

TOOLDESIGNER

ToolDesigner 2013 Release Summary

March 2013

Overview

ToolDesigner 2013 is major release that includes enhancements as well as customer requested software modifications and corrections. This release includes all corrections and changes from ToolDesigner 2012 Service Pack 1 through Service Pack 4. This release summary briefly describes the software changes for this release including those from previously released service packs.

Installation

ToolDesigner 2013 is installed on your system as though it is a new application. It is not necessary to remove any older version of ToolDesigner from your computer. The installation program will not overwrite applications programs from any previous installation of ToolDesigner. A separate program group – ToolDesigner 2013 – will be created on installation and shown in the Windows start menu.

There are no changes to software licensing. Your current USB key or floating license will allow the 2013 version to run as well as all previous versions.

Platform Support

ToolDesigner 2013 is compatible with Windows 8 and Windows 2012 Server from Microsoft. Should you choose a new computer with Windows 8, Windows Server 2012 or upgrade your operating system to either of these, ToolDesigner will install and run just fine. Previous versions of ToolDesigner *will not* run on Windows 8 or Windows Server 2012 because the software does not recognize these operating systems.

The table below lists the supported operating systems for ToolDesigner 2013:

Operating System	32-bit	64-bit	Revision Level
Windows 8	✓	✓	All
Windows Server 2012	N.A.	✓	All
Windows 7	✓	✓	All
Windows Vista*	✓	✓	Service Pack 2
Windows Server 2008	✓	✓	All
Windows XP	✓	✓	Service Pack 3
Windows Server 2003	✓	✓	Service Pack 2
Windows 2000	✗	✗	None

*Support for Windows Vista will end with the ToolDesigner 2013 release. Future releases will not be subjected to our quality assurance processes for this operating system. As recommended by Microsoft, you should upgrade to Windows 7 to assure continued support.

Note that Windows RT is not supported. Windows RT is a variant of Windows 8 that runs only on the ARM processor architecture whereas all other variants of Windows run Intel x86 architecture. ARM processors used for smart phones and tablet computers where low power consumption

takes priority over processing power. Support for Windows RT and the ARM architecture may appear in a future release if there is sufficient commercial demand and Microsoft accedes to the wishes of the Windows development community to support the Win32 run-time. Microsoft's current position is that application user interfaces must be completely rewritten specifically for Windows RT.

ExpertCAD 3D

Display problems with "phantom lines" being drawn on the screen when entities have been deleted or in cases where temporary entities are created in the course of computing a geometric solution have been resolved.

The core/cavity separator feature in ExpertCAD 3D has been corrected to use proper tolerances when separating metric part data. Previous releases would use internal tolerances many magnitudes too small that could cause the feature to fail.

Choosing the Create 4 Views icon several times in a row would cause a segmentation violation to occur. This problem has been corrected such that the error will no longer occur.

The align-normals feature has been corrected to no longer change the line style and color of surfaces that did not align with the surface that is current.

Layers could appear in certain layer selection dialogs even though those layers do not have any entities associated with them. This has been corrected so that only those layers populated with entities will appear.

The view along a vector icon has been corrected so that the proper view scale is calculated.

If the backup file feature is used, the backup file will be retained on program exit. Previous versions would delete this file when the program terminated in a normal fashion.

The import feature to import 2D data from ExpertCAD has been modified to always create a single profile when a line entity in the ExpertCAD data stream is not closed. Previous versions would sometimes create 2 separate profiles when converting a non-closed line entity.

The orientation of dimension text for ordinate dimensions in ExpertCAD 3D has been corrected to properly orient the text to be readable left to right and top to bottom relative to the current workplane or view.

Importing PDB data produced by ExpertCAD 3D version 7.7 and earlier has been corrected so that all entities are marked as visible in all views. Previous versions would cause the entities to hidden.

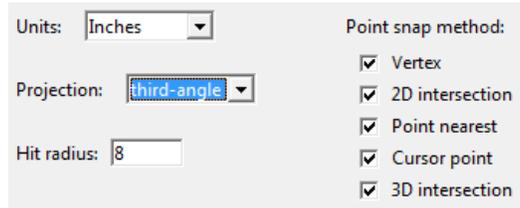
Importing of IGES data containing surfaces of revolution has been corrected to fix a discrete defect that could cause the surface(s) to be flagged as invalid and omitted from the translation.

