Another Happy Carlson Customer

January 31, 2012

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.

Feedback from Aaron Hahn, Hahn Engineering & Consulting

January 31, 2012

I've been a little slack in requesting feedback from my customers over the past year so I was very pleased to receive the following unsolicited feedback from Aaron Hahn this week:

> *I purchased the Civil Suite last month and I wanted to thank you for all your pdf tutorials you posted on your site. They have been extremely helpful and they have made the switch from Civil 3D to Carlson quick and easy.*
>
> *I can confidently say, that I prefer this software over Civil 3D already (used Civil 3D for years)! It's faster, has more control, and is generally cleaner than Civil 3D. Clean and simple.*
>
> *Thanks for all your help! Looking forward to getting up to speed on more of your tutorials and webinars*

That CAD Girl

Aaron Hahn
Hahn Engineering & Consulting
British Columbia, Canada
Software Purchase – December 2011

[See other testimonials here]

Carlson 2012 Updates

January 31, 2012
You can download the most recent updates to Carlson's 2012 desktop software HERE

End of Year Workshops – Statesville, Asheville, Wilmington and Raleigh NC

January 31, 2012

We are finally able to announce our end of year workshops for 2011. With the weather problems we encountered last year we decided to hold the events in the western end of North Carolina in November and toward the coast in December.

The cost to attend each event is $99 and lunch is included. See below for early bird registration details for each event. NC Licensed Surveyors and Engineers will receive 8 PDH credits and all attendees will receive a certificate confirming their attendance. We will have door prizes, software giveaways and **special software or hardware pricing that is available the day of the show only**.

We will be in Statesville on Tuesday, November 15th and Asheville on Thursday November 17th. Early bird registration

is $89 through September 30th.

We will be in Wilmington on Tuesday, December 13th and Raleigh on Thursday December 15th. Early bird registration is $89 through October 31st.

You will be able to choose the sessions you wish to attend. This year's sessions include:

- **GIS from A to Z** and **Responding to GIS-related RFPs**
  presented by Janet Jackson (GIS Janet) of Intersect
- **Overview of Carlson Takeoff & Preparing Machine Control Data**
  presented by Todd Carlson of Carlson Software
- **Intro to SurvNet & Least Squares**
  presented by Donnie Stallings, the original developer of the product
- **CAD Standards Roundtable & Discussion**
  presented by Jennifer DiBona, That CAD Girl
- **CAD Tips & Tricks** and hints for sharing data with others
  presented by Jennifer DiBona, That CAD Girl

- **Overview of Carlson Software 2012** (Survey, Civil, Hydro, GIS, Point Clouds)
  presented by Scott Griffin of Carlson Software
- **Field to Finish with Carlson Survey & SurvCE and the Surveyor+ GPS System**
  presented by Butch Herter of Carlson Software and Jeremy Taylor
- **Preview of future Carlson hardware**
  presented by Butch Herter of Carlson Software and Jeremy Taylor
- **Road Design and Site Design with Carlson Civil & Hydrology**
  presented by Scott Griffin of Carlson Software

Note that all classes are not scheduled at all events and locations. See each workshop announcement for specifics. Seats are limited so register online, call 919.417.8351 or email us to register.

What is LandXML?

January 31, 2012

This article originally appeared in the April 2011 issue of Professional Surveyor magazine.

The ability to import and export LandXML data has been around for quite a while, but I still get a lot of curious looks when I mention it in my training classes. So, what is it, and why should you be using it?

What Is LandXML?

LandXML refers to a file format (.xml) containing data that has been generated from a civil engineering or land surveying software program.

If you're hearing about it for the first time and want to learn more about the uses and acceptance of the LandXML initiative, visit www.landxml.org. According to their page LandXML.org in a Nutshell, "… LandXML.org is committed to providing a non-proprietary data standard (LandXML), driven by an industry consortium of partners."

Simply put, the easiest way to convert, transfer, and archive data between Civil 3D, Carlson Software, Land Desktop, Eagle Point, TerraModel, and many other programs is to use the Import from LandXML and Export to LandXML functions available in these programs. Additionally, many machine control systems allow you to import LandXML files. I am most familiar with the Carlson and Autodesk families of civil/survey programs, so most examples in this article refer to them.

This may not be current by the time you read this article, but the list of members and participating organizations is at www.landxml.org/org.htm.

Why You Should Use It To Transfer Data

The two key words in the mission statement above are “non-proprietary.” Just as we have multiple proprietary drawing file formats such as .dwg (from Autodesk’s AutoCAD-based programs) and .dgn (from Bentley’s Microstation), the files that store survey and civil data such as points, surfaces, centerlines, and profiles are unique and proprietary to their manufacturer.

For instance, Civil 3D is the survey/civil product for

Autodesk. Points and surfaces created in that program are stored inside the .dwg file. If you have Civil 3D and need to share a surface with a consultant or other team member who owns the same version of Civil 3D, you can just send them the .dwg file and they will have full access to the point and surface data. However, if you have Civil 3D and your consultant uses an earlier version of Civil 3D, Land Desktop, or Carlson Software or needs the surface data for machine control, it will not be as simple as just sharing the .dwg file.

