What's New in AutoCAD 2014

Below are some of the new features of AutoCAD 2014 with a brief overview of each section.

User Interface

Command Line

The Command Line interface is enhanced to provide smarter, more efficient access to Commands and AutoCAD system variables.

The command line may now also be used to find additional content such as hatch patterns, visual styles, and internet help.
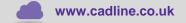
AutoCorrect

The Command Line now supports "AutoCorrect". If a command has been mistyped in the command line, instead responding with "Unknown command", AutoCAD now autocorrects the typed text to the most relevant and current AutoCAD command.

AutoComplete

The "AutoComplete" command entry is enhanced to now support mid-string search.

Adaptive Suggestions

Commands in the suggestion list are initially displayed in the order of their usage based on general user data. As the user continues to work with AutoCAD 2014, the order of commands in the suggestion list will adapt to the users command usage. The command usage data is stored in the profile and adapts to each user. So users sharing a PC will all have usage data lists.

Synonym Suggestions

The Command line has a built in synonym list. Enter a word at the command line and it will return a command if a match is found in the synonym list. For example, if the word "SYMBOL" is entered AutoCAD will find the "INSERT" command so that a block may be inserted, or if the word "Round" is typed in, AutoCAD will find the "FILLET" command so that a "FILLET" may be added to two a joining lines etc.

Input Settings

The user can also customize the behaviour of the command line using controls in the Input Settings menu when right-clicking on the command line. In addition to the previous options to enable "AutoComplete" and search for system variables, you can enable "AutoCorrect", search content and mid- string search. All of these options are turned on by default.
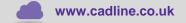
File Tabs

The AutoCAD 2014 release now offers drawing "FILE TABS" as a fast and visual way to switch between open drawings, and or to create new drawings. The "FILE TABS" bar can be turned on or off using the "FILE TABS" control in the "VIEW" ribbon tab. When "FILE TABS" are turned on, a tab for each open drawing is displayed at the top of the drawing area.

File tabs are displayed in the order in which they were opened. The file tabs can be dragged and dropped to change their order. If there is not enough room for all the file tabs to display across the area, an overflow menu at the right end of the file tabs bar provides access to the additional files.
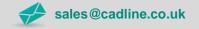
A lock icon on a tab indicates that the file is open as read-only and an asterisk indicates if the file has been modified since its last save. When the cursor is passed over a file tab, preview images of the model and layouts are displayed. If the cursor is passed over one of the preview images, the corresponding model or layout is temporarily displayed in the drawing area and Plot and Publish tools are accessible from the preview image, a bit like "QUICK VIEW"

The right-click menu for file tabs enables user to create, open, save and close files including the ability to close all open files except the one on which has been right-clicked. You can also copy the full file path to the clipboard or open the file location in Windows Explorer.

A Plus (+) icon to the right of the drawing tabs, enables you to easily create new drawings, automatically adding their tabs as they're created.

Layer Management

The number of layers displayed on the ribbon has been increased. Layers are now displayed using natural ordered sort.

For example, the following layer names 1, 4, 25, 6, 21, 2, 10 are sorted as 1, 2, 4, 6, 10, 21, 25 instead of 1, 10, 2, 25, 21, 4, 6.

A new Merge option in the Layer Manager enables you to select one or more layers from the layer list and merge the objects from those layers onto a different layer. The original layers are automatically purged from the drawing.

External Reference Enhancements

The display of linetypes and layers from externally referenced drawings is enhanced. External reference linetypes are not displayed in the linetype list of the ribbon or Properties palette. Xref layers are still displayed in the ribbon so you can control their visibility but they are not displayed in the Properties palette.

Design Exploration

Geographic Location

Support for Geographic locations has been significantly enhanced in 2014. It includes the same

Coordinate System Library as AutoCAD Map 3D and new Autodesk Live Maps.

There are many benefits to defining a location in your drawing. When importing geo located data into a geo located drawing, AutoCAD transforms the data based on the drawing's geographic location. The design can now be shown within the context of its location and if you render the model, it will have the correct sun angle. If you export the drawing to a mapping service like Google Earth, it will automatically display at the correct location. When you insert geo-referenced images or blocks into your geo-referenced drawing, they are automatically placed in the correct location and at the correct scale. For example, imagine large projects that have multiple designers working separately on the same design, such as a housing project. If each designer uses the same coordinate system, all the drawings will insert at their appropriate locations when combined into a single file. The user can also mark specific points of interest in the drawing knowing that those points can correspond to logical geographic locations.

If a GPS device is enabled on the computer, the user's current position in the drawing can be displayed and positions may be marked as the user moves around. For example, landscape architects can visit the site and take notes of the surroundings by marking them on the drawing.

You can set a geographic location in your drawing using the "Set Location Tool" on the Insert ribbon tab. Choose to set the location using Autodesk Maps Service or by selecting a KML or KMZ file.

Reality Capture

"REALITY CAPTURE" enables the user to take a 3D laser scan of an object, topography, a building or even an entire town and attach it to an AutoCAD drawing as point cloud data. These can then be used as a real-world reference for the design work. This point cloud data is stored as thousands, or even millions, of points in 3D space.

Autodesk "RECAP"

Autodesk "RECAP" is a separate application which enables you to create a point cloud project file (RCP) that references multiple indexed scan files (RCS). It is installed with 2014, by default and you can launch it from the Window's Start menu or from the Autodesk "RECAP" desktop icon.

Autodesk "RECAP" may be used to convert scan file data to a point cloud format that can be viewed and edited in other products. Autodesk "RECAP" processes massive datasets enabling aggregate scan files and clean, section, spatially sort, compress, measure, and visualize. The resulting high-speed formats can then be used by AutoCAD and other Autodesk applications including Revit and Autodesk Inventor.

Documentation

Drawing Enhancements

AutoCAD 2014 includes a variety of drawing enhancements to help you produce drawings more efficiently.

•   ARCS - Easily draw an arc in either direction using by pressing the Ctrl key to switch directions as you draw.

•   POLYLINES - The ability to fillet a polyline to itself, creating a closed polyline, is granted now in AutoCAD 2014.

•   SHEET SETS - When creating a new sheet in a sheet set, the CreateDate field stored in the associated template (.dwt) displays the creation date of the new sheet rather than the creation date of the template file.

•   PLOT STYLES - The "CONVERTPSTYLES" command enables you to convert the current drawing to either named or colour dependent plot styles. In AutoCAD 2014 it is enhanced to support style names with spaces.

Annotation Enhancements

•   ATTRIBUTES - The default behaviour for inserting blocks with attributes displays the dialog box. "ATTDIA" is set to 1.

•   TEXT - Single line text is enhanced to maintain the last justification setting until it's changed. (This may give some users a few problems initially, since the text may not appear were it is expected, but like all commands given usage it will soon get sorted).

•   DIMENSIONS - The new "DIMCONTINUEMODE" system variable provides the user with more control when creating continued and baseline dimensions. When "DIMCONTINUEMODE" is set to 0, the DIMCONTINUE and DIMBASELINE commands create dimensions based on the current dimension style. When set to 1, they apply the dimension style of the selected dimension.

•   HATCH - The Hatch tool on the ribbon maintains the previous method for selecting objects to hatch, pick internal point or select objects. The Undo option has now been added to the command line.

Operating Systems

AutoCAD 2014 supports Windows XP, Windows 7 and Windows 8. If a Windows 8 touch-enabled device is being used the user can now benefit from smoother pan and zoom performance. A new control on the System tab of the Options dialog box displays a touch mode ribbon panel when a touch screen device is detected.