# **ZWCAD 2025**

# **PRODUCT RELEASE NOTES**

THE ZWSOFT TEAM

ZWSOFT | 2025/05/13

#### Welcome to ZWCAD 2025 Official!

Dear friends,

We are glad to tell you that ZWCAD 2025 Official is available now! Thanks to your valuable feedback for the previous version, ZWCAD 2025 Official now comes with significant new feature and improvements. Now, let's take a look at this version.

This Release Notes mainly introduce the new features and improvements in ZWCAD 2025 Official.

Yours sincerely,

The ZWSOFT Team

May 2024

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# **ZWCAD 2025 Release Notes**

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#### 1. Overview

ZWCAD 2025 primarily includes improvements in 5 aspects: 2D functions, 3D functions, Interface, API, and Industry modules. The specific details are as follows:

#### **Note:**

- 32-bit version will be no longer supported from the 2025 version of ZWCAD,
   R&D Center is committed to providing users with a more stable and efficient 64-bit
   ZWCAD product.
- 2. Starting from the 2025 version, SP version will be no longer available and will be replaced by Update Packages which will be released every 2-3 months.

New Features&Enhancements	Description
2D Functionality Enhancen	nent
PDF Import&Attach Improvement	Improved efficiency in importing and attaching PDF files.
Plot Improvement	Improved efficiency in plotting.
Text Display Improvement	Optimized display and editing accuracy for Thai, Arabic, and Hebrew languages.
Associative Array  Improvement	Add "Tangent" branch command in array path, meanwhile fixed issues related to abnormal data in associative array creation and editing.
Revcloud Improvement	"Revcloud" has become the new CAD entity type. Revcloud shapes can be edited quickly by dragging grips.
FAS/VLX File Support	Compatible with AutoLISP files created with Visual LISP. supports direct loading FAS/VLX files.
JWW File Import	Support for importing JWW format files.
Sizedrive	Modifying the size of part by editing the dimension.
Automatic Layout Drawing	Automatically arrange multiple drawings to save printing space.
3D Functionality Enhancen	nent
Improvement of Efficiency	CPU capabilities were fully utilized to enhance

in Opening 3D Drawings	the efficiency of opening 3D drawings.
New Visualization Styles	It added "Conceptual", "Realistic", "Shade of Grey", and "X-ray" visual styles to provide diverse visualization effects. The display efficiency of 3D models has been enhanced for a smoother viewing experience.
STEP File Import	It supports the import of 3D files in STEP format (AP203 and AP214 versions).
3D Gizmos	In the 3D visual style, objects can be conveniently panned, rotated, scaled and transformed through 3D gizmos.
New 3D workspace	Optimizations have been made to the Workspace, significantly improving the ability for users to customize their workspaces.
Interface and Interaction O	ptimization
Ribbon Redesign	A brand-new design of the ribbon, offering features such as slide-out panels, dragging panels, floating panels, and collapsed panels as icons, to provide users with a highly customizable interface.
Panel Redesign	Stacked and auto-hidden panels provide users with a bigger drawing space. A new navigator allows an easier interactive way of dragging and docking panels.
Floating Documents Window	Document windows can be dragged out of the main program as floating windows, so users can

	open one drawing on another monitor for reference.	
Help Document Redesign	It supports filtering in the offline help document. It added online help documents (Supported languages: including Simplified Chinese, Traditional Chinese, English, Russian, German, Spanish, French, Japanese, Korean).	
Command Matching  Improvement	It supports non-initial string matching, and sorting commands by frequency of use, providing users with a more intelligent and convenient interaction method.	
Industry Application Improvement		
Point Cloud Module  Improvement	It added 3 visual styles including "Intensity", "Elevation", and "Classification" and support configuration to meet different scenario needs.	
GIS Module Improvement	It supports the import of commonly used map sources such as Bing Maps, and the import of OGC standard map services. It also supports setting markers in the map and setting insertion points in the drawing, so the map can the drawing can be quickly matched according to geographical location.	
Raster to Vector  Conversion	Convert raster images to vector data to meet users' needs for converting paper drawings into DWG files.	

# **API Improvement**

For detailed information, please refer to the **ZWCAD 2025 API Improvement**.

#### 2. Efficiency

The R&D Center conducted efficiency tests on a selected set of customer drawings, evaluating common user operations such as opening, saving, moving, and copying. The efficiency comparison between ZWCAD 2025 and competing products is illustrated in the graph below. It clearly demonstrates that ZWCAD has a significant advantage in performing common commands compared to other competing products.

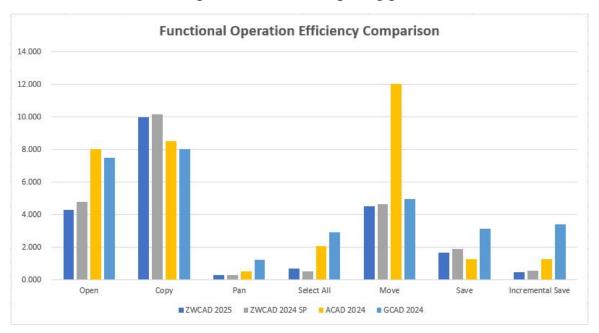


Figure 1. Efficiency comparison of commonly used functions.

# 3. Stability

The product development center extracted 169,718 drawings as test samples to monitor the stability of the opening process in ZWCAD 2025 version. Within the test sample range, the majority of drawings could be opened and edited normally, with no stability regression observed.

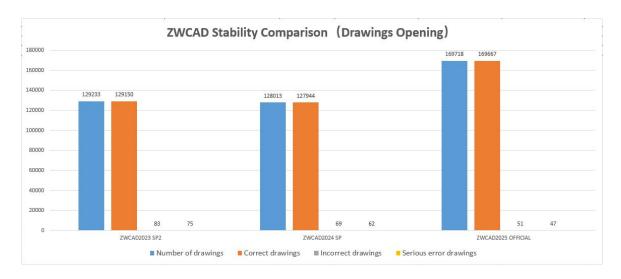


Figure 2, Stability comparison of opening and editing drawings.

#### 4. New features and Improvement

#### 4.1 2D Functionality Enhancement

#### 4.1.1 PDF Import&Attach Improvement

The PDF file can be attached or imported into ZWCAD for use. In the ZWCAD 2025, related functions for applying PDF files have been optimized, including improved efficiency in panning and zooming drawings containing PDF underlays, enhanced efficiency in importing PDF files, and optimized results when importing text from PDF files.

