



AutoCAD Jeopardy!

Jeanne Aarhus – Aarhus Associates, LLC

GEN19077 So you think you know all there is to know about AutoCAD software? Are you ready to put that to the test? Attend this session to test your knowledge of AutoCAD software and determine if you really are the best user in the room. We challenge you to engage in this AutoCAD software trivia game for bragging rights and prizes. If you attended last year, that was just practice.

Learning Objectives

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

- Learn to capitalize on your AutoCAD software knowledge to help others learn in a whole new way
- Extend your knowledge of AutoCAD software's capabilities
- Get motivated to get engaged in your training class
- Test your skills against other AU attendees and coworkers

About the Speaker

Jeanne Aarhus is known for her fun and fast-moving sessions. She is a nationally known speaker and expert in CAD, and she presents seminars and workshops on CAD productivity for managers and users in both corporate and academic settings. She has over 30 years of experience involving production drafting, user support, standards coordination, programming, and training in various CAD applications. She is an independent consultant offering training and implementation services and is certified in several Autodesk, Inc., and Bentley products. She continues to be actively involved in international, national, and local CAD user groups, and she received the much-coveted Top 10 Speaker Award for her presentations at Autodesk University (AU). She has been a popular speaker at AU for several years.

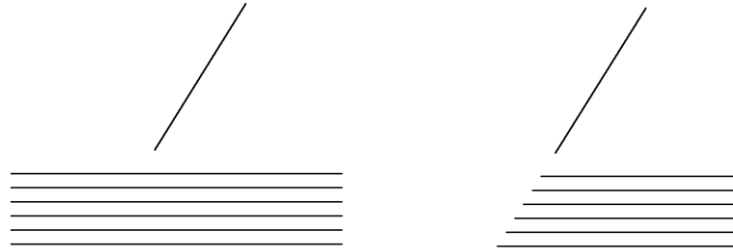
jeanne@aarhusassociates.com

Category: Productivity

Answer: I allow you to TRIM and EXTEND to all objects, whether they physically touch or not.

Question: What is the EDGEMODE system variable?

Using the system variable **EDGEMODE** can simplify your trim and extend functionality. Did you know that you can TRIM and EXTEND to non-existent edges?



EDGEMODE

Controls how the TRIM and EXTEND commands determine cutting and boundary edges.

Type: Integer
 Saved in: Registry
 Initial value: 0

0 (default)	Uses the selected edge without an extension
1	Extends or trims the selected object to an imaginary extension of the cutting or boundary edge

Answer: I force the FILLET command radius to "0".

Question: What is the SHIFT key?

Instead of using the command option "R" to change the fillet radius back to zero, just hold down the SHIFT key on the keyboard to temporarily override the current radius to "zero".

Answer: I can only UNDO one command (ERASE).

Question: What is the OOPS command?

Use the OOPS command to UNDO the last ERASE command. The OOPS command ignores everything but the ERASE operations.

Answer: I allow you to modify a block basepoint during the insertion process

Question: What is the "B" command option?

Use the "B" command option to change the blocks insertion BASEPOINT on-the-fly.

Answer: I allow you to change the rotation of clipboard content during insertion.

Question: What is the "R" command option?

Use the undocumented "R" command option to change the rotation angle of the clipboard contents after the objects are pasted.

Answer: I provide the ability to make "temporary" collections of objects.

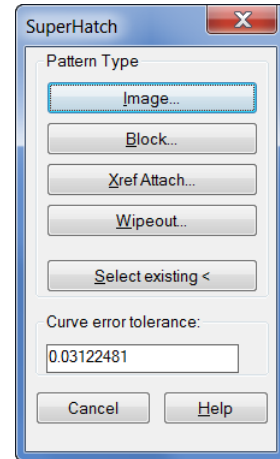
Question: What is the "GROUP" command?

