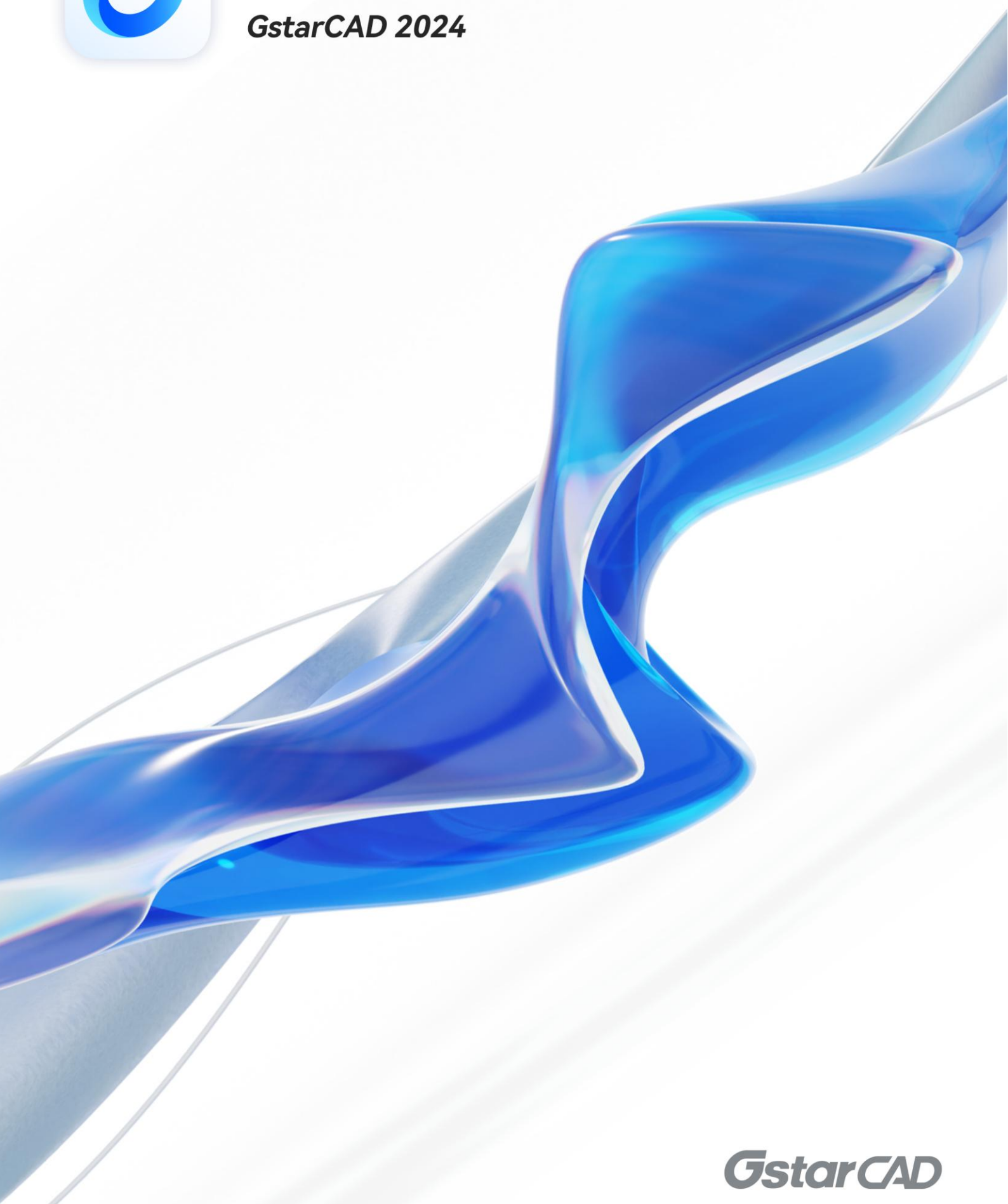
GstarCAD 2024 vs ZWCAD 2024

GstarCAD 2024



GstarCAD

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GstarCAD 2024 VS ZWCAD 2024

With accelerated performance, enhanced compatibility and elevated user experience, GstarCAD 2024 takes design productivity to new heights. Experience our optimized operation speed and quality, enjoy the expanded compatibility for more file formats and APIs, and discover a new level of design satisfaction with upgraded Dynamic Input tool and adjustable viewports, etc.

1. Comprehensive Evaluation

- **Compatibility**

GstarCAD 2024 is not only compatible with all versions of AutoCAD data such as DWG formats, fonts, hatch, and linestyles, but also can load the FAS and VLX lisp file formats that ZWCAD does not support.

- **Performance**

Higher performance plays an important role in GstarCAD. GstarCAD not only constantly provides users with more useful functions, but also delivers great performance in both 2D and 3D operations. GstarCAD is especially outstanding in dealing with the big size drawings that contain a large number of entities. The basic operations, such as regen, move, undo, redo, mirror and so on are significantly enhanced to boost the working efficiency of designers.

- **Functionalities**

ZWCAD 2024 adds some new features, such as Point cloud, Quick Properties Panel, Area Table, Flexibleblock which are already supported by GstarCAD. What's more, GstarCAD continuously improves and develops new features to increase productivity. Until now, GstarCAD has almost 100 more features than ZWCAD.

- **User Experience**

Even though ZWCAD optimized its performance of opening drawings and regular operations, but it still has an obvious gap with GstarCAD. GstarCAD brings you a better user experience in many aspects.

2. Compatibility Comparison

The main compatible file formats and application development interface comparison:

Item	GstarCAD 2024	ZWCAD 2024
2018 DWG/DXF	√	√
2.5-2018 DWG/DXF	√	√
Template file DWT	√	√
Standard file DWS	√	√
Interface file CUI/CUIX	√	√
Old menu file MNU	√	√
Sheet set file DST	√	√
Hatch file PAT	√	√
Font file SHX	√	√
Linetype file LIN	√	√
Print style file CTB	√	√
Import/Export WMF	√	√
Import/Export SAT	√	√
Import 3DS	√	×
Import PDF	√	√
Import DGN	√	√
Import/Export DWF/DWFX	√	√
Import IFC	√	√
Import SVG	√	×
Import STEP/IGES	√	×
Export STL	√	√
Export EMF	√	×
Export EPS	√	×
Export DXX	√	×
Export TIF	√	√
DWF underlay	√	√
Open DWF/DWFX	×	√
DGN underlay	√	√
PDF underlay	√	√
Load LISP program	√	√

Load FAS program	√	×
Load VLX program	√	×
VBA develop interface	√	√
Class ARX develop interface	√	√
.net develop interface	√	√

3. Performance Comparison

The performance of common-use operations like Open, Regen, Move, Undo, Redo, Mirror are much faster than ZWCAD 2024.

The chart below provides an overview of the the performance. We build an operation speed comparison of the basic features between GstarCAD and ZWCAD. To make sure the data validation, same operations will be tested twice and get the average value.

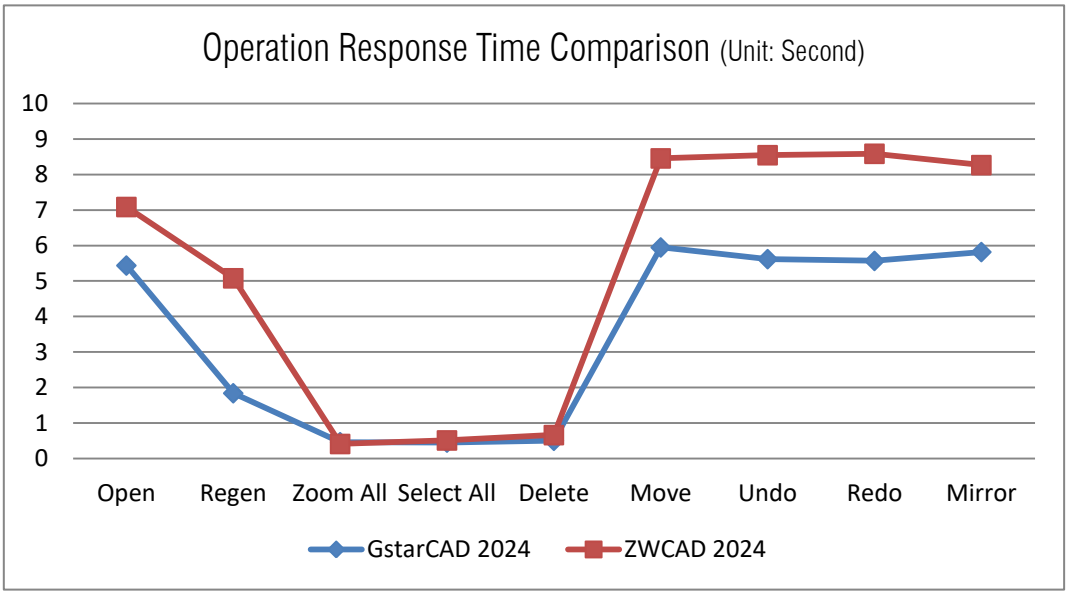
Operation Time Comparison between GstarCAD 2024 and ZWCAD 2024 (Unit: Second)

Testing environment:

WIN10 64bit Professional; 16G storage; CPU: Core i5-10400@ 2.90GHz; Graphic card: Intel UHD Graphics 630;

Drawing size: 48MB and 114MB

- We tested the operations with two 48MB and 114MB drawings, and got the average time.



It's obvious that GstarCAD 2024 responses significantly faster than ZWCAD for most of the the frequently used commands such as Open, Regen, Undo, Redo, Mirror. The operation time of GstarCAD and ZWCAD for few commands is similar. From the comparison data above, we get the conclusion that GstarCAD provides a better performance to enhance your working speed.

4. Features Comparison

ZWCAD 2024 releases new features such as Flexiblock, Point Cloud, Quick Properties, Area Table, which have been supported by GstarCAD. In addition, ZWCAD 2024 doesn't support some important features such as Navigation Cube, Merge layout, Sync viewports, System variable monitor, Collaboration, etc.

While GstarCAD 2024 offers more practical features according to user needs. With nearly a hundred more functions than ZWCAD 2024, GstarCAD has obvious advantages.

What's more, the interface and functional details of ZWCAD 2024 still have a big gap with GstarCAD.

4.1. Key Function Comparison Table between GstarCAD 2024 and ZWCAD 2024

Features	GstarCAD	ZWCAD	Description
3DFORBIT	√	×	Rotates the view in 3D space with constraining roll.
AutoCAD Tool Palettes Import Tool	√	×	Import AutoCAD® customized Tool palettes in the WINDOWS Start menu easily.
ADDSELECTED command	√	×	Creates a new object of the same type and general properties as a selected object with different geometric values.
ATTIPEDIT	√	×	Edits the attribute text in the block attribute in-place.
Block Authoring Palettes (BAUTHORPALETTE)	√	×	Opens block editing tool palettes in block editor.
Block Properties Table(BTABLE)	√	×	Stores the preset parameter values in the block authoring palette to realize multi-parameter linkage and define parametric dynamic blocks.
CLIPIT	√	×	Clips images, xrefs, wipeout, or specified parts of block objects using circles, arcs, ellipses, or text as boundaries.
Convert Command	√	×	Optimizes 2D polyline and associated hatches in early versions.
CONVTOMESH	√	×	Converts eligible 3D objects into meshes.
CONVTONURBS	√	×	Converts 3D solids and surfaces into NURBS surfaces.