Making a leader note current in ExpertCAD 3D will no longer cause a segmentation violation.

Printing and creating Adobe PDF files has been corrected to no longer causes phantom entities. Temporary entities created in the process of generating the print or PDF output are deleted along with their display lists once the output is complete.

The usage of the class 'style' in conjunction with the modifier 'not' has been corrected to recognize the style(s) specified with the class designation.

The option to use 1st or 3rd angle projection has been added to the Design tab of the Tools/Properties dialog:



The default is 3rd angle projection. This affects the layout of 3D views when the 4 Views icon is chosen and when the Create Mold Drawing feature is used to create a standard 4 view layout.

When erasing in a line-by-line manner entities that have a dashed line pattern, the phase of the pattern was not always synchronized with the display thus leaving behind specks of the line(s). This has been corrected to ensure full erasure of lines drawn on the screen regardless of the dash pattern used.

Projecting curves onto primitive surfaces (cones, spheres, ...) has been corrected to function properly.

The undo command has been corrected to properly draw the selected state of entities after an undo of a transformation operation (move, rotate, ...).

The render application plug-in has been corrected to repair several discrete cases where certain trimmed surfaces would not render properly or at all.

Point selection and the associated operations has been corrected to work properly with text notes.

The Quick Shade feature in the OSM icons has been revised to render the part with the exact shading option enabled:



Without exact shading, a flat shading method is used.



The exact shade method provides a sharper 3D image to help visualize the actual shape of the part data.

ExpertCAD

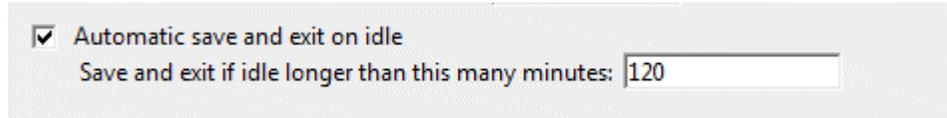
The 'pushnearest' primitive command has been corrected to function properly if a small hit radius is specified as a parameter.

Dimensions that don't create extension lines or dimension lines no longer cause the 'fit' command to stop functioning.

When changing the scale of a newly created model view, construction lines added to the drawing would not extend properly to the boundary of the current sheet size. This defect has been corrected so all entities are correctly sized.

The command to fit the drawing to the screen has been corrected to ignore lines that do not have a valid bounding box (e.g. the current line with a single point has zero area).

An option has been added to the File I/O property sheet of the Tools/Options dialog to allow you to automatically terminate a session when it has been idle for a designated period of time:



In the example above, if the application is idle for 2 hours, the program will save the design currently being worked on and exit. This can be helpful for offices that use floating licenses to release a license for use by others.

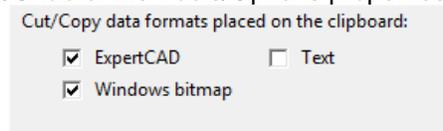
In input invalid layer naming conventions are detected and corrected to avoid output of a spurious invalid usage error message.

A dimension type parameter has been added to the class 'dimens' to allow for specific type(s) of dimension(s) to be specified as part of the class (e.g. delete (dimens 8) (dimens 9) would delete all horizontal and vertical ordinate dimensions).

Adobe PDF output has been corrected to properly rotate text entities in the event the drawing must be rotated 90 degrees for output.

The 64-bit edition of ExpertCAD has been corrected to properly export a drawing as a bitmap file.

Options to specify what file formats to place on the system clipboard when you use Cut or Copy have been added to the File I/O tab of the Tools/Options properties dialog:



By default ExpertCAD drawing data and a bitmap image of that data will be placed on the clipboard. If you wish to include all text in the selection to be placed on the clipboard as plain text, enable the Text option on the dialog.

AutoCAD Translator

The AutoCAD translators have been updated to include support for AutoCAD 2013 data files. The option to export DWG files in AutoCAD 2013 format has been added to the Import/Export tab of the Tools/Options properties dialog for ExpertCAD.

