AutoCAD 2018 and AutoCAD LT 2018 Preview Guide

Stay at the forefront of the design world with the new features in Autodesk® AutoCAD® 2018 software. Create and share precise drawings with innovative productivity tools. Save time and minimize frustration with simple tools to fix broken paths for externally referenced files. Use the SHX text recognition tool to quickly convert imported PDF geometry to text objects. See significant improvements in 3D navigation when zooming and panning. Additionally, you can take the power of AutoCAD with you wherever you go with an easy-to-use mobile app.

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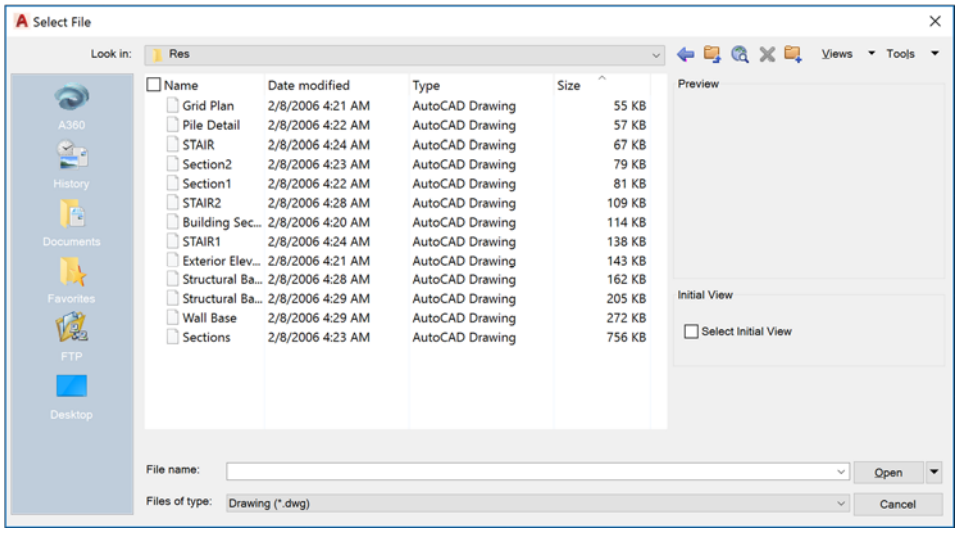
* Functionality also included in the AutoCAD 2017.1 Update

User interaction

The AutoCAD 2018 release continues to improve the way you interact with AutoCAD.

File navigation dialog box

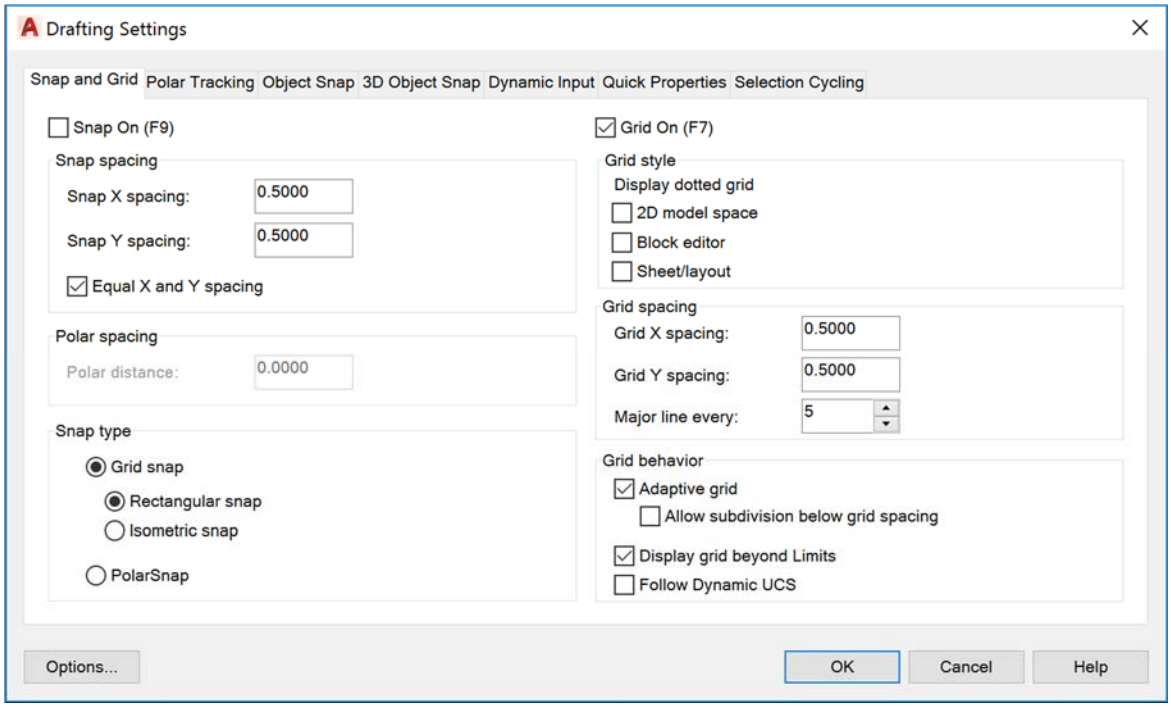
The file navigation dialog boxes for operations such as Open, Save, Attach and many others now remember the sort order of the column. If, for example, you sort by file size or reverse sort by file name, the next time you access that dialog box it will automatically display files using that same sort order.



* Functionality also included in the AutoCAD 2017.1 Update

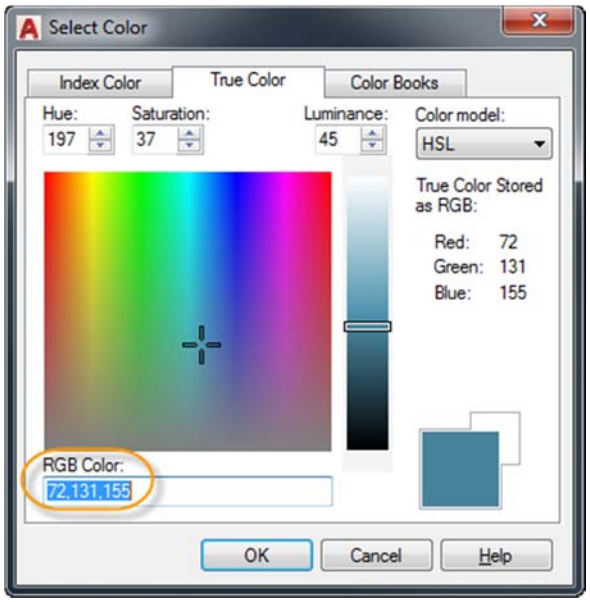
Drafting Settings dialog box

The Drafting Settings dialog can be resized in AutoCAD 2018. Access Drafting Settings from a variety of locations including the DSETTINGS command.



Select Color dialog box

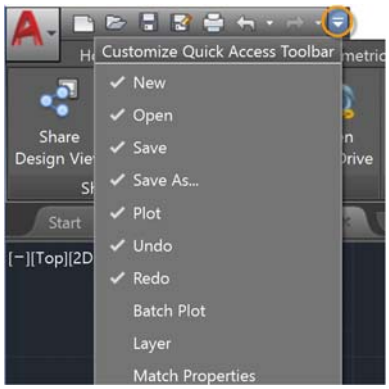
The True Color tab in the Select Color dialog box now supports comma separated entry of RGB color values.

