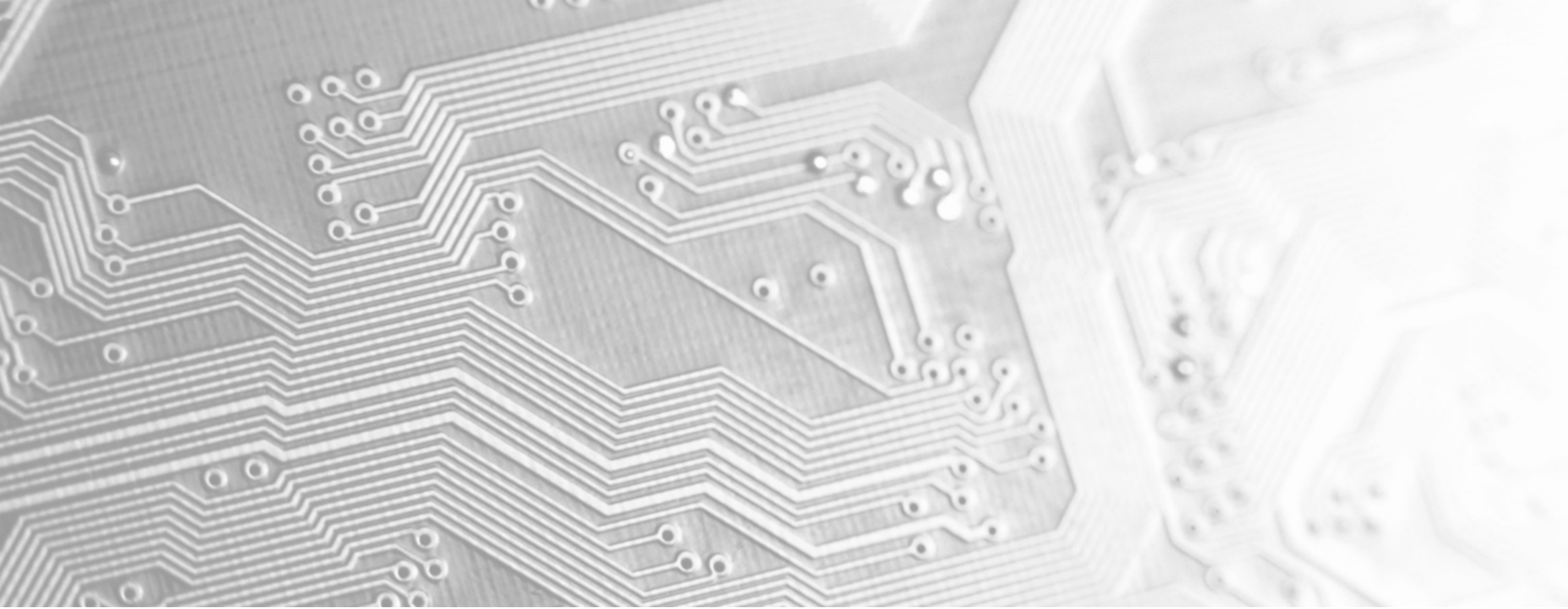


UcamX 2017.04 Release Notes

April 2017

UcamX

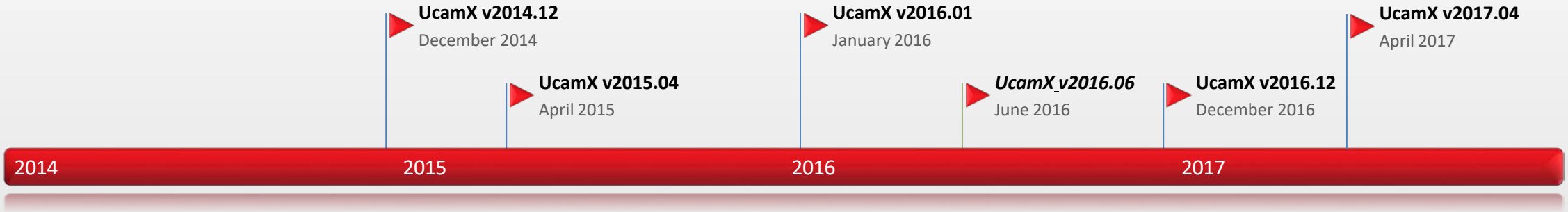
Version 2017.04

64 Bit

Multi Core

UcamX v2017.04 Release Notes

Commitment to regular updates



Version	Release date	Highlights
2014.12	Dec-14	Workspace GUI, Parallel processing
2015.04	Apr-15	Load balanced sessions, Gerber X2 Input support
2016.01	Jan-16	Background output, Parallelized image compare
2016.06	Jun-16	Maintenance update
2016.12	Dec-16	New insert Arc command, Improved Sieb&Meyer rout import
2017.04	Apr-17	Performance boost, DRC Same Net Spacing , Improved "Select Painted" feature

UcamX v2017.04 Release Notes

General

Ucamco are pleased to announce the release of UcamX v2017.04.

