



ZWCAD 2023 Official

PRODUCT RELEASE NOTES

THE ZWSOFT TEAM

ZWSOFT | 2022/05/31

Welcome to ZWCAD 2023 Official!

Dear friends,

We are glad to tell you that ZWCAD 2023 Official is available now! Thanks to your valuable feedback for the previous version, ZWCAD 2023 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 2023 Official.

Yours sincerely,

The ZWSOFT Team

May 2022

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ZWCAD 2023 Official Release Notes

Version number: 23.00_2022.05.19(#4672-2a69c627485)

Overview

ZWCAD 2023 Beta has the following new features and improvements:

New Features	Description
Sheet Set Manager	Powerful tool for drawings management and paper plotting.
Grip editing of 3D entities	Use grips to change a 3D entity's shape.
Optimization for table module	New functions and improvements have been added in table module.
Support for 3D mouse	Use a 3D mouse to edit and view 3D entities.
Support for Adobe® PostScript	Export EPS files by Adobe® PostScript plotter.

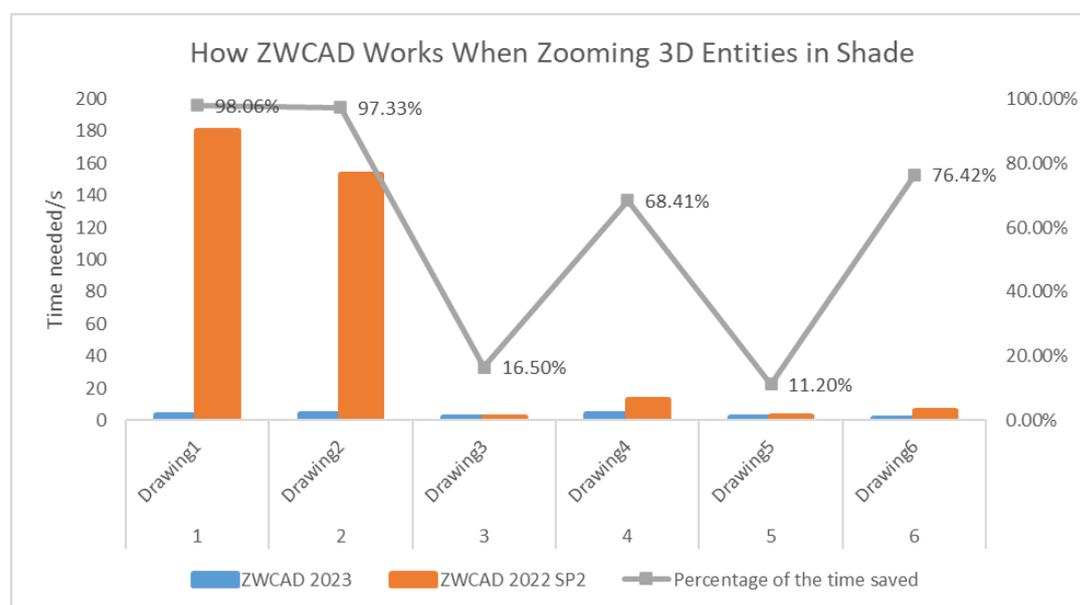
Improvements	Description
Tooltip upgrade	Schematic diagram has been added to tooltip.
Optimization for calculator	<ol style="list-style-type: none">1. Support calculation in Imperial units.2. More functions and variables can be identified.
Quick menu for Object Snap	Right-click object snap button to open quick menu.
Preview for font replacement	Preview window for you to check whether the big font can show the text correctly.

Efficiency

The following section describes the efficiency tests in this release.

The efficiency of opening, panning and zooming drawings with a great number of TTF fonts has been greatly improved in the ZWCAD 2023 Official. At its best performance, it only costs 0.01% of the time ZWCAD 2022 needs for the operations mentioned above, which makes ZWCAD competitive on the market.

Besides, you can easily tell how smooth zooming 3D entities in shade is in this version. At its best performance, the time it spends in navigating 3D entities in the 2023 version is 97% less than that in the 2022 version.



Some other basic operations like selecting and erasing a large number of entities have also been optimized. When you batch select or erase entities, you can barely feel any lagging. It's convinced that ZWCAD performs entities selecting and erasing way faster than other CAD software.

Stability

This section expounds the new features in this release.

The following section delivers updates on stability in this release.

ZWCAD 2023 Official will be more stable when you:

- ✧ Install and launch the program;
- Improved the compatibility of ZWCAD with lower versions of .Net Framework. Compatible with .Net Framework 4.5.2~4.7 version.

- Solved the ZWCAD installation problem due to VC library installation failure.
- Solved the problem of blank screen when uninstalling ZWCAD.
- ✧ Open and zoom drawings with raster images;
- ✧ Switch Spline method from Control Vertices to Fit in the Properties panel;
- ✧ Copy and paste entities between drawings;
- ✧ Double click cells which include fields or blocks.

New Features

Sheet Set Manager

Sheet Set Manager is a powerful tool to manage and plot drawings, especially useful for projects with a large number of drawings. Note that Sheet Set Manager is only used for managing drawings in layout, so it requires you to arrange one drawing in one layout.

Below are the highlights of Sheet Set Manager:

- 1) Manage drawings with the tree structure. All drawings are listed on the panel clearly.

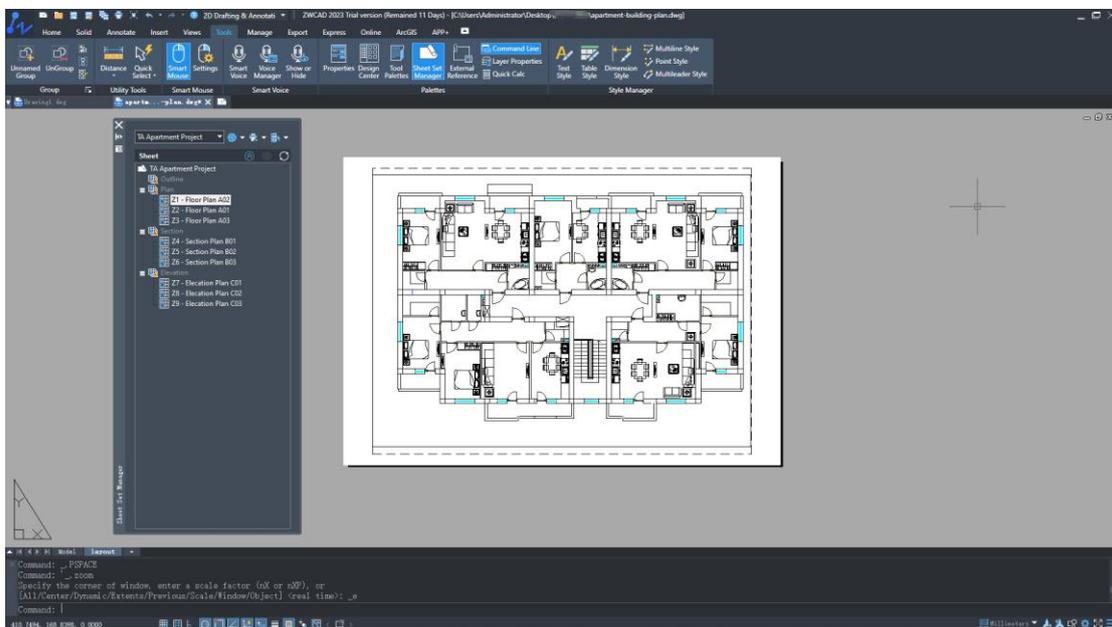


Figure 1. You can check each drawing from the structure tree clearly

- 2) View and edit drawings more conveniently. Right-click a drawing to trigger the menu for you to choose to edit or view the drawing.

