

FDOT Civil 3D Tips and Tricks

FDOT State Kit for AutoCAD Civil 3D



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FDOT Civil 3D Tips and Tricks

User Interface Tips

Customizing the Quick Access Toolbar

Object Selection Tips

Layer Tips

FDOT Civil 3D Tips and Tricks

User Interface Tips – General

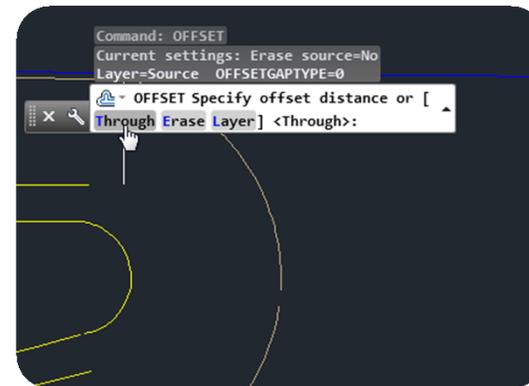
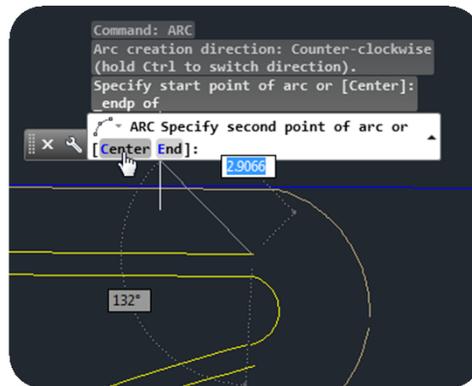
1. Select command options from the command line NEW!
2. Sticky Panels
3. Search for commands in Application Menu
4. QVLAYOUTS to quickly move through layouts
5. Alt to drive ribbon from keyboard commands

FDOT Civil 3D Tips and Tricks

User Interface Tips – General

Select command options from the command line **NEW!**

Instead of typing in the desired command, you can now pick the option you want directly from the command line.

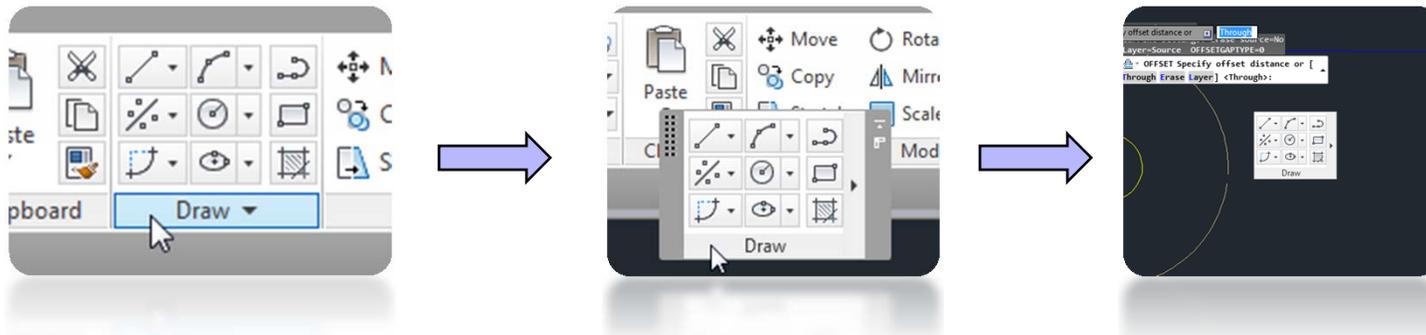


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User Interface Tips – General

Sticky Panels

Select the Panels from the AutoCAD ribbon and drag to a desired location. This is helpful when switching between tabs. Simply drag the panel back to the ribbon to replace.

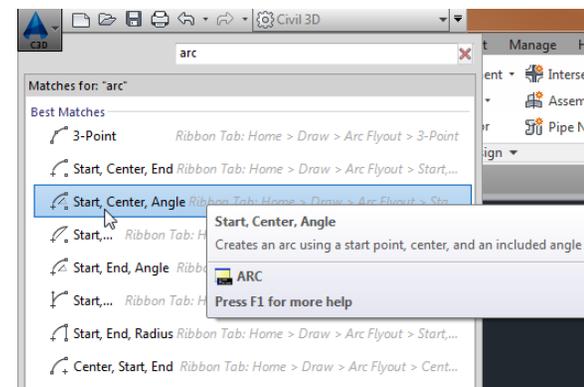
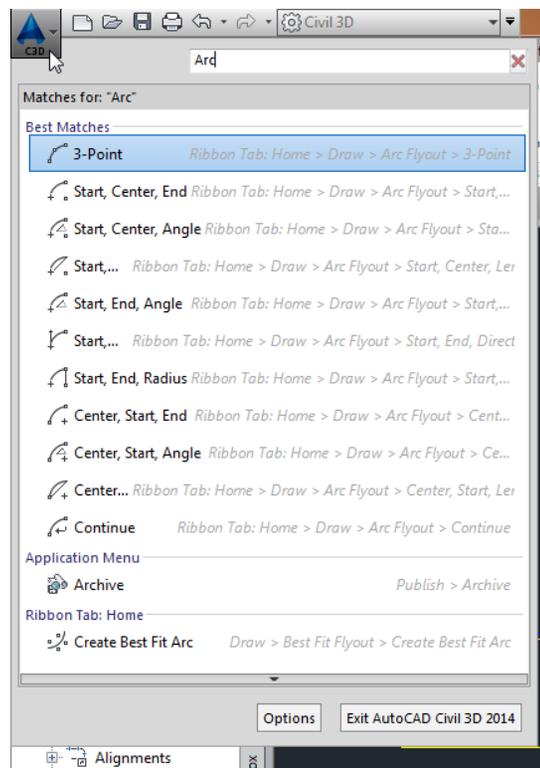


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User Interface Tips – General

Search for commands in Application Menu

Select the AutoCAD “A” logo and type in a desired command and AutoCAD will search for matches. Select the desired match from the generated list.

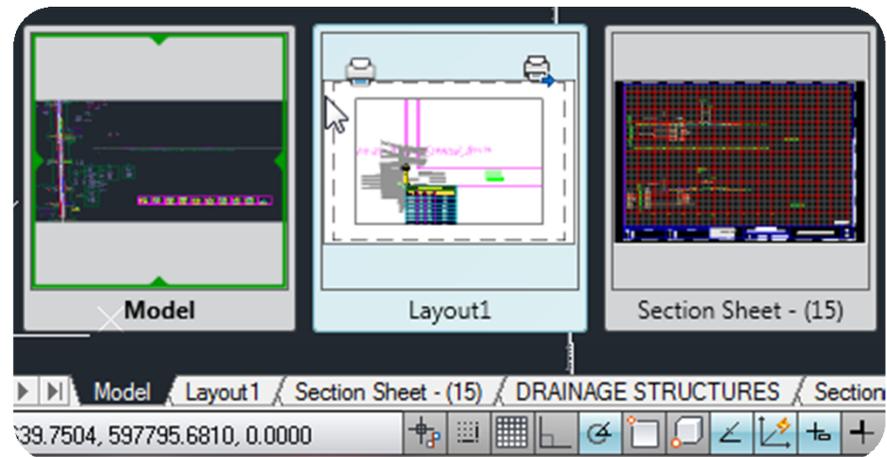
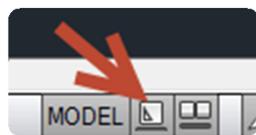


FDOT Civil 3D Tips and Tricks

User Interface Tips – General

QVLAYOUT to quickly move through layouts

Quickly preview layouts before selecting the desired layout.

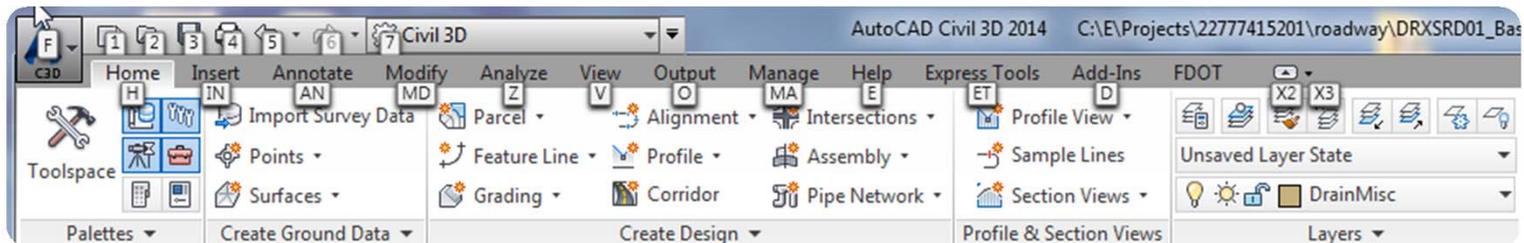


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User Interface Tips – General

ALT

Press ALT to control AutoCAD from the keyboard. Shortcut keys will appear next to icons letting you know what keys to type to execute a specific command.



FDOT Civil 3D Tips and Tricks

Customize the Quick Access Toolbar



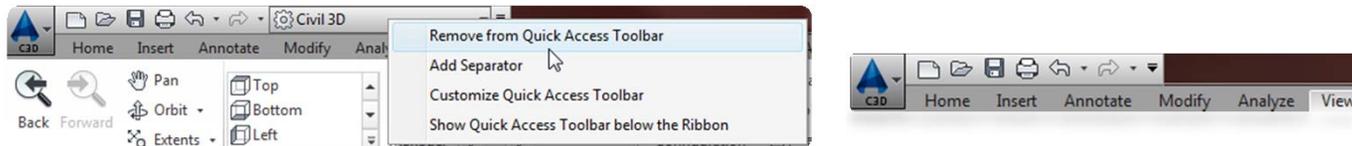
1. Remove Workspace (duplicate)
2. Add Layer drop-down for speedy access
3. Add Styles to QA toolbar (not Text Styles!)
4. Add favorite commands with Quick CUI
5. Move QA Toolbar below the ribbon

FDOT Civil 3D Tips and Tricks

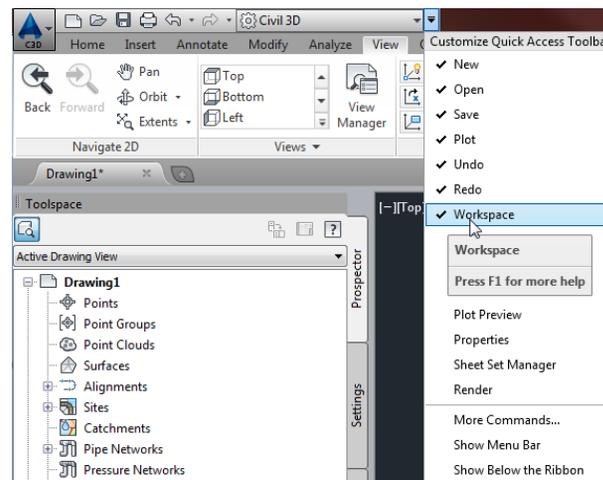
Customize the Quick Access Toolbar

Remove Workspace (duplicate)

Workspace is located in two places. One is on the Quick Access tool bar, the other is located on the bottom right corner. Since you don't need both, why not turn the one on the Quick Access tool bar off? To disable Workspace from the QA tool bar, right click and select "Remove from Quick Access Toolbar".



To turn Workspace back on, select the down arrow the QA toolbar and select Workspace.



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Customize the Quick Access Toolbar

Add Layer drop-down for speedy access

Add commands to the QA toll bar such as the Layer drop-down menu for quick access. Right click on the desired command and select “Add to Quick Access Toolbar”.

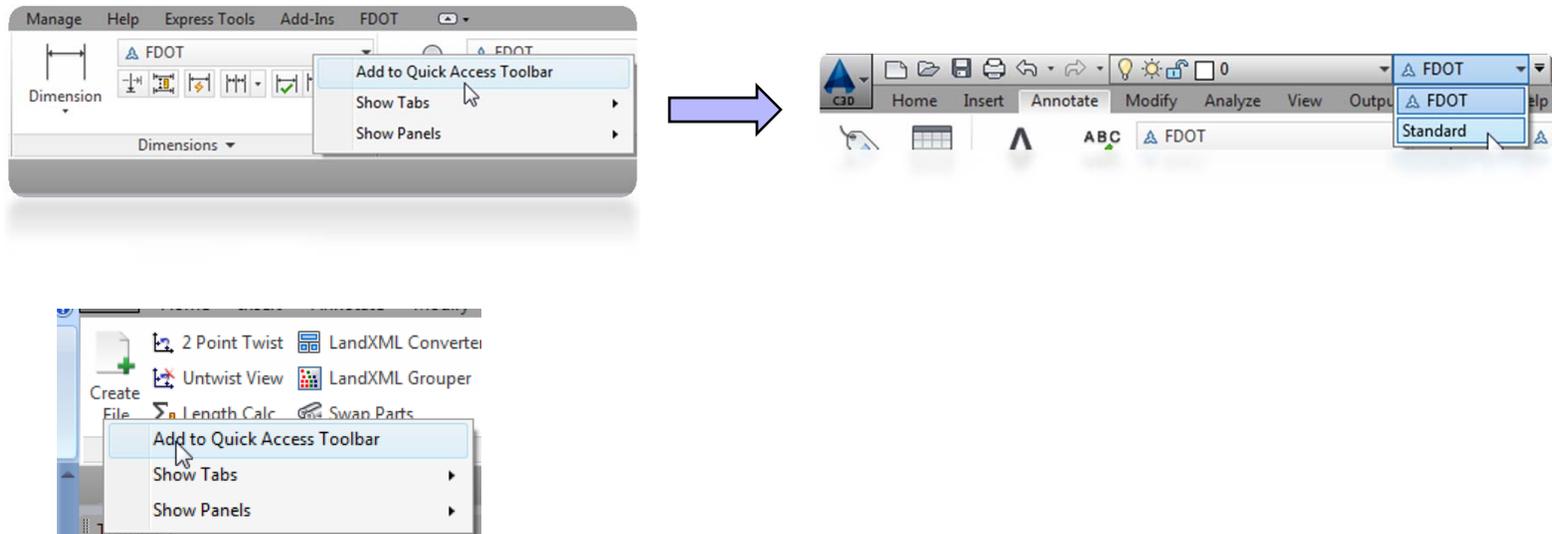


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Customize the Quick Access Toolbar

Add Styles to QA toolbar (not Text Styles!)

Add commands to the QA toolbar such as the Annotate menu for quick access. Right click on the desired command and select “Add to Quick Access Toolbar”.

