

Photogrammetry &
3D data software





Cube-3d is a Photogrammetric software for mapping and aerial image processing, dedicated to land surveying specialists. It will transform image data into highly accurate digital maps and 3D models with extreme precision. It imports Cube-a surveys and is fully compatible with registered Stonex scans and with any third-party 3D models.

It is possible to draw on point clouds or meshes and merge data imported from traditional survey tools, all in a single software. The data can be then processed and enhanced thanks to the various CAD tools. Among the many features available, most appreciated are the automatic classification, orthophoto, cross-sections and profile lines, volume calculation, and more.

Licenses configuration is very flexible, from perpetual to temporary subscription, it adapts to the needs of many professionals.

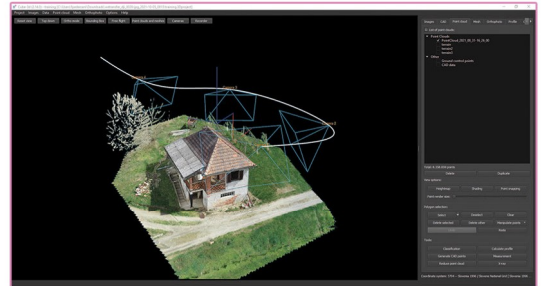


Import and Data Processing

3D POINT & DIGITAL SURFACE GENERATOR

The program can process, in a single project, images captured by any handy camera, UAV drone, or multiple-camera and create extremely accurate and detailed high-definition 3D models.

It can generate a fully geo-referenced, spatially orientated, and complete overview of your site configuration.



WIDE RANGE OF IMPORT OPTIONS

Without selecting a reference system or entering details on the formats used, Cube-3d can receive data directly from Cube-a, with the settings defined in the latter, and use them, for example, as a control point for georeferencing the models.

It is possible to import point clouds from lidar, laser scanners, and without limitation from any tool capable of generating them. The compatibility of this software with all standard formats, used in traditional surveys, will be of great help to professionals.

NEVER-FAILING ORIENTATION



Cube-3d automatically detects both GCPs and detail points, allowing the operator to check the position of the detected targets, in the first step of the orientation.

With Stonex targets, the time needed will be even shorter, centering is immediate. Even working with RTK drones, it will be easy to achieve centimeter accuracy without GCP.





Functionalities

CLASSIFICATION

Benefits from an industry-leading classification engine with best-in-class point cloud customization tools that give users fast, easy-to-use, and simple data classification.

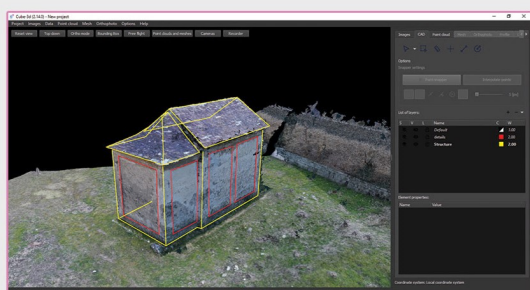
ORTHOPHOTO

It allows to calculate high-resolution, traditional and true, digital orthophotos with cm-grade precision in perfect geo-referenced details. The X-ray feature helps to see through the rooftops, so drawing building walls and similar features on a survey map will be much easier.

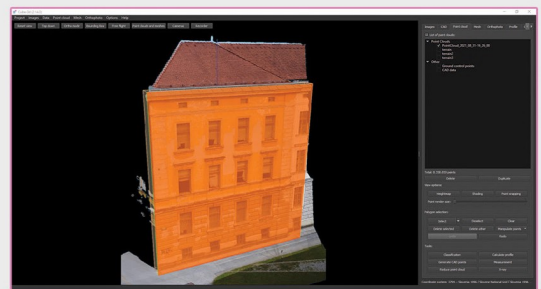
CROSS SECTIONS, PROFILES AND CONTOUR LINES

From point cloud data, it will draw a definition line and calculate single vertical cross-sections or multiple transverse profiles with user-defined intervals.

