

DownStream CAM350 14.6 Release Notes

Build: 1869

Date: 9/5/2022

What's New?

This document describes the new features, enhancements and defect fixes in this Release:

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Release Summary

CAM350/DFMStream 14.6 build 1869 is an update release and includes defect fixes and enhancements.

CAM350/DFMStream 14.6 is a major update to CAM350 14.6. New product features are detailed later in this document. This release includes a new Visual Basic Application Programming Interface with Record and Playback capabilities, new DFM Analysis checks for Rigid-Flex designs and enhanced support for Rigid-Flex Layer Types, Net Bridge support, IPC2581 Revision C support, and OpenGL Graphics Acceleration.

Note: The content of this document is based on an assumption you are upgrading from CAM350 14.5. If you have not previously installed those releases, consult those release notes available on our website regarding changes to the product.

Installation and Licensing

The installer for the client software (CAM350 14.6 and BluePrint 6.6) will create new folders and you can run both your previous release (CAM350 14.5 and BluePrint 6.5) and your new Release software side by side on the same PC if you wish. There is a new 14.6-6.6 License Manager and License that must be installed. This new License Manager and License will run your 14.6-6.6 software as well as previous releases (ie CAM350 14.5, 4.1 and 12.2).

For many users your installation should be as simple as this:

1. Run the installation executable
2. Choose “Install or Update Licensing” to install your new License Manager and License File.
 - a. If you are an existing customer on maintenance, choose “Install license from media” to install your new license file.
 - b. If you are a new user or your license is not found on media, get your new license from DownStream, copy it to your PC and then choose “browse to find License File”.
3. Choose “Install DownStream Products” to install the new CAM350 14.6 and BluePrint 6.6 software on your PC.

If you are installing to a Virtual Machine or have any questions, reference our DownStream Installation Guide or contact us at support@downstreamtech.com.

Notice: Microsoft requires that all Microsoft components installed on a PC are of the “same bit”. Since CAM350 14.x is 64 bit, MSOffice 64 bit is required on the same PC when CAM350 is also installed. The DownStream install now checks to see if MSOffice 32 bit is installed when installing CAM350 14.x and warns the user if this is the case.

System Requirements

Your PC should meet or exceed the following requirements:

- 64 bit Windows OS 8, 8.1, 10
- Processor: 2GHz or faster
- Memory: 8GB+
- Disk Space: 2GB available
- Graphics: Discrete graphics card with on-board memory preferred (for best 3D performance)
- 64 bit MS Office 2013 or later

Note: Please be aware that CAM350 14.5 and BluePrint 6.5 are 64 bit applications and will ONLY run on 64 bit Windows 8 and 10. DownStream has discontinued support of Windows 7.

Note: If you run Microsoft Office on the same PC as CAM350 and BluePrint-PCB, then you must use a 64 bit version of Microsoft Office. Microsoft Office 32 bit will no longer run after BluePrint-PCB 6.x is installed. Microsoft requires that Microsoft Office components must be of the same “bitness” on a PC. BluePrint-PCB 6.x installs a Microsoft Office 64 bit component that will render Microsoft Office 32 bit inoperable.

CAM350 14.6 New Functionality

- ✓ Visual Basic API with Record and Playback
- ✓ DFM Analysis for Rigid Flex Design
- ✓ Net Bridge Support
- ✓ IPC-2581 Revision C Support
- ✓ Expanded Support for Rigid-Flex Layer Types
- ✓ Support for Open GL Graphics Acceleration

CAM350 14.6 New Functionality Details

Visual Basic Application Programming Interface with Record and Playback

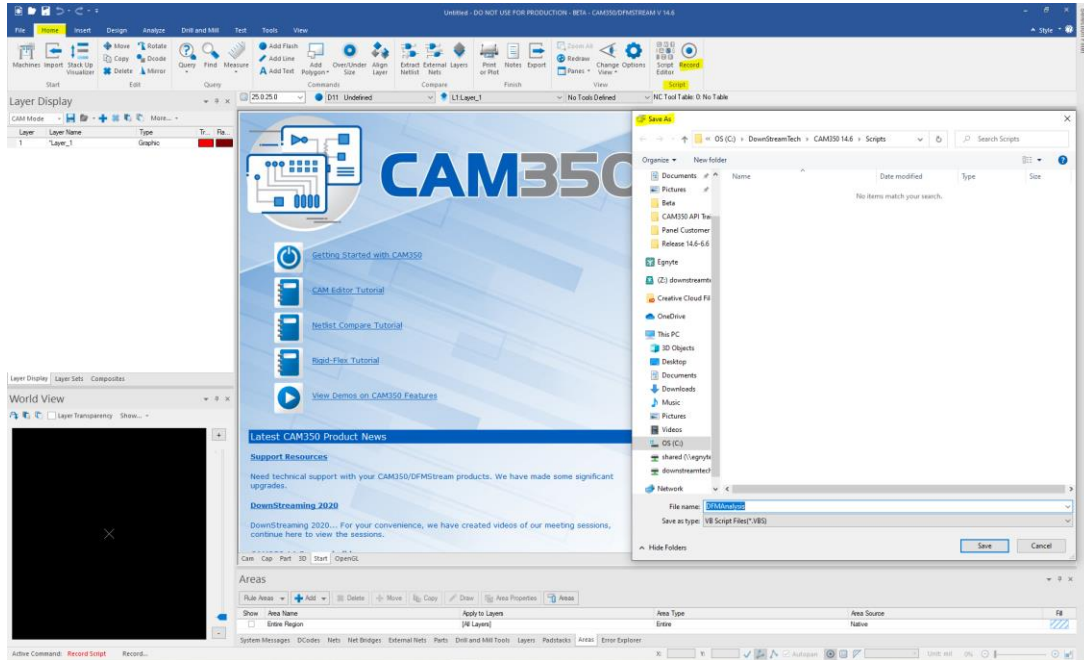
VB scripting support is now available. Users have a full command set of CAM350 now in VB support as well as the robust industry standard VB scripting environment to create CAM350 automation solutions. Many CAM350 commands can be recorded and then played back using VB scripting. An advanced VB script editor is included for playback and VB script debugging. CAM350 Automation API documentation is available for the full description of available CAM350 Automation Objects.

