Point Cloud

Field Scan to Finished Plat

Bring Point Cloud data to the world of CAD

A modular program that provides the ability to go from field scan to finished plat, Carlson Point Cloud delivers powerful automation for large data sets. View and process up to 1 billion points all with Carlson ease-of-use.

Key features include:

• Register scans to local coordinates, filter or decimate the points, and overlay raster images in 3D
• Snap to edges and code descriptions for automated field-to-finish processing of linework and symbols
• Create contours, profiles, sections, and breaklines from within the point cloud

Lastly, all surface models, points, contours, breaklines, grid and profiles can be exported to CAD.
Top New Features

- **Extract Bare Earth:** Removes landscape, utilities and other non-surface features for a clean surface.
- **Draw Polyline:** New routines for high and low edge snaps for polylines and full curb polyline automation.
- **Larger Point Cloud Files:** An enhanced Point Cloud engine now allows up to one billion points per cloud.
- **Point Cloud Text:** Add annotation to your Point Cloud scenes to improve communication with co-workers, supervisors and clients.
- **Property Layer Manager:** Manage layers for points, polylines, and text from inside your Point Cloud.
- **Drape Images:** Select images from multiple formats to drape over meshes created from your Point Cloud.

**Data Extraction**
- 3D extraction of poles, trees, and hydrants
- Extract data from clouds or meshes — TINs, Contours, Profiles, Sections and Breaklines — and draw them in CAD design

**Import / Export**
- Import/export of grids
- Import/export point clouds containing up to 1 billion points
- Import more cloud formats, including LAS, Leica, Faro (requires installation of conversion software), ES7, DEM, GeoTiff, and more
- Export to ASCII, LAS, or PDF (new in 2016)

**Multiple Scan Consolidation**
- Register multiple scans into one cloud
- Merge clouds (new in 2015)

**Anomaly Reduction**
- Reduce anomalies with Clean Cloud and reduce density with Resample Cloud

**Data Improvement Tools**
- Continue data improvement with Smooth Mesh and Simplify Mesh (this reduces the size of the model by removing least significant data points)

**Field-to-Finish**
- Use the full power of Carlson Field-to-Finish with Point Cloud data. You can use the same FLD files you use with GPS or conventional total stations with Symbols, Line Work and Labels all drawn in CAD

**Viewing Cloud Data**
- Color Adjustment (new in 2015)
- View multiple clouds at once

**Surface Data Commands**
- Load Surfaces — Import scan data from various sources
- View Surface — 3D viewer for point cloud data

**Scan Utilities**
- Resample and filter scan data

**Breaklines**
- Automatic 3D breakline creation based on surface zones

**Generate Profiles & Sections**
- Trace an alignment across the site and generate profiles or sections