Using GROUPS to create temporary and on-the-fly blocks. Groups can be ungrouped and re-grouped to easily make quick changes to a single groups of objects. Changes will not be reflected in any other groups or blocks.

Answer: I allow you to hatch with an image rather than objects.

Question: What is the “SUPERHATCH” command?

Use the Express Tools → Draw panel → Superhatch to hatch using an image file.



Answer: I allow you to save the active layer settings for easy recall later.

Question: What are “LAYER STATES”?

Answer: I allow you to make multiple copies of an object along a path.

Question: What is the “COPY → ARRAY” command option?

Answer: I allow you to delete just ONE segment of a polyline

Question: What is the CTRL key?

Category: Power Users

Answer: I allow you to change what the “C” command does

Question: What is the “PGP” file?

The PGP file can be found at the following location.

C:\Autodesk\AutoCAD 2017\UserDataCache\en-us\Support\acad.pgp

Answer: I force coordinate input to ABSOLUTE

Question: What is the # character?

Have you ever wanted to input ABSOLUTE coordinates when using the new dynamic input feature?

First, learn the basics of AutoCAD coordinate input below.

Relative Coordinates: 2,20 is relative to previous coordinate location

Absolute Coordinates: #2,20 is an absolute coordinate location in the current UCS

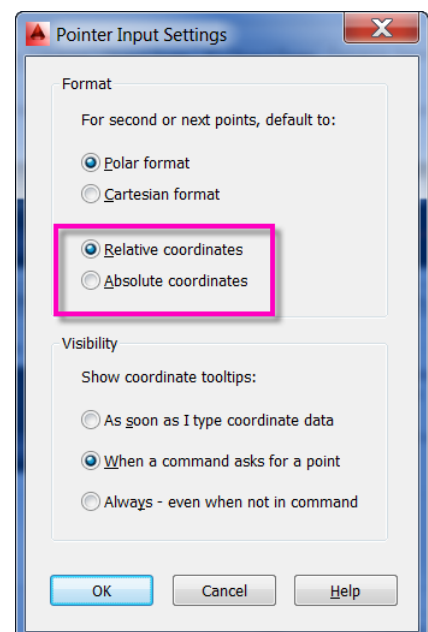
World Coordinates: *2,20 is a world coordinate location

Now, you can accomplish this two different ways.

First, use the override setting when inputting the coordinate values by typing in a “#” character before the coordinates.

For example, you could key in #0,0

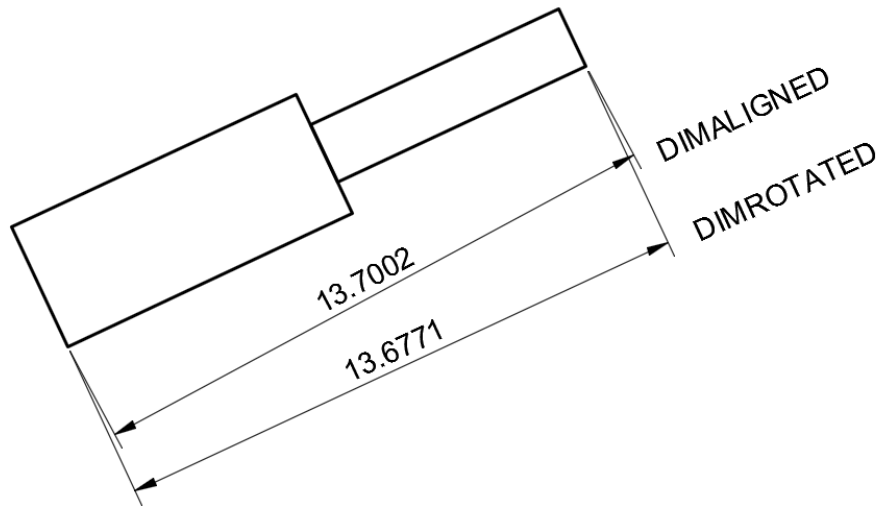
Second, you can change this method to your preferred default by using the dynamic input setting shown below.



