



## **Release Highlights for BluePrint-PCB Product Version 4.0**

### **New Functionality in V4.0**

The following functional enhancements are contained in BluePrint Version 4.0:

- ✓ Via Stackup Template Graphics Enhancements
- ✓ ECO Support for Process Steps
- ✓ IPC-2581 Revision B Support
- ✓ Panel Drawing Board Image Labeling (“A” and “B”) Enhancement
- ✓ Parts List Options for Item Number Sort
- ✓ Duplicate Sheet Command
- ✓ License Server Support for LINUX

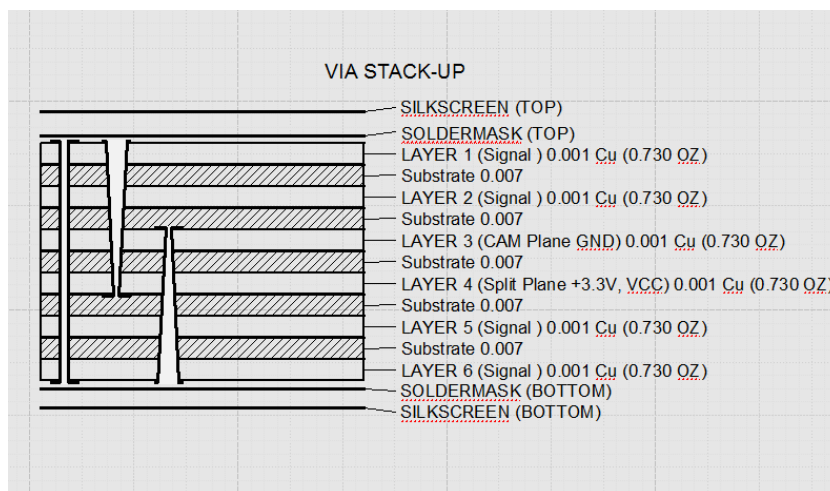
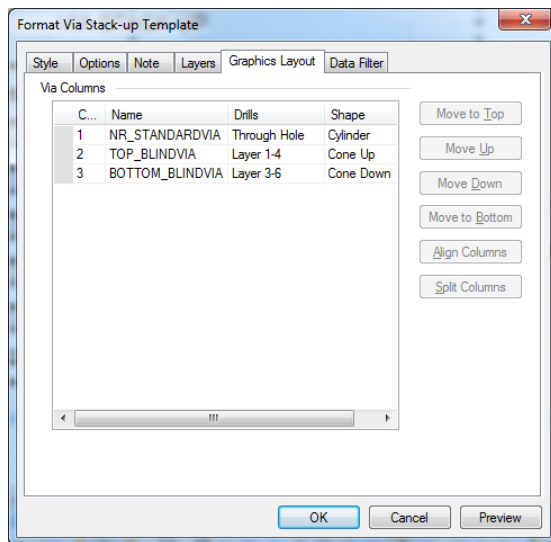
## New Functionality Details

### Via Stack-up Template Graphics Enhancements

#### New Graphic Images for Via Stack-up Templates and Controls for Via Display in Stackup

You can now create specific images for Blind (or Laser) Vias in Via Stackup Templates in the Fabrication Drawing pallet. A new tab in the Format Via Stackup Template dialog allows you to control via images and the order in which vias are displayed in the Via Stack-up Template. You are also able to stack via images in the same vertical column.

The Format Via Stack-up dialog allows you to order and align vias in the Via Stack-up template display. Via image formats include Cylinder, Cone Up and Cone Down.

