



Release Highlights for BluePrint-PCB Product Version 2.0.1

Introduction

BluePrint Version 2.0.1 is a “rolling release” for BluePrint V2.0. BluePrint “rolling releases” are delivered as needed and allow us to be very responsive to our customers. BluePrint V2.0.1 contains customer defect fixes, and enhancements to BluePrint’s Automation API.

BluePrint V2.0.1 Build 422 Installation has been updated to include a new version of Microsoft’s C++ 2005 Redistributable (version 8.0.59193). This was required to synchronize with Microsoft Windows updates for ATL Security patches. Previous BluePrint builds must be uninstalled using the Microsoft Windows Add or Remove Programs utility before installing BluePrint V2.0.1 Build 422.

BluePrint V2.0.1 Build 422 Defect Fixes

Product/Project	ID	Description
User Interface	53224	Cannot snap to arc centers
Database	53242	Documents with imported shapes that are placed partially off the sheet and are clipped can cause a crash when scrolling through the document sheets
Automation API	53145	Added API method to format Reference Designator to look like a hyperlink
Automation API	53119	Added API method to retrieve component and reference designator orientation
Automation API	53221	Added API method to set the active sheet
User Interface	53080	Ability to add new Tools to a menu and not have it also display in the Tools Menu
User Interface	53143	Enhancement to control display of hyperlink icon on reference designator
ECO	53269	This BluePrint document crashes when you ECO data
Import ODB++	53311	This ODB++ from CAM350 was not imported into BluePrint correctly when the component outlines contained circles
Import ODB++		This ODB++ from Expedition containing mill data was not imported correctly

BluePrint V2.0.1 Build 418 Defect Fixes

Product/Project	ID	Description
Export DXF		Enhancement to export a multi-sheet BluePrint document as a single DXF file instead of multiple DXF files.
Export PDF/DXF	52931	Balloon shape callout flags on linked notes in a noteblock do not export to PDF or DXF properly
User Interface	52971	Drawing elements placed in PCB View in edit mode do not rotate appropriately when PCB View rotated
User Interface	53166	BluePrint ref des appear to shift when a component outline is made non-visible and it extends beyond the board outline
Automation API		Enhancement to support Text Box horizontal alignment through the API.
Import PADS ASCII	53246	BluePrint was crashing on import of a PADS 2007 ASCII design if it used a new feature to combine copper objects into a single object
Import ODB++	53247	BluePrint was crashing on import when the ODB++ design contained zero size drills used to draw lines on drill layers.

Notice

BluePrint XML Export has been discontinued. BluePrint's Automation API is recommended for adding functionality to BluePrint and data to your documentation.

BluePrint V2.0.1 Build 415 Defect Fixes

Product/Project	ID	Description
Import PADS ASCII	53131	PADS ASCII with custom fonts can cause BluePrint to crash on import.
Import ODB++		Slots may not be displayed correctly in Drill Pattern and Drill Chart.
Import Gerber	53151	Copper in imported gerber does not match copper in PCB View when copper void outline has width.

BluePrint V2.0.1 Build 411 Defect Fixes

Product/Project	ID	Description
User Interface	53079	Link window shows overlapping top and bottom views when a part is selected that is on both sides of the board. The views should be shown side-by-side.
Import PADS ASCII	53089	False Teardrop warnings are sometimes reported when importing a PADS ASCII design that has teardrops defined, but the global teardrop setting disabled.
File Open	53107	BluePrint databases created with PADS ASCII design data that contains custom or true type fonts may cause BluePrint to crash when opening in BluePrint V2.0.1.
Export PDF	53121	Export PDF may cause BluePrint to crash if the document contains splines. BluePrint does not have a spline tool, so this data would have been imported into BluePrint using a PDF or DXF file.
Automation API		Added ability to suppress template dialog when changing global settings using the Automation API.

Automation API Defect Fixes

Fixed: Defect with Quantity column in Parts List import.

Fixed: Setting Pin 1 Markers to visible is slow using API. VB automation.

Fixed: Document Variables are not available from API.

Automation API New

New: MinRefDesFont, MaxRefDesFont and RefDesFontHeight were added to API

New: Functions SetPlatingVisibility and DisplayPlatingAsSymbol were added to ViewFilter.Drills

New: AlwaysShowThroughHoles property was added to ViaStackUp object

New: RefDesColor property was added to a PCBViewFilter.

