

That CAD Girl

March, April & May Webinars – Now Posted!

January 28, 2015

I've just updated my list of [Upcoming Webinars](#) for the next few months. There are several new and reconfigured sessions and I've got Mark Long, Carlson's Hydrology expert, on board to show a lot of the design capabilities in Carlson Hydrology in March. Mark's the best and I think you'll get a lot out of his training.

A couple other classes are on the list because you asked for them! They're narrowly focused classes on very specific topics: Carlson Annotation, Surfaces and Breaklines and Working with Paper Space, Sheet Set Manager and Creating Custom Title Blocks. You'll have ample opportunity to ask questions and start using what you learn right away!

Here's the link to [pre-register](#) and, if you're not [eligible to attend for free](#), here is the link where you can [purchase a year's access to the webinars](#).

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Carlson (and my) End-of-Year Specials are Here!

January 28, 2015

I'm a few days late in posting this but Carlson has announced their end-of-year CAD pricing specials for 2014.

So, what's on the shelf? For desktop software we have specials on:

- [Carlson Civil Suite 2015 plus maintenance through 9/1/2015](#) Everyday retail price for this bundle is \$4,125, Carlson's year-end price is \$2,995 and my price is... less than that!
- [Survey 2015 with embedded AutoCAD](#) Everyday retail price for this is \$2,995, Carlson's year-end price is \$2,695 and my price is... less than that too!

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- [Takeoff 2015 \(T8\) with embedded AutoCAD](#) Everyday retail price for this bundle is \$9,000, Carlson's year-end price is \$7,500 and my price is... you guessed it... less than that!

All software purchases include 12 months of access to my [live, interactive webinars](#). These are exclusive training sessions that are not publicly posted online and I'm currently scheduling approximately 3-4 hours per month on various topics. This is my way to help as many of my customers as possible use your software and keep it from becoming shelf-ware!

But, that's not all!

I also have additional discounts on new purchases of Carlson [Survey](#), [Civil](#), [Hydrology](#), [GIS](#), [Takeoff Suite](#), [Construction](#), [CADNet](#), [Trench](#) & [GeoTech](#) with Maintenance. These links go to my online store where you can see my standard discounts but I'm not allowed to advertise the super-duper special pricing. You'll have to [email me](#) or [Request A Custom Proposal](#) to find out details...

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Both Carlson's specials and the ones I'm running on my own will expire on 12/31/2014...

2014 That CAD Girl Workshop – Time to Register!

January 28, 2015

[It's workshop and PDH time again!](#)

We're mostly following the same calendar as last year with a 1/2 day in Asheville and 2 full days in Statesville and Raleigh. Each event includes drinks, snacks, lunch, door prizes/giveaways and "day-of-show" pricing for Carlson Software including new seats and maintenance renewals.

Register for the Statesville events by Sept 30th or for the Raleigh events by Oct 31st for early registration discounts.

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Late fees will be applied to registrations within one week of each event.

Carlson Software Workshop in Asheville NC, Monday Nov 17th

[**View Announcement**](#) – [**Register Now!**](#)

Statesville Workshop for Surveyors and Contractors, Tuesday Nov 18th

[**View Announcement**](#) – [**Register Now!**](#)

Statesville Workshop for Engineers and Designers, Wednesday Nov 19th

[**View Announcement**](#) – [**Register Now!**](#)

Raleigh Workshop for Surveyors and Contractors, Tuesday Dec 9th

[**View Announcement**](#) – [**Register Now!**](#)

Raleigh Workshop for Engineers and Designers, Wednesday Dec 10th

[**View Announcement**](#) – [**Register Now!**](#)

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Carlson Tip of the Day... Wiped Out Property Corner Symbols