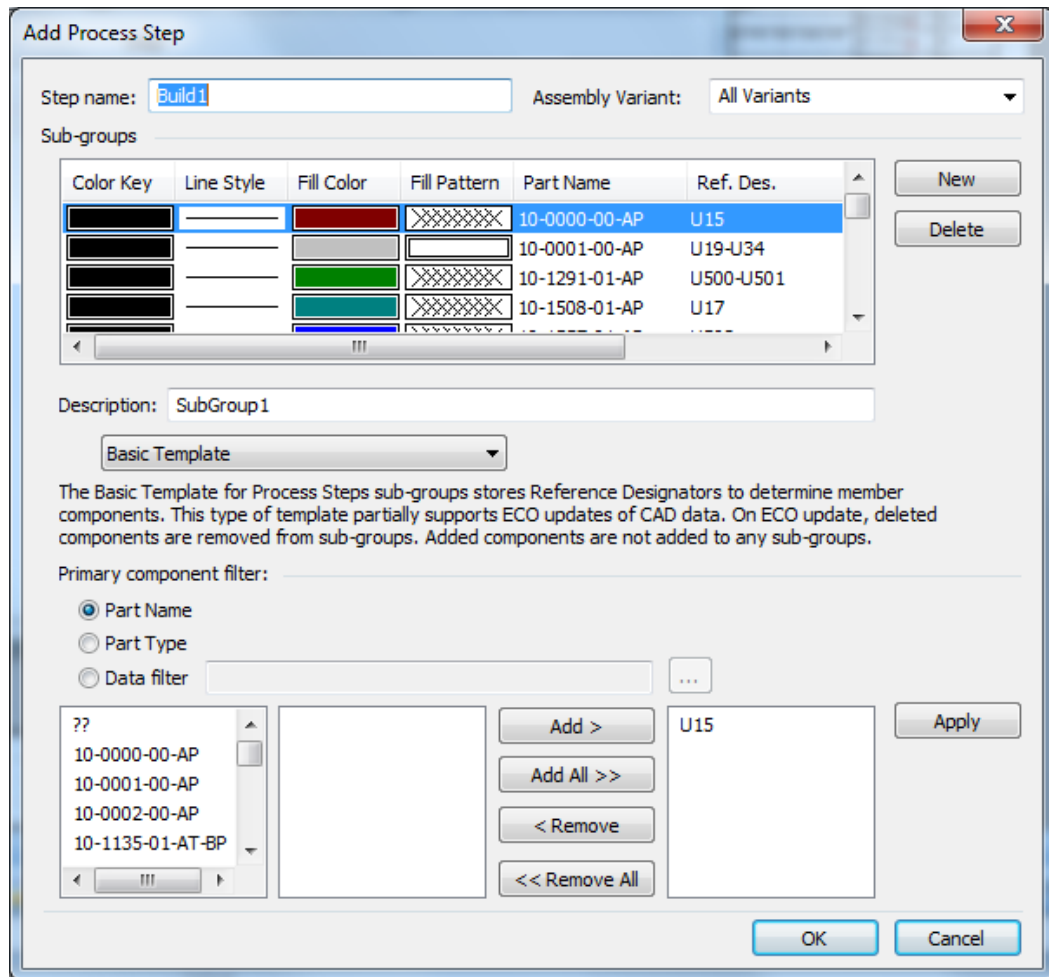


## ECO Support for Process Steps

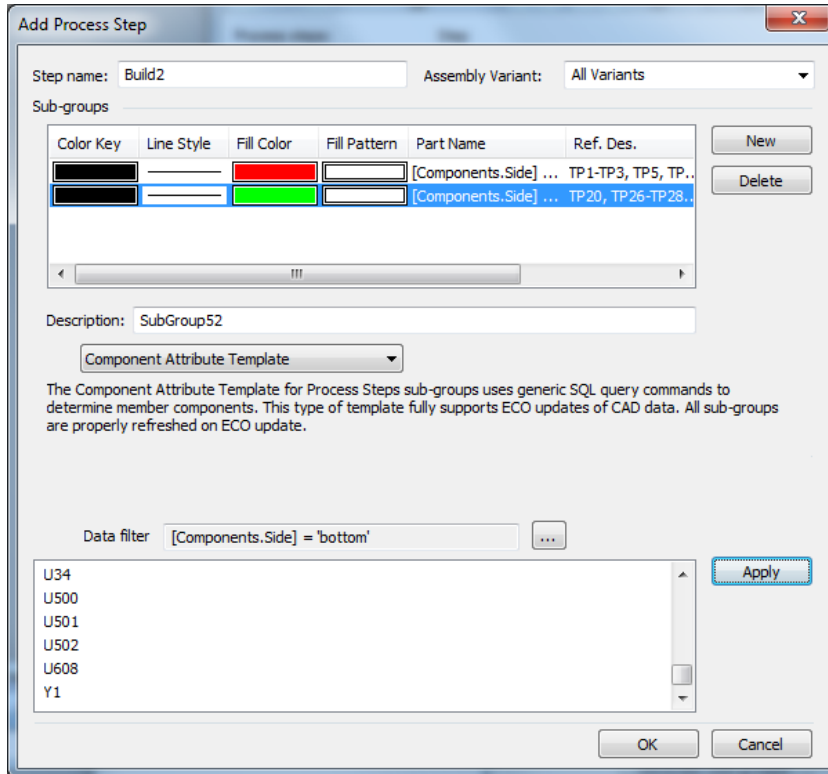
### Process Steps Enhancements Support ECO Update for Re-import of CAD Data

Now your Process Steps can be defined in a manner that support automatic update when new CAD data is re-imported into your BluePrint-PCB Release Package. Process Step Templates are introduced so that your Process Step definitions can be saved to the Element Gallery for reuse.