New: A method for setting **min and max Pin 1 Marker size** , just like min and max ref des size.

New: Floating mode was added to drawing elements API.

New: Terminator properties were added to the Arc, Segment and PolyLine in API.

New: PCBView.RegenerateRefDes method was added

New: PCBView.FollowCompOrientation and Drill.Plating properties were added.

New: SetLayerVisibility function was added to ViewFilter.Drills collection.

New: The following properties were added to PCBView.Drill: OutlineVisible; OutlinePattern;

OutlineColor; OutlineWidth; FillVisible; FillPattern; FillColor; RefDesVisible;

RefDesColor; PartNameVisible; PartNameColor; AttributesVisible; AttributesColor;

PinNumbersVisible; PinNumbersColor; PadsColor; PadFillMode; Pin1MarkerVisible;

Pin1MarkerMode; Pin1MarkerColor

Defect fixes for BluePrint V2.0.1 Build 408

Product/Project	ID	Description
User Interface	42613	Callout link should be retained when a copy and paste is executed
Import	47833	BluePrint should detect unsupported data types and report them in the error report
Import PADS ASCII	50955	BluePrint can not import PADS ASCII design with no part information
Assembly Drawing Elements	51233	Side View - Fill/Unfill with color does not work correctly
Tools	51299	Tools - Options - Sheet - change a setting causes all default nomenclature to reset
Tools	51450	Variant Manager - Substituting New Part in Variant causes crash in this file
Parts List Manager	51506	Item #s wrong in parts list after reimport of design data
Export	51516	This BPD file crashes on Export PDF or when opened in Viewer
Tools	51953	Trim Tool crashes in some situations
Gallery Manager	51972	Element Gallery version is not checked
Fabrication Drawing Elements	52013	Via Stackup does not show all through holes
Import	52319	ODB++ Import - a drill in this design is not imported.
Panel Drawing Elements	52181	incorrect arc after merging web routes
Export	52233	Export - PDF - of this layer stackup results in shifted via graphic
ECO	52336	ECO - Custom Drill Table incorrectly reset
Format Operations	52349	Format Line Color - Performance slow on this document
File Operations	52358	File - SaveAs Startup - does not strip out all design data - problematic
User Interface	52549	Format PCB View - PCB CAD Data - Advanced - Drills tab - No Data Displayed
Import	52568	Import PADS ASCII - Parts missing after import
GD&T Dimensioning	52611	GD&T symbols - Printing to PDF driver and Export to PDF incorrect
Export	52712	Export PDF - This design with panels without refdes exports PDF with ref des displayed

New BluePrint V2.0 Functionality

The following functional enhancements are contained in BluePrint Version 2.0:

- ✓ Microsoft Vista Support
- ✓ New Panel Array Module
- ✓ BluePrint/CAM350 integration
- ✓ Several New Usability Improvements
- ✓ GD&T Improvements – Compliance with the ASME 14.5M-1994 specification
- ✓ Enhanced Allegro Import
- ✓ Enhanced Altium Import
- ✓ Enhanced PADS Import for CAM documents
- ✓ Ability to Import ODB++ Panel Step and Repeat data

Details

Panel Array Documentation - BluePrint Version 2.0 solves the problem of creating Panel drawings for assembly. A new module for BluePrint allows users to quickly step and repeat PCBs on a new or previously created panel form factor, and define necessary pinning and fiducial locations. Users may also define breakout methods used to separate the PCB from the panel including a variety of NC routing with breakouts as well as V-scoring or any combination.

BluePrint/CAM350 integration - BluePrint can now share its Release Package database with CAM350. Any release package created in BluePrint can be read by CAM350. This allows CAM350 to access any existing design information for analysis, Gerber creation, and NC drill/mill extraction. For users who have CAM350, CAM350 can now be invoked from within the BluePrint menu system and have all information passed automatically.. When in CAM350 users can view all previously loaded design, Gerber, PDF, drawings, and panel definitions.