More Details

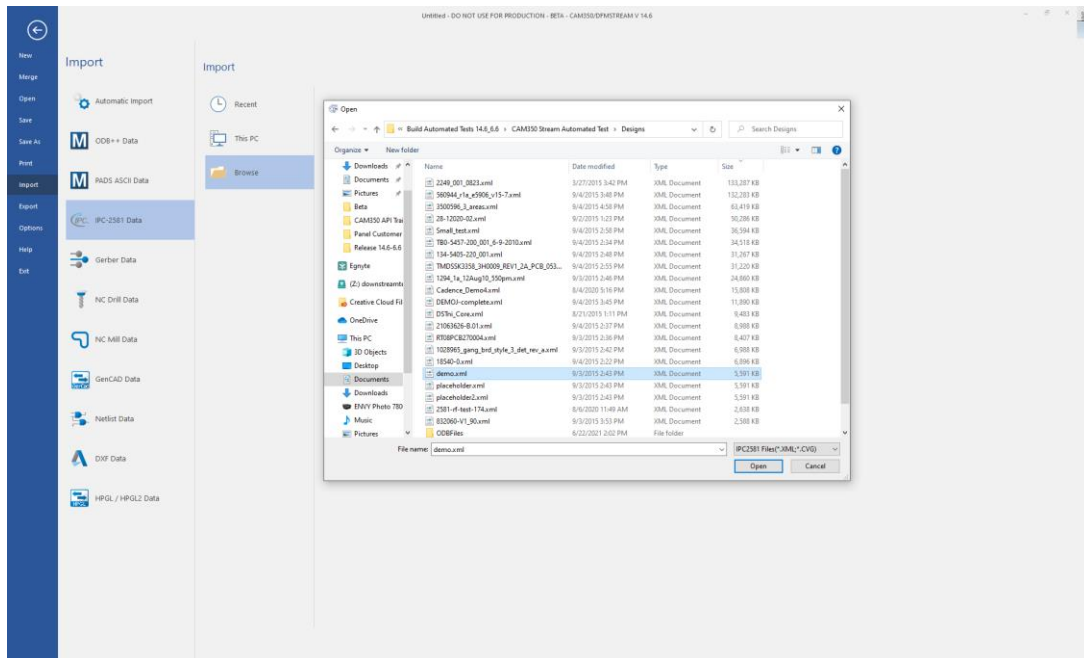
- We have enabled over 90 functional objects and over 1000 properties and methods that can be applied to those objects
- The customer API documentation can be found in the Help menu of the Script Editor. VB Automation examples can be found here:
c:\DownStreamTech\CAM350 14.6\Scripts
- The following areas of functionality will not be VB enabled for this release:
 - View and Query commands
 - Cross-probing to Allegro/PADS/Xpedition
 - Test - Check for violations
 - Test - Find Unprobed Test Points
 - Test – Bed of Nails Configuration dialog
 - Analyze – Design and Manufacturer Rule checking
 - Analyze – Utilities (except Stream Editor is fully enabled)
 - Tools – Camtek
 - Panel – Drill/Mill Check
 - Merge Panel Wizard
 - StackUp Visualizer
 - 3D View

EXAMPLE – RECORD and PLAYBACK: This example records the import and DFM analysis of design data. You can then play it back to get the same results.

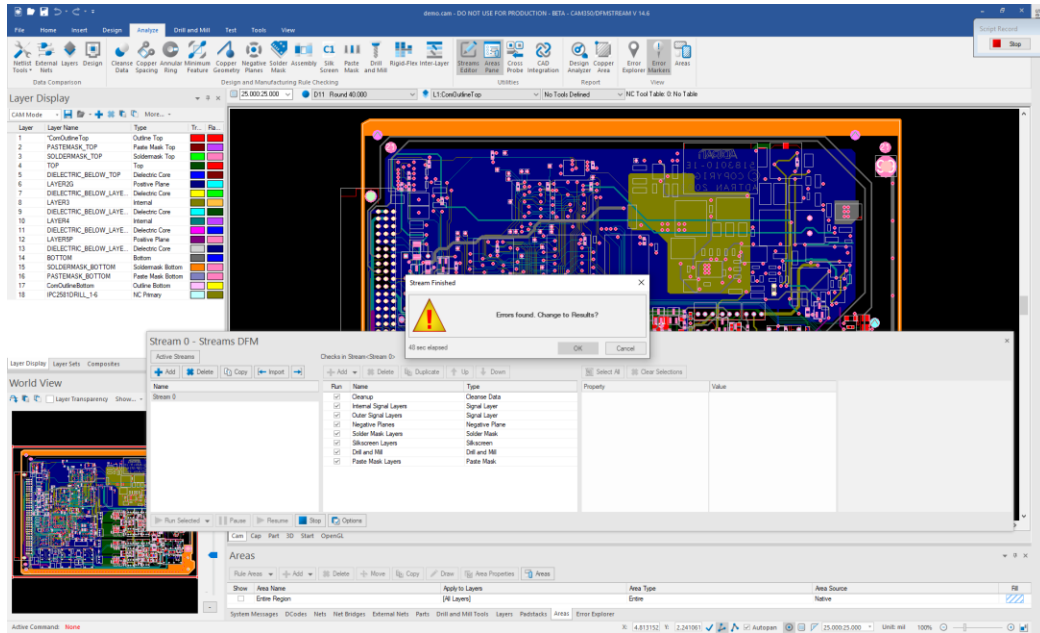
1. Invoke CAM350 14.6
2. Start Script Recording (on the Home ribbon)



