

CAD Output

DPF, Save layer

1461

Allocating object attributes to flashes with block apertures, which have a dedicated aperture but the definitions are linked, could be losing the attribute while saving the layer/job. These attributes are correctly saved in the generated DPF file.

ODB++

121

ODB++ Output could be missing flash with irregular stepped block. Issue has been noticed on rotated block, which should be output as substep, when the same block is also output with different transformations and only 1 layer is output towards ODB++. These blocks are now correctly converted into the ODB++ format.

Editing Tools

Clipping

972

Clipping could be losing link between the block apertures, even if these blocks remained unchanged. These block apertures remain linked to the same block aperture definition.

1307

Clipping, using option rounded lines, on contour region that is partially covered by reverse tracks, was completely removing the reverse tracks that overlap with the object(s) of the clip reference layer. These reverse tracks are now clipped so that only the part, that overlaps with the clip reference, of these tracks is removed.

1371

Clipping between tracks on neighboring flashes has been corrected. In some configurations the tracks was clipped incorrectly (complete track could remain unchanged or completely removed), clipping is behaving as expected on these conditions.

Contours

1162

When open contours were introduced, e.g. by moving certain objects of a closed region, the displayed image could be corrupted but there was no notification of the open contours. The introduction of these open contours is notified to the operator.

1333

Exact Contourize, on certain data and with certain configurations, could prevent being completing (hanging process). Exact Contourize, using same conditions, can be completed again.

1366

Performing Exact Contourize could cause a small plane region to disappear. Exact Contourize is preserving the small area unchanged.

Distort

1363

Arc Expand could be changing the image. An inner contour, that is close to an arc of the outer could become overlapping outer contour, when the inner was crossing the edge of the expanded arc. The inner contour remains inner now, if needed the inner is merged with the outer contour. Distort, by specifying different values for both factors, could also suffer with similar issue after expanding the arcs.

FlashMaker

912

Function Find for "Regions and Complexes" in FlashMaker could cause java.lang.NullPointerException occurred. Function is no longer causing the Java Exception.

1078

FlashMaker on Regions and Complexes could replace data for models that have been removed from the list. Only models that remain in the list are replaced into a flash.

1224

FlashMaker is no longer finding the painted area as potential flash and no longer replacing painted areas by incorrect BOX anymore.

1385

FlashMaker Find on Regions and Complexes, on layer containing unused apertures, could be causing Java NullPointerException. FlashMaker Find is running normally again on these layers.

Reverse Layer

112

Reverse Layer, on a job without Outline layer, was creating background contour that is 0.1 mil bigger than the enclosing box of the objects of the original layer. The size of the enclosing box of the original objects is now used as the size of the background contour.

Rout

1267

Rout Compensate could be suffering with arcs with the same value for their radius as the value used to compensate the rout chain. Rout compensate on these constructions behaves as expected.

Shave

1302

Shave, using Method Reverse and 0 for both clearance parameters, was causing UcamX crash. Crash has been resolved.

Editing

Markup Assistant

143

Introduction of Display colors toggle in Markup Assistant menu.

Transform

892

Spread and Choke transformations, with option Rounded, were not correctly applied on regions that were embedded in selected block apertures. These regions are now correctly transformed.

1190

The ghost lines while dragging (connected) objects was not always reflecting the result that could be expected after ending the drag function. These ghost lines are giving a preview for the expected image, when ending the dragging at the actual mouse position.

Electrical Test

Testpoint Generation

963

Some SmartDRC checks could confuse the generation of test points. Issues has been noticed by pending uTestpoint attribute after verifying for isolated pads, although the attribute isn't available in the job.

Utest

1328

Adjacency calculations, as can being output in electrical test output, could be incorrect (missing adjacent nets) when shielded adjacency was involved. Shielded adjacency

calculation has been corrected.

General

1183

Multi block edit could be mixing up different block apertures. This has been noticed on a job with different block apertures, having the same aperture number and with the same amount of flashes and with the same flash position of the blocks (offset for the objects of the block is considered inside the block aperture definition) in the layers of the job. While (Multi) editing the block the function could be editing an unexpected block in the other layer(s), which could result in modified block aperture definitions in blocks which look unrelated. The mechanism to find the corresponding block aperture definitions, in the different layer of the job, has been improved.

1257

Using Layer Mask to change the common section of layers of a job was incorrect when the amount of characters of the new Layer Mask is less than the amount of characters of the existing Layer Mask (some of the characters of the original layer name were duplicated to keep the same amount of characters in the layer names). The newly specified Layer Mask is correctly applied, even if a different amount of characters is used for the new Layer Mask.

Reference points

102

Loading the aperture(s) of an external DPF file was losing the Reference Points that were defined in the current layer. The Reference Points remain in the layer after loading the apertures from an external DPF file.

Shortcuts

1367

Shortcut "1", "2" or "3" to set default plane is possible even if main UcamX window do not have the focus.

User Interface

71

Changing the status of the active layers is directly reflected in the Job Edit GUI, previously using the Paneliz8tor workspace the indicating of the layer activity was delayed.

1119

Changing the current unit was cleaning the layer names of the Edit Plot Parameters menu. The layer names remain displayed in the menu when changing the unit.

1400

Moving or dragging a text aperture object could cause Java Exception. Moving and dragging texts can be completed without Java Exception.

Hyperscript

122

Running a VHS script in which the objects should be chained (script containing `ape.chain_vectors()`)

1174

HyperScript is correctly recording the Output Drill/Rout function.