Answer: I allow you to place a PARALLEL dimension to NON-PARALLEL endpoints.

Question: What is the "DIMALIGNED" command?

Have you ever had problems dimensioning objects that are staggered? Using the DIMALIGNED command doesn't dimension exactly the way you want to, so what do you do? Use the old DIMROTATED command to get exactly the dimension you want.

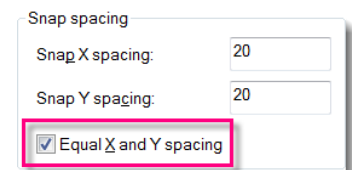


Answer: I control the NUDGE distance when moving objects.

Question: What is the SNAP DISTANCE?

This new command allows you to move objects very small amounts without using the MOVE command. To access the NUDGE command, first, select the objects and use the <CTRL+ARROW> keys to move the object in any of the four arrow directions. This movement is orthogonal only.

Use the SNAP distance setting to control the distance an



Answer: \$(xrefs,2)

Question: How can I display attached reference file names using "REMOTE TEXT"?

The command to use is REMOTE TEXT....or RTEXT from the command line

```
$(edtime, 0, MON DD", " YYYY - H:MMam/pm)
```

Jan 27, 2004 - 10:32pm

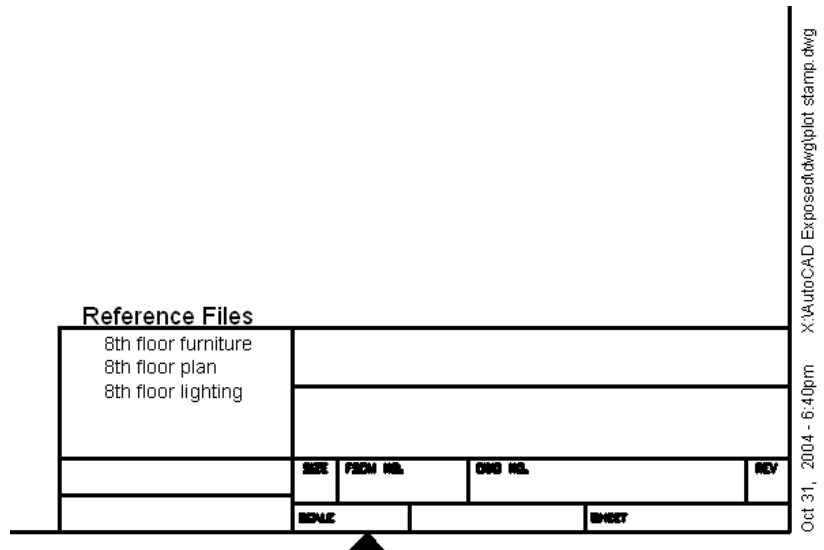
X:\Automate_Plotting\dwg\plot stamp.dwg

```
$(getvar, "dwgprefix")$(getvar, "dwgname")
```

8th floor furniture
8th floor plan

You can put this text anywhere in your file...modelspace or paperspace and get easy plot stamp capabilities.

Add a reference file, and it automatically updates!



Answer: I allow you to disable the viewport activation in paperspace.

Question: What is the "SPACESWITCH" command?

Category: Interface

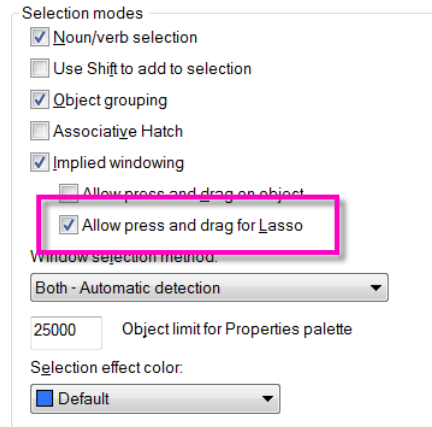
Answer: I allow you to disable the “LASSO” selection mode.

