



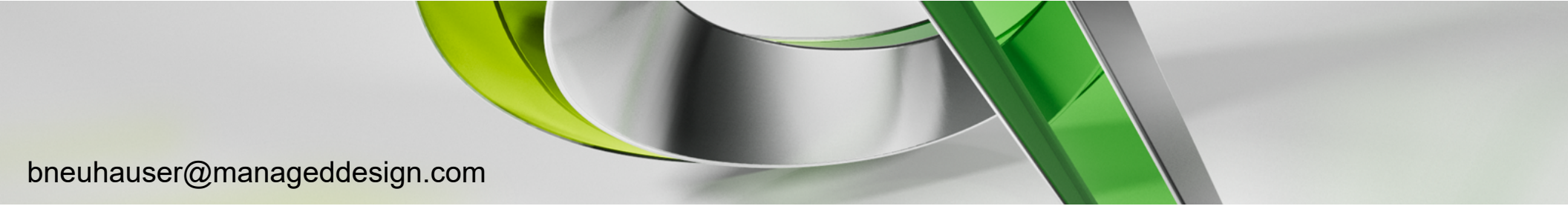
GEN21308

25 Tools and Tricks from 25 Years of AutoCAD Experience

Bill Neuhauser P.E.

Civil Application Engineer

CivilGuy@billneu



bneuhauser@manageddesign.com

Class summary

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 360 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

Key learning objectives



At the end of this class, you will be able to:

- 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

Bill Neuhauser P.E.



- **Managed Design inc – Minneapolis, MN – 11 years**
- **6th time AU Presenter**
- **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**

Rob Corrdy
Todays Closing
Speaker!



HOT TUB TIME MACHINE



Today Only!

William Copperfield
Cadd Trixs
Extraordinaire!



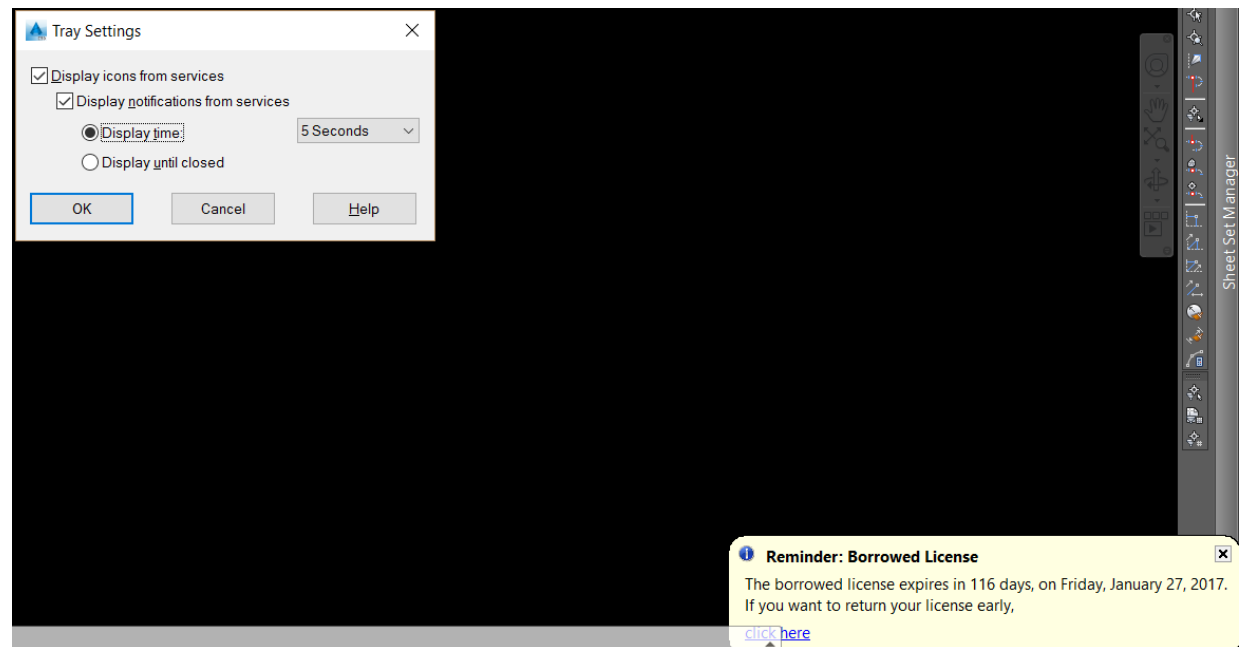
Tools and Tricks #1



AUTOCAD

TRAYSETTINGS

USE THIS TO SET A TIME LIMIT FOR NOTIFICATION BALLON!

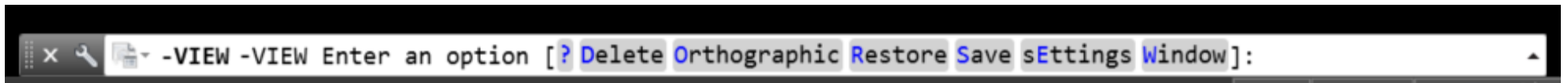


Tools and Tricks #2 - AutoCAD



-V or the -VIEW command

Quick access to the old DOS VIEW command.