• Improved efficiency in panning and zooming drawings containing PDF underlays. The specific comparison data is as follows:

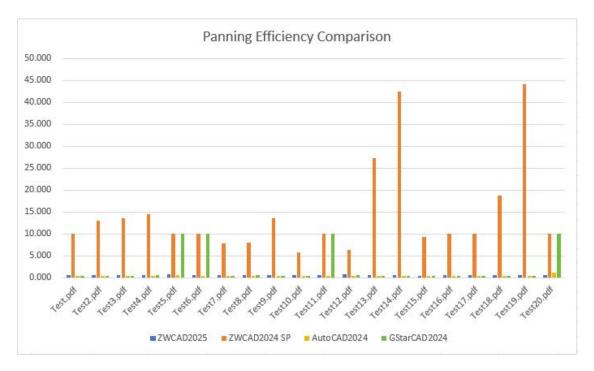


Figure 3. Comparison of panning with PDF underlay in drawings.

Conclusion: The panning efficiency in ZWCAD 2025 has improved by 24 times compared to ZWCAD 2024, it is 3 times faster than the competitor G2024, and equivalent to competitor A2024. The zooming efficiency in ZWCAD 2025 has improved by 27 times compared to ZWCAD 2024, it is 15 times faster than competitor G2024, and equivalent to competitor A2024.

• Enhanced efficiency in importing PDF files, The specific comparison data is as follows:

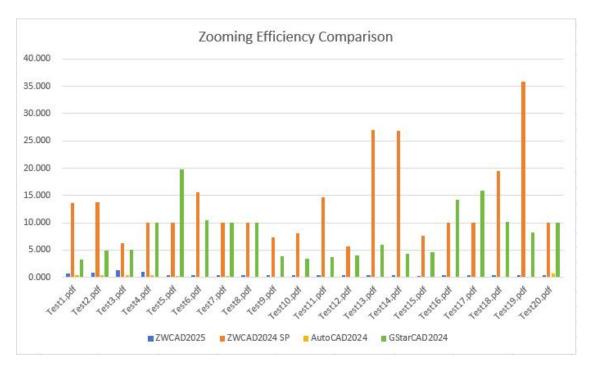


Figure 4. Comparison of zooming with PDF underlay in drawings.

**Conclusion:** Based on the above test samples, the efficiency of importing PDF files in ZWCAD 2025 has improved by 9 times compared to ZWCAD 2024, it is 3 times faster than competitor G2024, and 6 times faster than competitor A2024.

• Optimized results when importing text from PDF files.

#### **4.1.2 Plot Improvement**

ZWCAD 2025 has improved plotting efficiency and reduced the size of printed PDF files in some scenarios with PDF and physical printers. It has enhanced the intelligent printing's ability to recognize frame, supports printing PDF files in some small languages, and fixed stability issues related to PLOT functions.

• Improved printing efficiency for drawing includes image or underlay.

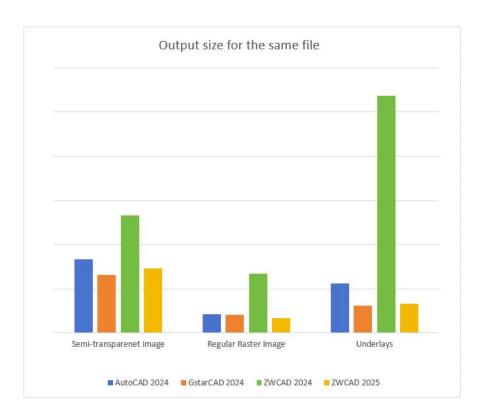


Figure 5. Comparison of print file sizes among various CAD products.

- Improved accuracy in smart plot frame recognition.
  - a) The accuracy of frame sequence recognition has been improved, especially when there are significant differences in frame sizes.

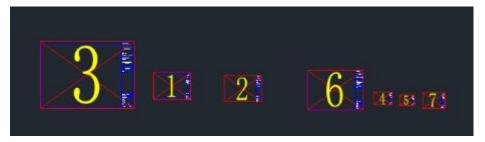


Figure 6. The recognition results on ZWCAD 2024



Figure 7. The recognition results on ZWCAD 2025

b) Enhanced accuracy in identifying and comparing the reference

frame and graphics for clipping blocks.

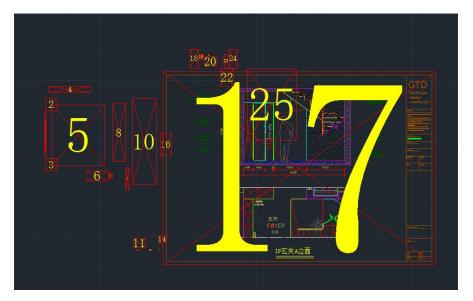


Figure 8. The recognition results on ZWCAD 2025

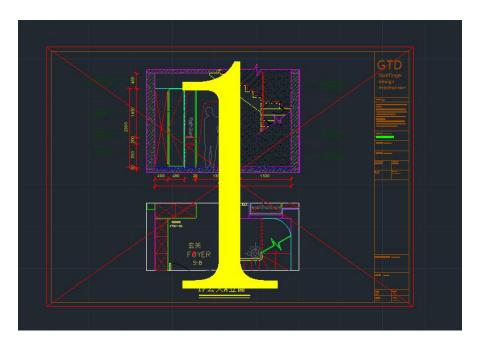


Figure 9. The recognition results on ZWCAD 2025

Enhanced accuracy when printing Thai, Hebrew, Arabic, Sanskrit,
 and Khmer languages using the DWG to PDF.pc5 printer.

## **4.1.3 Text Display Improvement**

ZWCAD 2025 has optimized the display and editing accuracy for Thai,

Arabic, and Hebrew languages. It focuses on resolving issues such as incorrect line breaks in Thai text display, incorrect display of connected Arabic characters, and incorrect editing of text displayed and read from right to left. It also addresses the problem of incorrect character display order when mixing languages with different reading directions (right to left and left to right).