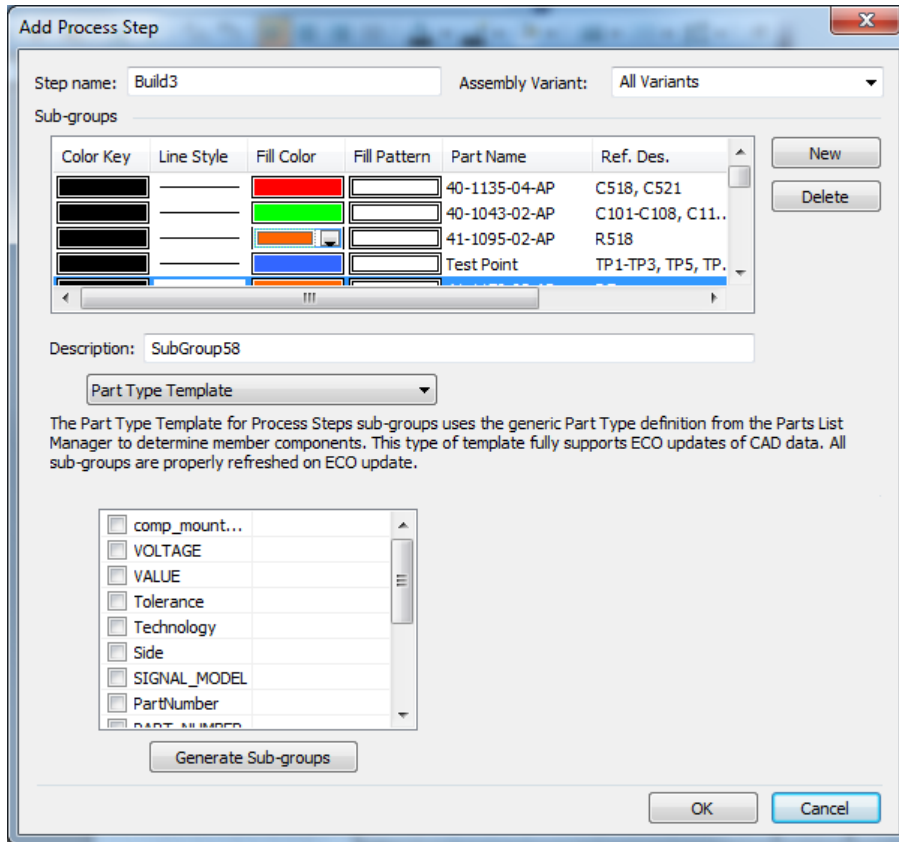
Three Process Step Template types are defined. The **Basic Template type for a Process Step** defines the legacy Process Step structure; the Basic Template type collects parts by Reference Designator name and remembers the collection based on Reference Designator name only.



The **Component Attribute Template** type for a **Process Step** fully supports ECO update of CAD data. The Component Attribute Template type is defined by SQL statements that collect parts into Subgroups for the Process Step. The SQL statements are generic references to Component attributes that are reanalyzed on ECO update during CAD data re-import.



The **Part Type Template type for a Process Step** fully supports ECO update of CAD data. The Part Type Template type is defined by the definition for Part Type in the Parts List Manager. The Part Type is defined by a unique set of component attributes. The Part Type collects parts into Subgroups based on common Part Types for the Process Step. The Part Type definition is generic reference into Component attributes that is reanalyzed on ECO update during CAD data re-import.