Tools and Tricks #3 - AutoCAD



-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 - AutoCAD



-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 #1,2,3 &4 - AutoCAD



#1 TRAYSETTINGS

#2 -V or the -VIEW command

#3 -LA or the -LAYER command

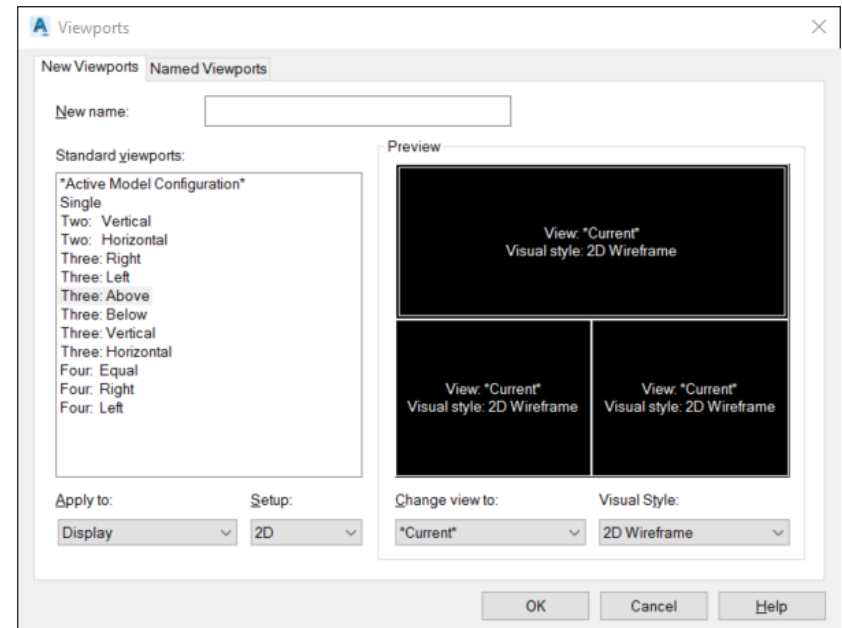
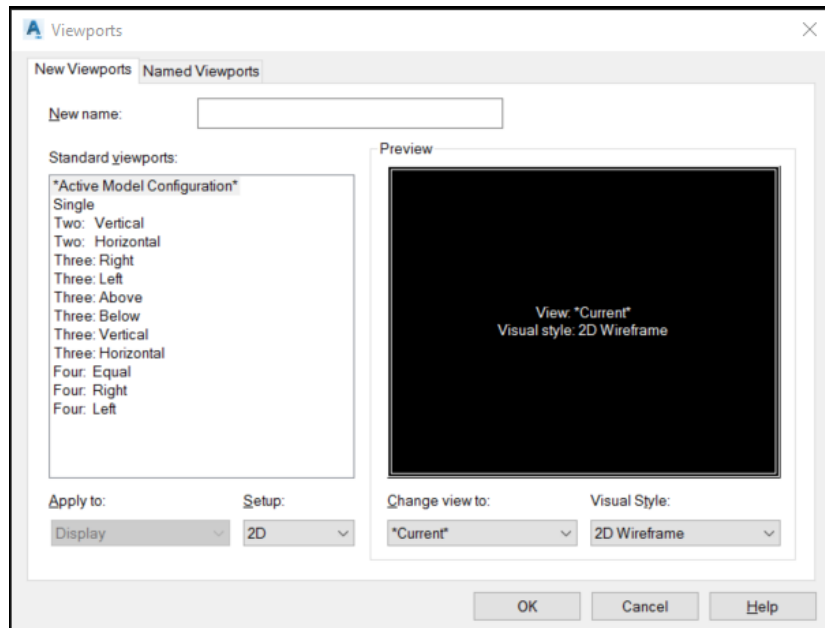
#4 -PU or the -PURGE command

