



Release History for ToolDesigner **June 2006 to February 2009**

ToolDesigner 2009 – February 2009

- Next generation code-base fully compatible with Windows operating system.
- Windows-standard menus, dialogs and user interface design.
- Support for Windows Vista
- Windows-standard support for printing and plotting including page setup and precise scaling.
- Cut/Copy/Paste between sessions of 3D and between 3D and 2D.
- Backward compatible with user-developed ScriptLink macros.
- Support for additional mouse buttons.
- Over 100 customer driven enhancements and software corrections addressed.

ToolDesigner 7.7 – June 2006

- Support for Windows XP x64 (64-bit operating system).
- Enhancements to electrode design features:
 - . Angled blanks
 - . Blank corner markers.
 - . Rule-based choice of blank sizes.
 - . 1-step surfacing of the top of the blank.
 - . Generation of EDM operator instructions.
 - . Generation of manufacturing instructions.
- Support for output of HSF (Hoops Stream Format) files to facilitate sharing of design data using any number of HSF compatible viewers such as SolidWorks eDrawings.
- Retain layer names from merged files.
- Support for mouse wheels (zoom-in, zoom-out).
- CoCreate (ME10) translator update to support latest release.
- Batch printing.
- Outline class operation to extract profiles from surfaces and waterlines.
- 93 Track Items Addressed

ToolDesigner 7.6 – June 2005

- Electrode design and manufacturing features. Design features include surface extraction, blank creation, special surfacing tools, assignment of holders, and customized notes. Manufacturing features automates transformation from burn position to cut position. Produce Prospector projects or IGES output to send to the shop for machining.
- Cookie-cutter trim feature facilitates the extraction of design data for development of mold features such as inserts and slides.
- Parallel section cutter at user-specified intervals.
- Output of annotation (text, leader notes, dimensions) from 3D to PDB or IGES file formats.
- Dynamic coordinate update of positional leader notes when moved.
- Expanded quick menu and icon area for customization.
- Output of text notes from 3D to 2D when using Standard 4 Views option for Create Mold Drawing
- Automatic labeling of sections when Water Views option is chosen for Create Mold Drawing.
- New direct bi-directional translators for AutoCAD DXF/DWG data. Solves all outstanding issues with translating data to or from AutoCAD and ExpertCAD.
- Faster IGES read/write on Windows XP.
- 103 Track Items Addressed

ToolDesigner 7.5 – June 2004

- Enhanced design tools for developing runners. Automatic trimming of intersecting runners. Optional trimming of surrounding surface(s) and matching to the curvature of the surfaces.
- Critical software correction to prevent hang when digitizing points.
- Enhanced generation of 2D mold drawings from 3D designs:
- Mold centerlines always output for plan and section views.
- Thread and tap details generated for isometric view.
- V-slot, straight and diagonal baffle option.
- Intersecting waterlines drawn to standard drafting practices.
- Ability to write Adobe® Acrobat® PDF files from 2D and 3D.
- Segment editor enhanced to include work-plane relative coordinate input.
- File dialog option to control behavior of Open, Save dialogs.
- Ability to read and write AutoCAD 2004/2005 DWG and DXF files.
- Windows standard Cut, Copy, Paste feature for 2D design.
- BS8888 drafting standard support in 2D.
- USB hardware key (dongle) support.

- Modifications to 3D render plug-in to produce an improved display surfaces of revolution.
- Modification to Write Format feature to always produce legible text and dimensions when writing 2D data from 3D.
- Configurable linearization tolerance when writing 2D data from 3D can produce much more compact 2D data files without losing detail.
- Surface-Surface intersection modified to refine boundary and interior points to create well behaved intersection curves.
- Project normal feature revised to use the cubic fit method to develop a projected curve with fewer points.
- Engineering change improved to properly identify identical surfaces which have only their U/V direction switched.
- 43 Track items addressed.

