

AUTODESK
AUTOCAD

OBJECTS

10. Object Snaps
11. Isolate Objects
12. Move/Copy/Rotate
13. Associative Arrays
14. Dimensions

MODIFYING

15. Match Properties
16. Dynamic Blocks
17. Group
18. Explode Attributes
19. DWG Compare

28. App Store
29. Specialized Toolsets
30. AutoCAD Web App
31. AutoCAD Mobile App

MINDSET

32. Make Mistakes
33. You Do You



2. In the Customize tab, Customizations In <file name> pane, click the plus sign (+) next to the Keyboard Shortcuts node to expand it.
3. Click the plus sign (+) next to the Shortcut Keys.
 - To create a shortcut key, in the Command List pane, drag a command to the Shortcut Keys node in the Customizations In <file name> pane.
 - To modify a shortcut key, select a shortcut key from under the Shortcut Keys node.

BONUS: *Not to be confused with command aliases, which are abbreviations of commands used in the command line. Edit or create aliases by going to the Express Tools tab of the Ribbon and clicking on the Command Aliases tool.*

has been modified after the last save. QSAVE, SAVE, and SAVEAS will delete the current .sv\$ file – the Autosave file only remains if the application closes unexpectedly.

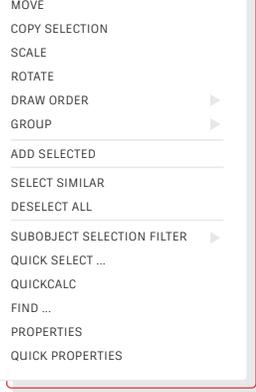
Find the location of your autosave files by going to the Files tab in the Options dialog box and inspecting the Automatic Save File Location folder in the hierarchy, or by using the SAVEFILEPATH command. Once you find the file, change the file extension from .sv\$ to .dwg to open.

BONUS: *If you don't see any file extensions when looking for your Autosave file, you'll need to turn them on. Do so by checking the File Name Extensions box in the Show/Hide panel of the View tab.*

- Batch Plot
 - Layer
 - Match Properties
 - Plot Preview
 - Properties
 - Render
 - Sheet Set Manager
 - Workspace
-
- More Commands...
 - Show Menu Bar
 - Show Below the Ribbon

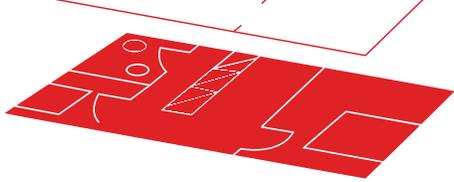
Here, you can also change where the Quick Access Toolbar docks, or even turn on the old-style Menu Bar. You can also drag the elements within the Quick Access Toolbar to change the order in which they appear.

BONUS: For a fast way to add a Ribbon command to the Quick Access toolbar, right-click any command icon on the Ribbon, and then select *Add to Quick Access Toolbar* from the popup menu. Similarly, right-click on any Quick Access Toolbar item to remove it.



still have the best of both worlds. It's easy using this time sensitive right-click feature. To turn it on, simply call up the Options dialog box, go to the User Preferences tab, and then select the Right-Click Customization button. You'll get a second dialog box that contains the control for time-sensitive right-clicks.

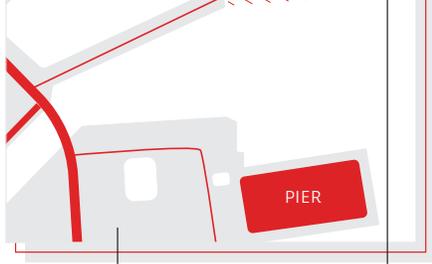
When enabled, right-click will still function as you prefer, with a single, quick click working as ENTER, but now, by holding down the mouse button just a little longer – a quarter of a second by default – you'll get the contextual popup menu instead.



- Display or hide all related objects in a single operation
- Specify linetype, color, line weight, and other standards for each layer

To see how a drawing is organized, use the LAYER command to open the Layer Properties Manager. You can either enter LAYER or LA in the Command window, or you can click the Layer Properties tool on the Home tab of the Ribbon.

