Stereoscopic 3D CAD on point cloud

Draw in the real 3D world — ground, walls and structures

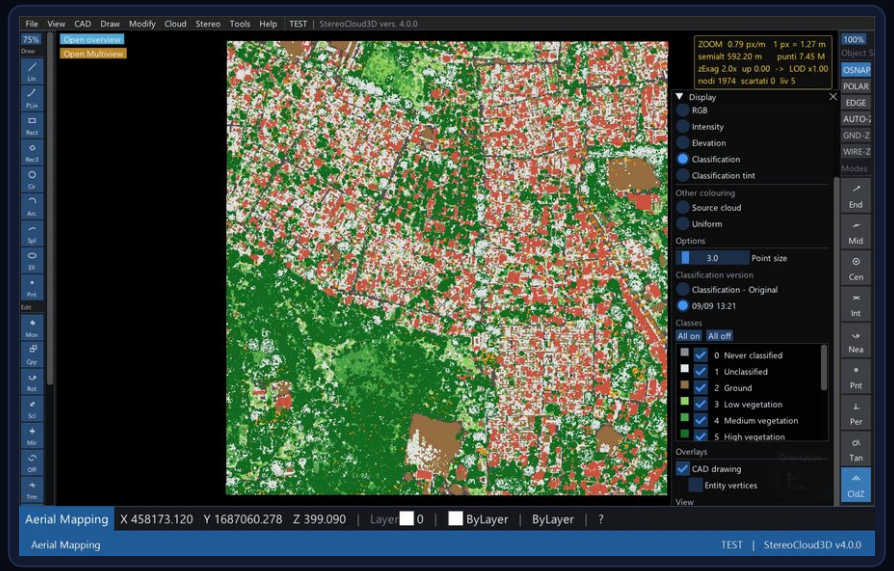
Version 4.1.0 · www.stereocloud3d.com

WHAT THE SOFTWARE DOES

Cloud classification

Start the whole chain from one dialog and let it run: ground first, then buildings, surfaces on the ground, vertical features and vegetation. Standard ASPRS classes are written into the cloud, and the existing ones are backed up before the run.

- DTM, DSM and nDSM rasters produced in the same pass
- Every class toggles on its own, in class colour or in RGB
- Ground, buildings, roads, water, masts, wires, vegetation and noise