CONVTOSOLID	√	×	Converts eligible objects into 3D entities.
CONVTOSURFACE	√	×	Converts eligible objects into 3D surfaces.
Copy Link (COPYLINK)	√	×	Copies the current view to the Clipboard for linking to other OLE applications.
Draw order by color (CDORDER)	√	×	Arranges the drawing order of selected objects by their color number.
Dimension Input	×	√	Control the dimension fields displayed in tooltip when using grip editing to stretch an object.
DWG Convert	√	×	Converts drawing format version for selected drawing files.
Fast Select (FASTSEL command)	√	×	Selects the object that touches the specified object.
Merge Layout (LAYOUTMERGE)	√	×	Two or more layouts in one drawing can be merged into a specified layout.
Make Shape	√	×	Creates a shape definition based on selected objects.
NAVICUBE	√	×	The viewing direction can be adjusted through various visual controls such as the cube model, compass, tool buttons, etc.
Password Protection	√	×	Sets password for specified drawing file to lock it.
POLYSOLID	√	×	Creates 3D solid in the shape of a wall or series of walls.
Reverse	√	×	Reverses the vertices of selected lines, polylines, splines, and helixes.
RTEXT	√	×	Displays the content of a text file or the calculation results of a DIESEL expression in the drawing.
Security	√	×	Displays "Security" dialog box. Sets the system security monitoring level, and displays or deletes the current trusted publisher certificate.
Smart Voice	×	√	Adds the voice annotation in the drawing.
Smart Mouse	×	√	Provides a way for inputting command by mouse gesture.

SURFOFFSET	√	×	Creates a parallel surface at a specified distance from the original surface.
System Variable Monitor (SYSVARMONITOR)	√	×	Monitors system variables in the list and sends notifications to alert users when system variables and the reported preferred values change.
Text Align / Text Match	√	×	Aligns multiple text objects vertically, horizontally, or obliquely. Matches both text and Mtext attributes text, such as color, font, height, alignment, angle, and matches the content and layer.
Viewport Scale	√	×	Displays the scale of the current viewport or of a selected layout viewport.
Visual Styles Manager	√	×	Creates and modifies visual styles.
WorkSpace command	√	×	Creates, modifies, and saves workspaces and makes a workspace current.

From the commonly used functions comparison table above, you can see GstarCAD 2024 provides richer functions than ZWCAD 2024.

4.2. GstarCAD Innovative Features

GstarCAD has customized a large number of unique functions according to user needs.

The innovative features of GstarCAD:

GstarCAD Innovative Features

Features	Description
Align Tool (ALIGNTOOL)	Allows you to align the selected objects along the X or Y axis coordinates.
ACAD Tool Palettes Import Tool	Import AutoCAD© customized Tool palettes in the WINDOWS Start menu easily.
Area Sum (AREASUM)	Displays the current closed region value and area sum sequence in command line.
Area Table (AREATABLE)	Dimensions and counts the area of an enclosed object and exports the result to a table in the current drawing area.
Arrange Tool (ARRANGETOOL)	Aligns multiple objects left, right, top, bottom, center, vertical or laterally.
Attribute Increment (ATTINC)	Attributes values increment automatically or manually according to specified method.
Auto Layer (AUTOLAYER)	Customizes and predefines the associated layer of a command to streamline drafting workflow.
AUTOXLSTABLE	Allows to insert excel, and static block quantity, area and length and auto update the data according to the changes of the object.
Barcode (BARCODE)	Allows inserting the barcode to objects to corresponding paper documents and electronic drawing file.
Batch Print(BP)	Batch prints the drawing frames by pages.
Batch Purge (BATPURGE)	Batch purges the redundant blocks, layers, linetype, dimensions and text, etc in drawings.
Block Break (BLOCKBREAK)	Allows you to wipeout or break an object that is overlapped by a reference block.
Break Object (BREAKOBJECT)	Breaks the intersected lines and allows you to set the gap value.
CAD table to EXCEL (GC_CTE)	Converts sheets, composed by line/Spline and text/Mtext in CAD, to EXCEL.
Change Base (CHANGEBASE)	Modifies the base point position of the block.
Change Text (CHANGETEXT)	Modifies several texts simultaneously.
CIRCLE(C) Parameter	CIRCLE(C) parameter; Draws multiple concentric circles with one radius.
Collaboration	The GstarCAD Collaboration Tool is an embedded plugin available for

	GstarCAD platform aimed to help CAD designers work together among a single referenced drawing file at the same time, control drawing revisions and manage medium, big or complex projects with ease and reliability, reducing communication barriers across different industries.
Define Layout Viewport from Model Space(M2LVPORT)	Creates a viewport on layout space by selecting objects in the model space.
Dimension Coordinate (DIMCORD)	Marks X, Y coordinate values of the point.
Distance from Endpoint Snap	Allows to sap a certain distance from any endpoint of objects and the distance value can be modified at status bar at any time.
Divide Segments Snap	Allows snap the divided segment points of objects and the divided segment number can be modified at any time.
Export Coordinate (COEXPORT)	Exports the coordinate of the picking point to txt or xls files.
FILLET(I) Invert Parameter	Creates a reverse fillet by this option.
Frame Automatically (FRAMEAR)	Automatically searches for the frame, calculates according to the frame size, and arranges multiple drawings on a large-format drawing reasonably.
Free Scale (FREESCALE)	Scales an object without restrictions under three modes; Non-Uniform, Rectangle and Free.
Freeze Other Layer (LAYFRZOTHER)	Freezes other layers except the layer where the selected object is located.
Graphic Compare (OCMP)	Compares graphic of two groups of objects or two files.
GstarCAD tools (12 functions)	Allows you to quickly draw the industry drawings with GstarCAD tools
Import HPGL/2 (IMPORTHPGL)	Imports a PLT files.
Get Selection by Block Name (GETBLKSEL)	Multi-selects objects with the same name in specified area.
Get Selection by Object Type (GETENTSEL)	Multi-selects objects with the same entity type in specified area.
Get Selection by Layer (GETLAYSEL)	Selects all the objects in specified layer and specified region at one time.
Get Selection by Color (GETCOLSEL)	Quick selects the objects with the same color.
Get Selection by Object/Layer (GETENTLAYSEL)	Selects entities by entity type and layer.
Get Selection by Object/Color (GETENTCOLSEL)	Selects entities by entity type and color.
Get Selection by Layer/Color (GETLAYCOLSEL)	Selects entities by color and layer.

Dimension Coordinate Position (HCZZBD)	Dimensions the coordinate position.
Layer Draw Order (LAYDRAWORDER)	Changes the order of the layers by bringing to front or sending to back.
Lock Other Layers (LAYLCKOTHER)	Locks other layers except the layer where the selected object is located.
Layer Unlock All (LAYULKALL)	Unlocks all layers.
Off Other Layers (LAYOFFOTHER)	Turns off other layers except the layer where the selected object is located.
Magnifier (MAGNIFIER)	Views a specific area of your drawing as a magnifier with the capability of snap points without performing zoom in/out on big drawings.
OFFSET(B) Both Sides	Offsets to both side, no need to operate twice.
Outline (OUTLINE)	Generates the outline by clicking the closed region.
Pline Boolean (GC_BOOLOP)	Operates the closed pline with union, intersection and subtraction.
Print PLT(PRINTPLT)	Prints the generated PLT file.
QR Code(QRCODE)	Extracts data or inputs data to generate QRcode which can be scanned by mobile device to obtain data.
Rapid Distance (RAPIDDIST)	Measures distance and angle between 2D objects along X, Y axis rapidly by moving mouse.
RECTANGLE(O) Parameter	RECTANGLE(O) parameter, Draws an rotate rectangle with (O)option
Region Scale (REGSCALE)	Selects a region of a drawing to be cut and copied to a new location.
ROTATE(Multiple)Parameter	Copies many objects with different rotate angles, or draw circles array.
Shortcut Customization (CUSTACC)	Customizes the shortcut key.
Spline to Pline (Sptpl)	Converts spline to polyline according to the accuracy (number of segments of the arc) that the user assigns.
Statistics Summation (KLL01)	Sums up the selected text or Mtext.
Symmetric Draw	Directly draws symmetrical shapes, it can omit the operation of the mirror.
Text Incremental Copy (GC_dztext)	Accomplishes kinds of incremental methods for text.
Text Align (TEXTALIGN)	Aligns text along X or Y coordinates, or along a line of specific direction.
Text Match (TEXTMATCH)	Matches both text and Mtext attributes in the current drawing, avoiding select and edit text attributes one by one.

Text Online (TEXTONLINE)	Distributes the text uniformly along a selected spline, polyline or arc. It can also create text online quickly for multiple curves.
Total Length (MEASUREGEOM)	Inquire total length of the selected lines.
WIPEOUT (supports circle and arc)	Generates wipeout by clicking circle or a pline object contains arcs.
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Besides developing plenty of innovative features, GstarCAD has improved the basic operations in order to simplify the operation steps. For example, Adds the angle parameter to line and spline, when drawing an object, you can not only set the value between object and X axis, but also set the angle parameter between the selected line and the previous line; Adds the concentric circle and rotated rectangle; Adds multiple copies in rotate command, realize the copy rotate and circle array; Adds divided by segment and distance from endpoint, layout by path, etc. to accomplish the liner array. Supports invert fillet option in fillet command which is welcomed by designers.

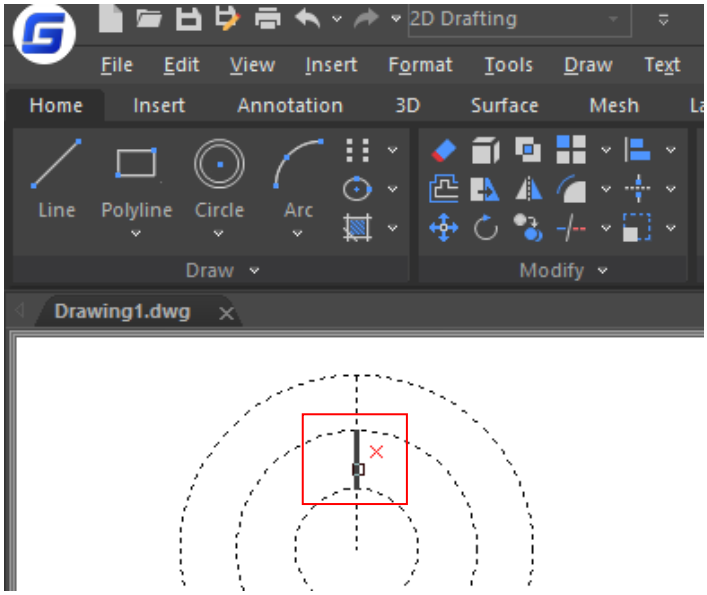
The innovative features enhance your drawing efficiency greatly.