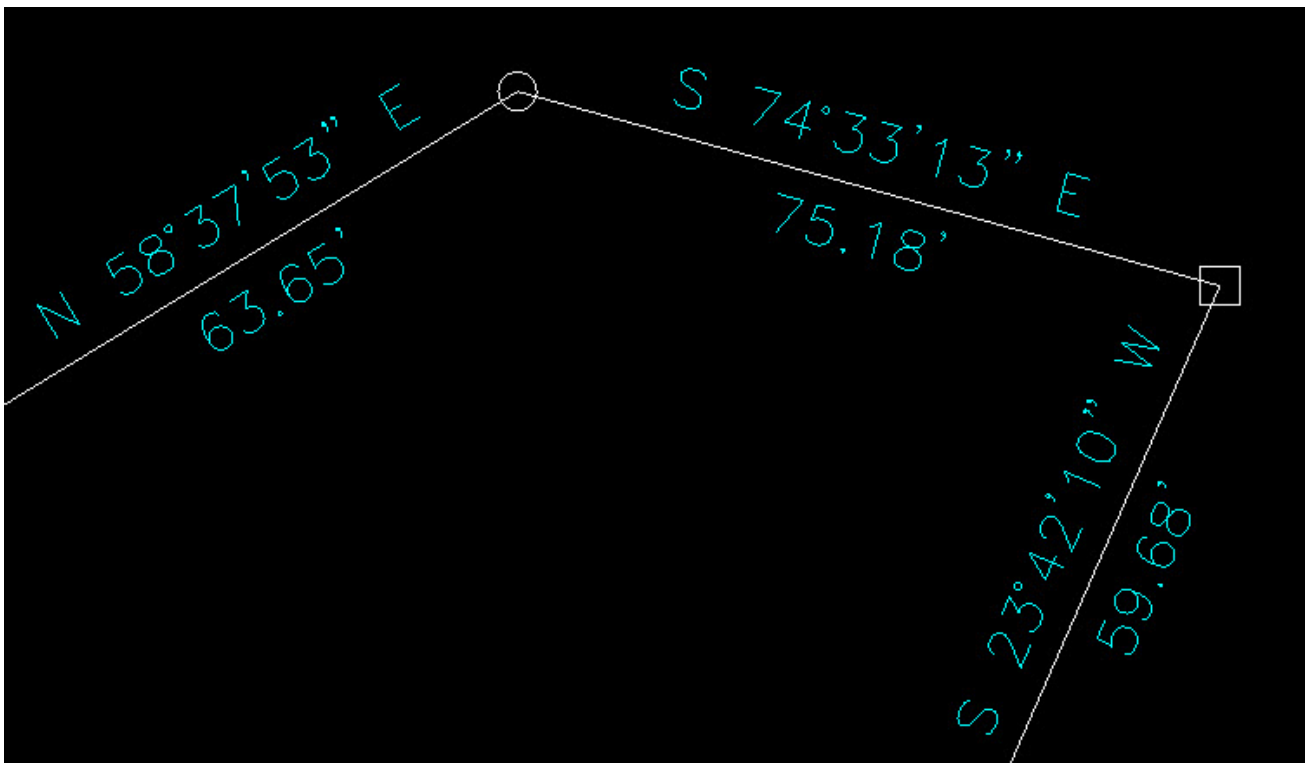
January 28, 2015

I get this question quite a lot and thought it would be a

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good topic for Tips of the day...

Problem: Lines or polylines of a boundary show up inside your open property corner symbols. See the image below for an example:



