



Command and Feature Comparison between BricsCAD and AutoCAD at the CAD

- Cad Manager Level -

This document compares and contrasts the ribbon interface of the two applications. Its focus is more on the tab and panel interface, rather than each individual tool available.

The text goes through each tab on the ribbon, and each panel on each tab. At times this text will get specific in regards to certain individual tools when warranted.

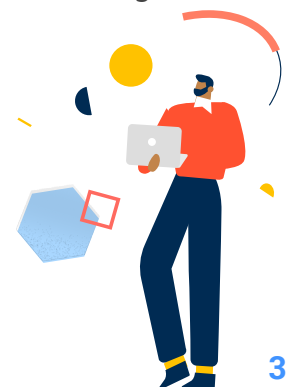
Every effort has been made to be as complete, as well as succinct, as possible.



The Home Tab

Draw Panel

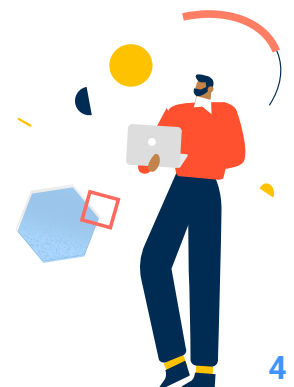
- AutoCAD has many different tile configurations in its panels and many of the tool tiles are “hidden” below the panel title. BricsCAD tools are all visible and displayed in a consistent fashion. In this way, the BricsCAD panels are easy to navigate as there is no need to remember what tools are hidden – and where they are hidden. The cleanliness of the BricsCAD interface will be appreciated.
- Line, Multiline, and Arc commands in BricsCAD have Follow, Length, and Angle options visible to the user. AutoCAD has these capabilities, but the method to access these options must be “known” by the user as there is no prompting that they are even available.
- Ray command in BricsCAD has all the options that are also in the Construction Line tool visible on the command line.
 - The Ray command in AutoCAD also has all options available, but they are not displayed at the command prompt, nor cursor – a new user would have to “know” they are available.
- The method to apply start and end tangencies to Splines in BricsCAD is very intuitive. However, editing start and end tangencies is intuitive in AutoCAD.
- Sketch, Trace, and Solid commands are on the panel in BricsCAD
 - They are not shown anywhere in AutoCAD. In fact the Trace tool has been discontinued.
- Donut command has more circle related options in BricsCAD than in AutoCAD.
- Point tool in BricsCAD is a single point tool with a “Multiple Points” option, which is intuitive to use.
 - AutoCAD has a “Multiple Points” macro, but no panel access to a single point command.



- Turn Arc into circle option of BricsCAD's Circle command is a unique feature
 - AutoCAD can do this by editing the arc using the Join command, but the user must know this – it is not a specific tool.
- Lastly, many of the BricsCAD drawing commands are identical to their counterpart in AutoCAD. The big advantage in BricsCAD is that there is a macro available to access nearly all options of every command. AutoCAD does not do this with all of its drawing commands.

Modify panel

- All tools work identically in both BricsCAD and AutoCAD
- BricsCAD offers all selection methods as a popup menu on the right edge of the graphics window
 - AutoCAD does not show you all the selection techniques – until the user attempts an unavailable options, then the valid methods are prompted to the command prompt
 - BricsCAD has four selection methods that are unavailable in AutoCAD
 - Inside Circle, Crossing Circle, Outside Circle, Outside Window
 - These last two are particularly convenient... they are “everything but...” selection methods
 - AutoCAD has a few additional tools included in the “under the panel title” fly-out
 - Most of these are object specific editing commands
 - BricsCAD offers the same functionality as these same commands merely by double clicking or by use of its unique roll over editing palette
 - Roll over editing palette allows specific property editing just like AutoCAD's property palette
 - Roll over editing palette also allows access to common editing commands pertaining to the object being rolled over



Annotation Panel

- All tools are identical in both applications
- AutoCAD provides access to tools and dropdowns for creating, modifying and setting the styles for annotation items included in the “under the panel title” fly-out

Layers panel

- All layer tools on this panel are identical in both BricsCAD and AutoCAD
- Layer filter list is displayed on initial layer palette in AutoCAD
 - Layer filter lists can be created and displayed within the Layer Explorer dialog box, which can be accessed on the initial layer dialog box in BricsCAD
- AutoCAD has additional layer property and object property tools available included in the “under the panel title” fly-out

