



GEN21308

## **25 Tools and Tricks from 25 Years of AutoCAD Experience**

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Managed Design Inc. – Edina, MN

### **Learning Objectives**

- Learn tricks referring to vanilla AutoCAD 2017
- Learn tricks referring to AutoCAD Civil 3D 2017
- Learn tricks about InfraWorks 360
- Learn various undocumented apps within AutoCAD and other software

### **Description**

With more than 25 years of experience with AutoCAD software, DCA software, AutoCAD Land Development Desktop software, AutoCAD Land Desktop software, AutoCAD Civil 3D software, AutoCAD Map 3D software, InfraWorks software—you name it—I know a thing or two because I've seen a thing or two. Things like the minus sign—where does it lead you? I'll save you many a click. And I'll show you a couple of hidden utilities I'll bet you didn't even know existed! Command Aliases Editor, Design Center, -view, -la, and more. These 25 tricks are from 25 years! This session features AutoCAD, AutoCAD Civil 3D, and InfraWorks 360. AIA Approved

### **Your AU Expert - Bill Neuhauser PE**

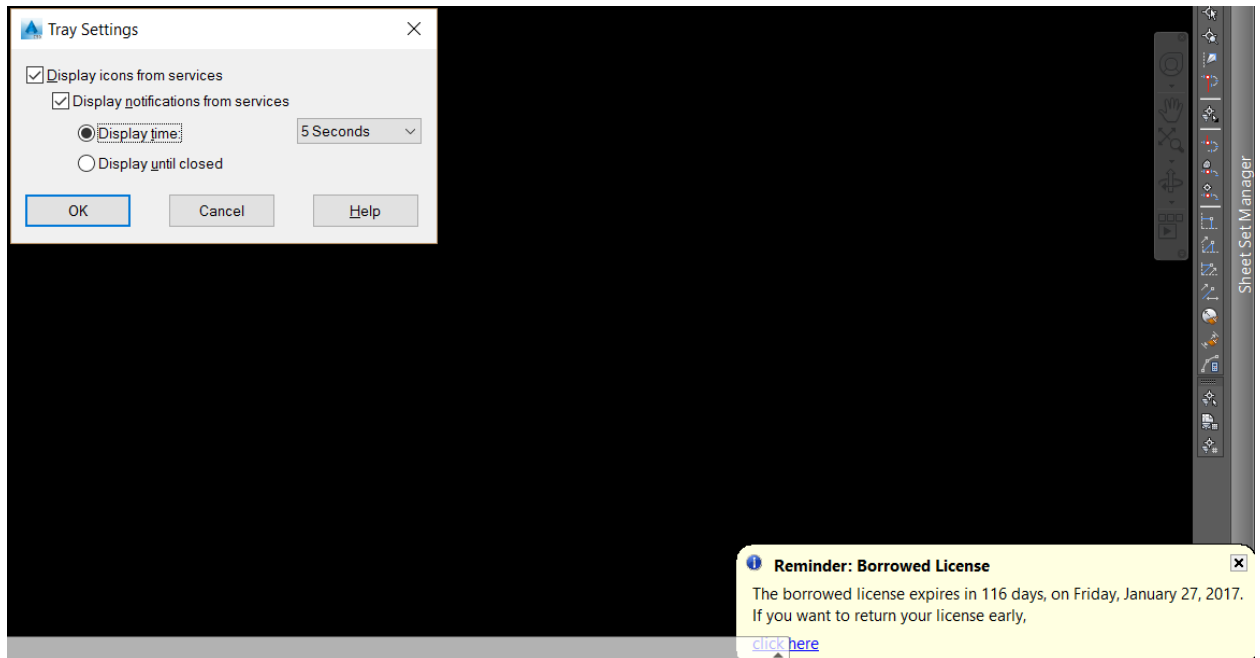
**Managed Design Inc – Minneapolis, MN – 11 years**  
**FAA 333 exemption holder and Part 107 – Drone pilot License**  
**Minnesota State Community & Tech College – 3 years**  
**Consulting Engineer – 12 years**  
**Civil 3D since 2005**  
**LDT since LDD**  
**DCA before LDD**

## TOOLS AND TRICKS - #1 THRU #25

### TOOLS AND TRICKS - #1

#### TRAY SETTINGS

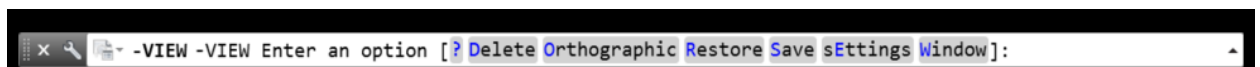
USE THIS TO SET A TIME LIMIT FOR NOTIFICATION BALLON!