BONUS: Got lots of Xrefs and therefore lots of layers? Increase the MAXSORT variable (from its default of 1000) so all your layers can sort correctly.



SOLID FILLED HATCHES

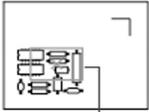
PATTERNED HATCH
WITH TEXT

and select Draw Order (or use the DRAWORDER command). Choose one of the displayed options, select the objects you want to modify, and press Enter.

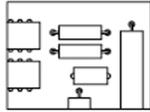
In general, you will want to display and plot annotation objects in front of other objects, and hatches and fills behind. Wipeout objects are intended to provide a blank area for adding text without modifying the objects underneath.

NOTE: *You can control the draw order of overlapping objects only within the same space: model space or paper space.*





view box



new view

"ZOOM > Dynamic" pans and zooms using a rectangular view box. The view box represents your view, which you can shrink or enlarge and move around the drawing. Positioning and sizing the view box pans or zooms to fill the viewport with the view inside the view box. (This is not available in perspective projection.)

BONUS #1: *If you have a mouse with a wheel, double-click the mouse wheel to activate Zoom Extents.*

BONUS #2: *Use the command VTENABLE to turn off smooth view transitions which occur during panning and zooming. Setting it to 0 (zero) turns it off for pan/zoom, rotation, and scripts.*



preview to see what the layout is going to look like when plotted, but you can change this via Display Plot Styles. Set your main layout in this way or create a separate layout to act as a "live" preview so that you can still work in your traditional colored layout view.

Avoid the cumbersome commonly-used workflow of publishing and emailing designs via DWF or PDF files. Instead, a viewable file is created in AutoCAD and circulated via a shareable link that can be viewed and commented on in the browser of any device with internet access. Comments that collaborators make on the shared link appear right back in your AutoCAD desktop product.

The Shared Views feature can be accessed from AutoCAD's Application menu, under Publish.

NOTE: *Shared Views automatically expire after 30 days, but you can extend or terminate the link at any time.*



You can specify an object snap whenever you are prompted for a point. By default, a marker and a tooltip are displayed when you move the cursor over an object snap location.

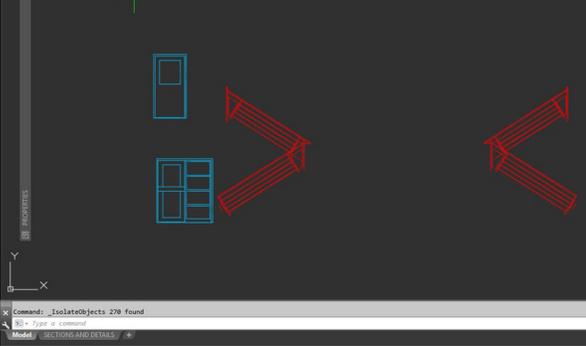
To specify an object snap at a prompt for a point, you can:

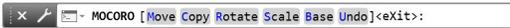
- Press Shift and Right-click to display the Object Snap shortcut menu
- Right-click and choose an object snap from the Snap Overrides submenu
- Enter the name of an object snap
- Click an object snap button on the Object Snap toolbar. This will turn on running object snaps that will persist through all subsequent commands.

ending or working in the cleaned area of your drawing, you can end your object isolation and bring back any hidden objects simply by using the UNISOLATEOBJECTS command or End Object Isolation right-click option.

BONUS #1: Hide objects instead to clear up an area of a busy drawing by using the HIDEOBJECTS command or in the right-click menu to temporarily suppress selected objects.

BONUS #2: By default, hidden or isolated objects are temporary during your current drawing session. However, if you set OBJECTISOLATIONMODE to 1, the hidden or isolated objects will persist between sessions.

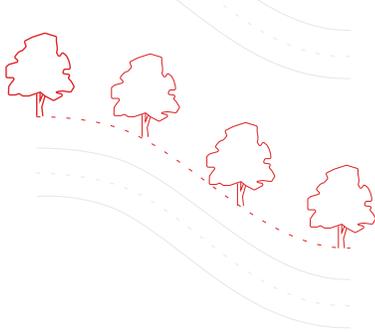




Rotate tool. Select the object you want to move, copy, rotate, or scale. Select a basepoint, and then follow the options on the Command line or cursor menu to select the operation you want to perform.

