and visualization.
- Management of georeferenced images.
- Maps download from Google Maps (BIM exchange is required).
- Images insertion on the model.

SURVEY

- Reading and writing file from land surveying instruments.
- Insertion and editing of survey points.
- Advanced functions for the management of survey points.
- COGO (topographic and geometric utilities for the creation of new points).
- Point description and symbols from codes.
- Automatic drawing by codes.



MODELS

- Management of breakline and boundary constraints.
- Automatic triangulation on points and break lines.
- DTM download from Google Maps (BIM exchange is required).
- Advanced functions for the management of the triangle model.
- Management of contour lines.
- Merge models.
- Visualization according to the color scale of elevation of model triangles.
- Management of allotments.
- Volume calculation on fixed elevation.
- Volume calculation by levelling without adjustment.
- Volume calculation by levelling with adjustment.
- Volume calculation by intersection of models.
- Volume calculation by polyline.
- Visualization and printout of calculated volumes.
- Extraction and management of models perimeters.

POINT CLOUDS

- Visualization of point clouds.
- Direct drawing on point clouds.
- Simultaneous management of multiple clouds.
- Automatic triangulation on point clouds with different density.
- Real time extraction of profiles and sections from the clouds.
- Management of point clouds originating from the laser scanner systems, lidar, Mobile Mapping and drones (UAV/APR).
- Conversion from various formats (LAS, XYZ, PTS, XCF, etc.) with "SierraSoft Mass Data Converter" software.

CROSS SECTIONS

- Manual entry of cross-sections.
- Dynamic cross-section visualization.
- Management of cross-section annotation box through customizable styles.
- Management of polylines cross-sections.
- Extraction of cross-section polylines from customizable styles.
- Calculation of terrain cross-sections from: triangle digital model, break lines, points and point clouds.
- Calculation of areas and volumes by cross-sections.
- Calculation of areas and volumes from customizable styles.

QUANTITY AND COSTS

- Management of quantity for quantity takeoff and estimating from cross-sections, from models and from entities.
- Management of quantity for quantity takeoff and estimating by WBS.

COMPATIBILITY

- Import and export of Geomatics Suite files (.PST).
- Import and export of Autodesk® AutoCAD files (.DXF,.DWG).



M3 framework is the new software platform aimed to create a new generation of applications for Topography, Infrastructures Design and for Constructions. M3 framework is a powerful, flexible and stable platform where fulfill products and services. SierraSoft Land is the second product developed on M3 framework platform.



USER INTERFACE.

Beautiful and functional.

The ergonomic and refined Interface is focused on the user's experience. The result is a simple and effective Interface with a wider graphic area and the access to features is natural and more intuitive.

GRAPHIC ENGINE.

Extraordinarily fast.

A special flexible and very high-performance 3D graphic engine. Based on this graphic engine, the CAD is extremely fast and convenient, even with huge quantities of vector data and images.

DATABASE.

A stable base for your projects.

M3 framework includes a powerful, stable and high-performance database, with an excellent level of data compression, in order to minimize the used space.

The security data is ensured by the backup function and SmartSave, which avoid the loss of information in case of unexpected stop of the software (for example a blackout).

MEMORY MANAGER.

Everything you need without waste.

M3 framework can use all the available memory on the system (2GB for Windows 32bit and 64GB for Windows 64bit). It has an optimized management, which uses just the necessary memory and free memory as soon as possible.

The memory management is automatic and smart, in order to make the most of the resources of the computer.

SUPPORTED SYSTEMS.

M3 framework allows the development of products both for 32Bit and 64Bit Window platforms (Windows 10, Windows 8 and Windows 7).

INTERNATIONAL.

Work without boundaries.

M3 framework is international by nature and manages different languages and several units of measure.

Thanks to the management of Unicode characters, it is possible to use all currently used writing systems, as Japanese, Chinese, Hindi, Arabic, etc. It is possible to choose from different languages among the Interface, the design data and the reports. In this way it will be possible to work with your favorite language and choose the one requested by the client for the finished work.

BIM EXCHANGE.

Share, collaborate, communicate.

BIM Exchange is an M3 Framework feature, for managing BIM-based projects. BIM exchange is used to integrate topography works, infrastructure design and construction within the processes, guidelines and tools used for BIM. BIM Exchange is open and can be customized; it inserts your topography work into the BIM design process, adapting it to the workflow requirements and defined standards.

HELP.

Learning by doing.

Learning tools are included in the M3 framework. The Smarthelp guides the user while working with the software by providing context-sensitive information. The user guide of the product is integrated in the Interface through retractable control panels and always available.



Discover more and watch the videos on M3 framework web page!



SierraSoft S.r.l.
Via Roveredo, 1/A • 33170 PORDENONE, ITALY
Tel.: (+39) 0434 254905 • Fax: (+39) 0434 254907
Web: www.sierrasoft.com • E-mail: sales@sierrasoft.com