Question: What is the PICKAUTO system variable.

Options → Selection → Selection Modes



Use the SPACEBAR to toggle between WINDOW, CROSSING and FENCE selection options.



PICKAUTO

Includes a new value of 2, which enables you to create a selection window even when picking directly on an object.

Saved In: Registry

0	Window selection is disabled.
1 (default)	Selects a clicked object or begins a selection window (for either a window or crossing selection) when the cursor is not on an object.
2	Selects a clicked object or begins a selection window whether the cursor is on an object or not.

Answer: I allow you to avoid snapping to dimension extension lines.

Question: What is the **OSOPTIONS** system variable?

Options → Drafting → Object Snaps

Controls whether object snaps are suppressed on hatch objects, geometry with negative Z values, or dimension extension lines.

OSOPTIONS

The setting is stored as a bitcode using the sum of the following values:

Saved in: Registry

Initial Value: 7

0	Object snaps operate on hatch objects, and on geometry with negative Z values when using a dynamic UCS.
1	Object snaps ignore hatch objects.
2	Object snaps ignore geometry with negative Z values during use of a dynamic UCS. (Not available in AutoCAD LT)
4	Object snaps ignore endpoints of dimension extension lines.

Answer: I allow you to cycle between overlapping objects in a drawing.

Question: What is the SHIFT + SPACEBAR key?

You can also use the OBJECT CYCLING available on the status bar.

Answer: I disable the ability to automatically switch views when hovering on a tab preview.

Question: What is the “FILETABTHUMBHOVER” system variable?

Using the new drawing tabs in AutoCAD 2015-2016 allows you to hover on the tab to preview a thumbnail of that drawings model and layouts. When you hover on the thumbnail however, the application “automatically” switches to that drawing temporarily in the view window.

For some of you, this has not been a “positive” enhancement and causes more frustration than anything else, and for some this can be a performance issue.

The good news is you can disable the drawing “switching” behavior when you hover on the thumbnail using the following system variable.

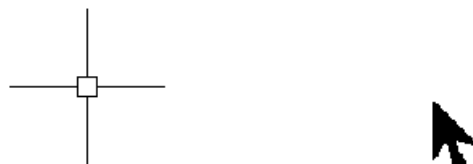
FILETABTHUMBHOVER

Specifies whether the corresponding model or layout loads in the drawing window when you hover over a file tab thumbnail.	
0	Does not load the model or layout in the drawing window when you hover over a file tab thumbnail
1 (default)	Loads the model or layout in the drawing window when you hover over a file tab thumbnail.

Answer: I control the “type” of cursor in AutoCAD.

Question: What is the “CURSORTYPE” system variable?

Change the setting for the system variable CURSORTYPE to change the typical crosshair cursor type to the Windows cursor type. Might be fun to freak out your co-workers! LOL



Answer: I allow you to modify a single object in an associated array object.

Question: What is the CTRL key?

Delete Items

Did you know you can delete individual items in an associated array? Use the <CTRL> key to select individual items in the array and use the DELETE key or ERASE command to remove.

Hide Items

Did you know you can hide individual items in an associated array? Place items on a different layer and turn off the layer.

Replace Items

Did you know you can replace individual items in an associated array? Select a replacement item and then select individual items in the array to replace.



Be careful using the RESET ARRAY command. All changes are removed and the original array is restored.

Answer: I navigate to the START TAB automatically.

Question: What is the <CTRL+HOME> shortcut?

Answer: I allow you to quickly edit attributes, bypassing all dialogs.

Question: What is CTRL + DOUBLE-CLICK attribute edit?