4.3. Function Detail Comparison

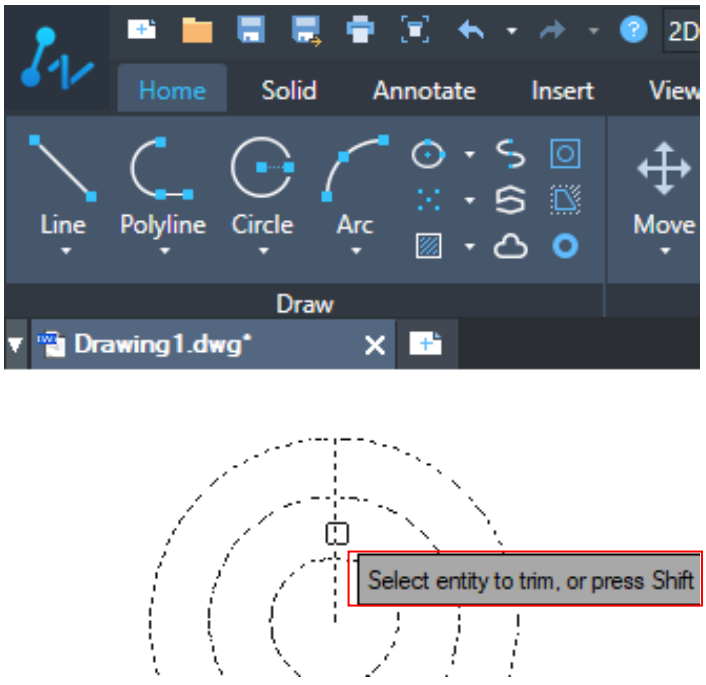
GstarCAD 2024 not only offers more commands than ZWCAD 2024, it is also better in the details of interfaces and some functions. The following is a comparison of important functions.

- **Hatch, Trim, Extend Preview**

GstarCAD supports preview effects when trimming, extending and hatching, which can help users judge the correctness of the operation.

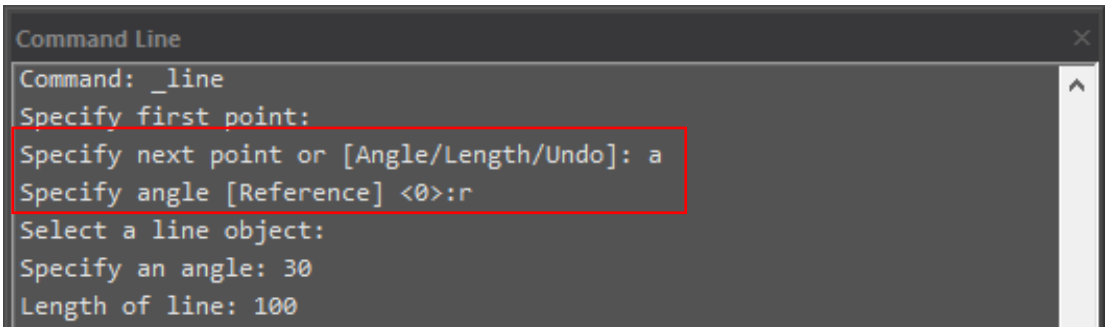


ZWCAD does not support preview effects when trimming, extending, and hatching.

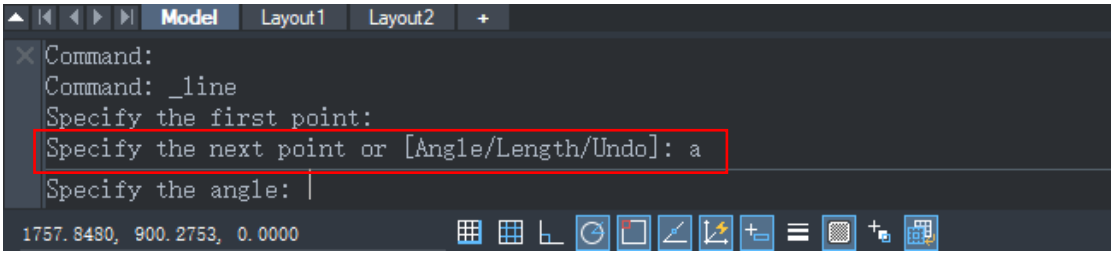


- **Line**

GstarCAD can set the reference angle or included angle with the reference object or the previous section when setting the angle.

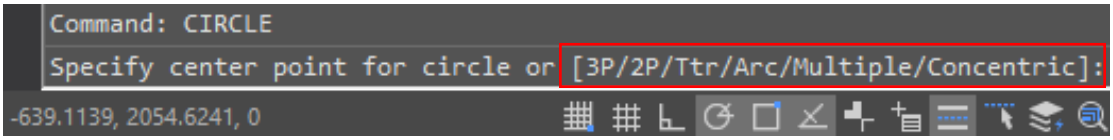


ZWCAD can only input the angle relative to the positive X axis

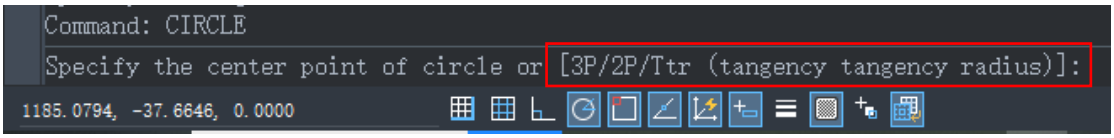


- **Circle**

GstarCAD converts arcs to circles, multiple circles, and multiple concentric circles at one time. However, ZWCAD only supports the basic options.



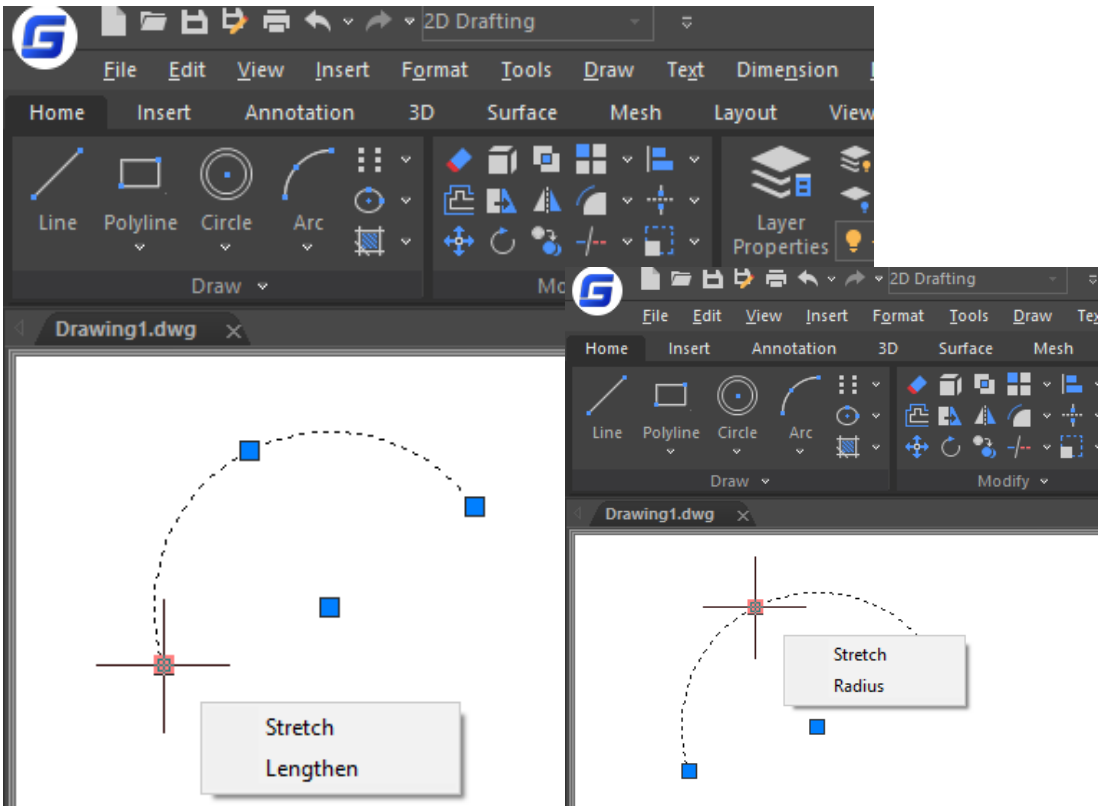
GstarCAD



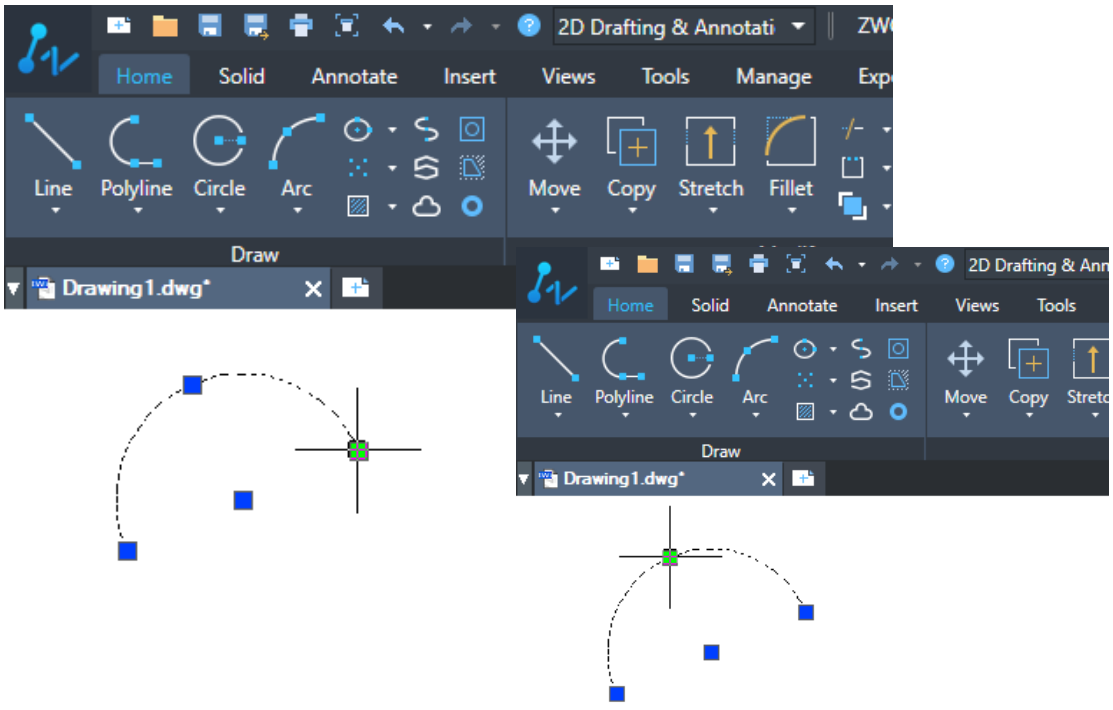
ZWCAD

- Dynamic Grip Menu for Arc

GstarCAD allows you to choose the options for the arc through the dynamic grip menu.

