



UcamX v2023.01

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: ODB++

- If the outline layer contains invalid objects or no regions, the enclosing box of the step is used as the profile in ODB++ Output.
- In some configurations of the applied Cad resource file, ODB++ out could create empty profile for sub steps, in case the original job does not have an outline layer.
- Object attributes on vector text or aperture text are conserved in ODB++ output.

Direct Imager Output: DS LI Output

- Optimized interpolation mode issues for CU9000 preparation.

Drill Output: AutoDrill

- A new option (excellon2*quadrant_interpolation) is available for Excellon 2 output. It allows the user to prevent dividing the arcs into quadrants.
- Tool Editor was not always storing all (optional) columns for all tools of the tools file. Issue has been noticed in situations where not all tools were visualized in the Tools Editor menu before saving. Now all columns are stored in the created/modified tools file.

Editing Tools: Contours

- In some configurations running bitmap contourize on selected objects could change the image drastically. Bitmap contourize on selections is again giving the expected result.
- Exact Contourize of not properly created cut-in clearance, composed by set of arcs, could lose the clearance. These constructions are correctly handled now.
- Select Painted could confuse the result of Exact Contourize on the selected painted data. Exact Contourize is no longer suffering with selected painted data.

Editing Tools: Drill Tool Manager

- Solved issues grouping tools and counting the slot number. Also introduced a new sorting algorithm controlled by a ucam.db key: drilltoolmanager.sortblock.keeporder
 - No key or set to false : blocks are inserted at the end of the aperture list
 - true : blocks remain on their current position in the aperture list.

Editing Tools: FlashMaker

- FlashMaker, on Regions and Complexes, could allocate incorrect rotation while creating standard apertures. The original Image is respected now by allocating an appropriate rotation to the newly created apertures.



Editing Tools: PadMaker

- Crash in Pad Maker has been solved.

Editing: Apertures

- Multi Block edit was not always applying the modifications made in the blocks. All modifications are applied again.
- Multi Edit a BLO aperture is behaving as expected again.

Editing: Attribute Manager

- (Multi) Block edit on different block apertures but having the same aperture number could corrupt the image. Block definitions could be mixed up. Issue has been resolved.

Editing: Insert

- Data Matrix no longer changes size if text string does not fit.

Editing: Markup Assistant

- Markup of pads has been improved for the case of TestPads.
- Markup of pads has been improved for the case of TestPads/ViaPads.

Editing: Transform

- Dragging tracks on a rout layer after displaying "Default Order" could cause a UcamX crash. Dragging these tracks can be completed normally now, even if the displayed order will need to be updated afterwards.

Electrical Test: Testpoint generation

- Optimized testpoint creation in SmartTest.
- A midpoint filtering option is added to the "Testable pads" mode. It can be activated by setting ucam.db key "testpoint.testablepads.filter_midpoints: 1" (default 0). Note: the original intention of the testable pads was to optimize the mask. The midpoint filtering by default is switched off to not conflict with the Kingbrother requirements. It will significantly increase the processing time for big jobs.

Electrical Test: Utest

- Optimized testpoint setting controlled by new ucam.db key testpoint.allow.overlap".
"testpoint.allow.overlap: 0". Only one pad remains
"testpoint.allow.overlap: 1". With this setting two overlapping pads are kept if the flash point (center) of one pad is outside the other pad.
- Optimized testpoint creation in SmartTest.

FaultStation

- Barcode reader for ATG error files available.
- FaultStation is reading ATG FLT file and takes step and repeat into account.



General

- Attribute name definition fitting to the request.

General: Licenses

- UcamX allocates exact the PP license fitting the startup request. If no fitting license is available it will allocate a lower one. Balanced sessions are not allocating additional licenses.
- YELO CAJ license is no longer being allocated when using SmartView.

General: User Interface

- Speed up of mouse wheel actions by elimination of multiple repaint during zoom in/out and other view manipulations.

Input: DPMX

- Handling of very small arcs is working as expected.
- DPMX jobs with invalid drill span 1-0 is now set to 1-1 while imported.
- Local Fiducials in a DPMX data set are marked and handled as expected.

Input: DXF

- The specification of the start- and end parameter of a full ellipse are considered with a tolerance in case these parameters are not specified as 0 and 2π (as mentioned in the DXF specs for full ellipse). Issue was noticed for ellipse starting at π and ends at 3π , these ellipses are now also converted as full ellipse images.
- Polyline entities, on which a constant width is specified, were not fully filling the polyline at the start/endpoint of the polyline. The constant width is now correctly applied for the resulting image.