ToolDesigner 7.4a – December 2003

- Merging data files containing waterlines into a design with a block active caused the waterlines in the merged data file to be incorrectly associated with active block in the current design.
- Reoptimizing the water lines would not properly check safe clearances for the end condition of a waterline with a counterbore. This would happen only when the start condition was correct (this feature incorrectly stopped checking).
- In certain conditions, the design check feature would omit some surfaces to check against when inspecting blind hole cases such as bubblers.
- Create Mold Drawings feature has been corrected to generate partial sections correctly. The ability to generate an angled section has also been added.
- Color choices for the Core/Cavity separator feature have been corrected to remember your choices and save this information to the configuration file on disk.
- 2D design data for the isometric view has been corrected so it is properly scaled to the correct size when the Std. 4 Views option for Create Mold Drawing is chosen.
- Automatic trimming of fillets has been corrected to properly handle the condition where the fillet will collapse to a single point.
- Retaining line style information for all entities when files are written to disk has been corrected so they are properly restored when edited in the future.
- Dropping points on angled waterlines has been modified to correctly snap to the geometry.

- Writing a file after merging in another data file (or calling a symbol or template) has been corrected to write the data to the original edit file instead of trying to write to the merged file (or symbol file).
- Merging an AutoCAD file (DXF or DWG) has been corrected so the name of the merged file does not become the current edit file.
- Engineering change has been corrected to produce the proper results when differencing IGES files from foreign CAD systems.
- Messages that report the results of a purge of dimension characters have been revised to make it clear when non-standard characters are used in a drawing.

ToolDesigner 7.4 – September 2003

- Highly specialized mold design features implemented using new object types that understand what their purpose is in the overall design and how to interact with other objects. First application of this technology is definition of core/cavity blocks and waterline design.
- Definition of core/cavity blocks.
- Waterline design features including unique optimize feature to determine best placement.
- Design Check feature examines the waterline design for errors or potential problems.
- Total automatic NC programming for gun drill machining of waterlines with build-in connection to Prospector.
- New method for generating 2D mold designs from 3D including plan, section and water views.
- Enhanced output to 2D to draw mold features such as water and core/cavity blocks per accepted drafting standard.
- Trimming of surfaces to block definition.
- Enhanced Core/Cavity separator. Faster, more accurate with easy to use interface.
- Cashew gate design feature.
- Enhanced insert pocket builder allows for angled pockets and sharp corners.
- Angled run-off surface design.
- Engineering change feature in 2D to automatically find differences between design data sets.

- Enhanced 2D AutoCAD compatibility. More options for write and improved support for read. Many defect corrections.
- Removal of common and overlapping lines in 2D.
- Purge feature to rid drawings of unwanted text buffers and dimension characters.
- Automatic adjustment of ordinate dimensions in 2D to prevent overlapping dimension text.
- 59 Track items addressed.

ToolDesigner 7.3 – July 2002

- Automatic trimming of input surfaces for filleting saves steps in filleting because it is no longer necessary to manually indicate which surfaces to trim and where to trim them.
- Fillet surfaces generated are smoother and more closely match the edges of the input surfaces.
- All new implementation of the insert pocket builder offers more functionality with improved reliability.
- Smart surface edge extraction (the 'e' short key) infers what piece(s) of the edge curve(s) make the most sense to return as a single curve.
- Enhanced profile trimming works as you would expect by computing view-relative intersections for cases where a true 3D intersection does not exist.
- The 'w' short key uses the same methodology as profile trimming by finding view-relative intersection points.
- Expanded Undo/Redo capability doubles the number of commands you can roll-back or roll-forward.
- Printing and plotting by class in both 2D and 3D.
- AutoCAD 2002 support.
- The ability to flatten polylines in 2D to create separate line entities for each segment.
- Expanded model view support in 2D.
- IGES import options to specify how to handle blanked surfaces and matrix entities.
- 97 Track items addressed.

ToolDesigner 7.2 – January 2002

- Integrated mold to body and mold to body feature. Unique user interface tools for putting the part in mold position records the steps automatically. This information is saved with the 3D file as opposed to a separate text file.
- Semi-automatic tools to find optimal pull direction. These include feature balancing and improved visualization of draft in render plug-in.
- Added ability to read compressed UNIX data files on Windows (2D and 3D).
- Enhanced plotting. New option to rotate plots 180 degrees; plotting directly from 3D; ability to plot multiple copies for Windows edition.
- Enhanced layer setup and properties dialogs makes naming layers easier and reports which layers have entities on them.
- Automated method to write 2D data from 3D.
- Section lines retain color/layer/style of surfaces sectioned.
- Complex sections (multi-point profiles) are supported.
- Enhanced workplane naming removes restrictions on names.
- Display quality setting for render plug-in allows for user to trade quality for speed and vice versa.
- New save CL file menu item for Windows edition of ExpertCAM.
- More Windows standard features (control-Z, control-A).
- New look user interface for all icon pads (now like surface tool box).

