

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.

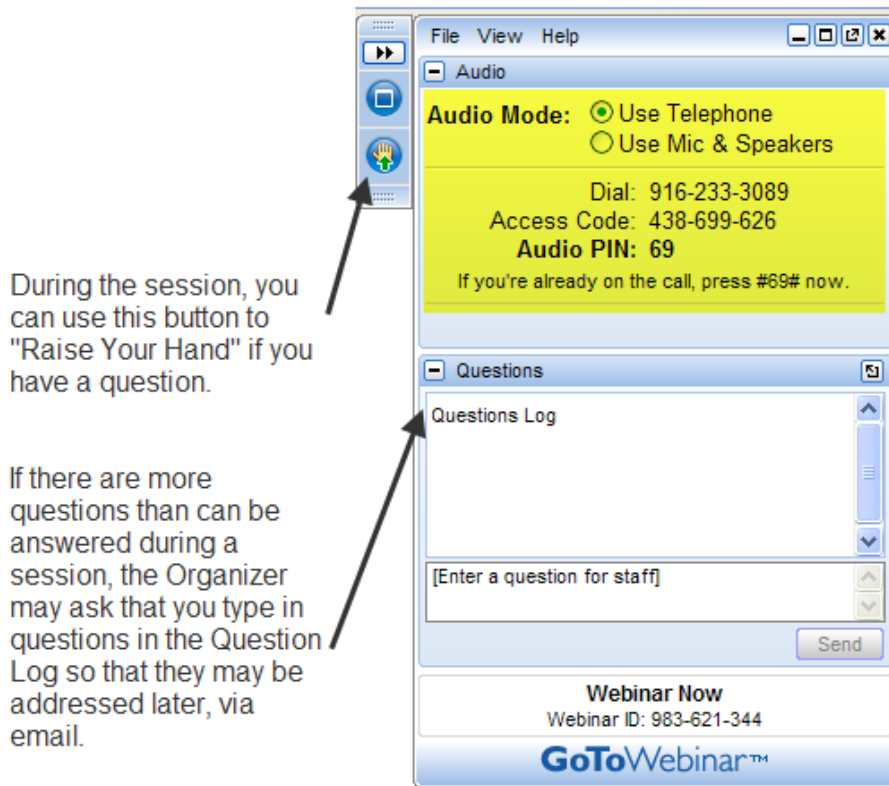
The audio portion of the training usually takes place by calling in on a conference call line supplied by GoToMeeting. VOIP (Voice Over Internet Protocol) is also available allowing you to use your computer's speakers and microphone but it is not recommended because of quality.

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.



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-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

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.

North Rotation: Using Twist Screen

There have been many debates in various blog posts, discussion group posts, and articles regarding what is the best way to handle North rotation on maps. With AutoCAD-based systems, there were essentially two choices: you could set a User Coordinate System (UCS) or rotate the screen using a tool such as 3D Dynamic View. Carlson Civil and Survey offers these choices with a twist.

One of the main drawbacks to setting up a UCS is that it can throw off calculations being made by your mapping/design software. For example, point databases and external TIN files often refer to the coordinates used in the field, or that existed when the data was generated (such as the TIN being built). If you change the UCS, the coordinates may be wrong, and you may end up with incorrect results for things such as profile generation.

Because of this, many people choose to rotate the screen without rotating the coordinate system. In AutoCAD, the simplest way to do this was by using 3D Dynamic View (DVIEW). The main drawback to the DVIEW command is that while the screen would be rotated, common tasks such as adding text and symbols would be more difficult as they would have to compensate for the rotation of the screen. This was usually managed using a setting called SNAPANG, which could be set to the opposite of the DVIEW rotation, making the use of ORTHO mode viable. In AutoCAD-based

systems, this would be fairly tedious, particularly if you wanted to match the rotation to a specific item, such as a portion of a road centerline.

In any of the Carlson desktop applications, there is a View pull-down menu with several commands that can solve this issue, often with a single click. To see the most commonly used options, go to the View pull-down menu and choose the Twist Screen sub-menu. There are four commands available, each one rotates the screen and automatically sets the SNAPANG to match.

- **Standard** – This option allows you to select a rotation angle using the mouse.
- **Line, Polyline or Text** – This option allow you to select an object to set as a view baseline. It is the most useful when trying to match views to objects such as property lines or road centerlines.
- **Surveyor** – This option prompts for the manual entry of a bearing or azimuth for the rotation angle.
- **Restore Due North** – This option returns the screen to the orientation where North is straight up.

