ZWCAD 2017 SP2

Product Release Note

ZWCAD PRODUCT TEAM

ZWSOFT | 2017/1/25

Thank you for downloading ZWCAD 2017 SP2

January 2017
Dear Friends,

We are proud to introduce ZWCAD 2017 SP2, the latest release of our ZWCAD product solution. SP2 is a major release with significant new features in some areas of the product and we believe the new and enhanced functions will help you become more productive.

This release delivers stability and efficiency testing, enhancements, fixed and limitations in ZWCAD 2017 SP2.

Sincerely Yours,
ZWCAD Product Team

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ZWCAD 2017 SP2 Release Note

32bit : VERNUM=2017.01.23(13656)_Win32
64bit : VERNUM=2017.01.23(13656)_x64

Stability & Efficiency

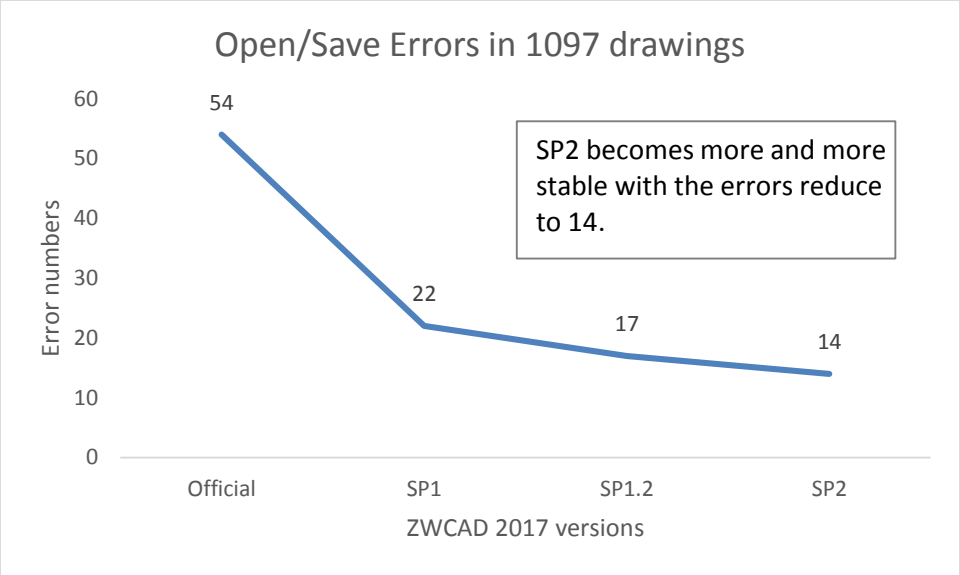
The following section describes the stability and efficiency testing in this release.

Stability Monitoring

Stability monitoring is one of the most important parts in product release, and throughout the automatic testing it is shown that SP2 becomes more and more stable compared in vertically and horizontally.

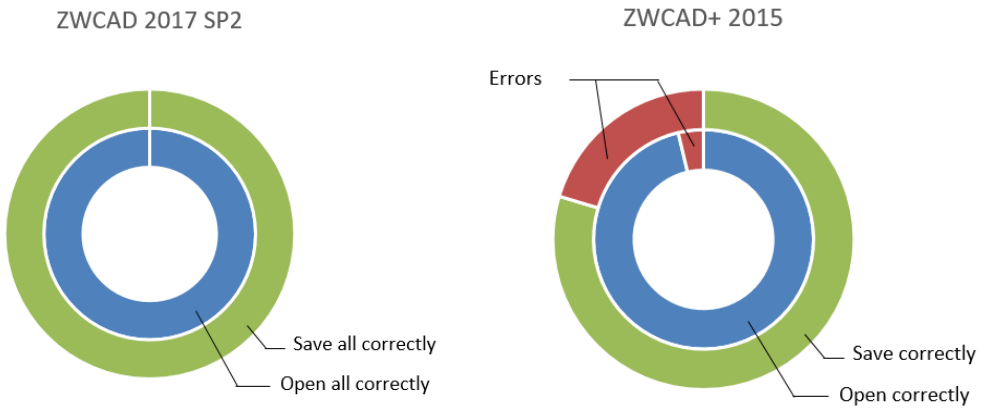
Vertical comparison:

We selected 1097 sample files to test the open and save operations, and there are 1083 passes.The error reduces to 14 from 17 in the last version as follows:



Horizontal comparison:

We selected 54 sample files which open and save slowly or take up much more memory in the automatic testing. And then compared the open and save results with ZWCAD+ 2015. The result shows that SP2 can open and save them without errors, as the following picture shown:

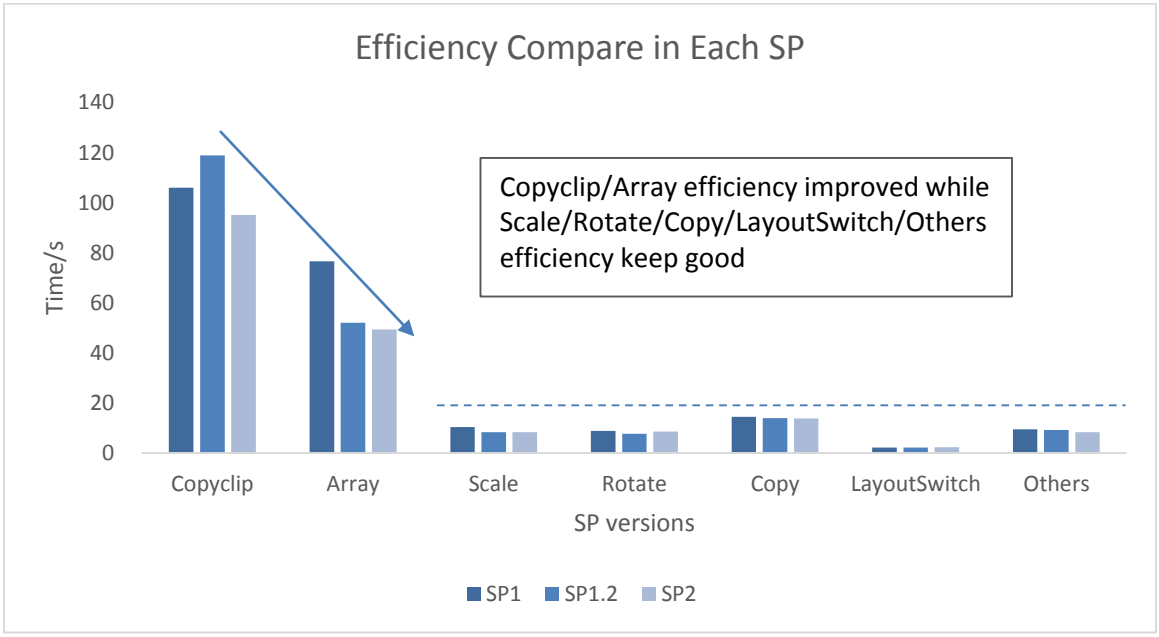


Efficiency monitoring

A new kernel has been developed to bring a better performance for ZWCAD 2017, which makes the efficiency for most frequently used operations, such as move, copy, rotate greatly improved. The new 64bit version brings the ability to deal with some really big drawings.

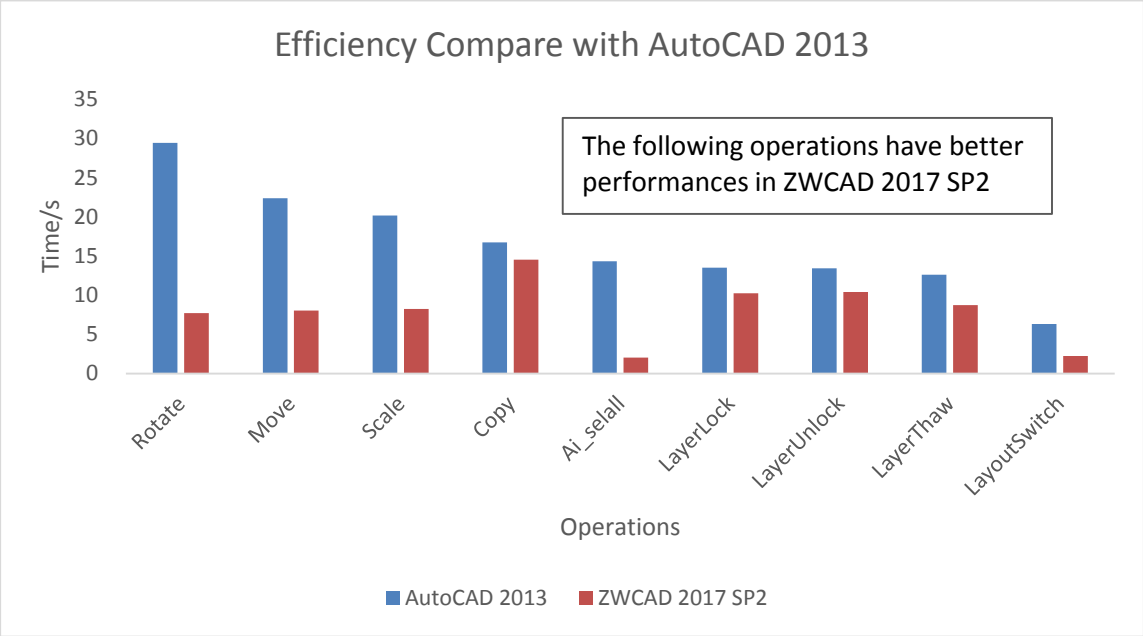
Horizontal comparison:

Operations:		Frequently used commands such as move, copy, etc.
Samples	:	24 drawings
Sizes	:	From 1M to 30M



Horizontal comparison:

Operations:		Frequently used commands such as move, copy, etc.
Samples	:	24 drawings
Sizes	:	From 1M to 30M+



New Features

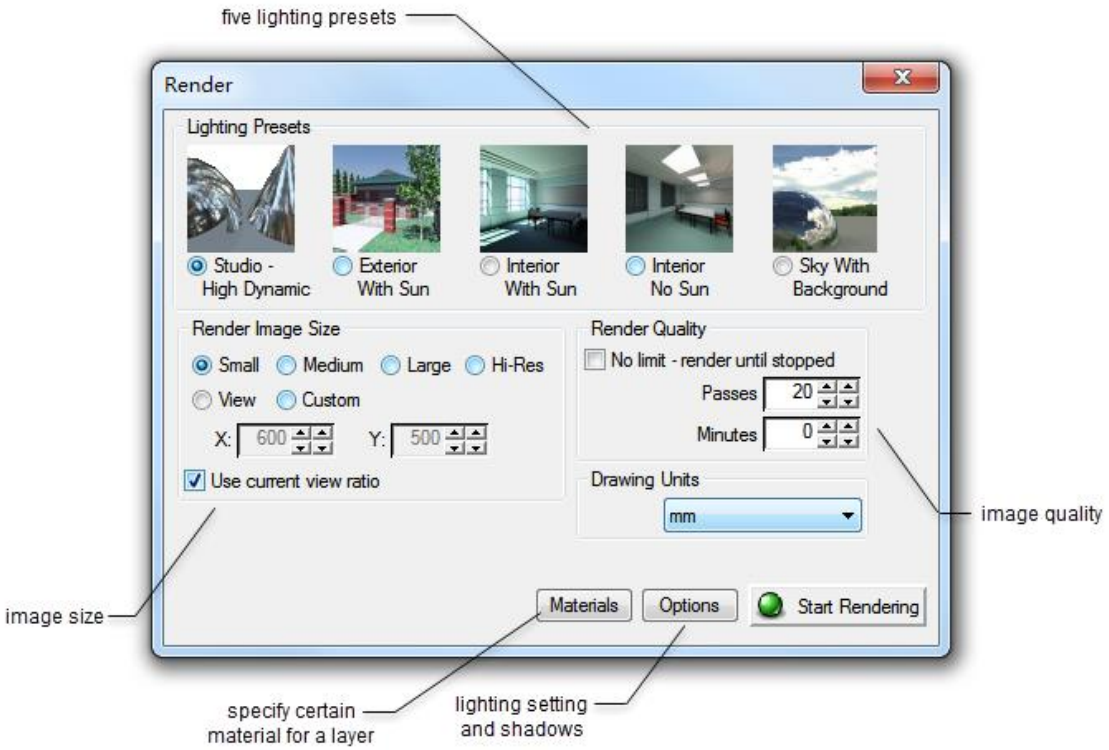
The following section describes the new features in this release.

Render

ZWCAD now includes render function. It can create a realistic rendering of a 3D model to help you have a clearer vision of a conceptual design. Using virtual light together with attached specific materials to the solid surfaces will generate shadows and reflections off the surface, so as to represent splendid shadow effects and surface veins effects for any geometric model.

The Render function command is **RENDER** followed by the following options to choose from:

Materials	You can load a material for a layer from the Material library by first selecting a layer and then clicking on Load from Library on the Layer Material Settings dialog. The material sample will be displayed in thumbnail or Color/Texture views
Lighting	You can use five presets and adjust other settings of lighting. It can create a specific shadow effect by setting a specific location and time zone
Size and Quality	There are six sizes for render image so you can choose the appropriate one for your 3D model, and settings for the final quality control.