Each time an operation is completed, the options reappear allowing you to choose another operation using the same selected object and basepoint. If needed, you can change the basepoint by selecting the Base option.

BONUS: To find more Express Tools beyond the “Express Tools” Ribbon tab: Use the drop-down widget in the Menu Bar or type `MENUBAR` and setting it to 1. Click Express Tools on the far right side, and it will expand to show 10 categories of tools.

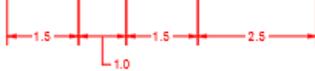


Many designs contain symmetrical or repeatable patterns. Repeatable patterns, also known as arrays, can be created using the ARRAY command. Associative arrays make it easy to create rectangular and polar patterns along with distributing items along a 2D path.

Once an associative array has been created, you can:

- Replace all instances of the original object
- Replace or edit individual objects in an array
- Update the number of and distance between items in an array

BONUS: *When working in 3D, you can also specify the vertical distance between items in an array.*

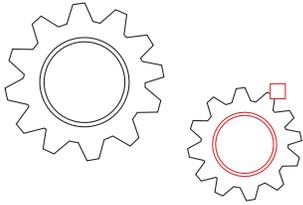
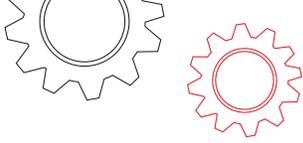


Annotate tab of the Ribbon. This command allows you to achieve different results with a combination of:

- The DIM option you choose
- The type of object you hover over
- Where you hover over an object
- Where you pick or click
- What direction you move the cursor

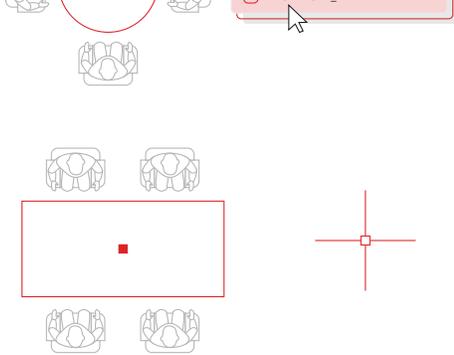
BONUS: *Cut more time out of your workflow by using the QDIM command to apply dimensions to an entire series of objects at once.*





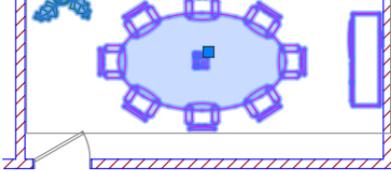
1. Click Home tab > Properties panel > Match Properties or type MATCHPROP into the command line.
2. Select the source object from which you want to copy properties.
3. Select the target objects to which you want to copy the properties, and press Enter.

BONUS: Specify what properties you want matched in the Property Settings dialog box. For example, disable the Text (style) property when you want to match the layer between two pieces of text. After Step 2 above, enter S (Settings). In the Property Settings dialog box, clear the properties that you do not want copied, and click OK.



types and chair settings, you can create one table block. Once the block is inserted, you can select the table type at any time. You can also define dynamic blocks that can be stretched, rotated, flipped, and more.

1. Click Insert tab > Block Definition panel > Create Block.
2. Back in the drawing, double-click the block and select OK on the Edit Block Definition dialog. This opens the Block Editor environment and the Block Editor Ribbon tab.
3. Add constraints, actions, and parameters (rules) using the Properties palette from within the Block Editor.



in the group results in all objects being selected, but each object can still be modified individually unlike a standard block.

1. Select the Group command from the Groups Panel in the Home tab of the Ribbon, or type GROUP into the command line
2. Select the objects that you want to associate together, and press Enter.
3. Then, when you select any object in the group, all the grouped objects are selected. A grip is displayed at the center of the group bounding box to provide access to all grip operations.
4. Add a name or description to the group for easy access later.