Language	ZWCAD2024	ZWCAD2025	Microsoft Office
Thai	ทางผู้ผลัตไม่สามารถรับผิดขอบในความเสียหายใดๆที่เกิดจ	ทางผู้ผลิตไม่สามารถขับผิดขอบในความเสียหายใดๆที่เกิด	ทางผู้เคลื่อนโทรการกรณ์ผิดของนั้นความเสียงานโดกรู้เกิด
	ใช้งานผิดประเภทหรือตัดแปลงตัวโคมในทุกกรณี ซึ่ง	จากการติดตั้งไม่ถูกวิธี. ใช้งานผิดประเภทหรือตัดแปลงตัว	จากการสิดตั้งไม่ถูกปรี. ใช้งานผิดประเภณทรัชสิดแปลเท็ง
	สังผิดปกติเหล่านี้ อาจทำให้เกิดอันตรายกับ คน สัตว์	โดมในทุกกรณี ซึ่ง สิ่งผิดปกติเหลานี้ อาจทำให้เกิดจินตราย	โดยนั้นทุกกรณี ซึ่ง ส่งสิดปกติเลดานี้ อาจทำให้เกิดขึ้นตาม
	ล่ะของ หากมีช่วิลงสัยหรือมีความต้องการปรับแต่งตัวโคม	กับ คน สัตว์ สิ่งของ หากมีข้อสงสัยหรือมีความต้องการปรับ	กับ กน สัตร์ สำหรอง หากมีเรื่องสอบทรับผิดรามต้องการทำใน
	ให้เหมาะสมกับการใช้งาน	แต่งตัวโดม ให้เหมาะสมกับการใช้งาน กรุณาติดต่อตัวแทน	แต่งสำโดม ให้เกิมรายสมัยการใช้งาน กรุณรทิสสอบทับสน
	กรุณาติดต่อตัวแทนจำหน่ายหรือผู้ผลิต	จำหน่ายหรือผู้ผลิต	จำหนายหรือผู้เสีย
Arabic	رجاء لا تغطى مكان تجهيز	رجاء لا تغطى مكان تجهيز	رجاء لا تغطى مكان تجه <mark>ي</mark> ز
	كيس الهواء بغطاء المقعم	كيس الهواء بغطاء المقعد	كيس الهواء بغطاء المقعد
Hebrew	עיןחלךצמםפ/רדאוה'סטז	ז'רדאוה/שנבגקכעי <u>ןחלךצמםפ</u> ָּ	סטז'רדאוה/שנבגקכעיןחלן־צמםפ

The MTEXT feature has been enhanced to include "Left-to-Right Text Direction" and "Right-to-Left Text Direction" functionalities, allowing users with different language input directions to edit and read text according to their accustomed text input sequence.

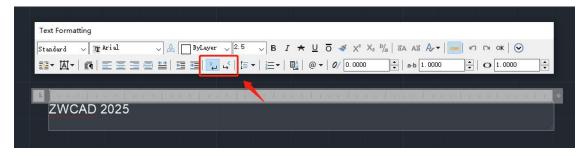


Figure 10. Text Direction Setting

#### 4.1.4 Associative Array Improvement

ZWCAD 2025 has fixed issues related to abnormal data in associative array creation and editing. For drawings with associative array errors from

previous versions, a ZRX tool is provided for repair. To perform the repair, load the "AuditArray.zrx" file as an attachment and execute the AUDITARRAY command.

Additionally, this version introduces a new "Tangent" branch command in path arrays. This branch ensures that cloned objects align with the tangent direction on the path, maintaining consistency between the cloned object's orientation and the path curve's tangent direction. This feature allows the cloned object's orientation to always face the tangent direction of the path curve.

#### 4.1.5 Revcloud Improvement

Users often use revoluds for drawing review. Revolud has become a CAD object and command branches are expanded, facilitating the creation and editing of revoluds.

#### **Revcloud as CAD Object Type**

In the past, the CAD object type for revelouds was "polyline". In this version, it has been changed to "Revision Cloud." Users can directly edit the shape of revelouds by dragging its grips and can modify the arc length of revelouds through the properties panel.

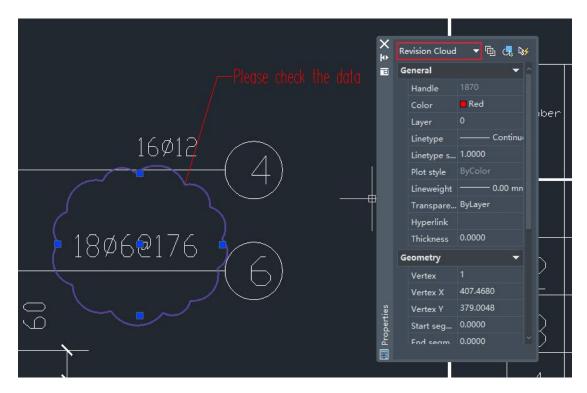


Figure 11. New CAD object called "Revision Cloud"

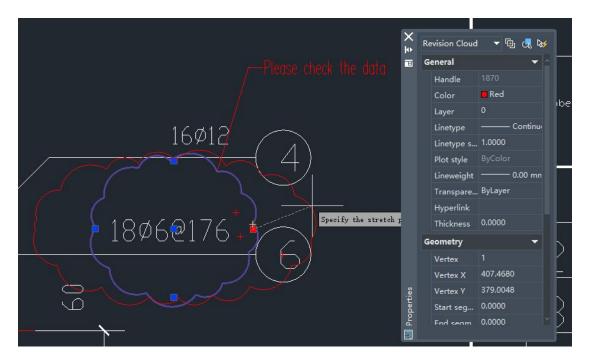


Figure 12. Users can change the shape of revcloud with grips

#### **New Branch Commands**

"Circle", "Ellipse", "Modify" commands are added so you can create circular or elliptical revolouds. With the "Modify" command, you can edit

the shape of existing revelouds.

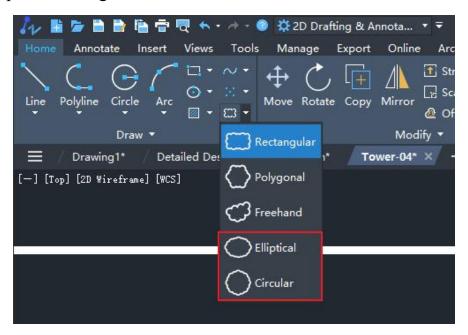


Figure 13. New revcloud types

#### 4.1.6 FAS/VLX File Support

It supports the direct loading of standard LISP binary files in FAS and VLX formats. It improves LISP compatibility, eliminates format conversion and enhances development efficiency.

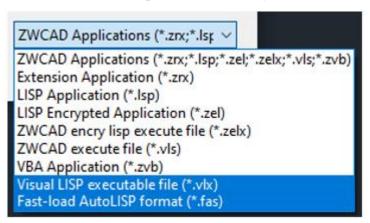


Figure 14. Directly load FAS/VLS applications

#### 4.1.7 JWW File Import

ZWCAD now supports direct import of JWW format, ensuring users can browse and edit JWW data content in ZWCAD.

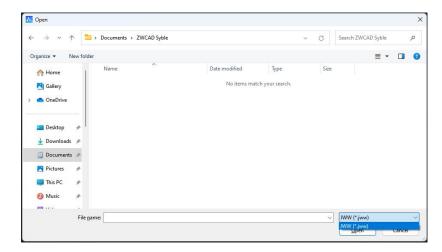


Figure 15. Support for importing JWW format files.