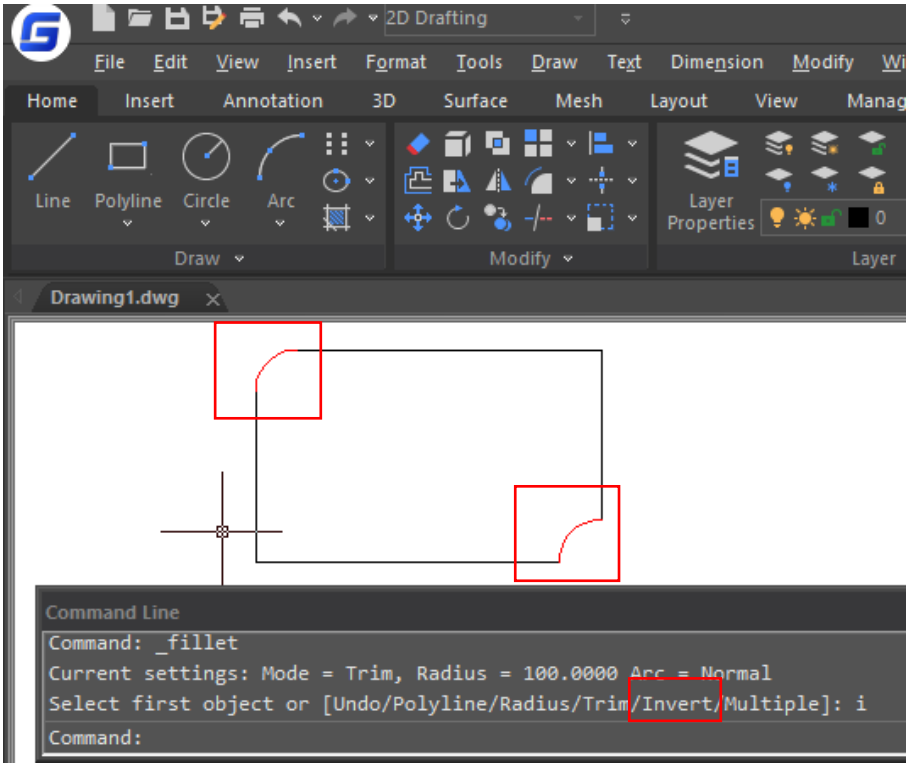


ZWCAD does not support dynamic grip menu for arc.

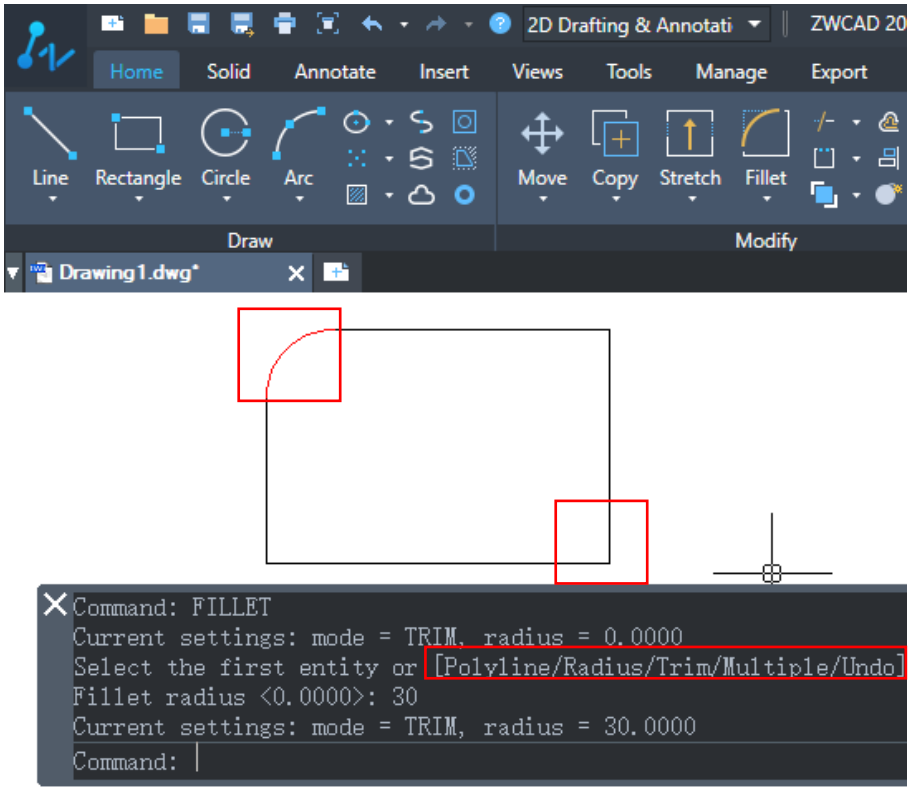


- **Fillet**

In GstarCAD, you can create the normal fillet and reverse fillet.

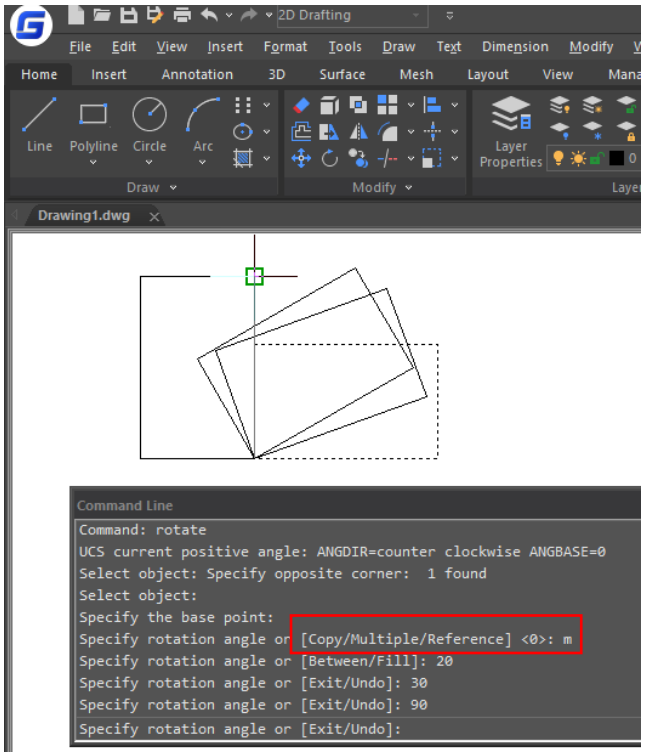


ZWCAD only supports the normal fillet.

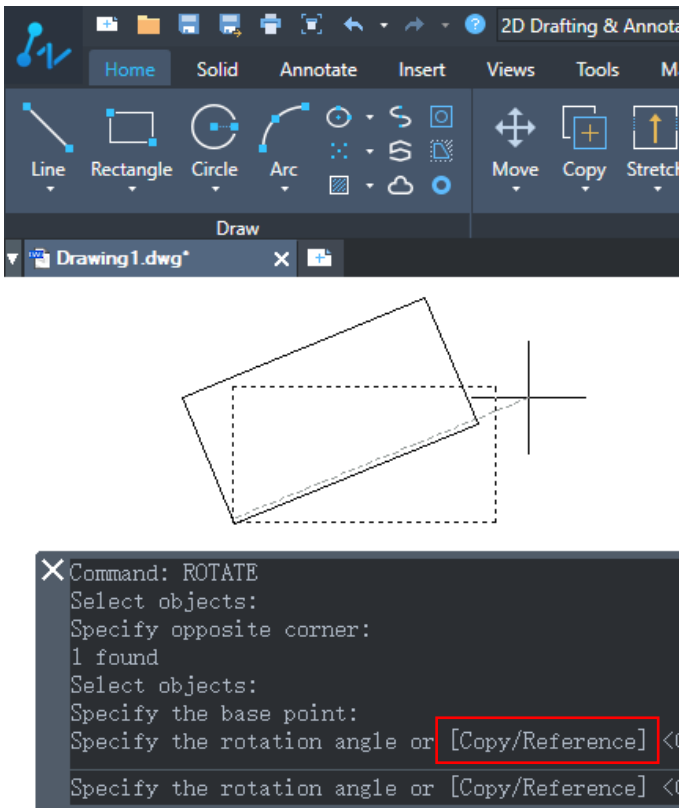


- **Rotate**

GstarCAD supports multiple copies, you can input multiple angle copies while rotating, or generate a circular array.

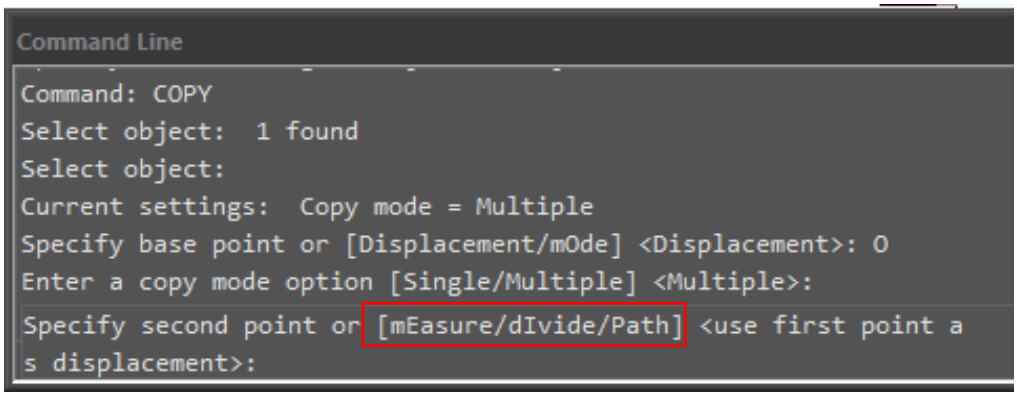


ZWCAD does not support multiple copies when executing rotate.



- **Copy**

GstarCAD provides three array modes for copy command: measure, divide and path which can be copied along a straight line or curve.