By using these options, you can quickly set up plot sheets and layout tabs, annotate the maps appropriately, and preserve the coordinate system for future design work or other calculations.

Originally posted on **Carlson Connection** by Felicia Provencal

Working with Land Desktop or

Civil 3D Contours in IntelliCAD-based Carlson Programs

If you are working in an IntelliCAD version of Carlson Survey or Civil and need to bring in surface entities (contours) from a Civil 3D (C3D) or Land Desktop (LDT) drawing, it's actually very easy to do. However, it's not necessarily easy to find on your own. And, unfortunately, it's in a slightly different place depending on whether you're using the Carlson Survey or Civil menu.

FYI – If you simply try to “Open” a drawing that has AECC Contour Objects with an IntelliCAD-based program, it may look correct, but the entities will only be the dreaded “ACAD PROXY OBJECTS” that have bogus elevations. These are only good to look at... not work with.

Whether you're using Survey or Civil, the only thing you'll need is a drawing file (DWG) containing the C3D or LDT contours for the surface. It doesn't even need to be opened, you just need to have it and be able to find it. (hey, I'm getting old!).

First, start a new drawing in Carlson.

Then, if you're using Carlson Civil:

1. Go to the “Surface” menu,
2. Select “Import/Export Surface”
3. Then, select “Convert LDT/Civil 3D Surface Drawing”.

If you're using Carlson Survey:

1. Go to the “Surface” menu,
2. Select “Import/Export Surface Data”
3. Then, select “Convert Civil 3D Surface Drawing”.

Next, you’re prompted to “Select the LDT/Civil 3D Drawing to Read”. After browsing to and selecting the LDT or C3D file, pick “Open”.

Next, you’re prompted to “Select Converted Drawing to Write”. This will be a new DWG file containing the converted data. After browsing to a new location and specifying a new file name, pick the “Save” button.

You’ll see the conversion process in the text window. Once finished, you can open the converted drawing.

What you will find in the new drawing are all of the entities from the original LDT/C3D drawing except that any AECC Contour Objects have been converted to elevated PLINEs and LINEs.

The first step you’ll probably want to take after opening the new drawing is to join together all of the contour PLINEs and LINEs. You may want to “Isolate” the layers for the contours first.

Then use the “Join Nearest” command under the “Edit” menu. Like most cases, make sure to have the “Join Only Common Elevations” and “Join Only Common Layers” options selected.

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

Engineering, Construction, and BIM

There have been many articles, discussions, and presentations on Building Information Modeling in the recent months. If you haven't already heard the basics, this post covers it well. For surveyors, civil engineers, and construction firms, there are two things you should know about BIM and how it will impact your business.

First, BIM is very similar in its goals and processes to GIS. Basically, you are attaching data and other information to objects. This allows you to manage the facilities after they have been built and track their contents over time. This is very similar to how as-builts of infrastructure are managed and tracked through a GIS system. Water and storm sewer systems, telecomm transmission lines, and landscaping are types of things that are traditionally managed using GIS. The information age has dramatically opened up opportunities for professionals to gather, collate, and attach data to their surveys, designs, and as-builts.

Secondly, since buildings are not constructed in isolation, they must tie into the site grading and infrastructure, further opportunities for designers and contractors have opened up. Complex site plans showing how the grading, structural design, and utilities will all connect are now possible, and represent a new deliverable for firms to offer their clients. Carlson Software offers many solutions for creating these models and because Carlson data migrates well between various CAD and GIS platforms, owners and developers of these projects can be assured that their designs will be ready for management once construction is complete.

Originally posted on **Carlson Connection** by Felicia Provencal

Carlson + ESRI = Wow!

So, how cool is this?

At the Carlson User Conference this week in Lexington, KY, Brent Jones of ESRI announced a new grant program in coordination with Carlson Software. The program will bring ESRI products to every IntelliCAD-based Carlson program.

Speaking with Brent on Tuesday, he said that a few of the details have yet to be worked out, but Carlson IntelliCAD users should be hearing details in about a month.