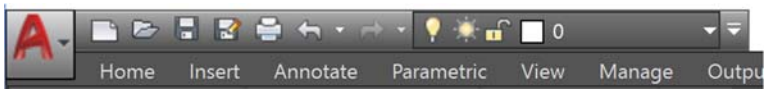


* Functionality also included in the AutoCAD 2017.1 Update

Quick Access Toolbar

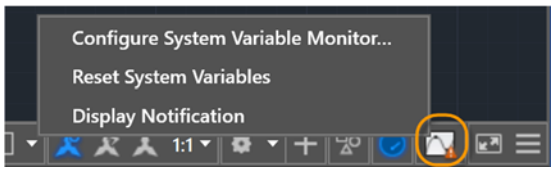
The Layer Control option is now part of the Quick Access Toolbar menu. Although it is turned off by default, you can now easily set it to display in the Quick Access Toolbar along with other frequently used tools.





Status bar

The status bar icon for the System Variable Monitor tool is displayed when system variables deviate from their preferred values. In AutoCAD 2018, a right-click menu has been added to the System Variable icon, providing quick access to reset system variables to their preferred values without having to open the System Variable Monitor dialog box. The right-click menu also includes options to configure the System Variable Monitor and enable balloon notification.



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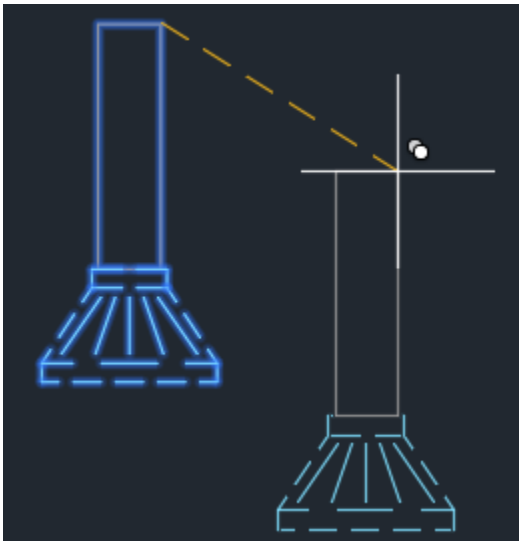
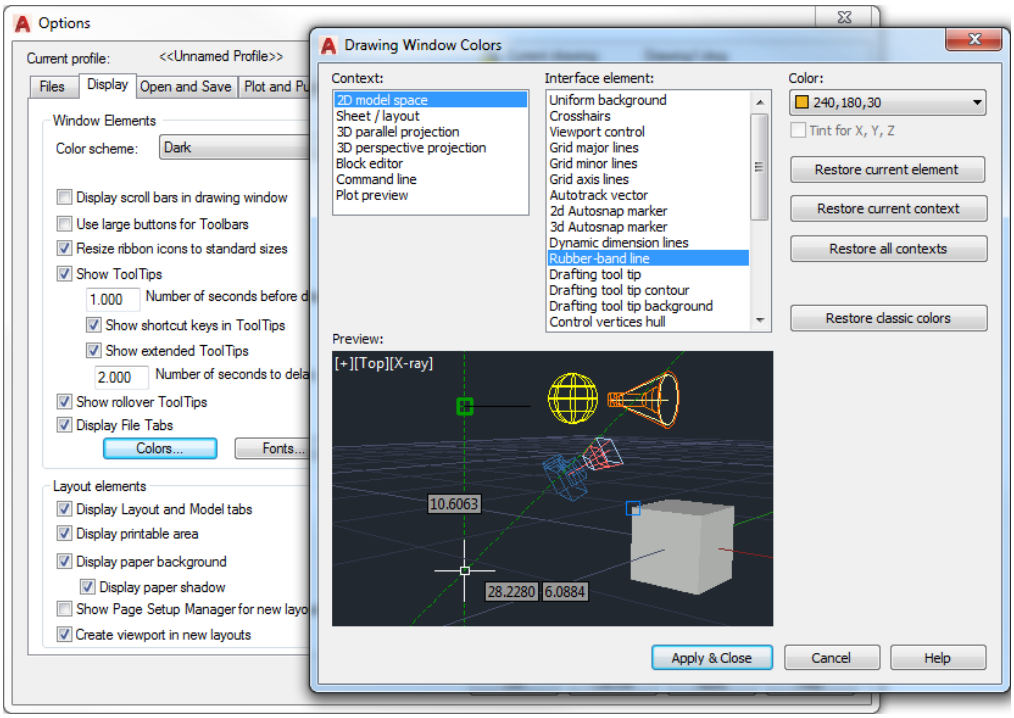
Rubber-band line color

A rubber-band line is a line that stretches dynamically within the drawing area as you move the cursor between two points. For example, if you move or copy an object by picking the basepoint and second point, a rubber-band line is temporarily displayed until you pick the second point.



In AutoCAD 2018, the rubber-band line is added to the long list of interface elements for which you can control the color. Access that control from the Colors button on the Display tab of the Options dialog box.



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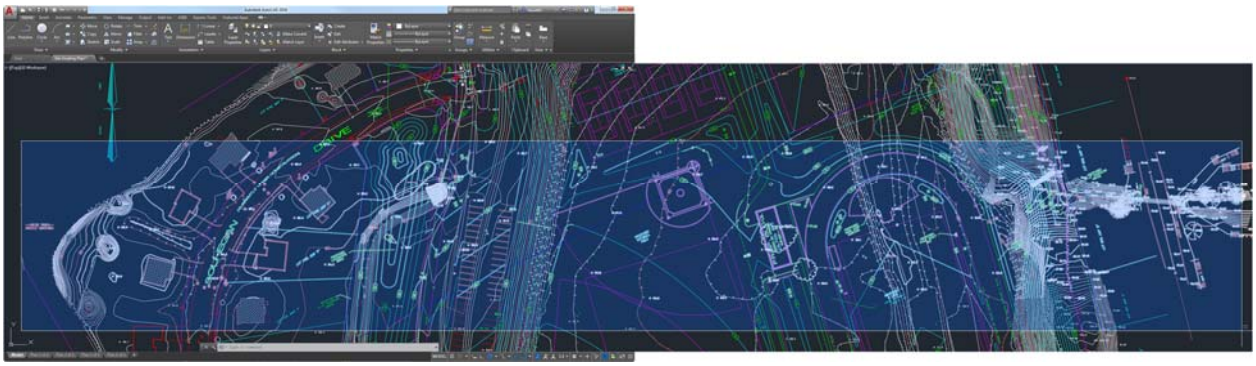
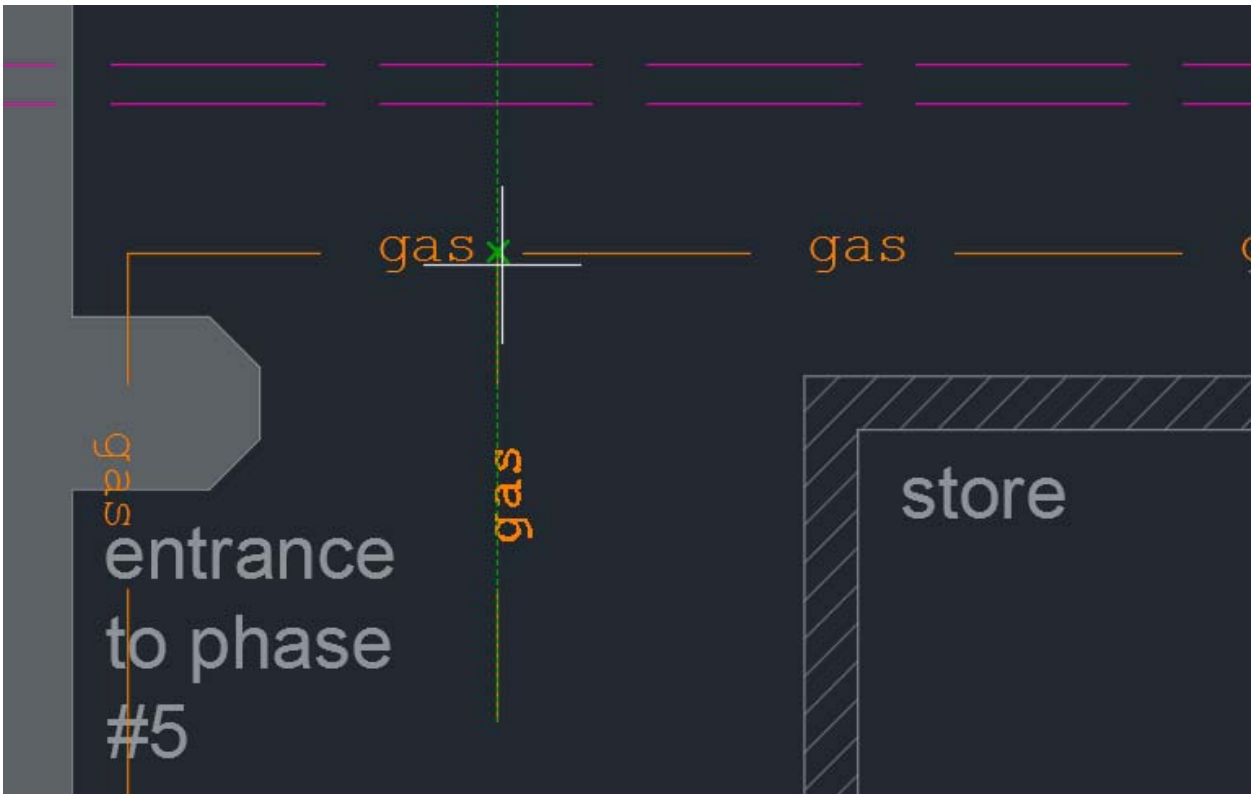
Off-screen selection*