VIEWNAME

Scale: VPSCALE

Attribute Definition	
Color	ByLayer
Layer	0
Tag	VIEWNAME
Prompt	DrawingName
Value	VIEWTITLE
Style	SANSSERIFBOLD
Height	3/16"

in the Blocks panel in the Express Tools tab of the Ribbon, you can explode a block, but retain your important attribute value.

NOTE: *Explode Attributes will also preserve the layer that the block was on, along with the text style of the attribute.*



appearance, columns, and boundaries.

In the Ribbon, select Annotate > Multiline Text (instead of Single Line Text) or use the MTEXT command.

BONUS #1: *If you've already added text via TEXT or DTEXT, use the Express Tool (in the Express Tools tab of the Ribbon) "Convert Text to Mtext" to convert to multiline text after the fact.*

BONUS #2: *Draw text along an arc using the ARCTEXT Express Tool (in the Express Tools tab of the Ribbon).*



SETTINGS

tab of the Ribbon (or type it in the Command Line). You'll get the Check Spelling dialog box. Click on the Settings button and you'll get further control over what's included in the check.

BONUS: *One of the most powerful features here is the ability to create and update a custom dictionary. This is extremely valuable for industry-specific terms that may not be found in the standard dictionary.*



want to run the check. Also, there is a dialog expansion icon that will reveal additional search options and more controls on what kind of text objects are included.

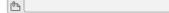
BONUS: Add even more power to word search by employing wildcards. Characters such as * @ ? ~ can represent one or more characters in a text string, empowering you to get more done in less time.

In AutoCAD, geometric values such as distance or angular measurement are often required to draw an object. In most situations, you might know the distance or angle required to draw an object but there are times when those values are unknown and need to be calculated.

Enter QC in the Command line or click on the QuickCalc tool in the Utilities panel of the Home tab.

BONUS: *Use QuickCalc during another command by right-clicking to display the shortcut menu and choosing QuickCalc. The calculator will appear without disrupting your command in progress!*

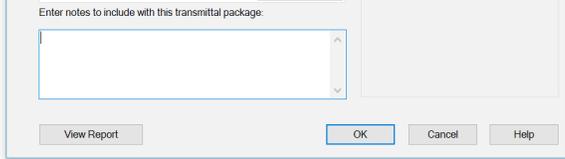




When you attach an Xref, the default path type is set to Relative to avoid broken Xrefs in the future. If you have relative references in the current drawing and save it to a different location, AutoCAD will prompt you to update the relative paths.

BONUS #1: *To find an external reference in a complex drawing, select an item in the External References palette to highlight all visible instances in the drawing. Conversely, select an external reference in the drawing to highlight its name in the External References palette.*

BONUS #2: *Easily edit an Xref by selecting it, then Right-click and select either Open Xref or Edit Xref in-Place.*



Xref links will be broken when you share the file with someone else, since they do not have your referenced files.

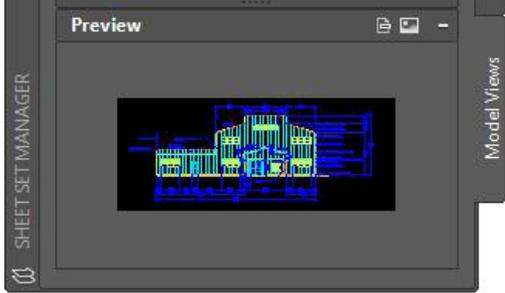
To create a transmittal package in a folder, click Application Menu > Publish > eTransmit or use the ETRANSMIT command. The Create Transmittal dialog box is displayed with options.

When you select a set of drawing files in a transmittal package, it automatically includes all related dependent files such as Xrefs and font files.



others. Use the PDFIMPORT command to import geometry from a PDF page into the current drawing as AutoCAD objects. You can also access PDF Import in the Insert tab of the Ribbon, then click on Import Panel > PDF Import. After selecting a PDF file, use the Import PDF dialog box to customize your import.