Tools and Tricks #5 - AutoCAD



VPORTS command

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



Tools and Tricks #6 & 7 - AutoCAD

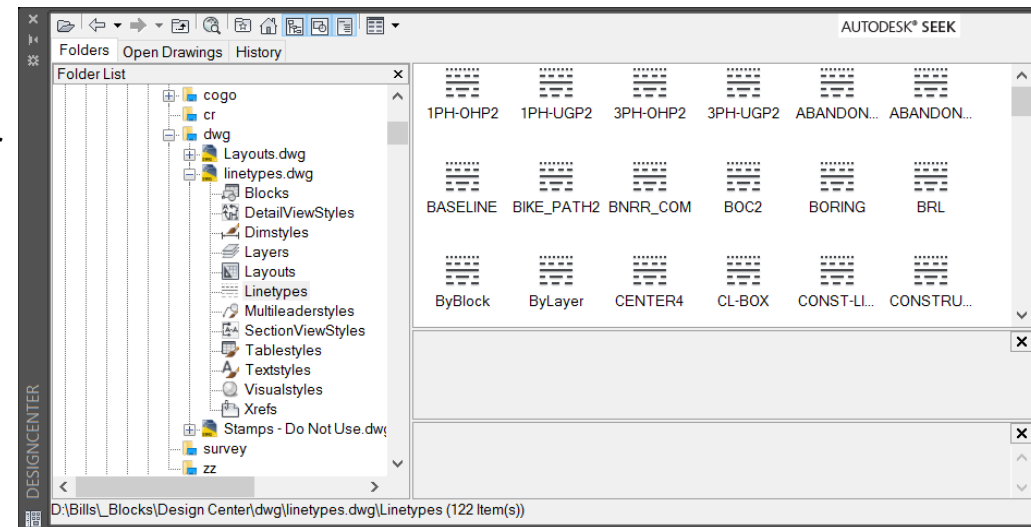


DESIGN CENTER or ctrl 2

Worlds greatest CAD plagiarism tool

Trix #6 - Extraction - Extracting linetypes, blocks etc

Trix #7 – Creating your own symbol manager



Tools and Tricks #8,9,10 and 11 - AutoCAD

Command Alias editor

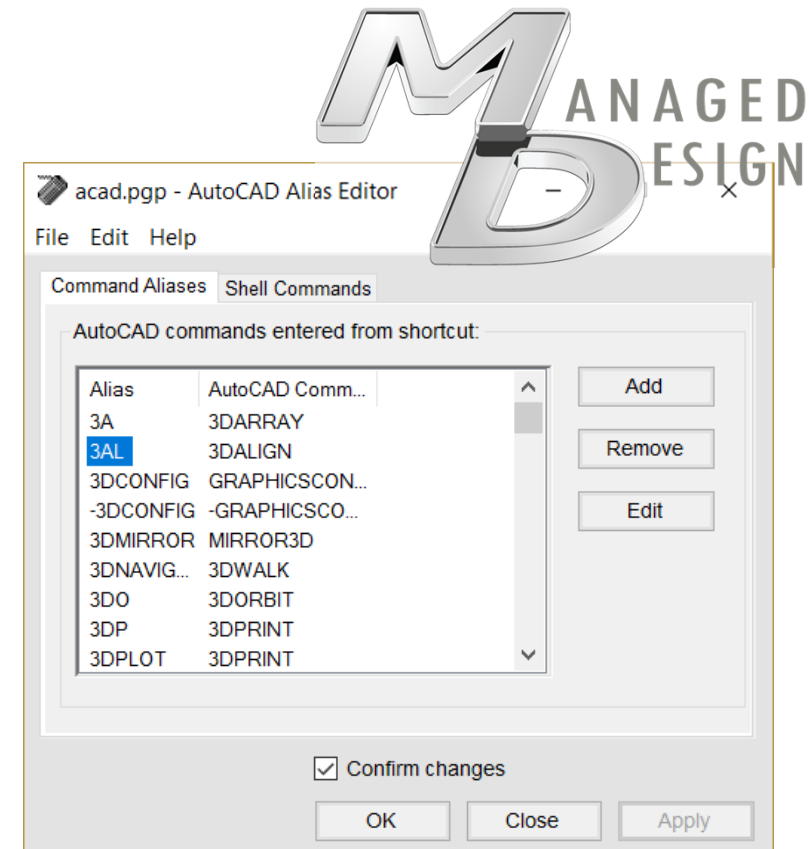
Worlds greatest CAD KISS Tool

Trix #8 - Creating the LAZ - LAYFRZ

Trix #9 – Creating the LAF - LAYOFF

Trix #10 – Creating the LOA - LAYON

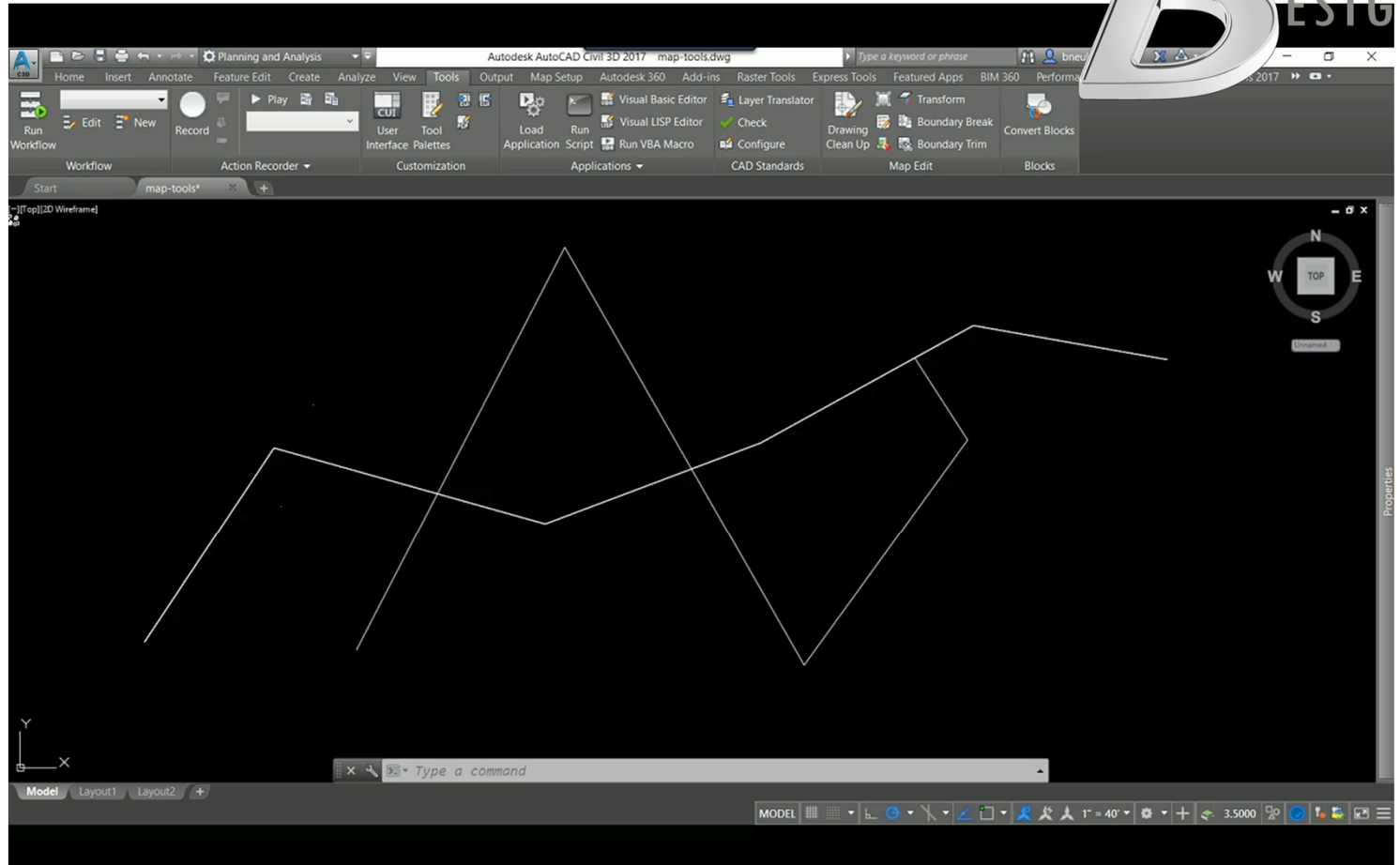
Trix #11 – Creating the LAS - LAYMCUR



Tools and Tricks #12 - MAP



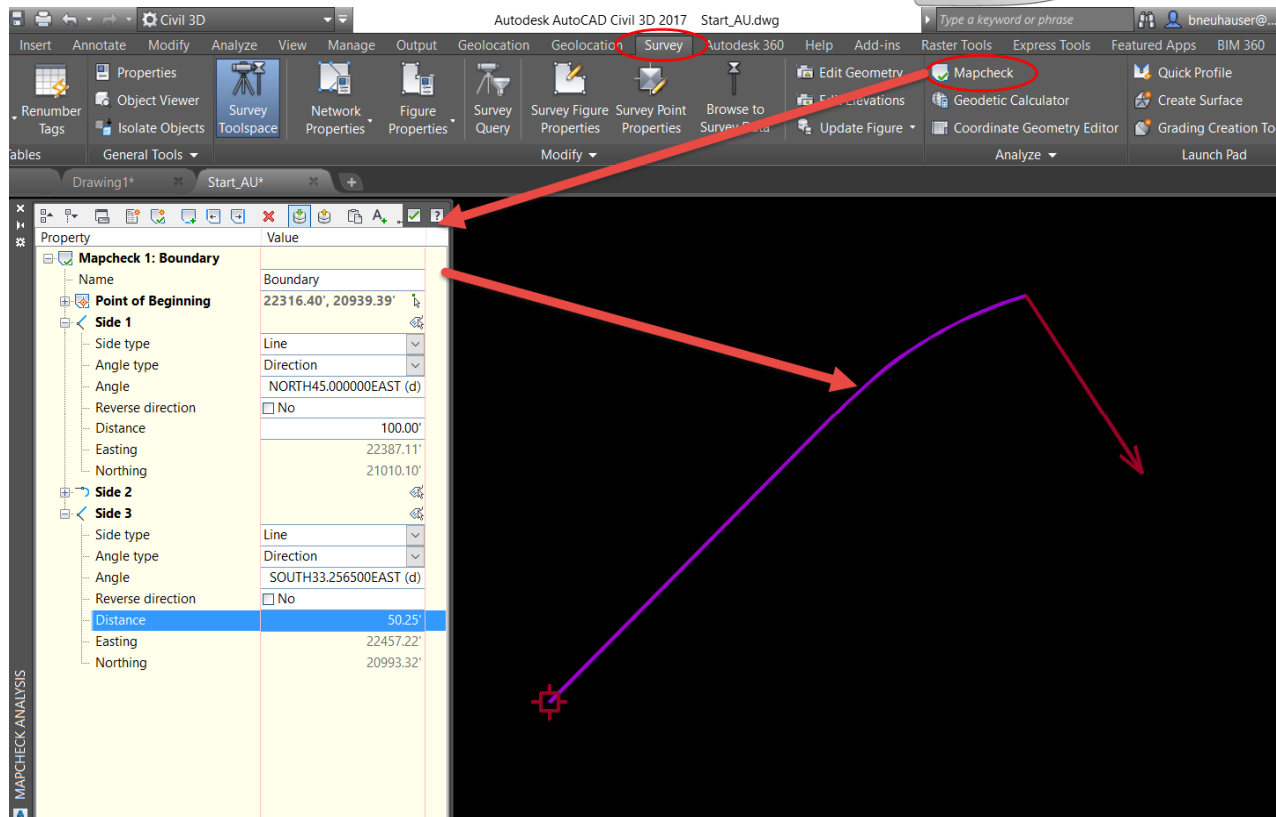
Map Cleanup Tool
Quick clean it tool