In AutoCAD 2018, you can begin a selection window in one part of your drawing and then pan and zoom to another part while maintaining selection of the off-screen objects! You can control the behavior of off-screen selection using the SELECTIONOFFSCREEN system variable.



Linetype gap selection enhancements*

Linetype gap behavior is enhanced to support complex and DGN linetypes. In addition, this feature works with all objects, such as polylines with width, and splines. Now you can select complex and DGN linetypes, or snap to them by picking on the gaps between the geometry.



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Documentation

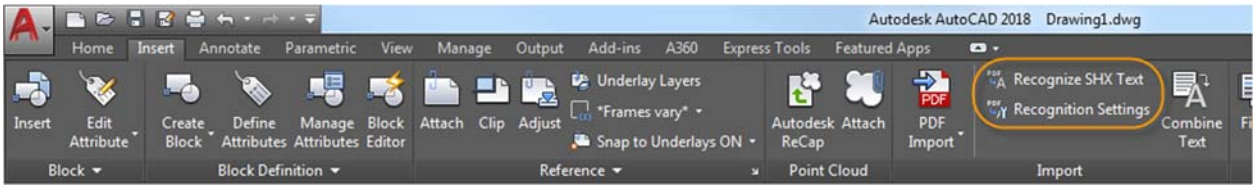
PDF enhancements*

PDF files are the most common file format used when exchanging design information between designers, contractors, clients, and others. AutoCAD 2017 introduced the ability to import PDF files. The PDFIMPORT command imports PDF data into AutoCAD as 2D geometry, TrueType text, and images.

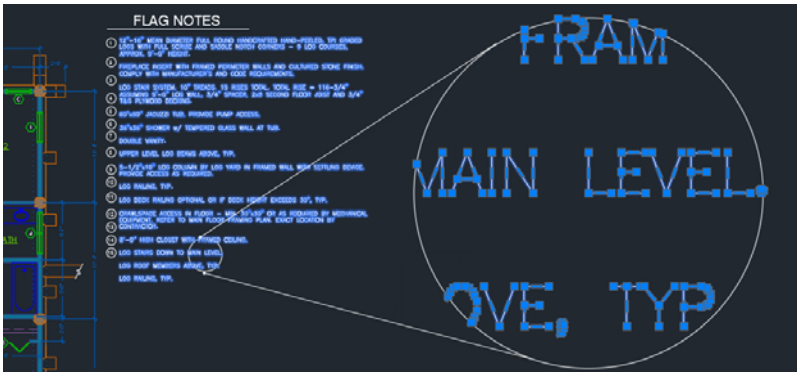
SHX text recognition

Adobe's PDF file format doesn't recognize AutoCAD SHX fonts, therefore, when a PDF file is created from a drawing, text that was defined with SHX fonts is stored in the PDF as geometry. If that PDF file is then imported into a DWG file, the original SHX text is imported as geometry.

AutoCAD 2018 offers a SHX text recognition tool that enables you to select imported PDF geometry representing SHX text and convert it to text objects. Access this functionality from the Recognize SHX Text tool (PDFSHXTEXT command) on the Insert ribbon tab.



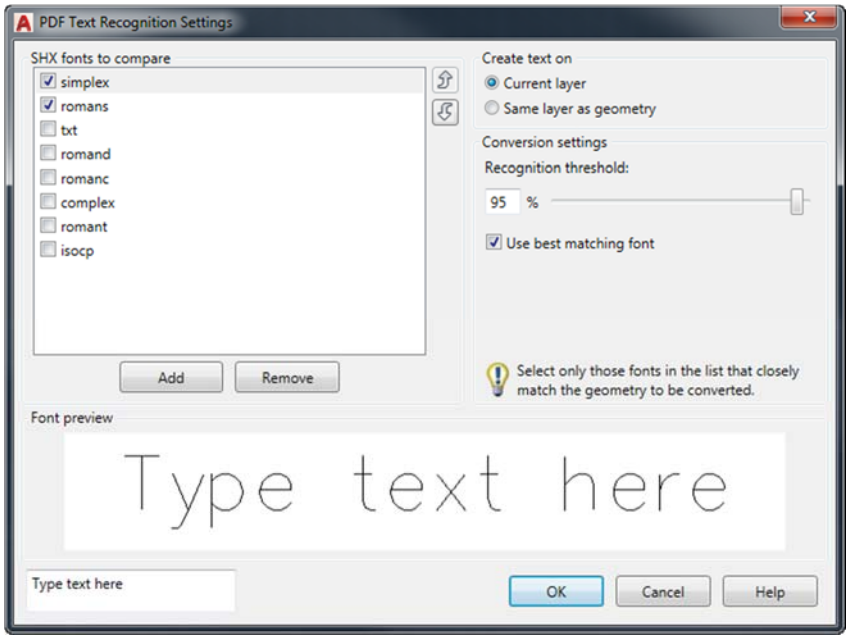
The SHX recognition tool analyzes clusters of geometry (i.e., lines, polylines, etc.) from your selection set and compares them to characters in specified SHX cache files.