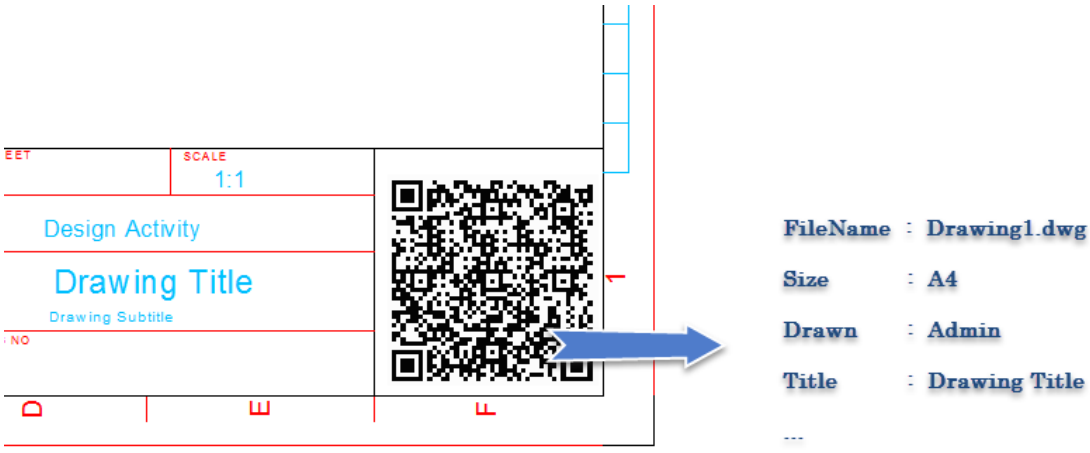
Render dialog box

An example of render image

QRcode and Barcode

The QRcode and Barcode in ZWCAD can help you manage drawings smartly. In design phase, to generate codes including information like project name, drawing name, designer, audit, data and etc., you can use rich scan tool to enter this information to drawing pool effectively just by scanning the codes. In construction site, you can also update the codes according to the reflections so

the drawing management can become finer.

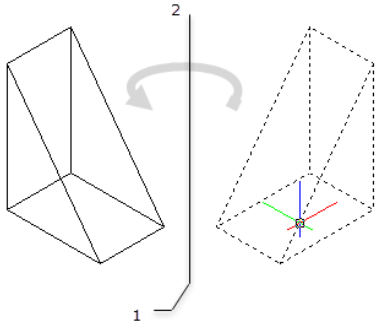


An example of QRcode

Rotate 3D

ZWCAD now supports command **ROTATE3D** to specify the axis of rotation using either two points or the following options to choose from:

- **Object** to select the rotation axis that aligns with an object
- **Last** to take the axis previously used by ROTATE3D command
- **View** to align the axis with the viewing direction of the current viewport that passes through the selected point
- **Xaxis** to align the axis with X axis of the current UCS that passes through the specified point
- **Yaxis** to align the axis with Y axis of the current UCS that passes through the specified point
- **Zaixs** to align the axis with Z axis of the current UCS that passes through the specified point
- **2points** to use two points to define the axis of rotation

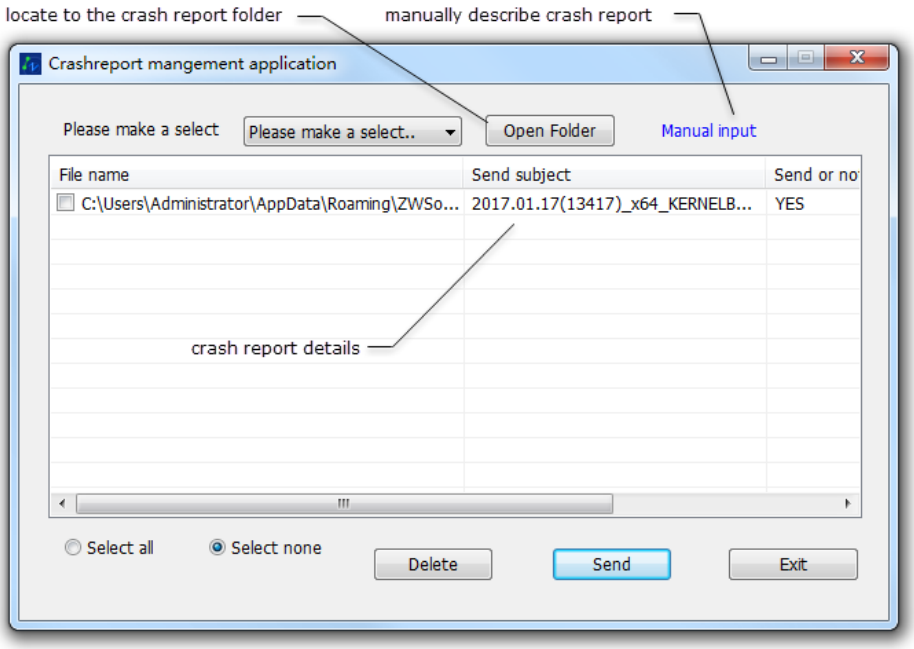


Rotate3D with 2pontis

CrashReport Manager

An application named CrashReport Manager is added in ZWCAD directory. You can locate to the folder that stores these reports, check the error reports that has been sent or unsent, and send those unsent ones optionally so as to help assess the stability while working in user environment and improve the quality of ZWCAD software.