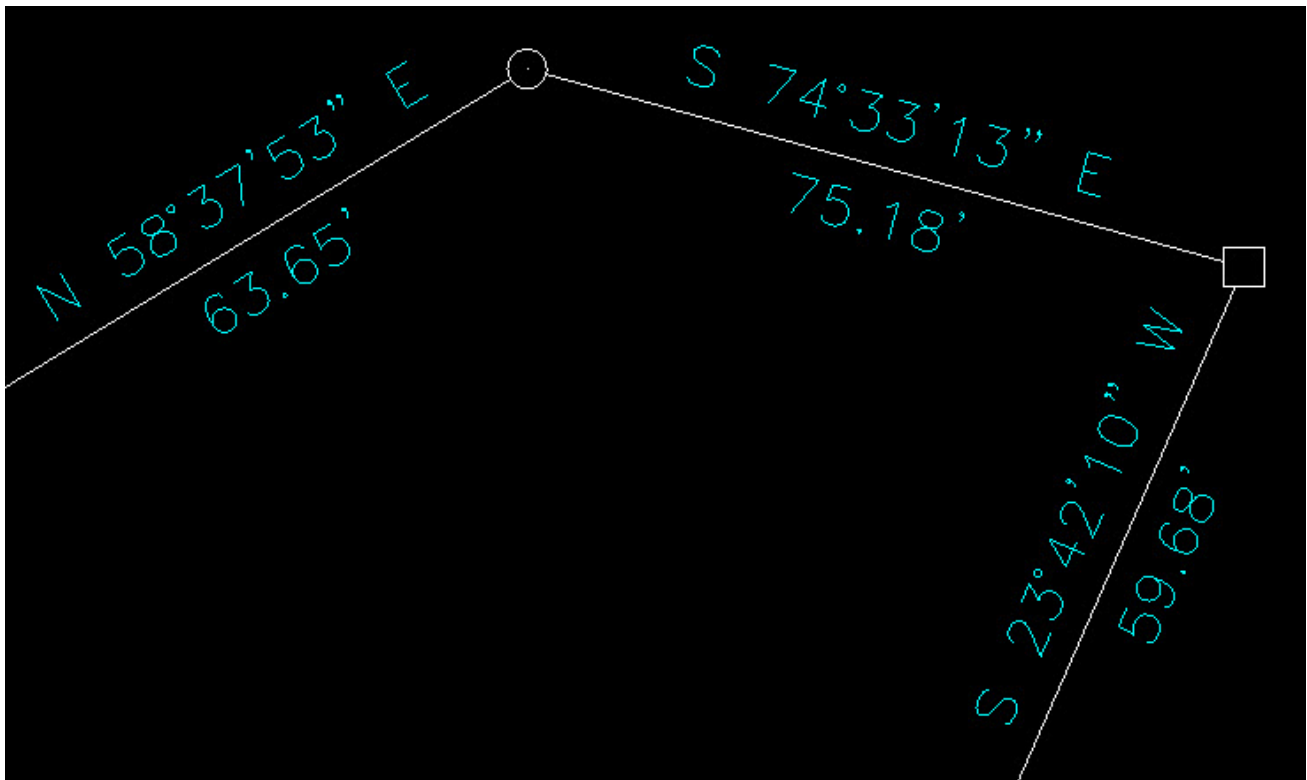
The additional problem is that, if you trim the lines inside

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the symbols to make it look cleaner, you're actually modifying the length of property lines so the distances from corner-to-corner are no longer accurate.

Here's an alternative: You can download a modified set of Carlson's point symbols that include a "wipeout" entity that hides the lines behind/underneath the open symbols instead of trimming them and changing the length of the lines. Using the new set of symbols, the same property lines and symbols look like those in the image below (notice that the distances of linework are unchanged):

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How to do this?

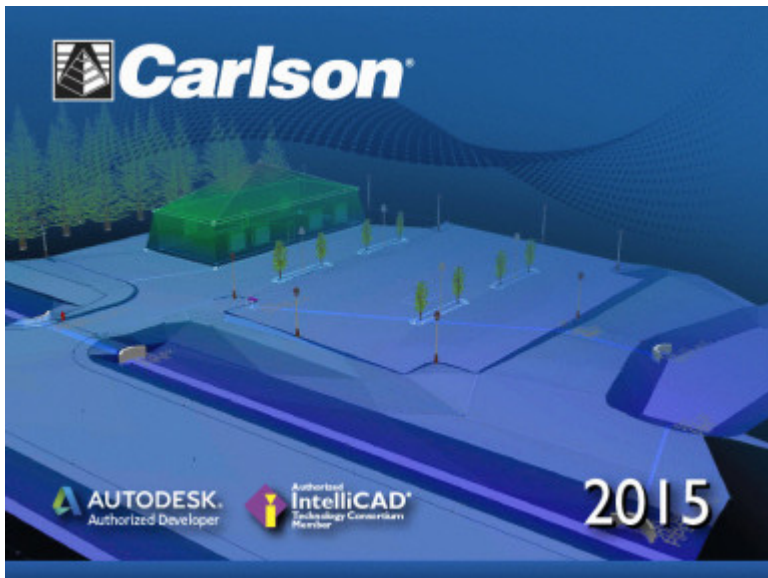
[Here is the knowledge base article](#) on Carlson's website that includes a ZIP file with the new symbol DWG files and instructions on where the files must be saved.

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Carlson Tip of the Day... List of improvements in Carlson 2015 programs

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General

- AutoCAD 2015 – Added support for this new version.
- IntelliCAD 8.0 – Direct support for 2013 DWG file format. Added 64-bit version. New features including support for dynamic entity reactors, layer states and improved ddvpoint interface.
- Google Earth – Added support for exporting 3D Faces.
- Import 3D View Model File – New command to create drawing entities from a 3D model file.