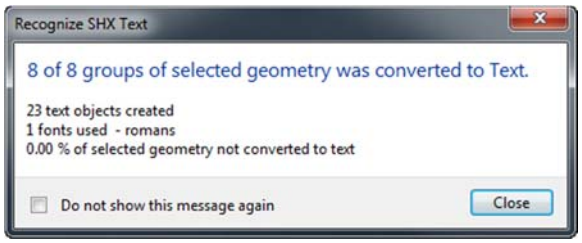
A Settings option is available to help you manage which SHX fonts you'd like to compare against the selected text, as well as to control some settings during the conversion. The most common SHX fonts are listed by default, and you can then add or remove SHX fonts based on your needs, and select which fonts in the list you want to compare against the selected text. AutoCAD will compare each of the selected fonts in order until one is found that matches the selected text within the specified recognition threshold. An option to

* Functionality also included in the AutoCAD 2017.1 Update

use the best matching font ensures AutoCAD compares the text to *all* of the selected fonts, and chooses the best one.



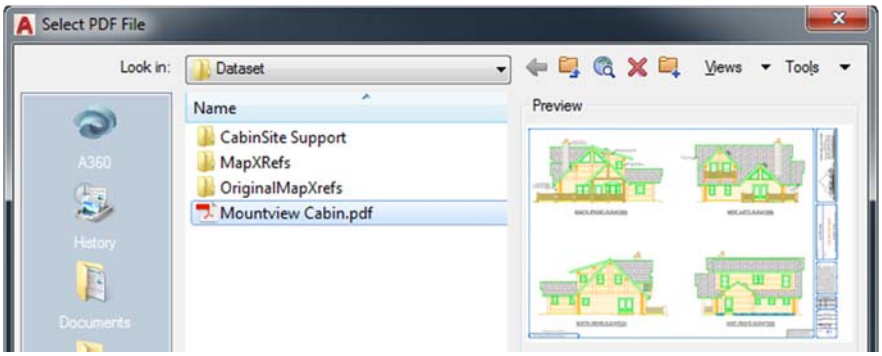
After comparing the geometry to the SHX fonts, the geometry that matches is automatically replaced with one or more Mtext objects. A message box will display the results.



Additional PDF import enhancements

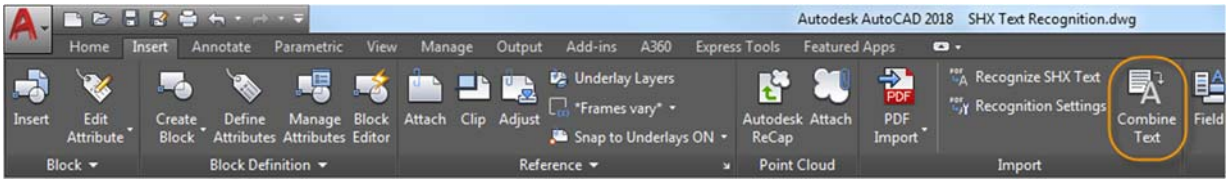
In addition to the SHX recognition tool, AutoCAD 2018 offers the following PDF import enhancements:

- The PDF import and attach tools (PDFIMPORT and PDFATTACH commands) display thumbnail previews of PDF files in the Select File dialog.
- Fixed orientation problems with rotated TrueType text. It no longer creates upside-down text.
- Improved scaling of PDF geometry from layouts. Geometry is scaled to real-world size in model space if all the viewports are of the same scale.
- Better form data support when importing PDFs.



Combine Text*

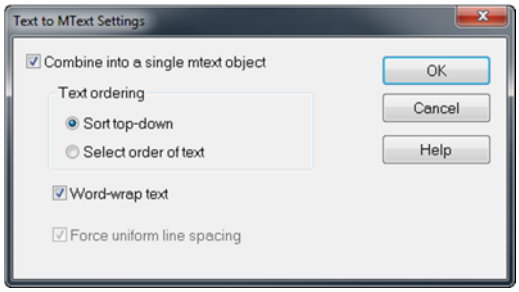
The Combine Text tool enables you to combine many individual text objects into one multi-line text object. This can be particularly useful after recognizing and converting SHX text from an imported PDF file. You can access the Combine Text tool (TXT2MTXT command) from the Insert ribbon tab.



The following are enhancements to the TXT2MTXT command:

- You can select Mtext objects in addition to text objects.
- A Settings option on the Command Line displays the Text to MText Settings dialog.
- Character codes translate correctly between Text and Mtext (for example the degree symbol appeared as %%d when converted to Mtext).
- The “Select objects” prompt adheres to standard error checking and messaging. For example, objects on locked layers are filtered from the selection set, and so on.
- Justification (top left, top center, top right) is inferred for the Mtext object being created based on the positioning of the text objects in the drawing instead of always using top left justification. When no justification can be logically inferred, it defaults to top left.
- Numbered and lettered list formatting is inferred when the word-wrap text box is checked. If a line starts with one or two characters followed by a period and up to 10 spaces, list formatting will be applied automatically.
- An option was added to the Settings dialog box to not combine selection into a single Mtext object (converts text object to Mtext without combining).
- The top-down sorting order is relative to the current UCS, and sorting is left-to-right when text objects are collinear. When multiple text objects are collinear, they are treated as if they’re on the same line with a space between them.
- A new Settings option enables you to force uniform line spacing or maintain existing line spacing.

* Functionality also included in the AutoCAD 2017.1 Update

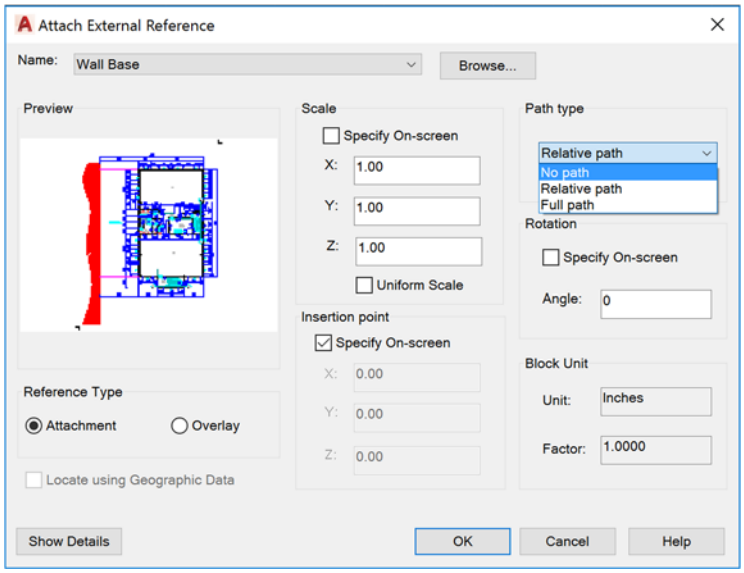


Collaboration

External references

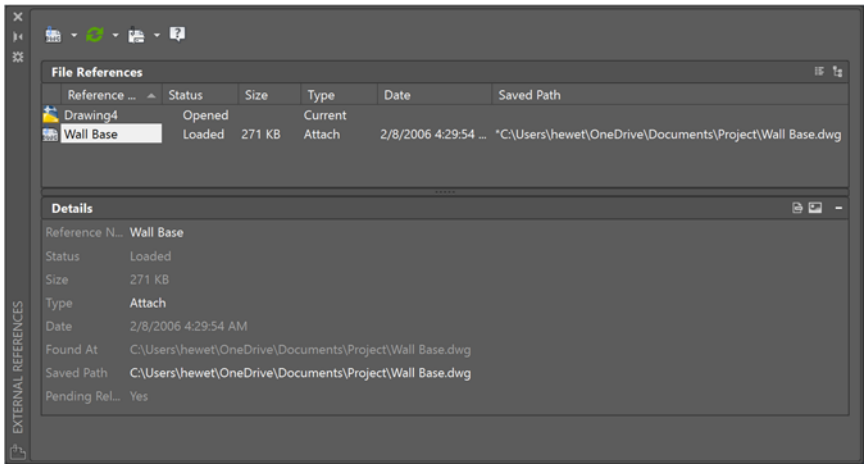
Enhancements in the AutoCAD 2018 release help reduce the problems created by broken reference paths.