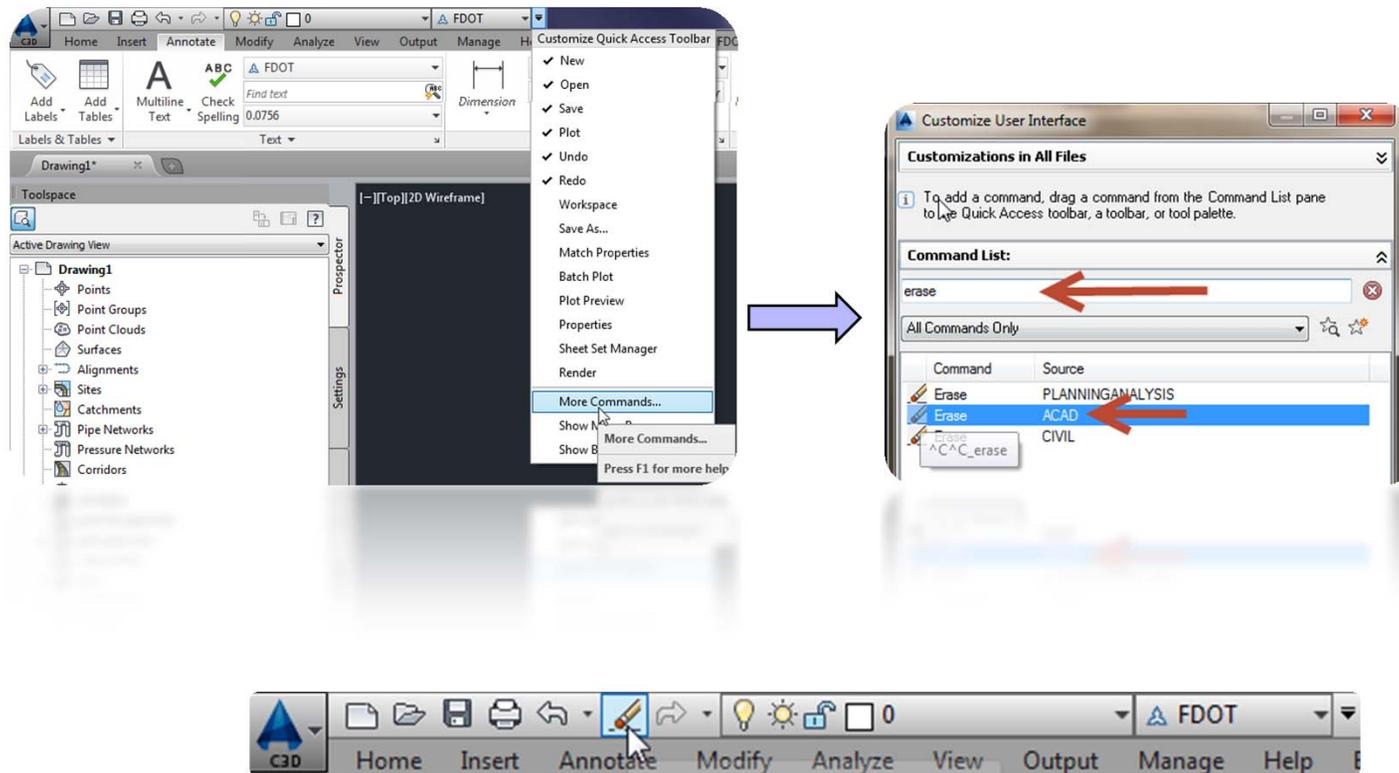


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Customize the Quick Access Toolbar

Add favorite commands with Quick CUI (Customize User Interface)

Add commands to the Quick Access using the “More Commands” options. Type in the name of the desired command and drag it to the Quick Access Toolbar.

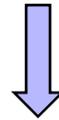
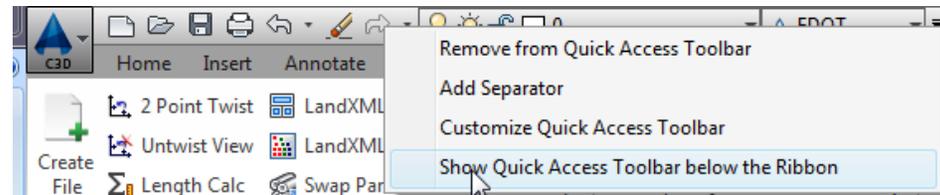


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Customize the Quick Access Toolbar

Move QA Toolbar below the ribbon

Move the Quick Access toolbar below the ribbon for faster access to commands and also to prevent clicking on the wrong commands. Right-click on the QA tool bar and select "Show Quick Access Toolbar below Ribbon".



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Object Selection Tips

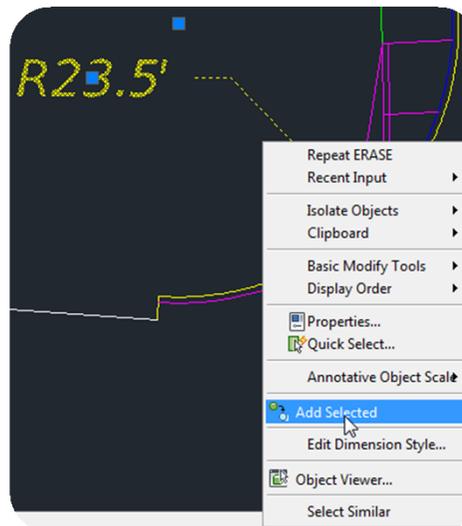
1. Add Selected – Objects and Dimensions
2. Add Selected – Text and Hatch
3. Selection Cycling (Ctrl+W)
4. Object Isolation

FDOT Civil 3D Tips and Tricks

Object Selection Tips

Add Selected – Objects and Dimensions

Creates a new object of the same type and general properties as a selected object, but with different geometric values. After you select an object, you are prompted to specify geometric values for the new object, such as a new start point, size, and location. For example, if you select a circle, the new circle adopts the selected circle's color and layer, but you specify a new center point and radius.

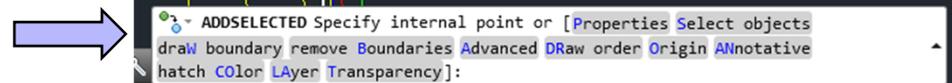
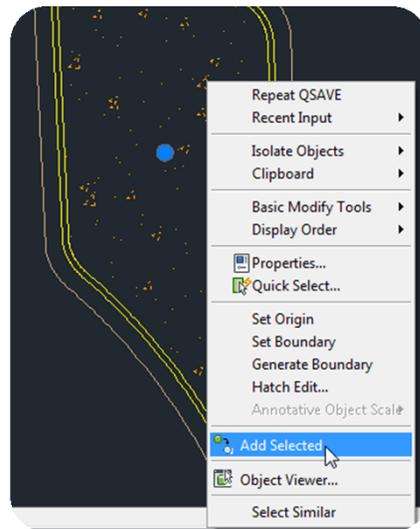


FDOT Civil 3D Tips and Tricks

Object Selection Tips

Add Selected – Text and Hatch

Creates a new object of the same type and general properties as a selected object, but with different geometric values. After you select an object, you are prompted to specify geometric values for the new object, such as a new start point, size, and location. For example, select an existing hatch pattern inside the drawing, right click and select “Add Selected” then left click inside a closed internal object.

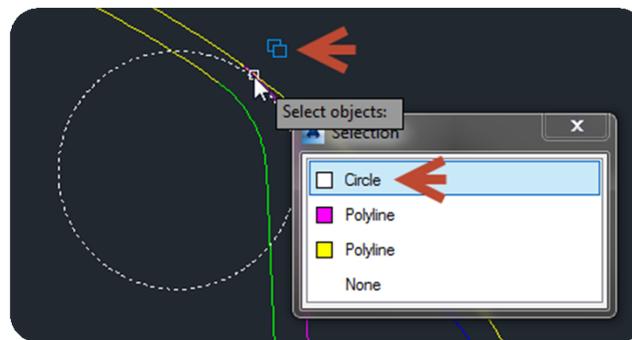
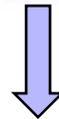


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Object Selection Tips

Selection Cycling (Ctrl+W)

Selection cycling allows you to select objects that are overlapping. You can control whether a blue cursor icon displays to indicate overlapping objects and you can configure the display settings of the Selection list box.

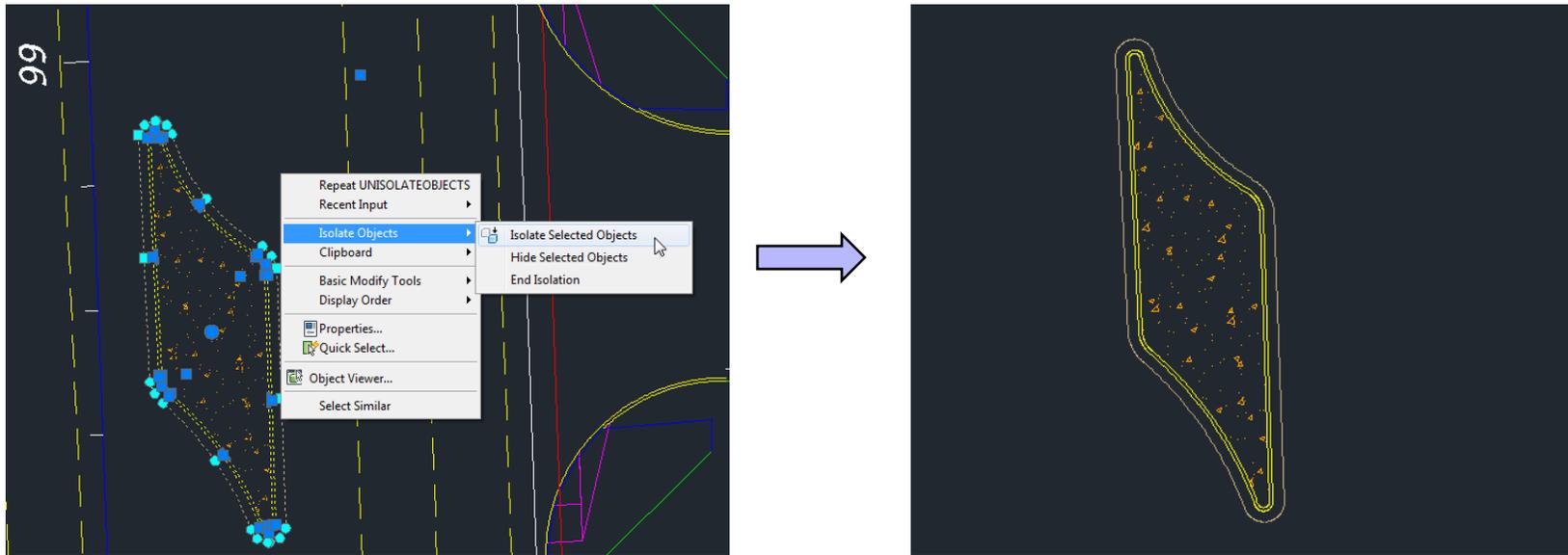


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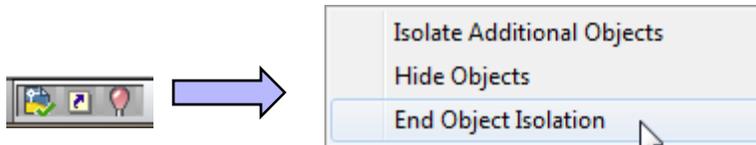
Object Selection Tips

Object Isolation

Temporarily hides the display of all objects except those you select.



End Object Isolation by right clicking on the Red Light Bulb located at the bottom right hand corner of the screen and selecting “End Object Isolation”.



FDOT Civil 3D Tips and Tricks

Layer Tips

1. Layer Translator (LAYERTRANS) – Translate layers to a standard (dws, dwg or dwt)
2. LAYWALK (View layers individually)
3. LAYDEL (delete even the most stubborn layers!)
4. COPYTOLAYER

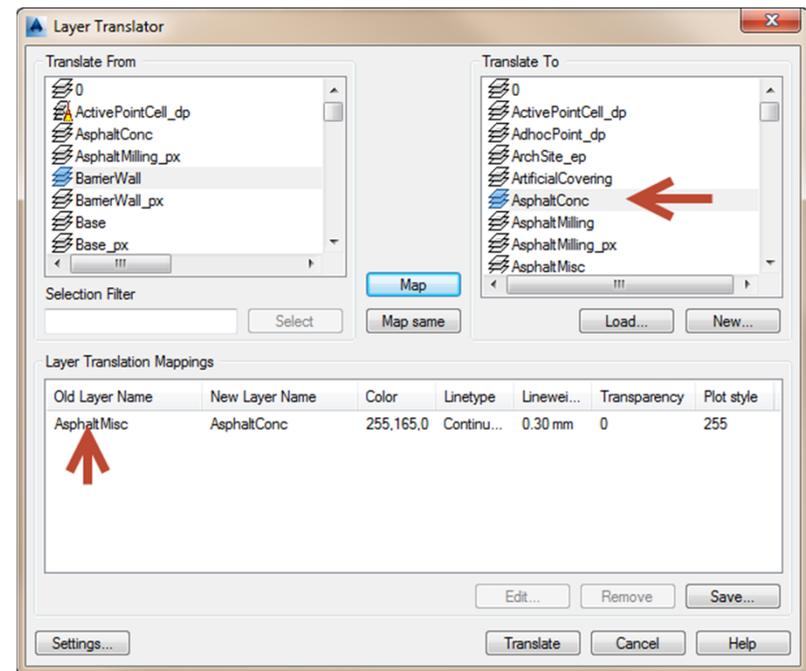
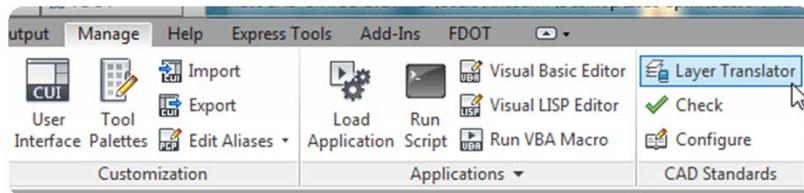
FDOT Civil 3D Tips and Tricks

Layer Tips

Layer Translator (LAYERTRANS) – Translate layers to a standard (dws, dwg or dwt)

Translates the layers in the current drawing to specified layer standards.

In the Layer Translator, you specify the layers in the current drawing that you want to translate, and the layers to translate them to. The translation maps the layers in the current drawing to different layer names and layer properties in a specified drawing or standards file, and then converts them using those mappings.



