Christmas comes early… Carlson just announced their year-end specials!

October 29, 2015

Well, it ***says*** November 1st but I just received an email that they've launched this promotion today to coincide with a magazine advertisement! I know a lot of you have been waiting for this promotion and it's finally here.

For a limited time I'm also offering a special "build-your-own-suite" package that will allow you to choose any 4 of these programs to create the bundle that works best for you: Survey, Civil, Hydrology, GIS, CADNet, Trench or GeoTech.

That CAD Girl

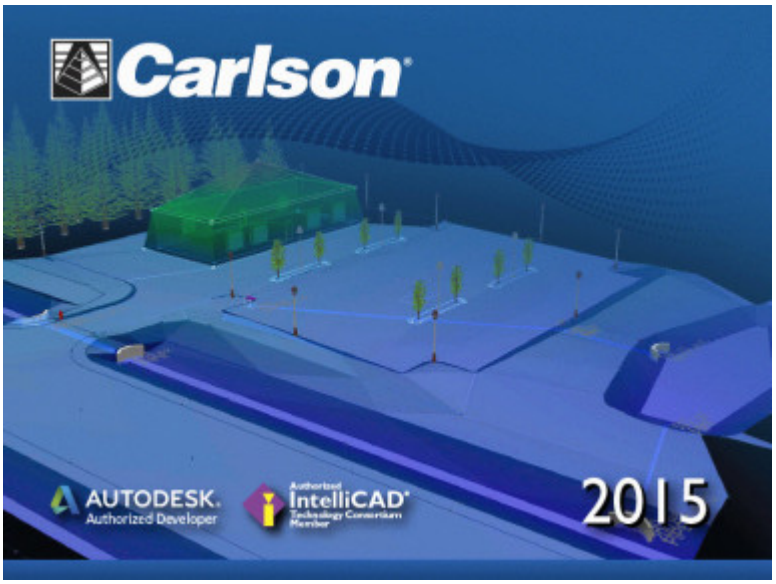


You can request a custom proposal if you're interested in the "build-your-own-suite" or visit my online store here to purchase the standard Civil Suite and maintenance.

Remember, all purchases through That CAD Girl make you and your co-workers eligible for a year of our live, interactive webinars (see list of upcoming topics here) so you won't simply be left on your own to learn a new software. Documentation of attendance will be provided so you may also receive PDH credit from your licensing agency.

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

October 29, 2015



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.
- 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

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 individiaul 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 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 angle and option for mleader.
- Draw Legend – Added method to put each symbol or 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 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 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.
- 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 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 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

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

Carlson 2015 Has Been Released!

October 29, 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 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**.

Thank you to the Richmond AutoCAD Manifest (RAM)

October 29, 2015
I'd like to thank Art Thomas and the Richmond Virginia AutoCAD User Group for inviting Jeremy and me to demonstrate

Carlson Software and data collection last night. Our hour-and-a-half long presentation covered the basic tools and Survey, Civil and GIS specific features of the Carlson products.

The RAM User Group has been active for 20+ years and has a lot to offer CAD users in the central Virginia area. Their meetings are usually on the 3rd Wednesday of each month and start after work at 5:30. If you're based in the Richmond area, I'd highly recommend that you join up with them.

Did you know… About Coordinate Display Toggles?

October 29, 2015
Did you know that, when you're in AutoCAD or IntelliCAD, you have a couple of different options when it comes to

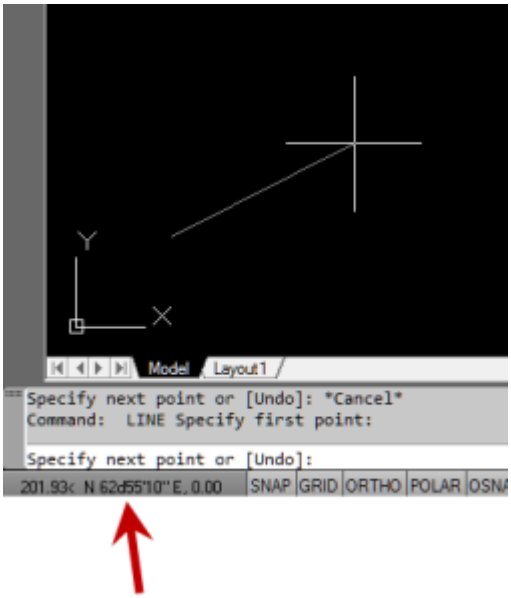
displaying the coordinate position of your crosshairs?