When you attach an external file to an AutoCAD drawing, the default path type is now set to Relative path instead of Full path. If Relative path isn't your preferred path type, you can use the new REFPATHTYPE system variable to modify the default reference path type. Set the value to 0 for No path, 1 for Relative path, or 2 for Full path.

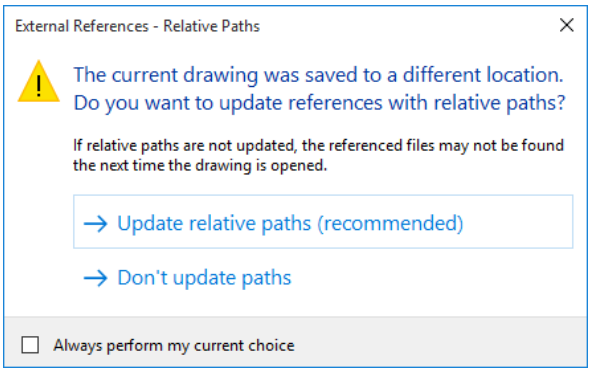


In previous releases of AutoCAD, you cannot assign a relative path to a reference file when the host drawing is unnamed (not saved). In AutoCAD 2018, you are able to assign a relative path for a file even when the host drawing is unnamed. If you select the reference file in the External References palette, the Saved Path column displays a full path with an asterisk prefix to indicate that a change will take place when you save the host drawing. A property in the Details pane also indicates that the reference file is pending a relative path.

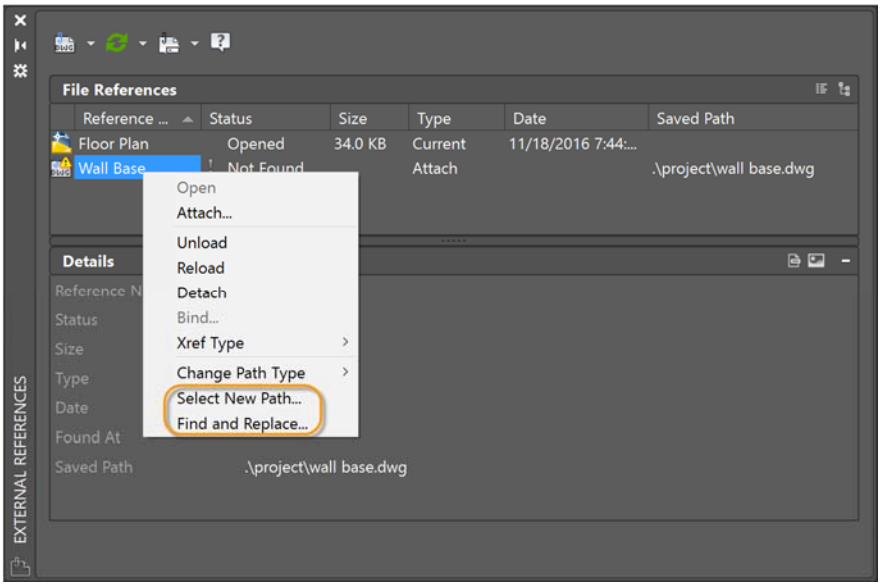
* Functionality also included in the AutoCAD 2017.1 Update



If the current drawing includes relative references and you save it to a different location, you are prompted to update the relative paths.

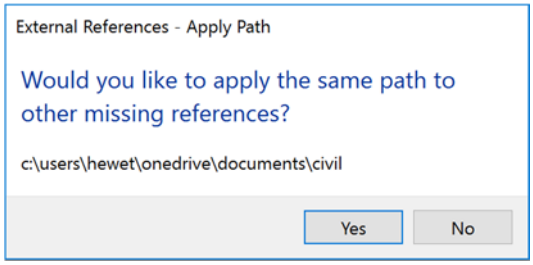


The contextual menu of the External References palette offers two new options when you right-click on a reference file that is not found.

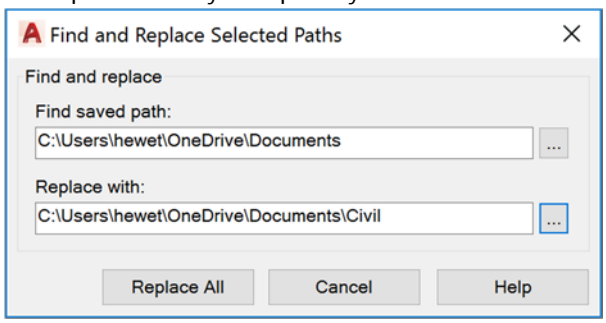


* Functionality also included in the AutoCAD 2017.1 Update

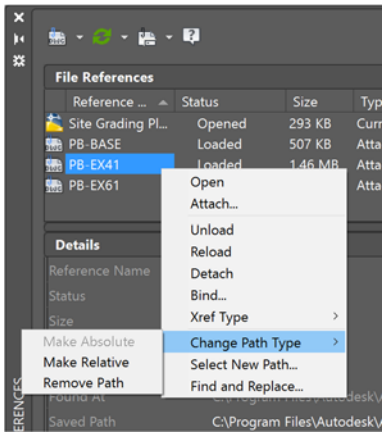
Select New Path allows you to browse to a new location for a missing reference file (fix one), and then provides you with an option to apply the same new location for other missing references (fix all).

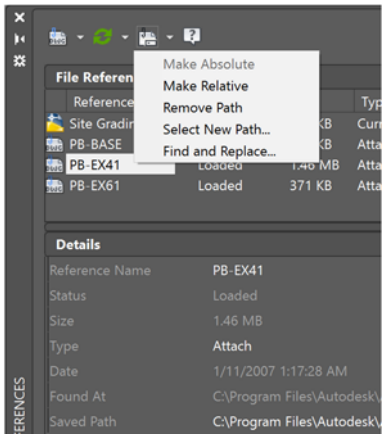


Find and Replace locates all references that use a specified path from all the references that you selected (multiple selection), and replaces all occurrences of that path with a new path that you specify.



When you choose Change Path Type from the right-click or toolbar menus for a reference in the External References palette, the current path type of the selected reference is disabled. This helps you identify which type of path is currently used for the selected reference.