- New tool to simplify overdefined surfaces.
- 66 Track items (corrective maintenance) addressed (partial list because administrative close of completed Track items occurs after the release).

ToolDesigner Version 7.1 Service Pack 1 – July 2001

- High priority corrections to extract trim curves function. This was a regression introduced in Version 7.1 for which an immediate hot-fix was necessary.

ToolDesigner Version 7.1 – June 2001

- Enhanced design analysis capabilities for render plug-in. Blended and non-blended shading; 5 ranges of draft check; enhanced graphics.
- Parting line generation enhanced to accept angle as input to produce 3D lines to indicate areas of the design with questionable draft.
- Import solid models (support for 186 entity type in IGES standard).
- New fillet between surfaces and profile tool.
- Enhanced color plotting for Windows automatically optimizes output to speed up plotters.
- New runner surface builder parametrically creates runner surfaces.
- Enhanced engineering change allows differencing of any 2 files regardless of the type (IGES compared to 3D, 3D compared to PDB,). Workplanes are preserved. Files of different units can be used. Old and new data files need not be in the same directory. Current in memory model can be differenced with a file on disk.
- Improved layer naming. Layer names retained even if no entities are on the layer.
- Allow workplanes to be exported for use in Prospector to create Setups and Workspaces.

- Alternate isometric view added.
- Reference and split balloons added to 2D.
- Enhanced swept surfaces ensures the swept curve is kept normal to the sweep line.
- Persistent tolerances for all surface operations. The reading of a file no longer causes default tolerances to change regardless of the content of the file.
- 125 Track items (corrective maintenance) addressed.

ToolDesigner Version 7.0 – February 2001

- Radial surface builder for building runoff surfaces from part edges.
- Integrated mold components with automatic stock listing.
- Enhanced multi-surface filleting (improved reliability for both constant and variable fillets; option to join fillets as they are created; all new easy to learn, easy to use user interface).
- Enhanced Surface/Surface intersection (improved reliability and all new user interface similar to filleting).
- Enhanced draft surface builder. Options for blended, sharp and no corners. All new draft angle algorithms produce superior results.
- Interactive measurement tool measures and allows for dynamic adjustment of line segments.
- Screen capture on Windows to make it easy to document designs in Microsoft Word or any other Windows application.
- Printing from render plug-in.
- Copy to clipboard for render plug-in.
- Send to Prospector lets ToolDesigner users in both 2D and 3D create or update projects for machining on the shop floor.
- New layer naming dialogs.
- Revised surface toolbox user interface to make it easier to use and understand.
- Revised insert pocket builder user interface to make it easier to use.

- Major internal revisions to core algorithms to make surface/surface intersection, filleting, parting line, surface trimming and project even more reliable and produce high quality results.
- Enhanced concatenate surfaces to allow more than 2 surfaces at a time to be joined.
- Enhanced Windows plotting – any number of drawings can be spooled for plotting at a time.
- Built-in What's New help for Windows shows users what is new in the release.
- 167 Track items (corrective maintenance) addressed.

ToolDesigner Version 6.3 – May 2000

- Added ability to extend trimmed surfaces.
- New render-plug-in for Windows – dynamically shaded models.
- Added tool to remove duplicate surfaces and profiles.
- Added Surfacing Productivity Tools (3-sided surface finder, reverse direction of all profiles in a class, reverse direction of entity near cursor, extract edge curves for all entities in a class, create line through current point normal to a surface).
- Automatic pocket builder.
- Database analysis tool to find bad surfaces.
- Enhanced measurement report dialogs.
- Positional leader notes to document 3D coordinates.
- Body line generator tool.
- Windows 2000 support.
- Import/Export AutoCAD R14 files from 2D.
- UNIX migration tools (GNU tool set provided with release).
- ExpertCAM and ExpertPost for Windows
- 116 Track items (corrective maintenance) addressed.

ToolDesigner Version 6.2 – January 2000

- Automatic lock builder.
- Simplified, reliable tolerances for all surfacing functions.
All tolerances consolidated into 2 settings: Precision Tolerance and Gap Tolerance.
- Prevent renaming of standard workplanes (top, right, ...)
- Multiple levels of undo in 3D.
- Simplified, professional dialogs for setup features.
- Enhanced planar surface builder.
- 44 Track items (corrective maintenance) addressed.