#### 4.1.8 Sizedrive

This features enable designer to modify the dimension of the entities to automatically adjust their shape. With this feature designer can help quickly modify the specifications of simple parts.

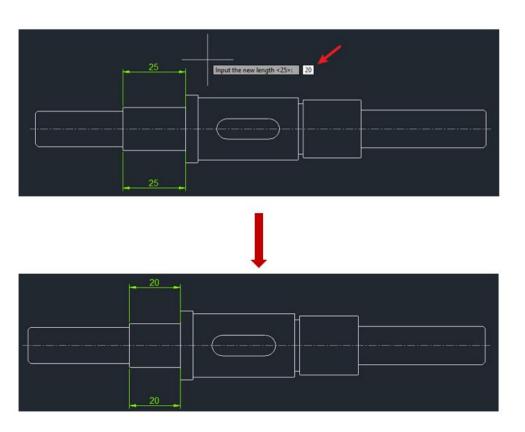


Figure 16. Editing the dimension to automatically modify the part.

#### 4.1.9 Automatic Layout Drawings

This function allows designer to automatically arrange drawings of different sizes from various documents together. Designers can customize the spacing between the drawings and the paper size for printing.

This can effectively save paper space when printing on large-sized paper with a plotter.

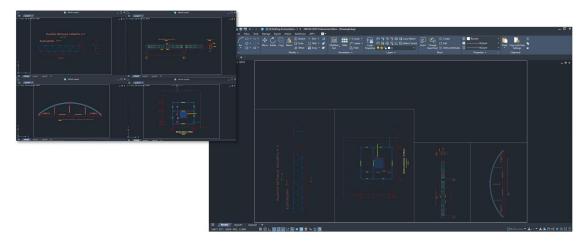


Figure 17. ZWCAD helps you distribute drawings within a specified printing area, maximizing the use of printing paper.

#### 4.2 3D Functionality Enhancement

#### 4.4.1 Improvement of Efficiency in Opening 3D Drawings

By fully utilizing CPU capabilities and leveraging multi-threading parallel technology, we significantly enhanced the efficiency of opening 3D drawings in ZWCAD.

#### 4.2.2 New Visualization Styles

We added "Conceptual", "Realistic", "Shade of Grey", and "X-ray" visual styles and optimized the display quality of visual styles including wireframe, hidden, shaded, and shaded with edges.

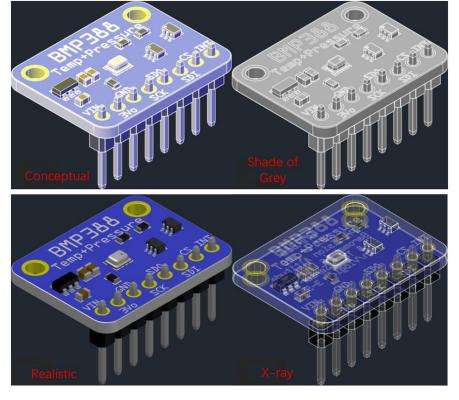


Figure 18. New 3D visual styles

#### **4.4.3 STEP File Import**

STEP is an international file format in the mechanical industry. By supporting STEP files import, the cost of file transfer from the design department to manufacturers can be reduced.

#### **Supported STEP Versions**

It supports the import AP203 and AP214 versions of STEP files.

#### **STEP Import Settings**

It supports configuration of the import of STEP files, including destination location, import method, and display settings.

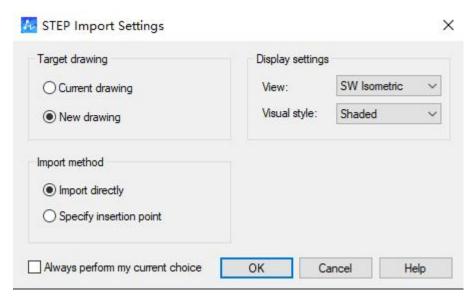


Figure 19. STEP Import Settings dialog

#### **4.4.4 3D Gizmos**

In the 3D visual style, objects can be efficiently and conveniently moved, rotated and scaled. When the gizmo is selected, you can switch between moving, rotating, and scaling by pressing the spacebar.

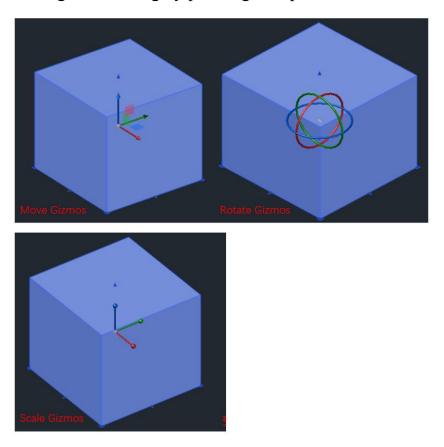


Figure 20. 3D gizmos help users edit 3D entities more easily.

#### 4.2.5 New 3D workspace

To redesign the ZWCAD workspace, create separate workspaces for 2D drafting and 3D modeling, enabling users to focus on their commonly used functions according to their requirements.

#### Add the "3D Modeling" workspace

Support switching the workspace in "Quick Access Toolbar" or "Status Bar", with the "2D Drafting & Annotation" workspace launched by default.

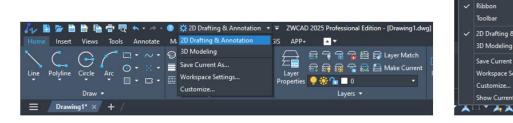


Figure 21. Switch the workspace by "Quick Access Toolbar" or "Status Bar"



Figure 22. Ribbon setting for 3D workspace

# **Workspace Settings**

a) Add the WSSETINGS command, which opens the "Workspace Settings" dialog box when executed. In this dialog box, you can set the current workspace, the display order of workspace menus, and whether to save workspace modifications when switching workspaces.

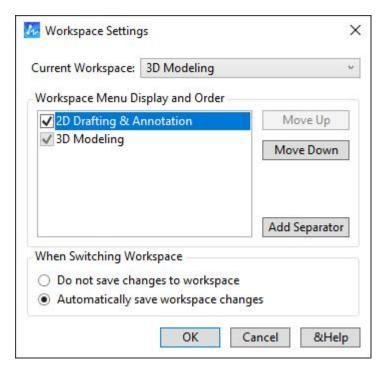


Figure 23. Workspace Settings Dialog

b) Add the WSSAVE command, which opens the "Save Workspace" dialog box when executed. This feature allows you to quickly save the current workspace.