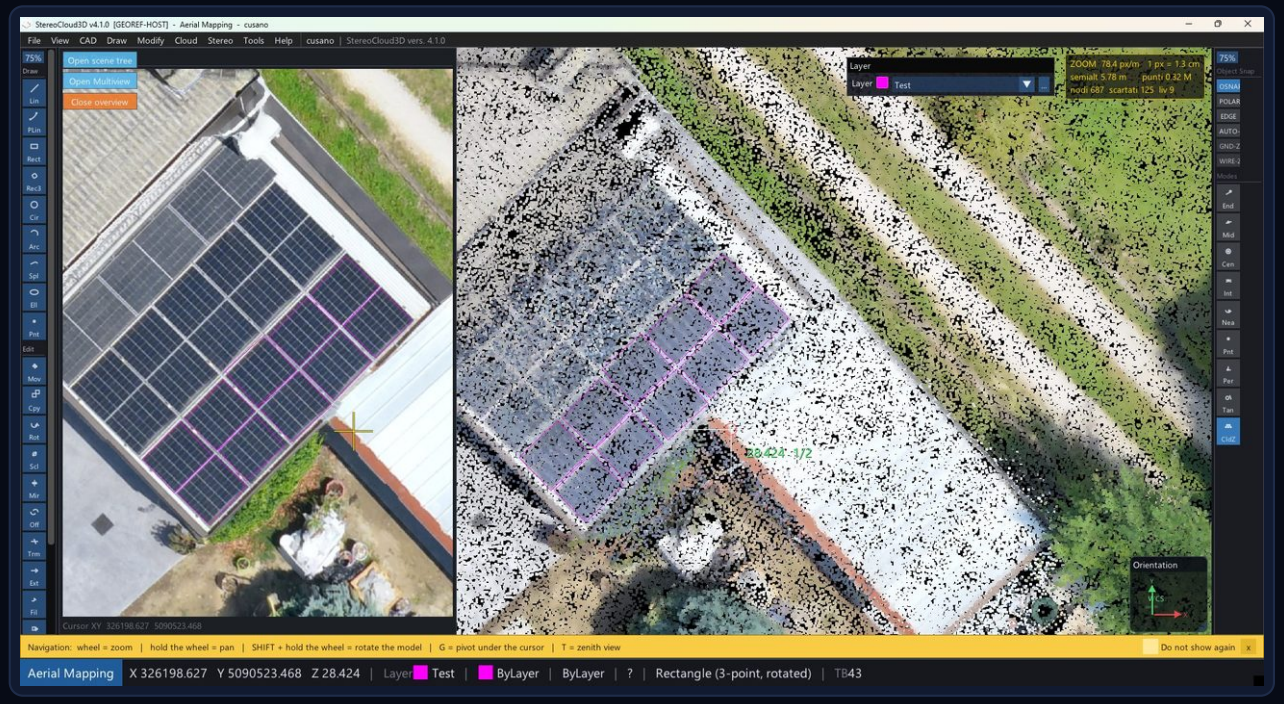


CONTEXT UNDER THE VECTORS

Georeferenced imagery

Import orthophotos and raster backgrounds, stream them inside the project and keep their visibility synchronised with the CAD layer stack. The image becomes a reference exactly where the cloud is hard to read.

- GeoTIFF, ECW, JPEG and PNG, with a one-time free QGIS LTR install for ECW
- Per-layer opacity and on/off from the Imagery panel
- Works together with cloud, CAD and stereo presentation