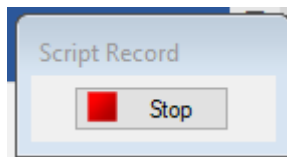
3. Import design data



4. Run DFM Analysis using the Analyze – Streams Editor



5. Close the Streams Editor and Stop Script Recording



6. Exit CAM350

- Invoke CAM350 14.6 and select Home ribbon - "Script Editor" and open script you recorded. Take the time to review the recorded script. You can see that the VB code attaches to the CAM350 process running so that they can communicate. Next there's some basic CAM350 option settings. Later in the file you see the design data import and finally the execution of the DFM Stream "Stream 0".

```

CAM350 DFMAnalysis.vbs (macro) - WinWrap Basic [design]
File Edit View Project Debug Trace Sheet Help
Object: (General) Proc: (declarations)

DFMAnalysis.vbs
1 |Language "VWB-COM"
2 |DownStream Technologies VB Macro Script
3 |CAM350/DFMSTREAM V14.6 (Build 1834) Date: Tue Aug 24 11:26:57 2021
4
5 |Sub Main
6 |Dim App
7 |Set App = GetObject("CAM350.Application")
8 |Dim macro
9 |Set macro = App.MacroStart
10
11 |App.ActivateCAMEditor
12 |With App.ActivePackage.GlobalSettings
13 |ActiveDocId = 11
14 |ActiveLayer = 0
15 |End With
16 |With App.Options
17 |Units.MeasurementUnits = camMeasurementUnitsTypeEnglish
18 |CAMEditor.SetSectorizeParams( False, 500 )
19 |Text.Font.CapitalLetterSize = 50.0000
20 |Text.Font.TextRotation = 0
21 |Text.Font.Mirror = False
22 |Text.Font.HorizontalJustification = camHorizontalJustificationLeft
23 |Text.Font.VerticalJustification = camVerticalJustificationBaseline
24 |Text.Font.FIToArea = False
25 |Text.Font.CharacterSpacing = 0.0000
26 |Text.Font.LineSpacing = 50.0000
27 |Text.Font.TextSlantAngle = 0
28 |Text.Font.HorizontalStretchFactor = 100
29 |Text.Font.OrientVertically = False
30 |Text.Font.FontName = "SIMPLE EFN"
31 |End With
32 |'End of common settings
33 |With App.ActivePackage
34 |Command.Complete
35 |New
36 |End With
37 |App.Options.Snapping.SnapToObjects = True
38 |App.ActivePackage.ImportPC2581( "C:\Users\kent.DST\Documents\My DownStreamQuality Assurance\Build Automated Tests 14.6_6\CAM350 Stream Automated Test\Designs\demo.xml" )
39 |App.Options.Snapping.SnapToObjects = True
40 |With App.ActivePackage
41 |NC.RenderPaths
42 |DFMStreams.Execute( "Stream 0", AREA_TYPE_ENTIRE )
43 |NC.RenderPaths
44 |End With
45
46 |End Sub
    
```

```

'WW_Basic(1) 0073.7 /
'WW_Basic(1) 0073.7 / \OnSelChange [Event]
'WW_Basic(1) 0073.7 /
'WW_Basic(1) 0073.7 / \OnSelChange [Event]
'WW_Basic(1) 0073.7 /
'WW_Basic(1) 0073.7 / \OnChange [Event]
'WW_Basic(1) 0073.7 /
'WW_Basic(1) 0073.7 / \OnChange [Event]
    
```

- Run the recorded script using the “Start/Resume” button in the Script Editor. Playback will import the design data, run DFM Analysis and result in the same errors found when first recording.

Error Explorer

Declaration of 11:45:08 AM, 8/24/2022 - 4726 Errors, 0 Hidden

Change - 1 Error, 0 Hidden

ID	X	Y	Can Net(s)	Removed Can Net(s)	Ref Des	Pin #	Error Type	Deleted	Comment		
0			20019	00V			SHORT NAMED				
Internal Signal Layers: 47 Errors, 0 Hidden											
FD - Pads (Drill or Ring): 22 Errors, 0 Hidden											
M	Distance	Layer	Layer	R1	Y1	Y2	Part Size	Def Size	Min Size	Validated	Comment
1	2.000	L1B.PC208DRILL_14	L10.LAYER4	0.000	2952.941	1.091	3564.237	44.000	40.000	5.000	
2	2.000	L1B.PC208DRILL_14	L10.LAYER4	0.000	2962.941	1.091	2964.237	44.000	40.000	5.000	
3	2.000	L1B.PC208DRILL_14	L10.LAYER4	0.000	3052.941	1.091	3564.237	44.000	40.000	5.000	
4	2.000	L1B.PC208DRILL_14	L10.LAYER4	0.000	3102.941	1.091	3154.237	44.000	40.000	5.000	
5	2.000	L1B.PC208DRILL_14	L10.LAYER4	212.000	1369.000	212.000	1361.000	44.000	40.000	5.000	
6	2.000	L1B.PC208DRILL_14	L10.LAYER4	212.000	1483.000	212.000	1475.000	44.000	40.000	5.000	
7	2.000	L1B.PC208DRILL_14	L10.LAYER4	212.000	1569.000	212.000	1601.000	44.000	40.000	5.000	
8	2.000	L1B.PC208DRILL_14	L10.LAYER4	212.000	1649.000	212.000	1601.000	44.000	40.000	5.000	
9	2.000	L1B.PC208DRILL_14	L10.LAYER4	212.000	1749.000	212.000	1751.000	44.000	40.000	5.000	
10	2.000	L1B.PC208DRILL_14	L10.LAYER4	212.000	1849.000	212.000	1801.000	44.000	40.000	5.000	
11	2.000	L1B.PC208DRILL_14	L10.LAYER4	212.000	1949.000	212.000	1901.000	44.000	40.000	5.000	
12	2.000	L1B.PC208DRILL_14	L10.LAYER4	0.000	2884.428	1.091	2887.93	44.000	40.000	5.000	

DFM Analysis for Rigid-Flex Designs

DFM Streams now offers a set of Rigid Flex specific DFM analysis. Over 39 new flex and rigid-flex specific DFM checks were added. Flexible layer analysis includes detection of potential trace fracture conditions such as the presence of vias, trace corners, and solid copper in bend areas.