Figure 24. Dialog of saving workspace

c) Add the WORKSPACE command, which is used to manage workspaces. This includes setting the current workspace, saving, editing, renaming workspaces, etc.



Figure 25. WORKSPACE Command

#### 4.3 Interface and Interaction Optimization

#### 4.3.1 Ribbon Redesign

The ribbon now includes new features such as slide-out panels, dragging panels, and floating panels. Combined with CUI, it enhances the customization level of interface.

#### **Slide-out Panel**

The panel can be expanded when you click on it and collapsed when you move the mouse away from the slide-out area. You can also fix the panel by clicking the "Pin" button on the left side to make it stay expanded or collapsed.



Figure 26. Slide-out ribbon panel

#### **Dragging Panel**

You can change the location of panels under the current tab on the Ribbon by clicking on the panel (skipping function icons) and dragging it to the desired location.

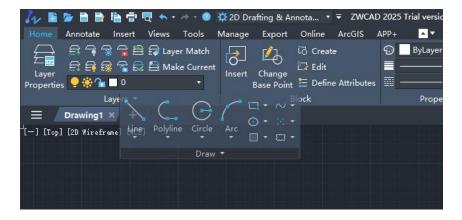


Figure 27. Dragging ribbon panel

#### **Floating Panel**

You can drag the panel outside the Ribbon by clicking on the panel (avoiding function icons) and dragging it to the desired location. The floated panel can be grouped with others or collapsed.

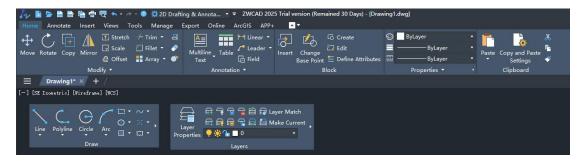


Figure 28. Floating ribbon panel

#### 4.3.2 Panel Redesign

Panels can be stacked and hidden automatically, including Properties Panel, Layer Properties Manager, External Reference panel, Design Centre, Tool Palette, Calculator, helping users expand the drawing area.

#### **Panel Stacking**

When you drag one panel onto another, these panels can be stacked together. Whether the panel is floated or docked, it can be combined with another panel in four directions: top, bottom, left, and right.

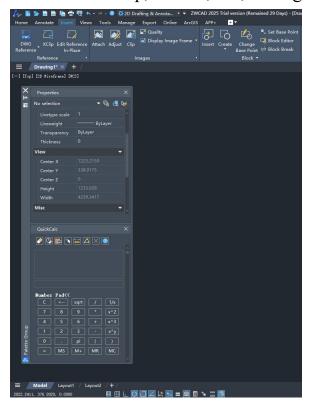


Figure 29. panels stack together

#### **Panel Auto-Hide**

When the panel is docked on the side of ZWCAD, click the "Auto-Hide" button in the top right corner of the panel, and the panel will be hidden. You can choose to hide it as text or icon.

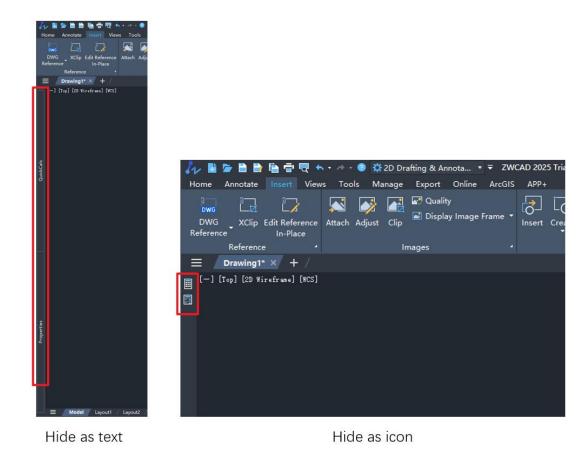


Figure 30. Different hiding methods

#### **Navigator**

When you drag the title bar of a panel, it will trigger the navigator between the panel and the ZWCAD program. When you drag the panel to another panel, it will trigger the navigator between them. The navigator can provide you with a more intuitive preview effect.

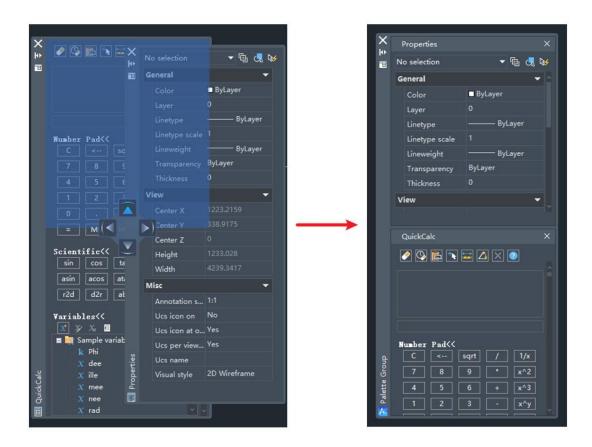


Figure 31. Stacking Navigator

#### 4.3.2 Floating Document Window

Document windows can be dragged out of the program, so users can open one drawing on another monitor as a reference drawing. When opening two or more drawings in ZWCAD, users can drag any document out of the program by clicking on the document tab and dragging it to the desired location.

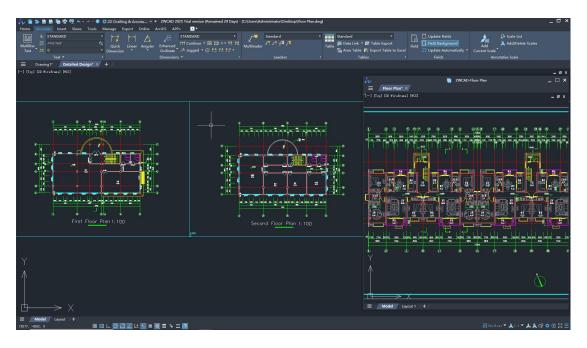


Figure 32. Drag a drawing out as a new window

## 4.3.4 Help Document Redesign

It added an online help document and optimized the search engine for the offline help document so users can access the help documentation service more conveniently.

#### **New Online Help Document**

Online help document enables users to access the help document anytime, anywhere, on any device, without the need to open the program (Supported languages: including Simplified Chinese, Traditional Chinese, English, Russian, German, Spanish, French, Japanese, Korean).

