



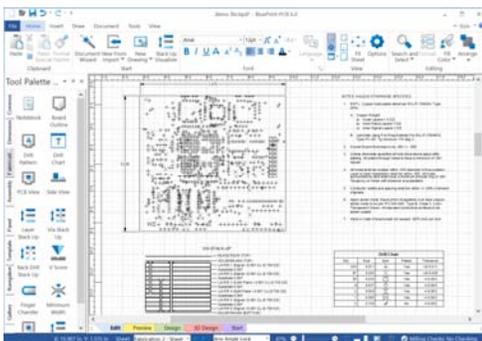
Blueprint-PCB[®]

Industry Leading PCB Documentation Authoring Tool

For the past several decades PCB CAD tools have evolved to become superlative at PCB design. However, with respect to PCB Documentation they are woefully behind even the most rudimentary word processor, or graphic editor application. Unlike the typical PCB CAD tool, Blueprint was designed from the ground up to be a documentation editor.

Use Blueprint to create assembly process step documentation, variant assembly drawings, or component coordinate charts. Use assembly panel design features to design and document a custom assembly panel with mill tabs, web routes, pinning holes and fiducials. With Blueprint you can create custom documentation to meet your specific needs.

Using traditional PCB CAD methods to maintain PCB documentation for the life cycle of a product can be time consuming and error prone. With Blueprint ECO support, document maintenance is a snap. After the source PCB design is revised, import the revised design data into Blueprint and changes are automatically propagated across the documentation set. With Blueprint, documentation maintenance effort is dramatically reduced by eliminating the tedious manual revision process required for PCB CAD based documentation.



Blueprint-PCB

Blueprint is a feature rich, easy to use PCB documentation editor for creating and maintaining PCB documentation.

Features and Functionality

Blueprint-PCB functionality includes:

- Directly import your PCB CAD design in ODB++, IPC-2581 or PADS ASCII to initiate documentation authoring
- Create PCB Fabrication, PCB Assembly, Variant Assembly, PCB Assembly Process Step, Assembly Panel or other custom drawings
- Standardize your documentation with your own sheet borders, title blocks, revision blocks, fabrication and assembly notes
- 3D viewing for enhanced visualization of design data
- PCB Stackup design with user defined material table and 3D modeling
- Optional 3D PDF printing for sharing fully modeled PCB data
- Create Mil-Aero documentation with automated GD&T compliant dimensioning
- Automated and fully customizable functions to create drill charts, layer stackups, exploded views, detail views, parts lists and more
- Fully automated dimensioning with customization for arrows, line styles, font, tolerances, dual and reference dimensioning
- PCB views can be scaled, customized, enhanced with graphics, call outs, exploded views and viewed in 3D
- Import DXF data to append drawings with content sourced from Mechanical CAD systems
- Import and embed image or video files in PDF, JPEG, AVI, WAV or other formats
- Import and retain external parts list data such as mechanical parts, hardware or other content
- Fully automated linking of numbered notes in note blocks to call outs, and detail views
- Built in word processing with spell check
- User customizable templates for often used elements like layer stackups, drill charts, legends, variant lists, tables and more
- Element gallery to save drawing elements for reuse across multiple documentation sets
- Blueprint specific reference designators for customized assembly views
- Automation API and embedded VB Editor to create automated methods of driving the documentation process
- Create an electronic documentation package to share and view documentation via an intranet or world wide
- Create HTML based documentation to view documentation via any compatible web browser
- Use the free Blueprint viewer to share and view documentation content created in Blueprint
- Full featured Assembly Panel design with support for milling, v-scores, mill tabs, flipped PCB images and 3D visualization
- When design changes are made in the host PCB CAD system, import modified design data for automated documentation updates



Blueprint-PCB[®]

Core Features and Functionality

Blueprint imports your PCB CAD data to help you quickly produce comprehensive electronic drawings to drive PCB fabrication, assembly and inspection processes. Blueprint offers all the functionality you need to develop the high quality documentation required by all stakeholders in the fabrication and assembly of printed circuit boards.