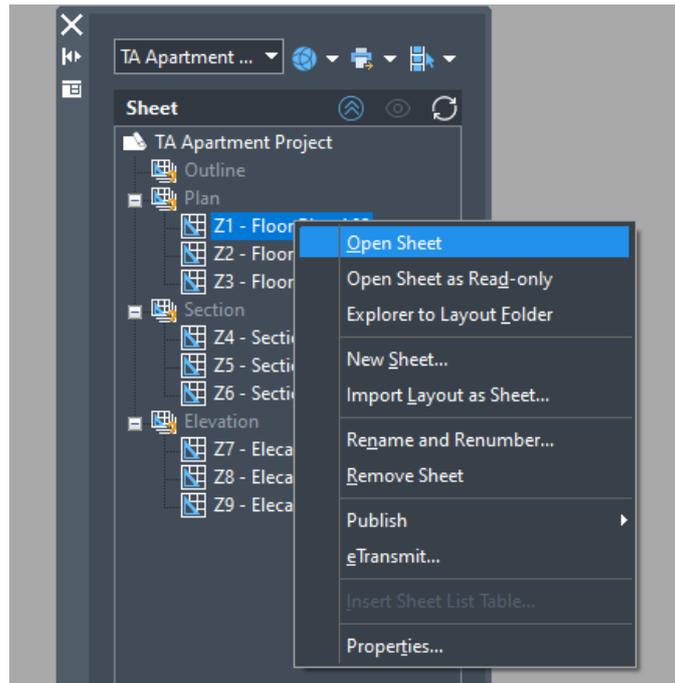


Figure 2. Right-click menu helps user to open drawing quickly

- 3) Create a sheet list table in one click. It can automatically create a sheet list table based on the structure tree and insert it into the drawing. You can choose all drawings or some of the drawings to create the table.

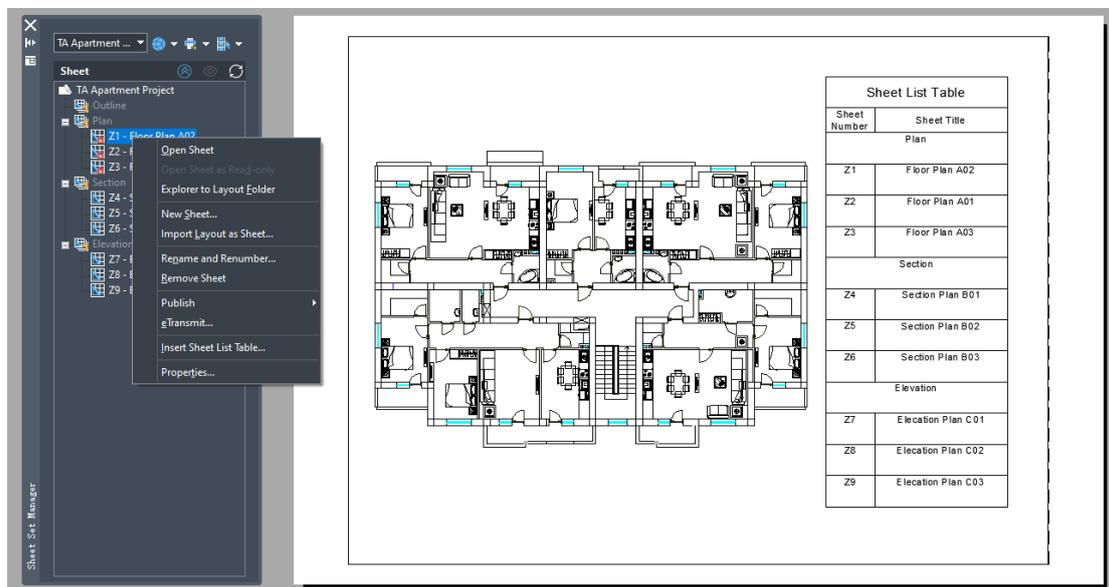


Figure 3. One click to create a sheet list table

- 4) Modify fields of multiple drawings. You can modify these fields without opening the drawings. Moreover, you can customize your own fields based on different needs.