## IPC-2581 Revision B Support

### Support for the Latest Revision of the IPC-2581 Specification for EDA Data Transfer

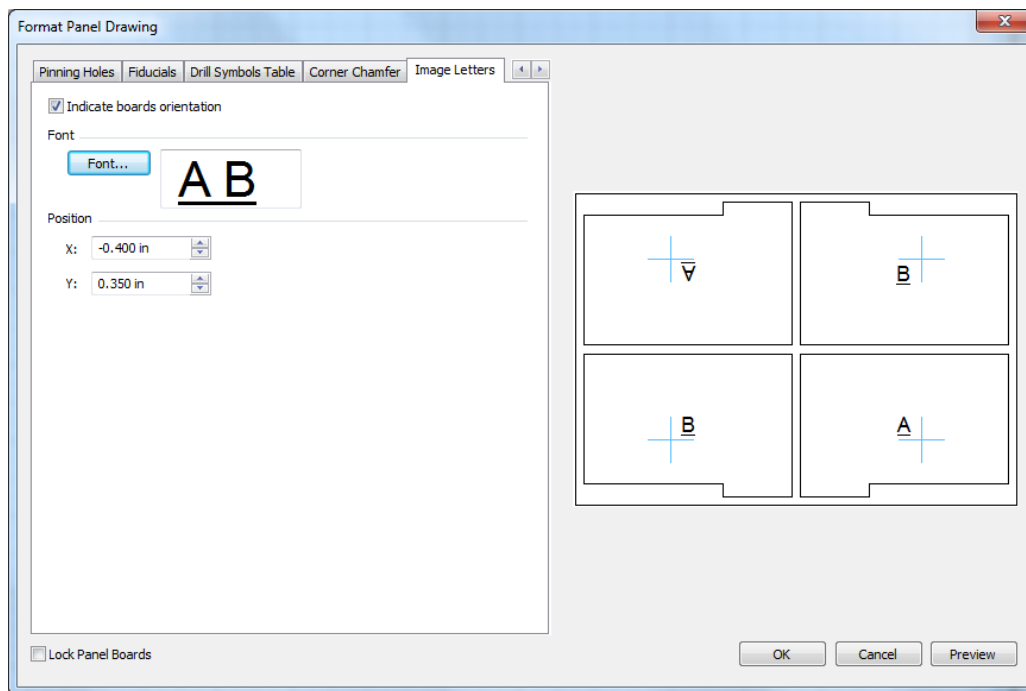
The IPC-2581 import command is updated to support the latest revision of the IPC-2581 specification. New features supported include: (1) Void support in Contours, (2) new Layer Stackup Content, (3) Hollow/ Mesh / Hatch filling styles, (4) Line Styles and (5) Component Outline support.

## Panel Drawing Board Image Labeling (“A” and “B”) Enhancement

### Panel Drawing Board Image Letters Font Style and Location Adjustment

The Format Panel dialog now supports update of Board Image letters. You can modify the Font Style (font, size, etc...) for the Board Image letters. You can adjust the Board Image letter locations in a relative manner for all stepped and repeated board images.

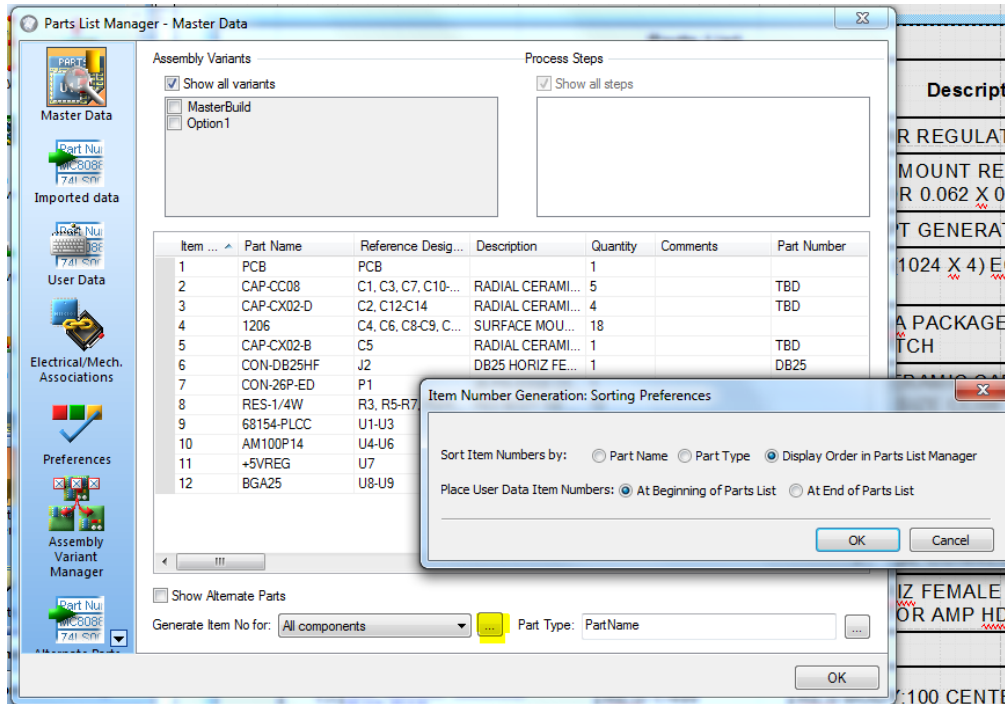
A new tab, “Image Letters”, is added to the Format Panel Dialog. You can specify the font style and the location of the letters relative to the origin of the board image. The default location for the Board Image letter is the centroid of the board extents.