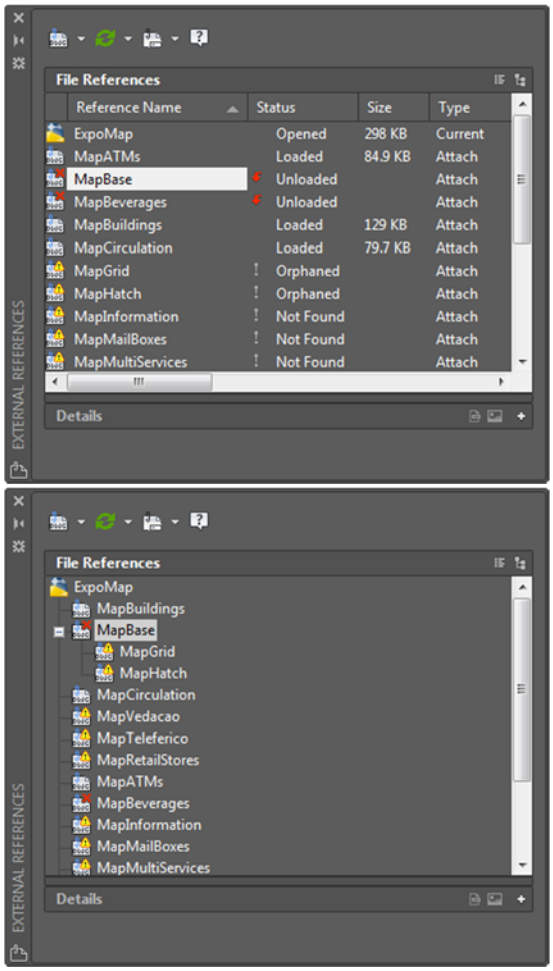




Nested (child) references now display as Orphaned instead of “Unreferenced” if their parent is Unloaded or Not Found. And, to further help you identify problems with broken

* Functionality also included in the AutoCAD 2017.1 Update

nested references, orphaned references now display in the proper tree view location, even when missing.



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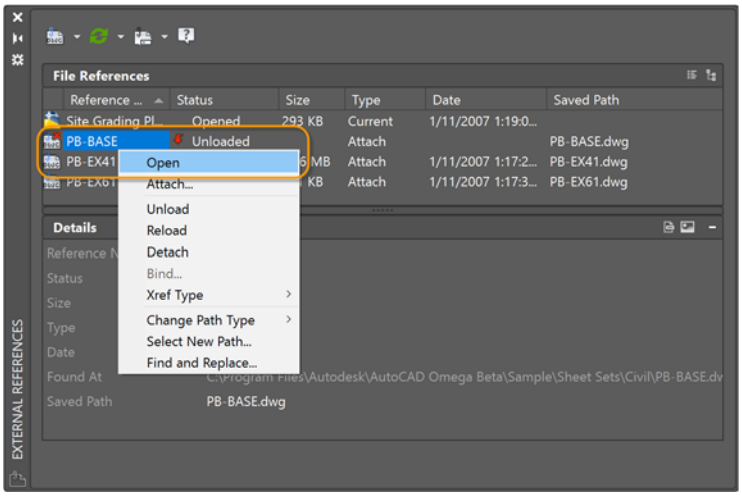
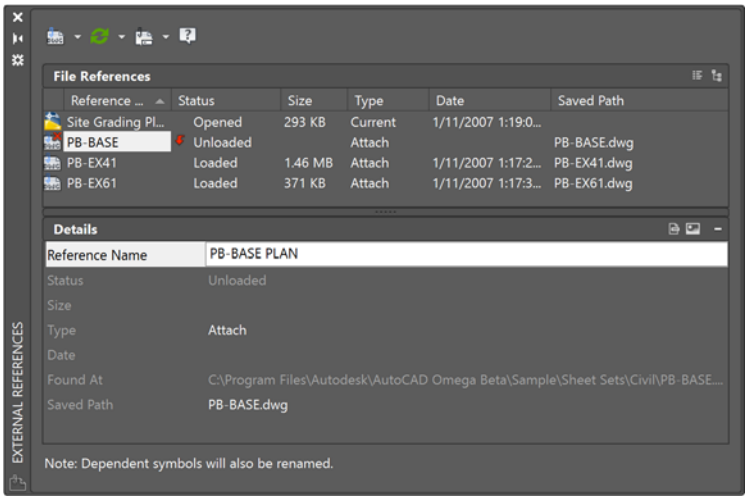
The Open option is no longer disabled when you right-click on an unloaded reference in the External References palette, enabling you to quickly open unloaded reference files.



If you rename an unloaded reference in the External References palette, it no longer automatically reloads. It remains unloaded until you intentionally reload it.



If you rename an externally referenced file from a tool other than the External References palette, such as the Xref Manager (CLASSICXREF command) or Rename dialog box, the new reference name is automatically updated in the Xref palette. You no longer have to reload it to see the new name.

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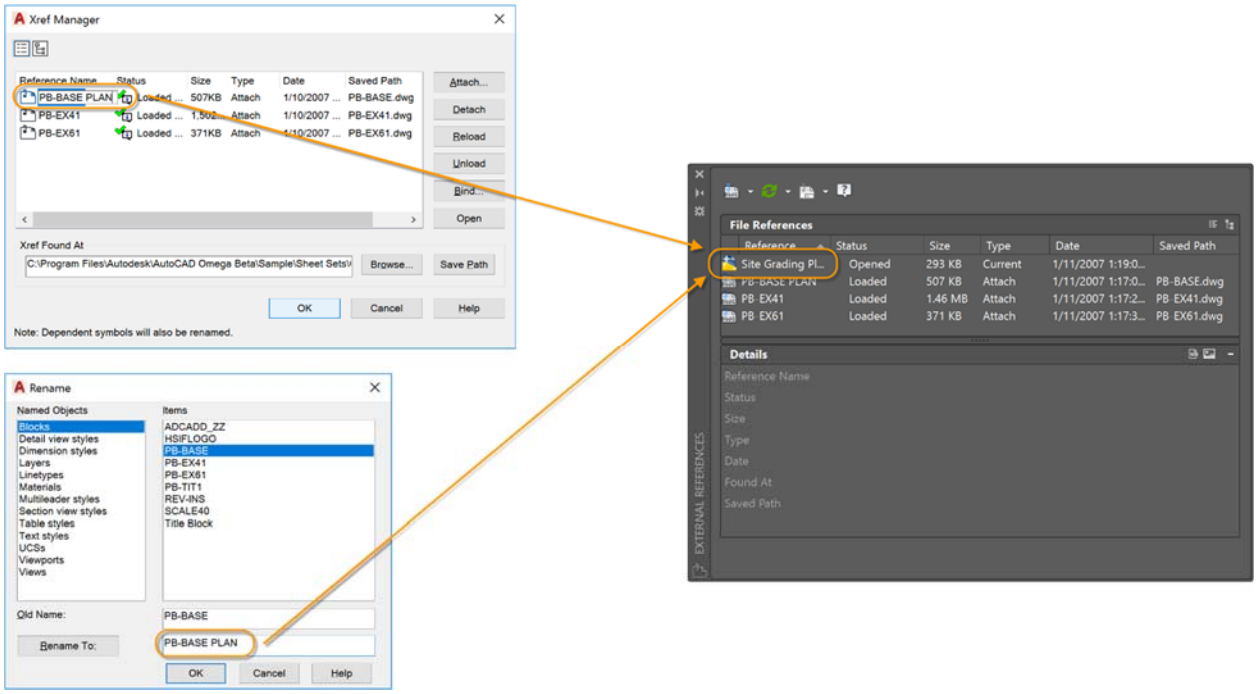
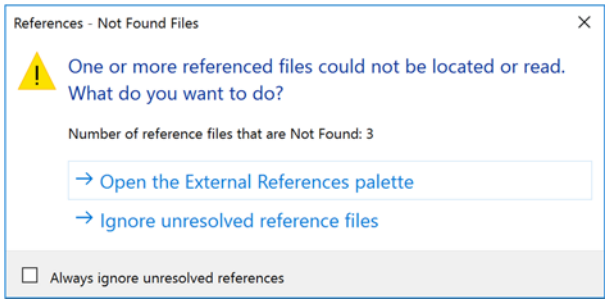


When opening a drawing with external references that aren't found, the message terminology has been changed for clarity. It now says "Number of references that are Not Found" instead of "Number of missing reference files".