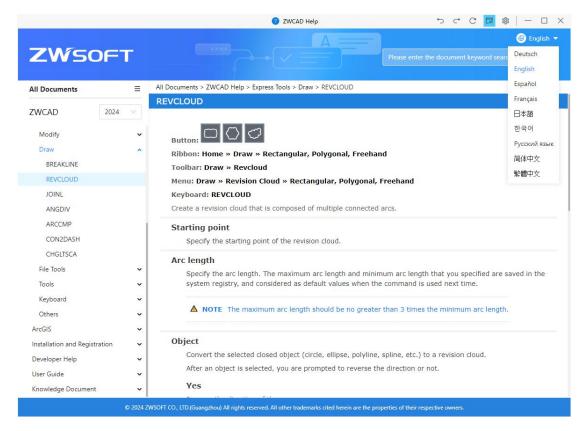


Figure 33. Online help document homepage

# **Offline Help Document Improvement**

Offline help documentation supports filtering, enhancing the convenience and efficiency of searching.

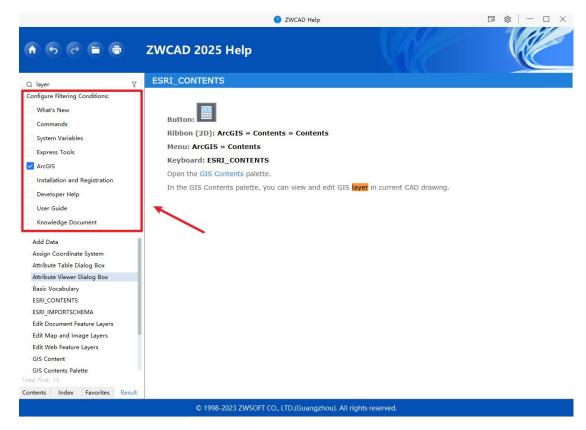


Figure 34. Search criteria help users more accuracy to find the content

#### 4.3.5 Command Matching Improvement

The command matching mechanism has been improved to provide users with a more intelligent command interaction experience.

## **Command Match Improvement**

In the previous version, it had prefix matching only. In this version, it added substring matching, wildcard matching and fuzzy matching. Users can quickly locate the required commands by entering certain characters or keywords of the command without having to enter the full name of the command accurately.



Figure 35. Four Match Types

# **Intelligent Sorting**

When users input a string, the commands will be sorted by the frequency of usage.

# **4.4 Industry Application Improvement**

# **4.4.1 Point Cloud Module Improvement**

# **New Visualization Styles**

It added 3 new visualization styles including "Intensity", "Elevation", and "Classification". Also, users can configure point cloud colors.

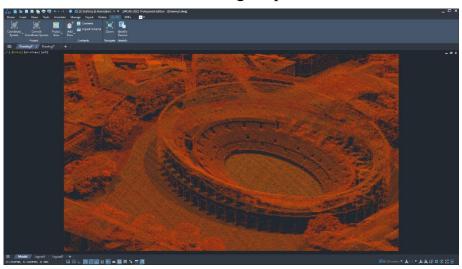


Figure 36. Intensity visualization style

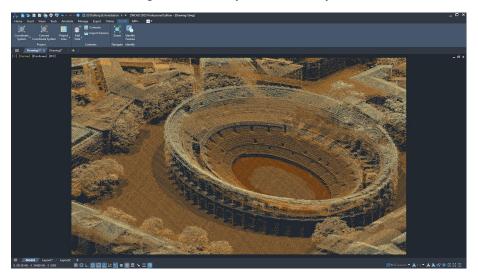


Figure 37. Elevation visualization style

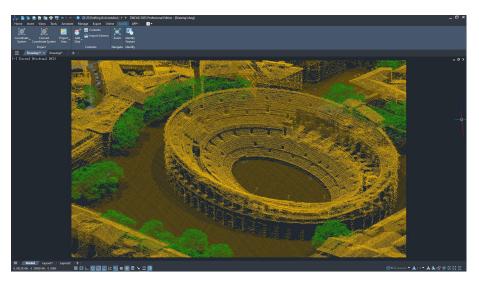


Figure 38. Classification visualization style

#### Navigate to Scan View

In the Point Cloud Manager, right-clicking a subset will trigger a context menu. Through the "Navigate to Scan View" function, and users can quickly locate the corresponding view.

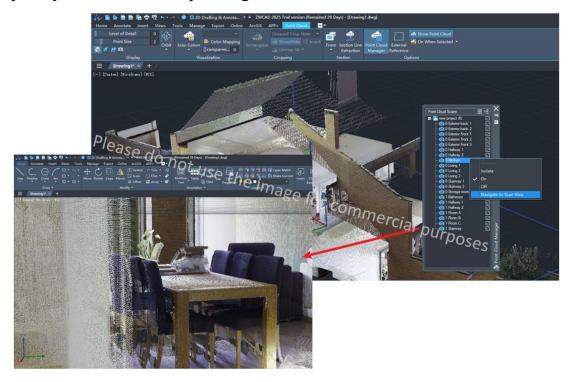


Figure 39. Navigate to the scan view to observe the interior of the building.

#### **4.4.2 GIS Module Improvement**

This module has replaced the original ArcGIS module to import maps and

represent geographic features in ZWCAD.

#### **Map Service Import**

It provides multiple map services including Bing Maps. Users can add map services compliant with the OGC protocol.

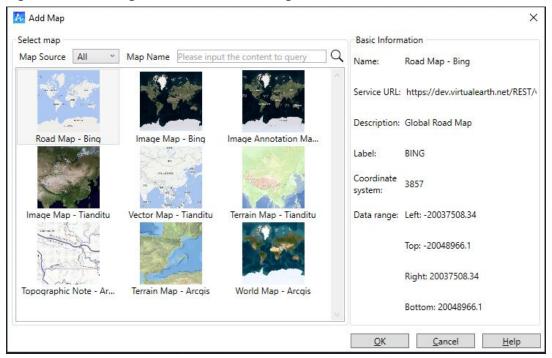


Figure 40. "Add Map" dialog box

#### **Locating Function**

You can match the geographic marker with the insertion point specified in the drawing by specifying the latitude and longitude.



Figure 41. Visual representation of map and drawing matching

#### 4.4.3 Raster Image to DWG Conversion

It supports converting raster images into CAD entities, allowing users to directly edit and modify the converted drawings. This feature helps users reuse historic hand-drawn drawings or scanned drawings, reducing the workload and cost of converting them to CAD drawings manually.