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- Export 3D View Model File – New command to create a 3D model file from selected drawing entities.
- 3D Model Library – New command to prepare the 3D models to use in the 3D Viewer commands.
- Toolbar Manager – New command to save status of toolbars and allow migrating toolbar settings between versions.
- File Selection – Added list of subfolders within current folder and button to move up a folder level. Added option for warning when selecting a data file that is not within the current project folders.
- Textures – Added 40 new textures for 3D viewing.
- Settings File Manager – Added function to compare two settings files and report differences.
- Leader With Text – Added option for horizontal tick and option to create with Mtext.
- Join Nearest – Added filters for common colors and linetypes.
- Join Polyline By Trace – New command to join linework into a polyline with prompts at intersections

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Survey Commands

- Field To Finish – Added special pipe feature coding with ability to create pipe network (.sew) file. For tree feature coding, added option for drip as diameter instead of radius, added option for solid circle for trunk and option for relative tree size for the symbols. Added control for separate layers for the point attribute block and point node. Added new AFIT special code for making a curve tangent through a series of three curve points. Added method for dynamic templates with variable horizontal and vertical offsets by using the OH and OV special codes. Added settings file default distinct point layer prefix/suffix. Added separate text size settings for attribute text labels and point block attributes.
- SurvNET – Added error report for individual observations to track down blunders. Added import for TDS GPS vectors.
- Edit Process Level Data – Added support for processing with zero horizontal distances.
- Carlson Cloud – New command for communicating with SurvCE for sending messages, data files and crew

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locations.

- Report Distance Scale – Added methods for grid/ground factors on-the-fly in addition to a fixed factor.
- 3D Transformations – Added 3D coordinate transformations.
- Point Group Manager – Added method to create point group by offset distance from alignment polyline.
- Move Point Attributes With Leader – Added controls for attribute order and ability for curved leaders.
- Import Text/ASCII File – Added method import from text with fixed widths and method to use inclusion/exclusion perimeters.
- Legal Description – Added method to report station/offset using a reference centerline. Added method for reporting with geodetic mean angle and geodetic distances.
- Cut Sheet – Added method to get station/offset from the point description coding. Added field for design point description.
- Offset Points By Interval – New command to create offset points along an alignment.
- Label Coordinates – Added options to include a description, to use Mtext, to draw the labels at an

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angle and option for mleader.

- Draw Legend – Added method to put each symbol on a specific layer.

Civil Commands

- Draw Profile – For paper space profiles, added method to use an existing layout as a reference template for the new layout. For the horizontal label box, added option for horizontal text in addition to vertical. For pipe profiles, added settings to label inverts by left/right order, added option to draw cutoff style pipe extensions, added option to create labels as MText, added option for flow arrow in middle of pipe, new option for labels above the pipes, added justification settings per label, added setting for separate layer for pipe thickness than pipe profile and option to connect rims with a polyline for a simple surface profile. For Label Line/Point crossings, added option to label elevations at crossings, added method for labeling GIS attributes, added method to label points of selected descriptions within offset

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tolerance, added option to label CL deflections and added option to avoid label overlaps. Added special CL stations for break point station/elevation labels plus new prefix/suffix settings. For EOP profiles, added new break point and EOP leader style to the start of the labels, added option to label ground profile on road EOP profiles and added controls to select which profiles are EOP, road and ground. For the manhole name within circle option, added setting to put the name and number on separate lines and added the option to auto shift the labels to avoid overlaps.

- Draw Sections – Added option to label cut/fill volumes per station. Added separate settings for pipe crossing layers for decimals on pipe size, offset and elevation.
- Draw Plan View Sheets – Added option to set station range to draw.
- Input-Edit Centerline – Added Fit Curve method to apply speed table to all PIs in centerline.
- Input-Edit Profile – Added method to apply speed table for vertical curve lengths to all PIs in profile.
- Label Station/Offset – Added method to use a TIN or grid surface for the elevation reference.
- Draw Lot Setback – Added method for separate corner

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side setback amount.

- Move Spot Elevations – New command to move spot labels and update elevation to new position on reference surface.
- Line Of Sight Viewshed – New command to calculate line-of-sight from a point and eye height on a surface.
- Draw Spot Elevations – Added option for label only and option to pick an entity instead of a point.
- Cut/Fill Labels – For points method, added more options like separate layers for existing and design. For the TIN method, added options for deep cut/fill labels and option for marker symbol.
- Smooth Polylines – Added method to smooth polyline between selected points.
- Triangulation File Utilities – Added function to color TIN within inclusion perimeter.
- Road Stripe Library – New command to setup named sets of road stripes with offsets, colors and styles.
- Draw Road Stripes – New command to draw linework for road stripes.
- Linear 3D Object Polylines – New set of commands to manage alignment polylines for 3D Viewer commands for linear 3D features such as fences or guard rails.