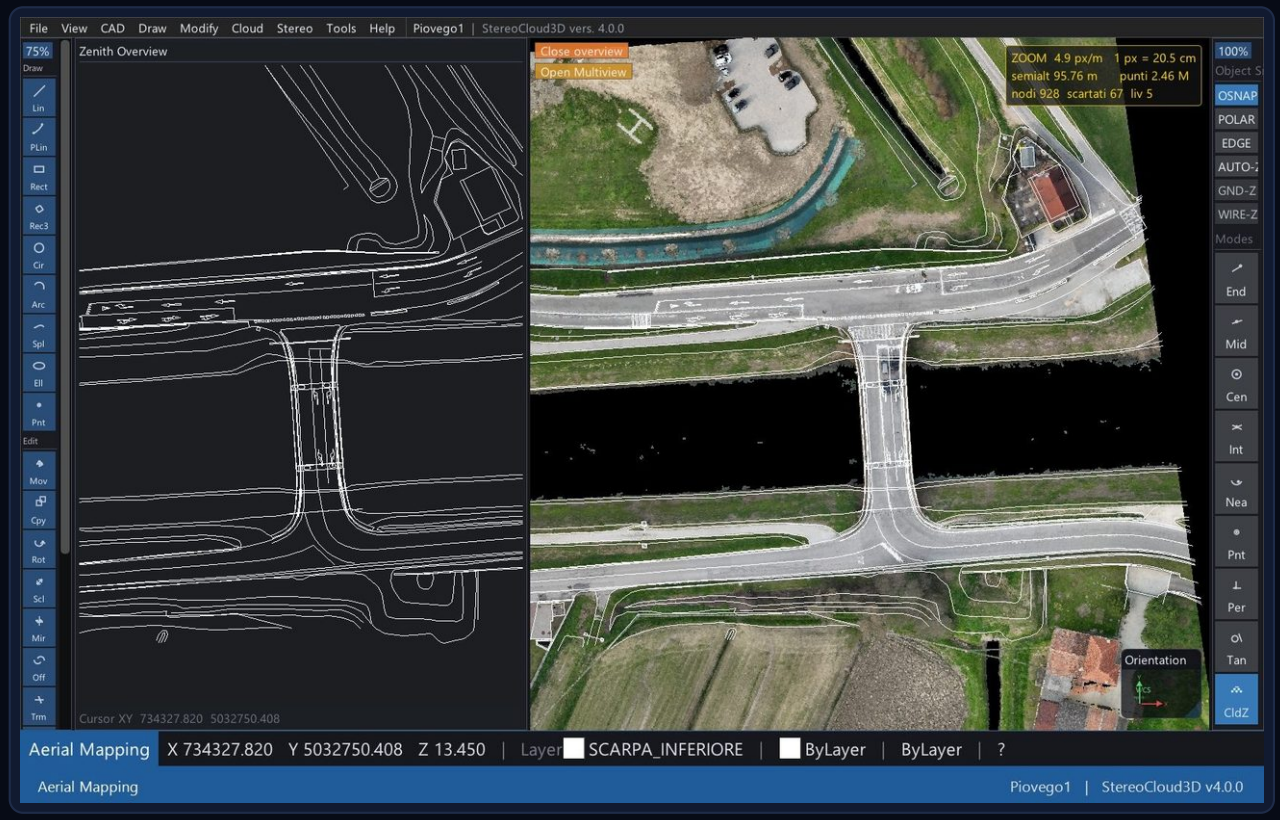


FROM CLOUD TO DELIVERABLE

CAD on the cloud surface

Drawing in the cloud and on its surface is assisted by a complete CAD engine, so the vector deliverable comes together quickly. Every command you would expect is there, and the view keeps up with you while you work.

- Draw and Modify toolbars, circles, arcs, dimensions and object snaps
- AUTO-Z idle elevation and Cloud Z snap on the live surface
- Layers, groups, undo/redo, autosave and versioned backups

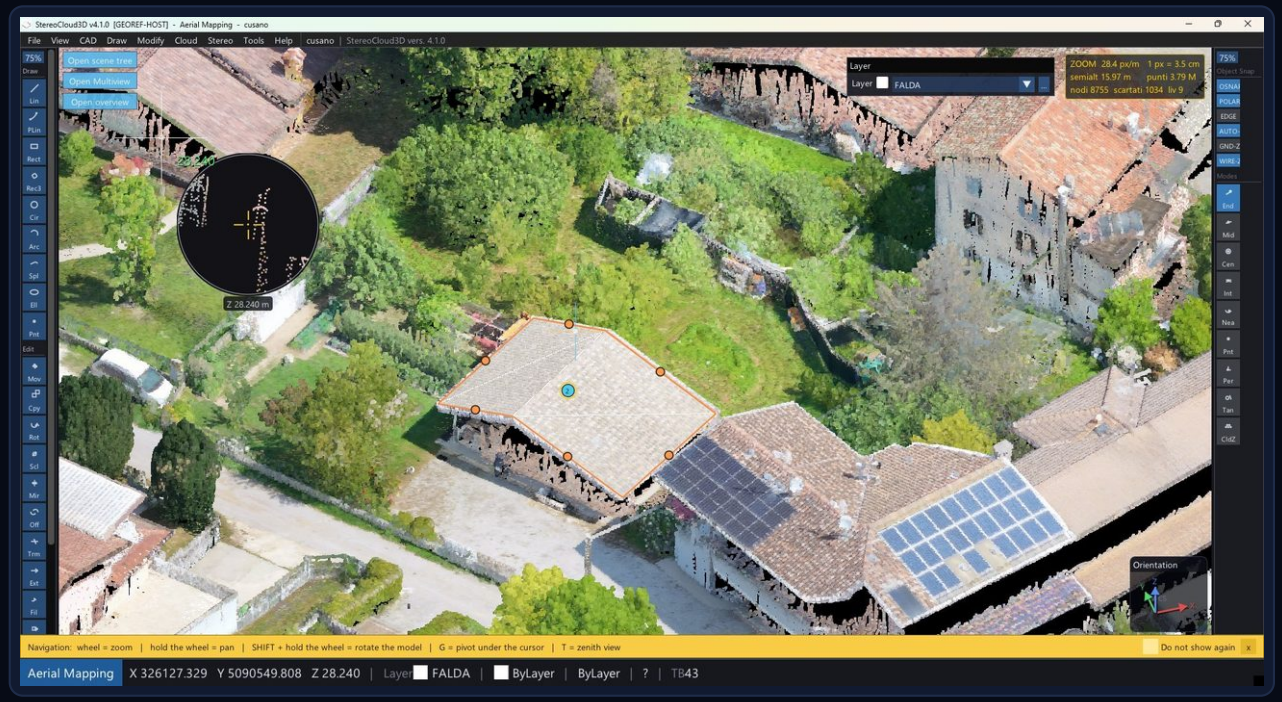


FROM OUTLINE TO SOLID

Roof pitches you can shape by hand

Draw the outline, the ridge and the hips, and the pitches are built from them as one mesh. Every pitch carries a dot on each vertex and a ring on each edge midpoint: drag one and everything welded to that point follows, so the building never comes apart.