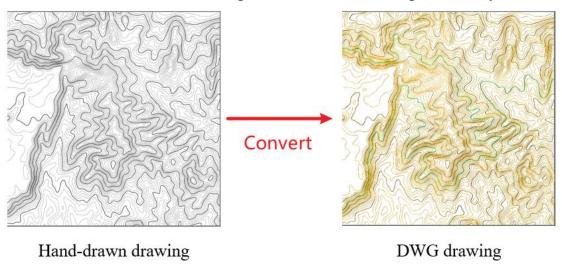


Figure 42. Convert raster image to DWG drawing

ZWCAD has made significant improvements to its API modules, including SDK upgrades, Ribbon API enhancements, .NET API enhancements, and more. For detailed information, please refer to the <<u>ZWCAD 2025 API Improvement</u>>.

# 5. New Command & System Variable

# **New Command**

New Command	Descriptions
REVCLOUDPROPERTIES	Modify the approximate chord length of the selected revision cloud arc.
WORKSPACE	Save, edit, delete, or specify workspace settings.
WSSAVE	Save the current workspace.
WSSETTINGS	Specify the display and switching settings for workspace.
SHORTCUTS	Open the shortcut key interface to modify shortcut key settings.
EXPORTPDF(EPDF)	Export PDF file in a quick way.
STEPIMPORT	Import the 3D model from STEP file into the drawing file.
STEPIMPORTSETTINGS	Open the STEP Import Settings dialog box.
VSCURRENT	Set the visual style of the current viewport.
VISUALSTYLES	Set the visual style of the current viewport.
CHANGEBASE	Change the base point of block in drawing.
MAPCS	Set or remove the coordinate system of current drawing.

GEOGRAPHICLOCATION	Set the geographic marker, insertion position, and due north angle for current map.
GEOREORIENTMARKER	Set the due north angle and position of geographic marker.
ADDGEOMAP	Add a map to the current drawing.
ADDGEOSERVICE	Add a map to the current drawing.
MAPCATALOGUE	Open the Map Link palette.
MAPCATALOGUECLOSE	Open the Map Link palette.

# **New System Variables**

New System Variables	Description
DEFAULTGIZMO	Control the default type of 3D gizmo displayed when selecting objects in 3D visual styles.
GTAUTO	Control the default type of 3D gizmo displayed when selecting objects in 3D visual styles.
REVCLOUDGRIPS	Control the number of grips displayed when revision cloud is selected.
VPSCALEASSOC	When using the SCALE command to scale a viewport, control whether the internal view is scaled accordingly.
BAKMAXFILES	Set the maximum number of backup file entries that can be kept in the automatic save file location.
BAKMAXTOTALSIZE	Set an upper limit in megabytes (Mbs) for all graphic file entries in the automatically saved backup file.
THUMBQUALITY	Control the precision of saving thumbnail when saving drawing.

SYSFLOATING	Control the fixed state of the graphic file tab.
INREFEDIT	Indicate the display status of the edit reference tab.
ARRAYCREATION	Indicate the display status of the array context tab.
RIBBONDOCKEDHEIGHT	Set the display height of fixed panels in ZWCAD ribbon.
RIBBONICONRESIZE	Control whether to adjust the icon size on the ribbon to standard size
LISPSYS	Control the default encoding runtime environment of Lisp, and after modification, it must be restarted to take effect
FASTSHADEDMODE	Set whether fast rendering mode is enabled or set the level of fast rendering mode
FACETRES	Adjust the smoothness of shading and rendering objects, rendering shadows, and objects with hidden lines removed.
VIEWUPDATEAUTO	Control whether the model document drawing view will automatically update when changing the source model.
GEOLATLONGFORMAT	Control the format of latitude and longitude display
GEOMARKERVISIBILITY	Control the visibility of anchor points
DIVMESHBOXHEIGHT	Set the number of subdivisions for the height of the grid box along the Z-axis.
DIVMESHBOXLENGTH	Set the number of subdivisions for the height of the grid box along the X-axis.
DIVMESHBOXWIDTH	Set the number of subdivisions for the height of the grid box along the Y-axis.
DIVMESHCONEAXIS	Set the number of subdivisions around the perimeter of the mesh cone base.