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- Label Profile On Centerline – Added label position by left/right in addition to above/below. Added prefix/suffix and station interval settings.
- Offset 3D Polyline By Grade Table – New command to offset a 3D polyline using the distances and slopes from a template grade table.
- Road Network – Added settings for station range to process for each road.
- Mass Haul Analysis – For borrow pits, added offset from road to account for offset travel time.
- Sections From 3D Polylines – New command to create cross sections from 3D polylines.
- Surface 3D Viewer – Added option to show contours. Added functions to edit triangulation by swapping edges, adding breaklines, removing points, removing triangles or editing point elevations.
- Surface 3D Flyover – Surface model is kept in sync with any edits in CAD so that the 3D view is automatically updated. Added method to add models to the scene by screen picking plus the ability to pick models in the scene to edit properties (location, rotation, scale). Added function to record a movie. Added method to map textures by color and method to scale textures. Added

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run view mode for detached from moving vehicle. Added option to show contours. In pick mode, display real-time coordinate and elevation for mouse position on surface.

- Motion 3D Viewer – New command to assign path polylines with speeds to 3D models and the camera.

Hydrology Commands

- Design Detention Pond – New command with all steps for detention pond design plus support for multiple rain events.
- Pipe Culvert Design – Added method for tailwater by channel or discharge rating and added overtopping analysis.
- SCS Rainfall Library – New command to define an SCS data reference library for rain events.
- Rational Rainfall Library – Added import of IDF tables from comma separated text files.
- Collision Conflict Check – Added support for checking unlimited pipe networks and using the report formatter.
- Sewer Network Design – Added option for junction loss

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for pipe connections including laterals. Added method for tailwater at each outlet. New method to set symbol rotation by screen pick. Added graphic preview during .sew file selection.

- Lateral Design – Allow for multiple lateral connections at manholes.
- Identify Pipe Polylines – New command to ID or list pipe data assigned to 3D polylines.
- Import Network From 3D Polylines – Added method to control order of names by design order, elevation or polyline direction. Added method to set rim elevation by depth.

GIS Commands

- Label GIS Point Data – New command to create text labels or block with attributes for selected GIS attributes.

Field Commands

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- Drivers: Upgraded many drivers from the SurvCE updates.

Geology Commands

- Define Mining Model – Added Mine Model collection of surfaces for modeling only mineable strata already adjusted for recovery, roof/floor gain/loss and minimum parting. Renamed “Pre-Calc Model” to “Geologic Model”.
- Geologic To Mining Model – New command to adjust a Geologic Model to make a Mining Model.
- Drillhole Database – Added support for MS Access .accdb format.
- DHDB – Added drillhole database import/export to DHDB format.
- Import From Coal Section – New command to create pit/channel samples from coal sections.
- Configure Section Info – Added method to set folder for section drawing to allow storing the section info on a server.
- Import/Export Coal Sections From Text File – New commands to import/export coal sections from/to text files.

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- Grid Files – Added option to store .grd files as binary to improve read/write speed.
- Grid File Utilities – Added method to call other GFU macros and pass parameters from another macro. Added `sin()` and `cos()` functions for grid math. New dialog interface including dialog for creating IF statements. Added 3D window to show grid while modified.
- Draw Geologic Column – Added method to draw in 3D with strata sections sized based on grade parameters. Also added 3D draw method as 3D lines. Added method to label grade names and added separate layer settings for attribute labels. For labels in 3D, added options for rotate labels vertical and draw label leaders. 3D Viewer Window now shows 3D text generated by Geologic Column.
- Drillhole Report – Added method to report grades for each strata.
- Drillhole Core Images – Added method to draw the report to the drawing and added option for labeling depth or elevation.
- Draw eLog – New command to draw graph of selected attributes from an eLog LAS file.
- Create Drillhole from eLog – New command to create

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drillholes with strata classification using the eLog paramters.

- Trim Isopach Within Fault Zone – New command to isopach elevations and break contours at fault zones.
- Draw Fault Labels – New command to label fault deltas.
- Draw Fault Symbols – New command to draw +/- symbols for faults.
- Apply Faults To Grid – Added method to handle thrust faults. Added method for processing multiple grids at a time.
- Surface Mine Reserves – Added Adjust Pits Manager for adjusting pit perimeters with real-time quantity updates.
- Draw Grade Boundary – New command to draw boundary polylines around area with specified grade.
- Block Model Statistics – Added min/max/average elevation and depth to the report. Added level # to report name.