Share Design View enhancements

Share Design View enables you to easily publish views of drawings to the cloud to facilitate collaboration with stakeholders, while also protecting your DWG™ files. Stakeholders viewing the design don't need to log into A360 or have an AutoCAD-based product installed. Plus, as they don't have access to the source DWG files, you can feel comfortable sharing views of your design with anyone who needs it. Share Design View functionality is enhanced in AutoCAD 2018 to support the new DWG file format.

You can access the new Share Design View tool from the Publish flyout on the Application menu or from the A360 ribbon tab with the ONLINEDESIGNSHARE command.

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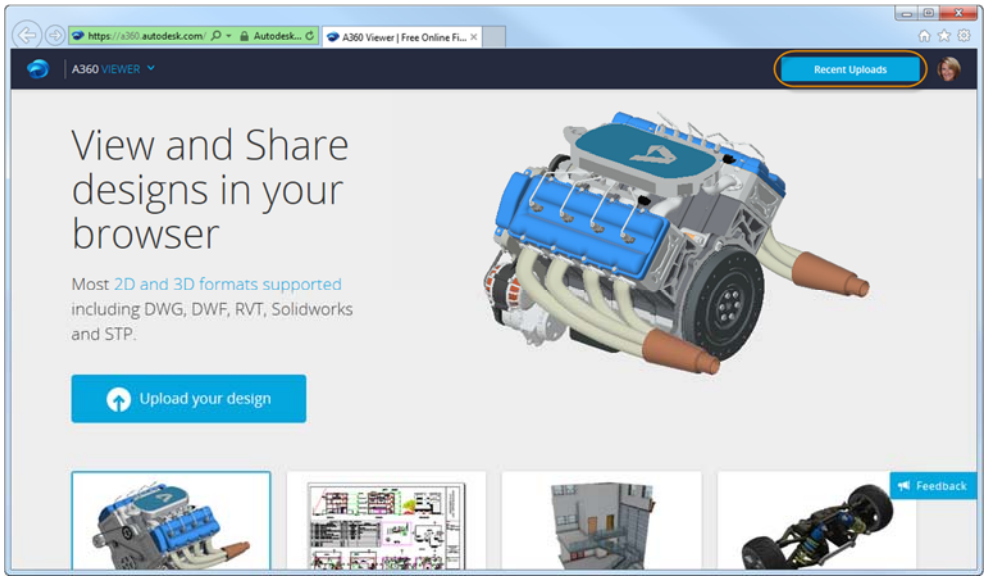
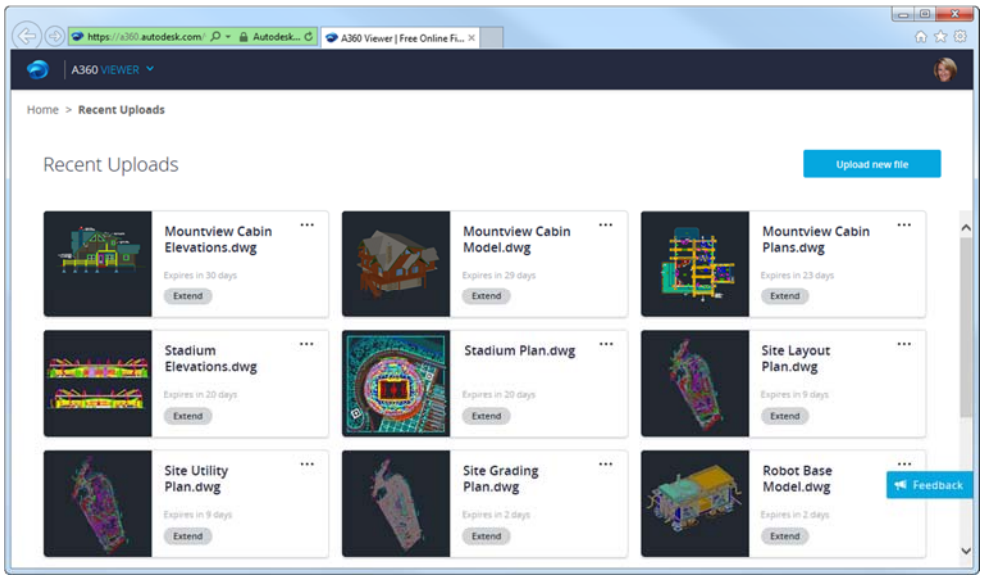
The design views are posted online with a link you can share with collaborators. You can easily access your recent uploads from the A360 viewer Home page.



By default, uploads are only available for 30 days. Now, however, you can extend a design view for an additional 30 days at any time.



In addition to sharing your design views, you can post, review, and resolve comments.

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Technology and performance updates

AutoCAD 2018 continues to offer improvements in performance and technology.

DWG file format

The DWG format has been updated to provide improvements in the efficiency of open and save operations, especially for drawings that contain many annotative objects and viewports. Additionally, 3D solid and surface creation is now using the newest geometric modeler which has improved security and stability.

Save performance

Save performance is improved in AutoCAD 2018. Objects that will experience the greatest improvement include blocks with annotation scaling, Mtext with columns and other newer formatting, as well as attributes and attribute definitions with multilines.

In addition, automatic save functionality is updated so that saves are most often performed incrementally rather than performing full saves, which are slower.

High resolution (4K) monitor support*

Support for high resolution monitors continues to be improved in AutoCAD 2018 to ensure the best possible viewing experience even on 4K displays and higher. Commonly used user interface elements, such as the Start tab, Command line, palettes, dialog boxes, toolbars, ViewCube, pick box, and grips are appropriately scaled and displayed as per the Windows setting.

REGEN3* (Not available in AutoCAD LT)

The new REGEN3 command regenerates the views in a drawing to repair anomalies in the display of 3D solids and surfaces. When a 3D display problem occurs, REGEN3 rebuilds all 3D graphics in the displayed views, including all 3D solid and surface tessellations.

2D display and performance

An update to Graphics Performance enables you to turn off smooth line display while still taking advantage of high quality geometry.

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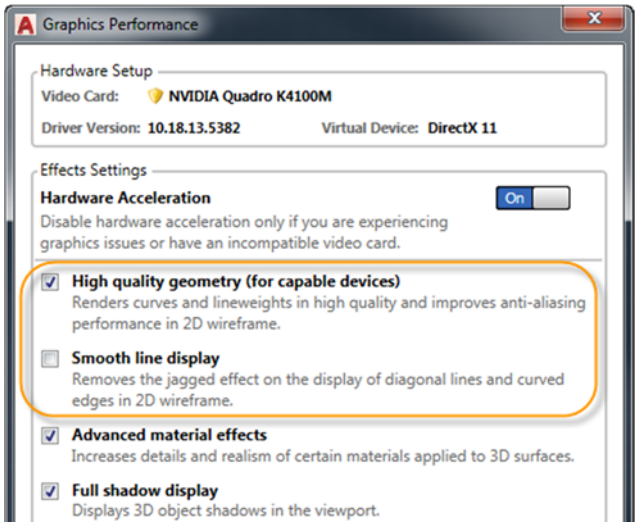


You can access the Graphics Performance dialog box from the Hardware Acceleration tool on the status bar.