This release features important extensions and enhancements to existing functionality and addresses a number of software inconsistencies that were reported by our UcamX user base.

These release notes take you through the version's highlights.

Please take a moment to browse through the information.

We recommend you to upgrade to v2017.04 at your earliest convenience and thank you for choosing a Ucamco product.

UcamX v2017.04 Release Notes

Overview

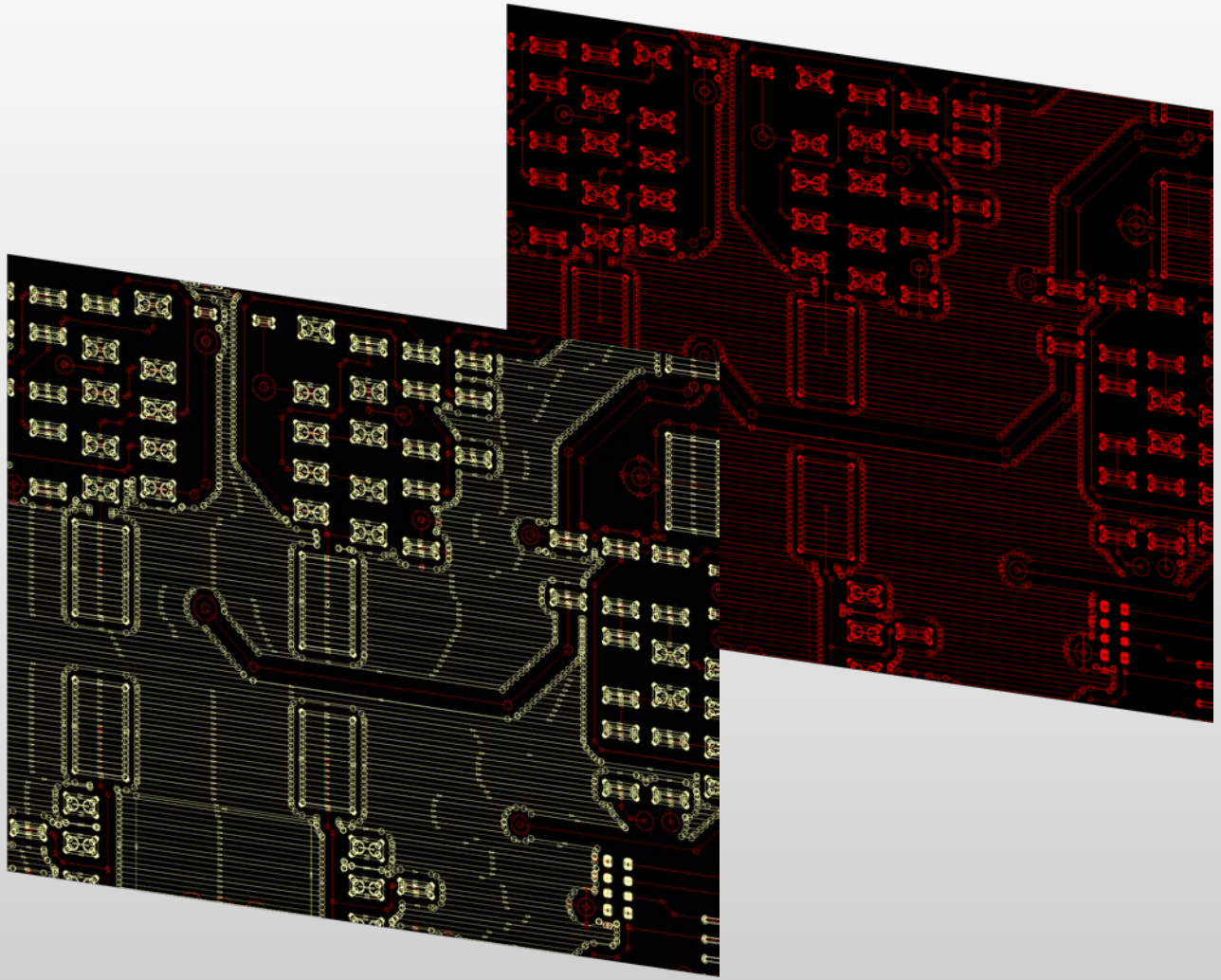
- “Select Painted” feature with exceptionally better painted area detection
- Soldermask Checker
- Progress Bar for 3rd party file input
- Customized Gerber 274x header with new option, 274x*pre_hea
- Improved algorithm for detecting Same Net Spacing
- New option for specifying customer preferred unpacking tool for ODB++ jobs
- and more …