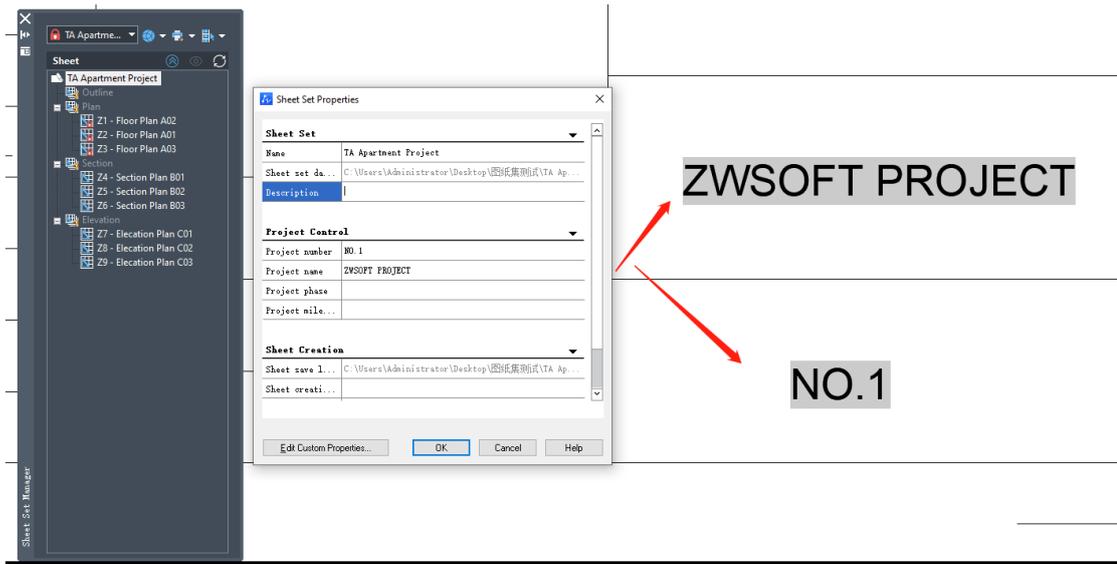


Figure 4. Fields in Sheet Set Manager

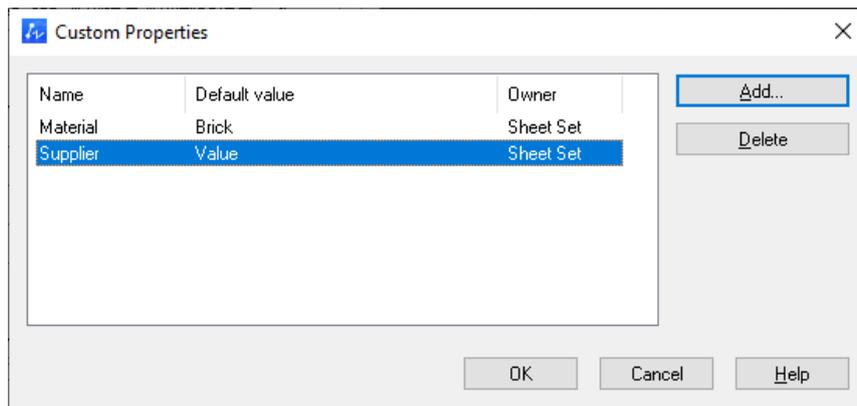


Figure 5. Customize your own fields

- 5) Archive or plot your drawings in a few steps. From the structure tree you can select plotting drawings directly, or set up a publish list and right-click the drawings to print. Sheet Set Manager supports physical printing and virtual printing like PDF, DWF, and DWFx.

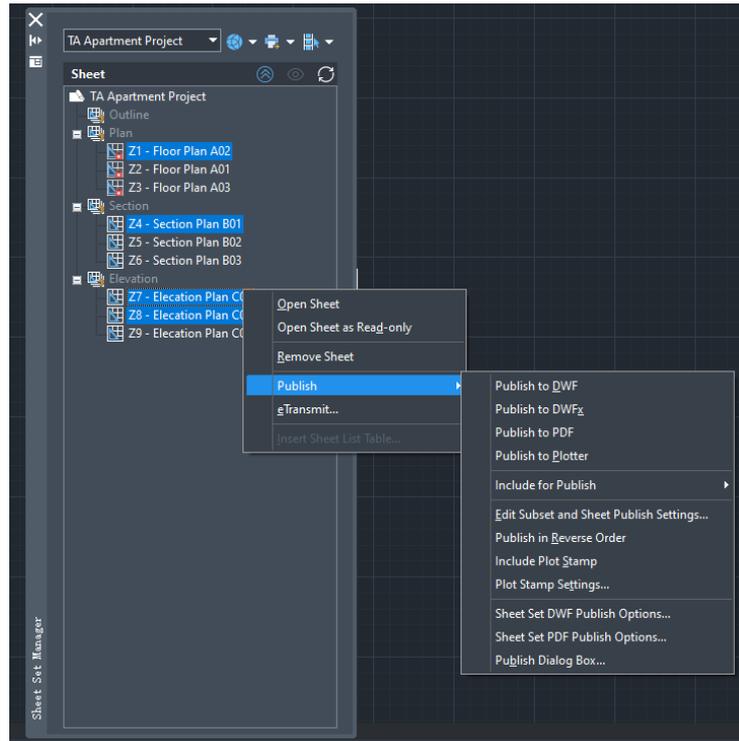


Figure 6. Choose drawings to plot or archive

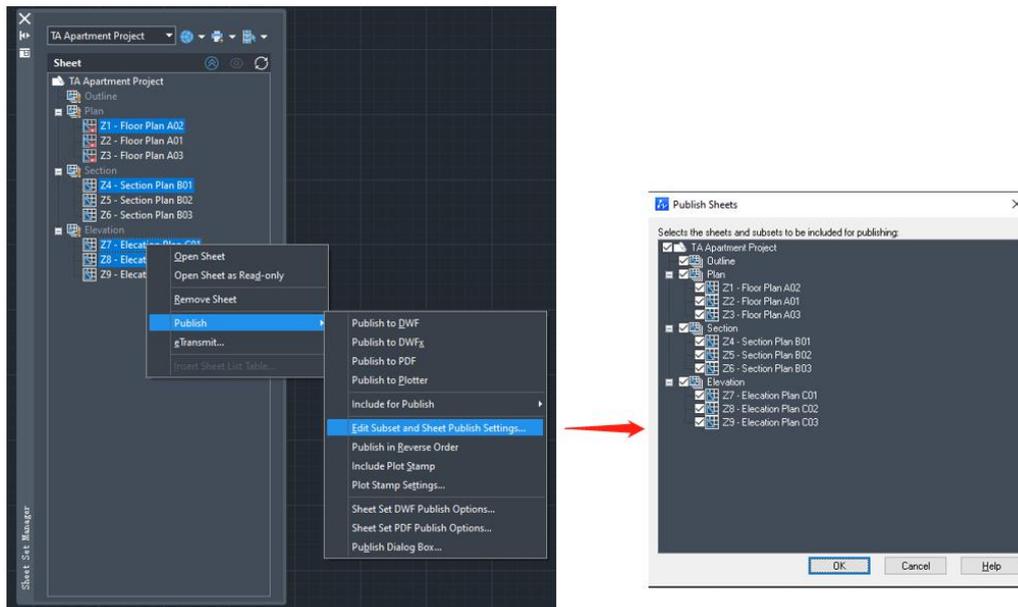


Figure 7. Set up a publish list to print

Optimization for table module

The table function has been further optimized. The following functions have been added in this version:

- 1) New context menu: When you click a table cell, the context menu will appear

on the ribbon, helping users set up content in the cell more easily.

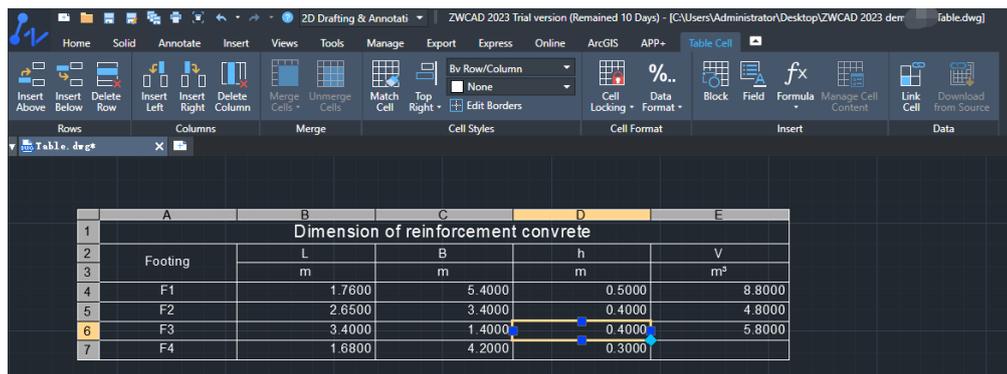


Figure 8. Context menu on ribbon

- 2) New function “Match Cell” is like a format painter. You can copy a cell format to other cells. It now supports formats like background color, frame style and text alignment method.

