

Carlson Webinars – BIM, GIS and CAD Standards

Carlson Software recently asked Felicia and me to present webinars on topics we have particular interest in or specialize in.

Felicia's webinar on BIM, GIS and Carlson Software can be viewed here: [BIM, GIS and Carlson Software Webinar](#)

My webinar on CAD Standards can be viewed here: [CAD Standards for Carlson Software with AutoCAD or IntelliCAD](#)

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

BIM, GIS and Carlson Software Webinar

Felicia Provencal's webinar for Carlson Software on the topic, "BIM, GIS and Carlson Software" can be viewed or downloaded here.

That CAD Girl Presenting at

the NCSS Institute, Nov '09

That CAD Girl will be presenting at the NCSS Institute in November 11-13, 2009

You'll have to wait a few months to see the full lineup, but I can confirm that I will be presenting a 3-day class at the Training Institute sponsored by the NC Society of Surveyors.

- Day One – AutoCAD/IntelliCAD basics with a focus on CAD Standards management
- Day Two – Carlson Software Features
- Day Three – Surface Modeling with Carlson Software

Dewberry Implements Carlson Civil Suite in 40 Offices Nationwide

There has been a lot of interest and discussion about Dewberry's decision to use Carlson's Civil Suite as their civil/survey/hydrology design package. Dave Palumbo, PE, Technology Manager for Infrastructure Services, has written an article for CE News discussing the 18-month process his team went through to come to their decision.

The article in CE News can be downloaded [HERE](#).

Online Training – Friend or Foe?

With the economy what it is and everyone trying to get as much bang for their buck as possible, I'm finding that online training for your CAD software programs is an increasingly popular and cost effective option.

Although this post describes my personal approach and may be different considering your trainer, hopefully it will answer some of your questions about online training and will encourage you to give it a try.

How does it work?

There are several online services that trainers may use for online training. WebEx, GoToMeeting and GoToWebinar are all very commonly used and popular. My preference is GoToMeeting and GoToWebinar as they have a very low footprint on your computer and are simple to use. When first entering an online meeting, a small installation of the program occurs allowing you to view and interact with the presenter's computer.

GoToMeeting is smaller scale and better for personalized training. GoToWebinar can handle up to 1,000 "attendees" and is typically used for presentation or demonstration to a large group.

Some of the online meeting services are free, but most require a monthly fee. The fee is paid by the organizer who then has the ability to schedule meetings/webinars in advance or "Meet Now" for meetings on the fly. Your organizer will either email you a

link to the meeting site or can tell you the link on the phone. Each meeting has a unique "Meeting ID" that you'll enter at the main page.

GoToMeeting is typically used for standard training where more than one person may need to show their screen and/or be given control of the mouse and keyboard. This interaction can take place in a variety of ways. When in a meeting, anyone can be given (and must accept) the "Presenter" role which allows others to view their computer. And, even though the Presenter always has priority, control of the mouse movement and keyboard entry may be granted to others in the meeting. This allows someone else to work on my computer remotely.

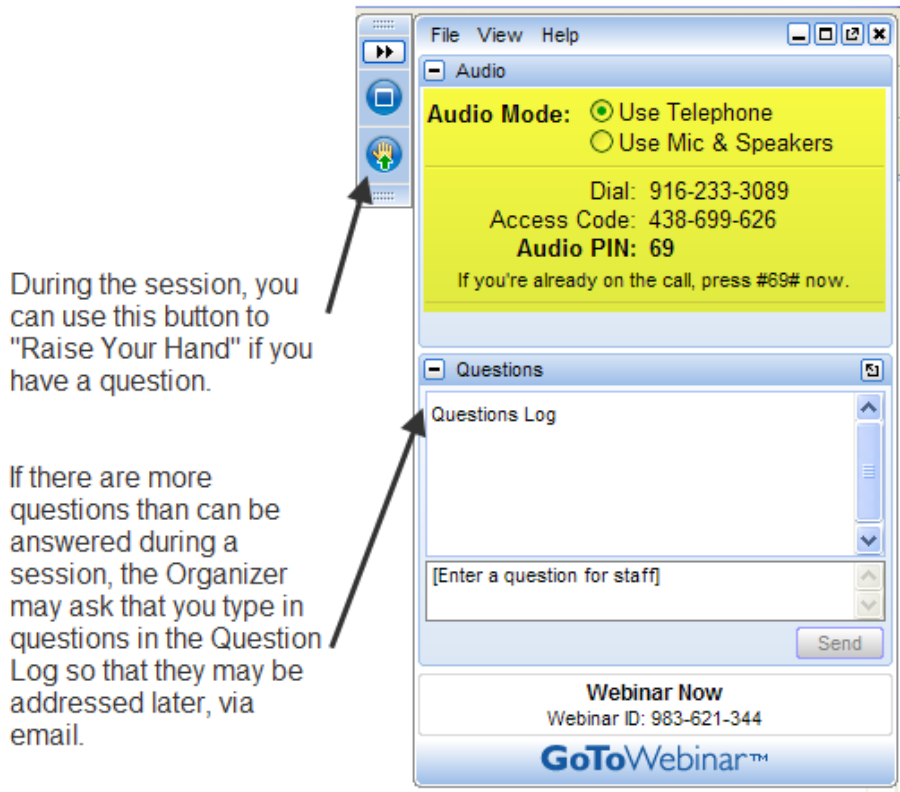
The audio portion of the training usually takes place by calling in on a conference call line supplied by GoToMeeting. VOIP (Voice Over Internet Protocol) is also available allowing you to use your computer's speakers and microphone but it is not recommended because of quality.