Surface/Underground Mining Commands

- Ribbon – Added a mining ribbon for running with AutoCAD 2012 and higher.
- Import Pit Points – Added method for user-defined input

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file formats.

- Import Polyline File – Added method to draw 3D polylines from sequence of top/bottom points for blast holes.
- Label Property Lines – Added option to label owner or id labels and added setting for label layer.
- Surface Equipment Timing – Improved calculation speed by 25%. Added method to use table of production targets with variable equipment usage to adjust to meet the targets.
- Underground Timing – Added option for transparent hatching and for buffer hatching.
- Dozer Push – Added support for push cut area by closed polyline. Added method for reporting single, average push. Added option to keep existing polylines, to draw centroid symbol and to label total push distance. Added settings for label text size, layer, style, decimals and prefixes.
- Regrade Backfill – Added bench option to cross section regrade design.
- Range Diagram – Added dimensions for all angles and distances. Added options to output final profile and to output parameters to sequence file.

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- Design Ramp Profile – New command to create a ramp profile between two surfaces.
- Ramp Bench Polyline Generator – New command to design bench pits using polylines.
- Edit Dragline Sequence – New command to edit the steps for pit cuts.
- Make Solid From Points – New command to create a solid model from a cloud of points.
- View Solid – New command to view a solid model in the 3D viewer.
- Draw 3D Mine Model – Added method to make model from coal sections and pillar/perimeter polylines.
- View 3D Surface History – Added support for displaying TINs.

Construction Commands

- Define Layer Target/Material/Subgrade – Added support for up to 7 subgrades.
- Color TIN By Layer – New command to color the surface TIN using the color assignments in Define Layer Target.
- 3D Drive Simulation – Added method to apply textures to

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design layers in addition to colors for viewing in 3D.

- Tag Segments To Skip Linear – New command to tag polyline segments to skip for material linear quantities.

CADNet Commands

- Merge Raster Files – Added method to automatically select control points.
- Import SketchUp File To Drawing – New command to create drawing entities from a SketchUp file.
- Import PDF File – New import engine with ability to use layers for PDFs with layers.
- Drawing to 3D PDF – New command to create a 3D PDF from selected drawing entities.
- 3D Viewer to 3D PDF – New command to create a 3D PDF from a 3DX file from the 3D Viewers.

Point Cloud Commands

- Faro – Added direct import method uses Faro toolkit.

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- E57 – Added support for importing industry standard e57 format.
- PLY – Added import for PLY format.
- LAS – Added method to use LAS classification for coloring and selection.

Data Conversions

- 12D – Added import and export for pipe networks plus support for some more entity types.
- Canada – Added support for NTV2-NAD27-83
- Geoids – Added support for Canada CGG2010 and CGG2013n83, Sweden 08_rh2000, Sweden 08_rh70, Poland 2011 and Georgia 2012
- Iowa – Added projections for Iowa Regional Coordinate System
- Ireland – Added national grid projection.
- KOF – Added function to draw linework from KOF files.
- MDL – Added support for binary data within FSC file.
- Norway – Added support for N2000 format.
- SketchUp – Added import for SketchUp models in Surface 3D FlyOver

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- SurvCE – Added import for points with photos in Google KML format as created by SurvCE

Carlson 2015 Has Been Released!

January 28, 2015

[Carlson](#) posted the [2015 versions](#) of their for CAD (IntelliCAD or AutoCAD 2004-2015) on Tuesday afternoon... you can [Download Carlson 2015 products with IntelliCAD here](#). The 2015 versions of embedded AutoCAD products (Survey and Takeoff OEM) will be released later this summer.

If your maintenance contract is current or you have purchased 2014 products within the past 90 days, you're automatically

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eligible for an upgrade to 2015. [Click here](#) to look up your 2015 serial number using your 2014 serial number.

[Click here](#) to review the list of all improvements

[Click here](#) to read about updates in Carlson Survey 2015

[Click here](#) to read about updates in Carlson Civil and Carlson Hydrology 2015

[Click here](#) to read about updates in Carlson Takeoff Suite 2015 – including Construction, CADNet, Trench and GeoTech

There are price increases with 2015 products. Click one of these links if you would like to [Request a Demonstration](#) or [Request a Custom Proposal](#) to upgrade to 2015 or purchase new software.