UcamX v2017.04 Release Notes

"Select Painted" feature

We developed a new algorithm to select painted areas in UcamX.

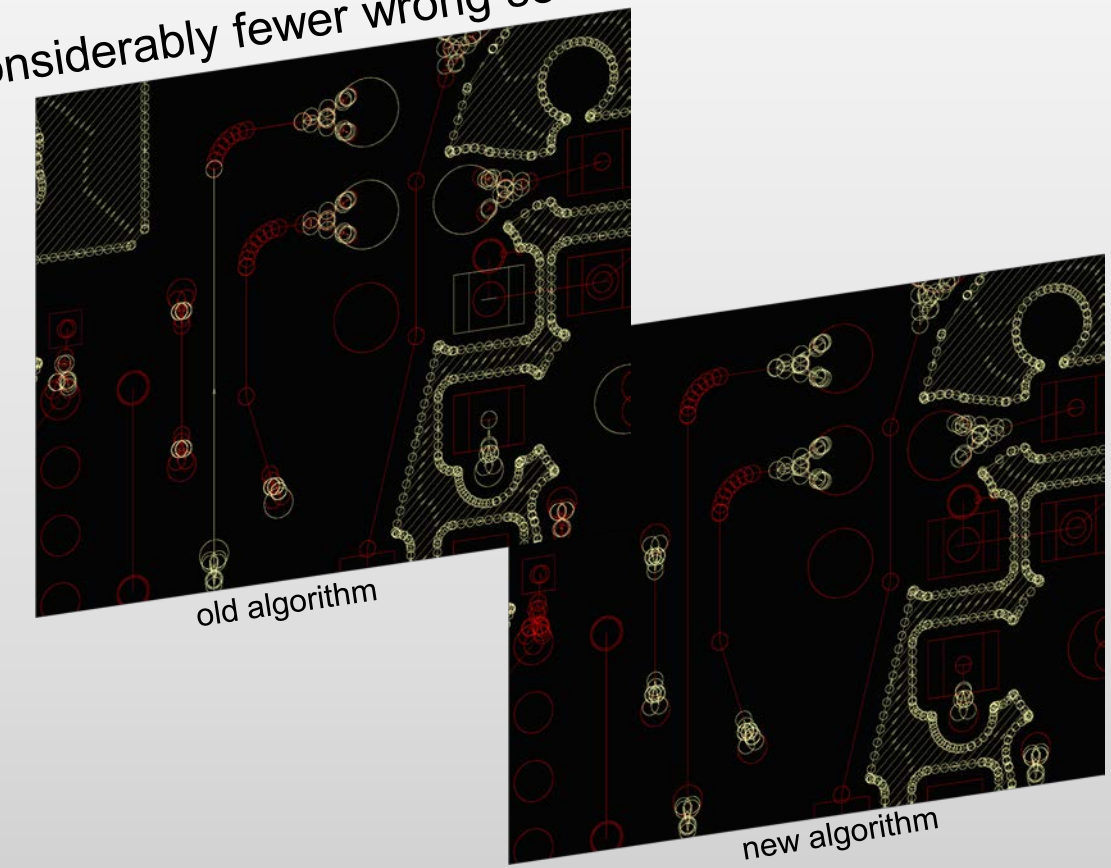
This results in less painted areas left to check or modify manually.
That gives more time for the user to concentrate on non-standard work.