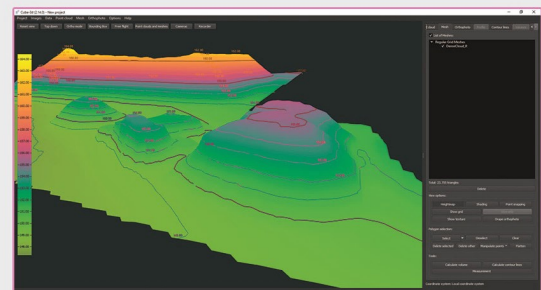
Or it can instantly create topography maps, and freely explore terrain elevation data in 2D or 3D, thanks to the automated contour lines calculation.



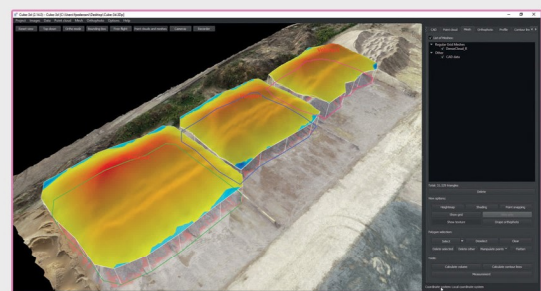
CAD



ORTHOPHOTO



CONTOUR LINES



VOLUME CALCULATION

CAD ENGINE

Integrated CAD functions give you the power to work on your project with a complete layer system, snapping tools, drawing options and measurements. No need of any further third-party CAD software.

Cube-3d

INPUT

- Aerial images
- Video
- Images taken by any hand camera
- Total stations & GNSS points
- Region geoid data
- *.dxf data
- Cube-a format (*.cx3d)
- Photogrammetry point cloud
- LIDAR point cloud
- XML surface data
- Orthophoto maps
- Underwater images
- Predefined camera parameters import
- Telemetry data import
- Camera offset support
- Bathymetry sonar cloud

AVAILABLE LICENSES

- Perpetual
- Monthly subscription
- Yearly subscription
- Educational

AVAILABLE LANGUAGES

English, Italian, Chinese, German, Spanish, French, Greek, Croatian, Hungarian, Japanese, Korean, Dutch, Polish, Portuguese, Russian, Slovenian, Turkish.

OUTPUT

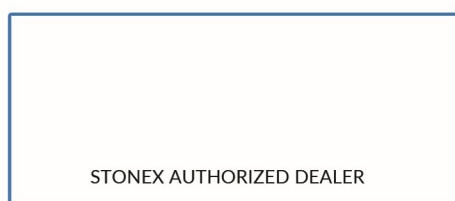
- Orthophoto (*.Tiff, *.JPG, *.PNG, *.KMZ, ...)
- Textured 3D model (*.obj, ...)
- Point cloud (*.e57, *.las, *.ply, ...)
- Digital surface model (*.obj, *.xml)
- Regular/irregular grid mesh
- Contour lines (*.dxf, *.pdf, ...)
- CAD drawings (*.dxf)
- Selected points (*.dxf, *.txt, ...)
- Quick sketches (*.pdf, *.jpg, *.png)
- Survey maps (*.dxf, *.pdf, *.jpg, ...)
- Camera parameters
- Undistorted images



SYSTEM REQUIREMENTS

	Minimum	Medium	High
Operating system	Windows 7, 8, 10; 64bit	Windows 10; 64 bit	Windows 10; 64 bit
Processor	Intel i5 or Ryzen 5	Intel i7 or Ryzen 7	Intel i9 or Ryzen 9
RAM	16 GB	16 - 64 GB	64 - 128 GB
Graphics	nVidia GTX 1050 or better	nVidia RTX 3060 or better	2x nVidia RTX 3060
Storage	SSD 128 GB + HDD 500 GB	SSD 256 GB + HDD 1 TB	SSD 512 GB (M.2) + HDD 1 TB

Illustrations, descriptions and technical specifications are not binding and may change



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