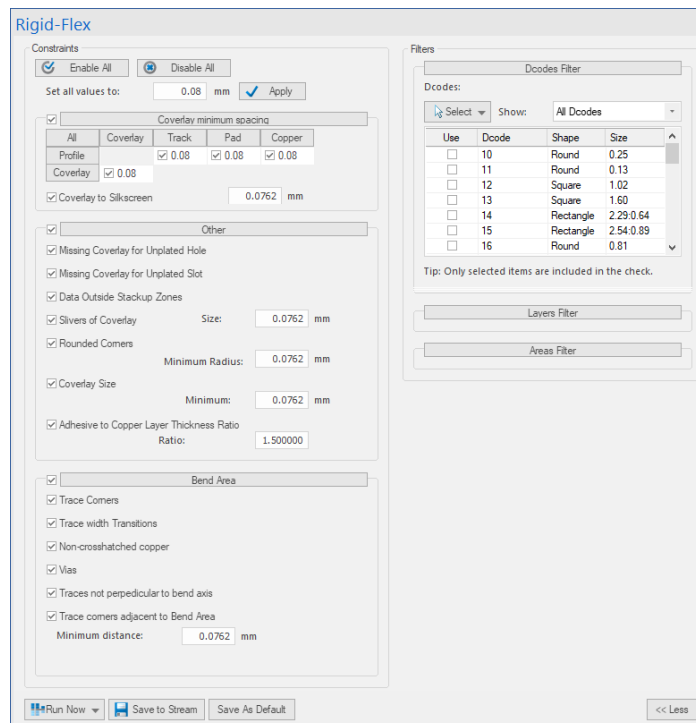
Rigid-Flex analysis includes comparing pairs of layer types in a rigid flex stackup for fabrication issues. For example, detection of silkscreen ink in a coverlay exposure, coverlay to soldermask minimum overlap and many other layer combinations including any layer to any layer analysis. You can create custom streams specific to your flex or rigid-flex design.

EXAMPLE – Rigid-flex and Inter-layer DFM Analysis: Import a sample design and execute a Rigid-Flex and Inter-Layer DFM Analysis.

1. In CAM350, browse to and open the sample file:

C:\DownStreamTech\CAM350 14.6\Demos\DST Rigid-Flex DFM demo.cam

2. On the **Analyze** ribbon, select **Rigid-Flex**. The Rigid-Flex analysis pane appears.

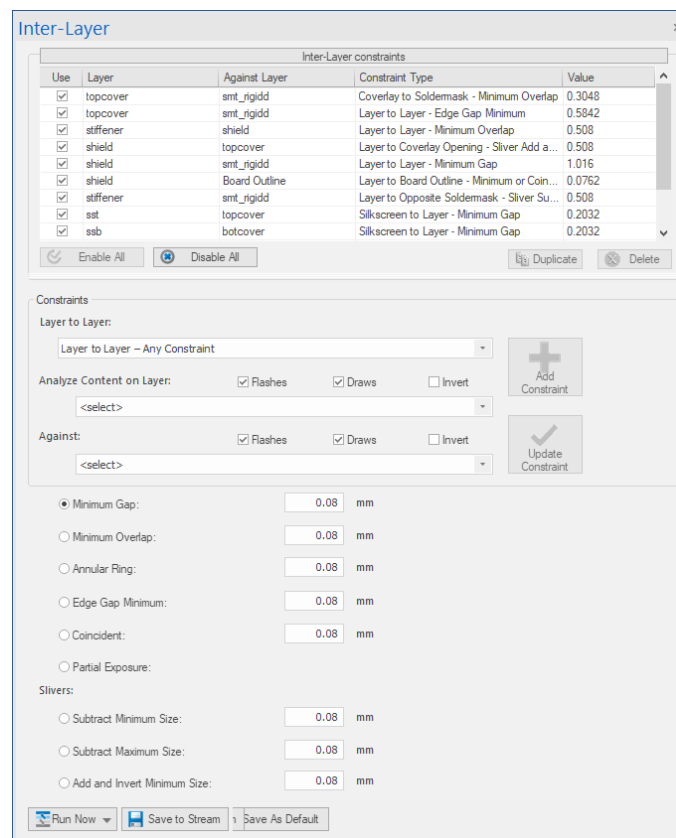


Use this pane to select the rigid-flex analysis checks to run and set parameters. Consult the *Using Design Analysis > Rigid-Flex Constraints* help topic for details on usage of the pane.

3. Select **Run Now** and choose **On Entire Design Space** to start the analysis.
4. After a moment, the analysis is completed and a prompt to open the Error Explorer appears. Click **OK** to switch to the Error Explorer pane.
5. Close the Rigid-Flex analysis pane.
6. Use Error Explorer to review errors detected by the analysis.

Once you have completed reviewing results, move on to performing an inter-layer analysis.

7. On the Analyze ribbon, select Inter-Layer. The Inter-Layer analysis pane appears.



Use this pane to select the inter-layer analysis checks to run and set parameters. Consult the *Using Design Analysis > Inter-Layer Constraints* help topic for details on usage of the pane.