Tools and Tricks #13 – Civil 3D



Map Check analysis's tool
For the Engineer that need to
pretend they are a Surveyor.



Tools and Tricks #14 – Civil 3D



LAYER* added to a layer filter

When creating a new layer filter add **LAYER*** to your filters.

Layer Filter Properties

Filter name:

Filter definition:

St...	Name	On	Fr...	L...	Color	Linety...	Linew...	Tra...	Plot ...
	UTIL								
*	LAYER*								

Filter preview:

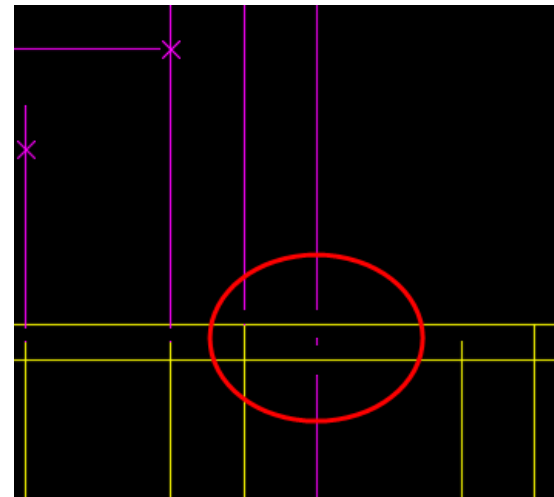
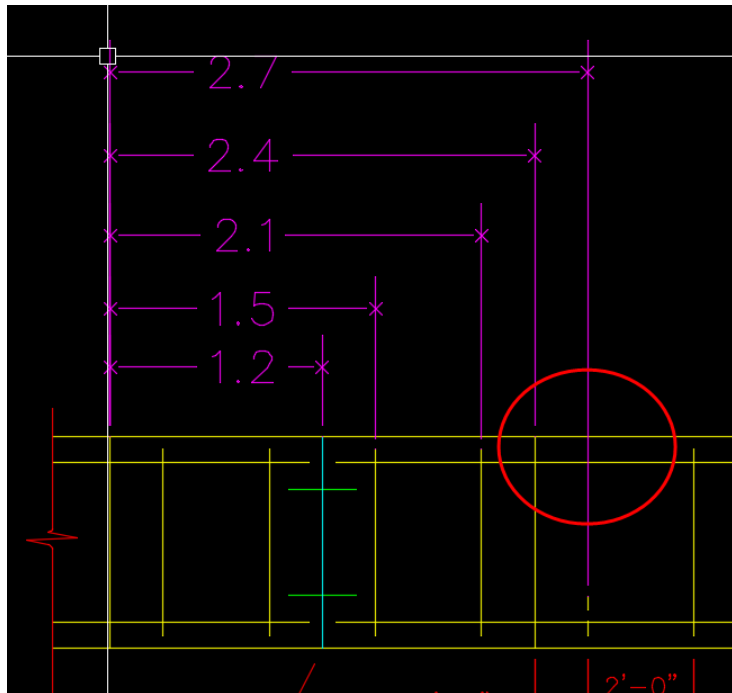
Status	Name	On	Fr...	L...	Color	Linety...	Linew...	Tra...	Plot ...
	C3-UTIL-WAT...				252	Continu...	— Def...	0	Color...
	C3-UTIL-WAT...				252	Continu...	— Def...	0	Color...
	C3-UTIL-WAT...				252	Continu...	— Def...	0	Color...
	C3-UTIL-WAT...				252	Continu...	— Def...	0	Color...