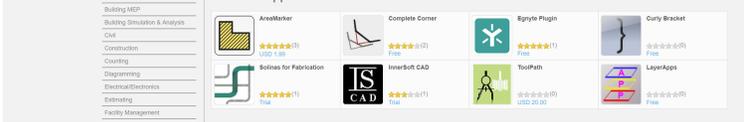
BONUS: *If your PDF contains AutoCAD .shx fonts, use the Recognize SHX Text tool to convert them into single line Mtext objects. You can find it in the Import panel of the Insert tab.*



Sheet Set Manager not only functions as a file management system for your layout sheets, but it also manages saved views in both layouts and Model Space. You can easily publish part or all of the entire set, along with defining and updating title block and callout information using Fields. Getting started is easy with the Sheet Set Wizard found in the New section of the Application Menu.

BONUS: *CAD Managers and others can significantly cut down the time it takes for post-project file delivery by using eTransmit directly from the Sheet Set Manager.*





ways. From the Ribbon, click on the Featured Apps tab, then the App Store panel and select Connect to App Store. You can also simply click on the shopping cart icon next to your login name. Either method will take you to the App Store website in your default web browser.

The featured apps banner at the top scrolls through Autodesk recommended apps, so you can easily stay up to date. If none of the featured apps fits your current needs, you can continue your search by either keyword or your favorite publisher.

Once you've added your favorite apps, you can view, update, or uninstall them from the Manage Apps tool found in the Add-ins tab.

All seven toolsets are included with your AutoCAD 2019 including specialized toolsets subscription.

Each toolset must be downloaded individually, via either the Autodesk Account or the Autodesk desktop app. Go to accounts.autodesk.com to sign in. From there you will be able to pick and choose what toolsets to download.



Log into the web app with your Autodesk ID (the same ID as your AutoCAD subscription ID). To easily save a drawing from your desktop up to the AutoCAD web or mobile apps, you can select “Save to Web & Mobile” from the AutoCAD desktop App Menu’s Save As command. Conversely, selecting “Open From Web & Mobile” in the App Menu’s Open option lets you access the latest drawings created or edited on the AutoCAD web or mobile app.

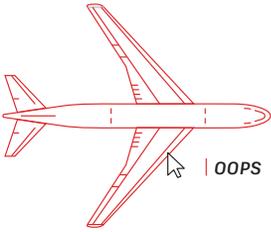
BONUS: *Take advantage of a familiar AutoCAD desktop feature – the Command Line!*



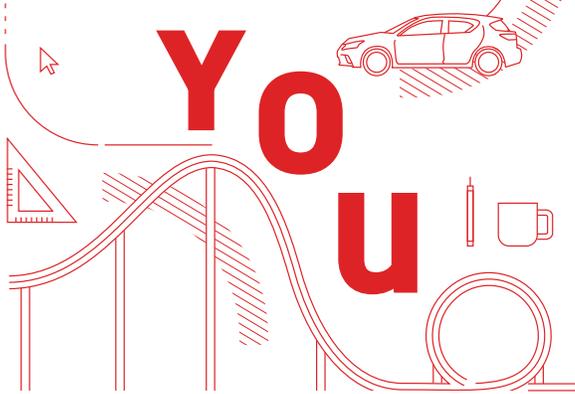
Simply download the AutoCAD mobile app to your device via your device's app store. Log into the app with your Autodesk ID (the same ID as your AutoCAD subscription ID). Access drawings from a free Autodesk cloud storage account or other cloud accounts, including Google Drive, Dropbox, and OneDrive.

BONUS: *The AutoCAD mobile app can connect directly with a Leica DISTO device. Create a line in your drawing, take a measurement with a DISTO, and the length will update automatically.*





- UNDO (or U) reverses the effect of commands. If you specify the number of preceding operations to Undo, you can avoid entering the command multiple times.
- ERASE removes selected objects from a drawing.
- OOPS restores objects erased by the last ERASE command.
- PURGE removes unused items, such as block definitions and layers, from the drawing.
- OVERKILL Removes duplicate or overlapping lines, arcs, and polylines – and combines partially overlapping or contiguous ones.



AutoCAD Website

[AutoCAD.com](https://www.autocad.com)

Autodesk Knowledge Network

knowledge.autodesk.com

AutoCAD Blog

blogs.autodesk.com/AutoCAD

Mobile, are available starting in AutoCAD 2019.

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