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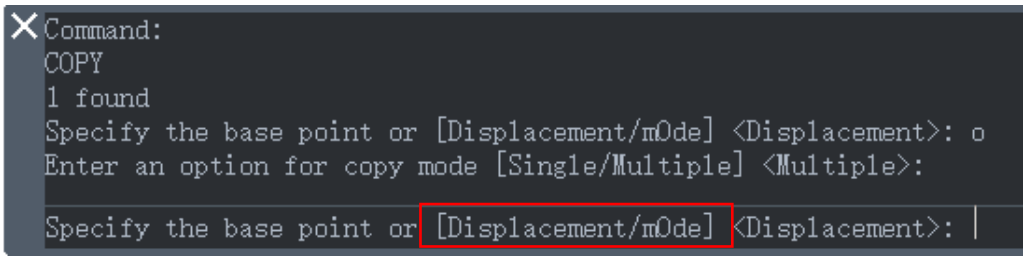
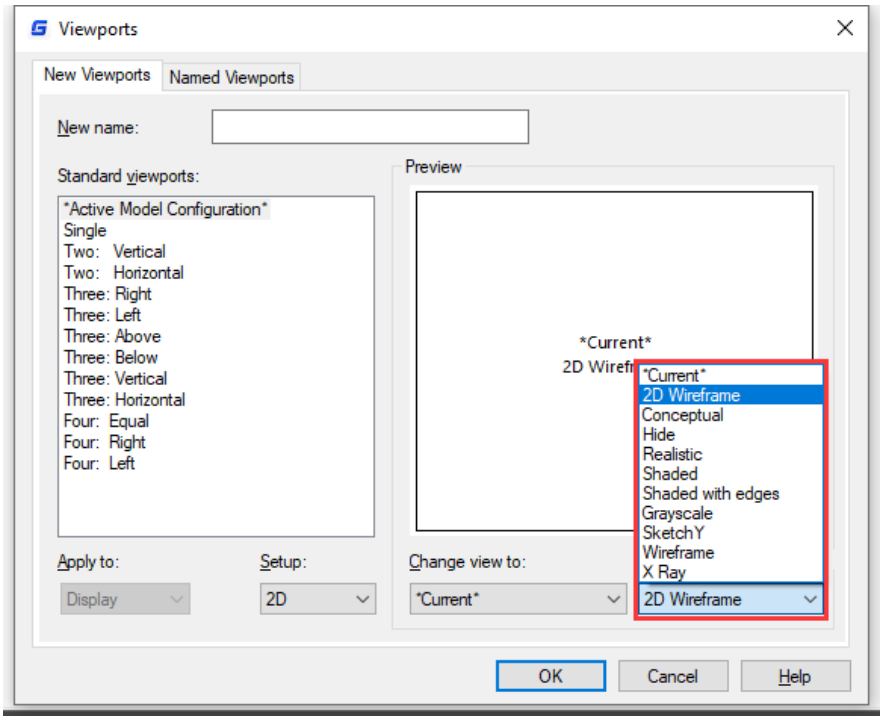
ZWCAD only supports the array along a straight line.



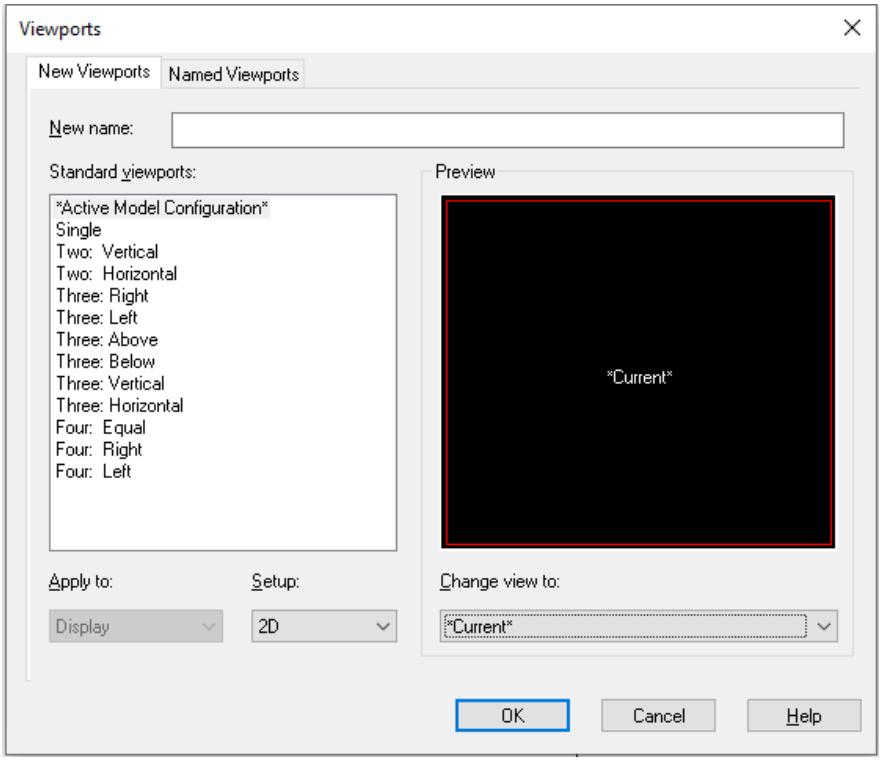
ZWCAD

- **Layout Viewport Settings**

GstarCAD supports visual styles in Viewports dialog box.

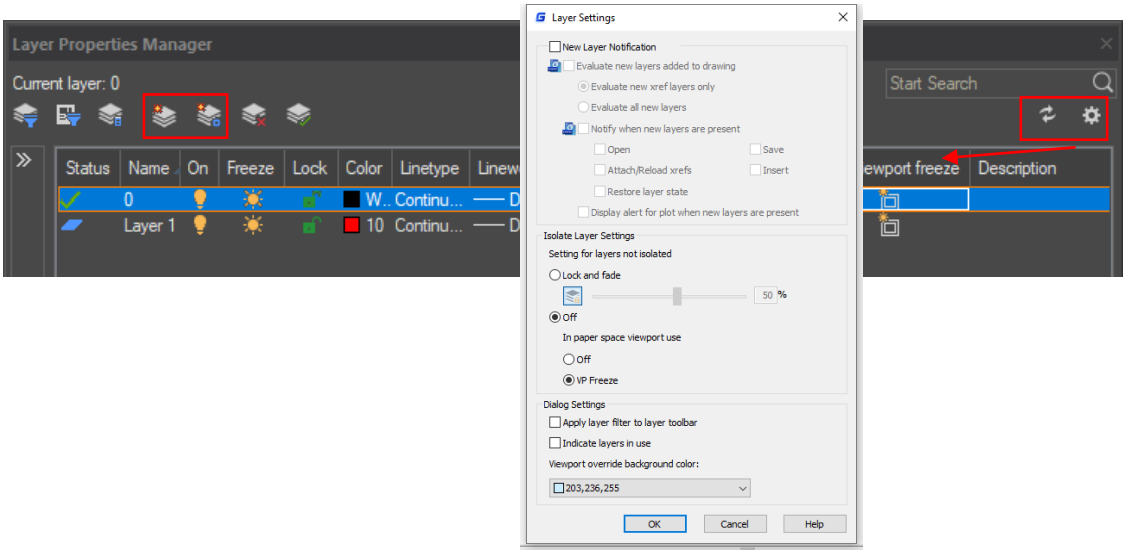


ZWCAD does not support visual styles in Viewports dialog box.



- Layer Properties Manager

GstarCAD provides functions such as layer setting and refresh. The layer settings dialog box includes the setting of new layer notification, isolation layer and dialog settings.



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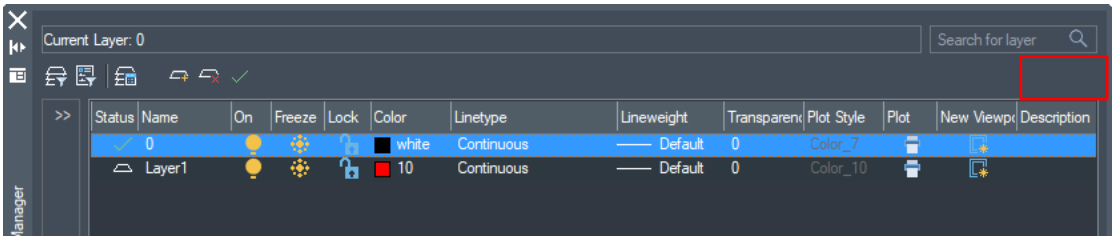
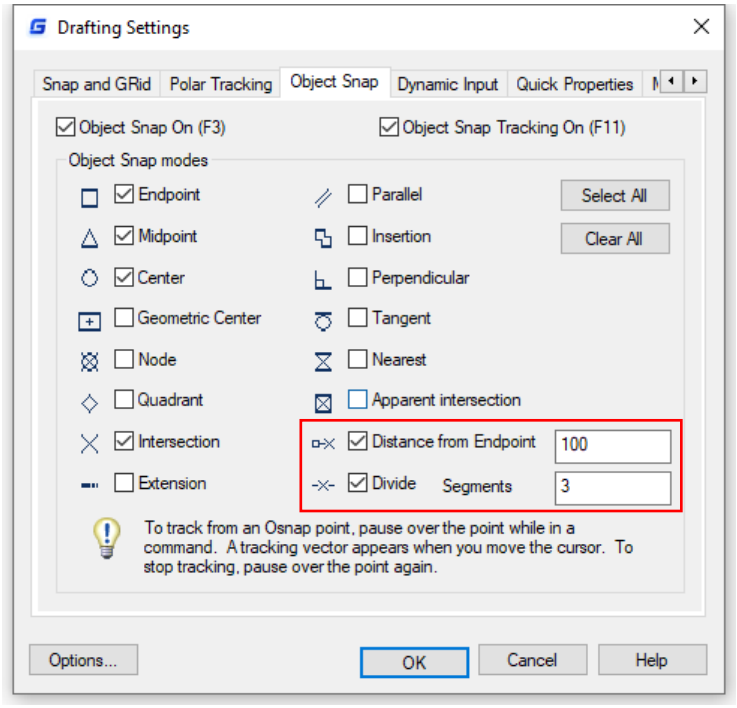
ZWCAD does not support layer settings.



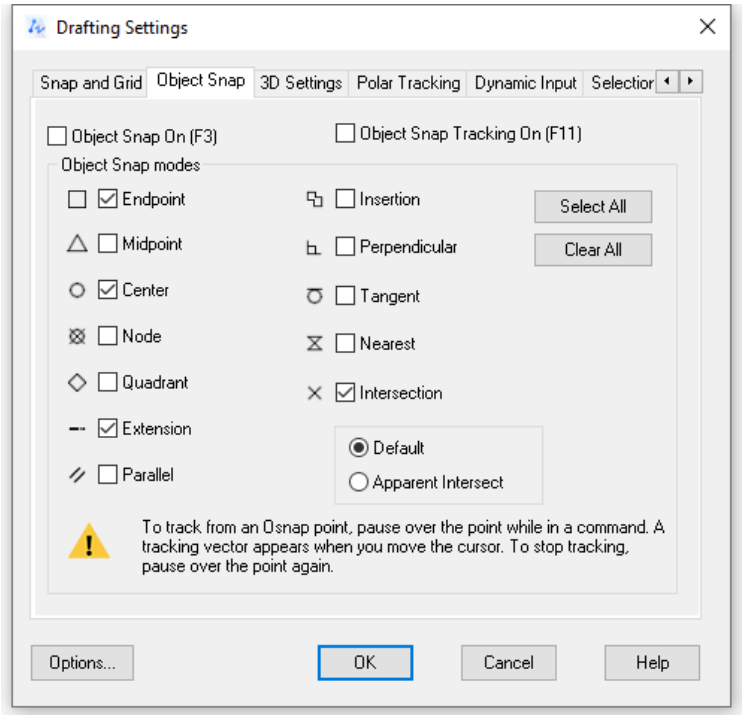
ZWCAD

- **Snap Options**

GstarCAD supports Distance from Endpoint and Divide Segments.