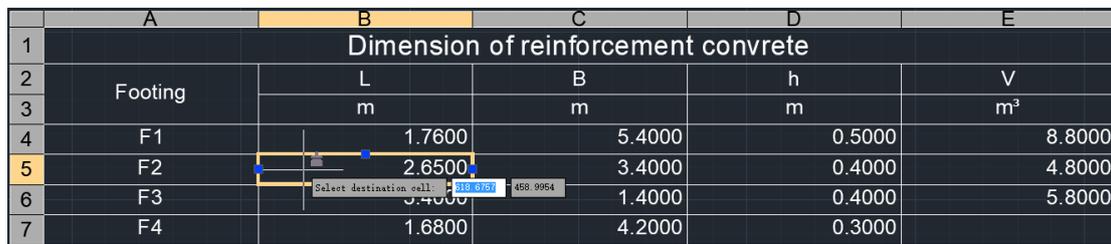


Figure 9. A format painter icon appears when you use “Match Cell”

- 3) Support block insertion in table. You can insert multiple blocks in one cell.

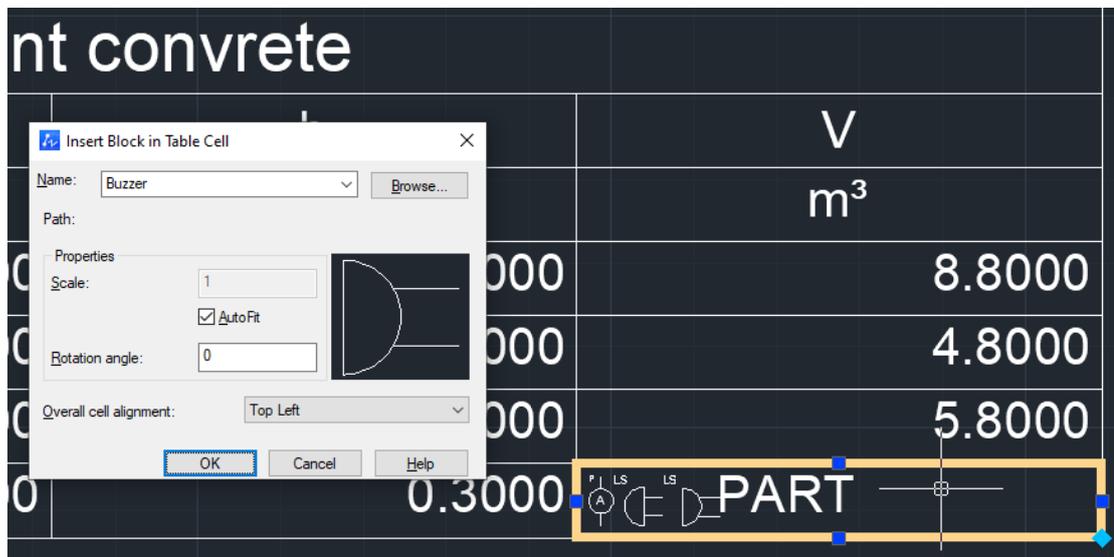


Figure 10. Blocks can be inserted in table

- 4) Borders properties can be adjusted

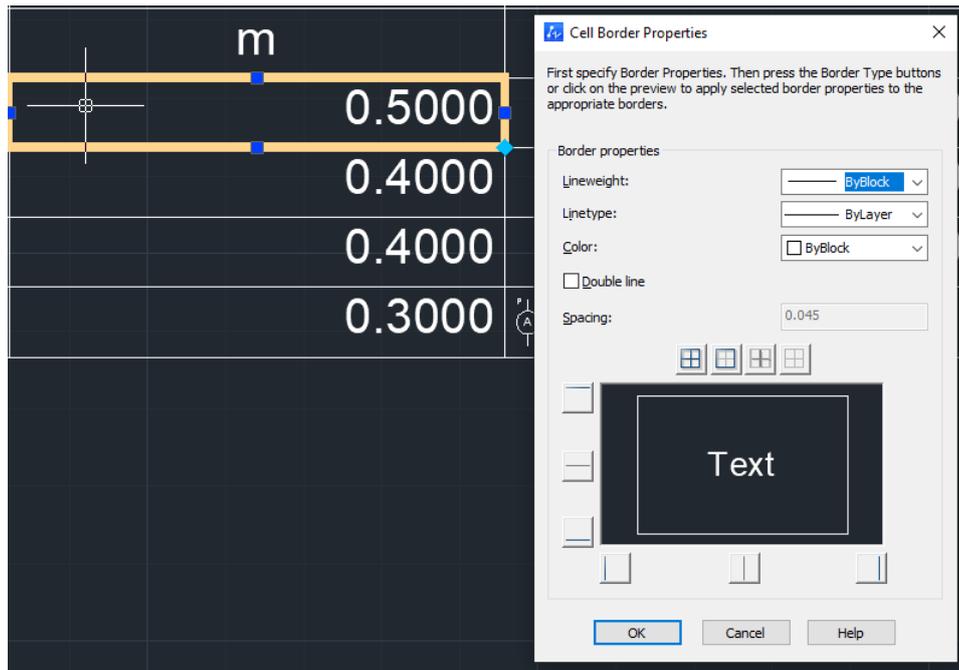


Figure 11. Cell Border Properties Panel

Grips editing of 3D entities

3D solids (primitive and solid entities) can be changed in shape and size by dragging the grips. With this function, our 3D capabilities have improved dramatically.