## Parts List Options for Item Number Sort

### New Sort Options for Initial Item Number Generation

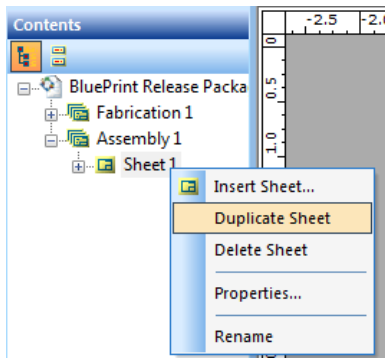
The Parts List Manager now supports options for sorting Item Number creation during Item Number generation. A new option for Item Number generation supports sorting by Part Name (default), Part Type definition and Parts List Manager display order. Another option for Item Number generation supports placing all mechanical parts at the beginning (default) or the end of the Parts List.



## Duplicate Sheet Command

Contents Tree Pallet supports Sheet Duplication

The Contents Tree pallet view now supports a context menu item for duplicating a sheet. All contents. All contents are duplicated. The sheet name and number are incremented.



## License Server Support for LINUX

### DownStream License Manager now support LINUX

The DownStream License Manager has been updated to support Red Hat LINUX version 6.5 and greater. The License Manager on LINUX supports includes Virtual and Physical servers.



**BluePrint-PCB V4.0 Build Defect Fixes****Build 827**

Project	ID	Description
Import	57066	Certain rotated mask pads are dropped on PADS ASCII import.
Import	57385	Filled mask shape is not imported for PADS ASCII import.
Import	57015	ODB++ import fails to complete for Mentor ODB++ file.
Import	57151	Memory read error occurs for Mentor ODB++ file import.
Import	57123	BluePrint-PCB geometry is lost after IPC-2581 import.
Import	57319	IPC-2581 import: Layer thickness is not passed from IPC-2581 file to BluePrint-PCB.
Import	57340	DXF import does not import bitmap images inside imported files.
Edit	55979	Objects are distorted after mirroring and moving group of objects.
Edit	57177	Net coloring does not include copper pads and vias of a net.
Edit	57287	Duplicate Sheet results are incorrect for web routes.
Edit	57288	Duplicate sheet command shifts reference designators on duplicated sheet.
Edit	57289	Crash occurs for duplicate sheet command when v-score detail is present.
Edit	57391	Duplicate sheet command drops some dimension text.
Export	57031	PDF export does not export dashed lines that are imported into BluePrint-PCB using DXF import.
Export	57044	PDF export incorrectly exports web routes with small arcs.
Export	57387	PDF export incorrectly fills certain polygons with voids.
Export	57396	PDF export crashes for Sheet Border (8x8 dividers) and Board Side view with envelope displayed.
Parts List Manager	57050	Filter By PCB command forces precision for Quantity in the Parts List table display and the user cannot modify the precision.