You can open the CrashReport Manager in the ZWCAD directory from the Start.



CrashReport Manager

New Commands

- **UPDATEFIELD:** Updates the field in selected object manually
- **+UCSMAN:** Opens the specified page in UCS dialog box
- **TABLEEXPORT:** Outputs the table to Excel file
- **ROTATE3D:** Rotates entities around the 3D axis
- **AI_DESELECT:** Cancels the selected objects in highlight
- **AIDIMPREC:** Setups the text precision of the selected dimension
- **UNDEFINE:** Cancels commands defined by ZWCAD
- **REDEFINE:** Restores the internal commands removed by UNDEFINE
- **TEXTTOFONT:** Sets the draw order for texts, leaders and dimensions in the drawing to be front of all other objects
- **HATCHTOBACK:** Sets the draw order for all hatches in the drawing to be behind all other objects
- **VSLIDE:** Displays the slide files
- **RENDER:** Creates a photorealistic or realistically shaded image of a 3D solid or surface model
- **MATERIAL:** Displays or hides Material dialog box
- **LIGHT:** Creates a light

New System Variables

- **LISPINIT:** Controls whether saves functions and variables defined by LISP when open a new drawing file in single document interface mode, or whether these functions and variables only are applied to the current drawing.
- **SELECTIONCYCLING:** Opens or closes cycle selection
- **SHOWLAYERUSAGE:** Controls whether the layer properties manager is displayed with icons that indicate whether layers are in use
- **XDWGFADECTL:** Controls all the fade of dwg references