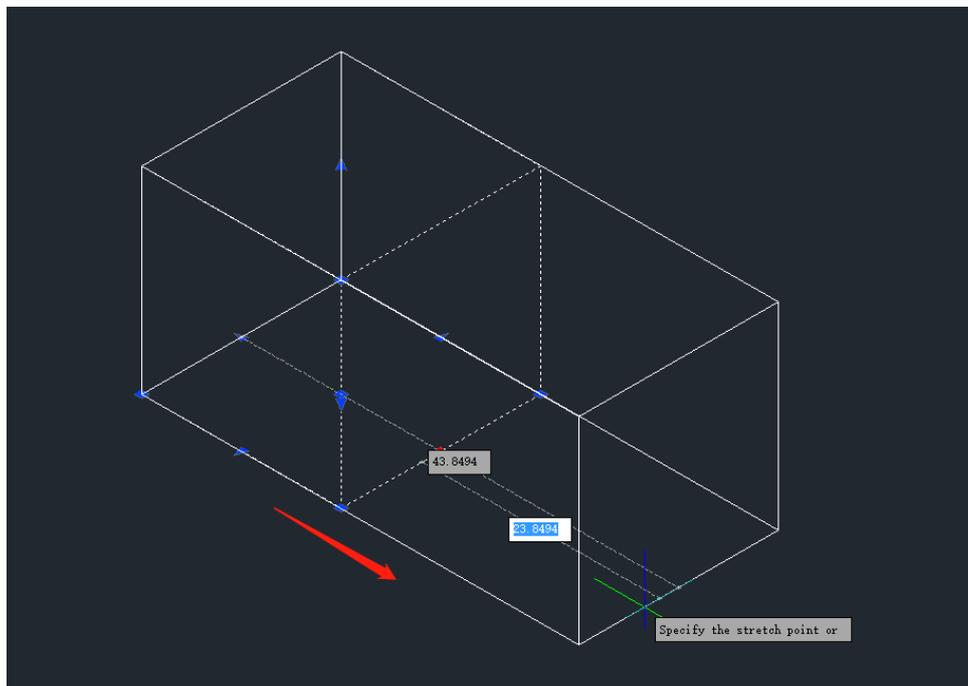


Figure 12. Drag the grip to change 3D solid's shape

Dimensions of 3D solid are associated. The dimensions will change automatically

as the 3D solid's shape is changed. Moreover if your dynamic input is activated, when you hover your cursor over the grip, the relevant geometric information will appear.

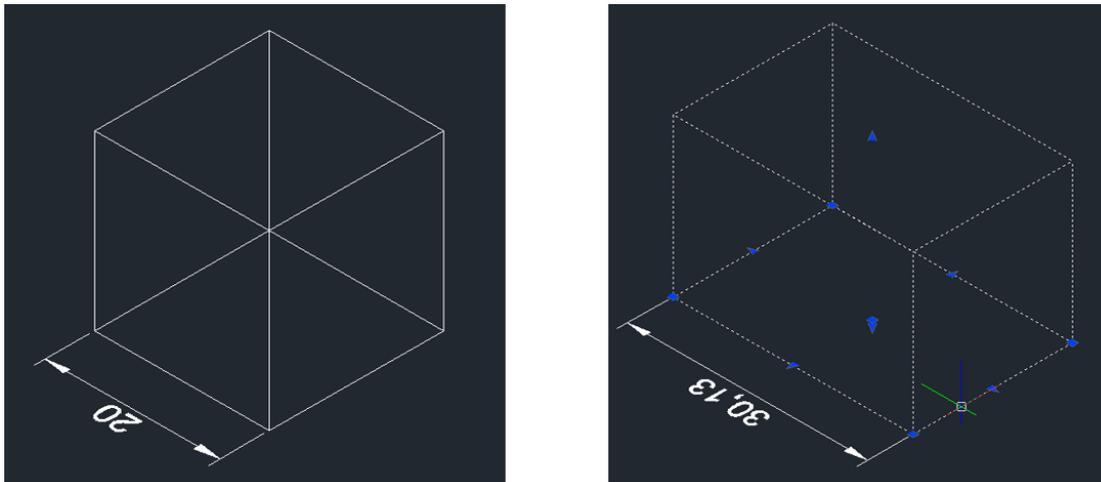


Figure 13. Dimension will change when you change 3D solid's shape using grips

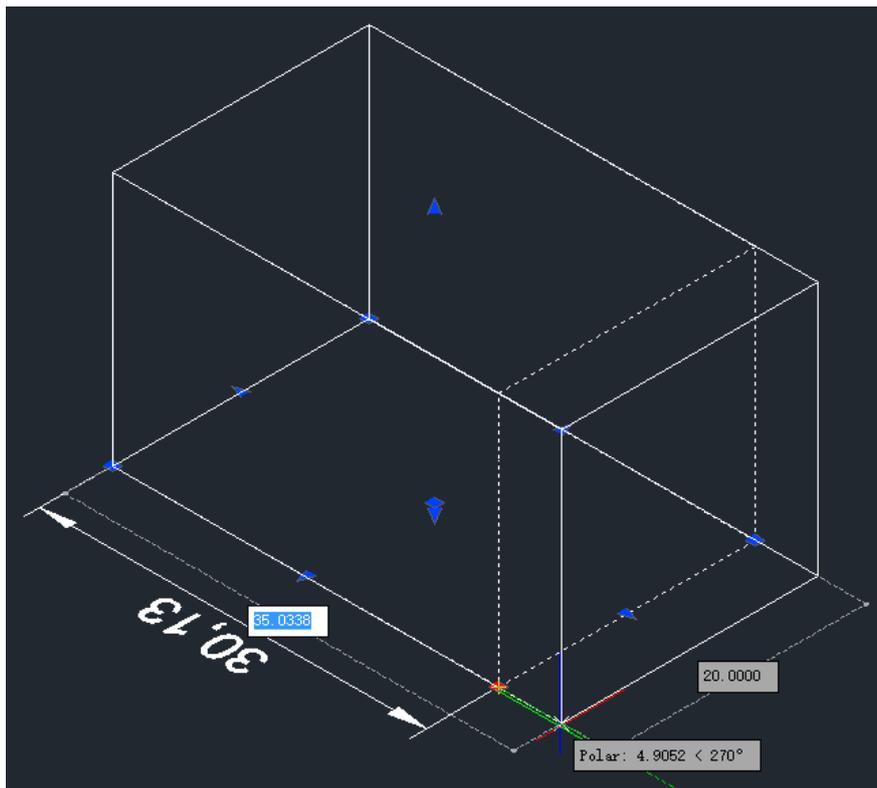


Figure 14. When cursor hovers over the grip, geometric information will appear

A new column is added to properties panel; you can modify data on it.

