

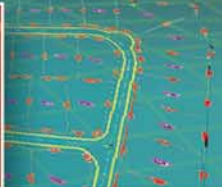


**“Carlson Survey XML has everything I need to do projects like boundaries, topos, engineering design surveys, route surveys, you name it. The user interface is very well thought out, and the survey routines are clear-cut and intuitive. The COGO routines are especially good. I've only had to talk with your tech support department one or two times, but EVERY time I call I get a real live person on the phone that actually knew what they were talking about. What a concept!”**

**— Dale E. Yawn, R.L.S.**  
Savannah, GA

**“Carlson Survey is a great product from a great company. The XML feature makes file transfer with other products foolproof. Creating a DTM and contour map has never been easier.”**

**— Bob Pasley**  
Automated  
Engineering  
& Surveying  
Systems  
Glenwood, MD



# Carlson<sup>®</sup> Survey XML

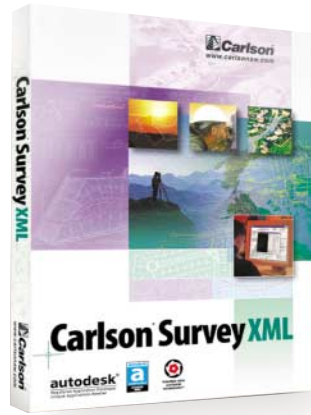
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# Carlson® SurveyXML — a “win-win” application with powerful AutoCAD® 2002 and SurvCADD® XML features



Carlson Survey XML is the classic “win-win” situation for the small survey and engineering firm. Carlson Survey XML incorporates core AutoCAD 2002 and SurvCADD XML features for the affordable price of \$1495. AutoCAD is the dominant CAD software for civil engineering and surveying but is sometimes beyond the financial reach of smaller companies. Now you have the best of both worlds: a lower cost surveying solution and one that is fully AutoCAD compatible. Carlson Survey XML is the answer for that “extra,” previously unaffordable work station or for the small firm wanting maximum, survey-focused value for the dollar.

## Standard Features

- Reads and writes AutoCAD R13, R14, R2000, and R2002 drawing (DWG and DXF) files.
- Downloads/Uploads all popular data collectors including our own SurvStar and SurvCE.
- Converts all RAW field data formats to the popular RW5 format for reduction.
- Spreadsheet editor with Least Squares, Compass, Crandall, Transit and Angle Balance.
- Field to Finish is unsurpassed in ease and office automation.

- Symbol Library contains hundreds of predefined symbols. Adding your own symbols is easy.
- Easiest and most powerful COGO in CAD.
- Plot deed descriptions property line/curves with labeling, points and closure results.
- Street intersection and Cul-De-Sac design.
- Footprint easy plotting for line plotting patios, walks, chimney, bay windows, etc.
- 2D/3D Polyline, Line, Arc commands by picking or point numbers.
- Legal descriptions, map check reports.
- Pre-determined area routines, lot layout by area/frontage with area labeling.
- Graphical offset and intersection calculations. Plot them in one easy step.
- Annotate lines and arcs, offsets, polylines to linetypes/corner symbols.
- Quickest, easiest contouring and volumes.
- Title block, legend, north arrow and bar scale plotting.
- Free Technical Support

## What's New in Carlson Survey XML

- **Complete new CAD Engine** – Built on the AutoCAD 2002 OEM Engine.
- **Full AutoCAD Drawing Support** – Reads and writes all AutoCAD drawings (.DWG, .DXF), including AutoCAD 2002.
- **Import/Export LandXML Files** – New routine to import/export LandXML 1.0 files. File types include coordinates (CRD), centerlines (CL), profiles (PRO), grids (GRD), triangulation (FLT) and lot (LOT) files.
- **Layouts** – Ability to generate multiple layouts (or paperspaces). Layouts provide a WYSIWYG preview of exactly what will plot before the drawing is plotted reducing plotting errors. Non-rectangular viewports are also supported. Viewports can be locked to keep the scale from changing.
- **Digitizing** – Ability to connect to a WinTab digitizer for input.