Usability Enhancements

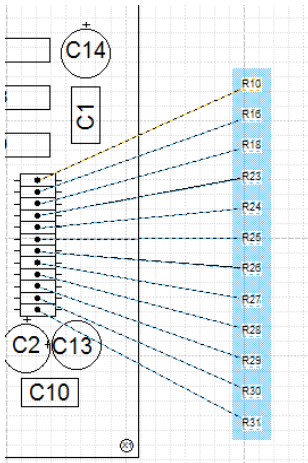
New Reference Designator Toolbar - When a reference designator (or a group of reference designators) is selected the Reference Designator Toolbar is enabled and displayed. This toolbar contains the following commands: Toggle Leader Line On/Off, Toggle Terminator On/Off, Change Terminator Shape, Rotate 45 degrees, 90 degrees or Free rotation, Align Left, Right, Top or Bottom, Disperse Horizontally or Vertically, Toggle Reference Designator display on/off, Display Parameters.

New Reference Designator Leader Line option to create Dog-Leg - You can now add a dog-leg to a reference designator leader line in the Format Leader Line dialog.

New Reference Designator Context Menu - When a reference designator is selected, the context menu now offers many of the same reference designator commands that are available on the Reference Designator Toolbar.

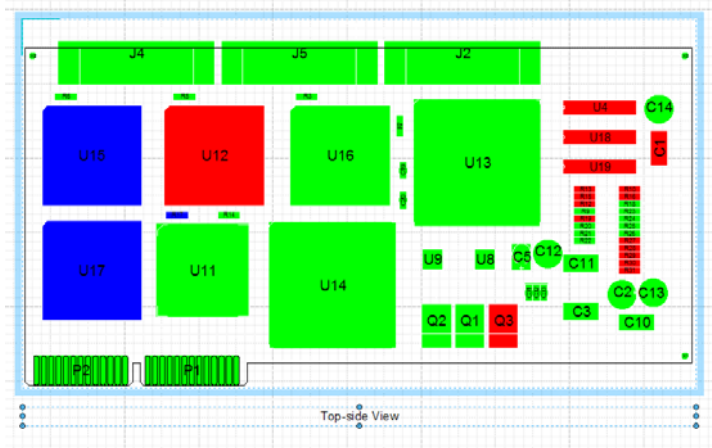
New Reference Designator Disperse command - You can now easily disperse any number of selected reference designators along a horizontal or vertical plane. Simply:

1. Select the reference designators you would like to disperse.
2. Select the Disperse command from the Reference Designator Toolbar or Context menu.
3. Use the cursor to click, drag and release a rectangle that represents the area you would like the dispersion to happen within.
4. The selected reference designators will be re-drawn, equally spaced within the designated rectangular area.



New Component Toolbar and Context Menu - When a component is selected the Component Toolbar is enabled and displayed. This toolbar contains the following commands: Toggle Display of Component, Change Color of Component, Toggle Display of Component Reference Designator, Toggle Display of Component Outline, Toggle Display of Component Pads. These commands are also available on the Context Menu when a Component is selected.

New Component Fill and Fill Style commands - You can now fill a component outline with a color and fill style. This functionality is available in the PCB View Format Pane, the Format PCB Component dialog, the Assembly Variant Manager Preferences and the Process Step Manager Add Process Step dialog.



New Detail Note – A note can now be defined in a detail. When the detail is applied to the drawing sheet, the detail note is automatically appended to a specified noteblock.

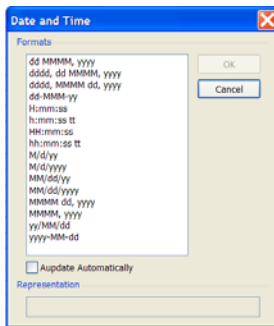
New Callout Toolbar and Context menu - When a callout is selected the Callout Toolbar is enabled and displayed. This toolbar contains the following commands: Toggle Leader Line On/Off, Toggle Extension Line On/Off, Change Terminator Shape, Change Terminator Size, Change Line Width, Change Line Color, Change Balloon Shape, Link To. Many of these same commands are also available on the Callout’s Context menu.

New Detail Description attribute – You can now create a description for a detail which will be displayed by BluePrint in the Contents View to delineate between details. The description is set in the Options tab of the Format Detail dialog.

New Noteblock line spacing - You can now define line spacing between notes as well as line spacing within a note. The controls can be found on the Formatting tab of the Format Note Block dialog.

New Noteblock Starting Number - You can now define starting number for notes within a noteblock. The starting number can be set on the Formatting tab of the Format Note Block dialog.