GoToWebinar is used for larger scale demonstration and presentations and can accommodate up to 1,000 Attendees. Online Webinars are generally structured to have one or more Presenters making the presentation.

Like GoToMeeting, the audio portion of GoToWebinar usually takes place by calling in on a conference call line supplied by GoToWebinar. However, in a Webinar setting, the Attendees are muted automatically by the Presenter so that everyone isn't blessed with the sound of crinkling potato chip bags and elevator music when someone puts the phone on hold. The Presenter has the ability to un-mute one or more Attendees as needed. The audio of all Attendees is managed by the Presenter by having each Attendee enter a unique "Audio PIN" upon arrival.

GoToWebinar has 2 ways to ask and respond to questions from

Attendees. The Control Panel has a “Raise Your Hand” button that notifies the Presenter there is a question. Depending on time constraints, the Presenter may decide to un-mute and answer the question during the online session. If there are more questions than can be answered during a session, the Organizer may ask that you type in questions in the “Questions Log” so that they may be addressed at a later time.



During the session, you can use this button to "Raise Your Hand" if you have a question.

If there are more questions than can be answered during a session, the Organizer may ask that you type in questions in the Question Log so that they may be addressed later, via email.

Pros and Cons

I've put together what I consider to be the Pros and Cons of online training for CAD Software programs. Please pitch in and offer your comments.

Pros

- Can eliminate travel time and expenses
- Very cost effective option for customized one-on-one training
- Allows for personalized, absolutely customized training

because it's normally one on one.

- Can't find a local trainer? No problem. Felicia Provencal can train you from Hawai'i – although you may want to go to her!
- Can be set up within minutes if there is a pressing technical support issue or project that suddenly comes up.
- Can be scheduled in shorter blocks of time – one of the best ways to make sure you retain what you are taught. I like to schedule 2 hours maximum per session.
- Shorter blocks of time allow for easy customization of training topics from one session to the next. If more time is needed on certain features, it's easy to squeeze in another 2 hour session.
- It IS interactive!
- All sessions can be recorded and played back at your convenience for a refresher.

Cons

- Some people are more comfortable sitting beside and working directly with the trainer
- It's less interactive than hands-on, in person training.
- For hands on training and depending on the material being covered, it may not work as well if you have several folks needing training at one time.
- Requires a high-speed connection and a telephone headset allowing two hands on keyboard. A speakerphone can be used as long as feedback doesn't become an issue.

Real World Example

I recently worked with a client from out of state. He is a grading contractor who thought he needed Carlson TakeOff training but, after some discussion, realized training in basic CAD (IntelliCAD) needed to come first and then TakeOff training.

The initial proposal was for me to travel there and spend 3-4

days training this client plus a second person (a competitor, in this case) who needed the same training. Both of them decided to give online training a try.

We scheduled online training for every morning one week. I worked with one from 7:30 – 9:30 am and then with the other from 10:30 – 12:30 pm. After the 3rd day, we had covered so much material that one asked to skip the next day so he could work with it himself and apply what he'd learned so far.

We ended up skipping two days. By the time we met again, he'd worked with it enough and become so much more proficient with the basic CAD operation that we were able to fast-forward through the next couple sessions and started working on his current project. Another subsequent session was cancelled because the rain finally stopped!

And then a few days later, he needed to get his project finished and out to bid. So, after our first session one morning, we set up another session at 4:00 that afternoon and worked until almost 7:00 that evening.