- **MDI Interface** – Multiple Drawing Interface means that you can open and work with multiple drawings at the same time. Switch between drawings at any time. Cut, copy, and paste between open drawings.
- **Full Time Command Line** – Command line is permanently enabled. The old Carlson Survey method of using Quick Keys is no longer necessary.
- **Symbol Names** – Symbol names have been extended from 31 to 255 characters including special characters such as spaces, allowing for flexibility in naming.
- **Lineweights** – Industry standard lineweights can be assigned on a per object or per layer basis providing WYSIWYG presentation quality drawings on screen.
- **Internet Access** – Carlson Survey has Web aware file access which enables the customer to open drawing files (DWG, DXF, etc) directly from a web site.
- **Hyperlinks** – Ability to attach Internet hyperlink addresses and descriptions to Carlson Survey objects or graphics.
- **Electronic Plot** – The ePlot provides an electronic plot of a drawing file (or an equivalent layout) in a secure, Internet-ready, neutral file format, DWF (Drawing Web Format).

- **Plotting Enhancements** – New plotting user interface and improved architecture together with drawing layouts enable WYSIWYG plotting. Plotting data is saved in the drawing. Plot styles enable the application of screening, lineweight, linetype, gray scale, end joint style and fill patterns. Ability to plot multiple copies. Ability to plot multiple layouts at once. Paper sizes are now dictated to Carlson Survey based on the plotting device.
- **Partial Open** – Increase overall performance and productivity by opening a portion of a drawing based on specified layers.
- **Object Filtering** – New Qselect command allows you to filter a selection set. Include or exclude the objects that meet the select criteria into a new selection set.
- **Object Properties Manager** – Replaces approximately 40 different editing commands and

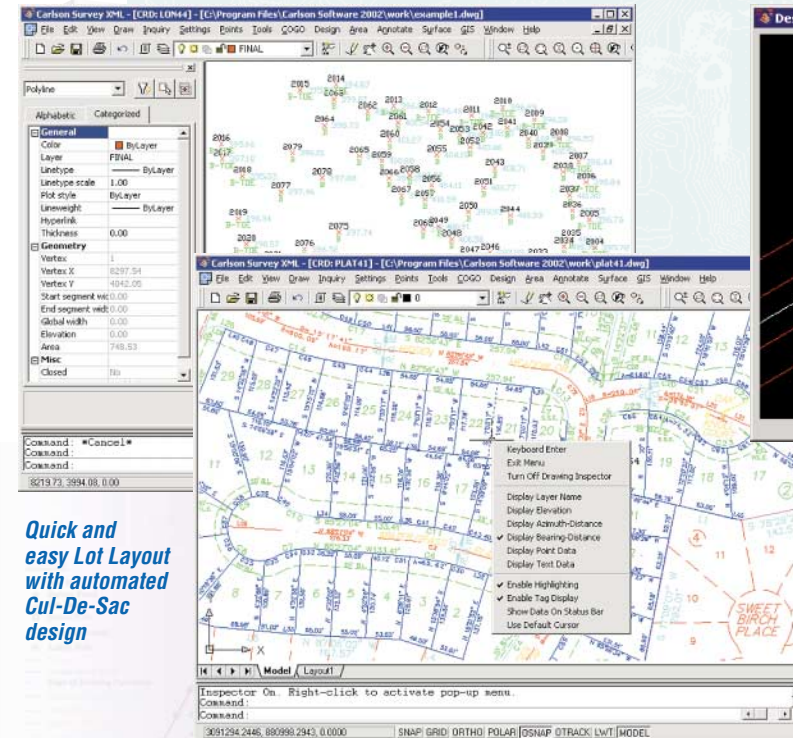
dialogs with one very simple 2 column formed based editing tool. The Properties dialog is resizable, dockable, it remembers its last position, size, and docked state. Drawing properties are displayed when no object is selected. Object properties can be quickly accessed since they can be organized in general categories or alphabetically.

- **Context Menus** – Extensive right click support with context sensitivity throughout Carlson Survey. Right clicking on the graphic screen with no geometry selected enables access to basic CAD and Windows editing commands. Right clicking while in command mode, parses all command options to the right click menu. Right clicking with a selection set active enables access to the specific object editing commands.

