

UcamX 2016.01 Release Notes

January 2016

UcamX v2016.01 Release Notes

Background output of external formats



- Takes time-consuming output of external formats away from the interactive editor and moves it into background
- UcamX is immediately available for further interactive work right after the start of the background output
- Interactive work can continue on the same or on a different job while the output is running
- Available for PP2 or higher UcamX parallel processing capabilities
- When higher PP power is available output of multiple layers can take place in parallel to speed up the time of the output process itself

➤ **Reduced output times**

The screenshot shows the "Ucam MP monitor GUI - whiteboard-9232" window. It features a table with columns for Slot, Flags, Ticket, Function, Effort, rSHM size, Object, Progress, and PID. The table lists various tasks, including "daemon_msman" and "daemon_testtask", with progress bars indicating completion status. Below the table, there are several performance monitoring panels: "CPU Usage" (a bar chart showing 100% usage), "CPU Usage History" (a line graph showing usage over time), "Memory" (a bar chart showing 4.91 GB usage), and "Physical Memory Usage History" (a line graph showing memory usage over time). At the bottom right, there are two tables: "Physical Memory (MB)" and "System".

Slot	Flags	Ticket	Function	Effort	rSHM size	Object	Progress	PID
0	A R	---	daemon_msman	---	0	---	0%	9232
1	A R D F	---	daemon_testtask	---	0	---	0%	---
2	A R D	17862	000000000530670	1	9943	FUNCTION_PARALLEL	100%	9368
3	---	---	---	---	---	---	0%	---
4	A R F	13402	000000000530670	1	9943	FUNCTION_PARALLEL	100%	---
5	A R	9790	000000000530670	1	0	FUNCTION_PARALLEL	100%	4024
6	A R	15256	000000000530670	1	0	FUNCTION_PARALLEL	100%	9848
7	A R	16424	000000000530670	1	0	FUNCTION_PARALLEL	100%	9184
8	A R	5003	000000000530670	1	0	FUNCTION_PARALLEL	100%	11372
9	A R	10586	000000000530670	1	0	FUNCTION_PARALLEL	100%	4104
10	A R	24183	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
11	A R	10286	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
12	A	27089	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
13	A	31427	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
14	A	28618	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
15	A	23758	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
16	A	9833	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
17	A	30933	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
18	A	4170	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
19	A	2155	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
20	A	25722	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
21	A	17190	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
22	A	19977	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
23	A	31330	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
24	A	2369	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
25	A	28693	000000000530670	1	0	FUNCTION_PARALLEL	0%	---

System Performance Summary:

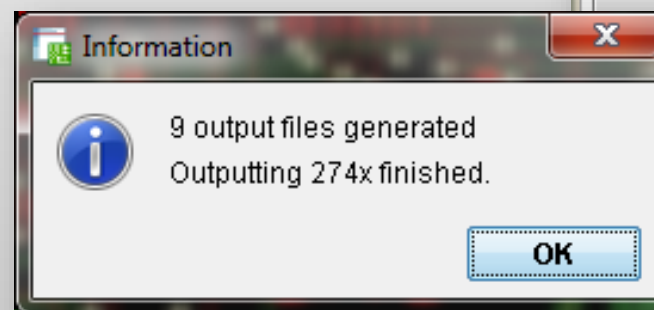
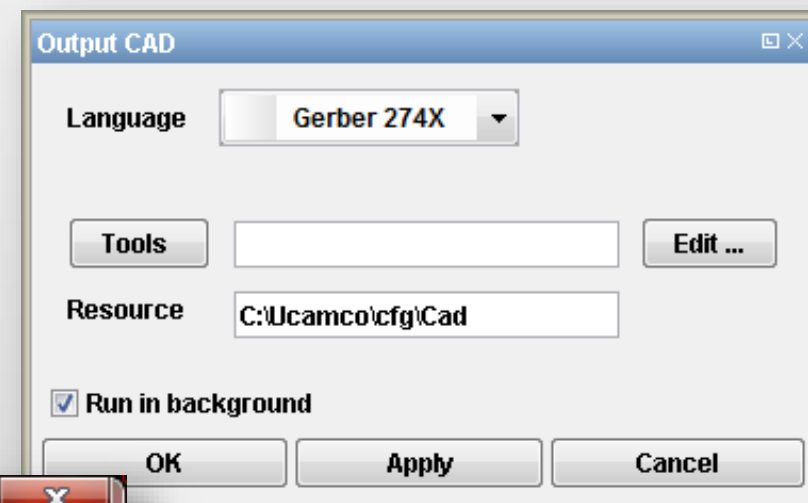
Category	Value
Physical Memory (MB)	
Total	16341
Cached	5419
Available	11224
Free	5947
Kernel Memory (MB)	
Paged	530
Nonpaged	141
System	
Handles	71092
Threads	1509
Processes	120
Up Time	0:07:54:42
Commit (GB)	6 / 31