Block panel

- The block creation, block modify, attribute definition, attribute editing, and attribute manager tools on this panel are identical in both BricsCAD and AutoCAD
- Insert tool in BricsCAD launches the Insert Block dialog box
 - In AutoCAD a drop down graphic menu of known blocks
 - 4 blocks are shown at a time
 - Must scroll through list to get to the rest of the blocks
 - Selecting More Options at bottom of dropdown menu launches Insert Block dialog box (which is identical to AutoCAD)
- Block editing is identical in both applications
 - AutoCAD changes the background color as a reminder that block editing mode is active
- Blockify tool in BricsCAD automatically makes anonymous block from a selected set of objects, and searches the drawing and updates identical instances matching the selection to anonymous blocks
 - AutoCAD does not have this functionality
- Selecting the Blocks... tool in BricsCAD opens the Drawing Explorer dialog box (similar to AutoCAD’s Design Center palette) to the list of Blocks objects and their editable properties



Properties panel

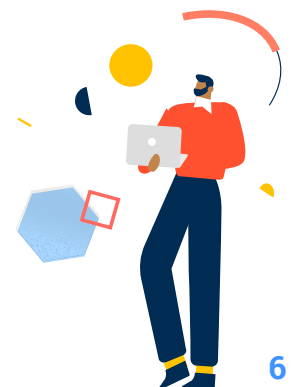
- Match properties, and color, lineweight, and linetype dropdowns are identical on this panel in both BricsCAD and AutoCAD
- Additionally BricsCAD provides access to Transparency, List, ID, and Status commands

Group panel

- The Group tool in BricsCAD launches a dialog box with all of the Group command's options with the panel tool
- The Group tool in AutoCAD runs the command line version of the Group command
 - BricsCAD also has the –Group command line version of the command
- AutoCAD provides macros for Undo Group, Group Edit, Group On/Off toggle – as well as Group Ma

Utilities panel

- This panel is quite different when comparing the two software applications. Tools will be addressed and compared in this document individually:
 - “Main” fly-out tool in both applications:
 - BricsCAD provides access to Distance, Area, and Mass Properties commands
 - AutoCAD provides access to the Distance, Radius, Angle, Area, and Volume options of the MeasureGeom command
 - Nearest Distance tool in BricsCAD, allows the display of and adjustment to the nearest distance between two selected objects
 - AutoCAD does not have this functionality
 - Select All, Select Similar, and Quick Select tools are available in both applications
 - Add Selected tool in BricsCAD launches the command that was used to create the selected object, and the new object inherits the properties of the selected object
 - AutoCAD does not have this functionality
 - Quick Calculator on AutoCAD panel
 - BricsCAD does not have this functionality



Clipboard Panel

- AutoCAD includes a Paste as Hyperlink tool in the Paste flyout
 - BricsCAD does not have this functionality
- BricsCAD includes a tool for Copy with Base Point
 - AutoCAD provides access to this tool in a shortcut menu

Bottom line on the Home tab:

This tab in BricsCAD is more organized, and all commands are readily available. AutoCAD hides numerous commands “under” the title bars of the panels. The user has to make an extra click to get to those commands, and has to know they are there in the first place. BricsCAD drawing commands have extra, useful options unavailable in AutoCAD.

The selection methods for BricsCAD editing commands are shown on the screen and has options unavailable in AutoCAD. The rollover editing palette is a power user’s dream – just move the mouse and it is there. No double clicking or right clicking... Power users “count clicks” and there is no clicking with the rollover editing palettes.



The Insert Tab

Blocks panel (BricsCAD)

Block and Block Definition panel (AutoCAD)

- All of the tools found on the Blocks and Blocks Definition panel of AutoCAD can be found on the Blocks panel of BricsCAD

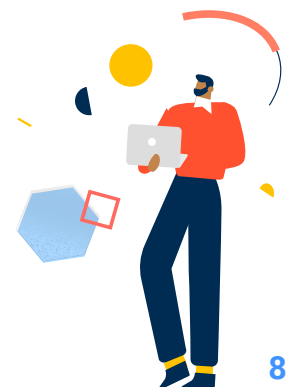
Reference panel (BricsCAD)

Image panel (BricsCAD)

PDF panel (BricsCAD)