FDOT Civil 3D Tips and Tricks

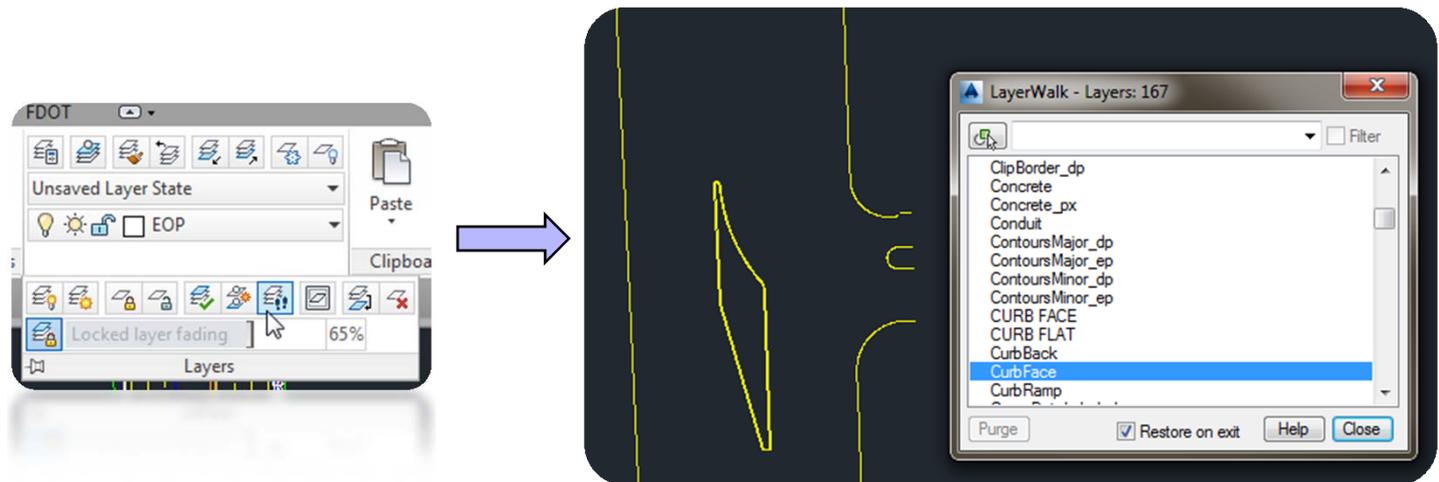
Layer Tips

LAYWALK (View layers individually)

Displays objects on selected layers and hides objects on all other layers.

Use this command to review the objects on each layer and to purge unreferenced layers.

By default, the effect is temporary and layers are restored when you close the dialog box.



FDOT Civil 3D Tips and Tricks

Layer Tips

LAYDEL (delete even the most stubborn layers!)

Deletes all objects on a layer and purges the layer.



AutoCAD and Civil 3D Tips & Tricks



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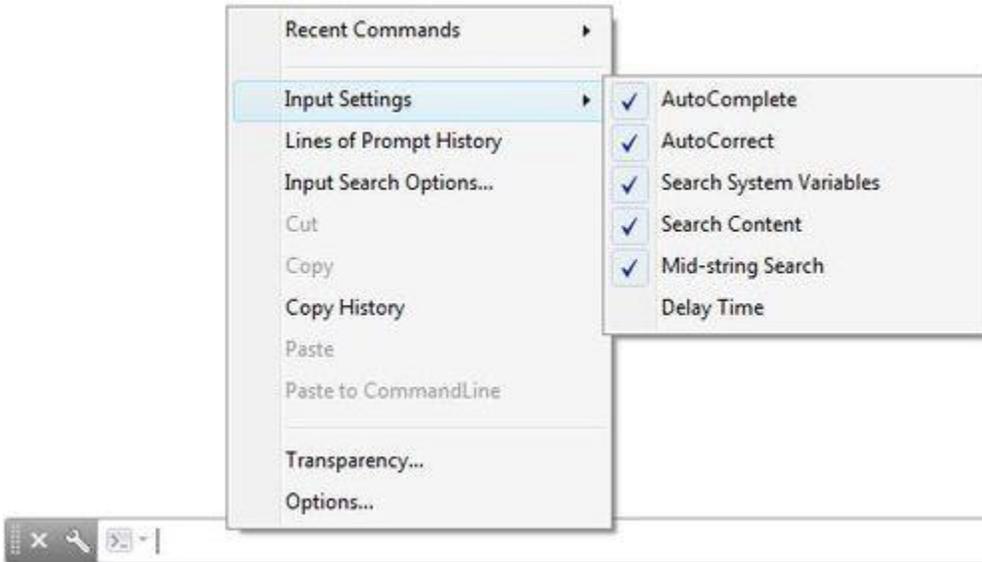
randy.roberts@dot.state.fl.us

Phone: 850-245-1631

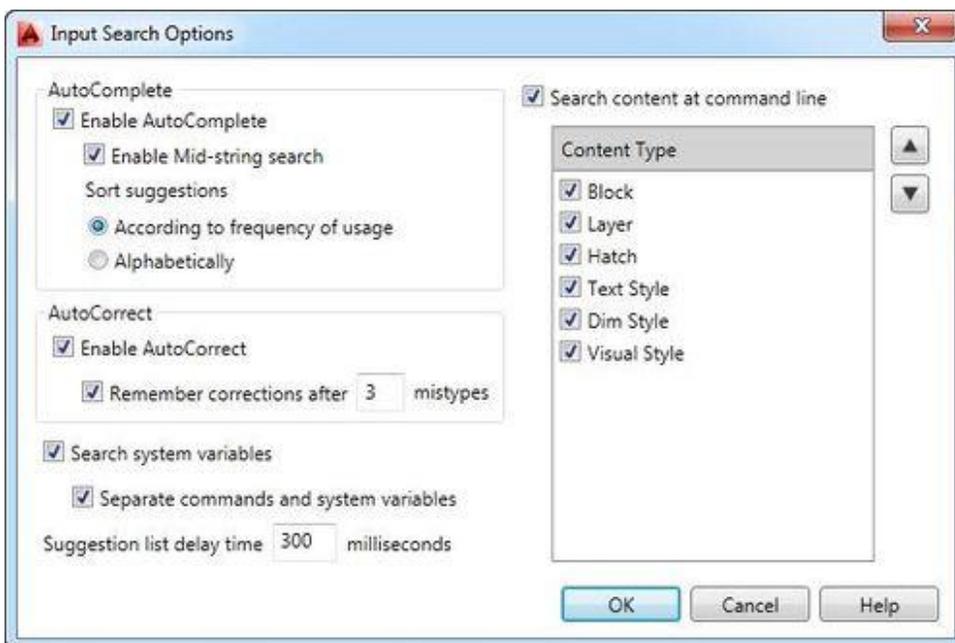


1. Command input settings

In AutoCAD 2014 you can customize the behavior of the command line using controls in the Input Settings menu when you right-click on the command line. In addition to the previous options to enable AutoComplete and search for system variables, you can enable AutoCorrect, Search Content, and Mid-string Search. All of these options are turned on by default.



Another right-click option provides access to the new Input Search Options dialog box.



Much of the new command line functionality, including AutoCorrect, mid-string search, and adaptive suggestions, is also available using dynamic input.

2. Burst vs. Explode

In this corner we have the tried and true explode command which does exactly as it states, it explodes and it explodes so well that the attribute data that is filled in the block is replaced with the field description text which means you have to re edit the data. So what does burst do that is different? Let's use an example of an Interstate Road sign block with attribute fields.

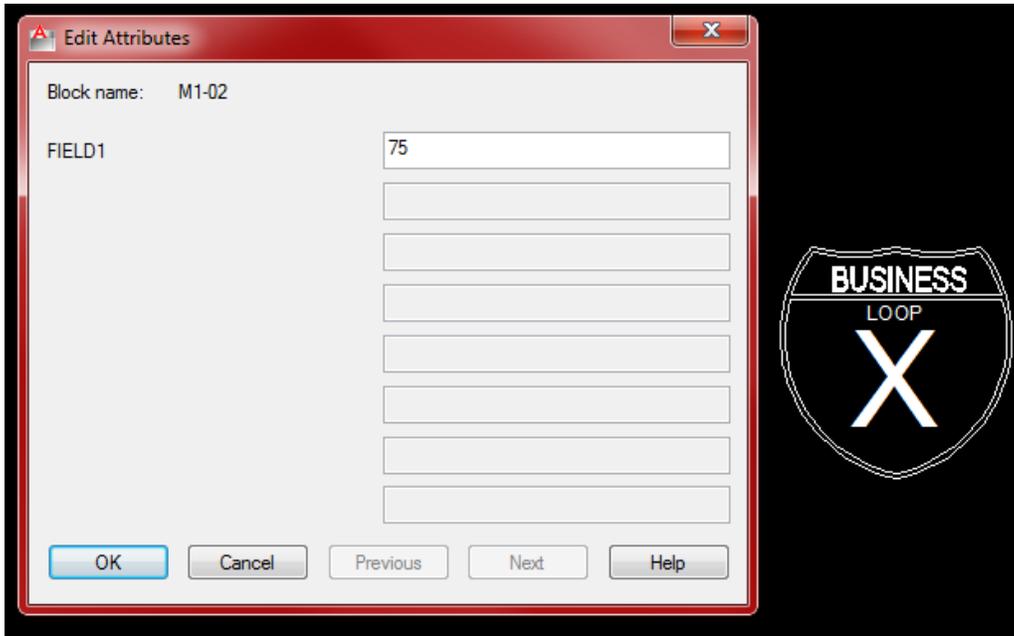


Figure 1 (The block as it comes into the drawing)

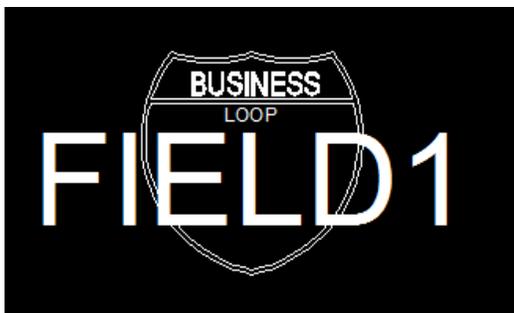


Figure 2 (A exploded block)

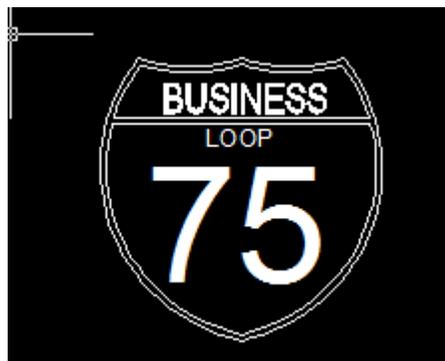


Figure 3 (A 'burst'ed block)

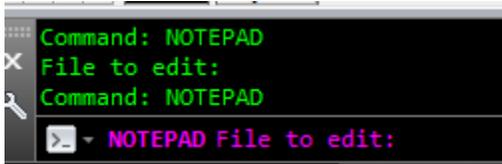
The block after using the burst command leaves the already defined attribute data intact. So the benefit of the burst command is if you have data that you still want to include with your exploded block try using 'Burst'.

3. Launching Notepad

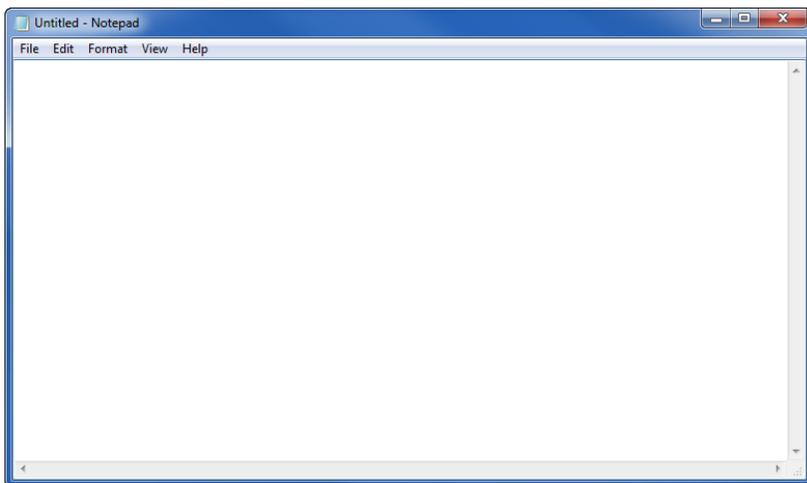
From inside Civil 3D you can launch notepad, all you have to do is type “Notepad” on the command line.



If you know the name of the file you can enter it after typing the command



If you don't know the name just hit enter to launch notepad



4. Content Explorer

If you haven't used Content Explorer yet you are missing on some pretty neat functions. If you have used AutoCAD for a while I'm sure you are familiar with Design Center and the functionality of inserting blocks, layers, etc.

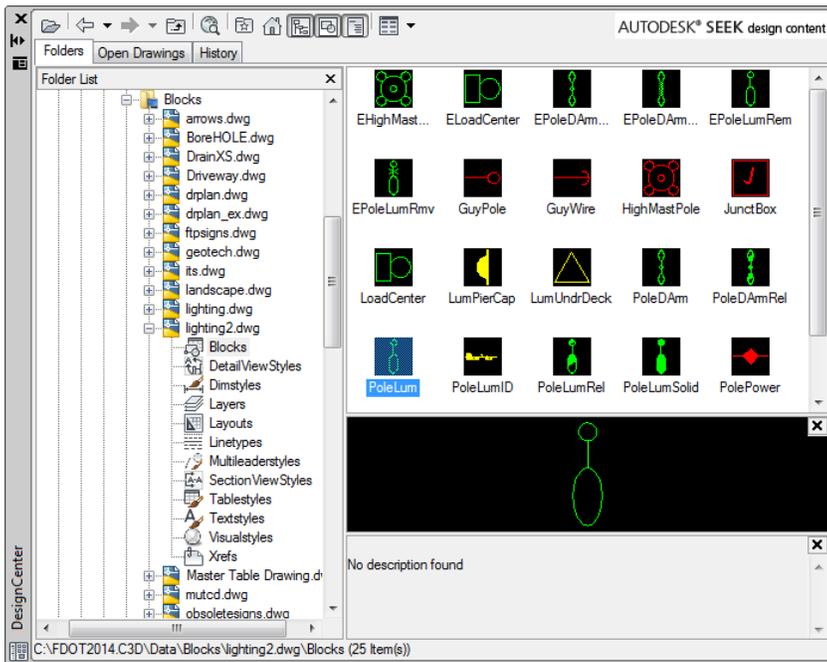
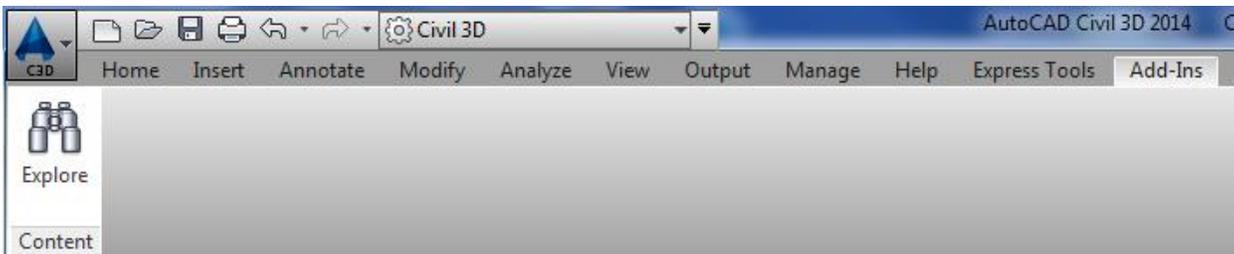
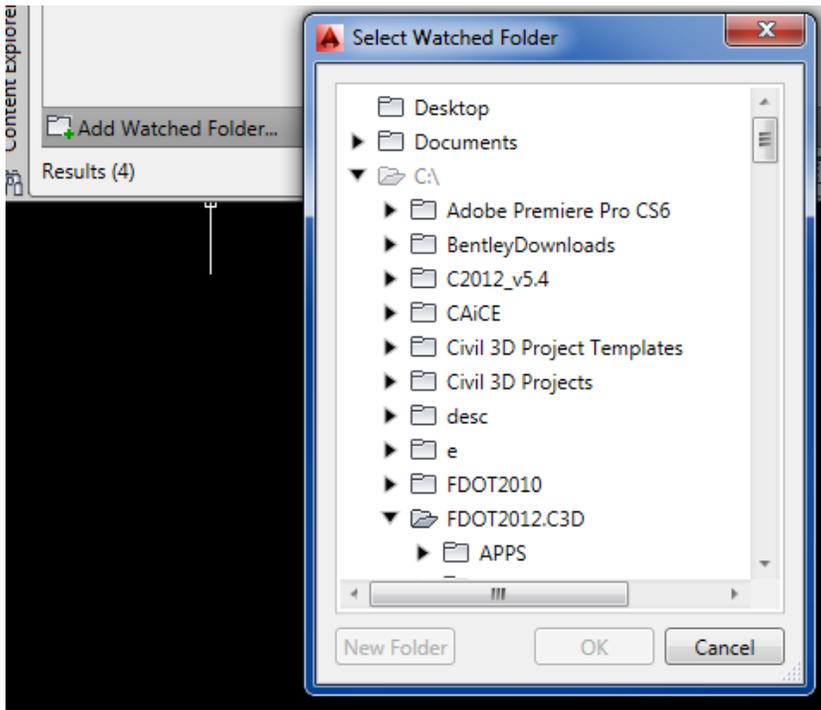