Tools and Tricks #15 – AutoCAD



DimBreak command

Break crossing dim lines when they pass over other lines.

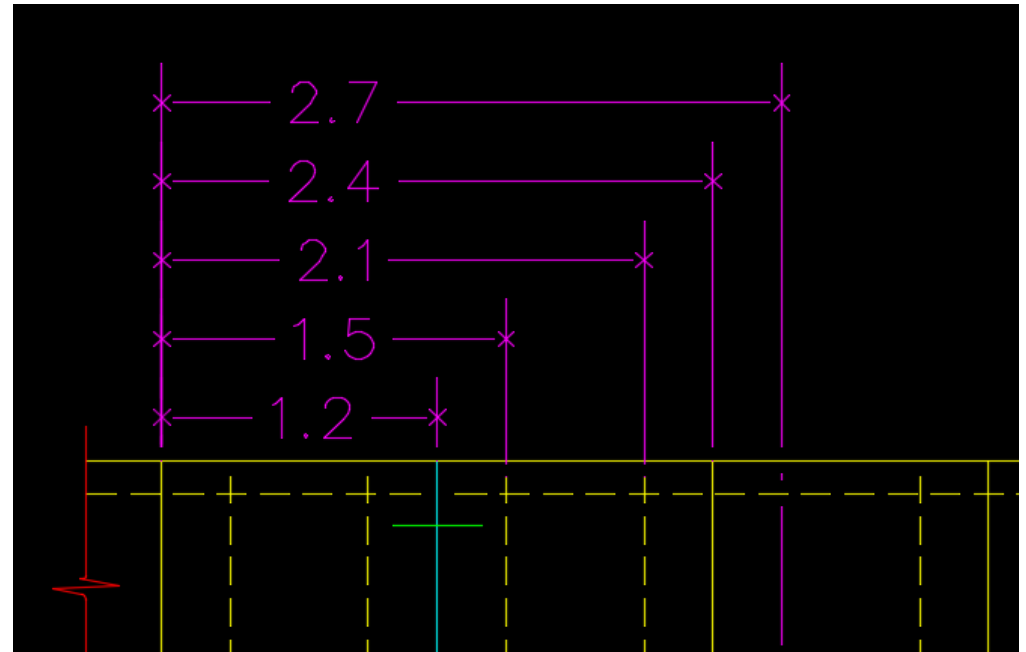
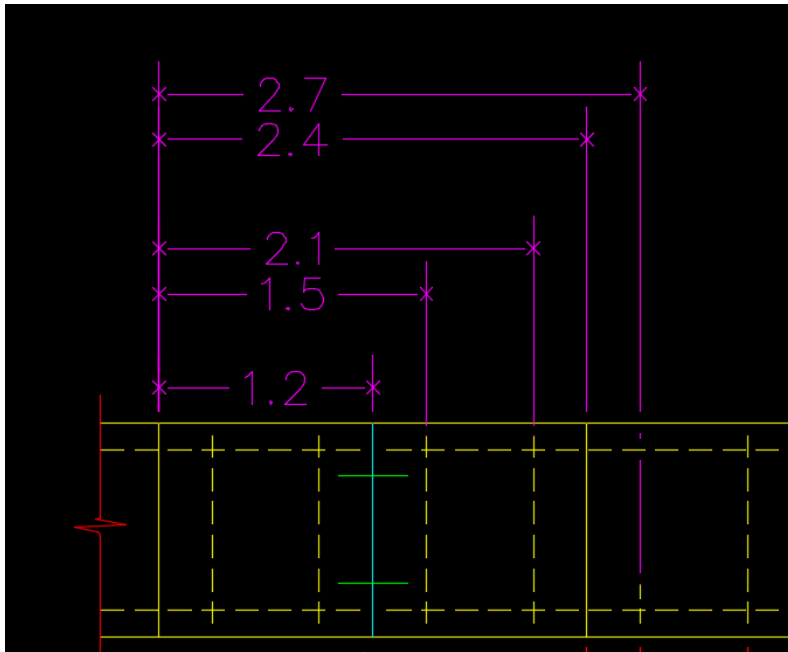


Tools and Tricks #16 – AutoCAD



DimSpace command

Used to equally space parallel dimension lines.