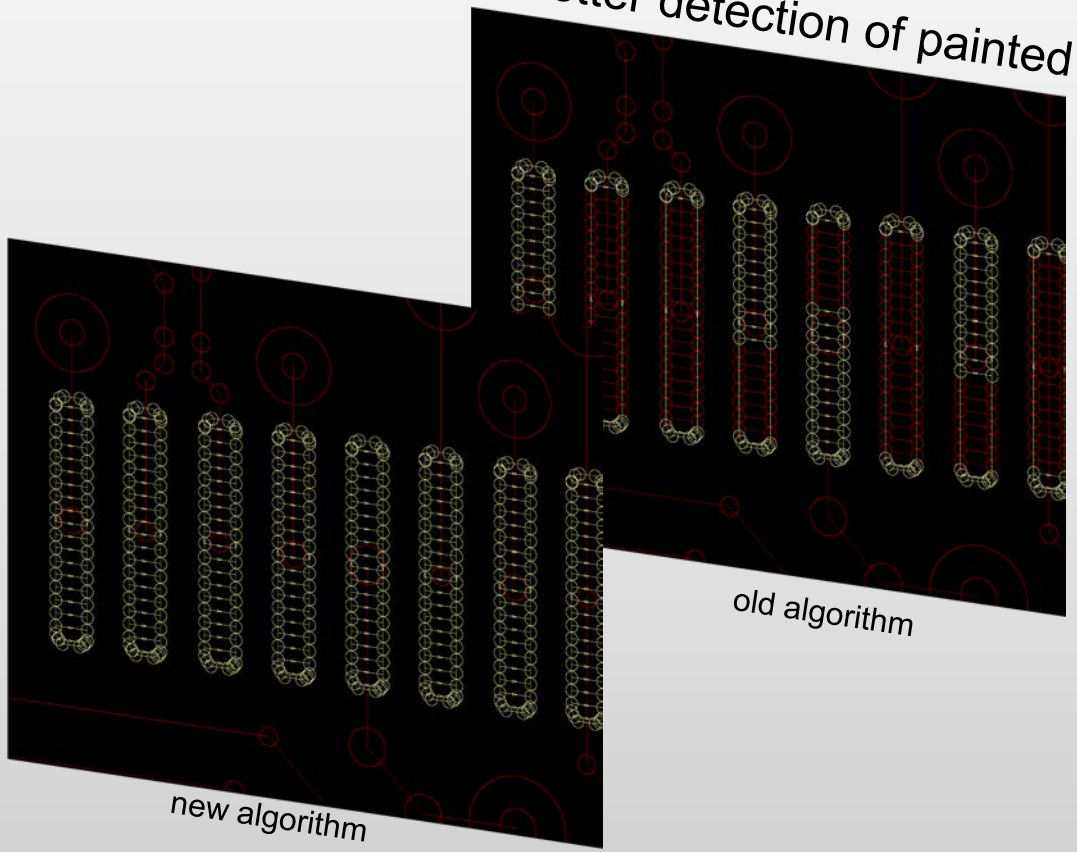
UcamX v2017.04 Release Notes

"Select Painted" feature

Considerably fewer wrong selections:



Much better detection of painted pads:



UcamX v2017.04 Release Notes

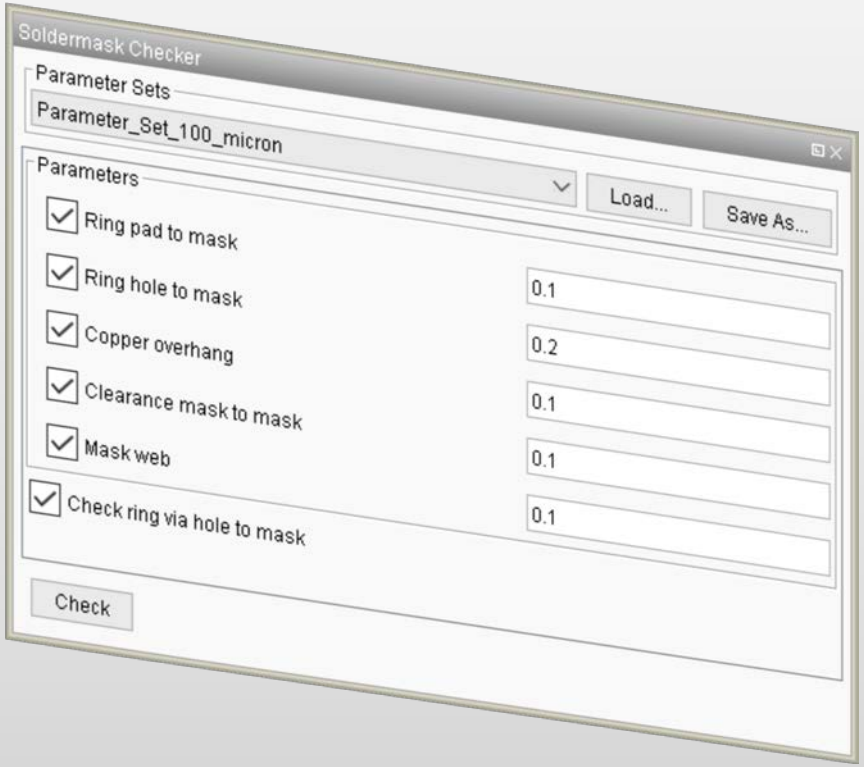
Soldermask Checker

The new Soldermask Checker allows the user to determine more potential soldermask issues in the layout compared to using DRC checks only.

The results can be used for repairs, modifications of the soldermask or easily for further usage e.g. in scripts.

Definition of different parameter sets makes it fast and easy to check different technology levels.

This feature is licensed but free of charge for our customers with a maintenance contract. Please contact license@Ucamco.com to extend your license.

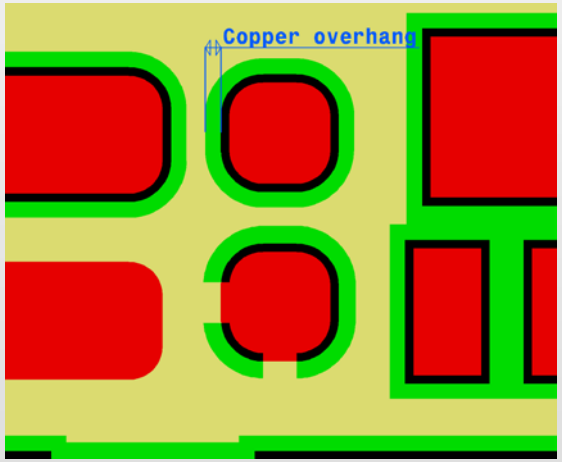


UcamX v2017.04 Release Notes

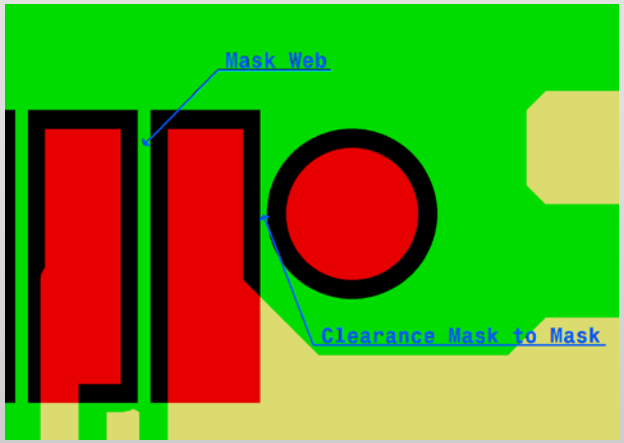
Soldermask Checker

Examples for new or different results:

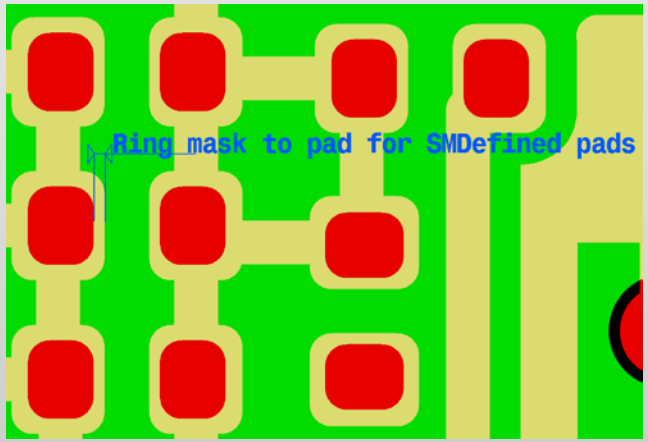
Copper overhang
Overlapping of Soldermask on copper regions.