Figure 4 "Design Center"

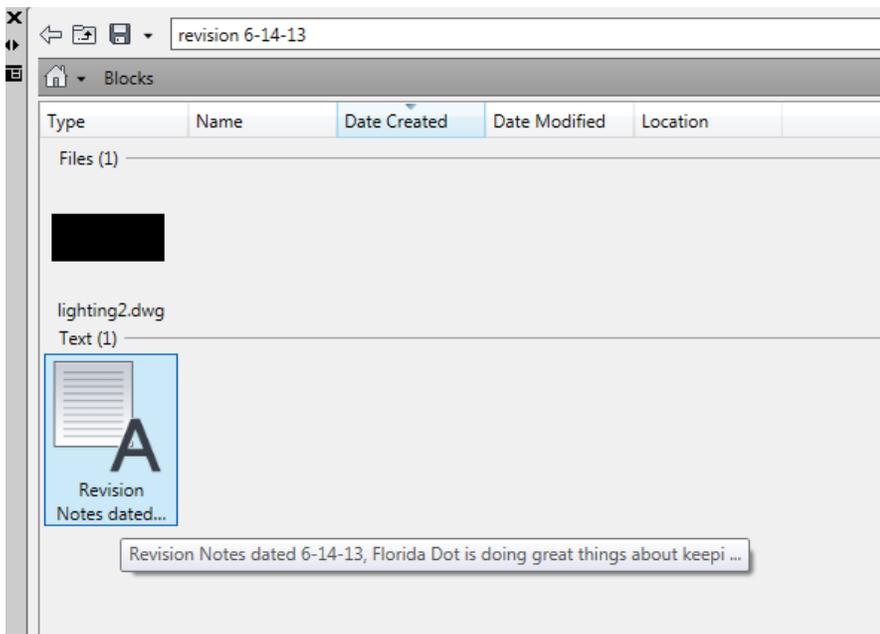
You can launch Content explorer either by typing it in or clicking it on the "Add-Ins" ribbon



Your first time using it you will need to add a watched folder(s), which will make content explorer index those locations. The advantage of Indexing is it will allow you to do lightning quick searches for specific items however please allow some time for indexing possibly setting it up to do that task overnight.



Now that all of the indexing is done let's look at some of what we can do. Let's say you typed a note a while back and can't remember which file you put it in. I mean you really don't want to have to retype a lengthy note; all you want to do is copy and paste. So that being said you do remember parts of the note so let's do a search..... You remember the date of the revision so enter that in the search

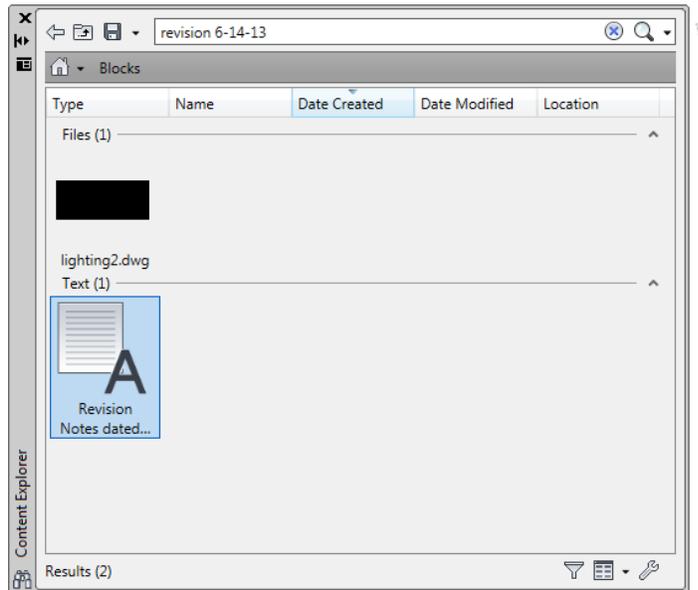


POOF!!

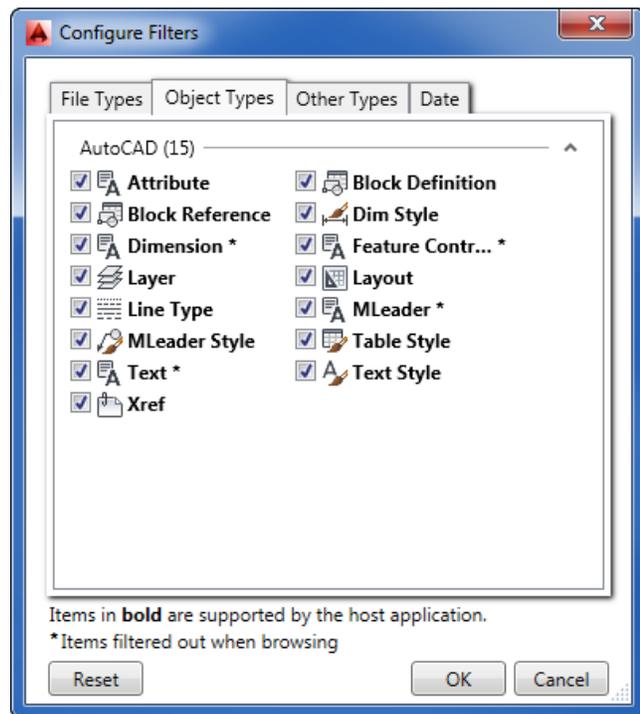
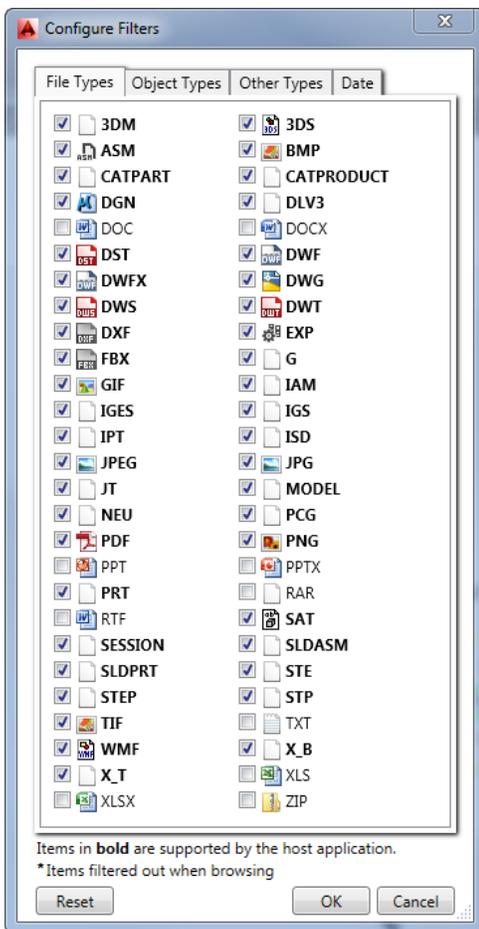
The search has pulled up the exact drawing it is located in and the note in question, hopefully in future releases you will be able to drag and drop it into your new drawing but for now you have to double click on the note and it will open the drawing and zoom to the note so you can copy and paste it that way.

Revision Notes dated 6-14-13,

Per redlines lighting revised to show Light Pole stations and offset

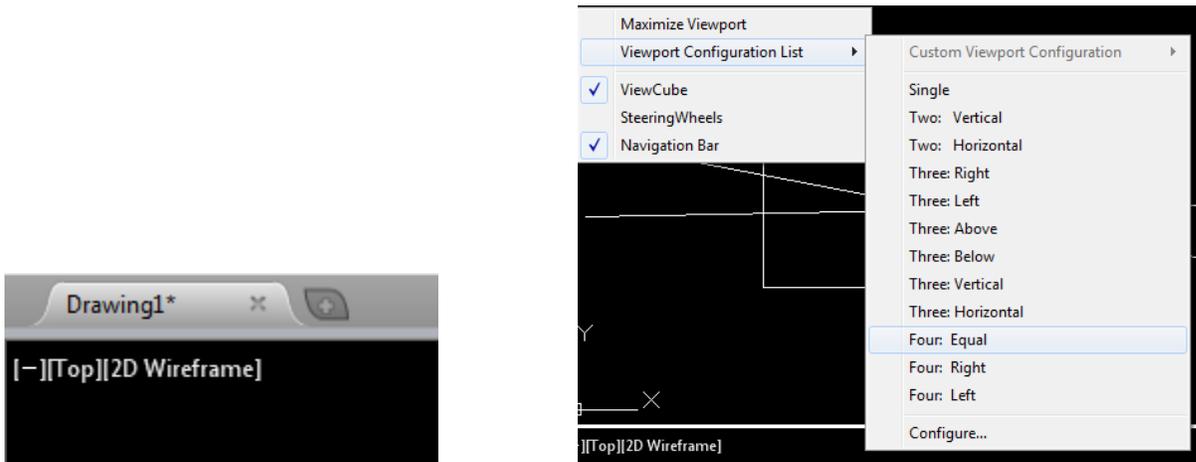


Other searches that are at your finger tips are for certain layers that you want to add to a new drawing. Do a layer search and providing you have the target drawing open you can double click on the desired layer and it will insert it into your drawing along with the layer settings intact (Color, Line weight, etc..) You can also control the search filters.

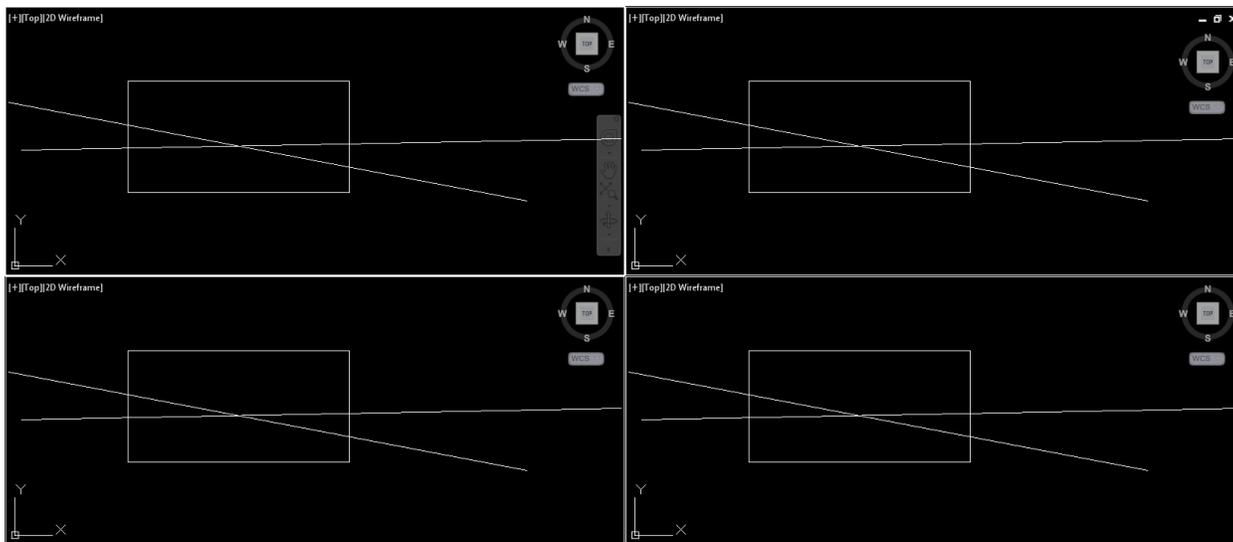


5. Viewport, View, & Visual Style Controls

You can control some cool visualization right from your drawing screen without digging into the ribbon or options by using the Viewport controls located in the top left corner of your drawing space.

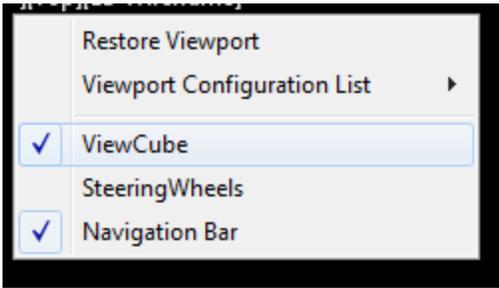


You can create viewports with just 2 clicks. Click on the [-] button

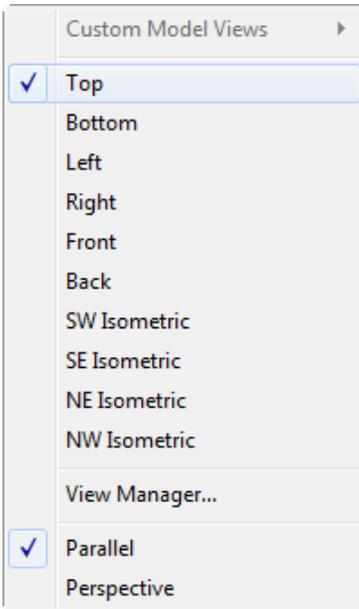


To return to just one viewport double click on the “+” button on the control bar..... Ok I cheated somewhat because if you double click on the – symbol it automatically puts you in a 4 viewport state.... Just double click again to revert back to a single.