A correction for a discrete defect with placement of block reference has been implemented to choose the proper location when the position property does not agree with the transformation matrix associated with the block reference.

A new option '-a' has been added to the AutoCAD to ExpertCAD translator. '-a' emulates the AutoCAD _audit command. Audits the input file and if possible corrects all problematic entities prior to converting the file to ExpertCAD.

The AutoCAD to ExpertCAD translator has been modified to omit the output of redundant text buffer definitions.

AutoCAD DXF format files that begin with multiple comments (999 entities) are now recognized as valid DXF files. Previous versions would not handle multiple comments properly and reject the file as being invalid.

Touch Screen Support

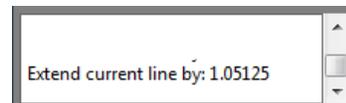
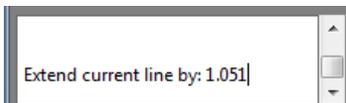
Support has been added for touch screen displays. In general, your finger acts as the left mouse button when you touch the screen in the graphics area with the addition of Microsoft supported gestures:

Gesture	Action
	<p><i>Tap</i> – a single tap on the screen in the graphics area drops a point. A tap on an icon executes the command associated with that icon.</p>
	<p><i>Zoom In, Zoom Out</i> – using 2 fingers, moving towards each other will zoom into the model; moving away from each other will zoom out.</p>
 	<p><i>Tap and Drag in Graphics Area</i> - just like the left mouse button, this allows you to make a cursor stroke to execute a command.</p> <p><i>Tap and Drag in Icon Area</i> - just like the right mouse button, this allows you to track the icons to choose one to execute.</p>
	<p><i>Rotate</i> – using 2 fingers, the model can be rotated about the Z-axis of the current view.</p>
	<p><i>Center</i> – a 2-finger tap will center the view at approximately the same point indicated.</p>
	<p><i>Press and Hold</i> – same as the middle mouse button a press and hold gesture posts the context popup menu.</p>

Touch screen support is available only for the Windows 7 or later operating system. Older operating systems do not support touch screens.

Maintenance

The ScriptLink prompt command has been corrected to allow the for appending characters to the default response to the prompt by hitting the right arrow key first:



A default is provided for this prompt. To append to it....

...hit the right arrow key on your keyboard...

now you can append to the default provided with the prompt.

Previous versions regarded the arrow key as any other keystroke and erased the default prompt.

The ScriptLink command 'panel-repost' has been corrected to properly recomputed the content and repost the designated dialog. Previous native Windows versions of the applications did not honor this command.

Custom paper sizes can be added as an option for Adobe PDF output. In your ExpertCAD.cfg or ExpertCAD3D.cfg file, specify the additional paper sizes you wish to add using the command add-pdf-page-size <name> <width in inches> <height in inches>. For example:

```
add-pdf-page-size "Architectural C" 18 24
add-pdf-page-size "Architectural D" 24 36
add-pdf-page-size "Architectural E" 36 48
```

Would add these paper sizes as options for PDF output and will appear as paper size options in the Adobe PDF Conversion Settings dialog. Note that the paper width and height must be specified in inches.

The default paper size for Adobe PDF output is determined by examining the locale setting established by the Windows operating system.

Floating license installation has been corrected to configure the Windows firewall properly regardless of the option(s) chosen during the installation process.

Licensing error dialogs have been revised to always post on top of the application splash screen.

When using automatic file extensions, the file extension will always be appended to the file name (unless the file already has the same extension) instead of replacing the current extension. For example, when writing a PDF file named "acme.001" the resulting file would be named "acme.001.pdf" instead of "acme.pdf".

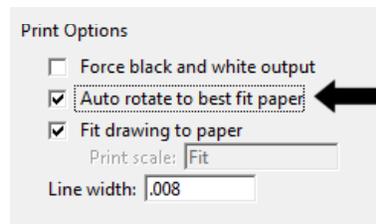
The color editor dialog has been revised to display correctly is the computer display is set to be 125%. In previous versions at 125% the OK/Cancel/Save buttons would not be visible.

A new ScriptLink primitive command '.macro' has been added that allow a macro definition to override a read-only macro or primitive command.