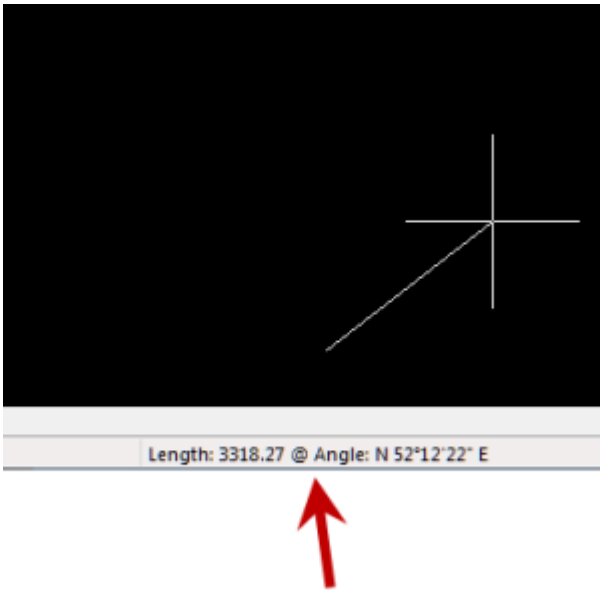
For instance, when you're NOT in a command, you have two options for displaying the coordinate position of your crosshairs as it moves across your screen: On or Off. If the coordinate display is toggled ON, then the X, Y and Z position (rectangular coordinates) of your crosshairs are displayed and if it's OFF, then the X, Y and Z display is frozen and doesn't update as your mouse moves.

However, if you are currently in a command that requires two points be picked to specify an angle and distance (commands such as Line or Move, etc), you have a 3rd coordinate display available to you: polar coordinates. Unlike rectangular coordinates that display X, Y and Z position, polar coordinates report a distance and angle from the original point. For instance, when you start the Line command you can toggle the coordinate display so that rectangular coordinates are ON or OFF. But, after picking the first point of the line, you can toggle the coordinate display so that rectangular coordinates are ON, rectangular coordinates are OFF or that polar coordinates are ON.

The image below on the left shows the polar coordinate

display in AutoCAD and the IntelliCAD version is shown below on the right:





To toggle the coordinate display in newer versions of AutoCAD (since 2009?) double-click on the coordinate display. In older versions of AutoCAD and in IntelliCAD, the F6 button toggles the display.

Tips & Tricks for Setting Points in Carlson – Webinar

October 29, 2015
Yeah, you know all of them already… Unless you don't!

Carlson has a lot of great tools that are available for setting points but some of them are a little hidden. I will be covering some features in Carlson Survey and Carlson Civil that will, hopefully, help you increase your productivity.

Register Now! Wednesday, February 29th – Tips & Tricks for Setting Points in Carlson

---

IntelliCAD Webinar – Do Over

October 29, 2015
Last week I presented a webinar sponsored by Carlson Software on the topic "Updates and Overview of IntelliCAD 7".

Unfortunately we had some technical difficulties and didn't get a complete recording to post to the Movies collection on Carlson's website.

For those who are interested, we will be re-doing the webinar on Thursday, March 29th. By that time we expect to have additional updates and improvements to announce.

Keep an eye on this site to register for the next IntelliCAD webinar

You can register for these future webinars by clicking the link below:

- Tips and Tricks for Setting Points
- Debunking the "Carlson Isn't Dynamic" Myth
- Carlson Annotation and Labeling

Another Happy Carlson Customer

October 29, 2015

Here is a great story about another customer of mine, John Prevette with Gooden & Associates out of Hope Mills, NC, and his successful transition from Civil 3d to Carlson Civil Suite.

http://info.carlsonsw.com/blog-1/bid/121528/Moving-to-Carlson-from-Civil-3D

And, I know what you're thinking but the answer is "No." Carlson did not pay him to say this – I asked just to make sure! In all seriousness, it's great he was willing to be interviewed and confirm just how great a design tool Carlson is and just how quickly you're able to get up to speed.

What is Carlson up to?

October 29, 2015
This is a good article about Bruce Carlson and where Carlson Software is planning to go in the future…

Independence All the Way

Originally posted on **Carlson Connection** by Jennifer Dibona

---

Carlson Software Manuals

October 29, 2015
Looking for Carlson Software manuals? Prior to the 2010 release, Carlson included printed manuals with your purchase and, in addition, the manuals have always been available to print for yourself from the Help files.

With the 2010 release, Carlson "opened" a storefront on the self-publishing site called Lulu.com. You can order 2009 and 2010 Carlson Software manuals here

That CAD Girl

http://stores.lulu.com/carlsonsw.

Originally posted on **Carlson Connection** by Jennifer Dibona