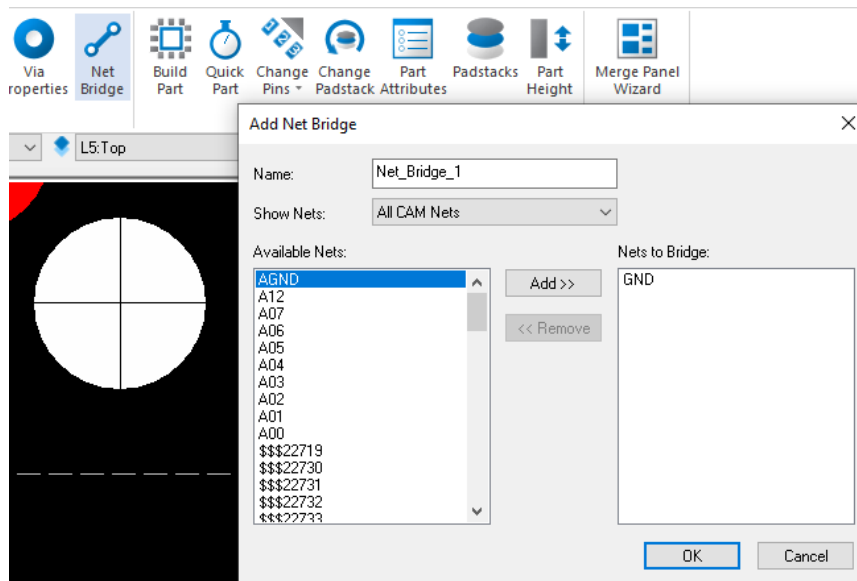
8. Select **Run Now** and choose **On Entire Design Space** to start the analysis.
9. After a moment, the analysis is completed and a prompt to open the Error Explorer appears. Click **OK** to switch to the Error Explorer pane.
10. Close the Inter-Layer analysis pane.
11. Use Error Explorer to review errors detected by the analysis.

Net Bridge Support

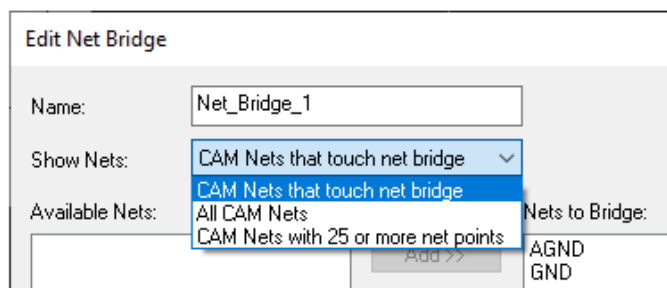
Net Bridges are used to identify design elements where intentional shorts are present in PCB designs. Net Bridge support in CAM350 includes Net Bridge import and export, Net Bridge assignment, Net Bridge management and updates to netlist extract and compare.

Note: As of CAM350 14.6 release, Net Bridge definition is written to ODB++ from Mentor Xpedition and IPC-2581 Revision C from Cadence Allegro. PADS Layout is not supported.

Use the Net Bridge command on the Design ribbon to assign a part pin, trace, copper polygon or via as a Net Bridge. Net bridges are preserved unless the net bridge or associated design elements are removed.

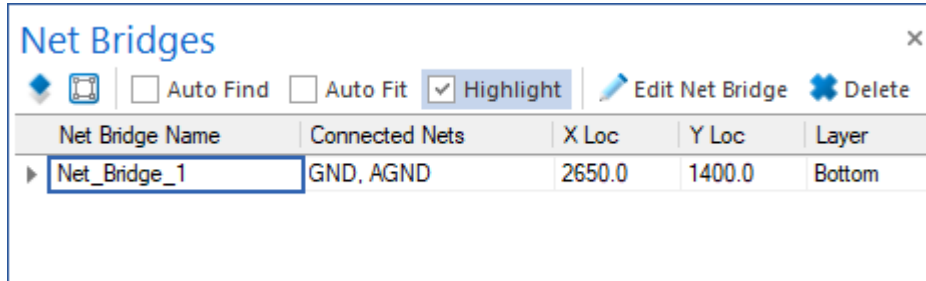


When a design element is selected, use net selection and filtering features of the Net Bridge dialog to make net assignments.

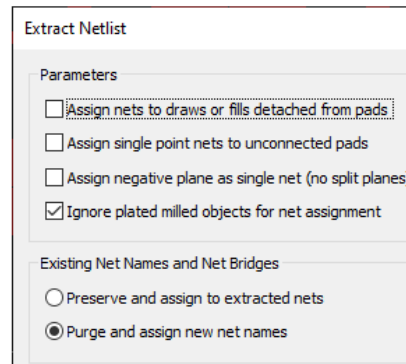


Use the same Net Bridge command to edit a net bridge.

Use the Net Bridges Pane to locate, view connected nets, rename, edit or delete net bridges.



Netlist extraction and compare has been updated to recognize the presence of net bridges and allow you to preserve them during extraction.



New Net Bridge related netlist compare error messages were introduced to identify Net Bridge issues.

Net Bridge – Open – a net assigned to a net bridge does not touch a net bridge element.

Net Bridge – Short – a net NOT assigned to a net bridge touches a net bridge element.

IPC2581 Revision C Support

The IPC-2581 Revision C specification included updates for defining Vias In Pads and Net Bridges. CAM350 support for IPC-2581 revision C includes import and export of vias in pads and net bridges, definition of via in pad type drills and recognition of vias in pads in DFM analysis. Drills in the Drill and Mill and Padstack Tables can be set as Via in Pad hole types. Copper Geometry DFM checks that detect Via In Pads were updated to report Via In Pad hole type presence in error reports. The Design Analyzer report now includes presence of Vias In Pads.

Expanded Support for Rigid-Flex Layer Types

Further expansion of our support of Rigid-Flex design data includes support for Conductive Foil, Conductive Film and Dielectric Bondply layer types commonly assigned in PCB CAD systems. IPC-2581 and ODB++ interfaces were updated to support import and export of these new layer types.

Support for OpenGL Graphics Acceleration

CAM350 2D graphics display is optimized by using the industry standard Open GL interface. The Open GL interface is common on all graphics HW. The new Open GL implementation dramatically improves the performance for all 2D displays of the CAD database. This includes the main CAM Editor view and the Panel Editor. The display performance is also improved for every CAM database preview in a CAM350 commands; this includes the World View, Layer Compare, Design Compare.