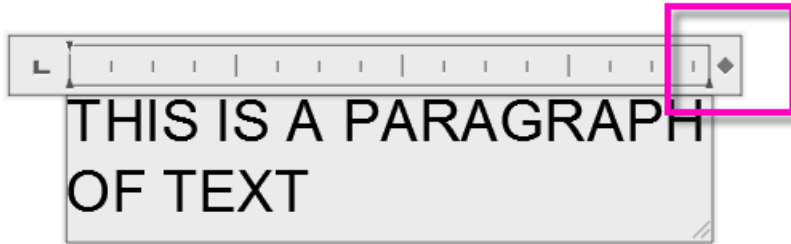
Use the ATTIPEDIT command to edit a single attribute in a block quickly without using the dialog. It allows you to edit the attribute using the simple editor.



Use the CTRL key to access this command automatically when selecting an attribute in a block.

Answer: I allow you to modify the paragraph width automatically.

Question: What is DOUBLE-CLICK on the Right Margin Icon using the MTEXT Editor?



Category: Oldies

Answer: I control the speed of your ZOOM commands.

Question: What is the “ZOOMFACTOR” system variable?

ZOOMFACTOR

Controls how fast the wheel zooms in and out. The default value is 60.

Initial Value: 60

3-100

The larger the number the faster to zoom on the wheel.

Answer: I allow you to control the basepoint of the clipboard objects.

Question: What is CTRL+SHIFT+C?

You can use **<CTRL+SHIFT+C>** to copy objects to the clipboard and define a basepoint! Wow, I have to admit I didn't know that one either...thanks Donnie!

Answer: %%c

Question: What is the DIAMETER symbol?

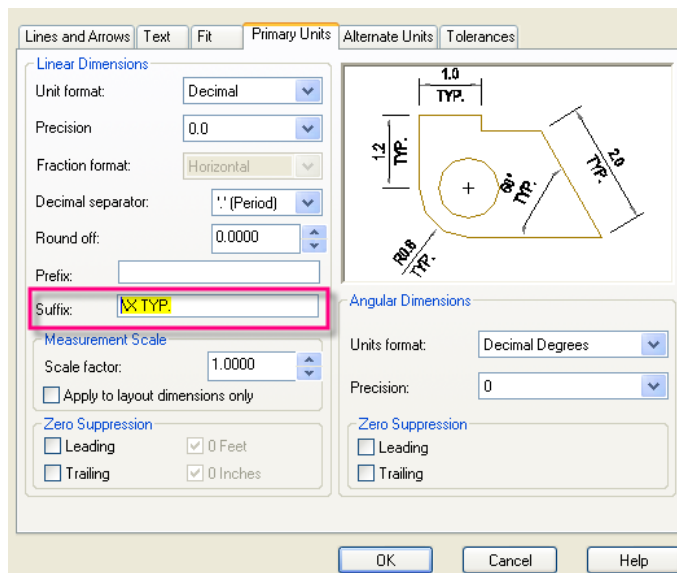
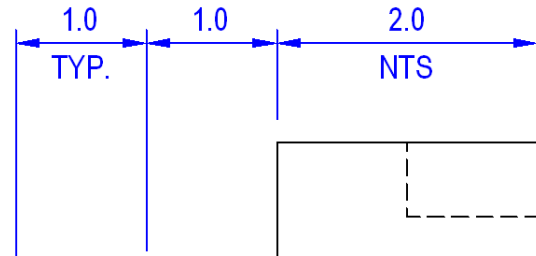


Answer: I allow you to move dimension text BELOW the dimension line without breaking the dimension line.

Question: What is the \X characters?

You can get a second line of text on your dimensions by using the "\X" format code in the SUFFIX field of your dimension style.

This example shows how to use commonly used dimension requirements easily using this shortcut



Answer: I calculate math expressions right in the middle of your command.

Question: What is the CAL command?

In 2006, they added my most common use for the CAL command. I used it to locate the “center” of objects, for example, the center of a wall or road, or the center of a room. Of course, today you can use the MID BETWEEN 2 PTS. But think of other uses for this “oldie but goodie” command to perform similar tasks not covered by the MID BETWEEN 2 PTS.