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Background output of external formats



- Selectable option in the Cad > Output dialogue
- Available for virtually all Cad output formats including Gerber, Gerber 274X, ODB++, MDA, RPD, ...
- When the output finishes a message is sent to the operator to inform him accordingly
 - No dead times between output of one job and starting with the next
 - Operator waiting time significantly reduced
 - Improved user experience

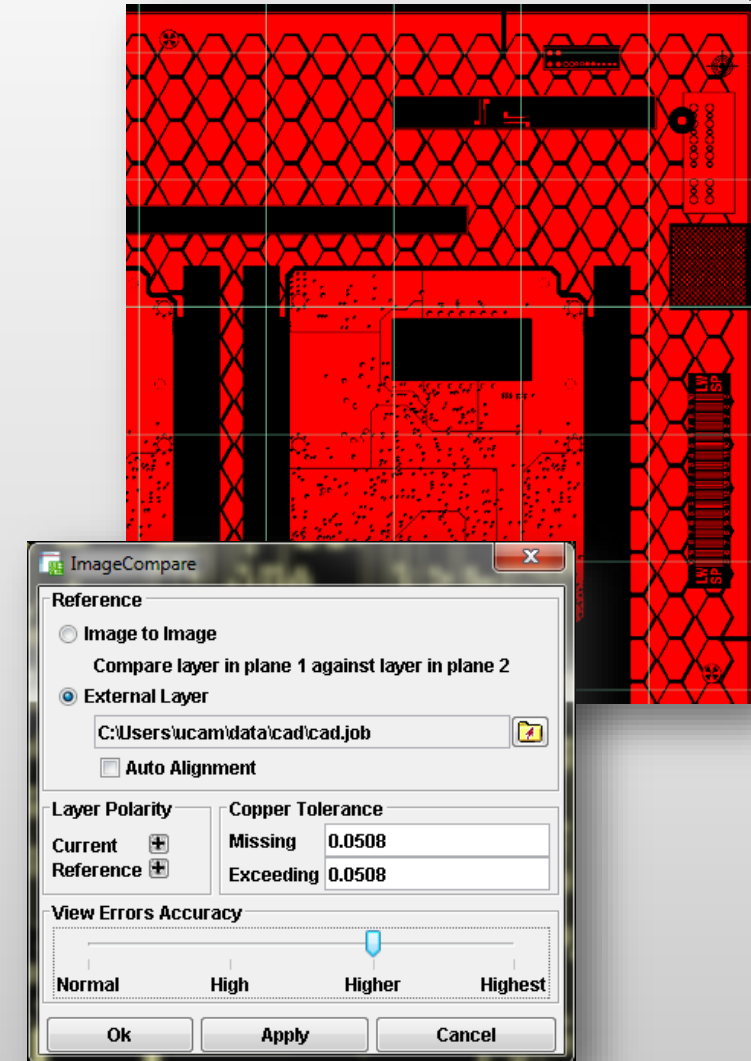


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Parallelized Image Compare



- Massive time saver on large data sets – ideal for image-comparing for instance production panels
- Slices up single DPF layers into smaller pieces or tiles as if you would put a grid on it
- Several of these tiles are image-compared in parallel on separate cores
- Fully automatic and intelligent function – invisible in the GUI
 - ❑ Auto-detects whether or not to go into parallelized mode. Simple data sets will run non-parallelized as before
 - ❑ Auto-sets the optimum tile size depending on type of data and available PP power
 - No decisions needed from the operator
- Available for UcamX PP2 or higher.
 - Add more PP power to get faster results

