Did you know… About the Flatten Command?

FLATTEN is an Express Tools command in AutoCAD and a standard command in IntelliCAD. It allows you to quickly convert 3d objects to a 0-elevation, flat version of itself.

Most of us in the civil/survey world have gotten frustrated when we've received a drawing from someone who used lines more than polylines and apparently snapped to everything in the drawing that had an elevation! The result is that you have lines drawn on a slope and with which it's nearly impossible to inverse distances or even perform simple drafting commands.

So, next time that happens, try the FLATTEN command and see if that helps get things back where they're supposed to be!

Carlson Geoid12 files for SurvCE

For those who have been waiting, patiently or not, for a Carlson update that will allow you to create a Geoid 2012 file for your Carlson SurvCE collector — here is the update from Carlson.

Did you know… about all the different selection methods in CAD?

Anyone who has used AutoCAD or IntelliCAD for any period of time will be familiar with a few of the selection methods available to you during editing commands… although you may not know the "official" name of the method.

When your Command: line prompted reads "Select Entities:", you can use the following methods to add entities to the selection set:

A **Single** selection is when you use a "Pickbox" to select one entity at a time.

An **Implied Window** selection is when you drag a rectangular area, from <u>left to right</u>, around the entities to be selected. This method will select any entities that are fully enclosed within the area. To force a **Window** selection, you can also type "W" at the Command: line when prompted to "Select Entities:". **Window** selections are indicated by the solid outline of the rectangle and a color shading within the rectangular area.

An **Implied Crossing** selection is when you drag a rectangular area, <u>from right to left</u>, around or across the entities to be selected. This method will select any entities that are fully enclosed or touch (cross…) the outline of the rectangle. To force a **Crossing** selection, you can also type "C" at the Command: line when prompted to "Select Entities:". **Crossing** selections are indicated by the dotted or dashed outline of the rectangle and a color shading within the rectangular area.

So, these are the ones you probably know about. But, what about these?

Again, when prompted to "Select Entities:", you can do any of the following:

Hold the SHIFT-key down while selecting objects using **Single**, **Implied Window** or **Implied Crossing** selection methods will un-select any objects previously selected.

Type "P" at the Command: line to use the **Previous** selection method. This method will automatically select the same objects that had been selected for the most recent editing command. This obviously doesn't work if the **Previous** selection set has been ERASEd from the drawing.

Type "L" at the Command: line to use the **Last** selection method. This method will automatically select the entity most recently added to the drawing. The entity must also be visible on the drawing screen in order to be selected.

Type "ALL" at the Command: line to use the **All** selection method. This method will automatically select all entities visible in the current space.

Type "F" at the Command: line to use the **Fence** selection method. This method allows you to drag a line (by picking points) across the entities to be selected. When picking the points for the **Fence**, the sketched line is dashed or dotted. This method is similar to a **Crossing** selection as it will select anything that touches the **Fence**.

Type "WP" at the Command: line to use the **Window Polygon** selection method. This method allows you to sketch an irregularly shaped area (by picking points) around the entities you wish to select. Any entities that are completely inside of

the non-rectangular area will be selected. This is simply a non-rectangular version of the **Window** selection method. **Window Polygon** selection areas are indicated by the solid outline and color shading of the irregularly shaped area.

Type "CP" at the Command: line to use the **Crossing Polygon** selection method. This method allows you to sketch an irregularly shaped area (by picking points) around or across the entities you wish to select. Any entities that are completely inside of the non-rectangular area or touching its outline will be selected. This is simply a non-rectangular version of the **Crossing** selection method. **Crossing Polygon** selection areas are indicated by the dashed or dotted outline and color shading of the irregularly shaped area.

If you have a complex selection set and need to un-select several entities, you may find it impractical (and frustrating) trying to un-select everything by using SHIFT+<select> to do so.

Another way to un-select a bunch of entities is to use the **Remove** selection mode. When prompted to "Select Entities:" at your Command: line, type "R" to change your Command: line prompt to "Remove Entities:". Now, any entities you select, using any method, will be **Remove**d from the selection set. You do not have to hold SHIFT and you can use **Fence**, **Last**, **Window Polygon**, etc. to remove those items.

After Removing entities from the selection set, type "A" at the Command: line to return to the **Add** selection mode. This changes the Command: line prompt back to "Select Entities:" and you will once again be able to **Add** objects to the selection set.

Did you know… about the new rainfall libraries in Carlson Hydrology 2013?

With the 2013 release of Carlson Hydrology, Carlson is shipping complete rainfall libraries for the following cities in North Carolina:

- Asheville
- Cary
- Chapel Hill
- Charlotte
- Concord
- Durham
- Fayetteville
- Gastonia
- Greensboro
- Greenville
- High Point
- Jacksonville
- Raleigh
- Rocky Mount
- Wilmington

The rainfall information has been compiled from the precipitation intensity charts available from The National Weather Service.

To load and access these files:

- Switch to your Carlson Hydrology menu

- Go to Network > Sewer Network Libraries > Rainfall Library
- Pick the Load button
- Browse to C:Carlson ProjectsSettingsNorth Carolina

Did you know… About the Change Space Command?

Some of us are old enough to remember life without the CHSPACE command… and what a great addition it was when the command was finally introduced to AutoCAD several years ago. And, with the release of IntelliCAD 7, it's now in that program as well.

CHSPACE is a command that allows you to move one or more entities from Model Space to Paper Space (or vice versa) very easily. In AutoCAD, the operative word there is "MOVE". You have to be a little careful because the command does exactly that: It MOVES it from paper to model or from model to paper. In IntelliCAD, you are given the option of COPYing the selected entities from one space to the other.

The command actually does more than just move or copy selected entities, it also scales the entities by the viewport scale so they're correct size-wise. For instance, let's say that you have a drawing in model space that's been rotated so that it more easily fits on a sheet of paper. Also in model space, you've inserted a North arrow. And, in paper space/layout view, you have inserted a title block at a scale of 1:1 (18″ x 24″, etc.). Inside of the title block, you've created a viewport you've scaled to 1″=40′.

For drafting purposes, it's desirable to have the North arrow in paper space to that it can be moved around and positioned outside the viewport. If you're in AutoCAD, the first step is to make a copy of the North arrow. If you're using IntelliCAD, this step isn't necessary. Then, while in paper space/layout view, double-click inside the viewport to make it active. Type CHSPACE at the Command: line. Follow the various prompts within the command and Voila! Your North arrow is now in paper space and it's been scaled down by 40 times so that it fits properly on your title block.