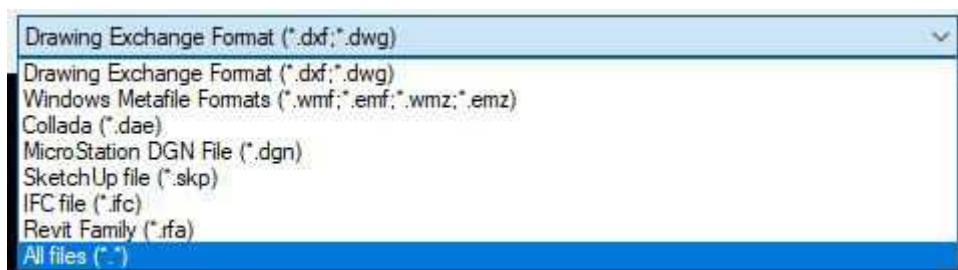
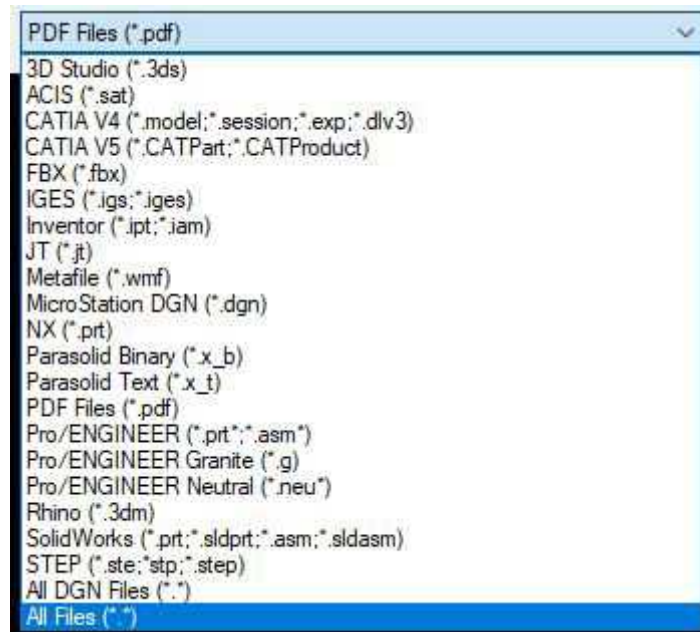
Reference panel (AutoCAD)

- All tools for working with externally referenced files seem to work identically in both applications, although AutoCAD makes no differentiation between drawing files, image files, and PDF files being externally referenced while BricsCAD uses a separate set of commands for referencing these three types of files.
- AutoCAD supports “underlays” for drawing, image, and PDF files
 - BricsCAD supports “underlays” for PDF files only



Import panel

- AutoCAD supports more files types than BricsCAD:



Pointclouds panel

- BricsCAD provides tools for pre-processing, attaching, increasing and decreasing point size, and color map on this panel
- AutoCAD provides a tool for accessing the Autodesk ReCap application, and attaching a point cloud



Data panel (AutoCAD)

Linking & Extraction panel (AutoCAD)

Location panel (AutoCAD)

- AutoCAD provides tools on these panels for working with data fields, OLE objects, hyperlinks, data extraction, and attaching location information
 - BricsCAD does not have panels for these tools

Bottom line on the Insert tab:

The Blockify command on BricsCAD's Insert tab has no equivalent in AutoCAD. (Select any group of objects and they are turned into a block. If there are matching sets of objects in the drawing they become insertions of that block). All other commands on these panels in AutoCAD are included on this tab in BricsCAD. AutoCAD does seem to handle underlays, importing file types, OLE and hyperlinks on a more in-depth basis than does BricsCAD.



The Annotate Tab

Text panel

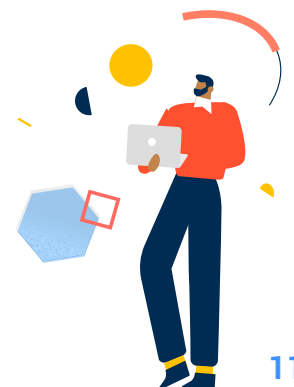
- Mtext tool works identically in both BricsCAD and AutoCAD
 - BricsCAD presents the command options in a floating toolbar
 - AutoCAD presents options in a contextual ribbon tab
- Text, Spellcheck, and Find tools work identically in BricsCAD and in AutoCAD
- BricsCAD includes tools for controlling draw order of text and dimensions, and a fly-out tool for working the data fields on this panel
- AutoCAD includes tools for aligning text, modifying text justification, changing and editing text styles, and changing and edit text height on this panel

