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In addition, Carlson is trying to get SurvCE and SurvPC on an annual release cycle so we should see 5.xx come out this year. With this change, you'll also see these products start showing up as available for an annual maintenance plan. If you're running an older version of SurvCE and would like to upgrade,

you can upgrade and purchase maintenance to immediately upgrade you to 4.xx and also receive 5.xx when it comes out. One word of caution though – make sure to check the table on this page to make sure the newer versions of SurvCE and SurvPC will still communicate with your equipment.

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They're Back!! ESRI, I mean!

I got a nice surprise a few weeks ago – a call from Donny Sosa, a Survey Industry Specialist with ESRI. Donny was nice enough to come to North Carolina and present a session at my end-of-year workshops a few years ago.

Even though he gets it, I'm sure Donny groans when he hears the joke that *"GIS means Get It Surveyed"*… because he & I originally met after he and Brent Jones made their ***Why GIS Needs Surveyors*** presentation at a Carlson User Conference in 2009. Since then I've understood that he is committed to getting surveyors to provide survey-quality data to public and private GIS-systems so that the quality of the data we all rely on continues to improve.

Donny called because he remembered that a lot of my customers were excited about, and took advantage of, the **free GIS Starter Kit** that ESRI offered to Carlson's IntelliCAD users after that presentation and wanted to let me know that the program is back in place.

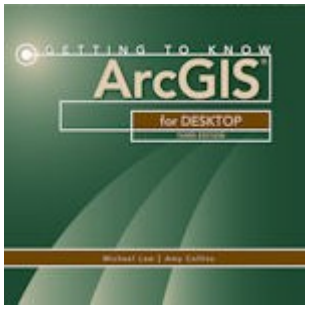
Here are the details – effective… NOW!

> *Those currently using Carlson with IntelliCAD are eligible for a **FREE "GIS Starter Kit"** from ESRI.*
>
> *The Kit includes 3 books:*
>
> - *ArcGIS for Desktop Basic*
> - *A to Z GIS: An Illustrated Dictionary of Geographic Information Systems*
> - *Getting to Know ArcGIS for Desktop, Third Edition*

*To take advantage of the offer, call **1-800-GIS-XPRT FREE (1-800-447-9778 FREE)** and request the **Carlson-IntelliCAD GIS Starter Kit** and please have your Carlson Serial Number available.*

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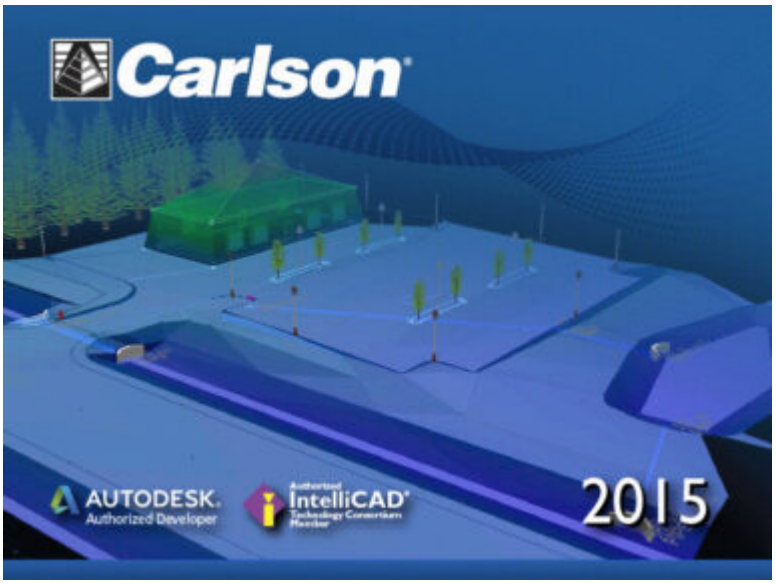
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Carlson Tip of the Day… List

of improvements in Carlson 2015 programs



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

Robert Green's "An Open Letter to CAD Software Companies" and a Response from IntelliCAD

If you're one of the many folks out there who don't believe that the developers of your CAD software are listening to you… you're not alone and you should take the time to read **Robert Green's** "**An Open Letter to CAD Software Companies**" in **Cadalyst**. And, as to the part about feeling like you're all alone, here is Robert's follow up describing the **overwhelming response to his open letter**.