### TOOLS AND TRICKS - #2

#### -V or the -VIEW command

Quick access to the old DOS VIEW command





## TOOLS AND TRICKS - #3

### -LA or the -LAYER command

Quick access to the old DOS LAYER command.

```
-LAYER
Current layer: "C-ANNO-MATC-PATT"
- -LAYER Enter an option [ ? Make Set New Rename ON OFF Color Ltype LWeight TRansparency MATerial Plot
Freeze Thaw LOck Unlock stAte Description rEconcile]:
```

## TOOLS AND TRICKS - #4

### -PU or the -PURGE command

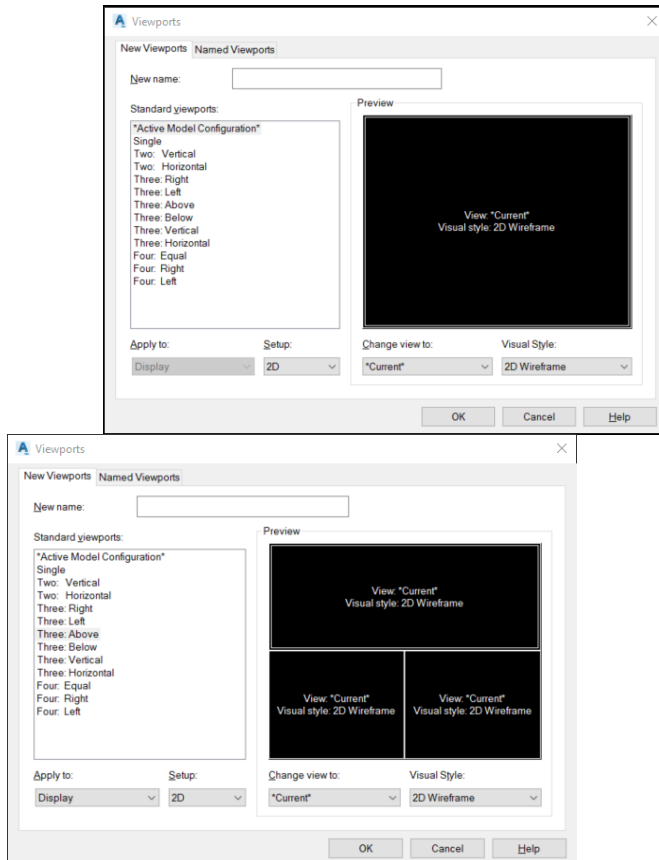
Quick access to the old DOS PURGE command

```
-PURGE
- -PURGE Enter type of unused objects to purge [ Blocks DETailviewstyles Dimstyles Groups LAYers
LTypes MAterials Multileaderstyles Plotstyles SHapes textSTyles Mlinestyles SEctionviewstyles
Tablestyles Visualstyles Regapps Zero-length geometry Empty text objects Orphaned data All]:
```

## TOOLS AND TRICKS - #5

### -VPORTRS command

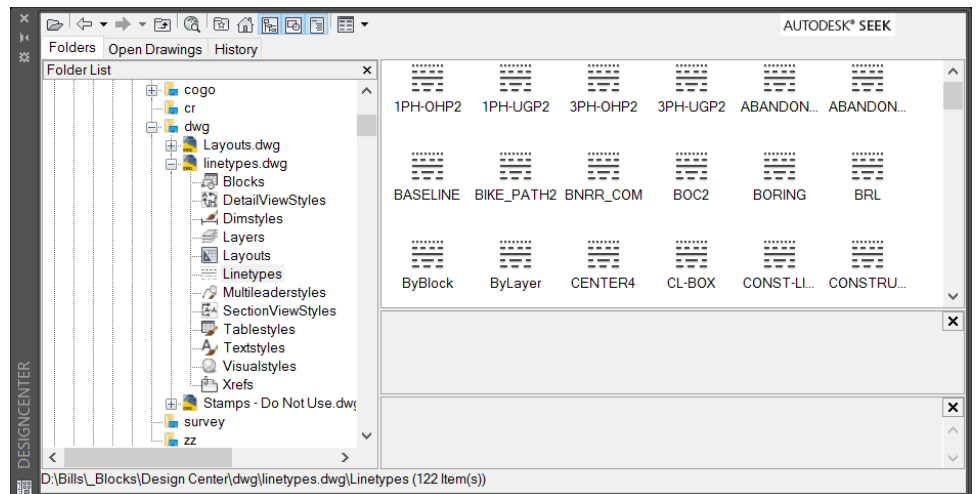
A quick way setup a Plan and Profile look on your screen.