Input: ODB++

- Updated ODB standard.dpf vector text font according to the ODB++ standard font description of the ODB++ specs.
- Handling of symbols now case insensitive.
- Till UcamX is properly supporting the FLIP parameter of an ODB++ stephdr file, an error message is given when trying to import an ODB++ job that has "FLIP=YES" for some sub steps..
- New support for fractional (non-integer) rotations in ODB++ step headers.
- Confusing error message indicating "ODB++ error: Could not open feature file" when re-opening Import ODB++ Steps menu, after previously importing an ODB++ step from a compressed TGZ file, is no longer given.

Netlist: Update Test

- Adjusted "Update Test & Probe" function for COMplex apertures.

Panelization

- PanelPlus is handling incorrect version numbers correct now.

Rout Manager

- Undo is working for AutoTrim too.



Select: Embedded

- Selecting embedded objects was not selecting all embedded regions, after deleting the embedded objects sometimes a rerun for embedded objects was required for selecting remaining embedded objects. All embedded objects get selected in the same action now.
- Select Embedded Obj. could select objects that are not embedded in other objects, which could cause modified image after deleting the “embedded” objects. Issue has been noticed on data containing block aperture. The algorithm for Select Embedded Obj. has been adapted to handle these situations correctly.

Select: Painted

- Configuration of ucam.db key detect_painted_areas.area_min_obj allows indication of how many objects are the minimum required in an area for being considered as a painted area.

SmartPlot

- SmartPlot respects the default barcode plot parameters, when submitting a layer in SmartPlot Merge Queue, as configured in the involved ucam.db keys.

SmartStart

- Gerber files without new line (<CR>) between the different data blocks of the file were not always correctly analyzed as Gerber files. Analysis of these files has been corrected.

View: Query Net

- In some configurations the QueryNet menu needed to be re-opened, after loading a job in the actual UcamX session, to allow highlighting the involved nets. Loading a job is no longer confusing the highlight of the queried net(s).

YELO: Copper Adjuster

- Allocated floating licenses for YELO Adjusters is released with closing the correspondent GUI window.

YELO: Mask Adjuster

- BLO apertures in mask marked and handled as expected.
- Optimized solder web recognition.
- Mask Adjuster handling inner contours as expected.
- MAJ not changing vector text on masks.



Enhancements

CAD Output: Gerber

- Optimized Gerber X2/X3 output is supporting aperture and object attributes.

Editing: Apertures

- Object Summary Table is the new feature to view existing objects on plane 1 sorted by type and size.

Electrical Test: Testpoint Generation

- Optimized testpoint generation in SmartTest.

Hypertool

- Command `duplicateLayer(String layName, String newName, boolean bBloKeepLink)` has been introduced. With the third parameter set to true the function is the same as the `duplicateLayer` function without the third parameter. When it is set to false the links between BLO are kept only in the layer itself not between blocks in the new and original layer.

Input: Excellon 1

- New keys `excellon1.routed_circle` and `excellon1.rout_compensate` developed. `excellon1.rout_compensate` defines whether the rout compensation should be implemented by changing the objects (compensate) or by adding the `uTool_Compensate` attribute on the objects (attribute) `excellon1.routed_circle` influences the conversion of Routed Circles.

Input: GDSII

- GDSII import is available in MainMenu with Import Job and as recognition of GDSII files added to SmartStart.

Input: Posalux

- New keys `posalux.routed_circle` and `posalux.rout_compensate` developed. `posalux.rout_compensate` defines whether the rout compensation should be implemented by changing the objects (compensate) or by adding the `uTool_Compensate` attribute on the objects (attribute) `posalux.routed_circle` influences the conversion of Routed Circles.

Input: SUM 3000

- New key for Sieb&Meyer3000 is developed: `sum3000.routed_circle`. It influences the conversion of Routed Circles.

Rout Manager:

- New feature to add Rout Tabs directly on arcs.
- A toggle in AutoTrim to define if only diameters of the same size is developed.
- Rout Group Order, “Top-Bottom, Left-Right Order” is now considering the involved aperture definitions, so that the optimization is done within the same aperture definition. This prevents increasing tool changes after optimizing the rout paths.
- RoutManager “modify corners”, “trim overlapping routs” now works with selections.



- Introduction of new ucam.db key routpath.textsize to influence the font size used for text strings specifying the Group numbers in the rout path layer.

View: Magnifier II

- New Magnifier II was developed to provide an easy solution for documentation.

YELO: Mask Adjuster

- New feature available in Mask Adjuster to keep merged SMD mask openings (rectangular) merged.
- YELO Mask Adjuster contains the possibility to automatically eliminate all negative objects from the mask after running Tombstone and Solder Escape Prevention. All objects will be flashed.