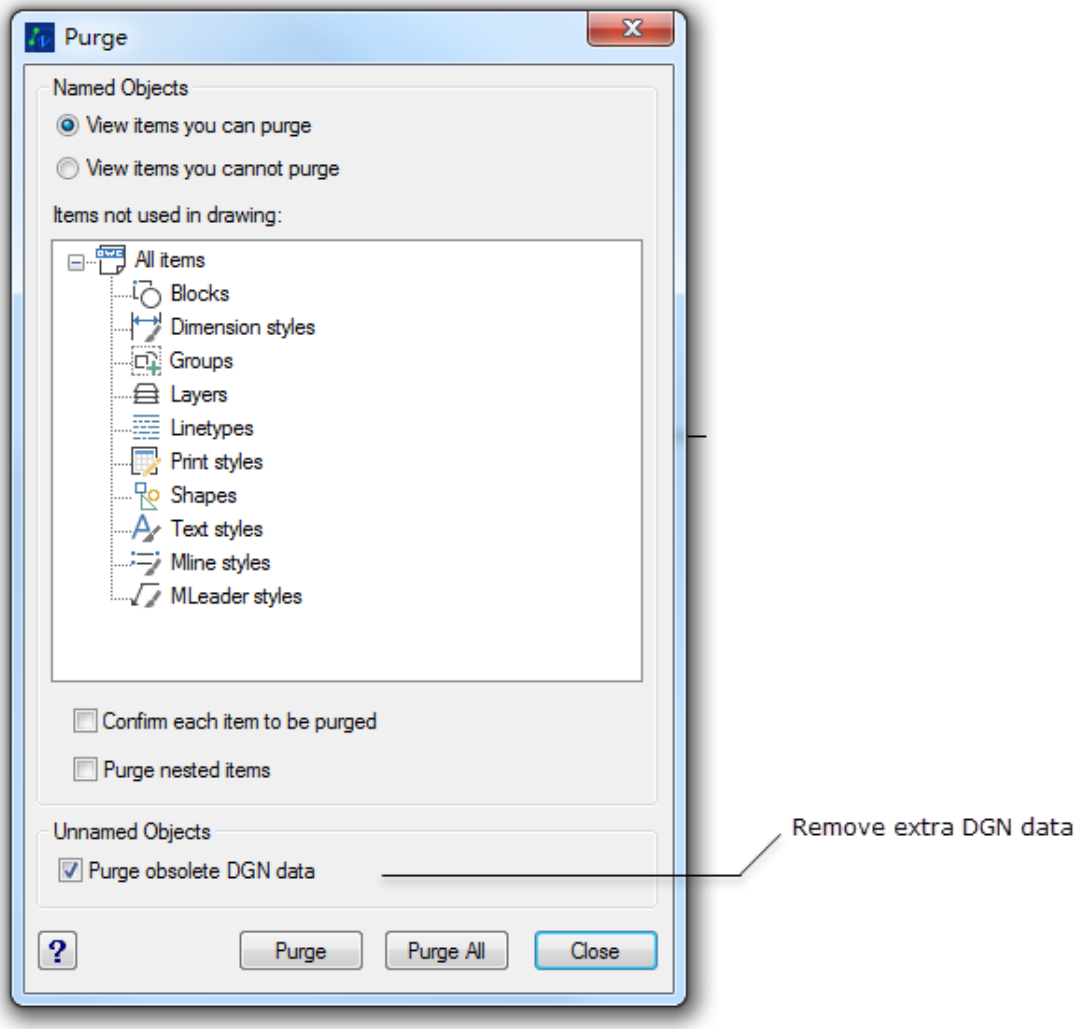
Improvements

The following section describes the improvements in this release.

Include DGNPurge in PURGE Command

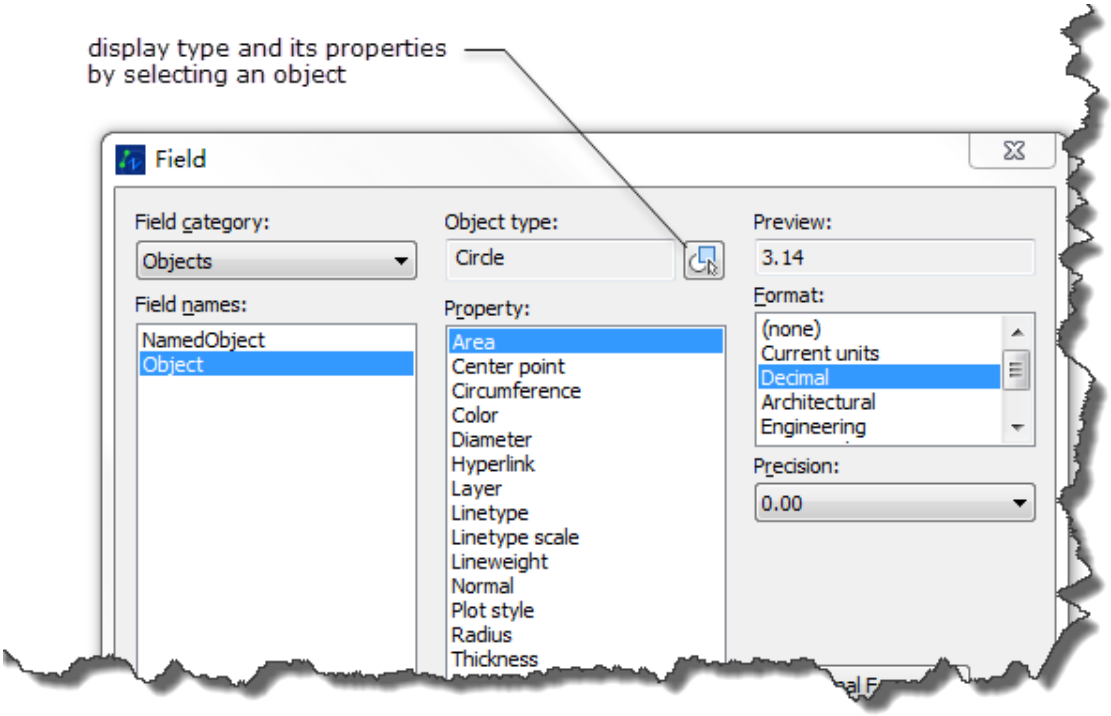
The cleanup capability of removing extra DGN data is added to the command **PURGE** in ZWCAD, so no need DGNPurge plug-in is need for ZWCAD-based products after.

If drawing files end up being much larger than they should and take a long time to open, it could be due to the unmapped or incorrectly mapped to ZWCAD linetypes from importing data from a DGN file. After open such files in ZWCAD, input command PURGE and tick the checkbox labeled “Purge obsolete DGN data”, then the size of the files will be largely reduced after the purge operaion.