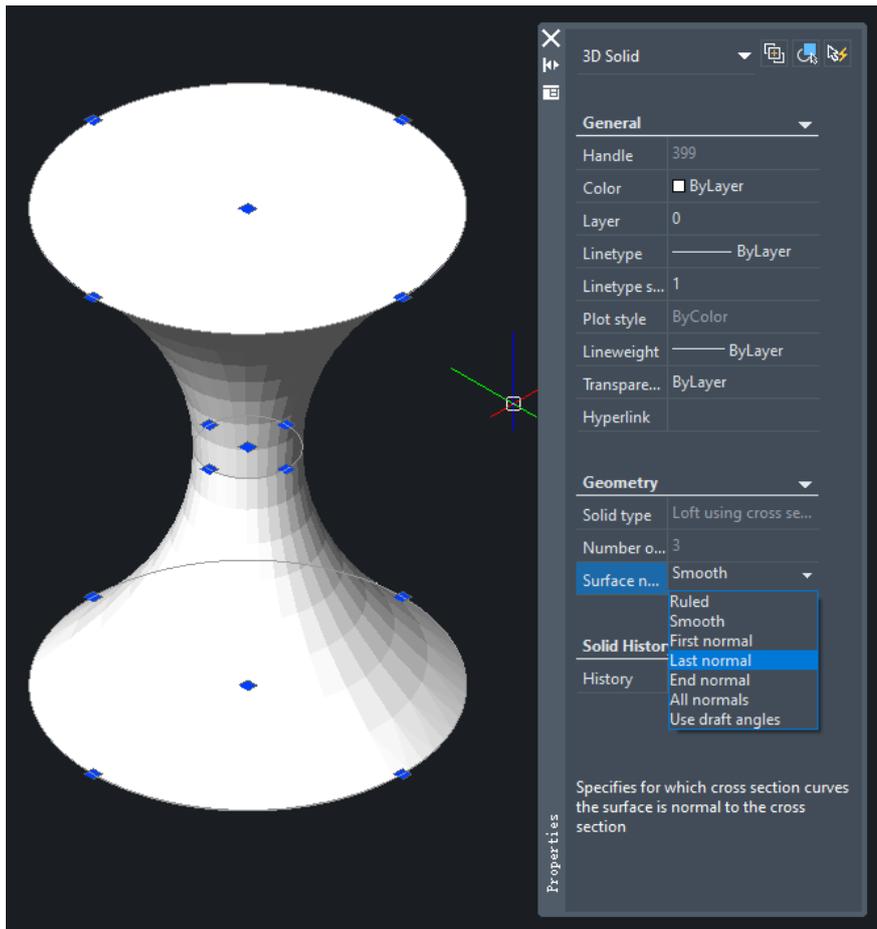


Figure 15. Modify 3D solid through properties panel

Support for 3D mouse

3D mouse models from 3D connexion® are compatible with ZWCAD 2023. For now we support 3 models: "SpaceMouse Enterprise", "SpaceMouse Pro", "Space Pro". Users can bind ZWCAD's commands to mouse buttons to carry on frequently used commands.

Support for Adobe® PostScript

Models including Adobe® PostScript Level 1, PostScript Level 1 Plus, and PostScript Level 2 can be added to the plotter list. You can add these plotters through the "Add-A-Plotter Wizard".

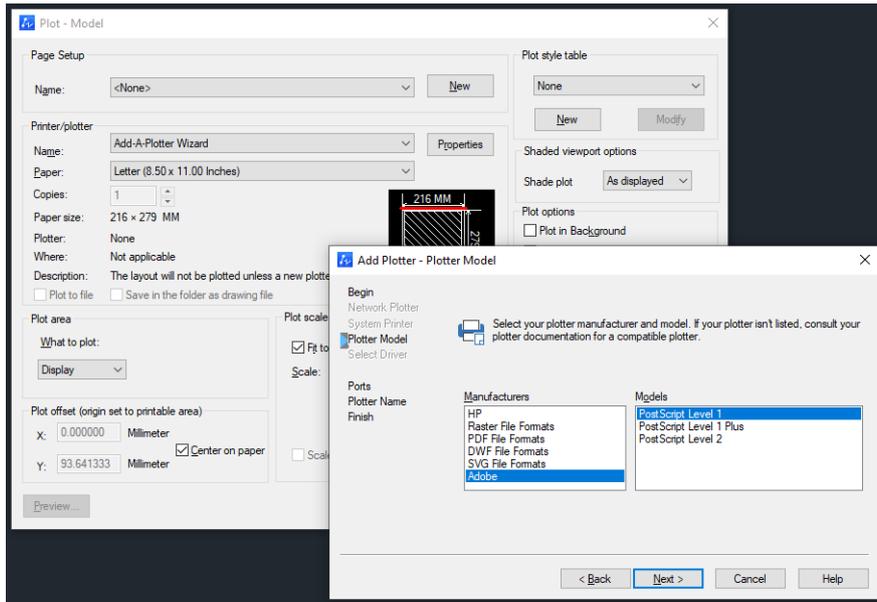


Figure 16. Adobe® manufacturer is added in the list

After adding, you can see the plotter model in plotter list

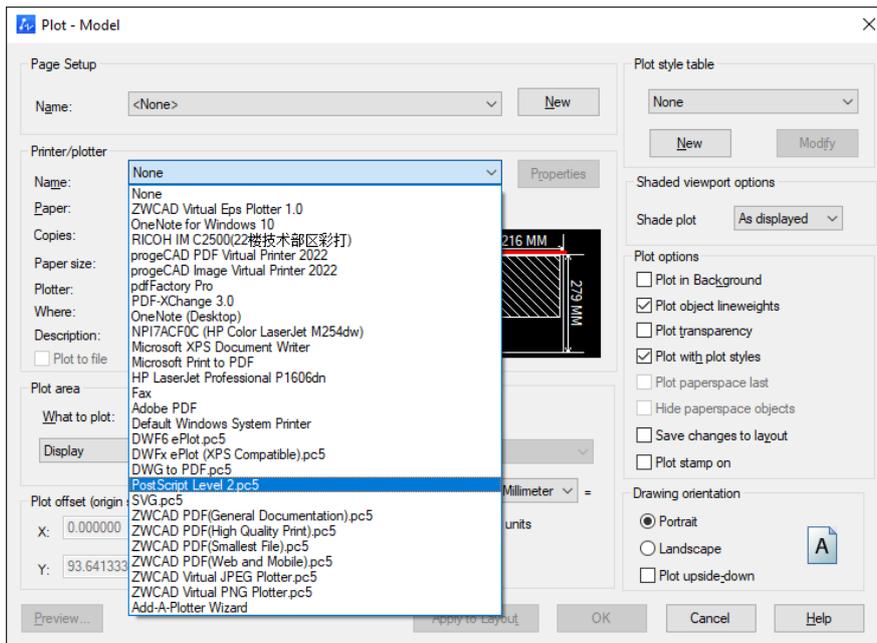


Figure 17. PostScript can be chosen from the plotter list.

Properties of the plotter can be modified as well, you can set PostScript special settings in the panel.

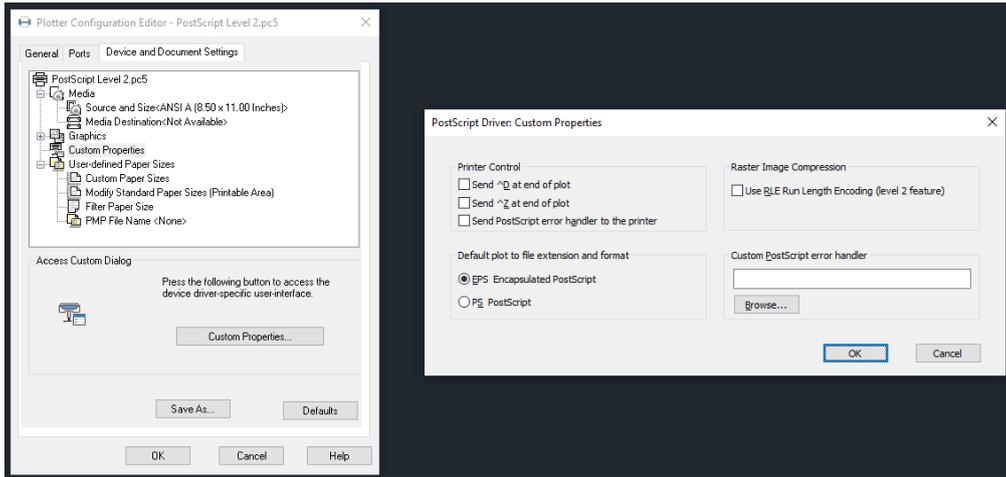


Figure 18. PostScript special settings

Improvements

Tooltip upgrade

When you hover the cursor on the icon in ribbon, a dialog, which is tooltip, will pop up. Now a diagram will appear in tooltip, along with the text description, helping users understand how to use the function more easily.