New Insert Time and Date command - You can now Insert the Time and Date into a text string from the context menu. The time and date will be the time and date that the command was executed. You can also select the Auto update checkbox on the Time and Date dialog. Auto Update will update the time and date with the current time each time you open the document.



New F-size sheet - A new ANSI F-size (40in x 28in) sheet has been added.

Automatically generate Parts List to match selected PCB View - You can now create a PCB View, modify its component visibility, and automatically generate a Parts List to match.

New functionality in Process Step Manager to filter on any attribute - You can now filter by Part Name, Part Type, or any component attribute when selecting components for a Process Step.

New dockable coordinate toolbar - The new Coordinate Toolbar displays the x and y location of the selected drawing element on your sheet. In absolute mode, the origin for the x and y values is the upper left corner of the sheet. In relative mode, BluePrint displays a datum origin which you can move to any location as your origin. You can also enter new x and y locations and apply them for a drawing element. This allows you to place drawing elements more precisely than you may be able to do with the cursor.

New Exploded View Description attribute - You can now give any exploded view a unique description so it is easier to distinguish between several exploded views when setting a callout hyperlink. The Description attribute can be found on the Options tab of the Exploded View Format dialog.

New DXF Import option to scale to page - You now have the option to scale a DXF on import to fit within your page extents. The default is to import 1:1 which may be larger than your sheet size. You will find this option under Tools – Options – Import/Export – Import Files – General.

New Line Gap specification for Reference Designator Leader Line - For a reference designator leader line you can now specify a gap (or offset) from the center of the component. You will find this option on the Leader Line tab of the Format Reference Designator dialog.

Zooming now supported in the Link Window - You can now set an option to automatically zoom into a highlighted component in the Parts List Link Window. This helps when a component is highlighted in a very dense board. The option can be found under Tools – Options – Environment – Edit/View – Hyperlinks. You can also now zoom in and out in the Link Window using the Ctrl-Middle Mouse Scroll button.

Insert New Sheet with Nomenclature - You can now set an option to automatically display default nomenclature when a new sheet is inserted. For instance, when you insert a new sheet BluePrint can automatically display the default title block, revision block and sheet border. These settings can be found using the **Tools – Options – Drawing – Sheet** dialog.

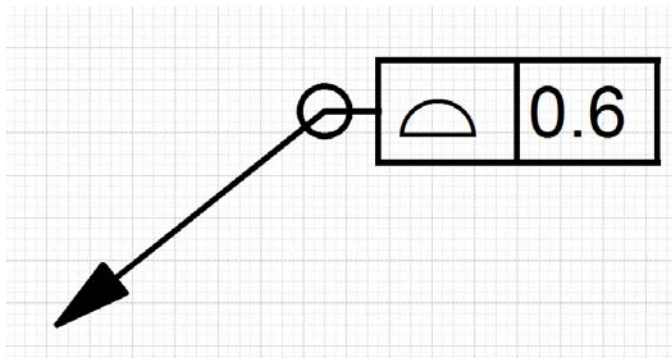
GD&T Improvements

Geometric dimensioning and tolerancing is a symbolic language used on [engineering drawings](#) to describe the engineering intent of parts and assemblies.

- Compliance with the ASME 14.5M-1994 specification
- Font size and Line width defaults are now based on the sheet size, per specification.
- You can now globally select and update all dimensioning font and font size for a release package, using the **Select All Dimensions** command on the Edit Menu.

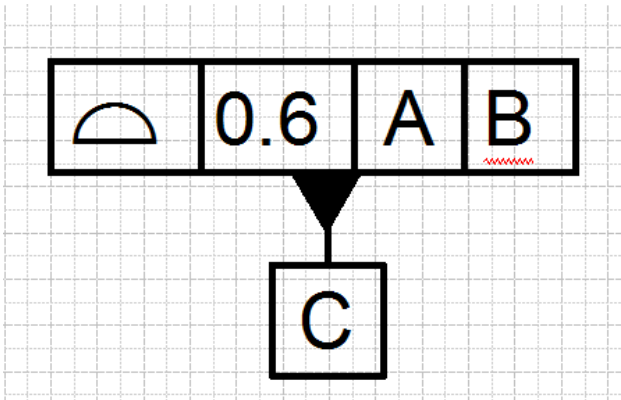
Feature Control Frame

- Margins are now proportional to the font and symbol size per specification.
- **Leader lines** are now supported on both the left and right sides of the control frame. To move the leader line simply grab the grab-handle where the leader line starts on the frame and move it horizontally past the leader bend.
- New “ALL AROUND” leader type where the circle at the leader bend is proportionally sized to the font size. Select the **All Around** checkbox on the Format Feature Control Frame dialog.



