SURVEY

Surveyors' #1 Software Choice

- Get full tool kit – everything from network least squares to surface modeling
- Work seamlessly between office and field
- Establish company-wide design styles
- Create GIS links & exchange Esri® data

Choose your platform — Carlson Survey works on:

- AutoCAD® versions 2007 to current
- IntelliCAD® (built-in)
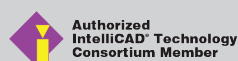- Or choose Carlson Survey AutoCAD Embedded with the AutoCAD OEM engine built-in

Get the Power of Carlson Field-to-Finish

- Carlson Survey together with Carlson's popular data collection software options, SurvCE, SurvPC and Field, provide powerful, effective and accurate "Field-to-Finish":
- Symbols, points and linework are drawn automatically in Carlson Survey
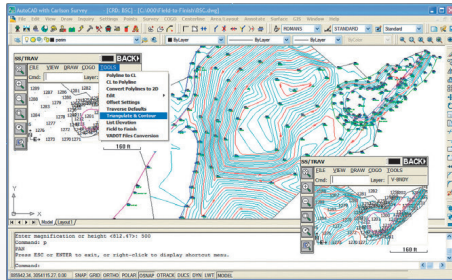- Drawings on SurvCE, SurvPC and Field process perfectly in Carlson Survey

"Carlson works because their developers come from a survey background. I find it has the right kind of thought process — the way it leads you through [the survey process] is exactly the way a surveyor thinks."

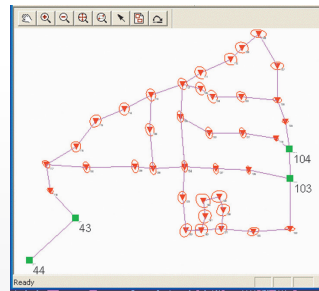*Stewart Bazeley, Baypoint Surveys, Bournemouth, Dorset, U.K.*
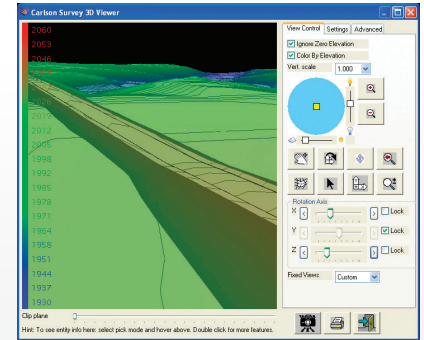
Top New Features

- **Carlson Cloud:** Transfer files and messages to SurvCE users in the field
- **Geodetic Mapping:** Calcs for geodetic angles, distances and areas
- **Annotative Text/Points:** Auto resize for drawing scale.
- **Lock Points:** Lock selected points in the coordinate database to prevent modifications
- **Field-to-Finish:** New pipe network feature coding
- **Google Earth:** Added export for text, images and surfaces and import for points with photos

Contour in both Carlson Survey and SurvCE

SurvNet traverse network with error ellipses

Carlson Survey 3D viewer image

Survey Commands

Data Collection Interfaces: Upload and download to popular data collectors

Traverse Adjustment: Spreadsheet editor for raw data with graphics and processing for traverse adjustments

SurvNET: Advanced network least-squares for total station, GPS and level data

Field-to-Finish: Draw points with styles and in point groups set by point descriptions and draw linework by several flexible methods

Field-to-Finish Inspector: Inspect all field-to-finish elements, see description source and re-draw based on descriptions edits

COGO: Streamlined inverse, traverse, sideshot, intersections, interpolation, translate, rotate, scale and align

Coordinate Transformations: Transform coordinates and screen entities between lat/lon and grid projections as well as local to local by Helmert and least-squares methods

Deeds: Enter deed by description, read deed data from deed file, deed reports, deed correlation and generate legal description from drawing

Cut Sheets: Create custom cut sheet reports with reference grades and station-offsets

Surface Commands

Build Surfaces: By triangulation or rectangular grids

Contouring: One step triangulate and contour from 3D ensities as well as contouring from surface files

Surface Manager: Change surface display properties and adjust surface functions to add and remove points and breaklines and swap edges

Volumes: Earthwork volumes between triangulation or grid surfaces

Pad Design: Tie cut/fill slopes from pad perimeter to surface, build pad surface, calculate and balance volumes, and edit pad parameters

Centerlines

Design and Edit Centerlines: Design or input alignments on screen or in dialog with graphics

Label Stations and Offsets: Annotate station and offsets along centerline and at selected points

Calculate Offsets: Reports stations and offsets for selected points along centerline

Create Offset Points: Create points at specified stations and offsets

Spirals: Flexible handling of the most complex spiral curves including "spiral-only" elements going arc-spiral-arc, arc-spiral-line and line-spiral-line

Profiles

Create Profiles: From surfaces, screen entities, points on centerline, etc.

Quick Profile: One step profile creation with real-time update while adjusting centerline

Input-Edit Profiles: Enter profile data in dual spreadsheet and graphic window, and design in reference to controlling profile grade points

Draw Profiles: Draws profiles on grids or plan-profile sheets with auto-updating based on edits

Profiles To 3D: Create points and 3D polylines from profiles

Points

Import/Export: User-defined import and export of point data along with conversions with specific other formats

Draw Points: Draw points with settings for symbols, layers and styles

Point Groups: Point group manager to define sets of point by filters

Coordinate File History: Tracks all changes to points with report and undo functions

Fix Point Label Overlaps: Finds point label overlaps with rule options to fix automatically

Point Tools: Utilities for modifying point labels such as move with leader, twist and resize

Area/Layout

Label Areas: Customized area label styles and several methods to select areas to label

Size Areas: Sliding side area, hinged area, area radial from curve and bearing area cutoff

Lot Network: Commands for subdividing a site into lot and ROW areas. Dynamically updates areas for any changes to boundaries. Includes ability to label linework and areas and to draw setback boundaries

Lot Manager: Lot definitions by point numbers with functions to create lots, conduct map check for closure, edit in spreadsheet with graphics, report lots and draw lots

Offsets, Intersection and Cul-de-Sacs: Layout for ROW and EOP linework

Annotation

Angle & Distance Labels: Flexible routines to label linework in all possible layout combinations plus available rules to automatically fix label overlaps and revise labels when entities move

Curve Labels: Label curve data in stack, along arc or in table

Survey Text: Routines to create typical plat labels such as offset and building dimensions

Linetypes: Draw special linetypes

GIS Commands

GIS Data: Input, edit, query, report, label and inspect database data attached to drawing entities

ESRI: Import/Export feature data by Esri MSC or SHP

Geo-Referenced Images: Place geo-referenced images into the drawing

Place Camera Symbol/Image: Draw a camera symbol with an attached image

General

Coordinate Systems: 100s of projections including SurvCE

CSLReport Formatter: Create customized, professional reports

Symbol Library: Hundreds of 2D and 3D symbols Project Setup: Flexible data storage methods

Drawing Explorer: Manage and access project data files

Drawing Cleanup: Fix common drafting errors

Drafting Enhancements: Handy tools for working in Autocad® such as Join Nearest, Shrinkwrap Entities, Polyline Utilities, Drawing Inspector, Layer Inspector and Twist Screen

Data Compatibility: Supports industry standard LandXML and scores of specific data conversions

Document Management: Use Data Depot for sharing and archiving files

CAD Standards: Draw items with standardized properties