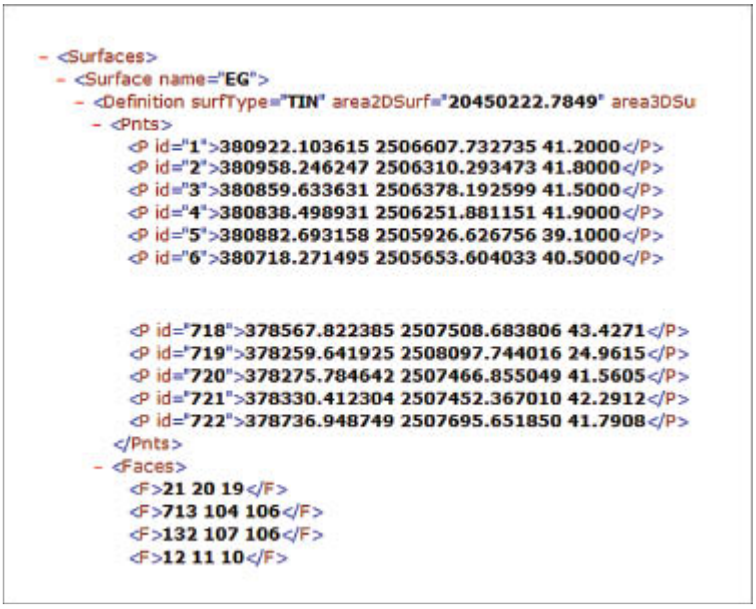
Similarly, surfaces created in Carlson Software are saved in a .tin file and points are stored in a .crd (coordinate) file. Anyone using Carlson Software or SurvCE data collectors can load these files in their native format. But, Civil 3D or other survey/civil programs can’t access them directly.

As you probably already know, when you have to pass this data onto someone using a different program, it’s a nightmare! This is where LandXML is a lifesaver.

I like to explain that you use Land-XML files in the same way you used to rely on .dxf files. It’s mostly outdated now, but a .dxf file is a generic drawing file (DXF = Drawing

Interchange File) that can be exported from and imported into various CAD programs. Back in the day, AutoCAD wasn't able to read or import Microstation's .dgn files and Microstation wasn't able to read or import AutoCAD .dwg files, but both could export and read .dxf files. To get a Microstation file into AutoCAD, we had to export a .dxf file from Microstation and import it into AutoCAD and vice versa.

When you export your civil/survey data to an .xml file, it can be opened and read like a text file. Specifically, an .xml file is an .html file that is best viewed through a web browser such as Internet Explorer or Firefox. For instance, when a surface model (TIN) is exported to an .xml file, the X, Y, Z values of each point on the TIN are assigned a number, and then each "face" (triangle) of the TIN is defined by specifying the three corners (**Figure 1**).



Another benefit of using LandXML to transfer project data is that you can be selective in choosing what project data to include in your .xml file. For instance, in the course of a design project, you may create an existing ground surface, a proposed ground surface for phase one of your project, and a proposed ground surface for phase two. You may have a consultant who needs only your proposed ground surfaces. When you export the .xml file, you have the ability to select only those surfaces that you'd like to add to the file; it's not necessary to export them all.

For Project Archiving

We've all become accustomed to saving archive copies of our drawing files for various purposes, but saving the corresponding project data such as points, point groups, surfaces, centerlines, and profiles is often overlooked. Retrieving the drawing file (.dwg or .dgn) may allow you to recover the linework that represents contours or a profile, but the underlying "surface" is lost unless the project data was also archived.

When archiving your projects at completion or even at submittal time, it is not enough to simply save a copy of the

drawing file(s) for the project; you must also save a copy of the project data. At a minimum, the archive should contain the project data in its native format. In the case of Civil 3D, saving your project data in its native format means saving a copy of all .dwg files that store points, surfaces, or other data relating to your project. Saving this project data in its native format is sometimes the easiest method, but it can also create a problem with file storage because the files can become enormous.

This won't be a surprise, but even if you archive your project data in its native format, I recommend that you consider additional archiving in .xml format. This is the case whether you need to save a progress, submittal, or final archive of your data. No one knows what kind of data files we'll be using 10 or 20 years down the road, so saving your data in such a generic, text-based format such as .xml files allows for easier retrieval regardless of when you need it.

Note that, like archiving in native format, archiving to an .xml file can also produce very large files. I still believe using the .xml format is advantageous because of the generic nature of the data and having the ability to pick and choose

the data you need to archive.

I hope you've gotten some clarification on this fantastic tool we've all had for years but many of us have not taken advantage of. If you have questions, please don't hesitate to follow up.

This article originally appeared in the April 2011 issue of Professional Surveyor magazine.

Upcoming Regional Training Classes – Columbus OH, Raleigh NC, Atlanta and Baltimore

January 31, 2012
After many requests to hold training classes in different

areas of the country, I've finally managed to schedule a few dates. The classes are 8 hours of hands-on training and seats are limited. Registration deadlines and pre-requisites vary for each class – Click the link below for the class announcement.