Hypertool

845

Method `%{color:green}boolean equals(Ucamobj ref)%` was not working and there was a Java crash. Method have been fixed to work as expected.

Input

DPF

944

Improved finding of ambiguous contours, especially when these ambiguous contours are embedded in block apertures.

1120

Some open contours were lost while loading a DPF file, Operator was notified, but the objects of the open contour were not added to the layer. These open contours are now added to the layer.

DXF

887

DXF input of a LWPOLYLINE that has bulged factor defined for the last segment was closing the region with a track. The conversion is now respecting the bulge factor and uses an arc for closing the region.

Excellon 2

140

Excellon 2 input could be converting an invalid arc into a short track and almost full arc. This invalid arc is now converted into a small track (between the endpoints of the arc).

Gerber

81

When Layer Validation is complaining about invalid aperture definitions that clicking on Check is selecting the involved apertures. Previously some type of invalid aperture were ignored (not selected and/or highlighted) while checking, which could cause confusion.

215

Zero-sized circular D-code is no longer notified as Error (Error box popping up), these apertures are supported by the Gerber format.

235

Draws with macro definitions are not allowed by the Gerber format. Gerber files containing this kind of objects are flagged as errors that the resulting image should be reviewed.

900

Gerber input of arcs with Obround aperture could result in arcs with a BOX aperture. Since arcs with boxes are not supported in DPF, these arcs are notified and the Gerber conversion is completed by using a circular aperture for these arcs.

1067

Some cut-in inner contours, in a Gerber file, were flagged as self-intersecting during import, even if the cut-in segments are fully coincident. Gerber input of these contours can be completed without self-intersecting contour message.

1085

Gerber is notifying when the accuracy of the loaded file is too low according to the Gerber Format Specification.

1191

?Coordinate without operation code after an aperture D code assignment.? Is now flagged as an error (according to Gerber Format Description), previous this missing operation code was notified as warning.

1211

Gerber input of a file in which the arc interpolation mode is missing is considering the configured value during the conversion, previously a different result could be obtained before and after Options in SmartStart (without and with interpretation of the configuration).

1282

Usage of deprecated incremental coordinates is warned during Gerber input.

1306

Gerber input could be notifying incorrect error message when the operation code is split over 2 lines. The complete data block is now considered which prevents the false error message.

Import ODB++

239

ODB++ Import was creating a dedicated contour aperture definition for each surface feature on which attributes are allocated, even when the same attributes are allocated to the surfaces. Surface features, on which the same attributes are allocated, are now sharing the same CONtour aperture definition (if possible).

245

SmartDRC could give false (clearance) violation(s), when running the check on a job that is created by ODB++ Import. After saving and reloading the job (after ODB++ Import) SmartDRC was running normally. SmartDRC is no longer giving these false violations after importing a job from ODB++.

907

Netlist build could be incorrect when running on a job that is created by ODB++ Import. After saving and reloading the job (after ODB++ Import) Netlist could be calculated successfully. Netlist build can be calculated correctly directly after importing a job from ODB++.

998

ODB++ Import of a layer with many text features, for which the embedded ODB++ font needs being applied, could be missing some of the text objects (with indication of a missing DPF file). The conversion of these ODB++ jobs is successfully converting all text features.

Netlist

Build

187

Improved support for interrupting functions, by pressing Ctrl+Y, in single processor mode.

188

Improved support for interrupting functions, by pressing Ctrl+Y, in multi-processor mode.

1051

Failing Netlist build, because of fatal memory error, is mentioned in Error box popping up, previously there was only a notification in Messages window (at the background).

Panelization

75

Coupons linked to the step and repeat were not correctly positioned when using Panel Editor (MJP). Panel Editor is now correctly positioning these linked coupons in the resulting job.

Select

1193

Select Window, with option Cross activated is again selecting the flash with a text and/or block aperture when clicking on the object(s). In some builds the cursor needs being dragged on these objects for getting them selected.

Silkscreen

Clipping

79

Clipping could be incorrect, clipping away parts of objects at bigger distance than the specified clip clearance, issue noticed on certain constructions and with some values for Clip Clearance. Result of clipping is respecting the specified clip clearance.

SmartDRC

76

DRC Single Track check, with option to ignore embedded objects not activated, was not working properly, single tracks with an embedded object were also flagged as violation. The configuration of ignore embedded objects is correctly considered.

85

SmartDRC is only specifying a value in the Min. found column when the current verification has found at least 1 violation for the check. Previously a value could be displayed for checks that were not causing any violation.

176

SmartDRC was not staying on the same category when accepting or repairing a fault.

Verification

Net Compare

1335

Reference netlist is creating reference points for jobs without solder mask or pads in copper.

Secure Etch Compensation

1323

Secure Etch Compensation is now respecting the required clearance between the compensated nets.

YELO

Copper Adjuster - Signal

276

YELO Copper Adjuster - Signal is supporting complex pads. When configuring the adjust parameters for using option Neck, the COMplex pads will be shaved locally for resolving the clearance violation.

966

YELO Copper Adjuster - Signal/Plane and Legend Adjuster can all handle DRC configuration files containing a "." character in their filename.

979

Java Null pointer exception when Job->New with SAJ window open has been solved.

1176

Shaving Pad to Pad was not working if a BGA pad is involved. It is working now.

1209

Copper Adjuster - Signal allocates the adjusted objects to the aperture they belonged to (preserving aperture number, name and ape attributes).