- Handles always present, with no command to start
- Free vertices take their elevation from the plane of your first three
- Cursor loupe: a vertical section of the cloud beside the pointer

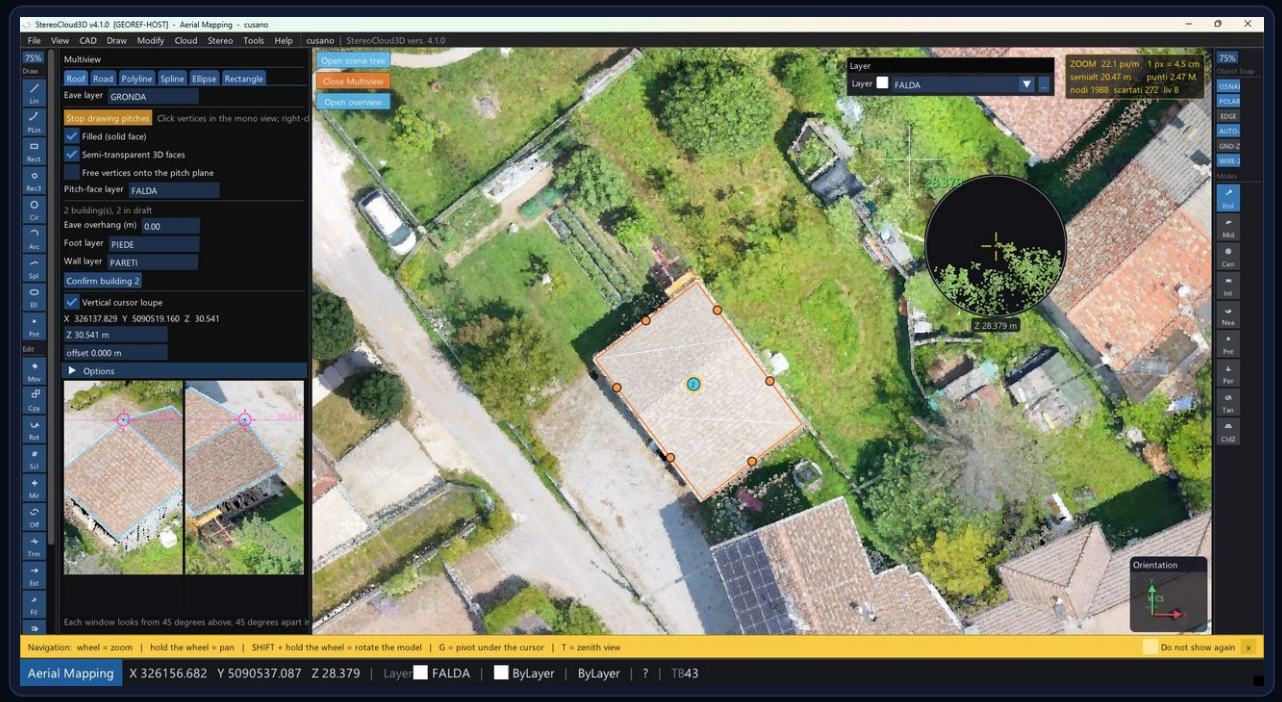


NO STEREO HARDWARE NEEDED

Two real views of the same point

Multiview shows the last point from two genuine photographic directions, chosen by scoring candidate bearings against the cloud so that both actually see it. The outlines already drawn are projected into both windows.