By default, CAM350's "Use Hardware Acceleration" option is enabled and this option tells CAM350 to display 2D graphics using the industry standard OpenGL interface. OpenGL is a cross-language, cross-platform, application programming interface for rendering 2D graphics and takes advantage of the graphics card or GPU in your PC. Adding a faster graphics card will almost always result in faster graphics display for BluePrint.

When CAM350's "Use Hardware Acceleration" option is disabled, CAM350 will display 2D graphics using Windows GDI interface (Graphics Device Interface). On occasion, you may install CAM350 on a PC that does not have a graphics card or processor that supports an OpenGL device driver. CAM350's GDI implementation is a full 2D display implementation. There will be no loss of functionality. However, Windows GDI does not leverage the faster graphics processor hardware as OpenGL does.

CAM350 will determine if your PC supports OpenGL when it is invoked. If OpenGL is not available on your PC, CAM350 will automatically disable the "Use Hardware Acceleration" option and disable the setting. Here are a few known compatibility issues:

- **Unsupported Graphics Device or Driver.** The graphics device or its current device driver on your system does not support OpenGL. Consult the graphic device documentation for details on support of OpenGL. A correction may be to locate and update the driver for the device.
- **VMs do not support Hardware Acceleration.** DownStream products can be run on a Virtual Machine. The majority of VMs do not support hardware acceleration. Consult your VM documentation for details on supporting hardware acceleration.

To Enable/Disable the Use Hardware Acceleration Option:

1. On the Home ribbon, select Options. The Options dialog will appear.
2. Select Editors - General.
3. Enable or Disable the **Use Hardware Acceleration** option.

CAM350 14.6 Issues Resolved

Build 1869

Defect ID	Description
71158	DXF import of TTF fonts does not match AutoCAD size and position
71110	DXF import mapping of fonts does not work in 14.x
70623	IPC-2581 import does not init layer mapping for "All Layers" stackup
70408	Draw to Flash fails to convert rounded rectangles
70082	No results after DFM Stream run on this CAM file
69152, 68316	Multiple VB execution of Streams results in small differences in errors

Build 1864

Defect ID	Description
70421	CAM350 Japanese version – DFM exception
70385	3D display is incorrect when board has mill paths that cut and are outside the board outline
70310	File Auto Import exception after these steps
70309	Macro – problem recording execution of stream
70308	Macro – problem recording import of stream
70238, 69985	ODB++ import - Blind and buried hole types and not set after import of this file
70219	Mounting hole padstack has incorrect via hole type and plated status
70203	Stream Paste Mask check – paste bottom generic layer setting does not work
70179	Test points and probes not being displayed
70174	VB Automation – Enhancement to Delete a Stream in the Streams Editor
70130	Import – Via names incorrect
70121	Improvement to the display of 3D DFM error markers
70109	Design Compare static text labels are missing from dialog
70106	ODB++ export – Board attribute for thickness not passed to MiscAttrlist file
70081	Allegro cross-probing does not work
70042	Exception running DFM Streams on this file
70012	PADS ASCII import – drill layers not associated with layer sets
70011	VB Automation – Enhancement to be able to record/playback user actions in Report Streams Results dialog
70000	ODB++ import – Exception on wheel dcodes defined by hole symbols
69964	Panel Editor – Gerber to Mill exception on this file

69935	Auto backup failure
69923	Parts disappear in list on selection
69907	ODB++ import – does not read LASER via type
69883	Automation API – support for Draw to Raster
69827, 70195	Macro – Setting Origins records, but does not playback successfully
69826	Panel Origin is not being displayed
69821	Draw to flash exception on this file
69788	Automation API – Exception when playing back this script
69714	Text Lost on File Save
69713, 62733	Draw to Flash interactive failure
69575	OpenGL – Mill arcs not being displayed correctly
69211, 69965	Cannot read Gerber X3 file
68533	Gerber import – pad incorrect shape
68366	Zuken IPC2581 Rev B 2019 differences from later versions (2021, 2020) concerning bottom mounted part mirroring
67278	Export PDF – Layer thickness mm is incorrect
66625	DXF being displayed incorrectly after file load
66025	DXF import exception on this file
61378	Design Compare complains about panelized data

Build 1857

Defect ID	Description
69928	Legacy Basic macro net compare report incomplete
69746	Barco import crash
69723	3D representation is incorrect after flip panel creation
69697	Failure on IPC2581 import for Assembly function mode
69690	World View does not keep entire board outline in view for this design
69689	DRC should be enabled in the RE bundle
69687	Drill to drill check reports false errors
69678	Failure running design compare for this design
69674	Import DXF fails for this dxf file
69648	Move circles from 1 layer to another failure
69589	File Export Netlist IPC D356 A – file incorrect
69587	ODB++ import – flatten panel – steps are dropped
69498	Mill path properties missing group select
69434	CAM350 OGL issue - Panel overwrite in Blueprint incorrect when board image flipped
69269	VB Script Record – File Import ODB++ Advanced Option not recorded
69171	Support for Chinese and Japanese languages
67391	Padstacks are offset after ODB++ import for this design
67294	Assembly drawing intelligent outlines not displayed for rigid-flex design
61783	Mill tab failure for this design

Build 1848

Defect ID	Description
69331	ODB++ Import failure on this single layer design
69268	Export of Gerber results in Web Browser warning messages
69206	ODB++ Import issue with items placed on wrong layers
68926	Failure on Annular Check with undefined tools
68510	Gerber Import failure after performing compare
68807	Usability improvements for import of Gerber, NC and Mill
68515	File-Open now looks for DPD files as well as CAM files