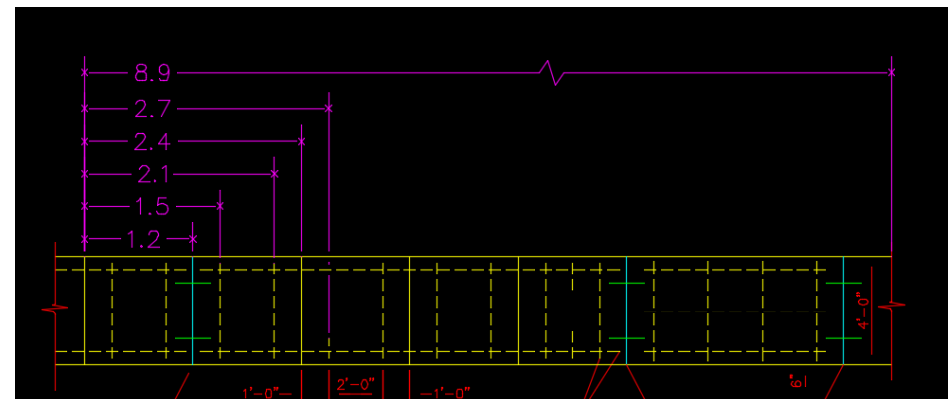
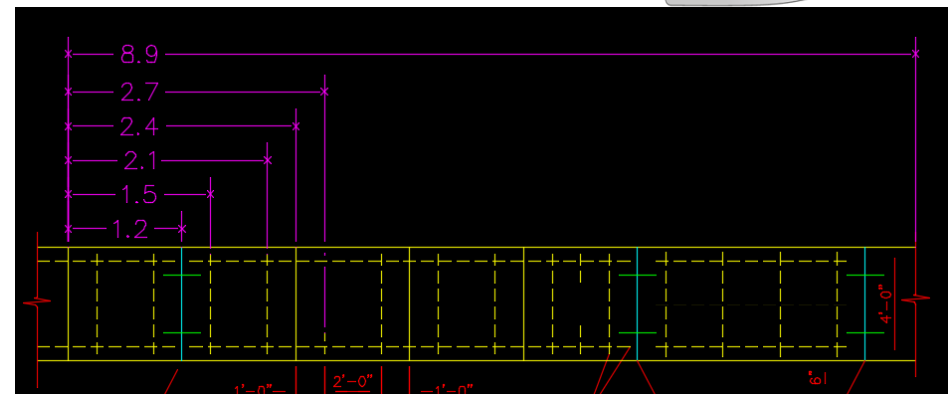


Tools and Tricks #17 – AutoCAD



DimJogLine command

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



Tools and Tricks #18 – Civil 3D



ReportSurfaceVolume command

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

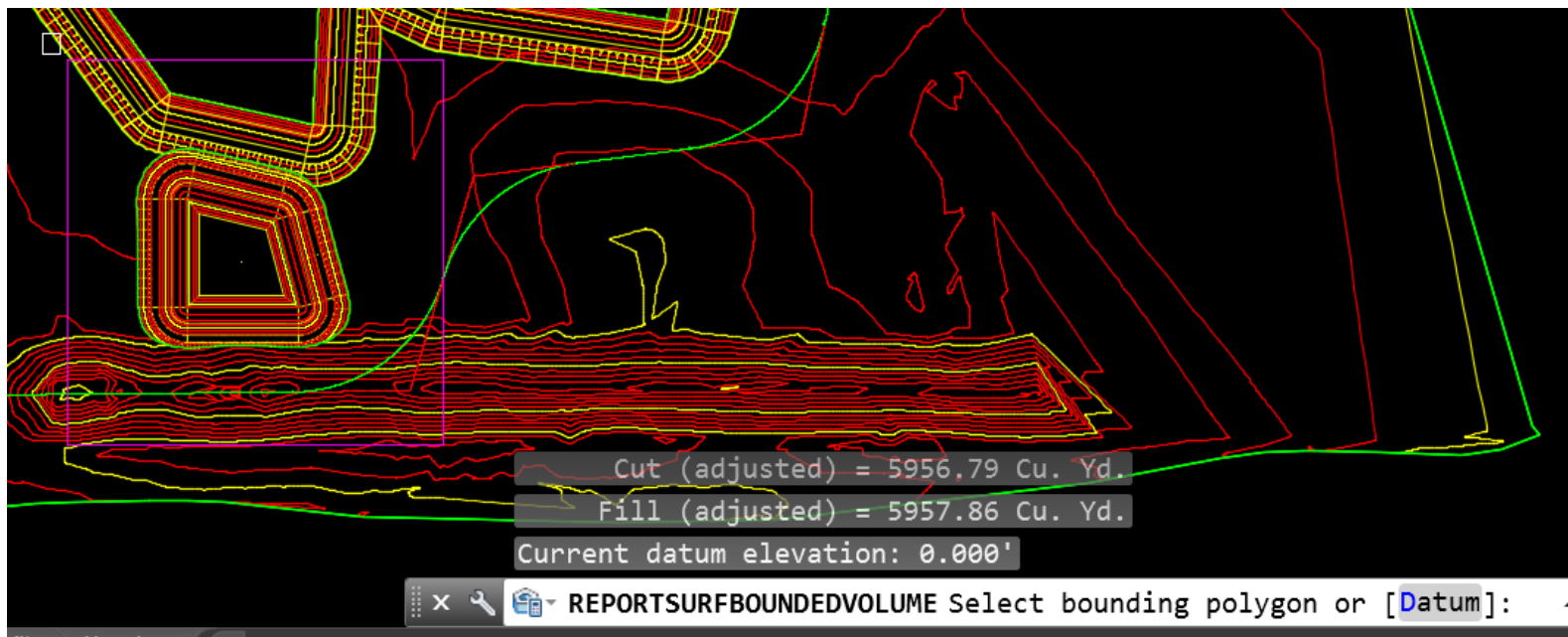
Index	Surface Pair		Volume								
	Base Surface	Comparison Surface	Cut	Fill	Net	Cut Factor	Fill Factor	Cut (adjusted)	Fill (adjusted)	Net (adjusted)	Net Graph
1	EG 3	pond1	5956.79 Cu. Yd.	5957.86 Cu. Yd.	1.07 Cu. Yd.<F...>	1.00	1.00	5956.79 Cu. Yd.	5957.86 Cu. Yd.	1.07 Cu. Yd.<Fill>	
2	C1 - EG3 with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

Tools and Tricks #19 – Civil 3D



ReportSurfaceBoundedVolume command

Survey tool for dumb engineers



Tools and Tricks #20 – Angel Espinoza



stateplane.ret3.net/

Survey website to help you find your local state/country coordinate.