- Obstacle counts shown, with a switch back to fixed bearings
- A click takes the elevation you can see, with no second hidden sample
- Roof planes placed automatically in 3D, then completed as a solid

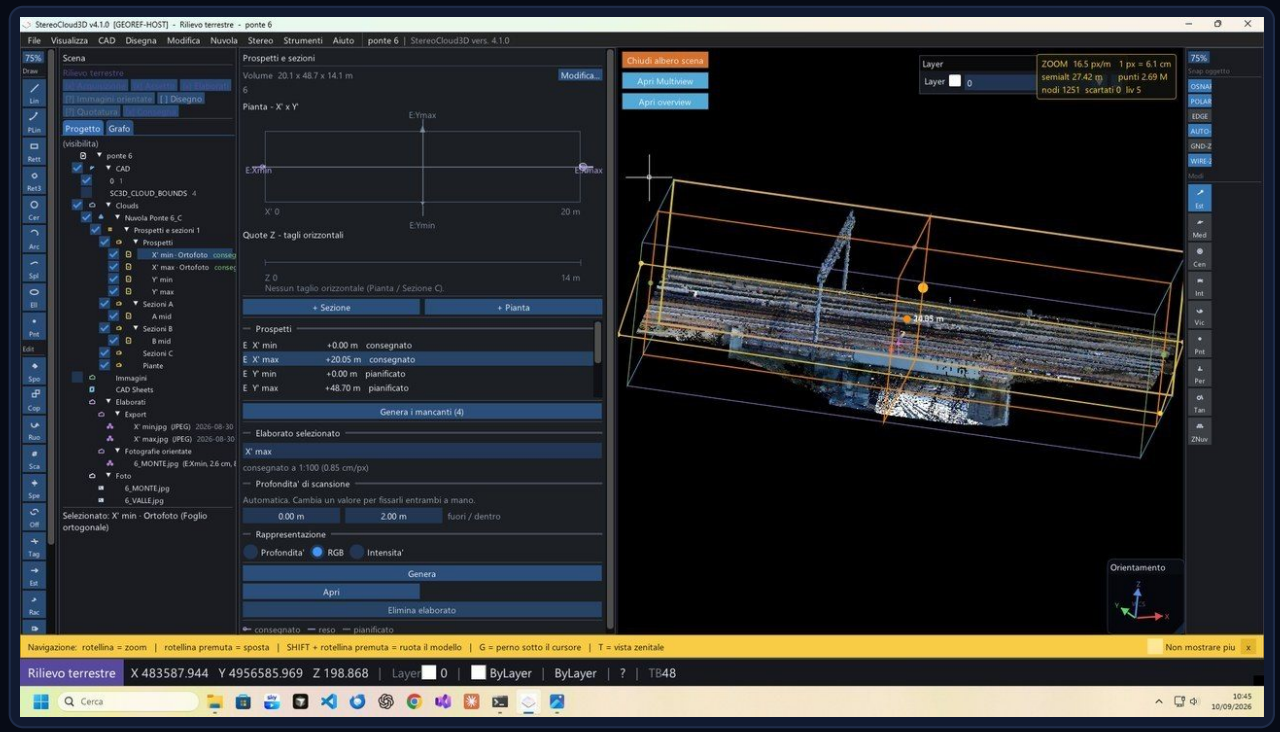


BEYOND PLANIMETRY

Stereo UCS — oriented surfaces

Terrestrial laser scanning and dense aerial clouds capture vertical and inclined geometry. Select any work plane in space, view it in stereoscopic 3D and digitize vector features directly on that surface.

- Cardinal wall presets and custom plane from three cloud clicks
- UCS from cloud plane, fitted with RANSAC and an optional clip slab
- Entities stored in WCS — one drawing for map and structure products