## TOOLS AND TRICKS - #6 & #7

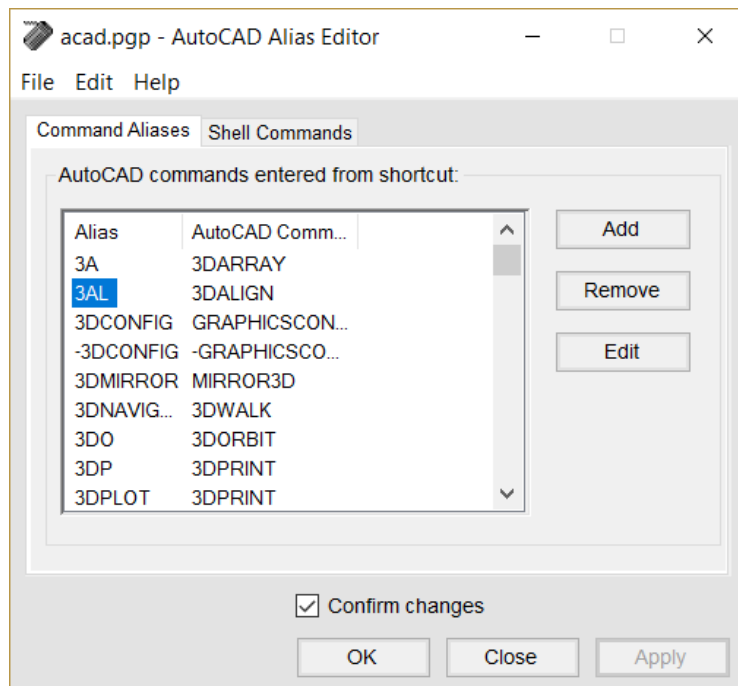
### #6 - Extraction tool

### #7 – Symbol manager



## TOOLS AND TRICKS - #8,9,10 and 11

### Command Alias Editor



Trix #8 - Creating the LAZ - LAYFRZ – to layer freeze

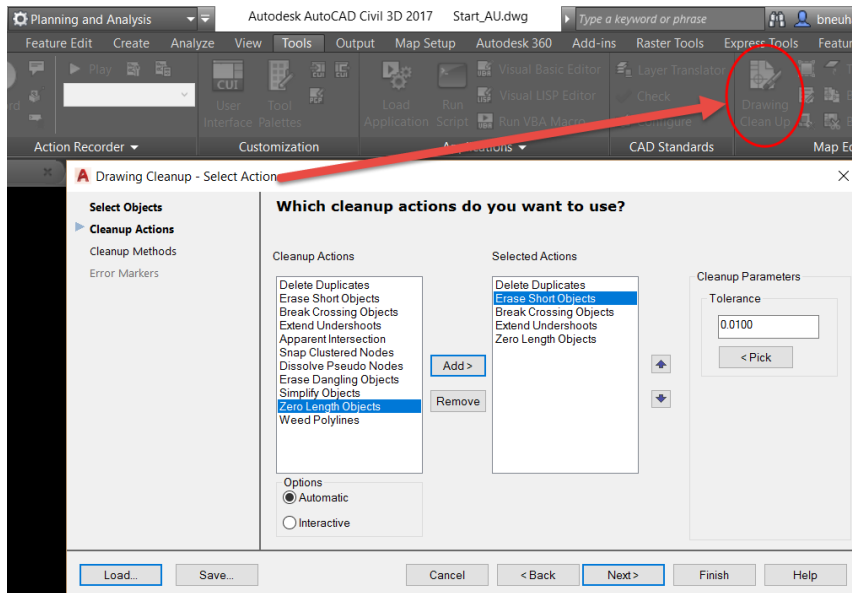
Trix #9 – Creating the LAF - LAYOFF – to turn a layer off

Trix #10 – Creating the LOA - LAYON – to turn all off layers on again

Trix #11 – Creating the LAS - LAYMCUR – to make an object's layer the current layer

## TOOLS AND TRICKS - #12

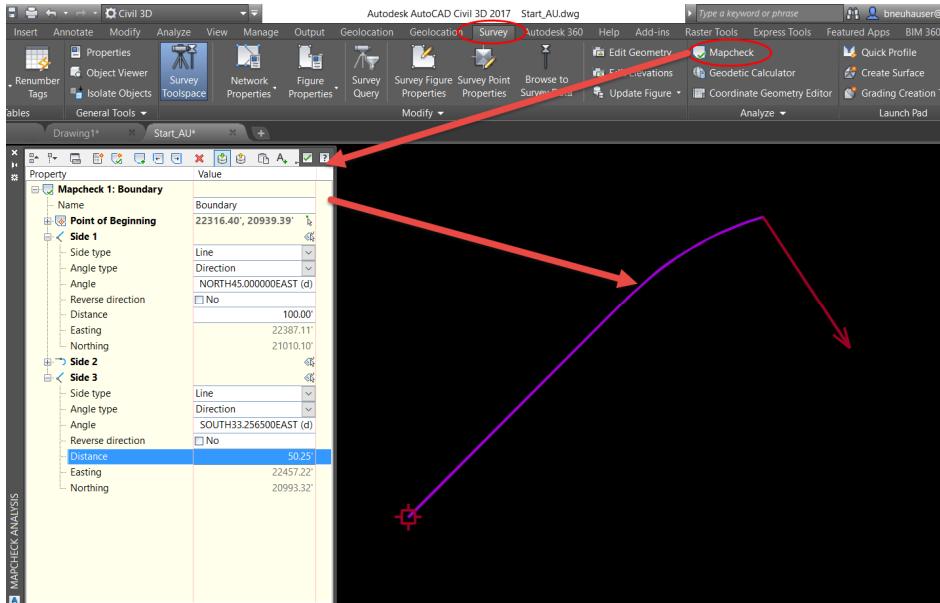
### AutoCAD Map Drawing Cleanup Tool



For deleting duplicate objects, breaking crossing lines and extending lines at T-sections.