CAM350 14.5 Issues Resolved

Build 1771

Defect ID	Description
67479	Compare layers takes too long on this design
67866	Import Altium ODB++ - not all pins are associated with components and pin numbers are incorrect
68057	IPC2581 – Shaved pads are incorrectly imported for Zuken design files
68358	Altium ODB++ import issue
68366	Zuken package definitions are now mirrored for bottom mounted parts
68571	Import Gerber issue after print
68839	ODB++ via name attributes for drills are incorrect
68967	No thermals being generated for vias on negative planes using PADS ASCII data
68899	Merge time performance improved to match 12.2 performance

CAM350 14.5 Issues Resolved

Build 1762

Defect ID	Description
67631	CAM350 Floating Option Advanced NC Editor does not enable Drill and Mill checks
66834	Auto Dim Script does not work properly in 14.x
67137	PADS import – incorrect for rounded rect aperatures
67250	Unplated to copper not working
67367	PADS import – Drill Letter size is incorrect
67106	Clear Silkscreen does not record and playback Mask Layers checkbox
66987	Many vias missing after importing this PADS ascii file
67676	Miscl file names in “Recent Files” after install

Build 1753

Defect ID	Description
66603	Xpedition ODB++ file import crash
66602	Altium ODB++ file import – incorrect copper pour fill
66641	Xpedition ODB++ file import – missing data
66164	ODB++ import crashes on long part name
66176	Local and Global Fiducials are missing on IPC2581 import
66511	PADS Layout ASCII Import – bad rotation for oblong padstack for bottom mounted part
66141	PADS Layout ASCII Import – All Layers graphics are not copied to every layer on import
61434	Arc display problems for small arcs
66230	Pour arc segmentation for drawn circles
65231	Hang on Convert to arcs with this design
66609	Xpedition cross probing operations are updated for current Xpedition release version

Build 1748

Defect ID	Description
62584	Many issues with Setting "Hole Type" for analysis
63433	Holes identified as "Laser" failing "Through" checks
63434	False errors on Min Gap Same net
64282	Design compare problem with layer names
64433	Missing copper checks versus DRC from 12.2
64783	Hang on Layer stackup select – low resolution screen
65049	Crash on DXF export with this GenCAD data
65059	Problems in active layer changes in edits
65170	Variable error counts in DFM analysis Run Board Outline versus Run Entire Area
65231	Hang on Convert to arcs with this design
65261	Hang on auto-import with these Gerber files
65322	Problem Gerber Data import with bad result
65345	IPC-2581 Import - bad silk layer on export
65606	Arc's inverted after DXF import
65608	Ribbon Custom is reset after exit + restart of C350
65617	Allegro Mirror command not retained for export
65665	IPC-2581 Import - Traces not imported correctly
65706	IPC-2581 Import - Browse dialog does not offer file type *.cvg like BluePrint
65711	Crash on Merge command with this design
65712	Dcode info not read from older CAM350 file
65753	Vector Polygon Metric wrong units
65878	Redraw takes too long
65882	IPC-2581 import - DRILL_SIZE attribute format not imported from Allegro
65902	Bad ODB++ import
65991	Copper to outline does not work on inner plane fill

CAM350 14.1 Issues Resolved

Build 1590

Defect ID	Description
65408	ODB++ import - Allow "=" sign in component part names
65393	ODB++ import does not import last copper layer width correctly.
65174	Crash on ODB++ import
65173	ODB++ import - Micro symbol (4.7 μ F) is not recognized
64681	ODB++ import - Nets are dropped on some pads, which results in copper spacing errors
64641	ODB++ import - Data are missing on ODB++ import; Data was present in 12.2
64529	ODB++ import – Pad is missing
64392	ODB++ import - Pads on graphic layer are lost
63750	ODB++ Export - Negative polarity text is lost
65468	IPC-2581 import - Component pads are incorrectly oriented
63976	IPC-2581 import - Drill properties are incorrect
65426	PADS ASCII import - File Import crashes
65194	Design Compare reports false errors
64667	Layer compare - Errors are missed.
64243	DFM Checker – Netlist Compare Open Error found when Run as Entire Area but not within Board Outline
62602	Film box dialog – Behavior is incorrect for user entered negative values
64181, 62739	Crash on adding mill arc
64859	Crash and corrupted file on File Save

Build 1581

Defect ID	Description
63964	Import IPC-2581 - Layer spans are incorrect for some backdrills
64140	ODB++ data loads incorrectly
64215	Components with SMT pads on opposite mount side are incorrectly displayed
64272	PADS ASCII import nonelectrical layers are incorrect for Max Layer design
64281	Allegro ODB++ import - Allegro - component pads are incorrect
64361, 64368	Gerber import – Custom aperture line widths are incorrect
64413	IPC-2581 - Donut standard shape is incorrectly imported

Build 1576

Defect ID	Description
63658	ODB++ import does not rotate flashed pads in component outlines
63160	Extra pads appear for ODB++ import of this design
63543	Tool not found message for ODB++ import should report more information
63716	Data on assemnt and assemb layers are not retained for ODB++ import of Xpedition design
63629	IPC-2581 Rev A import offsets padstack copper
62131	Gerber and NC Data import should support 6:6 format
63260	Mill path of zero length is dropped on NC import
63450	Remove Unused Pads does not retain top pad for through hole padstack
63233	Combine Drills deletes selected drills and changes other drills
63347	3D one-up image does not support mill paths and mill slots
63980	GenCAD import hangs for this design
63525	Paste mask data for panel symbol is lost after File Save and File Open
62746	Remove Unused Pads aborts CAM350 for this design
63122	Draw To Flash aborts CAM350 for this design
63340	False shorts for named nets are reported by Cleanse Data check for this design
63363	Add line break to text and text is lost after File Save and File Load
63339	CAM350-160 license does not allow database to be overwritten in Cleanse Data check
63371	CAM350 aborts during cross probe for PADS Layout