Dimensions panel

- Dimension tool works identically in both BricsCAD and AutoCAD
- Linear, Aligned, Radius, Diameter, Angular, Arc length, Continue, Baseline, Ordinate tools work identically in both BricsCAD and AutoCAD
- Both applications make use of fly-outs to save space
 - AutoCAD uses more fly-outs than BricsCAD on this panel
- AutoCAD provides a jogged dimension tool
- Center Mark, Centerline tools in both BricsCAD and AutoCAD
- BricsCAD includes tools for editing dimension text on this panel
- AutoCAD includes tools setting and managing dimension styles, breaking extension lines, adjusting dimension spacing, adding a jog to a dimension line, adding inspection information, updating, and reassociating dimensions

Leaders panel

- Multileader tools are nearly identical in both applications
- BricsCAD presents the command options in a floating toolbar
 - AutoCAD presents options in a contextual ribbon tab
- BricsCAD provide tool button for Leader and Quick Leader tools on same fly-out as the Multileader tool
 - AutoCAD does not offer access to these two commands on the ribbon



- Multileader editing tools are nearly identical
 - BricsCAD provides a tool to add leaders to an existing multileader
 - An option to allow removal of leaders from an existing multileader is provided
 - AutoCAD provides two separate tools for adding and removing leaders from multileaders
- Multileader Styles tool is slightly different in the two applications
 - BricsCAD tool button launches Drawing Explorer with Multileader Styles item selected – and user can make a different style active, modify an existing style, or create a new style
 - AutoCAD provides a drop down list of existing styles that can be used to make a different style active. Last item in drop down allows launching of the Multileader Style dialog box that can be used to make a different style active, modify an existing style, or create a new style.
- BricsCAD provides a Multileader Scale tool for changing the scale factor applied to newly placed multileaders
 - AutoCAD does not provide a similar tool, but scale can be adjusted in the Properties panel
- AutoCAD provides Align and Collect tools for aligning and collecting multileaders
 - BricsCAD supports these commands but does not include tools on this panel

Tables panel

- Table tool works identically in both BricsCAD and AutoCAD
- AutoCAD provides a dropdown list of existing table styles that can be used to make a different style current.
- AutoCAD also provides tools for data extraction, data linking, and uploading and downloading data from sources.
 - BricsCAD supports these commands also, but does not include tools on this panel

Markup panel

- Wipeout tool works identically in both BricsCAD and AutoCAD
- Revision cloud tool works identically in both BricsCAD and AutoCAD
 - AutoCAD provides macros for the rectangular, polygonal, and freehand options of the Revcloud command.
 - BricsCAD supports these options also, but does not include macros for them



Annotation Scaling panel

- Add/Delete Scales tool works identically in both BricsCAD and AutoCAD
- Synchronize Multiple-scale Positions tool works identically in both BricsCAD and AutoCAD
- BricsCAD includes Update Annotations tool to update selected annotative objects with the current annotation settings
 - AutoCAD supports this command but does not provide access to the tool on the ribbon
- BricsCAD includes Annotations All visible tool to control visibility of annotative objects based on current annotative settings
 - AutoCAD supports this command but does not provide access to the tool on the ribbon
- AutoCAD provides Add Current Scale, Delete Current Scale, Scale List tools
 - BricsCAD supports the Scale List tool but does not provide access to the tool on the ribbon
 - BricsCAD does not appear to support the adding or deleting of the current annotative scale to selected annotative objects

Bottom line on the Annotations tab:

All commands work nearly identically in both BricsCAD and AutoCAD. AutoCAD provides a drop down list on each panel of the available styles to allow making a new style current for all style supported object types. BricsCAD handles these operations from within the Drawing Explorer dialog box.



The Parametric Tab

Dimensional panel (BricsCAD)

Geometric panel (AutoCAD)

Dimensional panel (AutoCAD)

- All tools on these panels operate identically in both BricsCAD and AutoCAD

Manage panel

- Tools on this panel operate identically in both BricsCAD and AutoCAD

Bottom line on the Annotations tab:

All BricsCAD and AutoCAD tools work identically.



The View Tab

The View tabs in BricsCAD and AutoCAD are quite different, with few similarities.

- In BricsCAD, for the most part, this tab has panels with tools mainly used to help view the drawing
- In AutoCAD, for the most part, this tab has panels with tools to control the visibility of other on-screen drawing aids such as the UCS Icon, the Properties Panel, Tool Palettes, etc.