Use 'CAL(END+END)/3 to snap to “1/3” points along a line.

Answer: I allow you to modify the function of your wheel mouse button.

Question: What is the “MBUTTONPAN” system variable?

MBUTTONPAN

Control how the pan (press wheel) command works in a view.

Initial Value: 1

0	Supports the action defined in the customization (CUI) file
1	Supports panning when you hold and drag the button or wheel

Answer: I allow you to reverse the direction of an object.

Question: What is the “REVERSE” command?

Answer: I allow you to “hide” objects in a drawing without using layers.

Question: What is the “ISOLATE” command?



A RED bulb represents objects are isolated

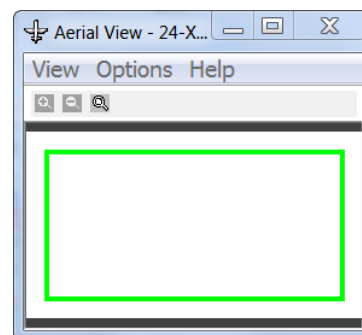


A YELLOW bulb represents no objects are isolated.



Answer: I open the old AERIAL VIEW dialog.

Question: What is the “.DSVIEWER” command?



Answer: I allow you to override the angle of the current line.

Question: What is the "<ANGLE" command option. Use the "<" with no angle to cancel the override?

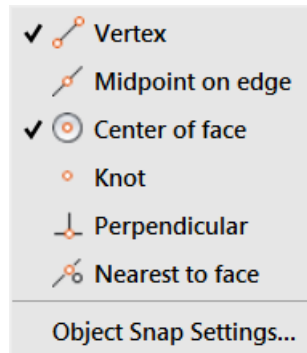
While drawing a line you can key-in <ANGLE to lock in the angle while you can still dynamically determine the length. This effectively locks the angle for the next line segment. This is actually using the POLAR OVERRIDE ANGLE as displayed on the command line.

How can you cancel or turn off this override? Just key-in the < symbol with no angle defined.

Category: 3D

Answer: I allow you to snap to the CENTER OF FACE.

Question: What are “3DOSNAPS”?

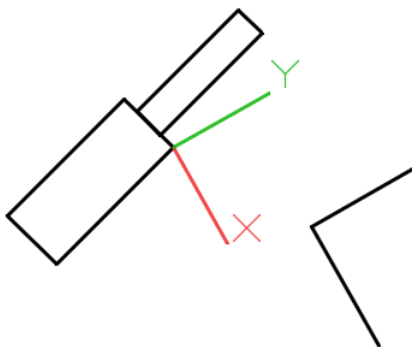
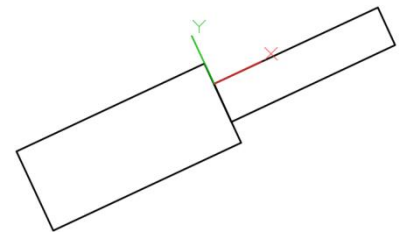


Answer: I follow the “planes” without help from air traffic control.

Question: What is DUCS?

“E” Command Option

Use the “E” command option to align the UCS with any type object.



“3” Command Option

Use the “3” command option to dynamically align the UCS icon.

Answer: I allow you to select sub-objects in an object.

Question: What is the <CTRL> key?



Answer: I memorize solid editing in complex 3D solids.

Question: What is the “SOLID HISTORY”?

Answer: I allow you to trim in a 3D world to the correct plane of an object.

Question: What is the “TRIM □ PROJECT” command option?

Answer: I must be applied prior to performing a FILLET between two solids.

Question: What is the “UNION” command?

Answer: I allow you to select a 3D FACE behind other faces.

Question: What is the CTRL + SPACEBAR?

Answer: I provide quick access to the 3DORBIT command.

Question: What is the SHIFT + MIDDLE MOUSE BUTTON?