Additional improvements include better performance with low-end devices and high resolution displays, as well as for regen and redraw of hatch patterns.

3D navigation performance* (Not available in AutoCAD LT)

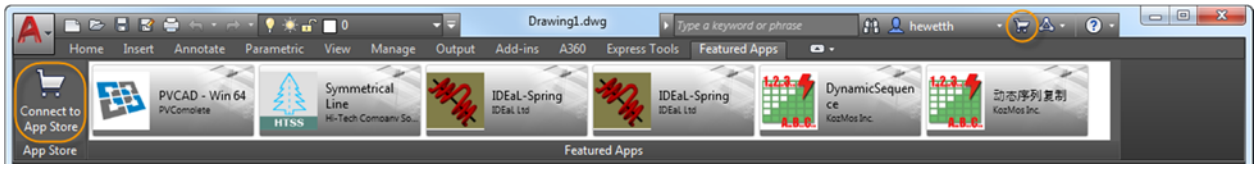
AutoCAD 2018 offers significant improvements when using zoom, pan, and 3D orbit operations in commonly used visual styles. Many larger drawings will no longer degrade as you navigate around the model. In fact, the performance for manipulating 3D models is approaching that of 2D drawings.

Bing map services

Online Map functionality has been updated in AutoCAD 2018 to support Bing Maps v8.0.

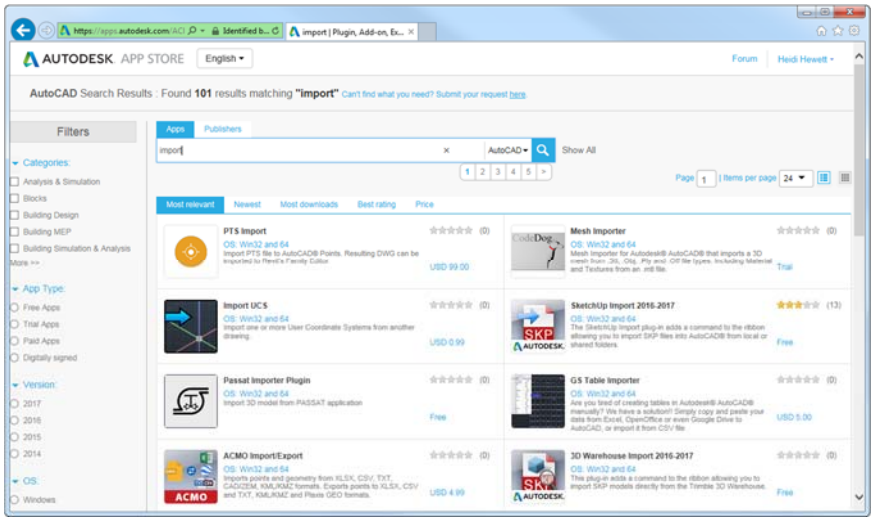
Autodesk App Store (Not available in AutoCAD LT)

Easily extend the power of AutoCAD 2018 with add-on applications from the Autodesk App Store, some free and some for purchase. View and download apps that support the updated DWG file format by connecting to the Autodesk App Store from the Featured Apps ribbon tab, as well as from the Infocenter.



* Functionality also included in the AutoCAD 2017.1 Update

In the Autodesk App Store you'll find a variety of valuable tools as they are updated to support the AutoCAD 2018 file format. Popular apps include the SketchUp Import tool which was removed from the Add-ins ribbon tab in AutoCAD 2018.



Autodesk Seek

As of January 2017, Autodesk Seek operations have been transferred to BIMobject AB. BIMobject is an online source for product information that is directly accessible from your Autodesk software. From this service, you can access 2D drawings, 3D models, brochures, and product specifications uploaded by product manufacturers, suppliers, and aggregators.

iDrop security

Support for iDrop is removed in AutoCAD 2018 since it uses an outdated technology and could pose an increased security risk.

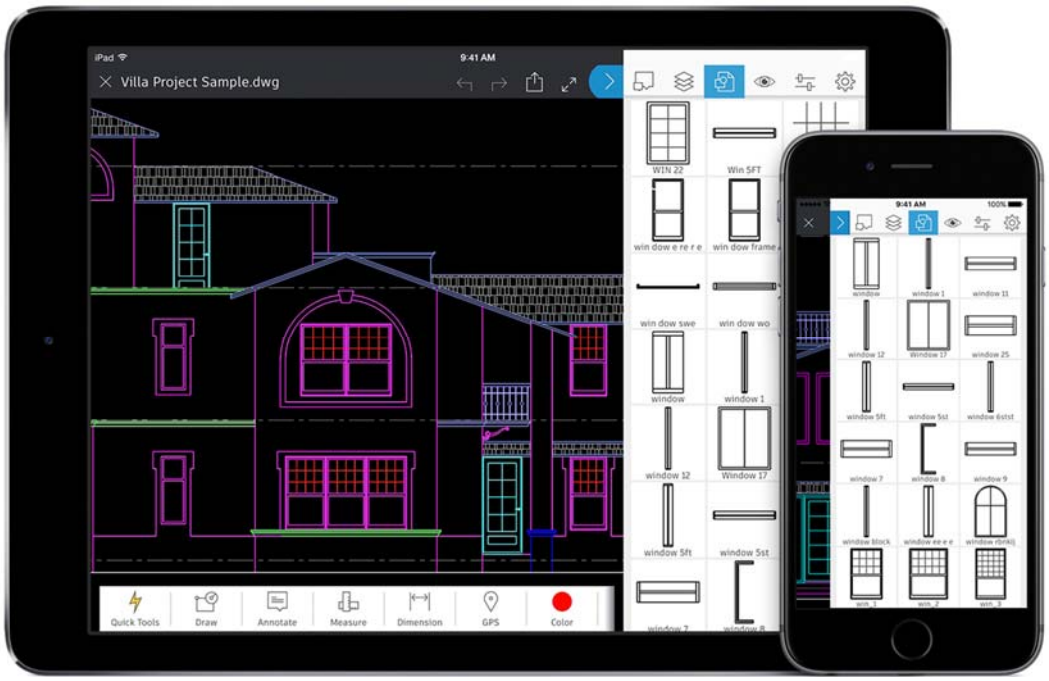
BIM 360

The BIM 360 ribbon tab has been removed from AutoCAD 2018. You can download the plug-in from the Glue download page.

AutoCAD Mobile

When you subscribe to AutoCAD, you receive access to the AutoCAD mobile app as well. AutoCAD mobile gives you essential tools for on-the-go work. Be more productive by easily viewing, creating, editing, and sharing CAD drawings on your tablet or smartphone—no need to bring printed drawings to job sites or client visits. View every aspect of your drawings, measure accurately, redline, add comments, make changes, and even create new drawings on the fly. The AutoCAD mobile app can be downloaded from the Apple App Store, Google Play Store or Windows App Store.

* Functionality also included in the AutoCAD 2017.1 Update



* Functionality also included in the AutoCAD 2017.1 Update