## TOOLS AND TRICKS - #13

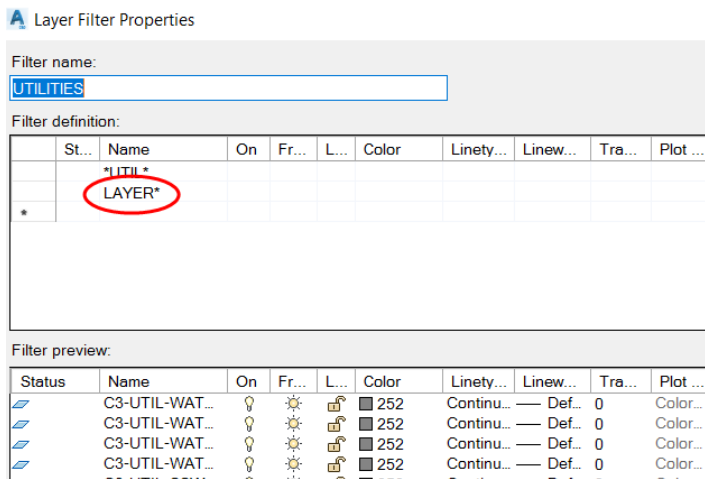
### Map Check analysis's Tool



For the lazy engineer that needs to pretend he's a Surveyor

## TOOLS AND TRICKS - #14

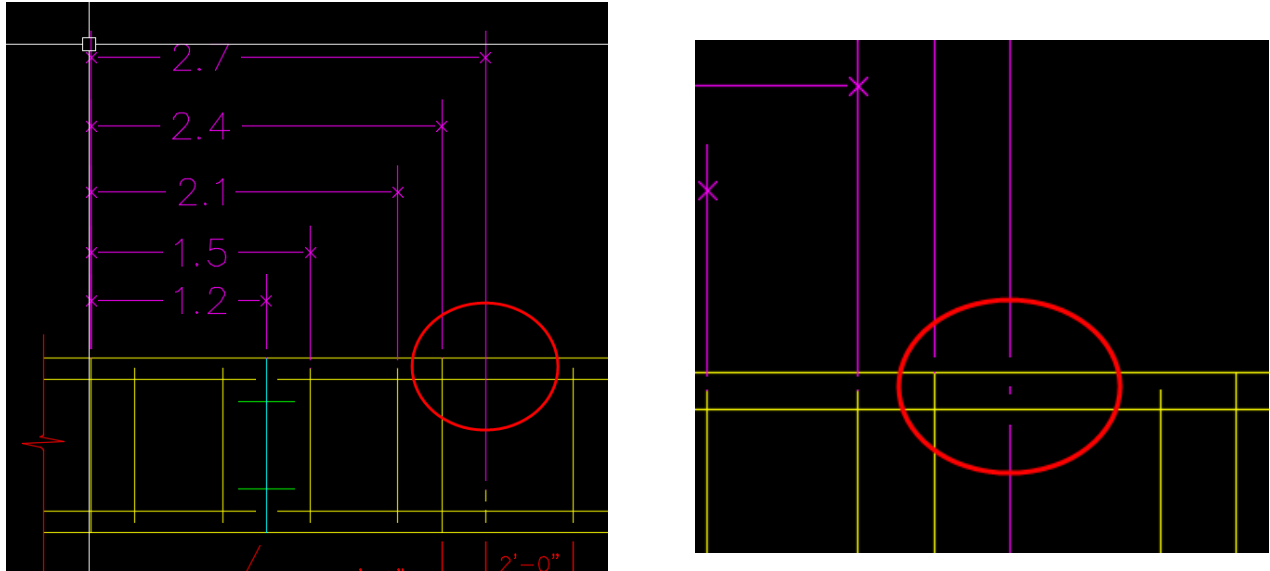
### LAYER\* added to all layer filter



This will allow any new layer1, layer2, layer3 etc created to show up in the current layer filter when the create new layer command is issued while in the in a layer filter.