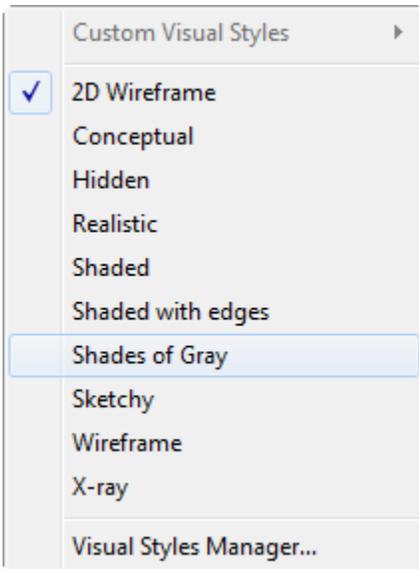
You can also turn off the Viewcube and the Navigation bar if you are not using it just unclick them



Want to change your view style? Easy that control is there also just click on the middle option which by default is in the "TOP" view



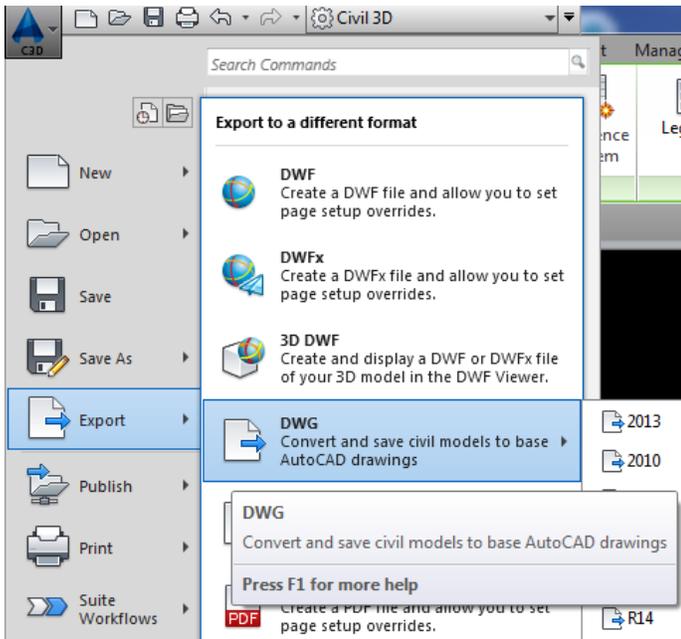
Finally your Visual Style



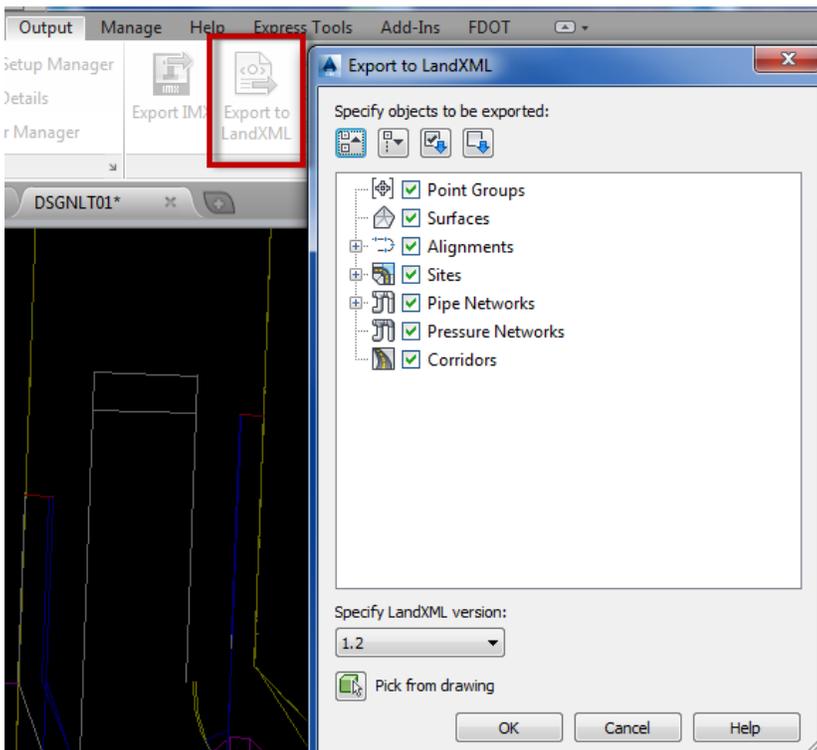
I'm not sure if there are 50 shades of them though..

6. Saving to a Previous Civil 3D Version

To send Civil 3D files to someone using a previous version, DO NOT use “save-as”; use export to AutoCAD and also send an XML file containing the Civil 3D objects. Using the export option explodes the Aec objects within the drawing that allows the other user to open the file up without seeing empty object boxes on the screen and by sending them a XML file it will allow them to import the intelligent Civil 3D objects such as (Points, Surfaces, Drainage, etc...)

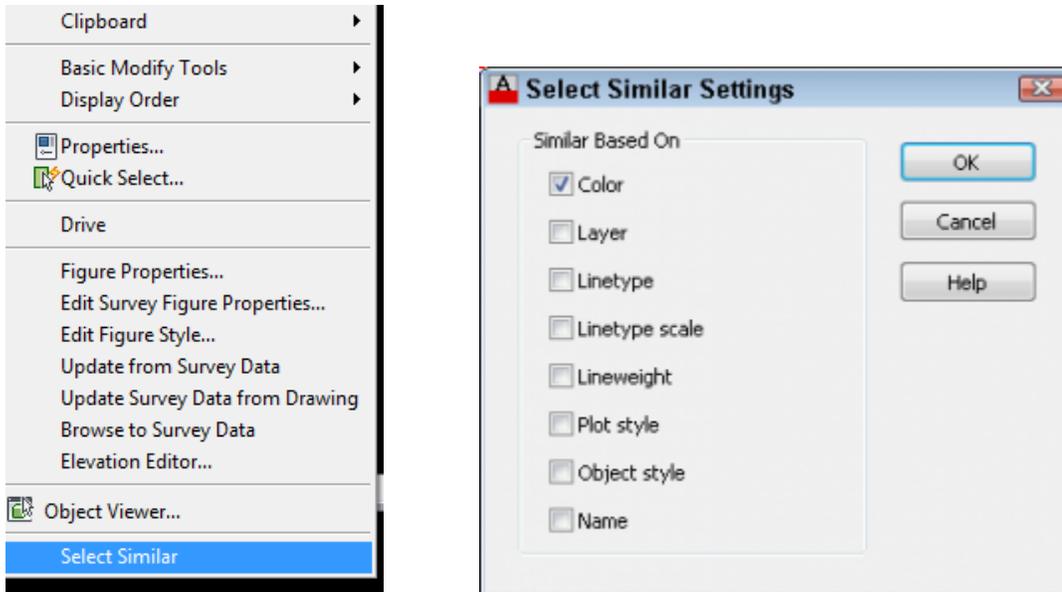


How the export to LandXML looks.



7. Select Similar Objects

You can select objects that are on the same layer in a crowded drawing very easily by using this command. Select one of the objects and Right Click your mouse> pick select similar on the bottom of your shortcut menu and you should see on your screen that all of the similar objects are awaiting for your edit of choice.... ALSO

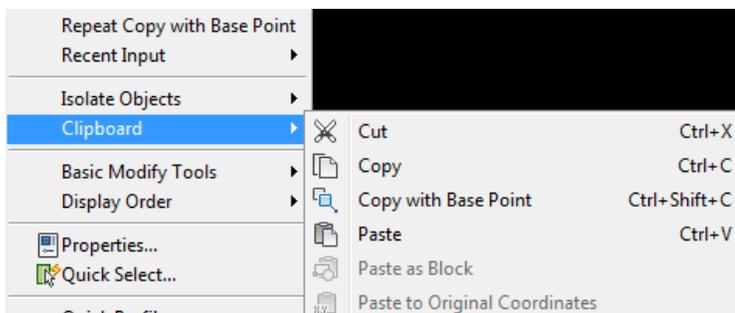


Follow these steps:

1. To specify settings, type **selectsimilar**, press Enter, and select one or more objects. Press Enter to end selection. At the **Select objects or [Settings]:** prompt, use the Settings option to open the Select Similar Settings dialog box.
2. Choose the properties you want for similarity.
3. Click OK to close the dialog box and select the objects.
4. Start an editing command. The objects remain selected so you can apply that command to the selected objects.

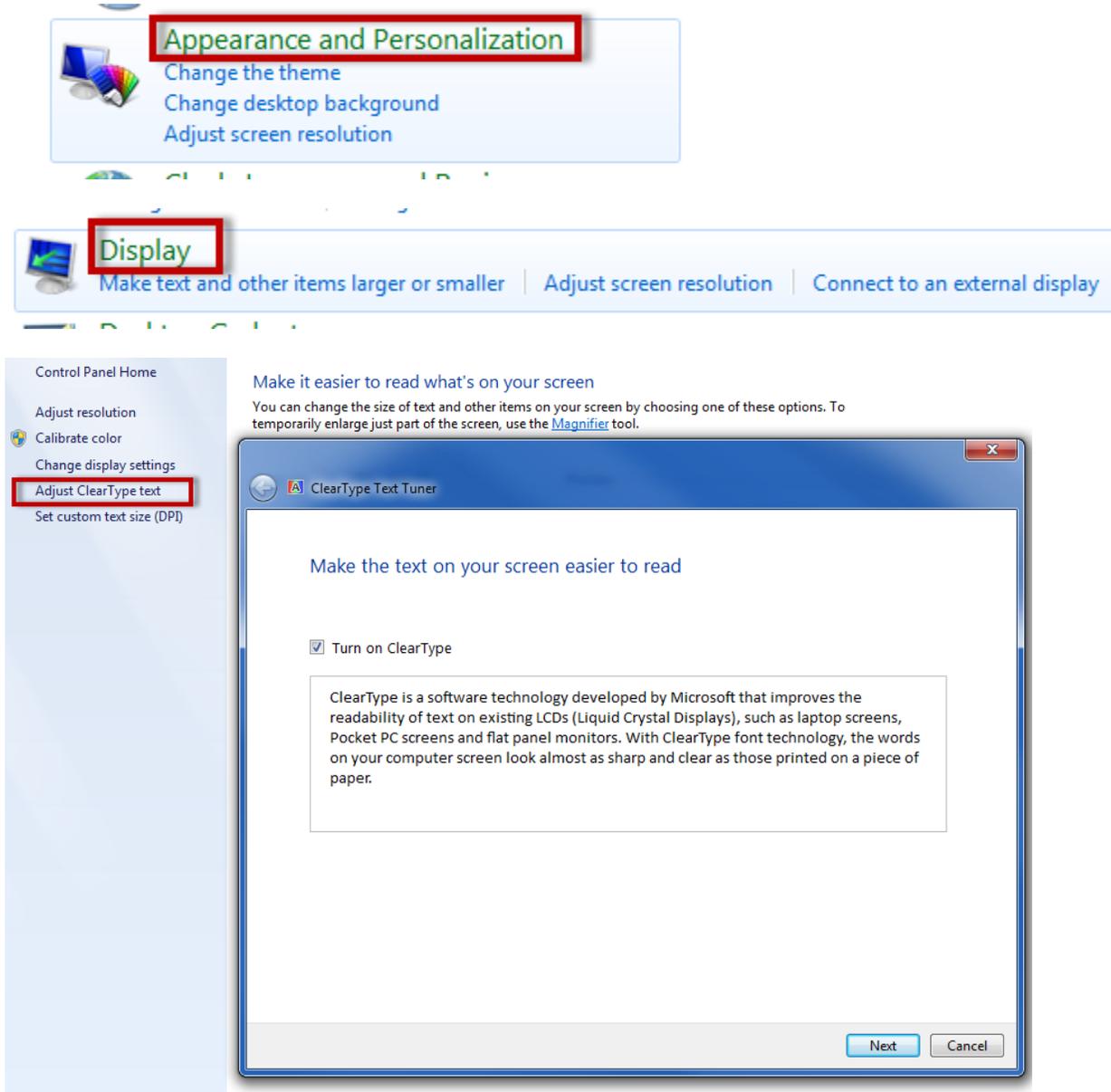
8. Copy with Base point

Copy with a base point the simple way; 'Ctrl+Alt+C' then select your base point, 'Ctrl+V' to paste. Very handy when copying items from one detail sheet in paper space to another using a corner of the border as the base point. You can also select an object and right click to get to it.

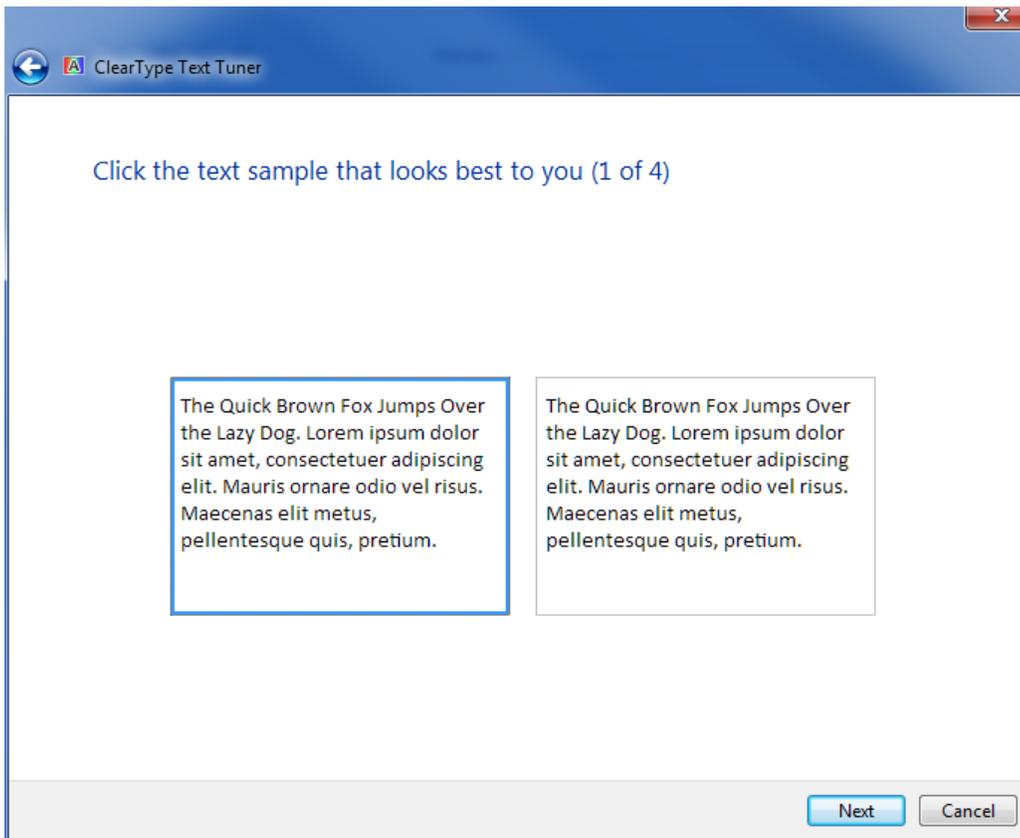


9. Label Font Clarity

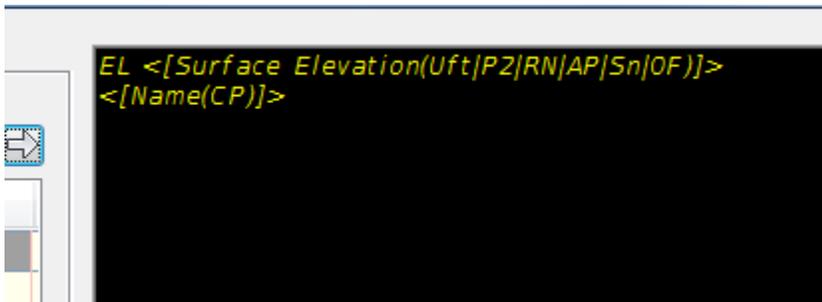
Try this trick on an older laptop with a LCD display that you still use. When you are creating or editing a label it doesn't appear as crisp and readable as you would like, you can change a display option in Windows that will help your display read more clearly. First go to Start < Control Panel < Appearance and Personalization < Display < Adjust Clear Type text



As you go through the wizard it will show you some examples of text and like an eye exam you choose what looks good.