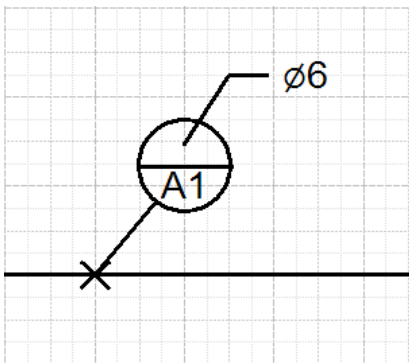
Datum Feature Symbol

- Margins are now proportional to the font and symbol size per specification.
- You can now specify the terminator size to automatically track the font size. To do this, select the **Size based on Dimension Font Size** check box on the Terminators tab of the Format Datum Feature Symbol dialog.
- New “Filled” and “Outline” terminator format options
- The Datum Feature Symbol terminator will now interactively snap to the top or bottom of the Feature Control Frame.

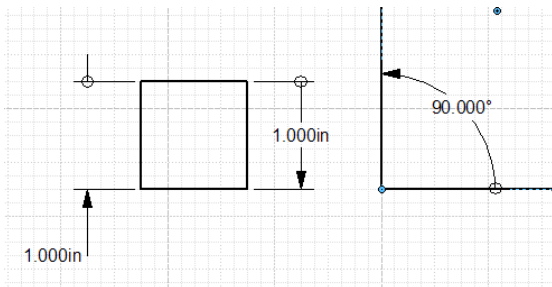


Datum Target

- Margins are now proportional to the font and symbol size per specification.
- You can now drag Target Area Size text outside the target symbol with a leader line.
- New terminator types now include “No Terminator” and “Target Point”. “Target Point” terminator is sized proportionally to font size.
- The new Target Point drawing element is represented by a “X” that is proportionally sized based on the dimensioning font size.

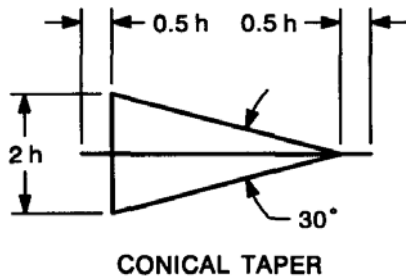


- The new Origin terminator style is sized proportionally to the font size.

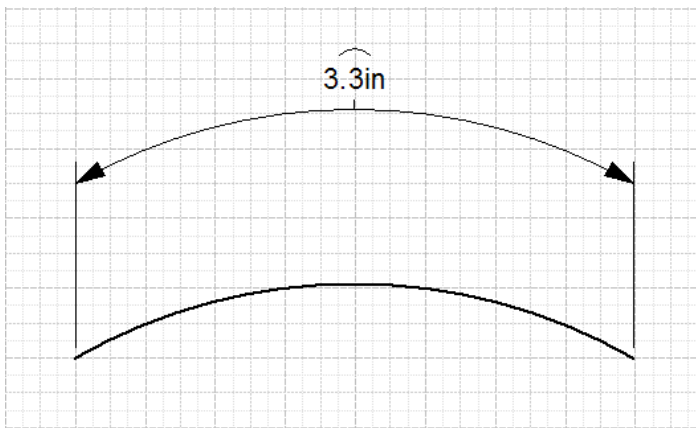


New Conical Taper Font -

We now support a Conical Taper Font symbol.



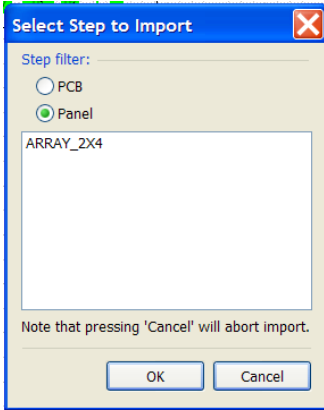
New Arc Length Dimensioning tool- We now support the ability to dimension an Arc Length using the Arc Length Dimension tool in the Common Elements palette and on the Drafting Toolbar.