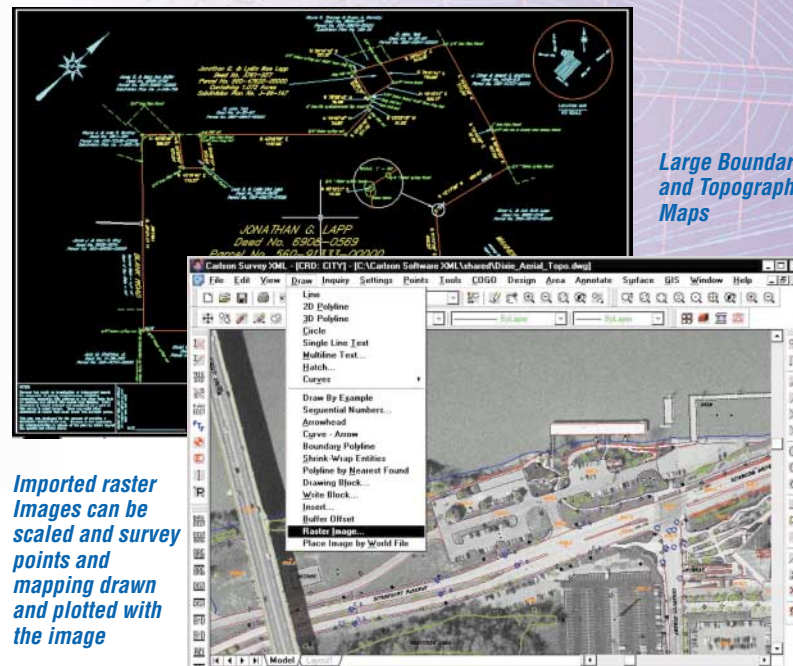
- **Cut Sheet** – New option to create a report based only design station and offset without survey data. This report can then be used to make labels before stakeout. New controls for settings the decimals places for X,Y coordinates separately from the elevations. Added options whether to report points missing in the design or survey file. When using the report formatter, the cut and fill fields can be separate columns and there are separate options for whether to report the design and survey northing, easting and description. When comparing coordinate files, the names of the coordinates files are included in the report title. For comparing points from the same coordinate file, there is a dialog for matching points to compare. This dialog allows for assigning multiple design points to the same survey point. Also this dialog has a function to automatically match points based on a specified tolerance distance.

- When comparing points, there is a new setting for distance tolerance to flag points in the report that exceed this tolerance.
- **Drawing Inspector** – New command to show entity information as pointer is dragged over entities. Available data includes entity layer name, elevation, bearing-distance, etc.

(Continued on back page)



Quick and easy Lot Layout with automated Cul-De-Sac design



Imported raster Images can be scaled and survey points and mapping drawn and plotted with the image



Submit better looking plans in less time



*“We have three copies of Autocad with Carlson Software’s civil package SurvCADD and one copy of Autodesk Field Survey. As a small office completing 700 to 1000 title surveys annually I was pleased to find out about Autodesk Field Survey. The AFS survey package developed by Carlson Software for Autodesk was the same survey software I’ve used for years in SurvCADD but for a fraction of the cost. I recently upgraded my AFS to Carlson Survey XML. I recommend Carlson Survey XML for any small, medium or large surveying firm.”*  
—Barry M. Fahrer Land Surveyor NY, RPLS



*“I’ve been using Carlson Software products since 1986. My company’s workload has grown tremendously while my staff has essentially remained the same over the years. To accomplish this growth I use Carlson Software for both electronic field data collection and in the office. Current workload includes over 600 title surveys annually. In addition we do numerous large topo and construction stake out surveys. Carlson Survey XML and Carlson SurvCE, running on the Allegro CE data collector, work together seamlessly to handle all our jobs.”*  
—Karl Knoecklein, NY, RPLS



*“I use Carlson Software products both in the field and office. I currently have Carlson SurvCE data collectors and a Carlson Software Tsunami CAD data collection package running conventional, robotic total stations and RTK GPS. I use heavily the “Profile to Points” road stakeout and “Cutsheet” routines in Carlson Survey XML. The ability for cutsheets to be formatted and exported directly to Microsoft Excel spreadsheets is fantastic. With one full-time two man field crew and myself it is remarkable the work my small survey firm completed in 2002.”*  
—Shawn Donohue, PA, RPLS



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■ **Edit Process Raw File** – New attached graphics window to show points and traverse lines in real-time. Vertical error adjustment now has an option to adjust by least-squares in addition to linear interpolated. The least-squares parameters can be saved and loaded as a way to store settings for different equipment. The process with no adjust routine has a new option whether to report closure. The Renumber Points routine now prompts for the line number to start the renumbering. There are new user-defined settings for the angle and distance tolerances for direct-reverse sets. The search and replace functions have new options to match case and match the whole word. The closure routines now handle using the same point number for the starting and ending points of a closed loop.