DIVMESHCONEBASE  and center of the mesh cone base.  Set the number of subdivisions between the base and vertices of the mesh cone.  DIVMESHCYLAXIS  Set the number of subdivisions around the circumference of the cylinder base.  Set the number of radius subdivisions from the center of the mesh cylinder base to its circumference.  DIVMESHCYLBASE  Set the number of subdivisions between the bottom and top surfaces of the mesh cylinder.  Set the number of radius subdivisions between the center of the bottom surface of the grid cold cone and its circumference.  DIVMESHPYRBASE  DIVMESHPYRHEIGHT  Set the number of subdivisions between the bottom and top surfaces of the mesh pyramid.  Set the number of subdivisions for each annotation along
DIVMESHCYLAXIS  Set the number of subdivisions around the circumference of the cylinder base.  DIVMESHCYLBASE  Set the number of radius subdivisions from the center of the mesh cylinder base to its circumference.  DIVMESHCYLHEIGHT  Set the number of subdivisions between the bottom and top surfaces of the mesh cylinder.  Set the number of radius subdivisions between the center of the bottom surface of the grid cold cone and its circumference.  DIVMESHPYRBASE  Set the number of subdivisions between the bottom and top surfaces of the mesh pyramid.  Set the number of subdivisions between the bottom and top surfaces of the mesh pyramid.  Set the number of subdivisions for each annotation along
DIVMESHCYLAXIS  Set the number of subdivisions around the circumference of the cylinder base.  Set the number of radius subdivisions from the center of the mesh cylinder base to its circumference.  Set the number of subdivisions between the bottom and top surfaces of the mesh cylinder.  Set the number of radius subdivisions between the center of the bottom surface of the grid cold cone and its circumference.  DIVMESHPYRBASE  Set the number of subdivisions between the bottom and top surfaces of the mesh pyramid.  Set the number of subdivisions between the bottom and top surfaces of the mesh pyramid.  Set the number of subdivisions for each annotation along
DIVMESHCYLAXIS  Of the cylinder base.  Set the number of radius subdivisions from the center of the mesh cylinder base to its circumference.  DIVMESHCYLHEIGHT  Set the number of subdivisions between the bottom and top surfaces of the mesh cylinder.  Set the number of radius subdivisions between the center of the bottom surface of the grid cold cone and its circumference.  DIVMESHPYRHEIGHT  Set the number of subdivisions between the bottom and top surfaces of the mesh pyramid.  Set the number of subdivisions for each annotation along
DIVMESHCYLBASE  Set the number of radius subdivisions from the center of the mesh cylinder base to its circumference.  Set the number of subdivisions between the bottom and top surfaces of the mesh cylinder.  Set the number of radius subdivisions between the center of the bottom surface of the grid cold cone and its circumference.  DIVMESHPYRHEIGHT  Set the number of subdivisions between the bottom and top surfaces of the mesh pyramid.  Set the number of subdivisions for each annotation along
DIVMESHCYLBASE  the mesh cylinder base to its circumference.  Set the number of subdivisions between the bottom and top surfaces of the mesh cylinder.  Set the number of radius subdivisions between the center of the bottom surface of the grid cold cone and its circumference.  DIVMESHPYRBASE  DIVMESHPYRHEIGHT  Set the number of subdivisions between the bottom and top surfaces of the mesh pyramid.  Set the number of subdivisions for each annotation along
DIVMESHCYLHEIGHT  Set the number of subdivisions between the bottom and top surfaces of the mesh cylinder.  Set the number of radius subdivisions between the center of the bottom surface of the grid cold cone and its circumference.  DIVMESHPYRHEIGHT  Set the number of subdivisions between the bottom and top surfaces of the mesh pyramid.  Set the number of subdivisions for each annotation along
DIVMESHCYLHEIGHT  top surfaces of the mesh cylinder.  Set the number of radius subdivisions between the center of the bottom surface of the grid cold cone and its circumference.  DIVMESHPYRHEIGHT  Set the number of subdivisions between the bottom and top surfaces of the mesh pyramid.  Set the number of subdivisions for each annotation along
top surfaces of the mesh cylinder.  Set the number of radius subdivisions between the center of the bottom surface of the grid cold cone and its circumference.  DIVMESHPYRHEIGHT  Set the number of subdivisions between the bottom and top surfaces of the mesh pyramid.  Set the number of subdivisions for each annotation along
DIVMESHPYRBASE of the bottom surface of the grid cold cone and its circumference.  Set the number of subdivisions between the bottom and top surfaces of the mesh pyramid.  Set the number of subdivisions for each annotation along
circumference.  Set the number of subdivisions between the bottom and top surfaces of the mesh pyramid.  Set the number of subdivisions for each annotation along
DIVMESHPYRHEIGHT  Set the number of subdivisions between the bottom and top surfaces of the mesh pyramid.  Set the number of subdivisions for each annotation along
DIVMESHPYRHEIGHT top surfaces of the mesh pyramid.  Set the number of subdivisions for each annotation along
top surfaces of the mesh pyramid.  Set the number of subdivisions for each annotation along
Set the number of subdivisions for each annotation along
DIVMECHDVDI ENCTH
DIVMESHPYRLENGTH the bottom of the mesh pyramid.
DIVMESHSPHEREAXIS  Set the number of radius subdivisions around the
endpoints of the mesh sphere axis.
DIVMESHSPHEREHEIGHT Set the number of subdivisions between the endpoints of
the two axes of the mesh sphere.
DIVMESHTORUSPATH  Set the number of subdivisions for the path swept by the
contour of the mesh torus.
DIVMESHTORUSSECTION Set the number of subdivisions in the contour of the
swept mesh torus path.
Set the number of subdivisions between the midpoint of
DIVMESHWEDGEBASE the perimeter of the mesh wedge and the triangle
annotation.
Set the number of subdivisions for the height of the mesh
DIVMESHWEDGEHEIGHT  Set the number of subdivisions for the height of the mesh wedge along the Z-axis.
DIVMESHWEDGEHEIGHT

DIVMESHWEDGESLOPE	Set the number of subdivisions from the vertex of the
DIVMESTIWEDGESLOFE	wedge to the edge of the base.
DIVMESHWEDGEWIDTH	Set the number of subdivisions for the width of the mesh
DIVMESHWEDGEWIDTH	wedge along the Y-axis.
FACETERMESHTYPE	Set the mesh type generated by the MESHSMOOTH
TACLIERWESHTILE	command.
FACETERDEVSURFACE	This setting will affect the mesh converted from another
TACLILADLYSOKIACL	object using the MESHSMOOTH command.
FACETERDEVNORMAL	Set the maximum angle between the surface normal and
TACLILADEVIORNAL	adjacent mesh faces in the MESHSMOOTH command.
FACETERGRIDRATIO	Set the maximum aspect ratio of the mesh converted
	from solids and surfaces in the MESHSMOOTH
	command.
EACETERMA YEDGELENGTH	Set the maximum length of the mesh generated by the
FACETERMAXEDGELENGTH	MESHSMOOTH command.
FACETERMAXGRID	Set the maximum number of grid U and V lines
FACETERMAXGRID	generated by the MESHSMOOTH command.
FACETERMINUGRID	Set the minimum number of grid U lines generated by
TACLILAMINOGRID	the MESHSMOOTH command.
FACETERMINVGRID	Set the minimum number of grid V lines generated by
THEETERIMITY GRID	the MESHSMOOTH command.
FACETERSMOOTHLEV	Set the smoothness of the mesh generated by the
THELTEROWOOTHELV	MESHSMOOTH command.
LONGITUDE	Set the longitude of geographic markers.
	8 · · · · · · · · · · · · · · · · · · ·
LATITUDE	Set the latitude of geographic markers.
MAPCS	Set or remove the coordinate system of the current
	drawing.
SWITCHCOORDINATE	Convert the current drawing to the specified coordinate
	system.

CGEOCS	Display the coordinate system of the current graphic
	application.

#### 6. APIs

#### **6.1 ZRX**

We have made significant improvements to ZRX. Please click <u>here</u> to download the relevant document for viewing.

#### **6.2.NET**

We have made significant improvements to .NET. Please click <u>here</u> to download the relevant document for viewing.

#### **6.3 VBA**

0 were added and 4 were Fixed:

State	Interface
Fix	ZcadTable.GetValue Method
Fix	Document.Open Method
Fix	ZcadPopupMenu.AddMenuItem
Fix	QuickAccessToolBarSource.AddStandardItem

# 6.4 Lisp

0 were added and 12 were Fixed:

State	Interface
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Fix	vl-prin1-to-string
Fix	command
State	Interface
Fix	vla-Save
Fix	trace
Fix	vlax-ldata-put
Fix	chr
Fix	write-line
Fix	read-line
Fix	findfile
Fix	grread
Fix	vla-load
Fix	vl-load-all
Fix	open
Fix	vl-catch-all-apply
Fix	load
Fix	arxload
Fix	setvar
Fix	trace

# 7. Bug Fixes

For the complete list, please refer to:

 $\label{lem:https://www.dropbox.com/scl/fi/y6jtv96c3h5rklebihift/Bug-Fixlist-ZWCAD-2025-Official.xlsx?rlkey=7jjzxjpk8jl4xzhllgs85kr9h&st=n3uiblc4&dl=1$