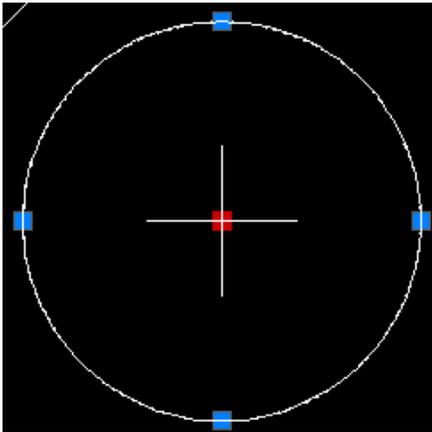


Once you make your choices finish out the wizard and that's it.



10. Change Grip Mode with Spacebar

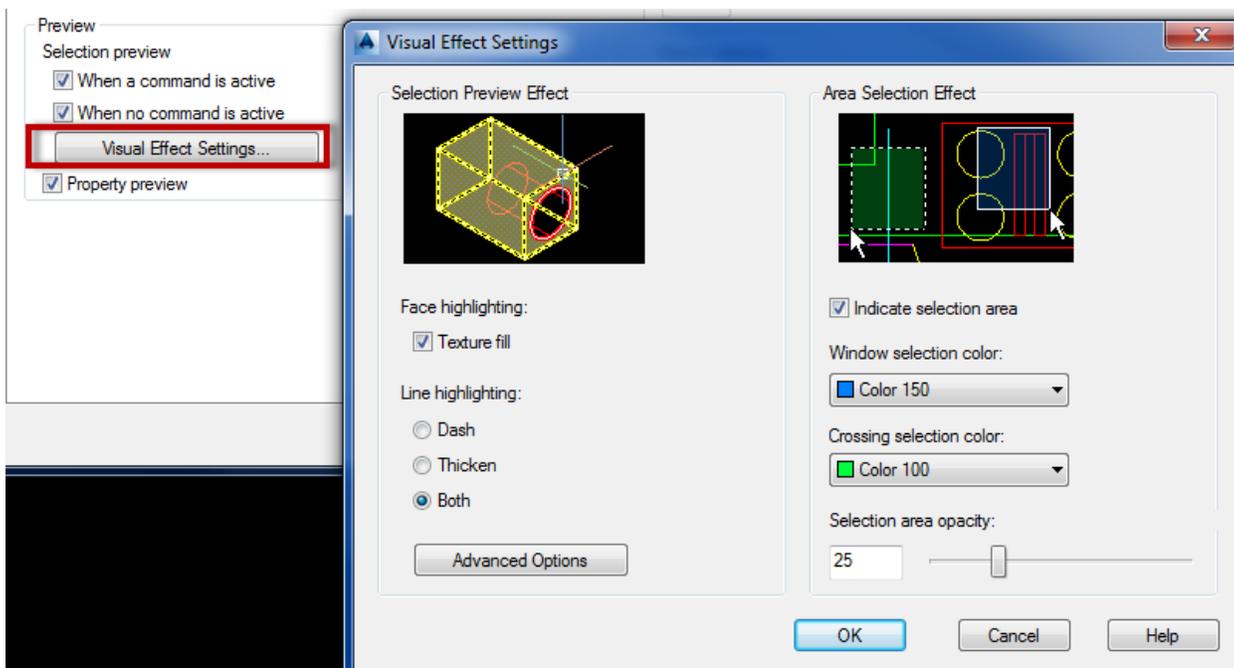
When simply clicking on a grip when an object is highlighted you automatically go into the stretch command. Press the space bar and you go into the move command. Press it again and you go into rotate, again for scale, and again for mirror.



```
Command:
** STRETCH **
Specify stretch point or [Base point/Copy/Undo/eXit]:
** MOVE **
Specify move point or [Base point/Copy/Undo/eXit]:
** ROTATE **
Specify rotation angle or [Base point/Copy/Undo/Reference/eXit]:
** SCALE **
Specify scale factor or [Base point/Copy/Undo/Reference/eXit]:
** MIRROR **
Specify second point or [Base point/Copy/Undo/eXit]:
```

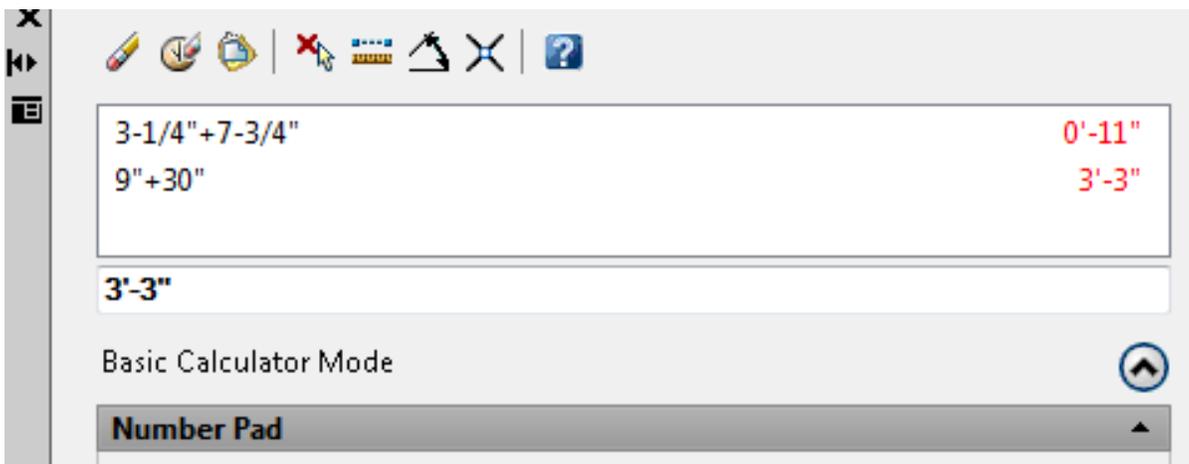
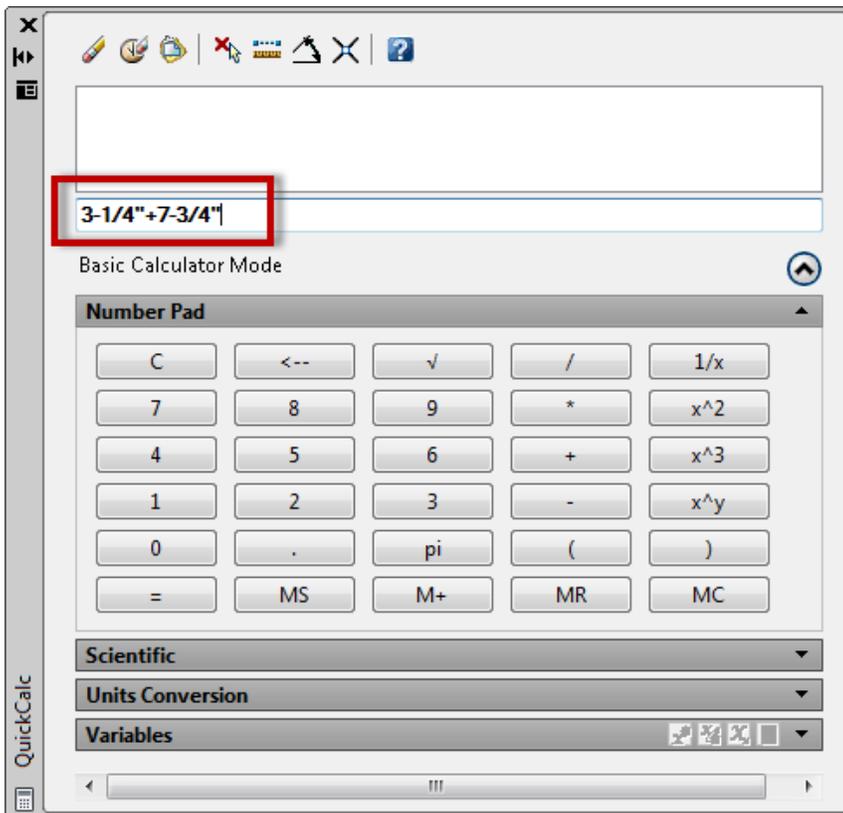
11. Changing the Visual effects of selection and rollover highlighting

Want to change the visual effects of selection and rollover highlighting? Advanced settings can be found in "Options->Selection->Selection Preview group->Visual Effect Settings..."



14. QuickCalc

Did you know you can add architectural dimensions without converting them to decimal? Just type in the dimensions as shown with the function desired.

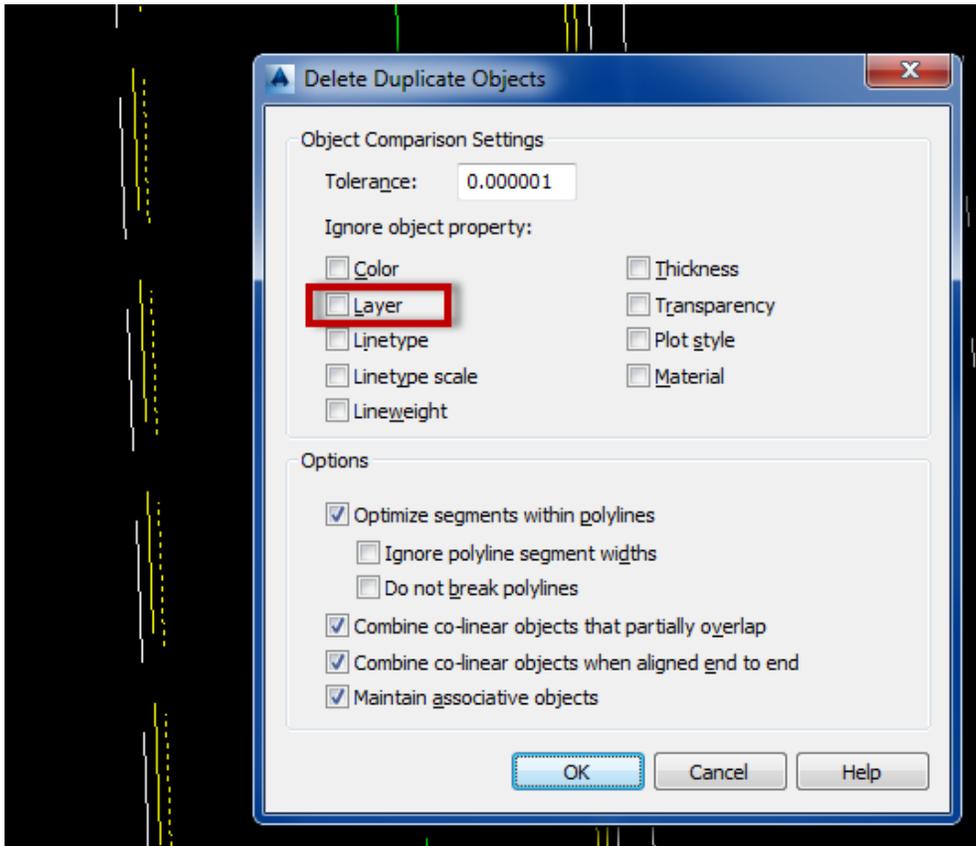


15. Deleting Duplicate Objects

You just received a file from a third party and it has duplicate objects drawn on top of each other on different layers (a survey traverse as an example...)

Type in "Overkill" on the command line < select or window your objects in question < Enter

The DDO dialog box appears



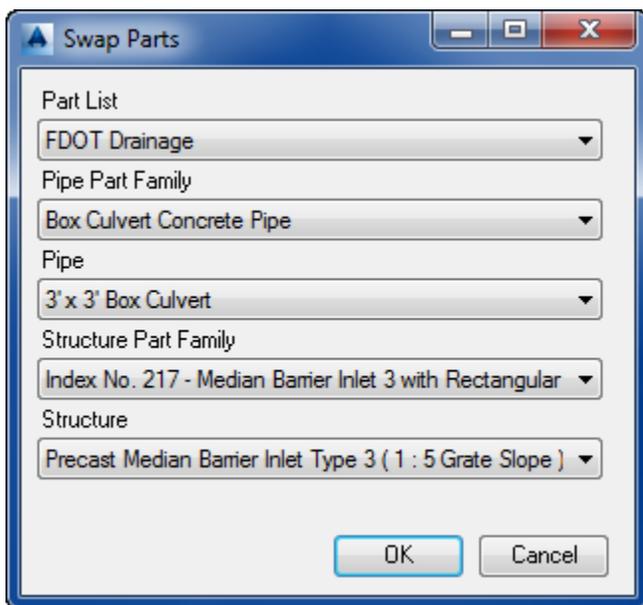
For example let's say that one of the items is on a layer that you want to keep. When the DDO dialog box appears select the layer option and as long as that layer is current it will delete all of the other objects except for the current layer's object.

16. Swapping Multiple Parts at One Time

You have just finished a lengthy drainage design and the reviewer wants you to change out some structures to a certain type and have you change a pipe size on 10 pipes to a size bigger well that is easy now with our own FDOT tool called swap parts. Out of the box Civil 3D only allows you to swap one part at a time. So in this case we will launch the Swap Parts located on the FDOT Ribbon.