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

How Does Carlson Support Their Users? Ask David Farina

I'm going to post a LONG email stream between one of my clients, David Farina, Bruce Carlson and Dave Carlson. You can see the new feature that David requested and Bruce and Dave's responses. David received a "development" version of the new features approximately a week after submitting this request.

I asked him for a statement describing his experience with

Carlson:

Recently I found that the Time of Concentration input boxes were inadequate under the hydrology portion of Carlson Civil Suite so I emailed a description of the problem to them. I was very impressed to get a phone call the same day. They discussed the problem with me and had a revised program update to me in under a week. I've been emailing Autodesk for over a year on problems with Civil 3D and never heard a peep. Needless to say I'm very happy with the customer service I have received from Carlson thus far.

Here is the original question from David Farina on March 4, 2009:

Jennifer,

I was going through a mock project to learn the hydrology part of Carlson and noticed a critical deficiency in Time of Concentration input. The review agencies around here want to see the TR-55 method. First, the TR 55 minimum sheet flow needs to be 100' instead of 300'. They recently changed it per the TR-55 Web site. Second, I don't think I've ever had a project where you didn't have to split one of these flow types into 2 or more mannings roughness areas.

For example: a flow path that starts on dense grass for 50' then passes over asphalt for 75' and back to grass for 200' would need to be calculated as follows:

Sheet flow 50' Grass -> Sheet flow 50' Asphalt -> Shallow Concentrated flow 25' Paved -> Shallow Concentrated flow 200' UnPaved.

But as you can see the Carlson input only allows for one entry per flow type.

Time of Concentration (TR-55)

Select Flow Line From Screen

Sheet Flow | Shallow Concentrated Flow | Channel Flow

Manning's n: 0.240 Select

Two-yr 24-hr Rainfall: 3.59 in

Flow Length: 100.00 ft

Land Slope: 2.00 %

Time of Concentration: 0.225 hr
13.473 min

Total Time of Concentration: 0.252 hrs, 15.1 mins

Calculate Report Clear Exit Help

Time of Concentration (TR-55)

Select Flow Line From Screen

Sheet Flow | Shallow Concentrated Flow | Channel Flow

Surface Description
☐ Paved ☒ Unpaved

Flow Length: 225.00 ft

Land Slope: 2.00 %

Time of Concentration: 0.027 hr
1.643 min

Total Time of Concentration: 0.252 hrs, 15.1 mins

Calculate Report Clear Exit Help

Below is the Intellisolve version: Notice the A, B C

TR-55 Tc Worksheet

	A	B	C
Manning's n-value	0.24	0.011	0.011
Flow length (ft, 300 max.) =	50	50	
Two-yr 24-hr rain (in)	3.59	3.59	
Land slope (%)	2	2	
Sheet flow time	7.74	0.66	0.00

Shallow Concentrated Flow

	A	B	C
Flow length (ft)	25	200	
Watercourse slope (%)	2	2	
Surface description	Paved	Unpave	Paved
Shallow conc. flow time	0.14	1.46	0.00

Channel Flow

	A	B	C
X-sectional area (sqft) =			
Wetted perimeter (ft) =			
Channel slope (%)			
Manning's n-value	0.015	0.015	0.015
Flow length (ft)			
Channel flow time	0.00	0.00	0.00

Sheet flow time = 8.40 min
Shallow conc. flow time = 1.61 min
Channel flow time = 0.00 min
Time of conc., Tc = 10.0 min

Compute Print... Help Exit

There is a 5.1 minute difference in TC results which results in a 2 CFS difference in the 100yr example below:

Runoff Hydrograph - SCS Method

Method: SCS Triangular

SubBasin

Area Units: ☐ Sq Ft ☐ Sq Miles ☒ Acres

Drainage Area: 1.8498968

Runoff Curve Number: 83.00

Time of Concentration: 0.17 hr

Base Flow: 0.00 cfs

Antecedent Moisture Condition: ☐ 1 ☐ 2 ☒ 3

Rainfall

Storm Type: II - 24hr

Return Period: 100 Year

Rainfall Depth: 9.43 in

Time Increment: 0.03 hr

Peak Attenuation Factor: 484

Calculation

Peak Discharge: 18.46 cfs

Time to Peak: 12.07 hr

Volume: 1.29 acre-ft

Runoff Hydrograph - SCS Method

Method: **SCS Triangular**

SubBasin

Area Units: ☐ Sq Ft ☐ Sq Miles ☒ Acres

Drainage Area: **Select**

Runoff Curve Number:

Time of Concentration: hr

Base Flow: cfs

Antecedent Moisture Condition: ☐ 1 ☐ 2 ☒ 3

Rainfall

Storm Type: **II - 24hr**

Return Period: **100 Year**

Rainfall Depth: in

Time Increment: hr

Peak Attenuation Factor:

Calculation

Peak Discharge	16.39	cfs
Time to Peak	12.10	hr
Volume	1.31	acre-ft

Calculate **Unit Hydrograph** **Runoff Hydrograph** **Report** **Close** **Help**

If the above example is that different then I am also concerned about how the Time to inlet is calculated in the example below:

Settings **Design** **Analyze** **Analyze by Hydra**

Structure Actions: **Add** **Edit** **Remove**

Structure **Drainage** **Pipe** **Hydraulic Calc**

Current Structure: **M1**

Input Type: **Drainage Data**

Area Units: ☐ Sq Ft ☐ Sq Mile ☒ Acre **Draw**

Drainage Area: **Pick** **Calc**

Time to Inlet: min

Curve Number: **Select**

Pond/Swamp Adjust:

Known Flow: cfs ☐ Thru Inlet

In Hydrograph: **Select**

Time of Concentration (SCS)

Input values

Select CN from Table

Curve Number: 83

Length of Flow (ft): 412.10

Average Land Slope (%): 3.59

Select Flow Line from Screen

Output values

Time of Concentration: 0.125 hrs, 7.5 mins

Calculate Report Exit Help

Was the SCS method used to get the 7.1 min value?

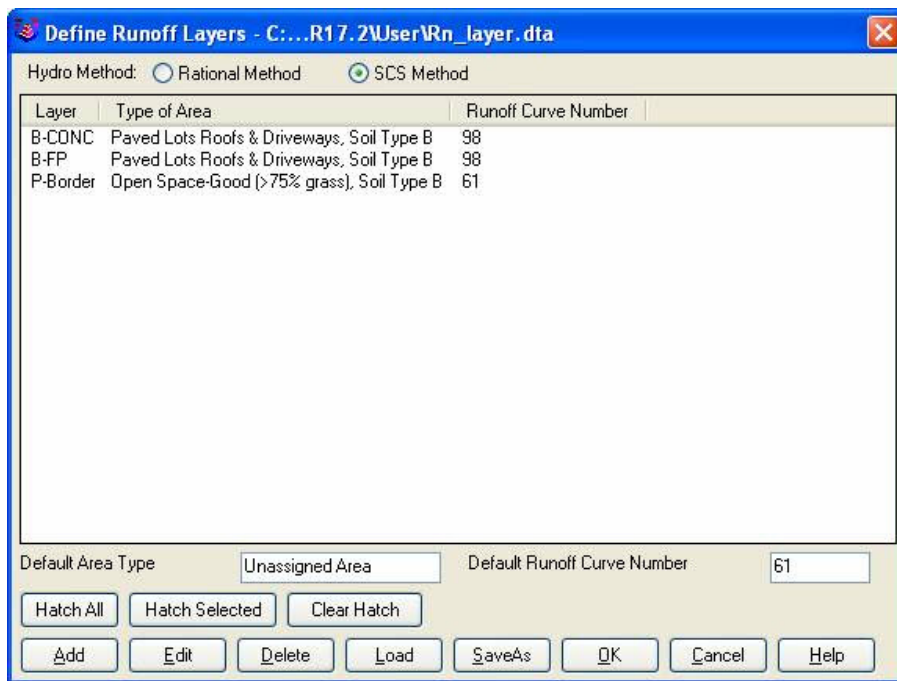
Notice the 7.5 value in the TC dialog to the right.

This was the value if I SELECT FLOW LINE FROM SCREEN and pick the path that the dialog on the left generates.

Can I generate a report of how the time to inlet was calculated?

Maybe there can be a button next to the Time to inlet to select TR-55

Maybe Mannings coefficients can also be put into the WATERSHED->DEFINE RUNOFF LAYERS to be used for this calc as the flow path passes through each polyline area the same way Carlson already calculates the composite CN.



Will any of this matter if we get HydroCAD and link it to Carlson?

Just food for thought.