Zoom panel (BricsCAD)

- Tools and macros for the Zoom command and all of its options are on this panel

Navigate panel (BricsCAD)

- Tools for “Real-time” zooming, panning, and rotating around the Z axis are on this panel

View panel (BricsCAD)

- Tools for UCS, Viewpoint, Model Space Viewports, Regen and Regen All, Redraw and Redraw All, Paper Space Viewports, Hide objects, Isolate objects, Unhide/Unisolate objects are on this panel
 - Model Space Viewports tool is command line driven only

Interface panel (BricsCAD)

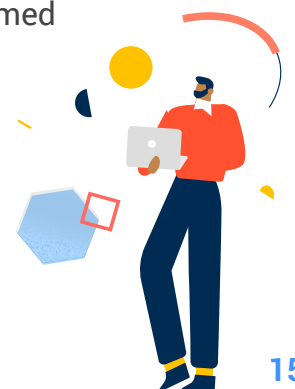
- Tools for cascading windows, and tiling windows horizontally and vertically are on this panel

Viewports Tools panel (AutoCAD)

- Tools for controlling the visibility of the UCS Icon, the View Cube and the Navigation Bar in all viewports are on this panel

Model Viewports panel (AutoCAD)

- Tools and macros for all viewport configurations, working with named viewport configurations, joining viewports, and toggling between single and multiple viewports are on this panel



Palettes panel (AutoCAD)

- Tools for controlling the display of Tool Palettes, Properties Palette, Sheet Set Manager, Command Line Palette, Layer Manager Palette, Design Center, Markup Set Manager Palette, Quick Calculator Palette, and External References Palette are on this palette

Interface panel (AutoCAD)

- Tools for switching between drawing windows, controlling visibility of File Tabs and Layout Tabs, cascading windows, and tiling windows horizontally and vertically are on this panel

Named Views panel (AutoCAD)

- Tools for switching to predefined named views, creating a new named view, and launching the View Manager dialog box are on this panel

Bottom line on the View tab:

This tab has a completely different purpose in each application. In BricsCAD, all the tools for controlling how the user views the drawing are on this tab. In AutoCAD, this tab is used to control the visibility of the various on screen tools provided in AutoCAD (UCS icon, View Cube, etc.).



The Manage Tab

Action Recorder panel

- Tools to work with the Action Recorder appear to be very similar in BricsCAD and AutoCAD

Customization panel

- The Customize User Interface tool is on this panel for both applications
 - The dialog box for BricsCAD is tab oriented for the various interface items
 - The dialog box for AutoCAD is an expandable and collapsible single column for the various interface items
- BricsCAD provides tools for the Drawing Explorer, the Settings dialog box, and the Menu command
 - AutoCAD does not offer these tools here
- AutoCAD provides tools for customizing tool palettes, opening the CUI dialog box to the Transfer tab for importing and exporting partial CUI files, and editing command aliases
 - BricsCAD does not offer these tools here

Applications panel

- BricsCAD provides tools for loading custom LISP applications and launching the Visual Basic Editor
- AutoCAD provides tools for loading custom LISP applications, running a script file, launching the Visual Basic Editor, launching the Visual LISP Editor, and running a VBA macro

CAD Standards (AutoCAD)

- AutoCAD provides tools for Layer Translator, Checking CAD Standards, and Configuring CAD Standards
 - BricsCAD does not support these tools

Bottom line on the Manage tab:

This tab is similar in both applications. The Customize User Interface dialog box is different in each application, but allows customization of the same interface items. The BricsCAD dialog box seems easier to work with and is more consistent from interface item to interface item. AutoCAD does support CAD Standards checking tools, which are not available in BricsCAD.



The Output Tab

Print (Plot) panel

- Preview, Print (Plot), Page Setup, Publish (Batch Plot), Plotter Manager tools are all identical in both applications

Export panel

- BricsCAD has a tool for exporting to PDF, and another tool for exporting to numerous other files types
- AutoCAD has tools for export to PDF, DWF, and DGN

Bottom line on the Output tab:

BricsCAD and AutoCAD tools work nearly identically.

Bottom Line:

As I complete this review, I am very impressed with the BricsCAD interface. It is less cumbersome to work with than AutoCAD. As I was comparing the applications I had to remove my thoughts and knowledge of 35 years of experience with AutoCAD, and stick myself in the role of “new user”.

Upon completion, I ask myself: Which application can a new user learn more quickly? Hands down, BricsCAD. And: How much difficulty would an experienced AutoCAD user have while transitioning to BricsCAD? There would be virtually no “transition curve”... differences are extremely intuitive.