## TOOLS AND TRICKS - #15

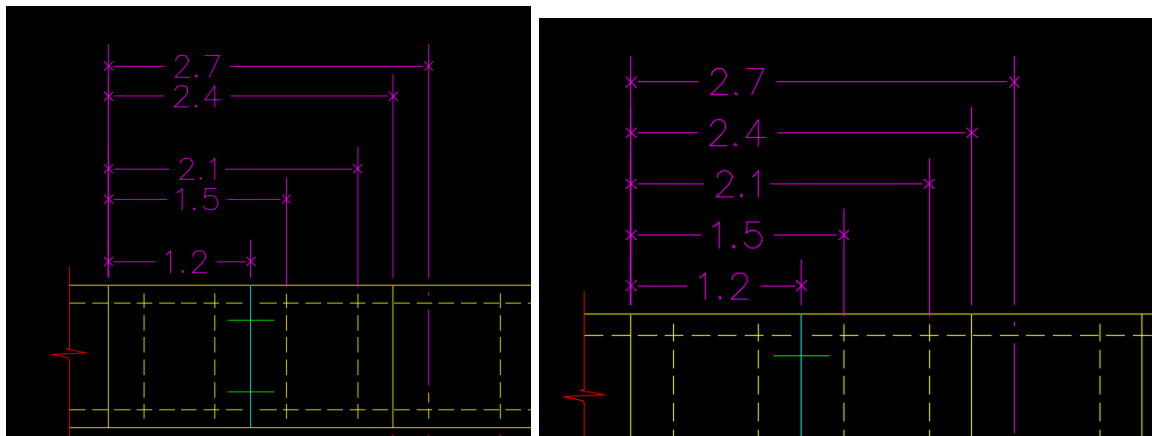
### DimBreak command



Break crossing dim lines when they pass over other lines.

## TOOLS AND TRICKS - #16

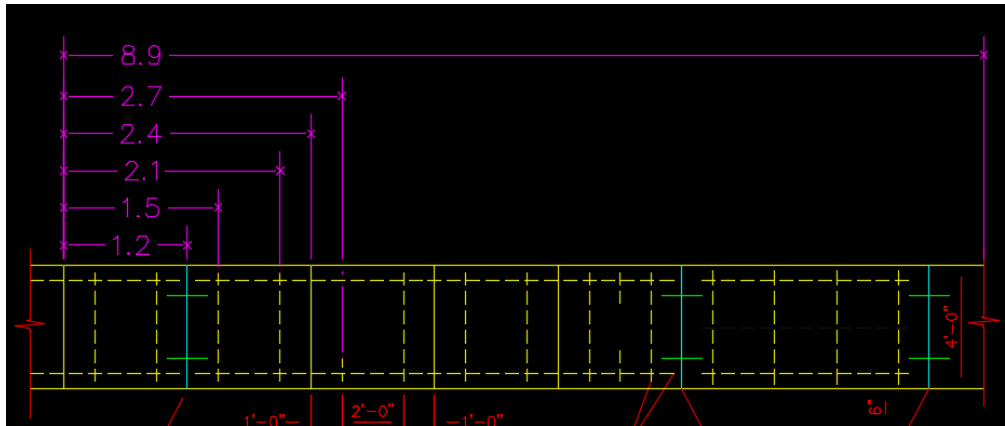
### DimSpace command



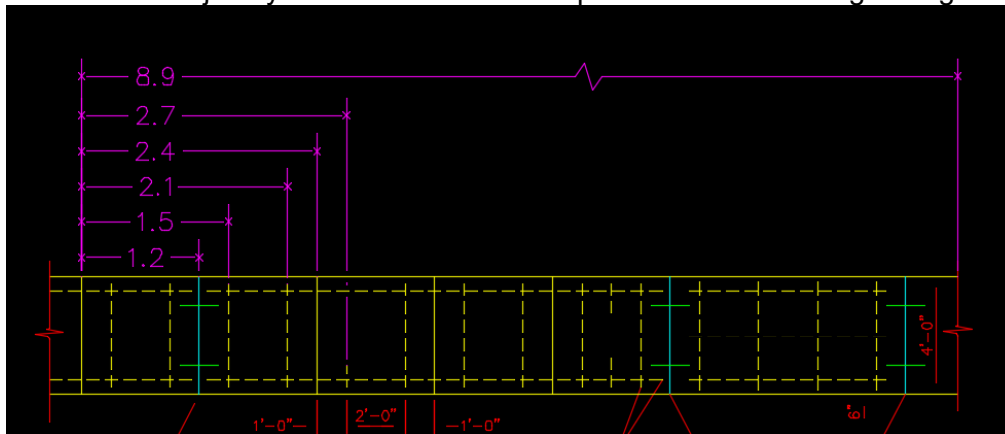
Takes odd spaced dim lines and makes them all equal.

## TOOLS AND TRICKS - #17

### DimJogLine command




Used to add in job symbol to a dim line to represent an actual longer length.