Classes include Intro to Survey, Surface Modeling, Least Squares/SurvNet, Quantity Takeoffs and Drawing Prep for Surface Modeling among others.

Call 919.417.8351 or ContactUs@thatcadgirl.com to register.

- May 2-3 – Columbus, Ohio
- May 16-18 – Raleigh, North Carolina
- May 23-25 – Atlanta, Georgia
- June 1-2 – Raleigh, North Carolina
- June 14-16 – Baltimore, Maryland

What is Carlson up to?

January 31, 2012
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

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Carlson Software Manuals

January 31, 2012
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

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

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

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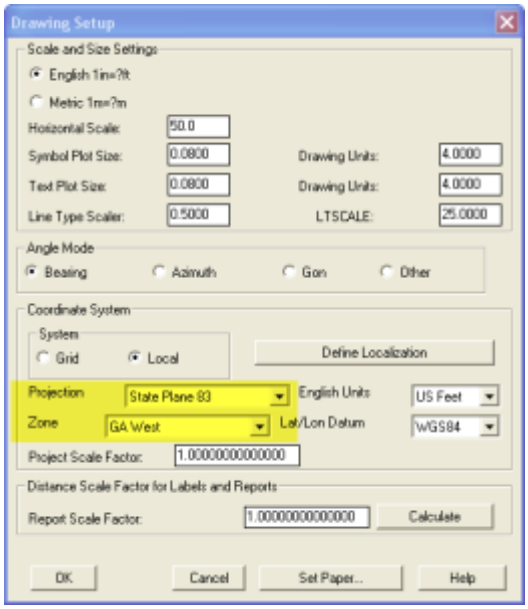
Export IntelliCAD or AutoCAD DWG files to Google Earth

January 31, 2012
I've recently started using a very cool feature in Carlson Software. The bad thing… it was in the 2009 version and I didn't even realize it!

I had no idea exporting our DWG files from IntelliCAD or AutoCAD out to Google Earth was so easy.

1. Download and install Google Earth. You can download it here: http://earth.google.com/
2. Open any one of your project DWG files that has been positioned at its correct state plane coordinate system.

3. In Carlson, go to Settings –> Drawing Setup and then select the correct **Projection** and correct **Zone** for the project site. If you're not sure of the **Projection**, try using "State Plane 83". This will work for most systems.



4. Next, go to File –> Polyline File –> Write Polyline File. When prompted for "Polyline File Format", type "G" for Google. You will be prompted to specify a new filename and save location for a "Google Earth File to Write (.kml)".
5. You will then be prompted to select the entities that are to be exported out to the .kml file and viewed in

Google Earth. After selecting the entities, press Enter. For this exercise, we only want to see the drawing entities in 2D, so press “N” for “No” when prompted to “Use elevation from drawing in Google Earth [Yes/<No>]?”

6. Finally, you are then prompted “Would you like to display the file in Google Earth now [<Yes>/No]?”. Press “Y” for “Yes”. Google Earth should automatically launch and zoom into the project location.

In the example shown below and pointed out with arrows, notice how closely the new roads and designed turn lanes match up to the existing roadway. Also, you can see the designed graded slopes perfectly avoiding the tank that is to be preserved during construction.
Not too shabby…

This feature is available in all of the Carlson Desktop products: Carlson Civil, Survey, Hydrology, Construction and TakeOff.

Look for a future post on bringing Google Earth surface data into Carlson Software. Hint: It’s easy too!

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

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The Kansas City Carlson User Group

January 31, 2012
I'm reflecting on my impressions of the inaugural meeting of the Kansas City Carlson User Group meeting held at the corporate office of Griner & Schmitz on August 20, 2009. About a dozen individuals showed up to form new business relationships with one another and draw on the strengths from their common bond.

The meeting started out with the gracious hospitality of Griner & Schmitz who hosted the event at their corporate headquarters in Kansas City. Complimentary food and beverages were aplenty and the guests quickly found themselves forming or renewing friendships with others in attendance.

After a bit of socializing, the guests were treated to a

sneak peek of Carlson SurvCE 2.5 from Carlson Software South Central Regional Sales Director Aaron Newman. Aaron demonstrated many of the new and powerful features of SurvCE and showed the attendees how to leverage the power of the Carlson Field-to-Finish routines. Throughout the presentation, one of the key benefits of a User Group is that questions posed by one individual benefits the others and attendees are generally willing to share their observations and experiences with others. After Aaron's presentation, I was given the opportunity to demonstrate some of the new features that will be released with Carlson 2010 with particular focus on surveying and the communication of information between the field and the office.

It was amazing at how quickly the two-hour meeting flew by but it is my opinion the Kansas City Carlson User Group is off to a great start. If you're in the Kansas City area in mid-October for the expected follow-up meeting, consider dropping in for some informational aspects of the products and services offered by Carlson Software. Otherwise, express your interest in forming a Carlson User Group in your region!

Originally posted on **Carlson Connection** by Ladd Nelson