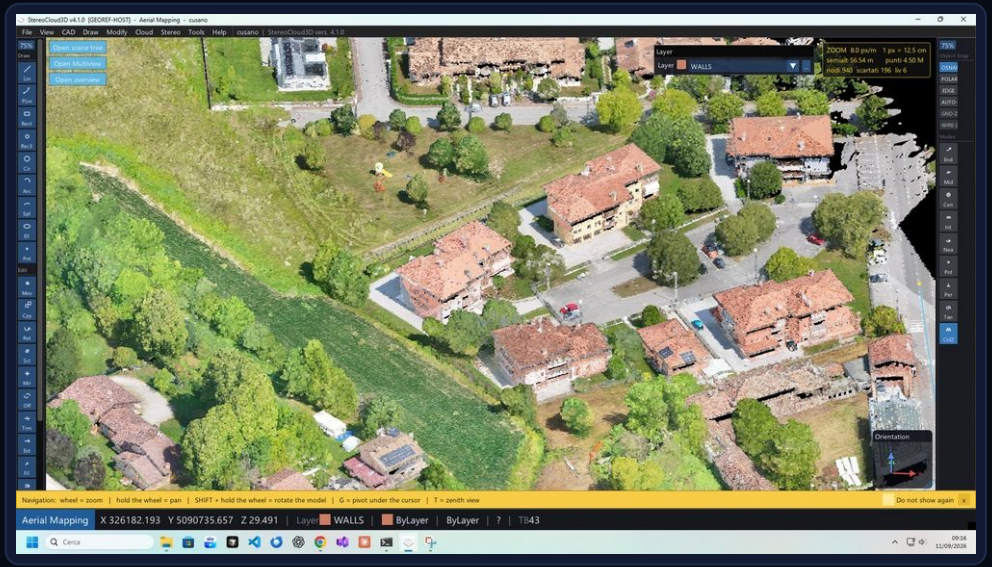


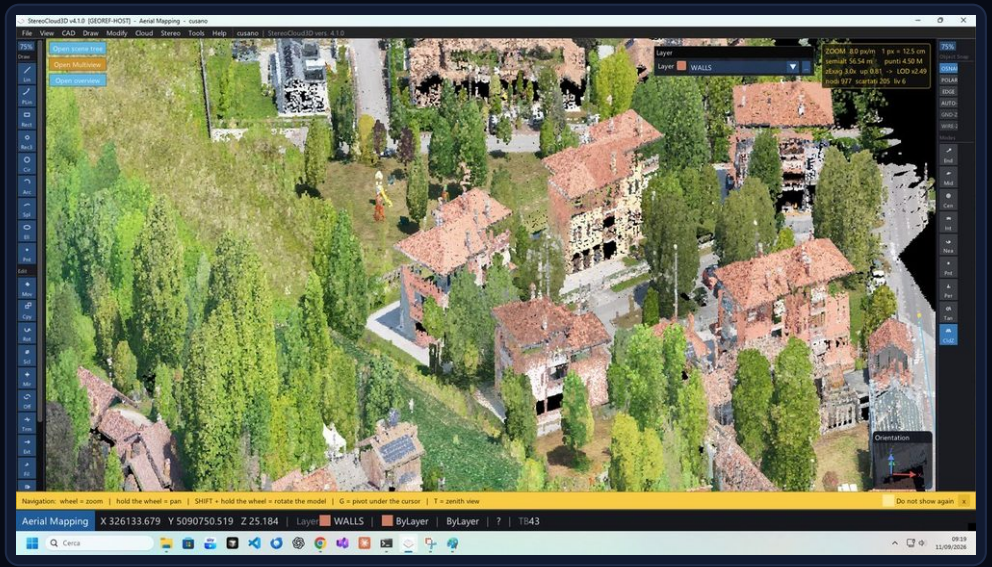
STEREO VIEWING

Z exaggeration

Stereo tells you where things sit in depth, but gentle ground can still read almost flat. Z exaggeration multiplies the vertical scale of the view: the stereo separation grows with it and changes in elevation become far easier to see.

- A view setting only — coordinates and measurements keep their true values
- Under Stereo → Z exaggeration (view), in the Adjustments group
- Above: exaggeration off. Below: the same scene at 3x