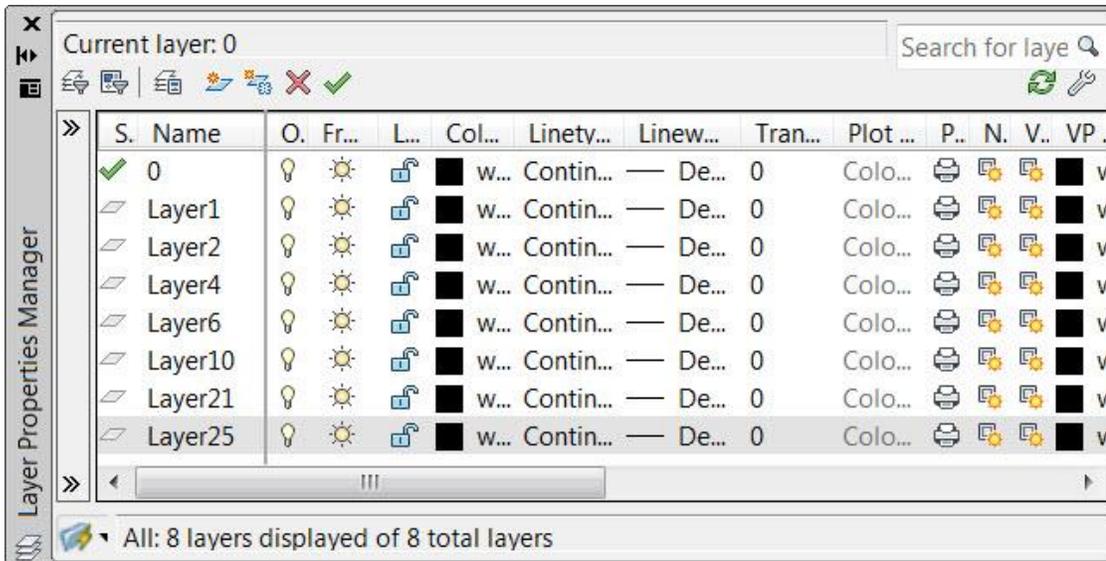


After Selecting all of the structures and pipes you need to change press enter and the swap parts dialog parts box pops up. It populates with the current parts list that you are using, which in this case is the FDOT Drainage parts list. Make all of your edits and select ok. Presto... all of your structures and pipes change.

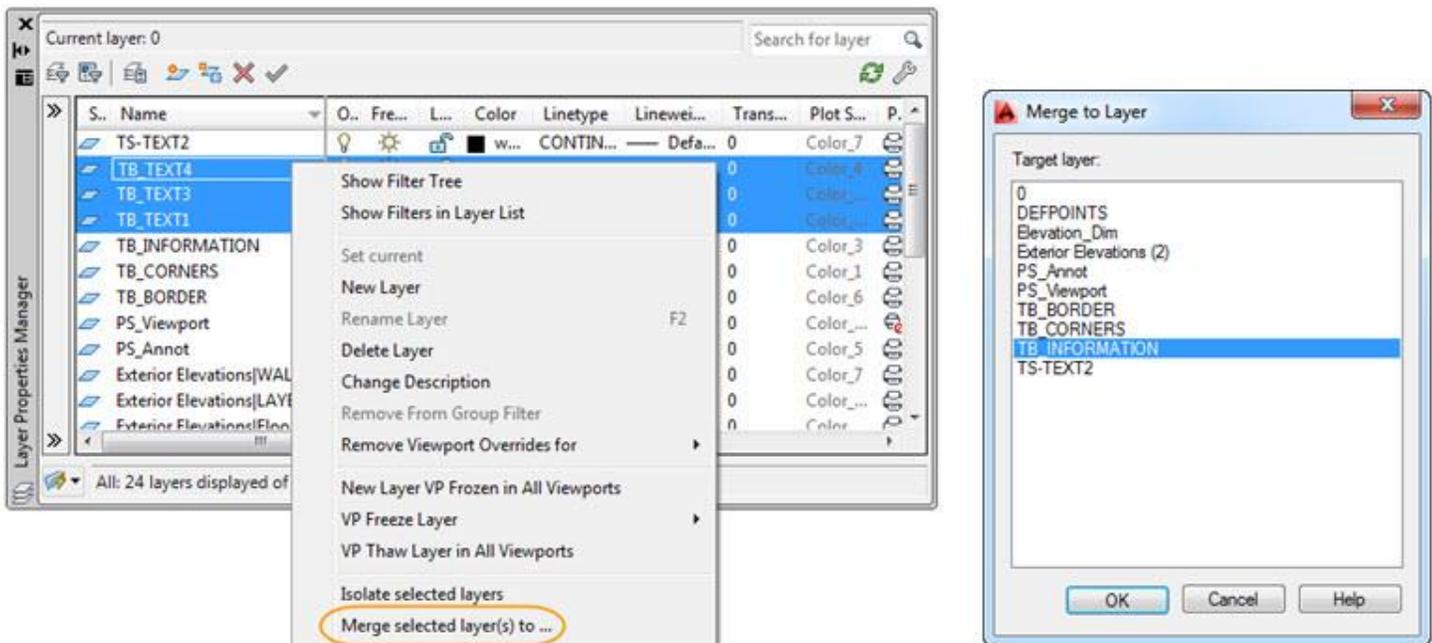


17. AutoCAD 2014 Layer Enhancements

In AutoCAD 2014 the number of layers displayed on the ribbon has been increased. And, layers are now displayed using natural ordered sort. For example, the layer names 1, 4, 25, 6, 21, 2, 10 are sorted as 1, 2, 4, 6, 10, 21, 25 instead of 1, 10, 2, 25, 21, 4, 6.



A new Merge option in the Layer Manager enables you to select one or more layers from the layer list and merge the objects from those layers onto a different layer. The original layers are automatically purged from the drawing.



19. Clean your Screen with AutoCAD's Clean Screen Feature

A caller asked:

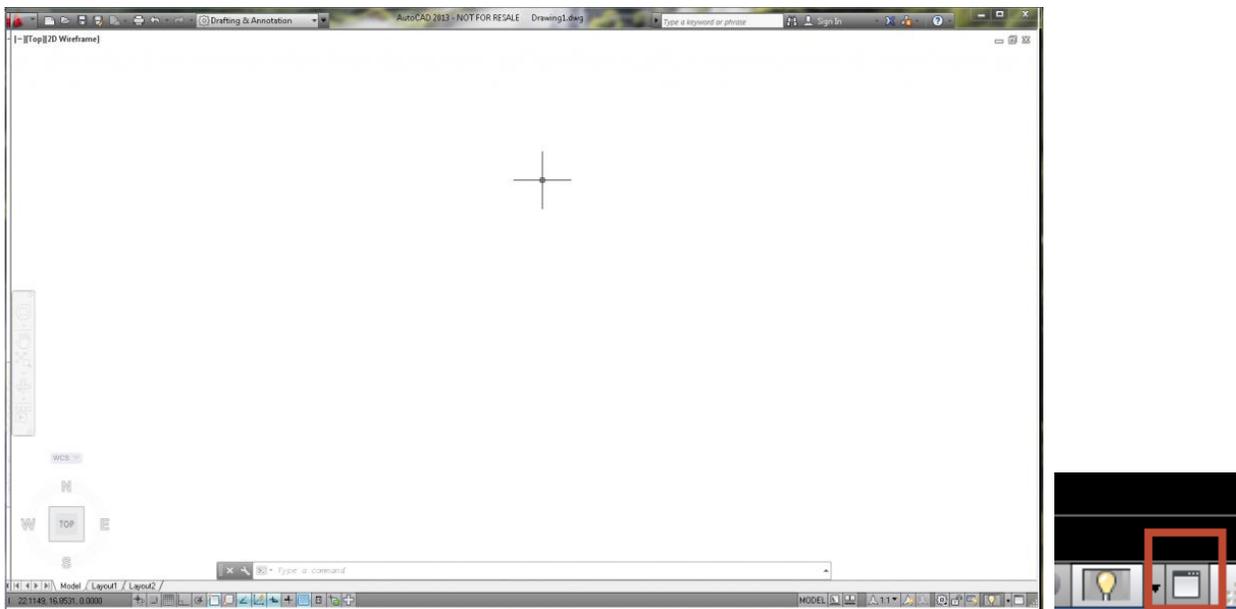
I have lost my menus such as draw, render, etc. Everything that would allow me to copy, move, trim etc. I don't have anything that will allow me to enter commands. Also my menu bar ie. file, window, help. The command line at the bottom of the drawing is also gone.

Since I didn't see the viewer's screen, I can't be sure what happened. Maybe his menu was unloaded. (In that case, try the MENULOAD command.) But it could also describe the Clean Screen feature—although Clean Screen keeps the command line.

The Clean Screen feature in AutoCAD hides as much as possible of your screen, giving you maximum room for drawing. It doesn't turn everything off on your screen, but almost everything. Here's what's left:

- Status bar
- Menu bar (if you have it displayed)
- Command line

Here's what my screen looks like with Clean Screen on.



Clean Screen is great for keyboard jockeys who like to type in commands and aliases.

To turn on Clean Screen, click the Clean Screen button at the right end of the status bar (it looks like a box) or press Ctrl + 0. Repeat the process to turn Clean Screen off. The actual command names are **CLEANSCREENON** and **CLEANSCREENOFF**.

20. Close AutoCAD quickly and safely

When you may want to rush out the door, here is a tip that your family will thank you for knowing!



We've all done it. You are beavering away at the office, totally engrossed in the Music on your iPod in your work, when you realize that it was time to go home minutes ago!

I want to make sure that you know about 3 really handy commands that will help you to close down a lot of open files very quickly (and safely).

Save everything

The first command is an Express tool called SAVEALL. Simply type **saveall** at the command line, and all your open drawings will be saved, but remain open.

Close everything

The second command is a standard AutoCAD command called CLOSEALL. Once again, simply type **closeall** at the command line, and all your drawings will be closed Lickety Split.

Or do both

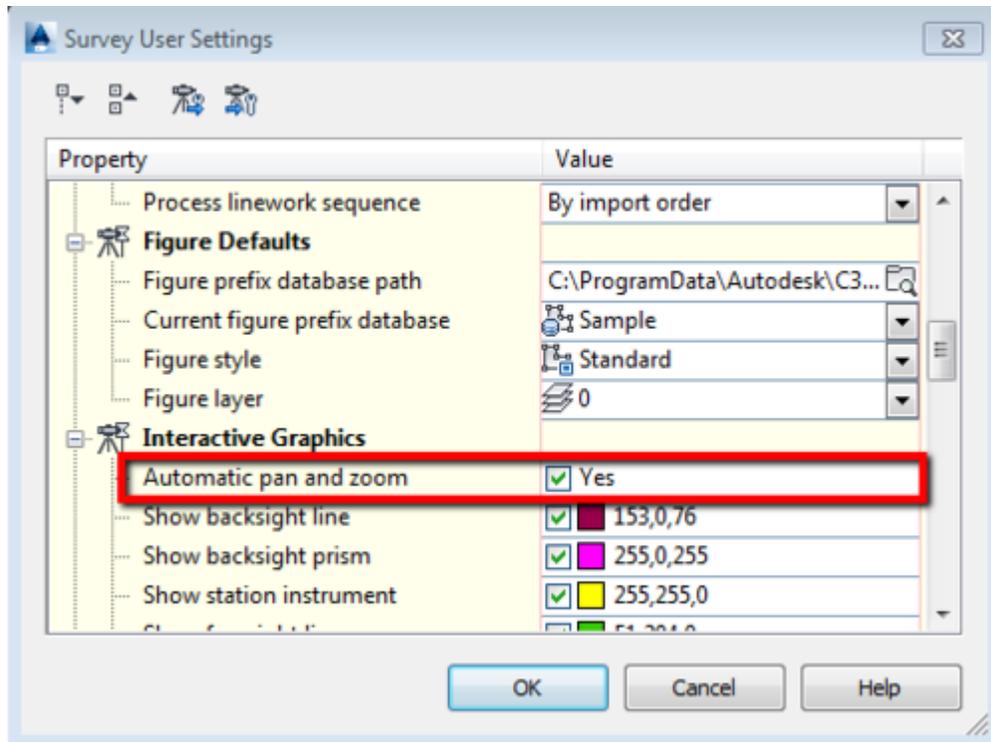
The final command is another Express tool called QQUIT. This tool will attempt to save and close all your drawings, and then close AutoCAD down completely.

Note: If a drawing has not been saved yet, all of these commands will prompt for a file name. If you have a blank drawing file open that you don't need to save – just hit 'Cancel', AutoCAD will still process the rest of the files.

Go Home

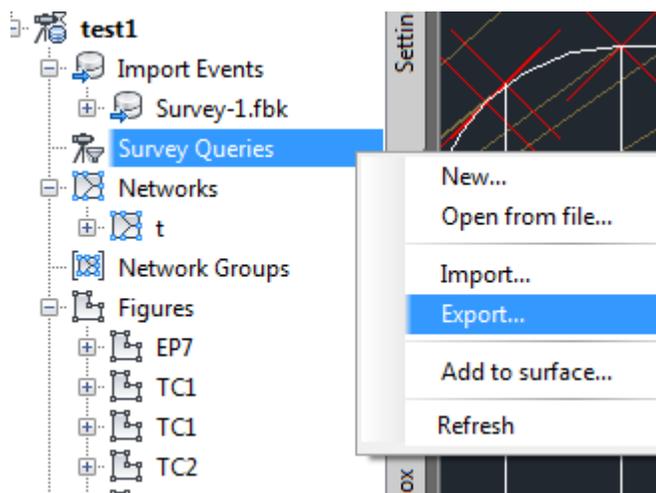
21. NEW Civil 3D 2014 Survey feature

Two quick things to show. The first one is the ability to use Automatic Pan and Zoom to Survey Figure. This is useful in case you were reviewing or editing your figure. Now as soon as you select Survey Figure Properties the program zooms to the figure. This setting is found in Survey User Settings dialog.



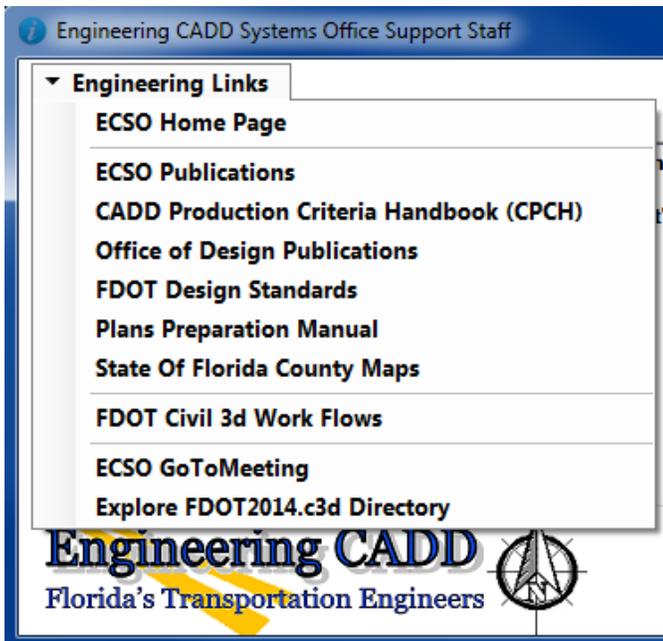
Another quick thing to introduce is the ability to Import or Export Survey Query Files from a Survey database. This way you can export all defined queries from your Survey database to a specified location. The program will create a query file with a QML file format. This query can also be imported into the Survey database.