Import PCB Design Data from Multiple Sources

Import PCB CAD data created in industry leading PCB design tools from Mentor, Cadence, Zuken, Altium and others. Import the data using industry standard file formats including ODB++, IPC-2581 and PADS ASCII. Augment your documentation with data imported in DXF, PDF, CSV, ODBC, JPEG, AVI or many other formats.

Unlimited Views of the PCB

Create views of the imported PCB design without limits: Top Side Assembly, Bottom Side Assembly, Side View, Section View, Inner Layers, Drill Pattern, Board Outline, 3D View or any custom combination of layer and layer data. Each PCB view may be scaled or formatted independently of other PCB views.

Fully User Customizable

No PCB documentation set is the same. Blueprint supports user customization of drill symbols, drill tables, dimensions, note blocks, call outs, parts lists, title blocks, sheet borders and many other elements. Customization can be propagated across multiple users to ensure a common documentation profile throughout an organization. In addition, the user interface can be customized to create a custom look and feel.

Automation API and VB Editor

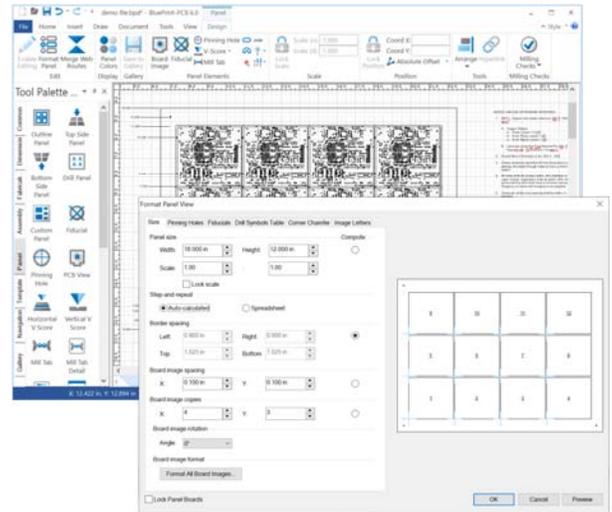
Use the embedded Visual Basic editor and breadth of API functions in Blueprint to create custom applications. For example, script a sequence of often used commands and operations and run the script to complete the commands automatically. Visual Basic scripting can interact with the user through custom dialogs, make conditional decisions, and parse information from the Blueprint database.

Package and Release

Compile a collection of drawings, or the entire documentation set into a distribution ready compressed, self-extracting file that includes the Blueprint documentation viewer. Optionally, restrict the number of days available for viewing from the release package.

Blueprint Reference Designator Labels

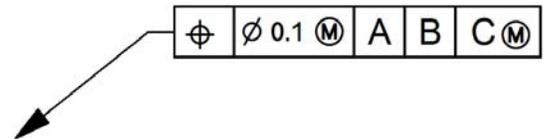
Create custom assembly and other PCB views with reference designator labels added for use exclusively in Blueprint. Labels can be automatically located over parts or placed individually. Each reference designator label can be formatted independently of others and displayed with customized leader lines.



Design and Document Assembly Panels

Assembly Panel Design

Creating Assembly Panels has never been easier than with Blueprint. Use automated array features to achieve an optimized array of PCB images to minimize material waste and component overlap from adjacent PCB images. Add web routes, mill tabs, drill rows, v-scores, fiducials or pinning holes. Use DRC functions to ensure proper placement of milling and mill tabs. Use panel dimensioning and other panel specific documentation features such as component coordinate charts, panel based drill charts to fully articulate the panel design.