New Import Allegro ODB++ and ASCII file command - We have enhanced BluePrint's Allegro import capability to capture true component assembly outlines, drill tolerances, layer thickness and copper weight. Allegro does not export this data into their ODB++. BluePrint now imports the ODB++ data and additional Allegro ASCII files that contain this information. See the Online Help topic: **"Preparing CAD Data for Import"**.

Import PADS ASCII enhancement - BluePrint now imports PADS CAM documents to match the gerber data. A CAM Document in PADS Layout can be composed of any combination of electrical, mask, silkscreen or documentation layers. In PADS Layout, each CAM Document can optionally be associated with a Fabrication Layer from the layer stackup for the design. The associated Fabrication Layer is just one of the CAD layers as defined in the PADS layer table. To prepare the CAD Documents for BluePrint-PCB, you must to assign a Fabrication Layer to each CAD Document that appears the layer stackup. This includes electrical, mask and silkscreen layers.

Import ODB++ Panel Data - You can now import ODB++ Panel Data. BluePrint imports the Panel Size, the Board Outlines, the Position of all boards, and the Panel and Board Origins. From this data BluePrint calculates Board Spacing and Board Image Spacing. If there are multiple boards in an ODB++ Panel, BluePrint will import CAD data for one board and will show just the board outlines for the other boards. BluePrint creates a Panel Outline template that you can name and save to BluePrint's gallery. Once the ODB++ Data has been imported into BluePrint, you can display the panel and add Fiducials, Pinning Holes, Web Routes and Mill Tabs.



Defect fixes for BluePrint V2.0 Build 388 Defect Fixes

Product/Project	ID	Description
Panel Array	51265	Overlapping mill tabs with perforated breaks merged incorrectly on horizontal axis
Panel Array	50816	Mill tab drills left behind after merge when mill tab on panel edge and overlapping board edge
Import Gerber		BluePrint unable to import some older gerber files
Design View		BluePrint error would occasionally occur when object selected in Design View with a BluePrint Foundations or BluePrint4PADS license.
File - Save		BluePrint performance can be slow when saving to a an existing file on a network drive.
User Interface		When opening a BluePrint V1.8 document in BluePrint V2.0, the display of drills in a pcb view did not always match the original document settings

Build 384 Defect Fixes

Product/Project	ID	Description
Format Text	51133	REGRESSION - Format text color results in crash in certain situations

Build 383 Defect Fixes

Product/Project	ID	Description
Dimensions	51098	REGRESSION - Diameter and Radius Dimensions are incorrect when PCB scaled
Dimensions	51042	REGRESSION - Dimension Format - Suffix field is limited to 6 characters in V2.0 and was unlimited in V1.8
Search Tool	50589	Search Toolbar in CAM350 unstable when CAM350 launched from BluePrint
ECO		Repositioned Ref Des displayed incorrectly after ECO on this PADS ASCII file

Build 382 Defect Fixes

Software corrections and enhancements have been made to previously existing functionality, further improving upon BluePrint's quality and reliability:

Product/Project	ID	Description
Parts List	38552	Enhancement request to generate Parts List based on PCB View component visibility.
Format	39315	Format Component Width does not work on this design
Format	39415	Hyperlink dialog - Enhancement to add caption name to drawing element selection choices
Import PDF	39488	Import PDF - select YES to Convert on import - text offset
Import Allegro	39552	ODB++ Allegro Import - ancillary file support
User Interface	40432	Mirror bottom side in Link Window
Format	40539	Sheet Size F request
Options	40957	Method to establish a different default element gallery
Parts List	41036	Parts List Item Creation - Support all attributes
User Interface	41088	Request support to lock items on a doc so they cannot be changed, moved, etc.
Format	41117	Format PCB View - BP RefDes orientation
Parts List	41118	Parts List Manager - item numbers are not auto gen'd for user parts
Tools	41234	Tools - Dimensioning - Enh request to dim lines on layers of PCB View
Parts List	41362	Parts List does not support hyperlink for any attribute
Format	41404	Side View Detail - it is impossible to change callout arrow size in the Format dialog
User Interface	41476	Drill Symbols in drill chart should adjust line thickness when drawn very small
User Interface	41564	Insert Date and Time Enhancement request
Import DXF	41573	Import DXF - Enhancement to have option to import 1:1 or scale to fit within page extents
Import PDF	41574	Import PDF - PDF size is different depending whether you convert to BP graphics or not
Import DXF	41575	Import DXF - Grouped items are exported and then imported at the wrong scale
Format	41589	Format PCB View - Set as default template - OK - View on cursor flies around outside of View extents
User Interface	41845	Auto-Panning - Enhancement for auto-pan speed to increase as cursor is move farther beyond the app
User Interface	41915	Default colors for Design View
GD&T	41918	Special GD&T font need