Please [follow this link](#) to see if you're eligible for our monthly webinars including [CAD and Carlson Tips & Tricks](#), [Intro to Survey and GIS](#) and [What's New in Carlson 2015](#).

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Did You Know... About Carlson's Export to KMZ (Google Earth) Command?

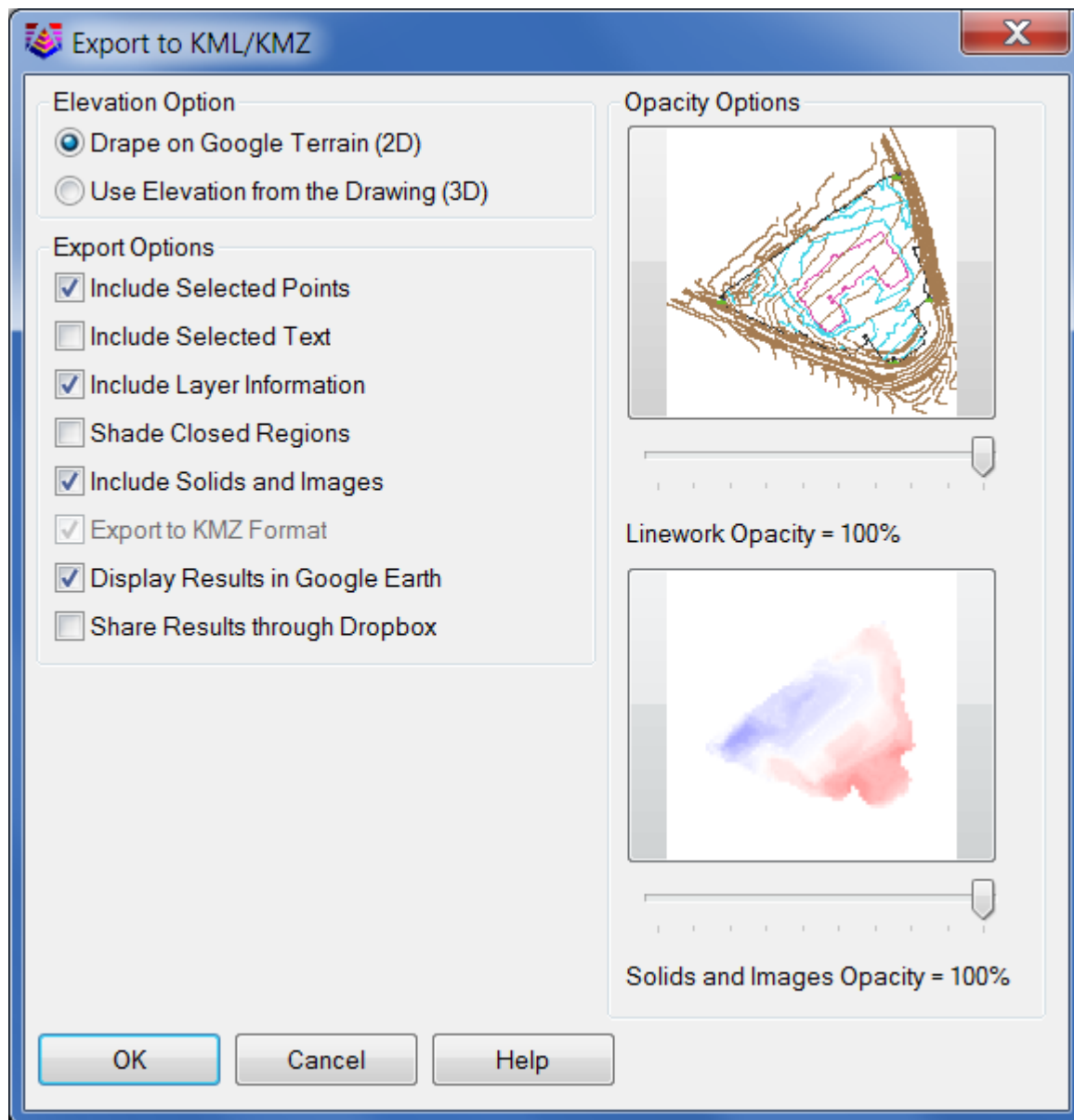
January 28, 2015

[Carlson Software](#) gives you the ability to export drawing entities directly to the Google Earth application or, alternatively, to a .kml or .kmz file that can be opened in Google Earth. At this time Carlson supports the export of points, polylines, text, solids, images, lines and arcs to Google Earth or .kml/.kmz files.