WinPlot has been enhanced to allow the color of a line to be output based on line style. For the capability codes s0-s63 and a0-a63 the line style and red, green, blue components of the color are available as arguments.

WinPlot no longer defaults to line style 0 as the default. This ensures that if a line style 0 is encountered as the first style in a plot file, the s0 (or a0) capability code will be executed to produce the proper output for style 0.

A new option has been added to the Print/Plot tab of the Tools/Properties dialog to allow ExpertCAD and ExpertCAD 3D to automatically rotate the printed output to best fist the paper size being used:



If you choose the enable automatic rotation, the long side of the printed output will be aligned with the longest edge of the paper regardless of the portrait or landscape setting in your printer properties dialog.

When using the mouse scroll wheel to scroll through messages in the message area will revert to the customary zoom function when the cursor is moved into the graphics area. Previous versions would constrain the mouse wheel to the message area regardless of which area of the application had focus.

Resolved Software Requests

When you report a problem or request an enhancement, our customer service representative will input your request into our software lifecycle management system and give you an ID number. Listed in the table below are the ID number and a synopsis of each record from our system that has been discharged for this release.

Record ID	Synopsis
133	The scroll wheel will not zoom in/out after using it to scroll through the message area.
141	Entities in ExpertCAD 3D are still selected but not drawn on the screen as selected after an undo operation to undo the effects of a transformation of those entities.
158	Dimensioning does not default to metric measurement in ExpertCAD 3D when the system of units for the locale is metric.
159	The Core/Cavity separator feature in ExpertCAD 3D is causing a program crash when run against this part data.
160	Rebuilding 4 views several times in succession in ExpertCAD 3D would exhaust the pool of available views causing an error message.
161	Block references in this AutoCAD drawing are shifted out of position when read into ExpertCAD.
162	The align normals feature in ExpertCAD 3D incorrectly changes the line style and color for surfaces did not align with the current surface.
163	Layers that do not have any entities assigned to them can incorrectly appear in certain layer selection dialogs.
165	The view along vector icon does not calculate the correct view scale or orientation in ExpertCAD 3D.
166	The render plug-in for ExpertCAD 3D is not drawing this surface correctly.
167	In ExpertCAD 3D the line style changes to 31 when you change the line color and only a single point is present.
169	The undo command is not properly drawing the selected state of entities affected by the undo.
171	ExpertCAD 3D is generating a segmentation violation when reading this file.
172	Modify ExpertCAD 3D to retain the backup file upon program exit. Currently the backup file is removed when the application exits.
173	Import of an ExpertCAD line that is not a closed boundary can result in multiple profiles being created instead of a single profile.
175	After creating a model view and changing scale in ExpertCAD, newly created construction lines don't extend to the current sheet size.
176	Dimension text orientation in ExpertCAD 3D is sometimes incorrect when creating ordinate dimensions.
177	The core/cavity separator feature in ExpertCAD 3D is failing on this part data.
178	Importing PDB data produced by ExpertCAD 3D version 7.7 and earlier is causing all entities to be hidden instead of visible.
179	A surface of revolution is not being translated when reading this IGES file into ExpertCAD 3D.
180	Filter surface feature in ExpertCAD 3D is failing for this data file.
181	Making a leader note current in ExpertCAD 3D causes a segmentation violation.
182	Print and generating PDF files is creating phantom entities ExpertCAD 3D.
184	This IGES file will not read into ExpertCAD 3D.
185	Add the ability to choose 1 st or 3 rd angle projection for the layout of 4 views in ExpertCAD 3D.
186	Projecting primitive surface types (cones, cylinders, spheres, ..) in ExpertCAD 3D is not working.
187	Surfaces are being displayed that are not part of the data for this file.
189	Add an option for printing that will automatically rotate the output if needed to best fit the paper size.
190	The class 'style' is not working properly when used with the modifier 'not' in a macro.