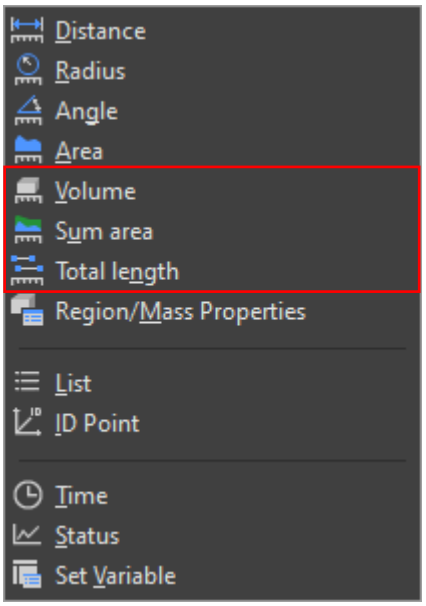
ZWCAD only provides conventional snap methods.



- **Measure**

In addition to measuring conventional distance, radius, angle, GstarCAD also supports measuring the volume, total area and total length.

ZWCAD does not support volume and total length. In addition, the total area in ZWCAD is not as good as GstarCAD. For example, In GstarCAD, the total area value can be incrementally displayed by selecting objects. In ZWCAD, you can get the final area value after all the objects you need are selected.



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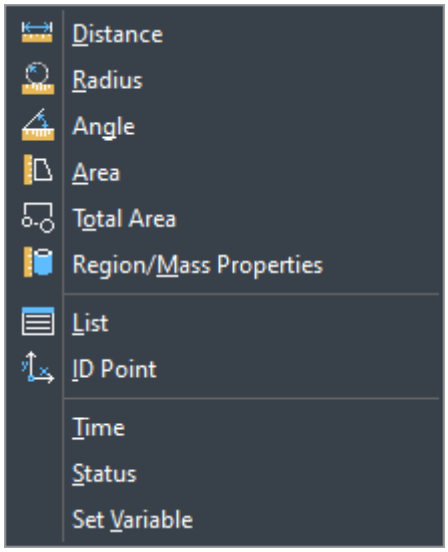
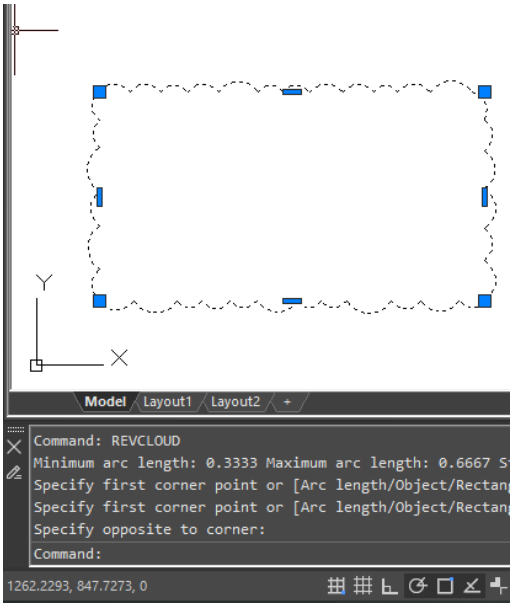


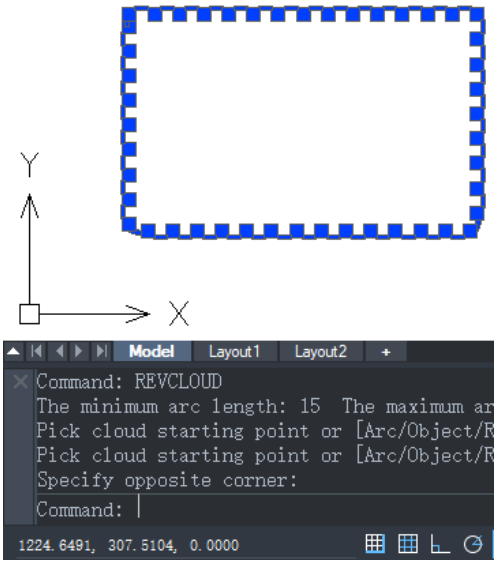
ZWCAD

- **Revcloud**

GstarCAD can control the revision cloud grip numbers for the rectangle and polygon through the REVCLOUDGRIPS system variable, making it easier to draw and edit regular revision clouds.



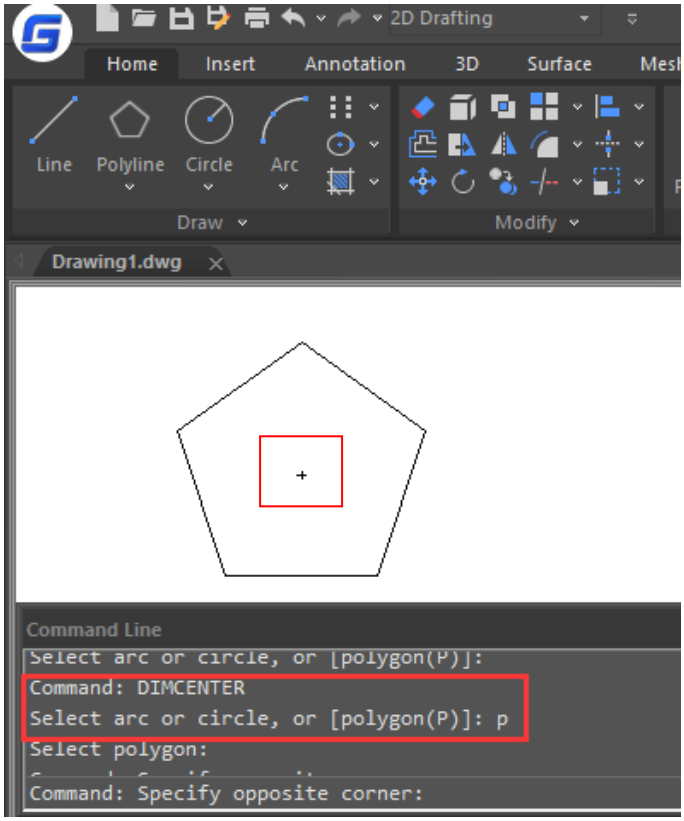
GstarCAD



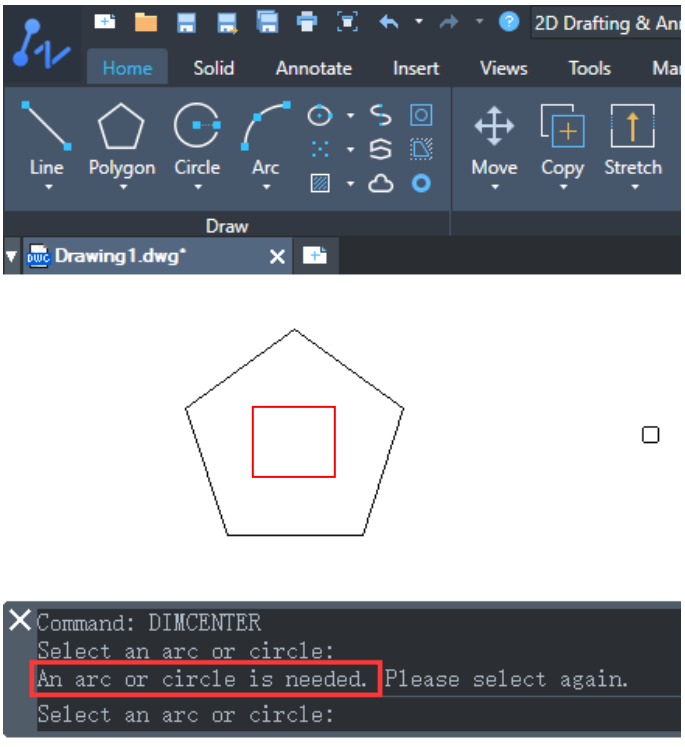
ZWCAD

- **Dimension Polygon Center**

GstarCAD supports the option Polygon(P) in DIMCENTER command to mark the center of polygons.

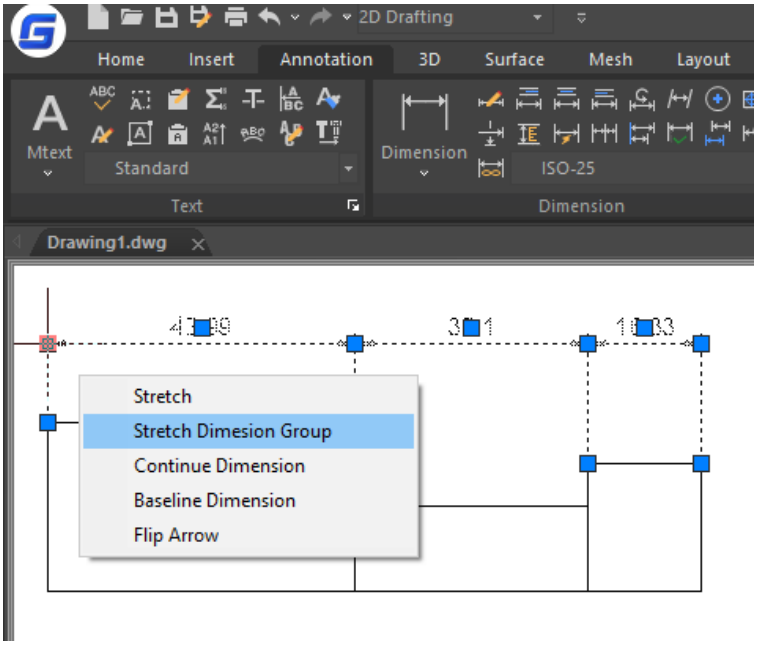


While ZWCAD only supports dimension center of arc and circle, dimension polygon is not available.

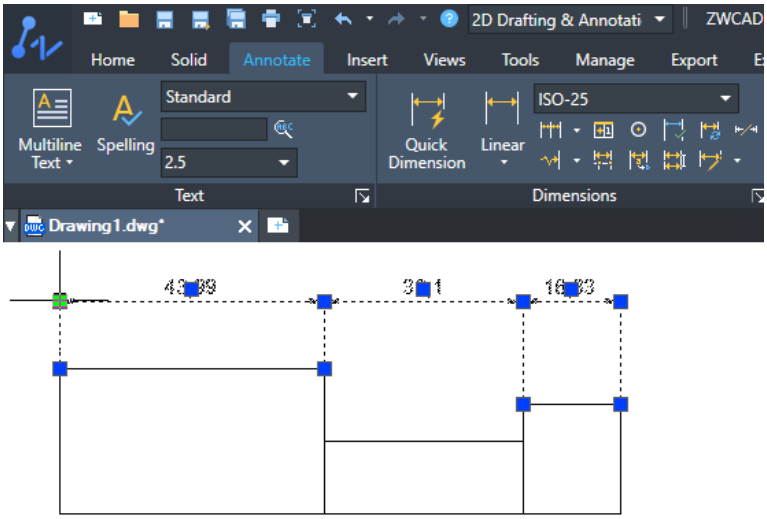


- Stretch Dimension Group

GstarCAD supports the “Stretch Dimension Group” option which allows adjusting dimensions that share same grips with each other as a whole.

