UcamX 2018.03 Release Notes

March 2018
## UcamX v2018.03 Release Notes

### Commitment to regular updates

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<th>Version</th>
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<td>2014.12</td>
<td>Dec-14</td>
<td>Workspace GUI, Parallel processing</td>
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<td>2015.04</td>
<td>Apr-15</td>
<td>Load balanced sessions, Gerber X2 Input support</td>
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<td>2016.01</td>
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<td>Background output, Parallelized image compare</td>
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<td>2016.06</td>
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<td>2016.12</td>
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<td>New insert Arc command, Improved Sieb&amp;Meyer rout import</td>
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<td>2017.04</td>
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<td>Performance boost DRC copper-cut-ins, Improved &quot;Select Painted&quot; feature</td>
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<td>2017.10</td>
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<td>New startup routine, Extended Job Editor View, Optimized Rout Compensation</td>
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<td>Introducing the first <strong>YELO</strong> module --- Signal Layer Adjuster</td>
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Overview

- **YELO** - What is it?
- **YELO** - Introducing Signal Layer Adjuster
  - Sample script to help create holding webs in a contour
  - Sample script to support the conversion of contour pads into COMplex pads
  - Enhancements for Design Rules, Models, Hyperscript, Eagle Input and Silk Optimizer
  - and more …
Imagine you could …

- cut back your CAM cycle time by up to 30%
- achieve superior production yields
- deliver more reliable PCBs
- significantly improve board layouts within minutes

Well actually, with YELO now you can …
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**YELO** – What is it?

**YELO** – Yield-Enhancing Layout Optimizers

- Brand new suite of software modules for automated PCB layout optimization
- Unique “all-in-one” approach - highly automated, integrated and industrialized workflow with absolutely minimal human intervention
- Optimizing layouts for superior production yields
- With unparalleled throughput
- And uncompromised results

**UcamX v2018.03** introduces the first of a series of yield-enhancing layout optimizer modules…

**Signal Layer Adjuster**
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**YLEO** – Signal Layer Adjuster
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**YELO** – Signal Layer Adjuster

- All-in-one, fully-automatic **YELO** module
- Brings signal layers in line with the specified design requirements fully automatically
- All verification and adjust parameters entered from a single central user interface
- Different settings and values storable in parameter sets for quick retrieval and easy re-use later on
- Checks and values loadable from existing DRC configuration files to tie in seamlessly with the existing CAM workflow
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**YELO** – Signal Layer Adjuster

- Vast arsenal of layout adjustment functions to achieve requested clearances and annular rings
  - Shrink via tools
  - Expand via pads
  - Move tracks – single or multiple
  - Partially move tracks
  - Shave regions
  - Shave/Neck via pads
  - Shave/Neck component pads
  - Shave/Neck SMD pads
  - Neck tracks

- Constraints for each adjustment method to suit individual customer requirements
• Full traceability of all layout changes via
  ➢ Signal Layer Adjuster Assistant
    ❖ uses the intelligence Signal Layer Adjuster placed on the DPF data to show changes in the layout
    ❖ Before/After adjustment information is stored persistently in the same DPF file, which makes it easy to consult throughout the entire CAM process
    ❖ highlights a single, multiple or all types of layout adjustment that were applied on a layer
    ❖ uses a system of different colors to display different adjustment types
  ➢ Automatic back-up of original layers

• Full security guaranteed thanks to an integrated netlist verification
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YELO – Signal Layer Adjuster

• Find out what Signal Layer Adjuster can do for you…
Ask for a free-of-charge trial license!

Shaving pads to achieve pad-to-track clearance with respect of the specified minimal annular ring.

Cutting back copper pours to ensure proper track-to-region or pad-to-region clearances.
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YELO – Signal Layer Adjuster

Moving single tracks or complete track bundles to get the required minimum clearance

Partial track move

Partial track move in a track bundle
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**YEL0** – Signal Layer Adjuster

- Signal Layer Adjuster is a licensed feature - Please contact your regular Ucamco sales channel for more information and a competitive price offer.

Combining different adjustment functions to achieve all required clearances with as few modifications as possible.

Necking 2 via pads to obtain the desired pad-to-pad clearance.
VHS script insertOpenings.vhs:

This script creates a 0.2mm opening every 10mm on every draw and arc of a layer.

The size and the space between the holding webs can be changed to your requirements.

A very useful tool e.g. for cutting foils or thin laminates.

Find the script here (double-click):

Use the script directly with Visual Hyperscript Editor, place it in the Visual Hyperscript Menu or place it as an icon on your toolbars.

For help or further information please contact us at support@ucamco.com
VHS script model_contour.vhs:

This script supports the user in converting contour pads into COMplex pads.

- Place this script with “Loop” activated in the Visual Hyperscript Menu.
- Activate the layer you want to work on
- Activate the Highlight Pads button to highlight the pads in light red
- Start the script from the Visual Hyperscript Menu
  - It will select all contours and ask to define the pads
- Click on the pads and every pad with the same definition will be remodeled to COMplex pads and immediately show up in light red. Layout after 2 clicks

Find the script here:  
For help or further information please contact us at support@ucamco.com
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Enhancements

- **Design Rules:**
  Performance improvement for Same net spacing calculation

- **Hyperscript:**
  The new HyperScript command `deleteTrueObjects();` allows the removal of True Object definitions from all (active) layers.

- **Models:**
  Models is now handling Vector Text objects, while creating a COMplex aperture from selected objects (when also Vector Text objects are selected)
Enhancements

• Eagle Input:

Eagle Input now supports proportional font, while importing .brd files.
Enhancements

- **Silk Optimizer:**

The new option "Scale Line Width", in the section “Scaling” of the Text Management tab in the Silk Optimizer dialogue, allows to define what should happen to aperture definition(s) while scaling the text: Activating the newly introduced toggle will recalculate the aperture size in accordance with the scale factor entered. When deactivated, the aperture size remains unchanged.
UcamX v2018.03 also offers a host of code fixes for issues reported by our user community.

If you are still on an older version of UcamX or still on Ucam, please have a look at the release notes and bug fixes of recent versions.

- UcamX v2014-12
- UcamX v2015.04
- UcamX v2016.01
- UcamX v2016.06
- UcamX v2016.12
- UcamX v2017.04
- UcamX v2017.10

All Release Notes and code fixes are listed on the Downloads page of the Ucamco website.