Different results for **Mask Web** (distance between SMD's) and the **Clearance Mask to Mask** instead of only Clearance Mask to Mask

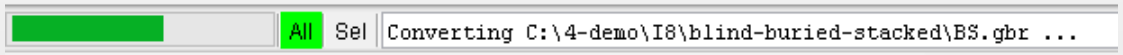


Ring mask to pad for SMDefined pads
Overlapping of Soldermask on copper at Soldermask defined pads.



UcamX v2017.04 Release Notes

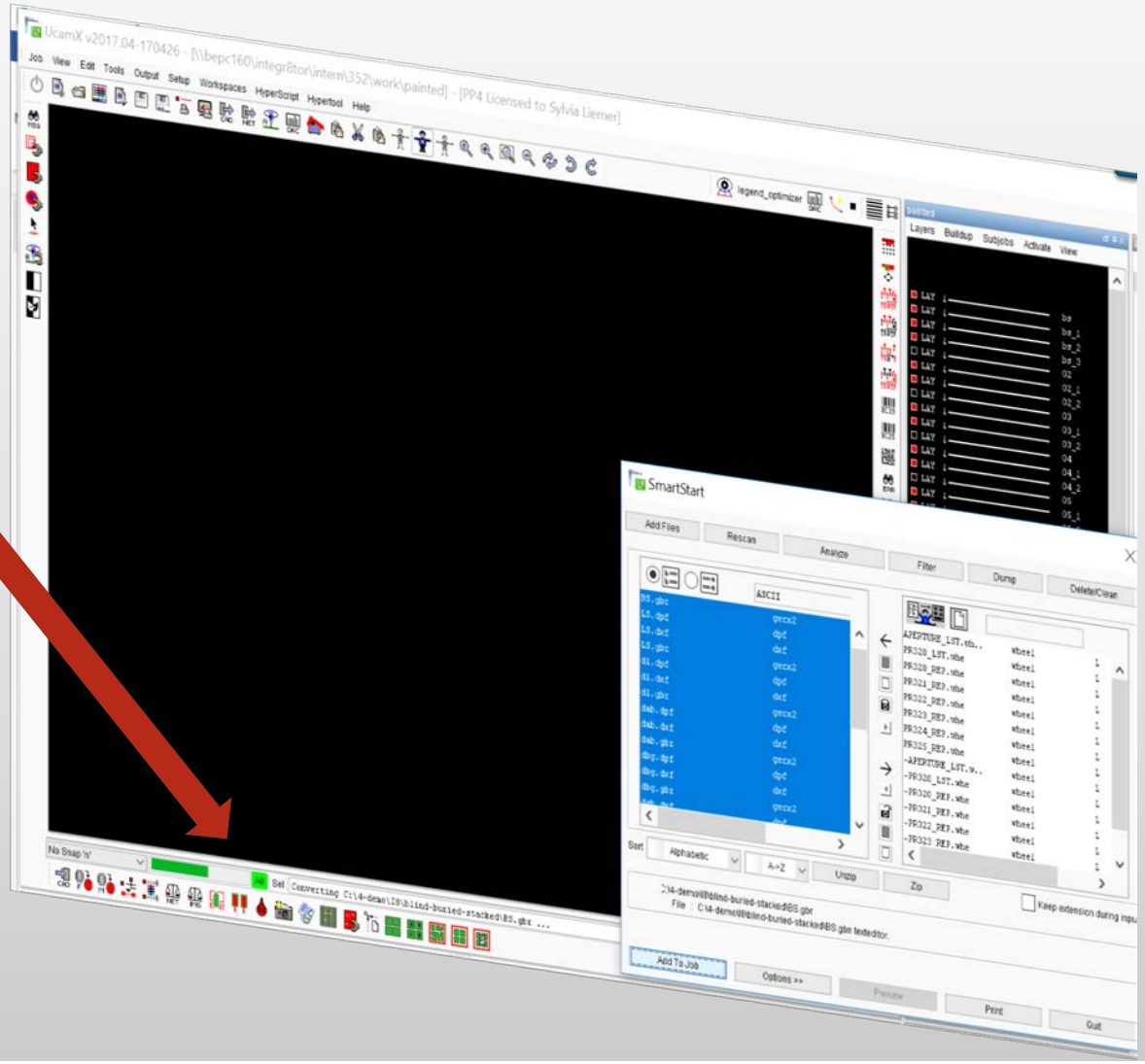
Progress bar for 3rd party file input



Now it is possible to see not only the input progress of dpf files in the progress bar but the input progress of 3rd party files too.