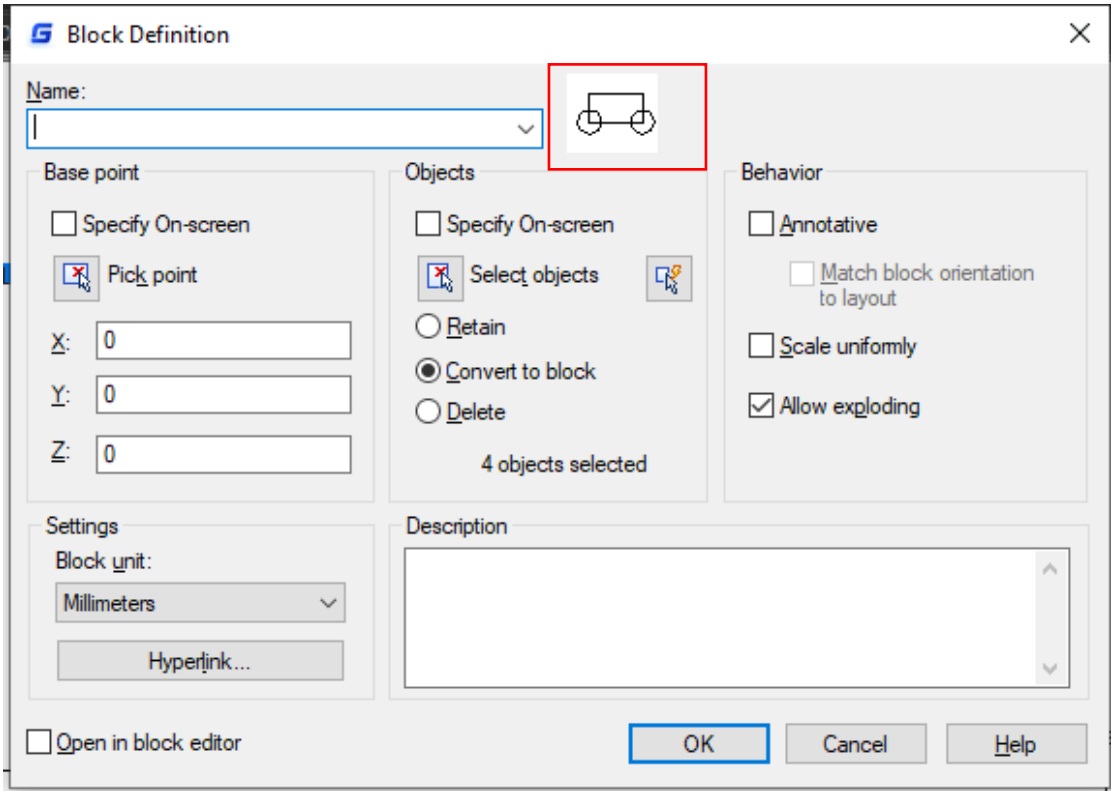


In ZWCAD 2024, you have to stretch such dimensions one by one, which wastes your design time.

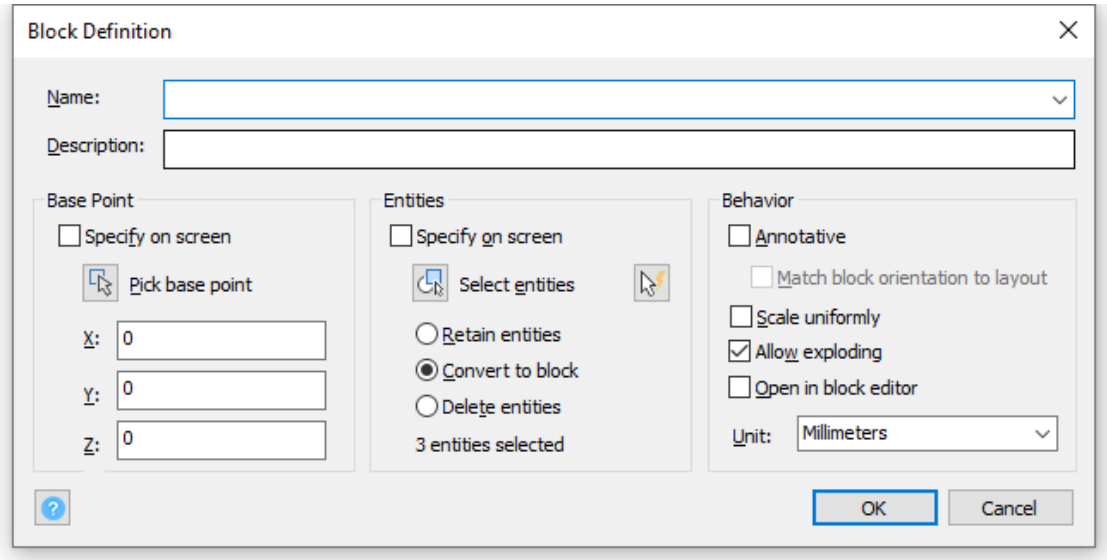


- **Block Definition**

GstarCAD supports the preview of selected objects, which can judge whether the selected objects are correct.



ZWCAD does not support the preview after selecting the objects.

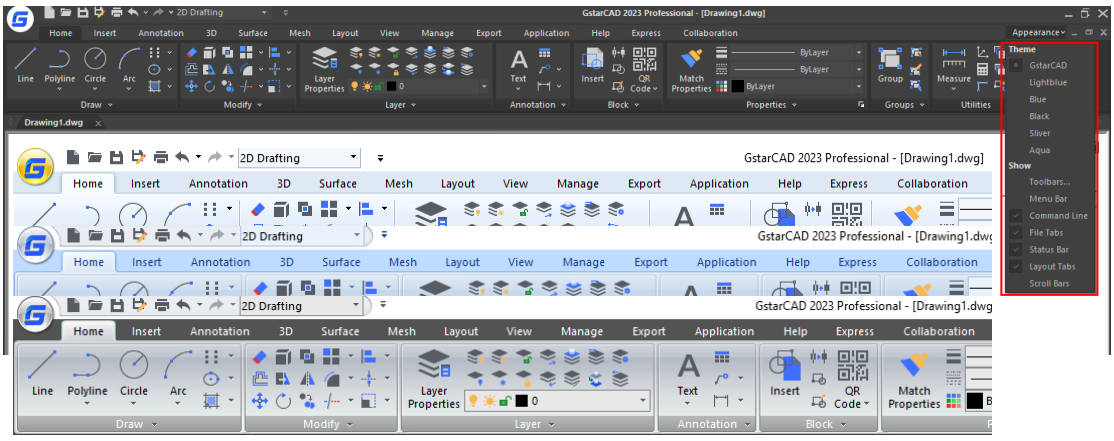


5. User Experience

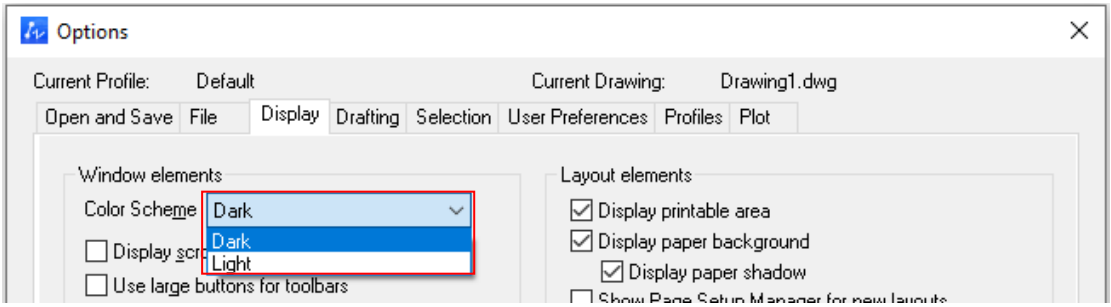
- **Interface**

GstarCAD offers you a concise and familiar interface. It provides 6 color themes in total, and the combination of attractive color themes and icon designs create a most comfortable work environment for you.

Interface switching in GstarCAD is simple and you can see the effect without closing the software. It's also available to display and rearrange elements like the toolbars, display the command bar, switch between workspaces, change the interface themes, customize your own interface and enable the status bar and menu bar.

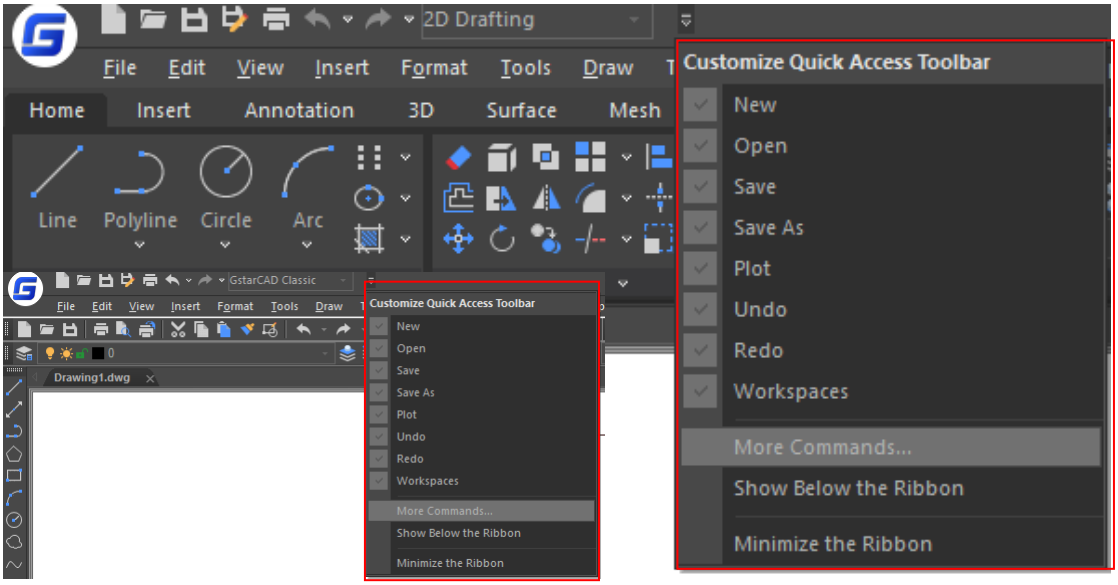


ZWCAD does not support as many interface color themes as GstarCAD, it only offers the light and black interface themes.