Object Type in Field

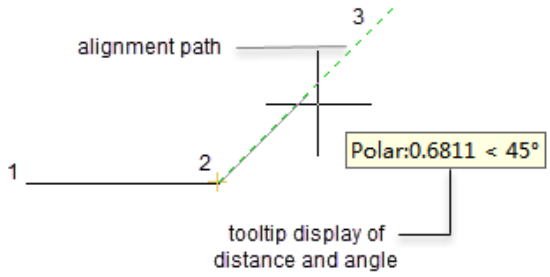
ZWCAD now implements Object type in Field function. When object is selected, it will display the type of object selected and lists the properties of the selected object that are available as fields. In addition, the additional format button appears when the data type for the field value is decimal, coordinate or angle, where you can add Prefix or Suffix and other format settings for the field.



Circle object in field command

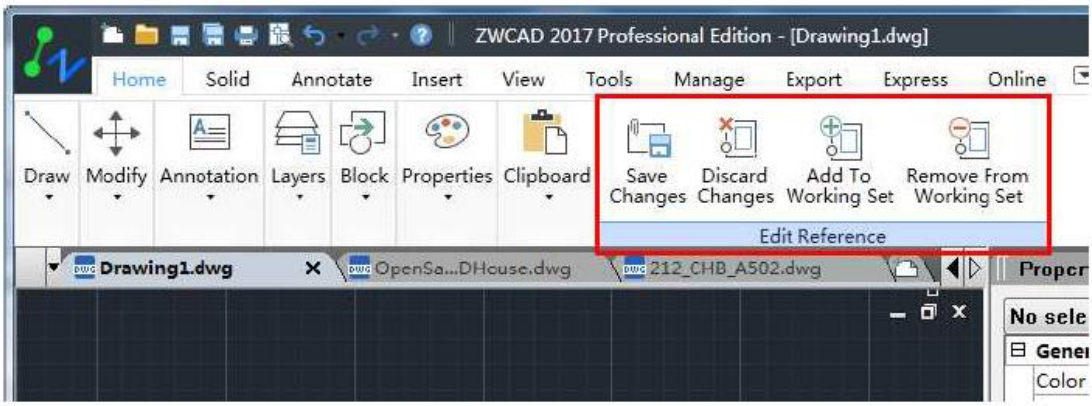
Object Snap/Polar Tracking Tooltips

When you create or modify objects, the object snap or polar tracking can generate temporary alignment paths defined by default or the polar angles you specify. As you move your cursor, tooltips along with the alignment paths are displayed when you move the cursor near specified polar angles.



Contextual Ribbon tab for Block/XREF editing

When you use command REFEDIT to select a block or a xref to edit, there will be a contextual ribbon tab displayed in ribbon now, so you can easily work with editing these objects even in ribbon workspace, as the following picture shown:



Trim Command Reconstructed

We reconstructed trim command to improve the extendibility and maintainability of trim command and the correctness of trim for complex objects. Some main problems are fixed with this reconstruction:

- Fails to select 3DPolyline/Region/Text/Leader/MLeader/Ray/Tolerance as cutting edges to trim specific objects
- Lacks option Remove in trim command
- Unable to trim linear dimensions with block/xref as cutting edges

API Improvements

New and fixes functions in LISP:

No.	Function name	Modify
1	Vl-symbol-name	Add
2	Vlax-put	Add
3	/	Fix
4	Cond	Fix
5	Eval	Fix
6	Set	Fix
7	Command	Fix
8	Alert	Fix
9	Lambda	Fix
10	Entmake	Fix
11	Action_tile	Fix
12	Subst	Fix
13	Getpoint	Fix
14	Getcorner	Fix
15	Grread	Fix
16	Arxload	Fix
17	Defun	Fix
18	Entget	Fix
19	Write-line	Fix
20	Menucmd	Fix
21	Setenv	Fix
22	Rtos	Fix
23	Boundp	Fix
24	Type	Fix
25	Vla-add	Fix
26	Vlax-invoke-method	Fix
27	Vl-remove	Fix
28	Vla-remove	Fix
29	Vlax-ename->vla-object	Fix
30	Vla-highlight	Fix
31	Vlr-mouse-reactor	Fix
32	Vla-GetDynamicBlockProperties	Fix

33	Vl-prinl-to-string	Fix
34	Vla-getBoundingBox	Fix

New and fixes functions in VBA:

No.	Method/Property name	Modify
1	AcadBlock.Delete	Fix
2	AcadSelectionSets.Copy	Fix
3	AcadPlot.PlotToDevice	Fix
4	Application.Update	Fix
5	AcadLine.IntersectWith	Fix
6	AcadLWPolyline.IntersectWith	Fix
7	AcadPlot.DisplayPlotPreview	Fix
8	AcadGroups.Add	Fix
9	Acad menuGroup.Menus	Fix
10	AcadLayout.PaperUnits	Fix
11	Acad3DPolyline.AppendVertex	Fix
12	AcadDocument.SetVariable	Fix
13	Acad3DPolyline.Coordinates	Fix
14	AcadMenuGroups.Item	Fix
15	AcadModelSpace.Delete	Fix
16	AcadViewport.Direction	Fix

New and fixes functions in ZRX:

No.	Function name	Modify
1	zcedCmdUndefine	Add
2	zcutIsAlpha	Add
3	zcutIsPrint	Add
4	zcutIsAlNum	Add
5	zcutIsCntrl	Add
6	acedInvoke	Fix
7	acedSSGet	Fix
8	Ads_ssget	Fix
9	acedCommand	Fix
10	acedCmd	Fix
11	Ads_distof	Fix
12	acedGetPoint	Fix
13	acedGetReal	Fix
14	Ads_new_dialog	Fix
15	acedNEntSelPEx	Fix
16	zcrxEntryPoint	Fix
17	acdbSetDbmod	Fix
18	AcDbLayoutMaanager::setCurrentLayout	Fix
19	AcDbEntity::intersectWith	Fix
20	AcGeLinearEnt3d::intersectWith	Fix
21	AcGeEllipArc3d::intersectWith	Fix
22	AcGeLine3d::isOn	Fix
23	CZdUiDialog	Fix
24	AcDbTable::SetTextHeight	Fix
25	AcDbTable::setTextStyle	Fix
26	AcDbPolyline::isOnlyLines	Fix
27	CZcUiSelectButton::AutoLoad	Fix
28	CZdUiOwnerDrawButton::OnDrawTipText	Fix
29	CZcUiNumericEdit	Fix
30	AcEditorReactor::commandEnded	Fix
31	AcEditorReactor::commandCancelled	Fix
32	ZcApDocument::docTitle	Fix

33	ZcDbGripData::SetAlternateBasePoint	Fix
34	AcDbMline::getClosestPointTo	Fix
35	AcDbHostApplicationServices::getEnv	Fix
36	AcEdJig::setSpecialCursorType	Fix
37	AcDbTable::setBlockTableRecordId	Fix
38	AcGeLine3d::getClosestPointTo	Fix
39	AcDbGripData::setRtClk	Fix

New and fixes functions in .NET:

No.	Class/Method name	Modify
1	System.Diagnostics.ProcessStartInfo	Fix
2	EditorInput.DrawJig	Fix
3	ZcadAttribute.Rotate	Fix
4	Application.SetSystemVariable	Fix

Bug Fixes

There are 600+ bug fixes in ZWCAD 2017 SP2. The following list contains parts of bug ID and corresponding descriptions for issues fixed in this release.

Bug ID	Description
Open and Save	
4872	Save\dxfout\options: No options support for save function
6420	Open: Cannot open dwg file from CD or DVD directly
User Interface	
6166	Menu: The "*" in menu macro is not parsed correctly
6545	Menuload: the nested flyout doesn't display in the attached mnu file
6540	Toolbar\layer: The layer name width is too small in layer toolbar
Design	
4786	Mirror\attdef\text: the mirrored object moves to origin after mirror
6566	Pedit: the lineweight of arc is lost after convert to pline by pedit
5867	Copy: Mleader with other style is converted to current style after copy
6343	Xref: Hope to add xref editor in Ribbon
6282	-Hatch: Can't use user custom hatch pattern to hatch in command line
6503	Snap: Shift+RMC to choose snap mode is incorrect when stretch line
5913	+Ucsman: +ucsman is not supported
5602	OLE: The OLE is displayed out of viewport scope in layout
API	
6372	Lisp: The lisp in startup suite doesn't run after restart ZWCAD
6322	VBA\Menu\Name: Error to use VBA to get ZWCAD menu
6595	VBA\copy: Program exit using copy method to create a dimension
6610	ZRX: acedGetReal interface can't recognize numerical value of science
6518	.Net: Throw exception when set system variable snap mode

**For the complete list of bug fixes in SP2, you can visit the following website:*
https://zwcad.freshdesk.com/solution/articles/24000001402-what-s-fixed-in-zwcad-2017-sp2

Limitation and notes

The following section describes limitations and workarounds (where applicable) about this release.

Bug ID	Description	Fix
959	Splinedit: cannot add a new control point successfully	/
1093	The layer of xref is still displayed in layer manager dialog box even the xref is detached	To fix it, you can save the current drawing file and reopen it, and then the layer of xref detached will be gone