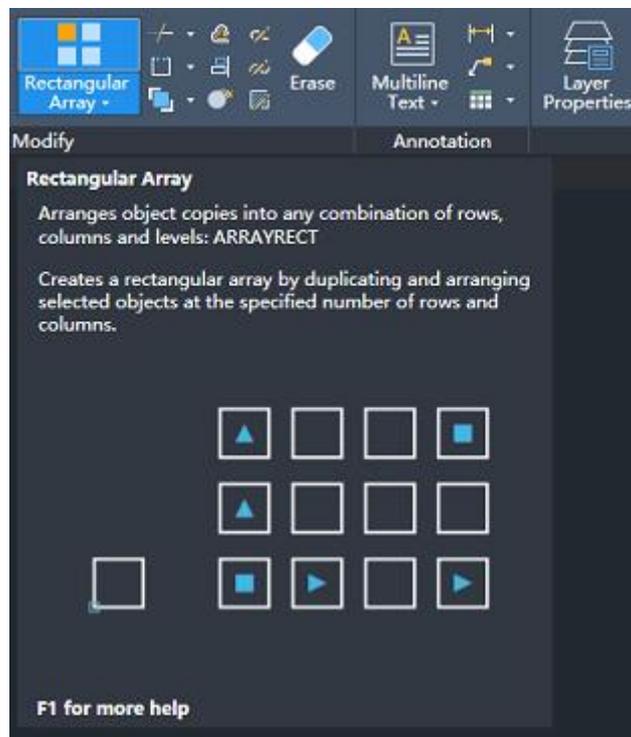


Figure 19. Upgrade Tooltip

Optimization for calculator

1. The calculator now supports Imperial units. Users can directly enter the Imperial units to calculate.
2. It supports new formulas, like “ill”, “ilp”, “plt”, and “ang”. Developers could invoke new functions to develop programs.

```
Command: CAL
Expression or [? (for help)]: 5"*3"
15 sq. in.
Command:
```

Figure 20. Calculation of imperial

Quick menu for Object Snap

The quick menu will pop up when users right-click the object snap button, helps them choose object snap type more easily.

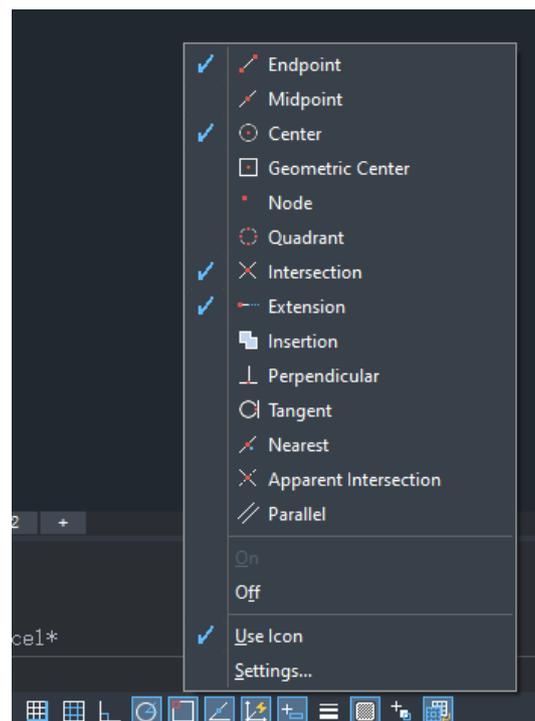


Figure 21. quick menu of Object Snap

Preview for font replacement

There might be lack of fonts for some drawings, which can lead to wrong display for certain text. Normally we would use big font to replace the lost font. With this preview window you can check whether the big font can show the text correctly

before you apply it, reducing the possibility of replacing fonts again and again. Currently it can identify languages of Chinese simplified, Chinese traditional, Japanese, Korean.

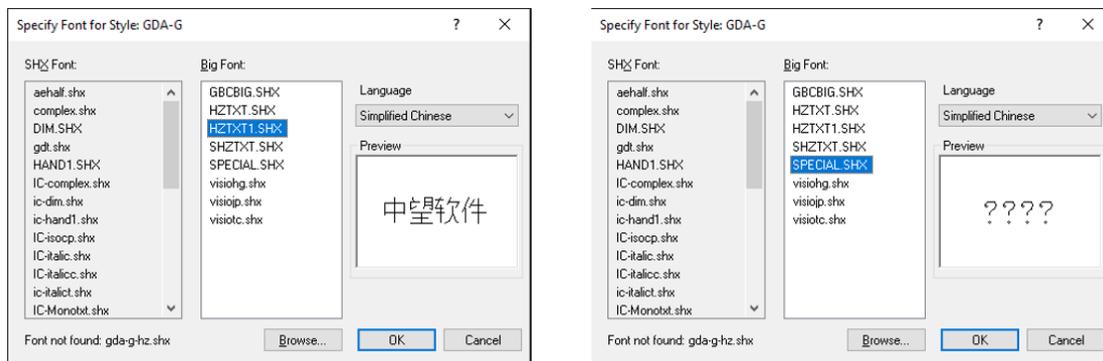


Figure 22. From preview window you can check whether the text show correctly

New Command & System Variables

New Command	Description
-TABLE	Run "Table" command in command line.
TINSERT	Execute the TINSERT command, select the table cell, and open the Insert Block in Table Cell dialog box.
MATCHCELL	Apply selected cell style to other cells
SHEETSET	Open sheetsset manager.
OPENSHEETSET	Open sheetsset file.
NEWSHEETSET	Create a new sheetsset file.
SHEETSETHIDE	Close Sheetsset manager.
ARCHIVE	Archive Sheetsset
3DCONNEXION	Allow or ban 3D mouse funciton
SPACEMOUSEACTION	Synchronize view data to the database
ZW3DXROLLCWVIEW	Twist the view clockwise
ZW3DXROLLCCWVIEW	Counterclockwise twist view

New System Variables	Description
TEXTSMOOTHING	Control text antialiasing on or off.
SOLIDHIST	Control whether created 3D solids retain the history of original components.
ZOOMSPEEDLEVEL	Control the level of optimization for ZOOM. The optional value is 0-3, the higher the value, the better the efficiency optimization, but the degradation of block during the ZOOM process will be more serious.
SSFOUND	Display the sheet set path and file name associated with the current drawing.
SSLOCATE	Control whether to open associated sheet set when opening a drawing.
SSMAUTOOPEN	Control whether the Sheet Set Manager is opened when a drawing associated with a sheet set is opened.
SSMPOLLTIME	Set the time interval for automatic refresh of sheet set status data.
SSMSHEETSTATUS	Set how sheet set status data is refreshed.
SSMSTATE	Indicate the current state of Sheet Set Manager, open or closed.
SSKEEPCREATE	Control whether to prompt to continue creating a subset after creating a subset.
TOOLTIPSHOWDELAY	Controls how long to wait to display simple tooltips.
TOOLTIPSHOWDELAYEXT	Controls how long it takes to jump from a simple tooltip to an extended tooltip.