■ **Field To Finish** – The Report Code Table routine now uses the report formatter to customize the layout of the report. In the main dialog, added a function to search and find a code in the table. Each code now has the option for complete control of all the point attribute layers for point number, elevation, description and symbol. Also codes now can set the point attribute layout format. New code setting to set the elevation label of a code to none. New JPN special code to join linework to a specific point number. New JOG special code for entering "jogs" to draw linework with left and right perpendicular offsets. New RECT special code to close the linework as a rectangle. Also RECT code can be used with user-specified offset distances and two points to create a polyline rectangle. Changed the behavior of the CLO special code to both close and end the linework. For the SZ code, if no size number follows the SZ code in the description, then the next point is used to size the symbol. New companion codes settings to allow connecting linework between different codes. Codes can contain a "\*" for wildcard matching with point descriptions. In the Draw Points & Lines function, there is a new option to pause and prompt when a description is not defined. At the stage of the Draw Points & Lines and Draw Lines Only dialogs, added the option for linework real Z as

either on (3D), off (2D) or by code. For drawing point elevations, there is a new option to put brackets around the elevation label. Added support for processing Eagle Point style coding.

- **Import/Export SHP Files** – New routines to import and export ESRI shape (.SHP) files.
- **Profiles** – New commands to create, edit and draw profiles. Multiple sheet profiles use new layouts.
- **Profile to Points** – New command to create 3D points in plan view based on profile.
- **Visit [www.carlsonsw.com](http://www.carlsonsw.com) for a complete listing of new features and improvements.**

## Pricing

- **Carlson Survey XML** – \$1495
- **Carlson Survey XML upgrade from Carlson Survey CES** – \$495
- **Carlson Survey XML upgrade from Carlson Survey 99/98** – \$795
- **Carlson Survey XML upgrade from Autodesk Field Survey** – \$395



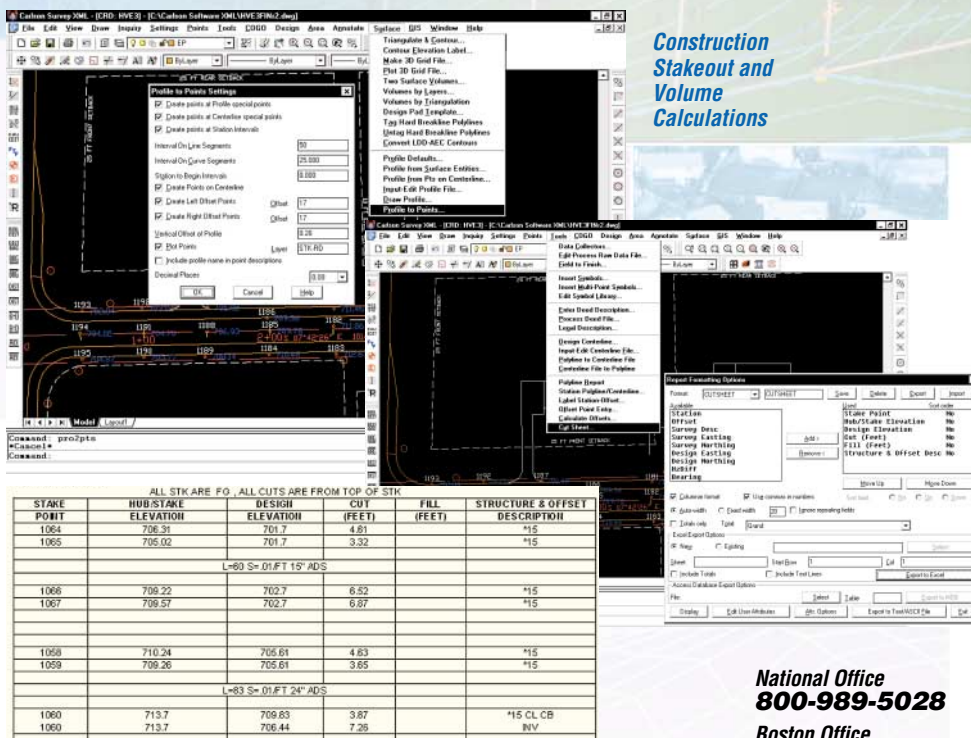
All popular graphic formats can be inserted into Carlson Survey XML



"Surveying large tracts in rural Pennsylvania, we often use RTK GPS to find boundary corners set in the 1800's. In the last 10 years, surveying methods have advanced tremendously due to technology. As long time users of Carlson Software products, we at Donohue Surveys unequivocally rely on Carlson Software both in the office and field to maintain our technological edge."

— Martin Donohue, PA, RPLS

Construction Stakeout and Volume Calculations



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