I receive email versions of **Robert's bi-weekly CAD Manager newsletters** but had fallen behind and didn't see the original post until yesterday. If I'd read it when it was first released, my response would have been, "Amen brother!".

Just yesterday morning I had a conversation with a colleague whose company does Landscape Architecture, Civil Design and Land Planning. They are fully invested in Civil 3d (including much blood, sweat and tears in addition to money, money, money) but they're as productive as any company I know of with the program.

Their main complaint? They feel like Autodesk is pushing them toward Revit and they have no need for the software.

In my own experience, I see the push toward NavisWorks and 3ds Max. I had two seats of Civil 3d until I downgraded one of them to Map last year – only to be "rewarded" with an upgrade to Infrastructure Design Suite (and more money for Subscription) this year. This was supposedly something that owners of a Civil 3d and a Map license were able to opt-in to. I didn't opt-in. So, it took me several days to get them to un-opt-me-in and revert my licenses back to what I'd purchased. Is it any wonder I'm suspicious of any "bonuses" that come my way **because of this**?

I don't know how much Robert intended to point the finger at **Autodesk** in the original column but, with my experiences described above, the references to BIM (which **we've long argued** was a way for Autodesk to avoid talking about Esri and GIS) and Cloud and other buzzwords, that's certainly the connection I made in my mind.

Because the **Carlson Software** I sell now includes **IntelliCAD**, an alternative to AutoCAD, I passed links to the open letter and the responses to a few folks to get their reaction. Dave Lorenzo, the Development Director for the **ITC (IntelliCAD Technology Consortium)** took the feedback to heart and, considering the interest in the future of IntelliCAD the past few years, I asked his permission to post his response. I very much appreciate his willingness to let me do so…

> *I agree that the features mentioned are focused on AutoCAD, but the article is not so much about features as it's really about the user's perception if someone is listening. While Autodesk is moving too fast providing features that users don't want or need, we are not moving fast enough to provide*

> *the basic productivity features users are requesting, so it appears we both are not listening to our users. That is the perception we need to fix too.*
>
> *Our next release has several user requested productivity features and I hope our users will see we are listening. Actually we have always been listening but our rewrite of IntelliCAD 7 took so many resources that there was little time for new features – that situation is finally changing. I believe that there are a lot of unhappy AutoCAD users who want IntelliCAD to be successful, we just need to listen and add those remaining productivity features that are keeping them from making the switch.*

Thank You!

As 2013 wraps up I'd like to offer a sincere 'Thank You' to all of my customers for your business. I've had a lot of repeats from previous years but I've also added more new customers in 2013 than I did in 2012 – that's one thing I look at to determine whether my year has been better than the one before.

Another number that may be surprising is that almost 90% of my software sales so far in 2013 have been to companies who purchased only 1 or 2 seats of software through the year. As much as I love selling a bunch of seats to one customer, I know that larger organizations typically have a larger support system around them. I'm happy I can help out so many of the "little guys".

The economy has been tough on everyone the past several years

but it’s been particularly brutal to those in the land surveying, civil engineering and construction fields. For good or for bad, we’ve all had to figure out just how efficient we can be and how we can get as much work done by as few people as possible and for the least number of dollars.

I hope I’ve been able to help in some way by extending software discounts where possible and training your staff to help your company get the most out of your software investment.

I wish everyone a safe, happy and prosperous 2014!

Year End Specials for Carlson Software

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

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.

That CAD Girl Newsletter | September 2013

Click here for the September 2013 issue of my newsletter…

Professional Surveyor Magazine – Assorted CAD Tips & Tricks

I'm a bit late pointing this out, but here's my latest Picks 'N' Clicks article for **Professional Surveyor Magazine**

CAD Tips & Tricks