A screenshot of a web browser displaying the website stateplane.ret3.net. The browser's address bar shows the URL. The page content includes a list of state abbreviations: AK, AL, AZ, AR, CA, CO, CT, DE, FL, GA, HI, ID, IL, IN, IA, KS, KY, LA, ME, MD, MA, MI, MN, MO, MT, NE, NV, NH, NJ, NM, NY, NC, ND, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VT, VA, WA, WV, WI, WY. A red circle highlights 'MN' in this list, and a red line points from it to a map of the United States where Minnesota is also circled in red. Below the list, there are links for downloading county/SPC/UTM zone data in MS Excel, a state plane zone map, and FGDC compliant metadata. A note explains that FIPS zone numbers are appropriate for both NAD27 and NAD83, except for Montana, Nebraska, and South Carolina. The page lists data for Alaska zones 1 through 6, including FIPS zone numbers and UTM zone numbers. At the bottom of the screenshot, a snippet of data for Minnesota is visible, with 'UTM ZONES: 14 & 15' circled in red.

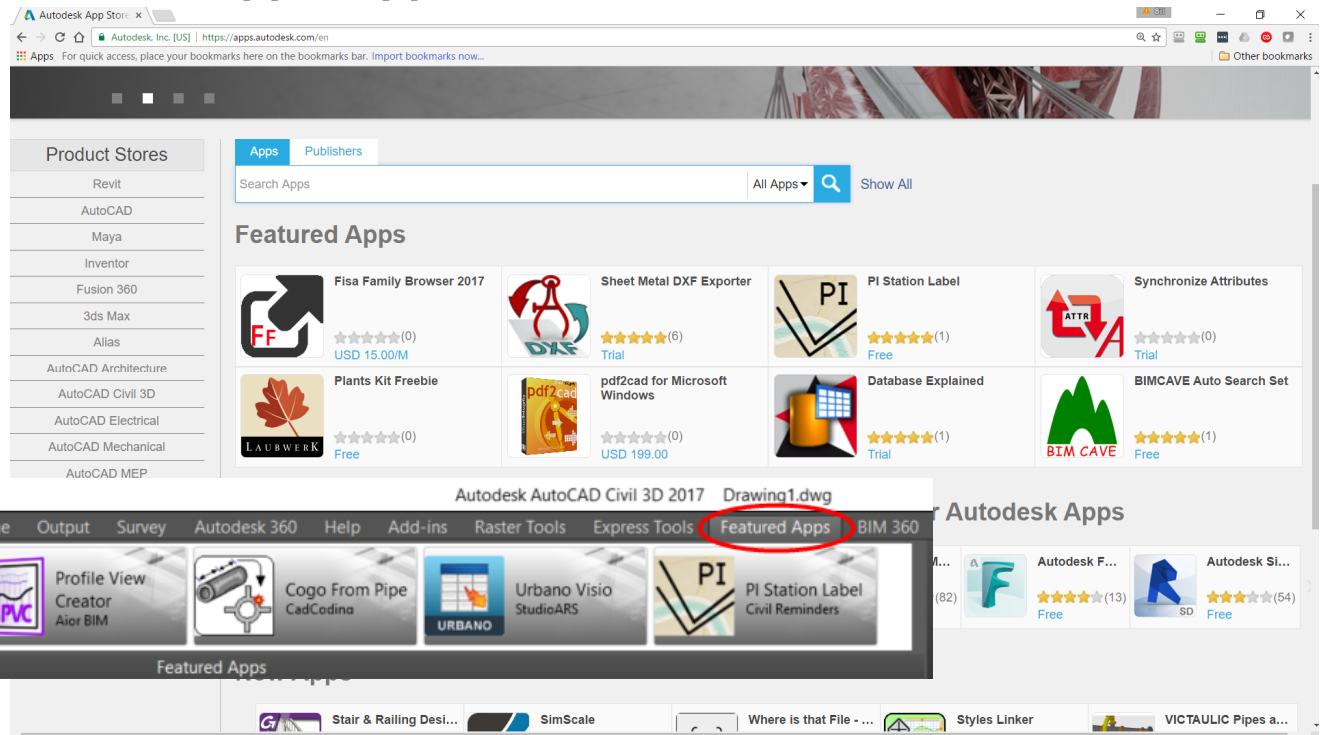
MINNESOTA CENTRAL ZONE FIPZONE: 2202 ADSZONE: 4301 **UTM ZONES: 14 & 15**
AITKIN, BECKER, BENTON, CARLTON, CASS, CHISAGO, CLAY, CROW WING, DOUGLAS, GRANT, HUBBARD, ISANTI
KANABEC, MILLE LACS, MORRISON, OTTER TAIL, PINE, POPE, STEARNS, STEVENS, TODD, TRAVERSE, WADENA, WILKIN
MINNESOTA SOUTH ZONE FIPZONE: 2203 ADSZONE: 4302 UTM ZONES: 14 & 15

Tools and Tricks #21 – Civil 3D



Feature Apps Ribbon

Free and pay for apps – Just like the Apple App Store.



Tools and Tricks #22 – AutoCAD



Grips, more Grips and Gripty Grips

We all know Grips but do we all know what we can do with them?

Tools and Tricks #23 – Civil 3D



SELECTIONEFFECT

Eliminates the “Glow” effect of a selected item(s) back to the old “Dashed” look.

