UcamX v2024.06

Fixed issues

Your continued feedback is important and appreciated. This version resolves the following issues you have raised with our Customer Care department.

CAD Output: GDSII
- When some flashes with block apertures are partly covered by reverse objects (outside the block aperture definition) could apply the reverse objects also other flashes with the involved block aperture, which could have unexpected results on the image described in the GDS II file. The applied tolerance has been increased to improve the description of the image described in the generated GDS II file.

CAD Output: Gerber
- An internal error, that gets reported while creating the output, could cause a modified image described in the resulting Gerber file. The Gerber file is again reflecting the expected image, although some arcs in the construction still can cause an internal error.

CAD Output: ODB++
- The configuration of odbxx*validate_step_repeat, in the applied Cad Resource file, allows configuring a tolerance that can be applied at the flash positions of the uPCB blocks, of different layers, while creating the sub-steps of the blocks.
  Be aware that the flash position of the blocks can be modified within the configured tolerance, shifted images can be noticed when configuring odbxx*validate_step_repeat with too big value.

Editing Tools: Contours
- Running Exact Contourize could create overlapping (outer) regions at location where an inner should have been created. The issue has been noticed on a region that is enlarged by tracks with a circle aperture at the edge of the region, for which these surrounding tracks are partly overlapping with other tracks that create a closed chained area. Exact Contourize is correctly handling this construction.
- Running Exact Contourize, using certain configurations, on selected regions from one CONtour aperture definition could position the new contour aperture at the end of the aperture list, which could modify the image (on layers with different polarity levels). Exact Contourize respects the position of the contour aperture in the aperture list.

Editing Tools: Drill Tool Manager
- Prevention of mixed diameters in Drill Tool Manager.

Editing Tools: Exact Contourize
- Running Exact Contourize could be losing a clearance. The issue has been noticed on contour region with a cut-in clearance, where the cut-in lines were not overlapping (leaving a small gap at one of the sides of the cut-in line). Exact Contourize is correctly handling this construction.

Editing Tools: Shave
- Optimized shave functionality to prevent unnecessary shaves.

Editing: Apertures
- Introduction of new Aperture Clean and Clean&Zero sized: Clean removes the unused apertures. Clean&Zero sized removes unused apertures and the 0-sized block apertures.
- Copy/Paste of linked block definitions in a different layer than the layer from which the blocks were copied, was losing the link between the block definitions (after saving and reloading the layer the links are restored). These blocks remain linked directly after pasting the objects.

Editing: Toolbox
- Adding a parallel object can work again by using an object in a reference layer displayed in plane 2 and/or 3. Some builds could use only reference objects that are displayed in the layer of plane 1.

Editing: Transform
- Directional movement is creating the correct image without false rotations or wrong shifting.

Electrical test: Microcraft Emma

- Emma output contains adjacency value used when performing adjacency calculation.

Electrical test: Testpoint generation

- When considering unplated objects of a drill layer as reverse, introducing different nets when these objects of the unplated drill are breaking a connection, is now also considering tracks in the unplated drill layer. Previously only flashes were considered.
- Optimized test pad handling in testable pads mode.

Electrical test: Utest

- Adapting ucam.db key testpoint.detect_deadend_pads.max_width: 2.0mm is solving the issue with missing testpoints.
- Removal by drill diameter or remaining ring only available for through drills.
- Test point generation, by considering painted pads, could locate some test points at incorrect locations. These test points are created at the expected location again.

Input: Gerber

- The rotation parameter, applied on the primitives of a macro definition, are applied around the origin of the macro definition.

Input: ODB++

- ODB++ Import of highlighted layers in the current job that has layers with the same layer names as the imported layers, and these layers in the current job were not yet loaded to memory, could cause UcamX to crash. Importing these layers can be completed normally.
- The angle value specified in the definition of an ODB++ Rectangular Thermal (rc_ths) should be a multiple of 45°. In case the indicated angle is not respecting the requirement, the configured angle gets rounded to the nearest supported value.
- The conversion of a customized ODB++ font has been improved to better reflect the representation of the text displayed by external systems.
- Small regions (islands), which are skipped during ODB++ import, were flagged as error. Since these small regions have no practical use, the error message has been changed into a warning message.
- Small holes, which were skipped during ODB++ import, were flagged as error. Since these small holes have no practical use, the error message has been changed into a warning message.
- Conversion of ODB++ $$WEEK-DAY dynamic string is respecting the configuration of ucam.db key odbxx.input.week-day.

Job Editor: Buildup

- The layer attribute CopperCoverage (percentage) can be used to propagate copper count values to Speedstack.

Job Management: Open Job

- It was possible to overwrite a job that was locked, although when opening the job a message was indicating that the job was opened in read only mode. When a job that was locked in read only mode, Job Save As is required for saving the job in a different location.

Layer Validation:

- Randomly changing of cursor form from pen to arrow is solved.

Panelization: PanelPlus

- Fill Pattern is extended by toggle to specify the pattern added with a frame or without.
- Saving and reloading Input Sets in PanelPlus was not always restoring all configured parameters. The parameters are correctly saved and restored.

Verification: Net Compare

- Netcompare on inner layers inside a BLOck is detecting the correct errors.

Verification: Secure Etch Compensation

- New ucam.db key to specify if SEC is shaving based on layer netlist or job netlist. ClearanceManager.same_net.use_job_netlist: 1 will keep the job netlist to use for "same-net clearance". The default setting is "0" and will use layer netlist.
- Secure Etch Compensation prevents creating false same net clearances.