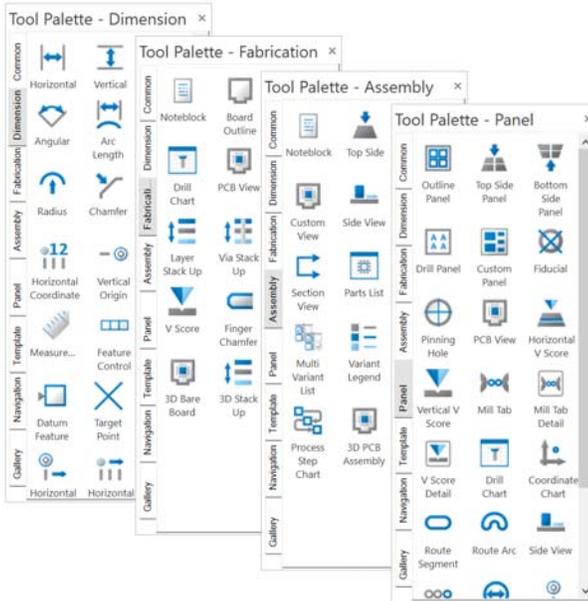


Geometric Dimensioning and Tolerance Support

Blueprint offers full support for geometric dimension and tolerance references.



Blueprint-PCB®

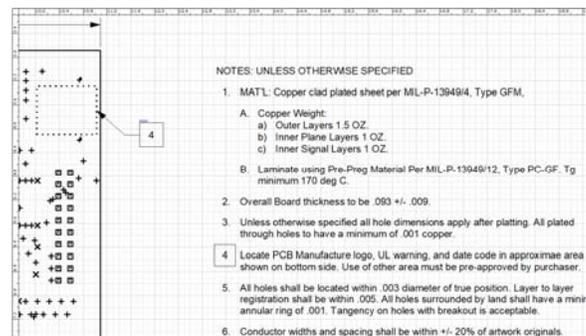


Automated ECO Process

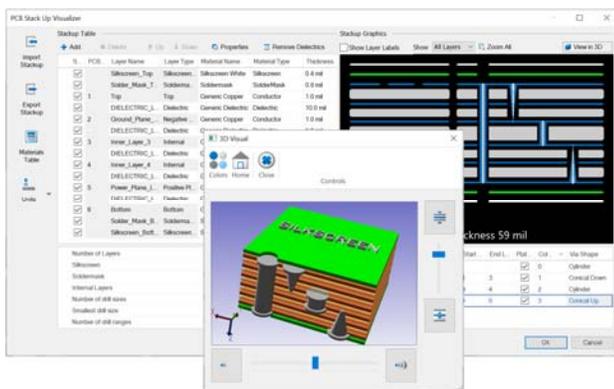
All drawing content derived from imported design data is synchronized to its source PCB design file. After an ECO to the source PCB design, simply import a revised data file into Blueprint to update the documentation set with the changes to the PCB design. After refresh, all PCB views, tables, details, parts lists, drill charts, etc. are updated with the new data. This method of updating the documentation enables fast ECO processing by refreshing via an updated source design file. All unique formatting for each drawing element are maintained to minimize the documentation impact from an ECO operation. Blueprint also detects when the source design file was altered and prompts you to refresh the documentation. A graphic indicator informs you if the Blueprint documentation package is in synch with the source design file. There is no limit on the number of times the source design file can be refreshed. The ECO function is also applicable to refreshing imported Parts List data created from an ERP/MRP/PLM system.

Drawing Element Palettes

Add drawing content easily with a drag and drop from a collection of drawing element palettes onto a sheet. Palettes are organized by drawing types to make location and selection of elements quicker. Many of the elements can be customized to your drawing standards and have alternate presentations.



Callouts can be linked to numbered notes



PCB Stackup Design and Visualization

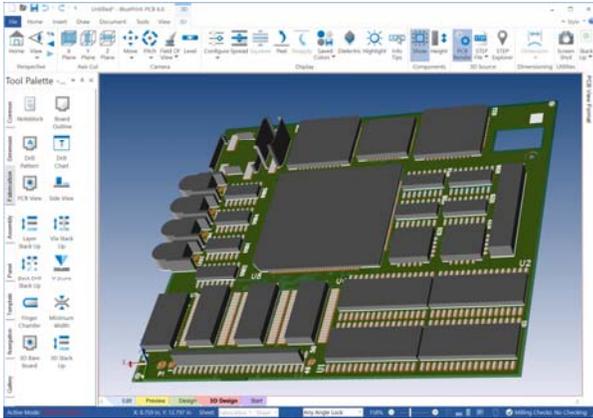
Use Stackup Visualizer to design, view or modify a PCB stack up in multiple visualization modes including tabulation, cross section and 3D. Drag and drop layers to interactively change layer order. Assign construction materials and set attributes such as layer thickness or dielectric constant. Interactively define and view via drill spans and via technologies including back-drills. Use export and import functions to exchange stackup design details with a manufacturer and update the stackup with material or other changes from the manufacturer.