Parts List Manager	57290	Parts List table does not show substituted part descriptions for assembly variants.
Parts List Manager	57392	Parts List Item Number sorting incorrectly skips numbers when ordering by sorted display in Parts List Manager.
Parts List Manager	57126	Multi-variant template does not expand for components with many attributes.
Panel Drawing	57019	Web route display is incorrect.
Panel Drawing	57279	Web routes are incorrect for arcs and circular designs.
Panel Drawing	57337	Mill tabs move when there is a change in the image to panel border spacing.
Publish to Web	57052	For certain files, the Publish to Web command results in extra lines in the published BluePrint-PCB BPD file.
Scripting and Macros	57045	Placing a drill chart using the Automation API snaps the drill chart to the lower right corner.
Scripting and Macros	57046	Support for disabling text box content editing using the Automation API only.
Scripting and Macros	57047	Reference designators are erroneously regenerated when changing the drill visibility settings using the Automation API.
Scripting and Macros	57124	Support access to content in shapes in cell for a Table using the Automation API.
Scripting and Macros	57127	Support turning off just the terminators for reference designators in PCB Views using the Automation API.
Scripting and Macros	57129	Support commands for Send To Back, Bring To Front, Bring Forward and Send Backward using the Automation API.

**Build 815**

Project	ID	Description
Import	56946	BluePrint Crash on Expedition ODB++ file
Import	56947	Wrong drill plating on Import of Pulsonix ODB++ file
Import	56948	ODB++ import dialog does not support shortcuts to folders
Import	56973	BluePrint Crash on import of PADS ASCII file
Import	56990	BluePrint Crash on import of PADS DX ASCII file
Import	56995	No part names on import of Allegro IPC-2581 file
Import	56993	Fiducials are not imported for IPC-2581 file
Edit	56938	Reference designators shift on zoom or selection of PCB Views.
Edit	56924	Panel drawing edits are undone on CANCEL from Format Panel dialog.
Edit	56994	Copy and Paste of PCB Views in Single Sheet view mode causes data corruption
Export	56945	Export PDF inaccurately exports circular board outline example
Process Steps	56942	Process Step Part Type Template cannot be reused for different designs. Reference designators are stored in template.
Process Steps	56943	Process Step Part Type Template cannot auto assign colors when subgroups are generated.
Process Steps	56944	Process Step Part Type Template does not retain colors on ECO update of CAD data.
Process Steps	56930	Process Step Part Type Template Chart is not auto updated on ECO update of CAD data.
Process Steps	56897	Process Step Chart reference designators are alphabetically ordered instead of naturally ordered.

**Build 812**

Project	ID	Description
Panel	56823	Merge Web Route does not remove cutout area
Panel	56824	Add Web Route does not hug board profile corner with concave chamfer.
Panel	56826	Dimensions on a Panel Drawing change on File Open
Import	56825	IPC-2581 Revision B Support
Import	56927	BluePrint Crash on ODB++ file
Import	56866	BluePrint Crash on PADS ASCII file
File	56781	Document Wizard creates unwanted nomenclature in auto-generated release package.

## **Patent, Copyrights, and Trademarks**

### **Patent**

“AUTOMATED PCB MANUFACTURING DOCUMENTATION RELEASE PACKAGE SYSTEM AND METHOD”, United States Patent No. 7,409,666 B2

At least one other patent pending.

### **Copyrights**

Copyright© 2005-2014 by DownStream Technologies, LLC. All rights reserved.

This information is copyrighted; all rights are reserved by DownStream Technologies, LLC. This information may not, in whole or in part, be copied, photocopied, reproduced, translated or reduced to any electronic medium or machine-readable form without the express written permission of DownStream Technologies, LLC.

DownStream Technologies, LLC., 225 Cedar Hill Street, Marlborough, Massachusetts 01752

### **Trademarks**

BluePrint , BluePrint-PCB , BluePrint for Printed Circuit Boards , and CAM350 are registered trademarks of DownStream Technologies, LLC. Adaptive Templates™ is a trademark of DownStream Technologies, LLC. Adobe, Adobe PDF Library, Adobe logo, Acrobat, PostScript, and Photoshop are either registered trademarks or trademarks of Adobe Systems Incorporated. The Postscript language is copyrighted by Adobe Systems Incorporated. DXF and Autodesk are registered trademarks of Autodesk, Inc. FLEXIm is a registered trademark of Macrovison Corporation. Omnify is a registered trademark of Omnify Software. Microsoft, Windows, Microsoft Paint, Microsoft Word, Microsoft PowerPoint, Microsoft Excel are either registered trademarks or trademarks of Microsoft Corporation. All rights reserved.

All other trademarks or registered trademarks are the property of their respective owners.

We have done our best to ensure that the material found in this publication is both useful and accurate. However, please be aware that errors may exist in this publication, and that neither the authors nor DownStream Technologies, LLC. make any guarantees concerning the accuracy of the information found here or in the use to which it may be put.