Same visual appearance as you are accustomed to.

With the simultaneous input of different data formats, the Progress bar shows the input status of every single layer.



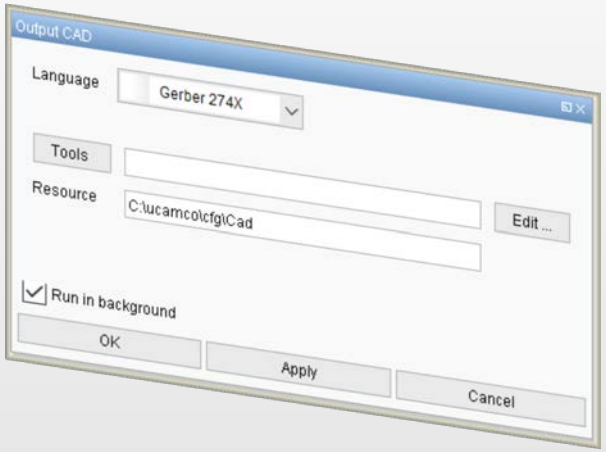
UcamX v2017.04 Release Notes

Customized Gerber 274x header

With this new feature it is now possible to create the header of a Gerber 274x output file to meet your own requirements without additional scripts.

New option 274x*pre_hea in the Cad resource file allows adding extra command(s)/line(s) in the header of a Gerber 274X file while using Output CAD.

- The value of the new option is added before the “standard" header for the file (directly after the comment line indicating the UcamX version that was used to generate the file).
- If 274x*pre_hea: <NOT DEFINED> (as is the default), Gerber RS-274X output is adding the normal header to the generated Gerber files.
- If 274x*pre_hea: <value>, the string of <value> is added just before the commands of the “standard" header to the generated Gerber RS-274X files.



Extract of an Output CAD resource file:
Example RS274x output

```
#
#    RS-274X
#    *******
#
274x*expand_nested: bottom
274x*innCON:        1
274x*units:      inch
274x*format:        2.6
274x*Dcode:      free
274x*MaxDcodeNum: 999
#274x*pre_hea:
#274x*sort:      seq
#274x*zeroes:        leading
#274x*code:          ASCII
```

UcamX v2017.04 Release Notes

Customized Gerber 274x header

If you need, for example, the command %VALUE% in the header of your Gerber 274x file:

- Extend your Output CAD resource file with the new option and specify the pre header:
  274x*pre_hea: %VALUE%

```
G04 Generated by UcamX v2017.03_Devbuild-
170307 on 2017.3.7*
%FSLAX26Y26*%
%MOIN*%
%ADD10C,0.039370*%
%ADD11C,0.043307*%
%SRX1Y1I0.000000J0.000000*%
G04 layer name: tmp1*
%LPD*%
D10*X0Y0D03*
%LPC*%
D11*X19685Y0D03*
%LPD*%
M02*
```

will change to:

```
G04 Generated by UcamX v2017.03_Devbuild-
170307 on 2017.3.7*
%VALUE%
%FSLAX26Y26*%
%MOIN*%
%ADD10C,0.039370*%
%ADD11C,0.043307*%
%SRX1Y1I0.000000J0.000000*%
G04 layer name: tmp1*
%LPD*%
D10*X0Y0D03*
%LPC*%
D11*X19685Y0D03*
%LPD*%
M02*
```

UcamX v2017.04 Release Notes

Same Net Spacing

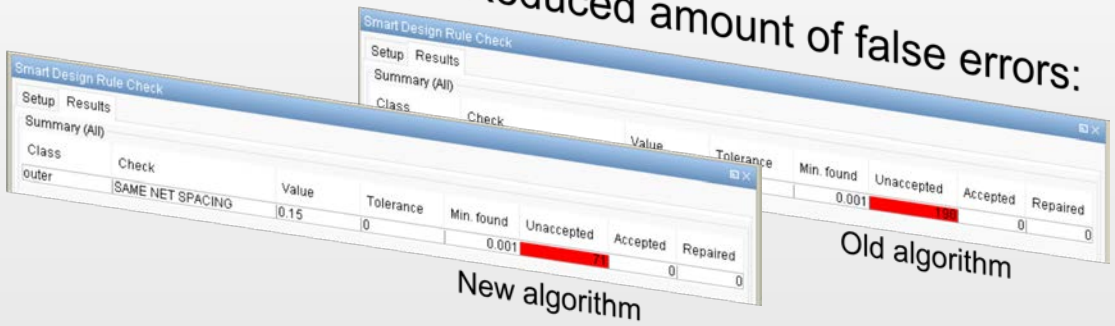
We created a new Same Net Spacing algorithm that detects errors in the DRC check faster and easier.