Answer: I allow you to easily “split” the face of an object.

Question: What is the “IMPRINT” command?

Answer: I provide quick access to pre-defined viewport arrangements.

Question: What are "VIEWPORT CONTROLS"?

Category: Pot Luck

Answer: Use me to “detonate” your blocks without losing those attribute values.

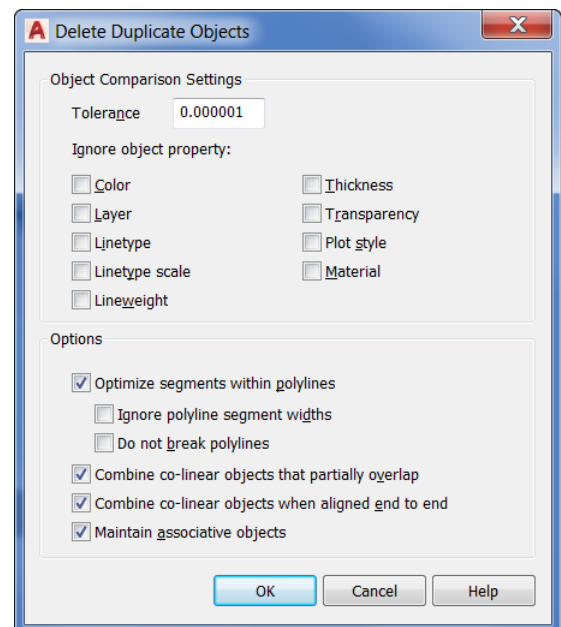
Question: What is BURST or XPLODE?

Answer: Use me to rearrange the layout tabs in AutoCAD.

Question: What is <Drag-n-Drop>?

Answer: I allow you to clean up those messy drawings with all those overlapping lines.

Question: What is the “OVERKILL” command?



Answer: I give you a TEMPORARY ORTHO.

Question: What is the SHIFT key?

Answer: I cause the “blinky status bar” in AutoCAD 2016 and 2017.

Question: What is the coordinates display?

Answer: I follow your cursor like a **LAWMAN** after a **CRIMINAL**.

Question: What is a **CURSOR BADGE**?

Answer: I control the **ANGLE** of object placement and modification using the **DEEP FREEZE**.

Question: What is **POLAR**?

Answer: I provide space for crops to grow and allow values to automatically populate.

Question: What is a **FIELD**?

Answer: I eliminate all **RECONCILE LAYER** prompts.

Question: What is the **LAYEREVAL** or **LAYEREVALCTL** system variable?

- ✓ 90, 180, 270, 360...
- 45, 90, 135, 180...
- 30, 60, 90, 120...
- 23, 45, 68, 90...
- 18, 36, 54, 72...
- 15, 30, 45, 60...
- 10, 20, 30, 40...
- 5, 10, 15, 20...

Tracking Settings...

Many users complain about the notification of new layers that have been added to active or reference files.

Change the following settings if you want to stop this notification!

LAYEREVAL

The setting is stored in an integer using one of the following values:	
0 (<i>default</i>)	Off
1	Detects when new xref layers have been added in the drawing
2	Detects when new layers have been added in the drawing and xrefs

LAYEREVALCTL

This system variable also affects whether the new layer notification is displayed or not.	
0	Disables the evaluation and notification of new layers
1 (<i>default</i>)	Enables the evaluation of new layers on the LAYEREVAL settings.

Thank you for your time!

Hope you enjoyed the session!



***Don't forget to fill out your surveys
to win a free trip to AU 2017!***

Looking for customized Training and Standards consulting
using your company standards and procedures?
Call for affordable and flexible rates and schedules.

Contact:

AARHUS ASSOCIATES, LLC

12005 Quail Drive

Bellevue, NE 68123-1175

www.aarhusassociates.com

Jeanne Aarhus

(402) 408-9696

jeanne@aarhusassociates.com

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