## TOOLS AND TRICKS - #18

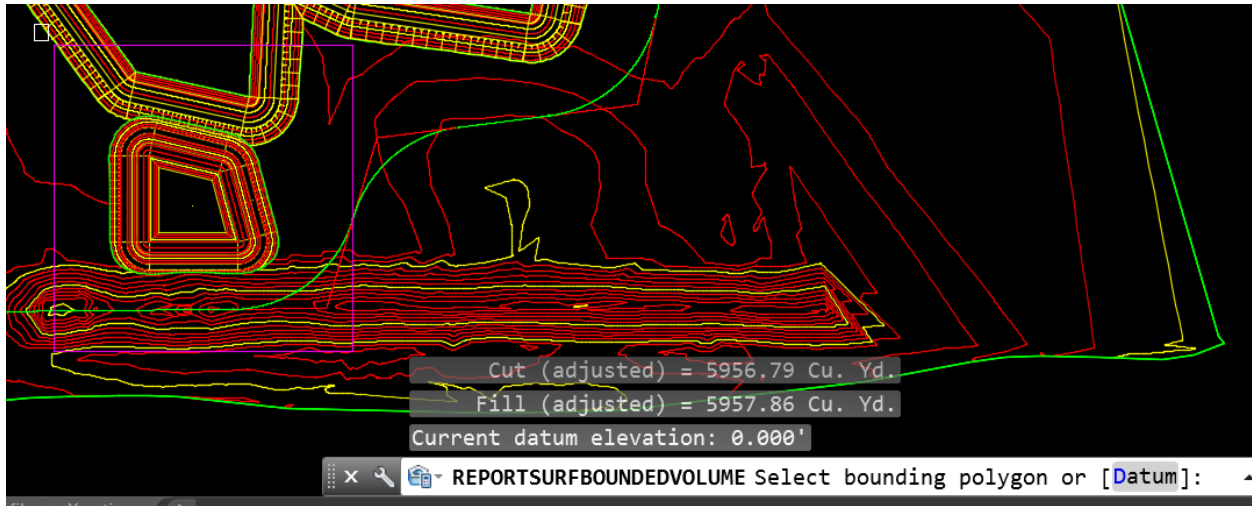
### ReportSurfaceVolume command

Index	Surface Pair		Volume				Cut Factor	Fill Factor	Cut (adjusted)	Fill (adjusted)	Net (adjusted)	Net Graph
	Base Surface	Comparison Surface	Cut	Fill	Net							
1	EG 3	pond1	5956.79 Cu. Yd.	5957.86 Cu. Yd.	1.07 Cu. Yd.<F...>	1.00	1.00	5956.79 Cu. Yd.	5957.86 Cu. Yd.	1.07 Cu. Yd.<Fill>		
2	C1 - EG3 with ...	POND2	34923.36 Cu. Yd.	40613.76 Cu. Yd.	5690.40 Cu. Y...>	1.00	1.00	34923.36 Cu. Yd.	40613.76 Cu. Yd.	5690.40 Cu. Yd.<Fill>		

Quick access to surface volumes without actually creating a Volume Surface(s).

## TOOLS AND TRICKS - #19

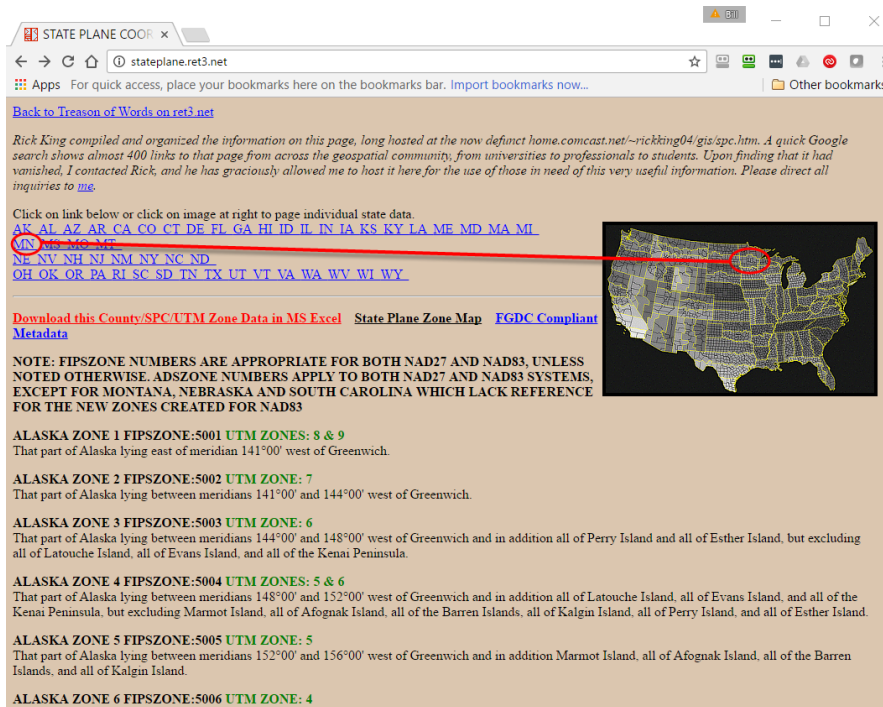
### ReportSurfaceBoundedVolume command



Quick access to bounded surface volumes without actually creating a Volume Surface