In Carlson 2014 they have also included the option of sending the Google Earth file directly to a [Dropbox](#) account for sharing with clients or other project team members.

The Export to Google Earth command is found in the File menu in all Carlson desktop programs.

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Year End Specials for Carlson Software

January 28, 2015

Updated 11/4/2013: I've just added several more end of year specials for [Survey with IntelliCAD](#), [Takeoff Suite](#), [Construction](#), [Trench](#), [GeoTech](#), [Survey with IntelliCAD and manuals](#) and more... Remember to Add Coupon for best pricing!

Carlson jumped the gun a bit and announced their year-end specials today... Special pricing will end at noon on 12/31/2013. In addition, all software purchases through 12/31 include 2 hours of online training.

Check out my [online store](#) and make sure to pick the item's "Add Coupon" button for best pricing:

[Carlson Civil Suite](#) including one year of upgrades/maintenance

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[Carlson Survey 2014 with embedded AutoCAD](#)

[Carlson CADNet 2014](#) including one year of upgrades/maintenance

CADNet is a new module for 2014 – broken out of Takeoff. CADNet has tools for digitizing, importing raster and vector data from images and PDFs, merging two image files, BIM data and more. [Check out this recent webinar](#) introducing Carlson CADNet to see how powerful it is.

End of Year Workshops – New format for 2013

January 28, 2015

After several years of the same format for our end of year

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workshops, we've changed it up a bit this year.

For the first time, we will have one full day in both Statesville and Raleigh NC dedicated to Surveying and GIS topics and an additional day focusing on Civil and Hydrology topics. Each day will also include a unique presentation of the popular CAD Tips & Tricks session that, hopefully, sends everyone home with something they can use the next day.

In addition, we're conducting 1/2-day events in Wilmington and Hendersonville (Asheville area) covering a variety of topics.

Each full-day class will give NC licensed surveyors and engineers 8 PDH credits and the 1/2 day events are eligible for 4 PDH credits. All events include lunch, software pricing specials and giveaways.

November 11th, Hendersonville NC – \$49 for 4 PDH credits

[Download Hendersonville \(Asheville\) Announcement Here](#)

[Register for Hendersonville \(Asheville\) Workshop Here](#)

November 12th, Survey & GIS Workshop, Statesville NC – \$99 for 8 PDH credits

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[Download Statesville Survey/GIS Announcement Here](#)

[Register for Statesville Survey/GIS Workshop Here](#)

November 13th, Civil & Hydrology Workshop, Statesville NC
– \$99 for 8 PDH credits

[Download Statesville Civil/Hydro Announcement Here](#)

[Register for Statesville Civil/Hydro Workshop Here](#)

December 9th, Wilmington NC – \$49 for 4 PDH credits

[Download Wilmington Announcement Here](#)

[Register for Wilmington Workshop Here](#)

December 11th, Survey & GIS Workshop, Raleigh NC – \$99 for 8
PDH credits

(\$89 registration thru 10/31/2013)

[Download Raleigh Survey/GIS Announcement Here](#)

[Register for Raleigh Survey/GIS Workshop Here](#)

December 12th, Civil & Hydrology Workshop, Raleigh NC – \$99
for 8 PDH credits

(\$89 registration thru 10/31/2013)

[Download Raleigh Civil/Hydro Announcement Here](#)

[Register for Raleigh Civil/Hydro Workshop Here](#)

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Register for Carlson's "What's New in 2014" Webinar Series

January 28, 2015

As we're all getting ready for the release of Carlson's 2014 desktop products, Carlson Software has scheduled a series of 5 lunchtime webinars to introduce new features and enhancements. See below for details and registration links:

[Carlson Survey and Civil 2014](#)

Wednesday, July 24th – presented by Scott Griffin, Director of Sales

[Carlson Construction 2014](#)

Wednesday, July 31st – presented by Todd Carlson, Takeoff Product Manager

[Carlson Hydrology 2014 and all new Carlson Trench](#)

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Wednesday, August 7th – Mark Long, Developer, & Todd Carlson

[Carlson Mining 2014](#)

Wednesday, August 14th – Grant Wenker, Director, Mining Division

[All new CADnet](#)

Wednesday, August 21st – Jim Carlson, Regional Sales Director

[All new GeoTech](#)

Wednesday, August 28th – Dave Sanford, Regional Sales Director