



CAD Design Software
303 Twin Dolphin Drive, Suite 600, Redwood City, CA 94065, USA

2012 - 2014 Release Notes Version 8.1.xxx

Electronics Packaging Designer v8.1.0

Support for AutoCAD 2013 (32 and 64 bit)

32 bit = AutoCAD 2007 - 2014

64 bit = AutoCAD 2008 - 2014

Discontinued Support for **AutoCAD 2006 and earlier**

General Software Enhancements:

- **Support for AutoCAD 2013 (r.19)**
 - EPD contains new ARX files that support the 2013 engine.
- **EPD OEM (Windows version)**
 - Updated for 2011 OEM Engine
 - Contains all new functions and updates for v8.1.
- **Addition of 80 New commands**
 - New commands for PCB, Schematic, Ceramic, Lead Frame, RF, SimLinks, EDA Links, CAM Tools, Conversion, Automatic Documentation.
- **Installation and Profiles**
 - Installer uses AutoCAD's second-stage installer to configure EPD for additional Windows user accounts on a single computer.
 - Installer does not rely on the .ARG profile file, the profile is now stored in the registry.
 - Installer is compliant with Unicode registry entries.
- **Wirebond CAM Links**
 - Links to popular wirebond machines are available.
 - Current support for Hesse wire bonding machines, Bond wire sequencing.
 - Customization is available for additional cost to link with specific BW machines.
- **AUTODOC**
 - Creates Multiple Views of one Design. User-customized configurations, automatically generates assembly and fabrication documentation for any PCB, Hybrid/LTCC or BGA design.
 - It makes additional sheets and fills them with viewports that contain configured layers and automatically inserted details.
- **Automatic Intelligizing**
 - Tools for DWG and DXF file formats for reuse in the intelligent EPD environment with output to Ansys Simulation programs or for modifications in EPD. Net capture and DRC.
 - Imports Gerber and IPC-D-356 files, initializing the intelligizing process, component replacement, and outputting to HFSS, ANF and SiWave.
- **Pull-Down EPD Menu updates**
 - Includes new products / commands, new Menu Names.
 - Command will appear dimmed / unavailable on the menu if not licensed in the PWD license file.
- **Read Technology**



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- New Read Technology dialog box to start a new session of EPD with or without a TCH file.
- Technology command contains new options for global parameters
- New default Paths and new layer schemes.
- **License Security**
 - Flexnet Version 11.10.0.3
 - Network FlexLM versions (32 and 64) will require a new CDS.EXE daemon available from CDS.
 - CDS now generates a unique License string named USERID= instead of the computer MAC address.
- **Net checking Improvements**
 - New layout with addition of tabs
 - Plating lead checking
 - Additional netlist formats
- **RAT Control**
 - New layout, added tabs for detailed settings.
 - New Functions for RAT line control, swapping rats and color.
- **IDF file format support**
 - Input/output
- **SAT (ACIS) file format support**
 - Input/output
- **Improved 3D Model creation options**
 - Lead Frame, BGA, PCB.
- **Panelizing**
 - Automatically panelizes Thick Film Ceramic (THKFC) and Low Temperature Co-fired Ceramic (LTCC) designs.
 - Thin Film Ceramic (THNFC) and PCB will be added in the near future.
- **Cadence Co-Design**
 - Enhanced support in a Cadence related lead frame design flow. Ability to intelligize complex lead frames, and port them via a menu driven script into Cadence SiP / APD.
 - New folder in EPD installed image, \Scripts\ contains SCR files for use in Cadence APD/Sip to Import Skill file created by EPD2SKL command.
 - Build Stack-up Material and order for export to APD.
 - Bond Wire Tack points creation to be represented in APD.
- **LEAD FRAME IMPROVEMENTS:**
 - Additional functionality / features added to the lead frame set of tools.
 - Create and intelligize lead frames that have multiple power and ground bars, multiple tiers of lead tips.
 - Support for external optimizer driven instant lead frame editing, (for equal or desired lead tip spacing and widths) using Ziena Knitro.
 - Generate ROHS type reports via MCDS. Calculates the exact volumes of the constituent chemicals and elements in a Lead Frame or other substrate. It makes a 3D model of the Lead Frame including subtracting the wires from the mold compound to get the exact mold volume. It then extracts the volume data from all the solids and compiles the results into a tabular report. This is for compliance with the European ROHS laws.
 - LFINTEL command includes new options for Down sets, Shift definers, Gull wing creation with support for 3D Slopes, multiple Powerbars, plus much more.
 - Lead Frame Library Search provides a search function that helps find the best available Lead Frame for a die from a large library of intelligized Lead frames. Search by number of leads, DAP size, Package size. When a candidate Lead Frame is found, the software will automatically insert the die and place the bond wires and run the ADRC checker to check for proper fit.
 - QFN and mQFN Generator software command to parametrically create a custom component.
- **Java Router**
 - Built-in to EPD for quick routing of PCB type designs using Java router.
- **Improved Access engine**
 - Ability to handle much larger designs



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- **MPOUR**
 - Multi-Copper Plane Pour Fills and Via-Peppers multiple power planes. Use as an alternative to pouring each plane individually.
 - Use LX layer codes to use layer sets to be processed.
- **LIBTREE**
 - Shows the drawing and library tree structures with provisions for editing.
- **RFVIA**
 - Automatically place multiple rows of shielding vias around a created RF via.
- **PCBLTYPE**
 - Allows the use of the NEW line type Stripline for converting standard traces to RF mitered traces, selectively or by layer.
 - New dialog box interface.
 - Draw direction arrows and/or sequence numbers on bond wires
- **DIELECTRIC**
 - Automatically creates multiple dielectric masks.
 - Use LX layer codes to use layer sets to be processed.
- **3D FASTENERS**
 - Automatically creates 3D screws nuts and washers. Screws may be created as simplified (no threads on shank) or as threaded (faux thread representation shown).
- **TRANSLINE**
 - Draws stripline transmission lines and simultaneously adds 1 to 3 rows of coplanar vias. Automatically relocates these vias when the transmission line is moved. If another transmission line is routed nearby vias will be automatically shared.
- **Help Documentation Updates,**
 - New commands, updated existing commands.
 - Documentation Updates will be available on Live Web Update.
- Gerber
 - NC Drill/Punch size
 - Resetting 0,0 to the lower left from the center or establishing a "Design 0,0" at the center of the design,
 - View/Edit settings for individual layers of all sub-batches simultaneously in a grid.
 - View/Edit settings for all sub-batches simultaneously in a grid.
 - Handle Nibbler data and show nibbler path in Gerber Files
 - Carousel Number assignment
 - X and Y Scaling Option
 - X and Y Tiling Option
- **ODB++**
 - Program Improvements for Version Compatibility
 - Programs Improvements for Output of EPD Entities
 - Added Option for **LTCC** Design
 - Added Button to Run **DBCheck**
- Ansys compatibility
 - Export to HFSS, Q3D and SiWave
- Auto Schematic Capture
 - New commands added: CLEANFIELDS, COPYPART, DWG2NET, DWG2NETS, HARNESSDATA, MARKS, MARKSHAPE, PULLOUT, PUSHIN, SCHUNITS, ST, TAG2, TOGGLE, VIEWNET2, WIRETABLE
- Advanced Design Rule Checker



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- Added additional DRC Rules for Complex Geometric Relationships

- **Phased Array Antenna**
 - This software facilitates the semiautomatic and automatic tuning of phased array antennas. It has a system to keep track of all the path lengths in the antenna system's routing and various tuning commands that tune the entire path at once.