In your Survey Toolspace tab, if you right-click on Survey Queries and choose Export you will see the option.



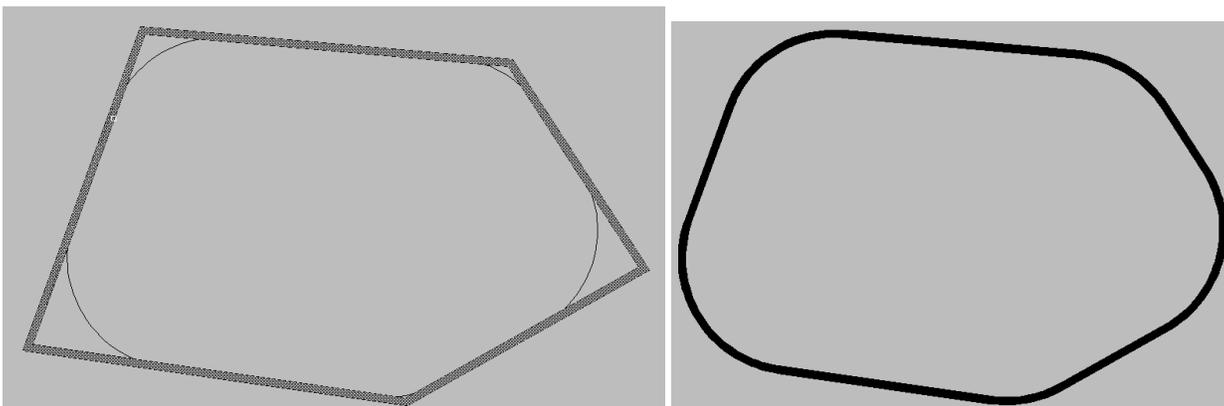
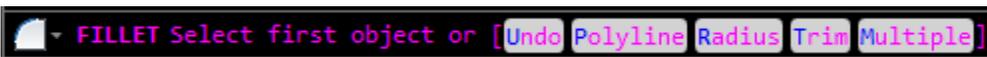
22. FDOT Help & Links

Located on the FDOT Ribbon is the Links & Contacts command. Clicking on it will launch the FDOT Help section where not only can you contact us direct with questions there are links to various FDOT websites



23. Fillet a Closed Polyline

In 2014 you can now fillet a closed polyline. Once you enter the FILLET command you have options displayed on the command line. Select P for polyline to fillet the entire polyline. A preview of how it will look displays when you hover over the Pline



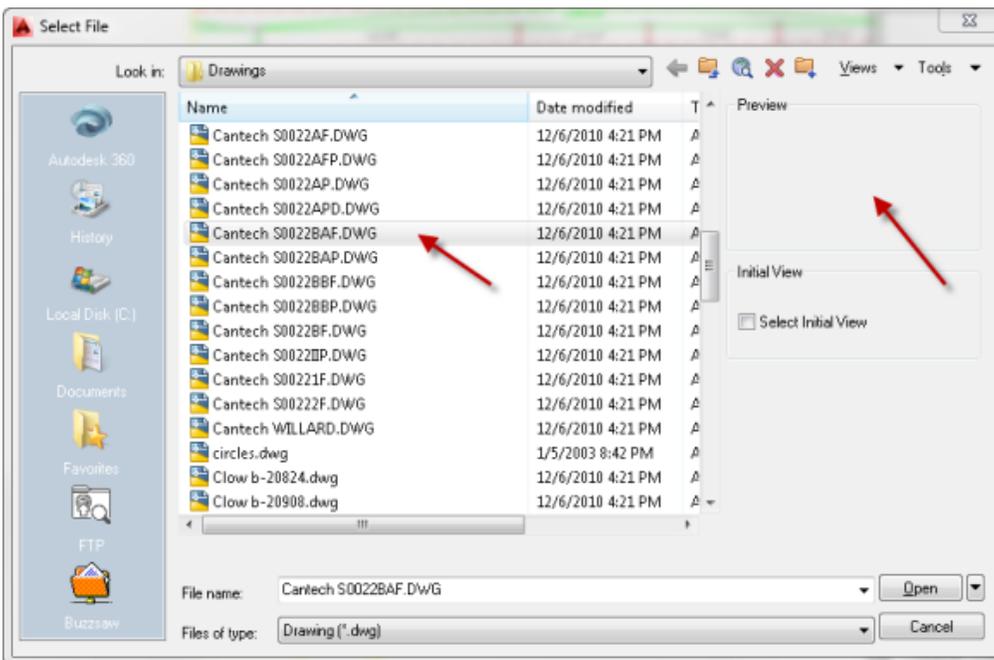
24. New Coordinate Zone display in 2014

In Civil 3D 2014 along the bottom right corner of your screen next to the current annotation scale there is a display of what coordinate zone your drawing is currently in. The Red push pin to the left is the Geographic Marker which most of the time you will want to turn off.

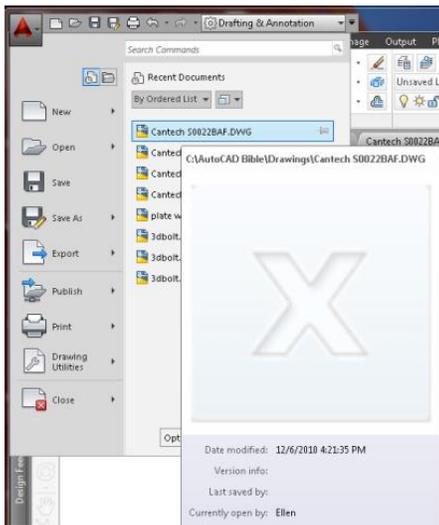


25. Thumbnail settings

Do you have old drawings that don't show thumbnails when you select them in the Select File dialog box?



Even though this drawing says it was last modified in 2010, it was created much earlier. It's probably at least 15 years old.



The system variable that determines whether a drawing saves a thumbnail is THUMBSAVE. It replaces the earlier RASTERSAVE. The default value, 1, saves a thumbnail, but older drawings might not have one.

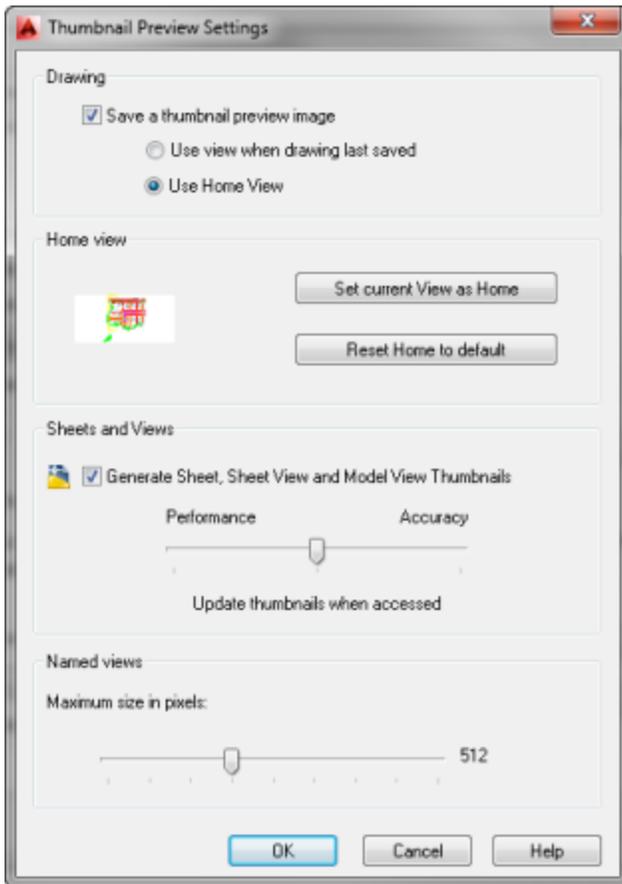
You'll see the same problem in the list of recent drawings when you click the AutoCAD button as you see here on the right.

How to save a thumbnail

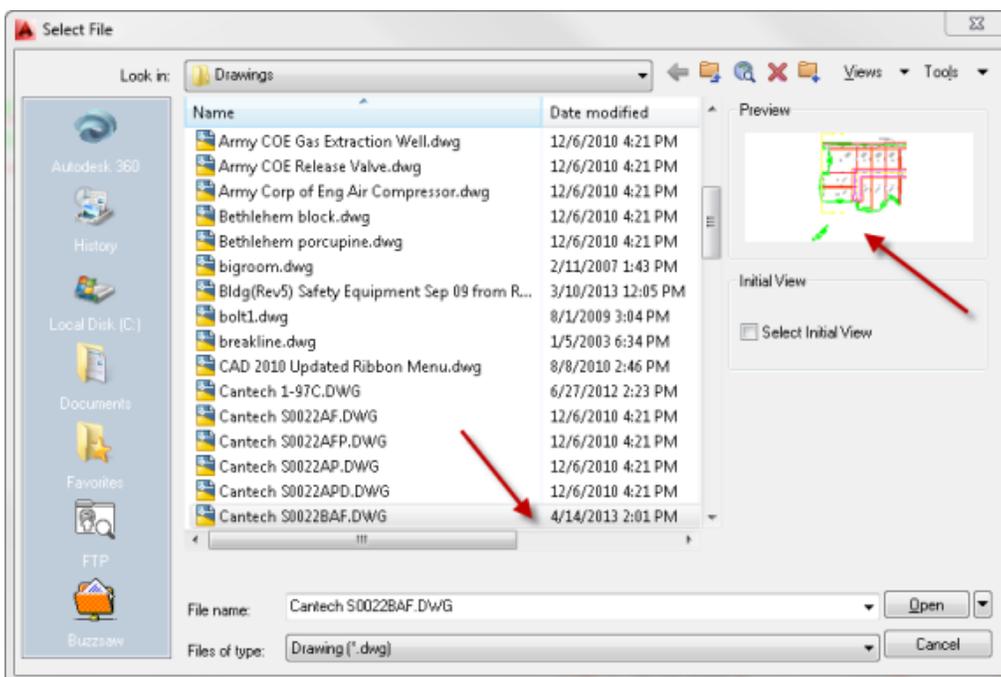
Here are the steps to get a thumbnail both in the Select File dialog box and in the list of recent drawings:

1. Type **thumbsave** on the command line. If the value is 0, change it to 1. In my drawing, the value was 1, but it's possible that I simply hadn't opened and saved the drawing in many years.

You can also change the setting by typing **options** on the Command line. In the Options dialog box, click the Open & Save tab, and then click the Thumbnail Preview Settings button. Make sure that the top check box is checked. You can specify the current display or a default "home" display. You can also specify settings for sheets and view and control the pixel size. Setting a higher pixel size will make the image look clearer. Click OK twice to return to your drawing.

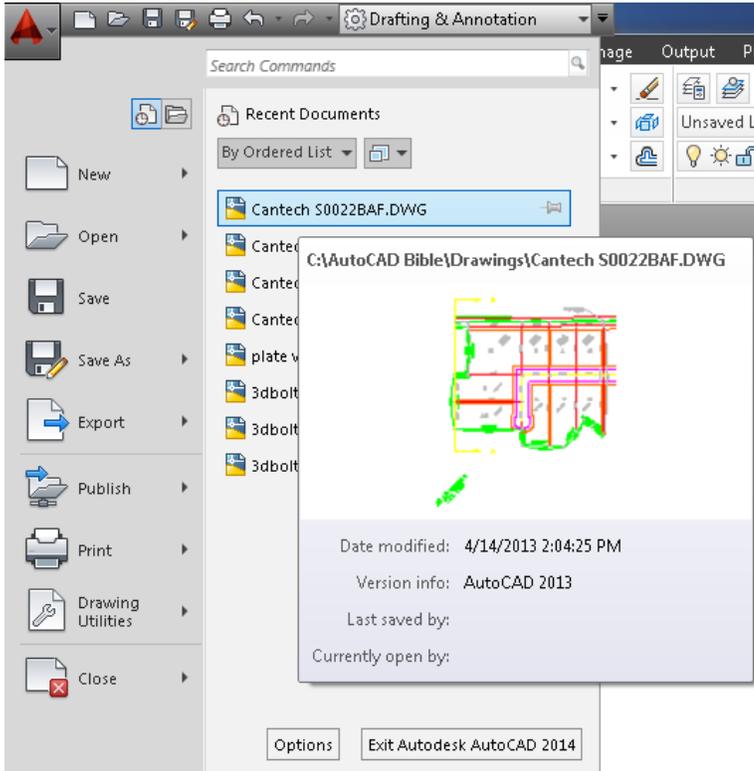


1. Save the drawing and close it.
2. Now, click the AutoCAD button, then click Open and select the drawing. Now, you'll see a preview thumbnail in the Preview box. Note that you need to be showing previews in the Select File dialog box. At the upper-right corner of the dialog box, choose Views, then Thumbnails.



That's much more helpful!

But to get the preview in the Recent Documents list, you need to close AutoCAD and re-open it. Click the AutoCAD button and you'll see the thumbnail preview.



26. Launching AutoCAD in Safe mode

Starting AutoCAD in Windows diagnostic mode

Issue

You are experiencing problems with AutoCAD, and you want to know how to start Windows® in a clean environment in order to troubleshoot the problem.

Solution

A common way to troubleshoot AutoCAD problems is to run the software in safe mode. However, this method of troubleshooting does not work with newer versions of software because the necessary Autodesk licensing services do not load in safe mode.

In this situation, the best troubleshooting alternative is to use MSCONFIG to restart the Windows system in a state similar to safe mode, but with the licensing services running. Follow these steps:

Windows 7:

1. From the Start menu, click into the *Search programs and files* edit box
2. Enter **msconfig**
3. Select msconfig from the programs list
6. Click **OK**
7. When prompted, restart Windows.

Note: If you are running a network-licensed version of the product, you will first need to borrow the network license.

- Autodesk Licensing Service (2005 through 2009 releases)
- FLEXnet Licensing Service (2010 through 2014 releases)

To return to a normal Windows startup:

Windows 7:

1. From the Start menu, click into the *Search programs and files* edit box
2. Enter **msconfig**
3. Select msconfig from the programs list