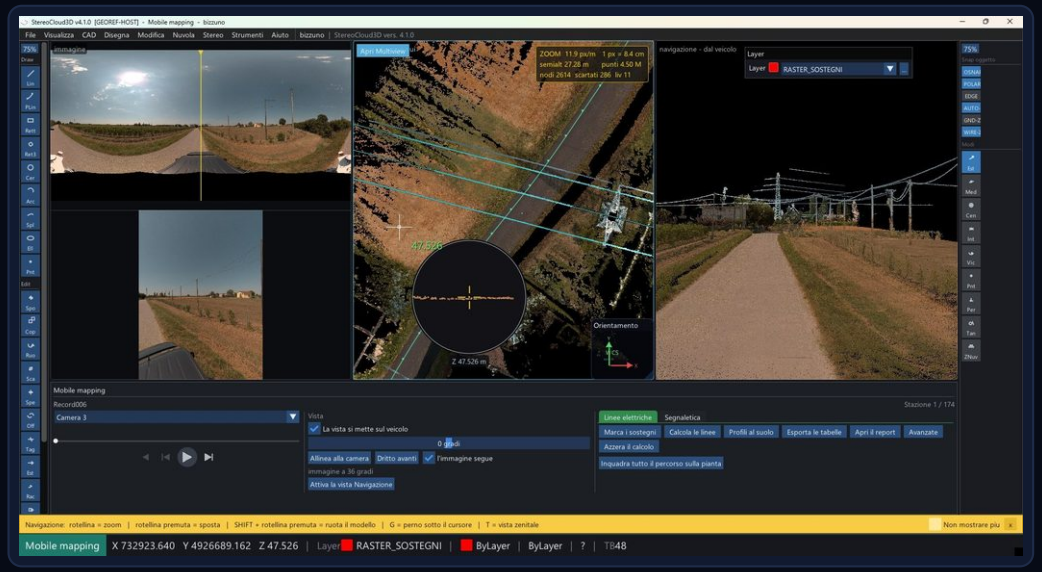


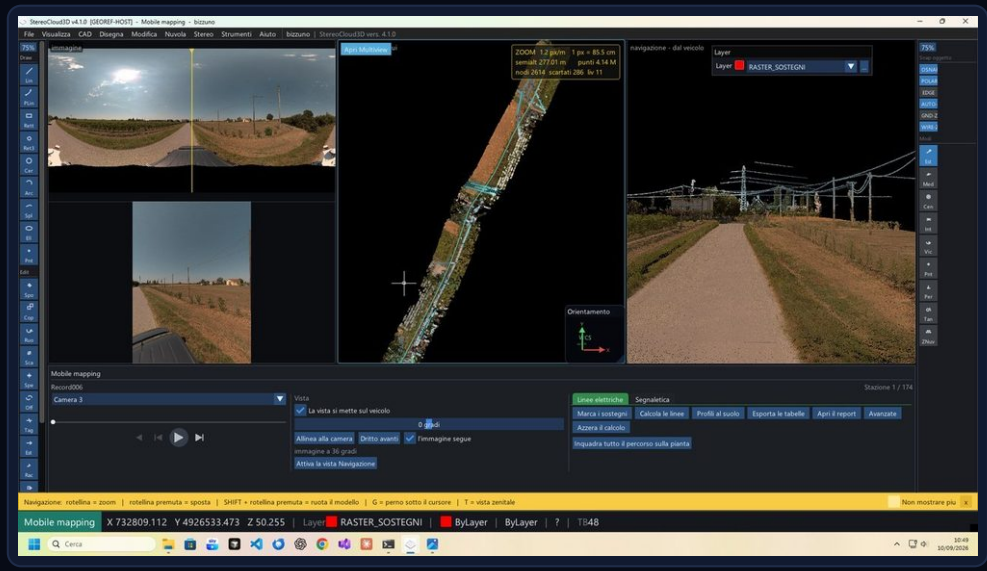
IN DEVELOPMENT — COMING 2026

Overhead power lines, found on their own

From a mobile mapping survey — trajectory, panoramic frames and cloud taken together — poles and spans are recognised on their own and delivered as a connected network rather than as separate lines to be traced.

- Not part of version 4.1: scheduled before the end of 2026
- Recognition driven by the vehicle trajectory and the panoramic imagery
- Every span reported with length, height above ground and sag





COMPANY

Get in touch

StereoCloud3D is designed and developed by dr. eng. Luca Menci. The software is the result of more than two decades of expertise at Menci Software, and is an evolution of StereoCAD — the stereo drawing system on blocks of oriented images.

The product is currently distributed by Iter, Arezzo, Italy.

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User Guide	**www.stereocloud3d.com/manual/**

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