Build 1570

Defect ID	Description
63269	Units wrong on DXF Export from CAM350 (R2004 format)
63172	PADS ascii import truncates long layer names
63000	Tools – Reports does not work after importing this design
62924	Keyboard customization lost by use of CAP editor
62877	Performance degradation when validating errors
62843	Interactive Draw to Flash shifts pads
62842	Pads and Vias interpreted differently after import
62753	This IPC2581 missing layers, comps and pins after import
62718	This ODB++ design does not import into CAM350 14.1
60987	Add “classic” transparency option

Build 1557

Defect ID	Description
62465	Improved performance of ODB++ import backstage
62366	Panel information from older CAM350 files not displaying
62355	IPC2581 import creating redundant padstacks at comp pins
62344	Interactive Draw to Flash shifts pads
62279	Expedition IPC2581 import missing NC Data
62222	Netlist extract error on this design
62219	Enhancement to add polygon voids in Panel editor
62204	Removed ODB++ false warnings
62203	Part to Part spacing check missing errors on this design
62163	Measure Object issues
62136	Cannot see files in directories while using autoimport 14.x
62133	Rotate and Mirror icons are too similar
62105	File – Import – ODB++ Panel incorrect after import
62084	Over/undersize does not work on polygons
62054	CAM350 Japanese and Chinese report header issues
61974	Oblong shape with hole rotated incorrectly
61742	Mask Slivers Autofix not working
61627	Netlist extract shorting arc to pad
61346	Selection filter does not work on polygons
61319	Traces not clipped correctly in 3D
60907	Netlist extract error
60906	Some net information lost on import
60878	PADS cross-probing offset issue
60839	ODB++ import error on custom shapes
60838	ODB++ import error on staggered net info
60015	This ODB++ file with panel data does not import
62084	Some pads lose net info after ODB++ import of this file

Build 1545

Defect ID	Description
59612	Issues with Mill Tab data in Panel
61411	New CAMvu functionality
60739	BluePrint to document from CAM350 was not working
60749	Gerber Export issue with layer names
60764	ODB++ import - void lost
60690	ODB++ import – some mill data missing
60726	PADS ASCII import slot data incorrect
60749	Gerber export – change file names to layers names failure
60992	Autoimport crash when no gerber in folder to import
60786	Design Compare issues resolved
61147	Problem saving CAM350 file resolved
61240	Change text performance issue resolved
61023	Edit command issues resolved
61426	Add polygon issue resolved
61523	Oversize shows wrong units
61451	Improvement to 3D rendering for component which do not have closed outlines
61402	Printing drill data uses tool color instead of layer color
61346	Polygon issues resolved
61639	IPC import from external nets tab results in crash
61593	Chinese and Japanese language builds
61541	Overall thickness units in SUV issues resolved

61639	Issue importing IPC from External Nets tab
61648	Un-plated drill to copper not found
61522	Mill origin incorrect move on Space Origin change
61434	Arc display issue
61486	Silent install issues resolved for default settings
62076	Default settings in Cleanse data removes trace junctions
62084	Over/Undersize does not work on polygons

CAM350 14.0 Issues Resolved

Build 1501

Defect ID	Description
61217	Drill paths not set to plating status set in SUV
61239	Cannot add CR in change text control
60903	Cannot change drill type on NC table to backdrill
60902	Support for backdrill on ODB++ import
59234	Pre-process netlist extract errors – ODB++ import error
60731	Draw to flash – interactive to custom failure
61055	Gerber import crash on this file
60749	Gerber export – change file names to layers names failure
59612	Bad mill tab data added in this case
61133	Bed of Nails editor license missing common test features
60840	Layer re-order drops layer
61054	Comp outlines drawn with rotated regular apertures incorrect
60625	Area rules set for 1 check end up in other checks
60631	False copper sliver errors
60624	Min width check failure
60857	Drill Export crash on this design

Build 1496

Defect ID	Description
60691	Failure when selecting Tools Panel
60660	PART_NAME attribute is not used for DEVNAME
60644	Custom Aperture display is incorrect in 3D
60589	Draw to Flash does not convert polygon shapes
60601	Panel Editor incorrect stepped image rotation
60672	Assign NC Table dialog shows incorrect layer numbers
60584	Column headers disappear after dragging
60645	Macro playback failure \$ variable incorrectly changes

Build 1491

Defect ID	Description
60570	Coordinate Bar input does not work properly
60436	Seib & Meyer Drill imports incorrectly for Auto Import
60582	DXF Export licensing problem for 070 bundle
60578	Print black and white option not working
60561	Failure on Seib & Meyer 3000 drill export
60560	Design Compare does not retain mapping
60564	Product selection dialog appears twice
60568	Streams execution runs once only
60562	Gerber export incorrect overwrite warning
60581	Drill and Mill decimal input for non-US region doesn't work
60005	Panel Editor Merge Panel command missing

Build 1485

Defect ID	Description
60365	DFM preprocess results in false errors on this design stream
60298	Error on ODB++ import for this file
60213	PADS ASCII Export improvements
60201	Expedition ODB++ import CAP errors
60199	DFM misses annular ring errors for this design
60198	New drill on track check
60180	Incorrect cap rotation on gerber import causes short
59786	Installation improvements for Virtual Machines
59778	Allow negative values for Mill Tabs
59774	Re-Export of Mill Data gets unexpected results
59708	Gerber to Mill compensation error at plunge point
59239	Missing mask checks do not distinguish via drills from through hole drill
58757	IPC2581 import improvements

How to Contact Us

Please send any defects, feedback or questions to support@downstreamtech.com.

Defects: Please include a detailed description with steps on how to reproduce the defect and attach any media necessary to reproduce the issue.

Feedback: If you have feedback for us about what we could improve or add to the product, even if not a defect, we still want to hear from you. Please send description.

Questions: If you have any questions about the Release software, please contact us through support@downstreamtech.com.

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Patents

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

“ADAPTIVE TEMPLATE SYSTEM FOR AN AUTOMATED PCB MANUFACTURING RELEASE PACKAGE SYSTEM”, United States Patent No. 8,875,072 B2

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