Benefits are:

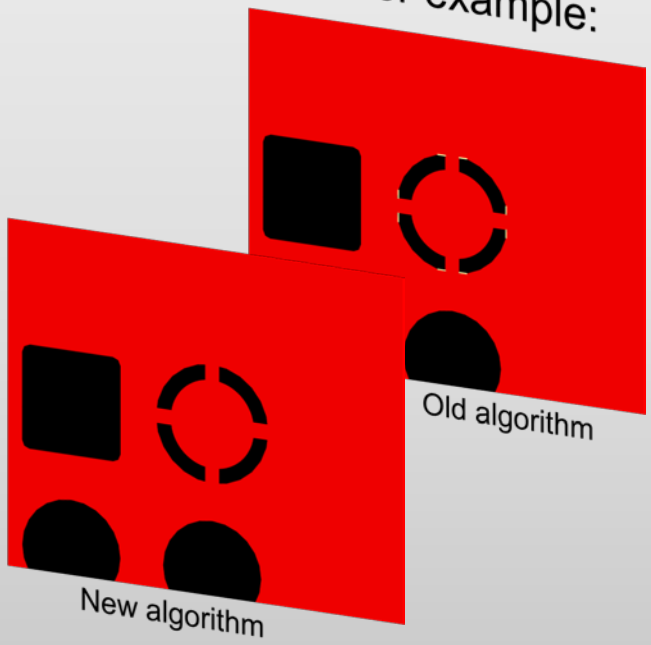
Saving time and even more accuracy through a faster analysis and remarkable reduction of false errors.

Checking even coils without problems

Reduced amount of false errors:



For example:



UcamX v2017.04 Release Notes

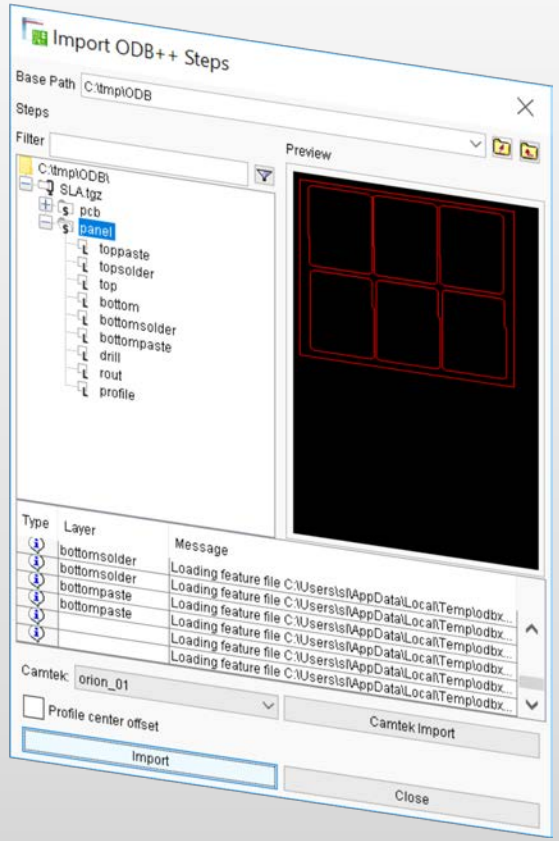
New option for specifying customer preferred unpacking tool for ODB++ jobs

In the past, the import of some compressed ODB++ jobs (.TGZ) could fail without clear notification to the operator.

Now you are able to specify your preferred unpacking tool to prevent error messages like UNDefined apertures for missing symbol definitions while importing the job.

The definition of the unpacking tool is handled via the introduction of ucam.db key external.decompress.gnutar.

- external.decompress.gnutar: NOT DEFINED (default)
  The internal embedded tools are used to decompress the data.
- external.decompress.gnutar: <external conversion tool>
  The configured conversion tool will be used for unpacking the data.



UcamX v2017.04 Release Notes

and more ...

UcamX v2017.04 also offers a large number of Bugfixes for issues reported by users.

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

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