## TOOLS AND TRICKS - #20

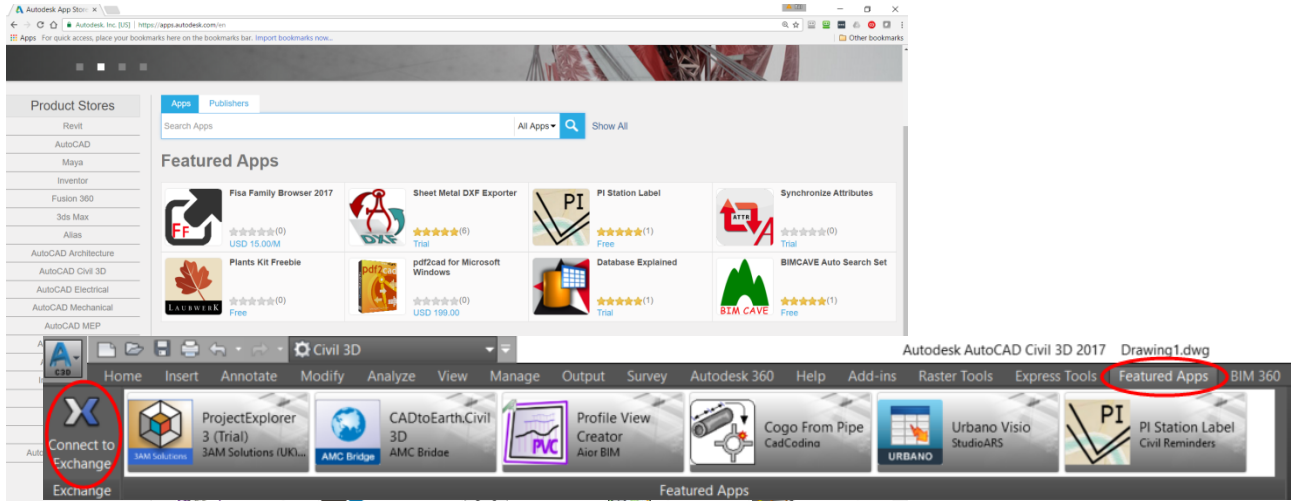
### [stateplane.ret3.net/](http://stateplane.ret3.net/)



Website to help find your local state plan coordinate system.

## TOOLS AND TRICKS - #21

### Feature Apps Ribbon

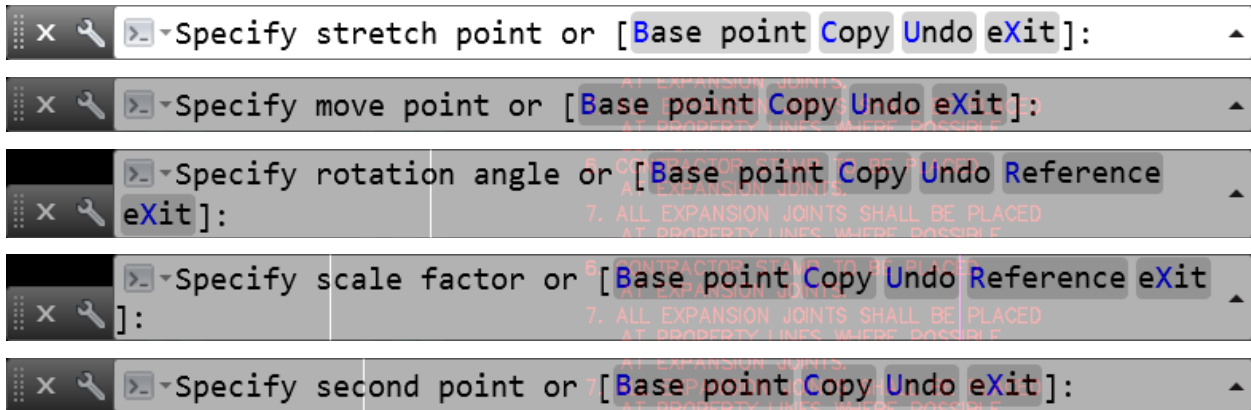


Access to unlimited free and pay for apps

## TOOLS AND TRICKS - #22

### Grips, more Grips and Grippity Grips

After you grip an object hit the space bar for your many an option.



What you get when you hit the Ctrl-space bar.

## TOOLS AND TRICKS - #23 & 24

### SELECTIONEFFECT and SELECTIONEFFECTCOLOR

#### SELECTIONEFFECT

- 0 Dashed lines
- 1 Default – When hardware acceleration is on, displays glowing line highlighting the effect.