Both customers ended up very happy with the amount of material we covered and where they were with the software when we wrapped up our regular training. They still have the video recordings of the training for their reference to go back to when needed. In the end, the cost was almost the exact same as it would have been had I fulfilled the original proposal but they both learned and retained much more because the training was customized and personalized to their specific jobs.

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

Carlson Webinar

That CAD Girl was invited to present an hour-long webinar for Carlson Software on the topic, "CAD Standards for Carlson Software Using AutoCAD or IntelliCAD".

The session can be viewed or downloaded [here](#).

Carlson-IntelliCAD GIS Starter Kit from ESRI

Those currently using Carlson with IntelliCAD are eligible for a new "GIS Starter Kit" from ESRI. The Kit includes:

- ArcGIS ArcView desktop software
- A copy of the book *A to Z GIS: An Illustrated Dictionary of Geographic Information Systems*
- A copy of *GIS Tutorial: Workbook for ArcView 9*, Third Edition
- A 10% discount for the ESRI Survey & Engineering GIS Summit (\$325 – standard registration price)

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

You can read more about ESRI's commitment to survey and engineering services by visiting <http://www.ESRI.com/engineering>.

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

ESRI Offer for Carlson IntelliCAD Users

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That CAD Girl – June Newsletter

Our June Newsletter can be downloaded [HERE](#)

The Power of LandXML

The ability to import and export to LandXML has been around for quite awhile, 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?

Why Should We Be Using It?

We've all become accustomed to saving archive copies of our drawings for various purposes but saving the corresponding project data is often overlooked. Retrieving the drawing file may allow you to recover proposed contours and profile grid, but the underlying "surface" is lost unless the project was also archived.

Importing and exporting using XML files is the most convenient way to convert, transfer and archive data created in Carlson Software, Land Desktop, Civil 3D, Eagle Point, TerraModel and, I'm sure, other programs.

But, What Is LandXML?

LandXML refers to a file format (.xml) containing data created in a civil/survey program. My recommendation is that ALL civil and survey data should be archived – progress, submittal and final archive – using LandXML.

The way I like to explain it is that we use XML files in the same way we used to rely on DXF files. They're mostly outdated now, but DXF files are a generic file format that, for example, we used to convert MicroStation DGN files to AutoCAD DWG files. At that time, AutoCAD couldn't read DGN files and Microstation

couldn't read DWG files; but both could read DXF files. So, we had to convert our drawing files to the generic DXF format that could then be read into the other program.

Similarly, Carlson Software, Land Desktop, Civil 3D and the other programs create their own unique files for civil/survey project data such as points, point groups, surfaces, centerlines, profiles, etc. When we have to pass that data onto someone using a different civil/survey program – it's a nightmare!

That's where LandXML files prove their value.

Exporting your civil/survey data to an XML file breaks it all down into, basically, a text file. Specifically, it's an HTML file that can be viewed through a web browser such as Internet Explorer or Firefox. For instance, when a surface model (TIN) is exported to XML, the X, Y, Z values of each point on the TIN is assigned a number, and then each "face" (triangle) of the TIN is defined by specifying the 3 corners. See the examples below:

```
- <Surfaces>
- <Surface name="EG">
  - <Definition surfType="TIN" area2DSurf="20450222.7849" area3DSu
    - <Pnts>
      <P id="1">380922.103615 2506607.732735 41.2000</P>
      <P id="2">380958.246247 2506310.293473 41.8000</P>
      <P id="3">380859.633631 2506378.192599 41.5000</P>
      <P id="4">380838.498931 2506251.881151 41.9000</P>
      <P id="5">380882.693158 2505926.626756 39.1000</P>
      <P id="6">380718.271495 2505653.604033 40.5000</P>

      <P id="718">378567.822385 2507508.683806 43.4271</P>
      <P id="719">378259.641925 2508097.744016 24.9615</P>
      <P id="720">378275.784642 2507466.855049 41.5605</P>
      <P id="721">378330.412304 2507452.367010 42.2912</P>
      <P id="722">378736.948749 2507695.651850 41.7908</P>
    </Pnts>
  - <Faces>
    <F>21 20 19</F>
    <F>713 104 106</F>
    <F>132 107 106</F>
    <F>12 11 10</F>
```

Note that one type of data that is currently not supported in XML files is typical cross-sections or template files.

Another benefit of using LandXML to transfer or archive project data is that any combination or all of your project data can be saved in a single XML file. This is valuable because exporting ALL of the data for a project can create a massive XML file.

Even if you archive your project data in its native format, you should consider additional archiving in XML format. No one knows what kind 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 down the road.

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