APIs

The following section describes the condition of APIs in this release.

ZRX

2 were added and 36 were Fixed:

State	Interface
Added	ACAD_PORT Acad::ErrorStatus acedAudit(AcDbDatabase* pDb, bool bFixedErrors, bool bCmdLnEcho = false);
Added	ACDBCORE2D_PORT double AcDbArc::length() const;
Fixed	void AcEditorReactor::beginDoubleClick(const AcGePoint3d& clickPoint);
Fixed	AcDbMText * AcDbAttribute::getMTextAttribute() const;
Fixed	bool acedLoadPartialMenu(const wchar_t* pszMenuFile);
Fixed	void AcDbDatabase::disableUndoRecording(bool disable);
Fixed	Acad::ErrorStatus AcDbTable::setCustomData(int nRow, int nCol, int nData);
Fixed	virtual Acad::ErrorStatus AcApDocManager::lockDocument(AcApDocument* pDoc, AcAp::DocLockMode = AcAp::kWrite, const ACHAR* pGlobalCmdName = NULL, const ACHAR* pLocalCmdName = NULL, bool prompt = true) ;
Fixed	AcDbTableIterator* AcDbTable::getIterator(const AcCellRange* pRange, AcDb::TableIteratorOption nOption) const;
Fixed	AcDbText::AcDbText(const AcGePoint3d& position, const ACHAR* text, AcDbObjectId style = AcDbObjectId::kNull, double height = 0, double rotation = 0);
Fixed	virtual ACAD_PORT Acad::ErrorStatus AcEdInputPointMonitor::monitorInputPoint(const AcEdInputPoint& input, AcEdInputPointMonitorResult& output);
Fixed	AcDbTable::AcDbTable();
Fixed	AcGePoint3d AcGeCurve3d::projClosestPointTo(const AcGeCurve3d& curve3d, const AcGeVector3d& projectDirection, AcGePoint3d& pntOnOtherCrv, const AcGeTol& tol = AcGeContext::gTol) const;
Fixed	int acedRedraw(const ads_name ent, int mode);
Fixed	int acedSSGet(const ACHAR * str, const void * pt1, const void * pt2, const struct resbuf * filter, ads_name ss);

Fixed	virtual Acad::ErrorStatus textString(int row, int col, AcValue::FormatOption nOption, AcString& sText) const;
Fixed	virtual AcGsView * AcGsGraphicsKernel::createView(const AcGsClientViewInfo * pClientViewInfo = nullptr, bool bEnableLayerVisibilityPerView = false) ;
Fixed	ACDBCORE2D_PORT Acad::ErrorStatus AcDbDatabase::wblockCloneObjects(const AcDbObjectIdArray& objectIds, const AcDbObjectId& owner, AcDbIdMapping& idMap, AcDb::DuplicateRecordCloning drc, bool deferXlation = false);
Fixed	virtual Acad::ErrorStatus AcDb3dSolid::createSweptSolid(AcDbEntity* pSweepEnt, AcDbEntity* pPathEnt, AcDbSweepOptions& sweepOptions);
Fixed	int acedInitGet(int val, const ACHAR * kwl);
Fixed	virtual Acad::ErrorStatus AcDbSurface::thicken(double thickness, bool bBothSides, AcDb3dSolid*& pSolid) const;
Fixed	void AcDbEntity::setDatabaseDefaults(AcDbDatabase* pDb);
Fixed	virtual Acad::ErrorStatus AcEdInputPointMonitor::removePointMonitor(AcEdInputPointMonitor* pMonitor);
Fixed	CMDIFrameWnd* acedGetAcadFrame();
Fixed	virtual Acad::ErrorStatus AcDbEntity::getPlane(AcGePlane&, AcDb::Planarity&) const;
Fixed	virtual Acad::ErrorStatus AcApProfileManager::ProfileReset(const ACHAR * strProfileName) = 0;
Fixed	ACCORE_PORT bool acedRegisterFilterWinMsg(const AcedFilterWinMsgFn pfn);
Fixed	int acedCommandS(int rtype, ...);
Fixed	Acad::ErrorStatus AcDbDatabase::insert(const AcGeMatrix3d& xform, AcDbDatabase* pDb, bool preserveSourceDatabase = true);
Fixed	virtual AcGsDevice * AcGsGraphicsKernel::createOffScreenDevice()
Fixed	virtual Adesk::Boolean AcDbCurve::isClosed() const;
Fixed	HRESULT AXAUTOEXP AcAxGetHyperlinks(AcAxObjectRef& objRef, LPDISPATCH pAppDisp, IAcadHyperlinks** pHyperlinks);

Fixed	Acad::ErrorStatus AcDbUnderlayDefinition::load(const wchar_t* password);
Fixed	AcGeClipBoundary2d::AcGeClipBoundary2d(const AcGePoint2dArray& clipBoundary);
Fixed	AcBr::ErrorStatus AcBrEntity::getSubentPath(AcDbFullSubentPath& subPath) const;
Fixed	virtual Acad::ErrorStatus AcDbDwgFiler::writeInt64(Adesk::Int64 val) ;
Fixed	virtual bool AcGsDevice::setBackgroundColor(AcGsColor color) ;
Fixed	virtual Acad::ErrorStatus AcDbCurve::getOrthoProjectedCurve(const AcGePlane&, AcDbCurve*& projCrv) const;

.NET

1 were added and 7 were fixed:

State	Interface
Added	UnderlayHost methods
Fixed	GetObject Method
Fixed	PaletteSet Property
Fixed	Editor.GetSelection Method
Fixed	TrayItemBubbleWindow Class
Fixed	PreTranslateMessage Method
Fixed	PaletteSetStyles Enumeration
Fixed	Plane Method

VBA

1 were fixed:

State	Interface
Fixed	PlotToFile Property

LISP

4 were fixed:

State	Interface
Fixed	ssget
Fixed	menucmd
Fixed	vl-registry-descendants
Fixed	quote

Bug Fixes

For the complete list, please refer to:

<https://weapp.eteams.cn/sp/doc/docDetail/5935330855346693173>