Thank You,

David Farina

Senior Designer

I forwarded David's question onto Bruce Carlson, President of Carlson Software, and Dave Carlson, Director of Programming, and received this response from Bruce:

Folks: Excellent input—this will find its way into the next release for sure. We've spent a lot of time studying Haested and matching numbers there on pipe flows in culverts, for example, covering all conditions—but do need to put to bed Time of Concentration for approved defaults and sub-catchment

conditions as they vary within a watershed area. This Intellisolve example is really helpful. Also, I took in input at Jennifer's Statesville, NC presentation Dec. 2007 that mentioned the new 100' default and also mentioned:

Using $Q=CIA$, there are new "rules" being published that using larger pipes or it may be larger drainage areas, there is an added multiplier in the form $Q=CIA*Q1$ where $Q1$ is a table of values. I didn't get the full details, but we need to research this.

And in storm sewer design, if we are compositing the calc of time to inlet using a "short-form" SCS-style method, based on percentage area of various land uses and associated runoff coefficients, we need to have a Report button that documents the results for full vetting and reporting out by users, and we need to incorporate an additional auto-calculated, long-form TR55 time of concentration there as well that uses sheet flow, channel flow and shallow concentrated flow. One key in all this is to be able to auto-distinguish these flow types from the DTM and land uses and have the forms filled out with default values, which the user can change.

Question I'm curious about. Say you built a gentle 6'wide, 1% slope swale with 6:1 side slopes, hardly noticeable, mowable, between lots in a subdivision. Would the flow in that be treated as shallow concentrated flow or channel flow? When would one condition end and another begin, by definition, so we can get real precise on auto-calculating these using layers/land use types and DTM values?

Good stuff, and it will get done.

Bruce Carlson, PE

Pres., Carlson Software

David added the following:

I think when to use channel flow should be determined by the width of the bottom of the channel and hence how deep the channel gets on an 2yr storm 24 storm.

You could have a channel with 1:1 side slopes but if the bottom was 50' wide and the flow path started in the channel then

the first 100' would still be sheet flow in my book. Unless of course a huge amount of water was entering the channel from another basin.

I think the concentrated and channel flow times (being in the fraction of a minute range) are so small and have such a small impact on overall time

compared to sheet flow (fraction of an hour) that you could pick an arbitrary number like 5' wide bottom and smaller is channel flow and not upset the model.

Sheet flow probably makes up 80 to 90 % of overall TC if it is over grass.

Anyone disagree?

Thank You

Dave Carlson sent this on March 11, 2009

Hi David,

Here's an update to the Tc by TR-55 routine that allows

unlimited number of breakouts. This update is for Carlson 2009 on Acad 2007-09. To install, unzip and copy the arx to the Carlson2009LSP folder. Let me know if you need a different version or have more suggestions.

For the Storm Sewer Network routine, I put it on the to-do list to add a Select button next to the Tc to show the components that make up the Tc like the Select button does for CN. Also we will look at adding Manning's n to the Define Runoff Layers for use with Tc calcs.

Thanks for the input.

Dave

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

Coming in Carlson 2010

I'm not privy to the "official" list of coming updates, but I can share a few things that I know will be in the next release. Most of these come from "wishlist" items I have submitted on behalf of my clients.

The folks at Carlson are welcome to add their 2-cents in the Comments of this post or on Direct From Carlson.

Option for placing building footprint a distance off the building setback line.

Currently, the LotNet command places the building footprint exactly on the midpoint of the building setback line. We heard

the request several times to have the option of placing the footprint some distance behind the setback line. It will be in the 2010 release.

C & G Survey

Instead of having two separate survey programs, Carlson will be incorporating C & G as a separate set of menus in Carlson Survey in 2010.

Basic IntelliCAD Menu

If you're running Carlson on top of an AutoCAD-based program, you have an icon or menu option to switch over to an AutoCAD menu that has basic Draw commands such as line, pline and text and basic Modify commands such as copy, explode and pedit. Although it's not easy to get to right now, IntelliCAD has a similar set of menus and toolbars. Carlson 2010 stand-alone with IntelliCAD will have a menu item and toolbar icon allowing you to easily switch over to the IntelliCAD menus and then back again to the Carlson menus.

Lookup table of curb slopes for super-elevation transitioning

This new feature will handle curb transitions like those shown in this NC DOT detail drawing.

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

Poll Question 3/30/2009

[polldaddy poll=1493826]

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