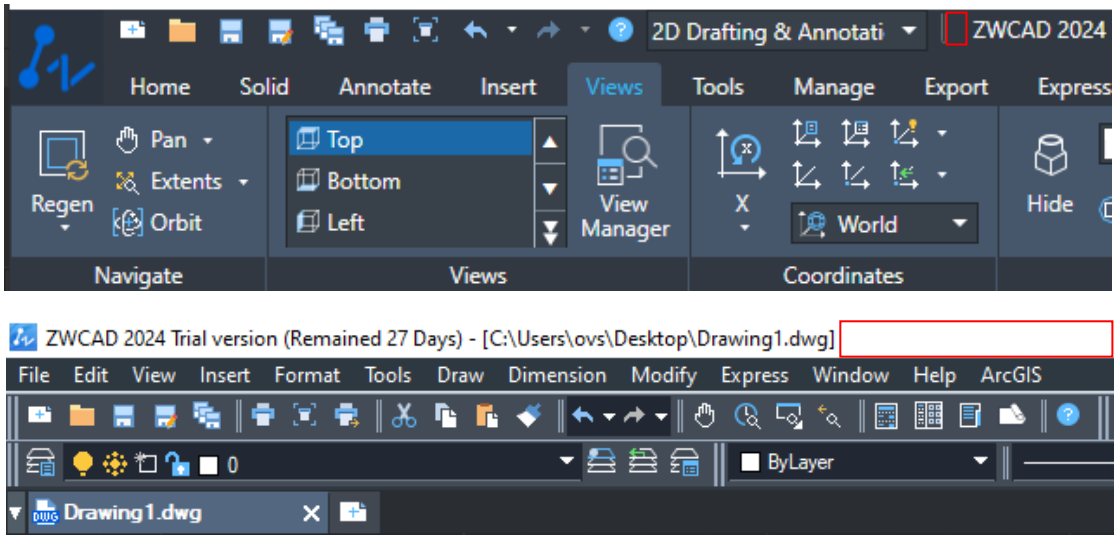


- Quick Access Toolbar

In GstarCAD, the commands displayed in the quick access toolbar can be customized directly in the drop-down menu and more commands can be added, also can be set to display below the ribbon. The quick access toolbar can also be displayed in the traditional classic interface to facilitate switching between workspaces.

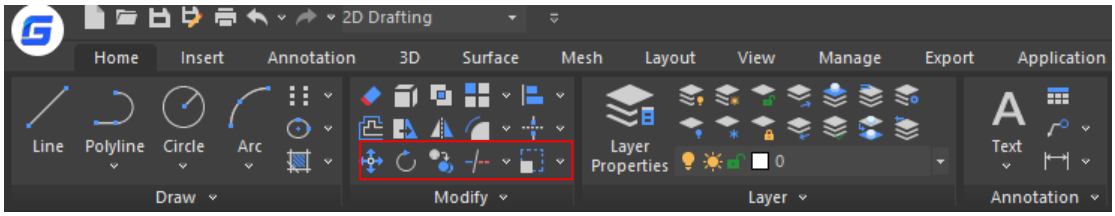


The quick access toolbar of ZWCAD does not provide customization functions, and it is not displayed in the classic interface, which makes it inconvenient to switch between workspaces.

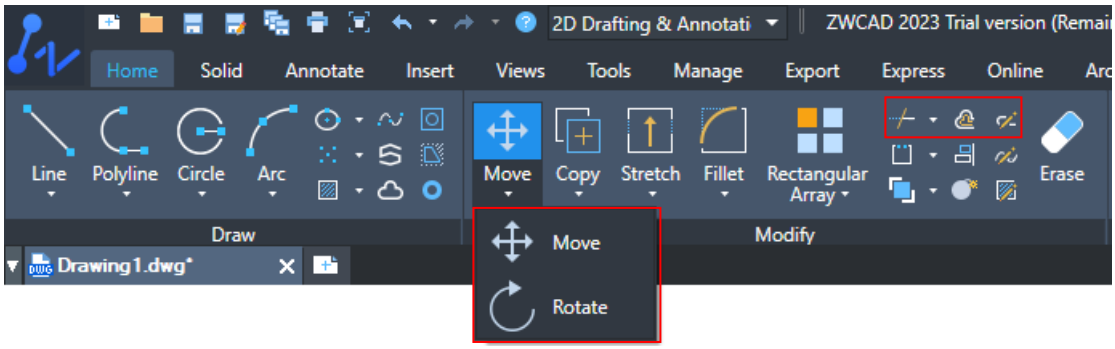


- **Function Arrangement**

The command panel of GstarCAD arranges the position of the buttons according to their frequency of use. For example, the most commonly used commands like move, rotate, copy, trim, and zoom are placed on the bottom line in the modification command, so as to minimize the distance of the cursor movement when operating and easy to access.



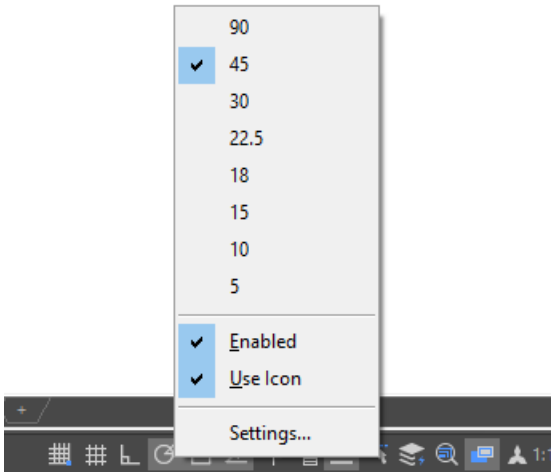
In ZWCAD, not only some frequently used functions such as move, rotate are hidden in the drop-down list, but also the functions are not sorted and arranged according to their frequency of use. Some frequently used functions such as trim, offset are placed on the top, and less frequently used commands are placed on the bottom. The arrangement of icons is also relatively random.



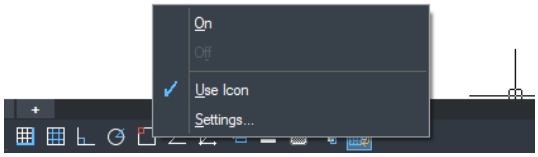
- **Context Menu for Polar Tracking**

GstarCAD provides commonly used polar axis incremental angles in the right-click menu, and users can directly select them in the menu without opening the draft setting dialog box.

However, you have to open the Draft Settings dialog box to choose options or set the incremental angles in ZWCAD.



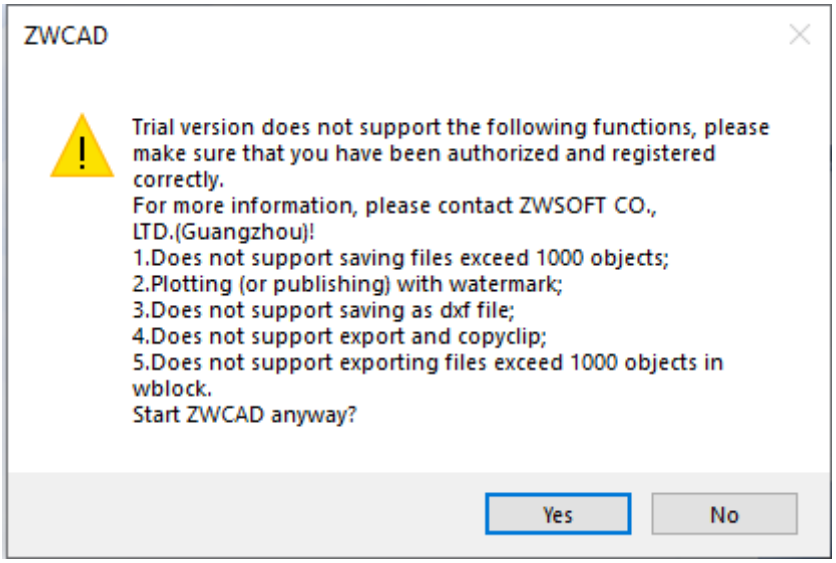
GstarCAD



ZWCAD

- **Objects Number Can Be Saved after Expiry Date**

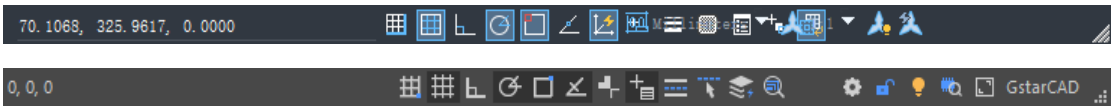
GstarCAD can save the objects less than 2000 after expiry date, while ZWCAD can save less than 1000 objects.



- **Display**

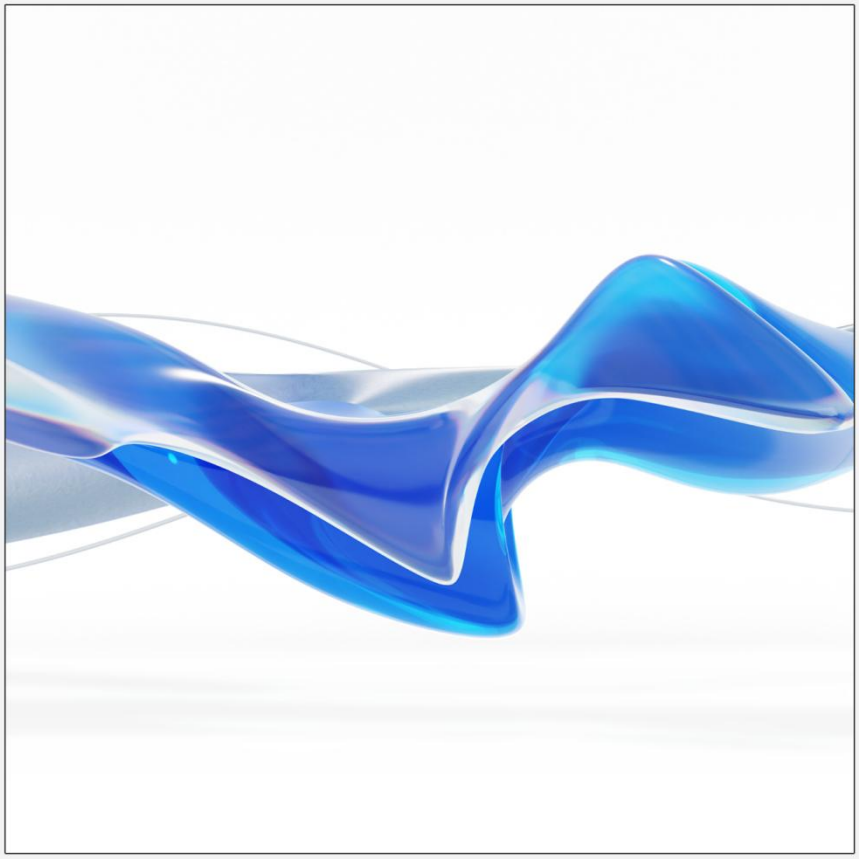
When adjust the size of the interface of the two software, the icons on status bar are overlapped in ZWCAD.

GstarCAD displays well.



6. Conclusion

Through the above comparison, we can make the following conclusions: GstarCAD 2024 is far advantageous in terms of compatibility, functionality, user experience and so on. Compared with ZWCAD 2024, GstarCAD is a better choice.



https://www.gstarcad.net/