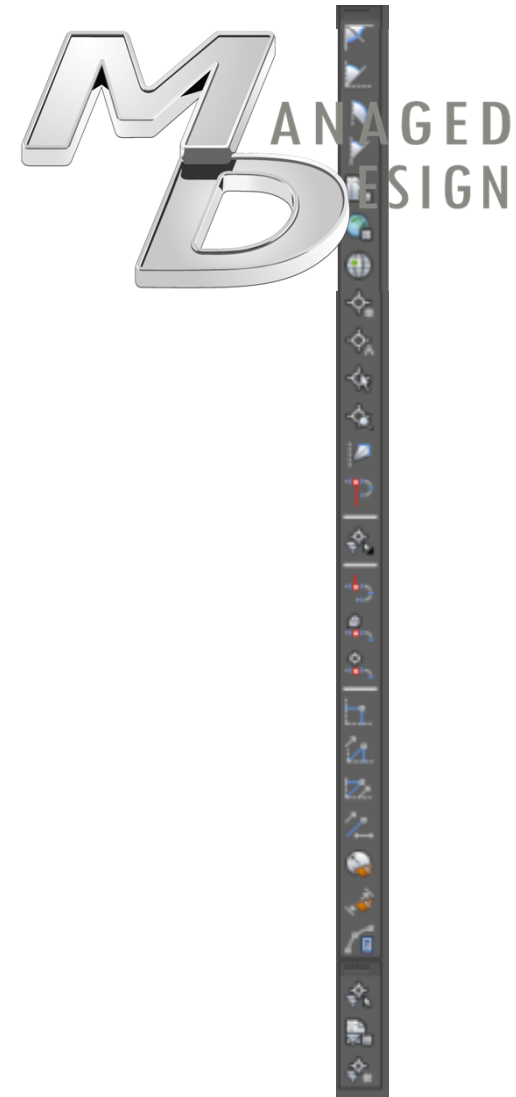
SELECTIONEFFECTCOLOR

Changes the Color of the selected line to something else.

Tools and Tricks #24 – Civil 3D

Transparence **COMMANDS**

That big tool bar on the right? Or what I like to call the “Apostrophe Commands”

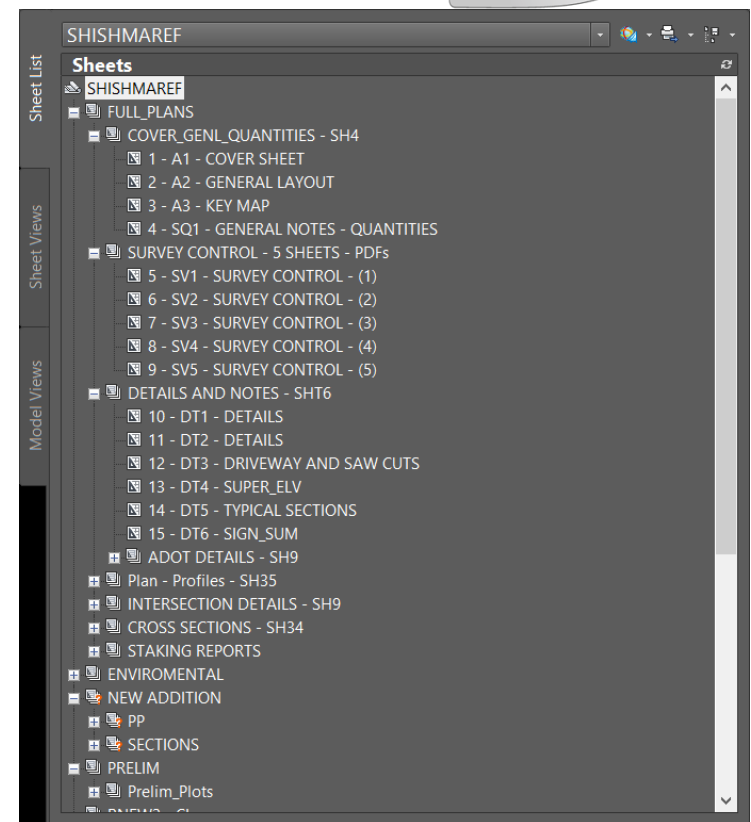


Tools and Tricks #25 – AutoCAD



SHEETSET Manager

You've all heard of it before! Learn it, love it and please use it! – Has been around since 2002 or so!



Grand Prize
One year site license for your Company



CGS Civil 3D Tools | Productivity Tools for AutoCAD Civil 3D

AUTODESK
AUTOCAD CIVIL 3D
Compatible

AUTODESK.

Only \$195 / year



Points

This set of tools includes tools for creating points along polyline, or adding station and offset data to the points.



Alignment & Profiles

In this group of tools we have a very useful method of creating Civil 3D alignment, calling Stick Method. User can create vertical curves in curb return profile.



Survey

This group includes an interesting tool for creating or editing traverses.



Pipes

Tools in this group are improving Civil 3D pipe functionality. With the tools for editing pipes in profile, swapping multiple parts, labeling interferences you will be handling Civil 3D pipes much more efficiently.



Miscellaneous

A set of very useful tools for creating a stepped offset, labeling assemblies or managing dynamic updating. User has full control over dynamic updates. They can be automatic or manually, ON or OFF.



Grading

Grading tools enables you to create 3D projection polylines from any polyline or feature line.

Shark Tank!

Which one is your favorite?



- #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 Add LAYER* to your layer filters
- #15 DimBreak
- #16 DimSpace
- #17 DimJogLine
- #18 ReportSurfaceVolume
- #19 ReportSurfaceBoundedVolume
- #20 stateplane.ret3.net/
- #21 Feature Apps Ribbon
- #22 Grips, more Grips
- #23 SELECTIONEFFECT
- #24 Transparence commands
- #25 SHEETSET Manager



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