191	Dashed lines are not being cleanly erased when entities are deleted.
192	The undo command is not properly drawing the selected state of entities affected by the undo.
193	The 3D IGES translator is crashing when converting this IGES file to PDB format.
194	A segmentation violation is generated in ExpertCAD 3D when using the Copy to clipboard function.
195	The undo function in ExpertCAD 3D is causing profile(s) to disappear if the profile was previously point selected.
196	A segmentation violation occurs when the 3D IGES translator is run against this IGES file with the -P option (ignore parametric curves).
197	Add signal catching to the IGES translators to catch catastrophic failures and handle the errors without the intervention of the Windows operating system.
198	Point selection and the point select operations are not working for text notes in ExpertCAD 3D.
199	Point select indicators are not being drawn properly in ExpertCAD 3D when you zoom in and zoom out using the mouse wheel.
200	The render application plug-in for ExpertCAD 3D is not displaying this trimmed surface properly.
201	Implement exact shading as the default method for the OSM quick shading feature.
202	Edit or inserting a 2D ExpertCAD drawing into 3D does not always handle invisible entities properly.
204	The render application plug-in for ExpertCAD 3D will not display all the surface data in this data file.
205	The render application plug-in for ExpertCAD 3D will cause a program crash sometimes if it is closed before the initial rendering display has been generated.
212	The dynamic rotation feature in ExpertCAD 3D is not drawing 3D points during the rotation.
2962	Swedish characters are not being maintained when a file is written in AutoCAD format then read back into ExpertCAD.
2963	Add the ability to perform an audit of an AutoCAD file to the AutoCAD to ExpertCAD translator.
2966	The OK, Cancel and Save buttons are missing on the color editor if the display is set to 125% on Windows 7.
2967	The 'pushnearest' primitive command group in ExpertCAD doesn't work correctly if a small hit radius is specified.
2969	Execution of this custom macro causes the 'fit' command to fail in ExpertCAD.
2970	Default name for output of a PDF file replaces the edit file extension with '.pdf' instead of appending '.pdf' to the name.
2971	Correct memory leak when new macros or text buffers are created.
2972	The AutoCAD to ExpertCAD translator outputs redundant text buffer definitions.
2974	Add ScriptLink primitive command '.macro' to allow a macro definition to override a read-only macro or primitive command.
2975	When using a default extension for file names, always append to the specified file instead of replacing the current extension.
2976	Dimensions that don't create extension or dimension lines prevents the 'fit' command from working properly.
2982	Reading this drawing into ExpertCAD causes an error message to be output when restoring the named layers.
2983	Licensing error message dialog is being posted underneath the splash screen instead of as the top-most window.
2984	Revise installation to always include the client.wyc file to enable the Check for Updates feature.
2988	Floating license installation omits configuration of the Windows firewall if the 'Skip' option is chosen during installation.
2989	On installation always associate the '.ddd' file extension with ExpertCAD.
2991	Add the ability to specify custom paper sizes for Adobe PDF output.
2992	Choose the proper default for PDF paper size based on the locale setting established by the Windows operating system.
2993	A garbled error message is output when setting the text buffer LN_COLOR to an invalid number in ExpertCAD.
2996	Add support for reading and writing AutoCAD 2013 data files.
2997	Add support for Windows 8 and Windows Server 2012 operating systems.
2999	Modify WinPlot to allow the line color to be specified when the line style changes.
3000	WinPlot should not default to style 0. There should be no default to ensure that the commands

	associated with s0 (or a0) are executed.
3001	At program start, check the users' temp directory to make sure it is writeable. If it isn't, post a warning dialog.
3003	Text entities are not being output correctly to Adobe PDF documents when the output must be rotated 90 degrees.
3004	Add an option for printing to automatically rotate the output to best fit the paper size being used.
3005	AutoCAD DXF files that begin with multiple comments are not recognized as valid DXF files.
3007	The 64-bit edition of ExpertCAD is failing to export a bitmap file.
3008	Allow the user to choose to include or omit text from being placed on the clipboard when using Cut or Copy in ExpertCAD.
3009	The primitive command panel-repost is not working correctly.
3011	The fist argument for line style - %0 – is not being passed as an argument correctly to the WinPlot capability codes s0-s63 and a0-a63.
3016	Line style 10 is not showing the proper dash pattern when this file is written as a PDF file.
3018	Converting an ExpertCAD file to AutoCAD format that has text string(s) with a '^' character at the end of the string causes the program to crash.
3022	ExpertCAD is not correctly handling incorrect definition of dimension characters that were saved in files generated by very old versions of ExpertCAD.