Product/Project	ID	Description
User Interface	41921	Auto Date feature support
User Interface	41922	Lock Table Cell Enhancement
Format	41923	Ability to create right pointing (bullet) callout
User Interface	41925	Coordinate display during modification
User Interface	41926	Option to maintain aspect ratio for grouped objects
User Interface	41928	Split Noteblock cmd should be on RMB menu
GD&T	41933	BASIC dim font margins needs to match the GD&T stds
ECO	41935	ECO file maintenance
User Interface	41954	Untitled toolbars in customization dialog
User Interface	41955	Untitled toolbar in Viewer customization
User Interface	42247	Ref Des Leader Line Gap Spec
Tools	42332	Dimensioning - Edit Detail, drag and drop dim into detail, grab handles can't be moved
Import Parts List	42335	Import Parts List - unmapped fields names are not shown
API	42336	Automation API - .Viewfilter commands in Design View don't work
Options	42341	Tools Options - Default Font
Format	42342	Note Block - spacing per lines in multiline note
User Interface	42499	Side View board display incorrect on this design
Tools	42654	Tools - Parts List Manager - Change Part Type results in CRASH on this file
User Interface	43418	Ref Des sometimes relocate when the lines attribute is selected for inner layers.
Format	43673	Format Callout - Link to Parts List Item User Data does not allow Ref Des
Parts List	43738	Parts List link window should support zooming
User Interface	43739	Link Window should support zoom to 1600%
Format	43870	Note Block Format needs start number option
User Interface	43897	Search and link window highlighting will not highlight parts if the parts have only pads and no outlines
Import	43916	Valor V8.0 ODB++ format can not be imported
Dimensioning	43933	Basic dimension outline should always be a solid line
User Interface	43958	Component colors not retained from templates

Product/Project	ID	Description
Import	43962	CSV and CAD Import always retains CAD DB attributes
Tools	44271	Process Step Manager crashes when Assembly Variant on Step changed on this file
Format	44565	Format Noteblock numbering, insert new noteblock section - numbering reverts to orig settings
User Interface	45405	Would like the ability to sort on Part Name in addition to Ref Des in the PCB View Format Pane.
User Interface	45981	Cannot sort Part List by ref des if a variant selected.
File - Insert Sheet	40240	Insert Sheet - Enhancement to automatically apply nomenclature when new sheet inserted
Import PADS	42546	Import PADS ASCII - Coating thickness not imported
Import PADS	42609	Enhancement to import PADS ASCII dielectric constants for substrates between layers and coatings (solder mask) on the top and bottom of the layer stackup.
Export PDF	45141	Export PDF - Sheet2 of this BPD does not export to PDF correctly (all black)
Export PDF	45332	Enhancement to specify quality (least loss and compressed) options on pictures in exported PDF to help with the size of file created.
Import PADS	45358	Import ASCII - Thermal relief not displayed on import, but displayed after save and reopen BluePrint
API	45893	API - Imported PDF is placed with wrong scale
Import Altium	46109	Import ODB++ - This Altium ODB++ folder crashes BluePrint on Import because it is missing a board outline
Import	46246	Loading the attached file, dimension units are set for MM.
User Interface	46287	Drill Chart will occasionally crash while executing if no space on sheet and sequential sheets to display.
Import	46340	For this cad data, copper and plcc pads have incorrect shapes.
Transform	46380	Group of Feature Control Frame and Datum does not work correctly
Import ASCII	46457	For this PADS ASCII file, the substituted part status for ref des LED1 and LED4 are not imported properly for variant.
Import	47037	Import this ODB++ file into BluePrint. The ODB++ file correctly defined the slots are plated. However, when you place a drill chart the slots plating status is reported as UNPLATED.
Import PADS	48174	Import PADS ASCII - antipad size around drills displayed too large in this design.
Parts List	48482	Enhancement to execute the Parts List bottom-up.
Import Variant List	48526	Variant Parts List status imported incorrectly if ref des text is lowercase.