Intelligent Drawing Elements

Many of the common PCB documentation elements such as title blocks, note blocks, call outs, drill charts, parts lists and so on are fully intelligent. When dragged and dropped onto a sheet from the many tool palettes, their content is immediately populated with relevant details from the design data. Add a parts lists and it's populated with part details from all parts in the design. Add a layer stackup and it is populated with layer names, layer order, layer thickness and other layer properties. Add a call out linked to a numbered note.

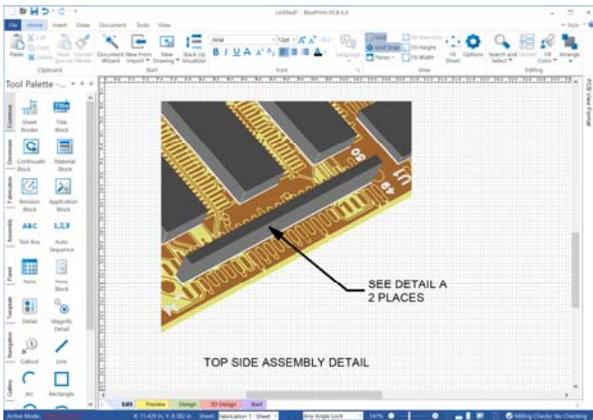


BluePrint-PCB®



3D Visualization

3D visualization provides a virtual model of the assembled PCB for viewing. In addition, a custom 3D PCB view can be added to a sheet to enhance your documentation. Viewing of 3D documentation content is available in the free BluePrint viewer.



3D Views of the PCB

Enhance your documentation with 3 dimensional views of the PCB. Each 3D view can be formatted independently with different camera views. Layer and color visibility. Add additional content to the view such as callouts and graphic elements.

Export to 3D PDF

Users can export a documentation set to Adobe 3D PDF. Adobe PDF viewers offer the ability to interact with the 3D documentation through camera changes, pan and zoom on PCB views, scrolling parts lists and scrolling note blocks**.

**Available for an additional purchase

Publish to Web

Create an HTML based documentation package for unlimited viewing when posted to a web page and viewed with ActiveX enabled web browsers such as Microsoft's Internet Explorer.

Choose a Configuration

BluePrint is available in three standard configurations, or create a custom configuration to meet your specific documentation needs.

	BluePrint 2200	BluePrint 1200	BluePrint 500
CAD Design Import (Choose format)	X	X	X
Create Assembly and Fabrication Drawings, Print Documents, OLE Embedding, Stack Up Visualization, Publish to Web, 3D Viewing, 3D Documentation	X	X	X
GD&T Dimensioning, Dimension Alignment, Blueprint Reference Designators, Blind and Buried Via Support, Search, ECO Delta Analysis, File Merge	X	X	Option
Variant Assemblies, Process Steps, Side and Section Views	X	X	Option
Pack and Release, Import CSV and ODBC, Export Parts Lists and CSV of Component Coordinates	X	X	Option
Import Gerber and Import/Export DXF	X	X	Option
Custom Template Creation	X	X	Option
Visual Basic Editor	X	X	Option
Assembly Panel Design	X	Option	Option
Export PDF (non-3D)	Option	Option	Option
Export 3D PDF	Option	Option	Option
Import STEP File	Option	Option	Option

Worldwide Sales, Technical Support and Training

All DownStream Technologies products are sold and supported by a worldwide network of channel partners. For sales, technical support, or training, contact your local channel partner or visit:

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