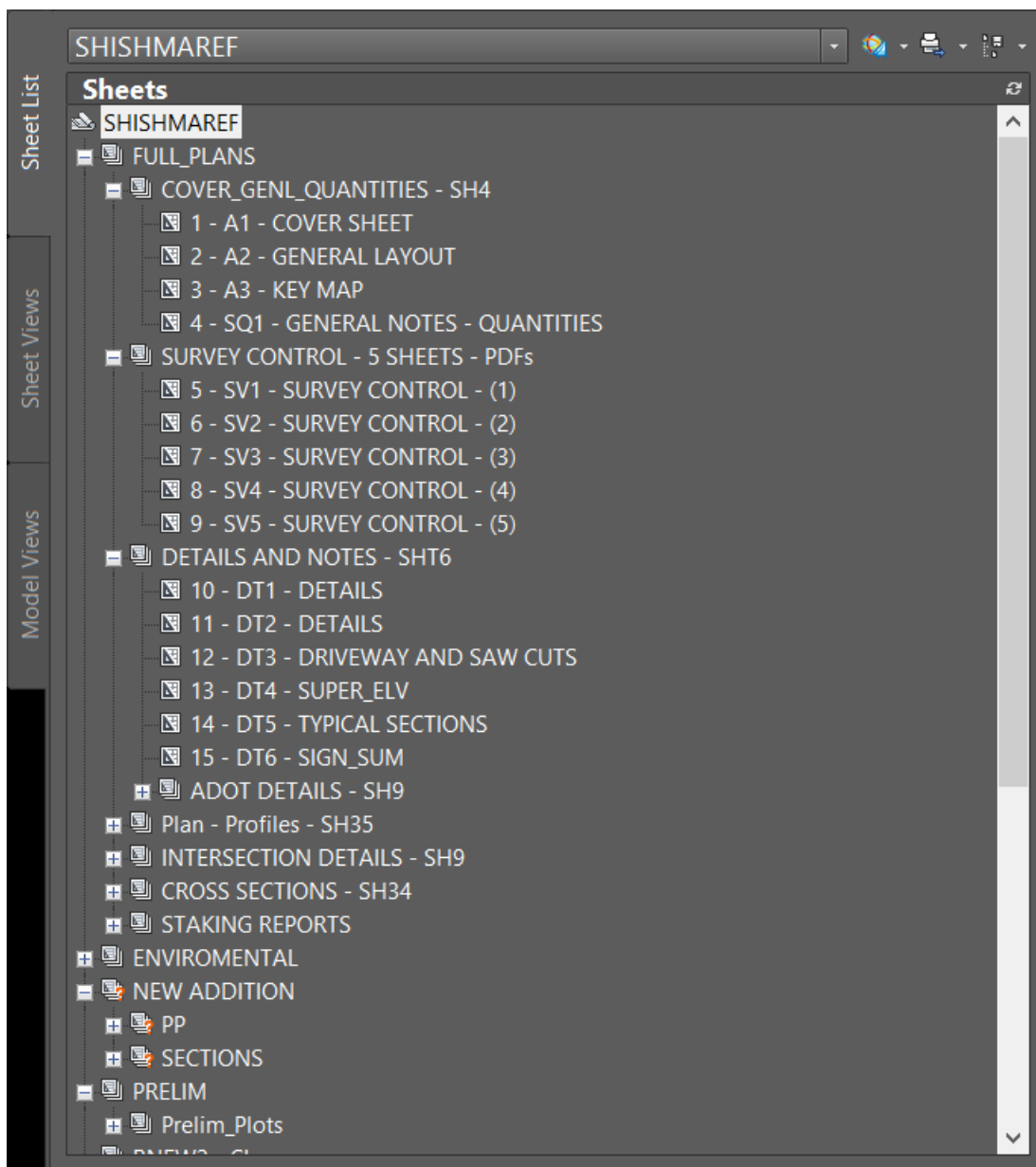
**SELECTIONEFFECTCOLOR**

Initial value is 0 but can be 1 to 255 (AutoCAD Color Index colors)

Changes how your selections look and feel.

## TOOLS AND TRICKS - #25

### SheetSet Manager





## 25 Tools and Trixs

- #1 TRAYSETTINGS
- #2 -VIEW
- #3 -LAYER
- #4 -PURGE
- #5 VPORTS
- #6 DESIGN CENTER - extraction
- #7 DESIGN CENTER – symbol manager
- #8 LAYFRZ
- #9 LAYOFF
- #10 LAYON
- #11 LAYMCUR
- #12 Map Cleanup Tool
- #13 Map Check analysis's tool
- #14 LAYER\*
- #15 DimBreak
- #16 DimSpace
- #17 DimJogLine
- #18 ReportSurfaceVolume
- #19 ReportSurfaceBoundedVolume
- #20 [stateplane.ret3.net/](http://stateplane.ret3.net/)
- #21 Feature Apps Ribbon
- #22 Grips, more Grips
- #23 SELECTIONEFFECT
- #24 Transparence commands
- #25 SHEETSET