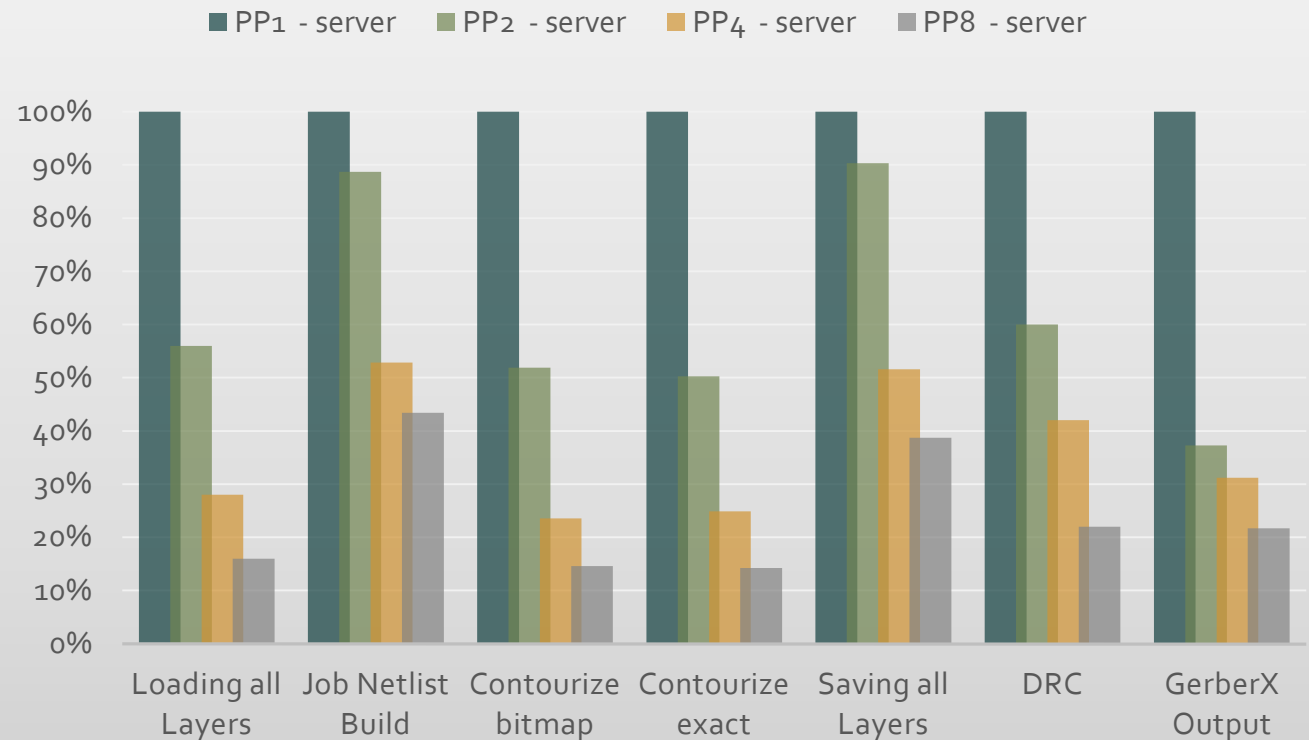


UcamX v2016.01 Release Notes

Free-of-charge UcamX PP8 trial license



- V2016.01 comes with a free-of-charge software built-in trial license for UcamX PP8
- Try out new v2016.01 features - as well as previous ones - powered from a software-enabled PP8 license
- Get the most out of your current hardware and experience what extra UcamX PP power can do for you



UcamX v2016.01 Release Notes

Free-of-charge UcamX PP8 trial license



- A "PP8 trial" icon appears on the desktop after installation
- Double-clicking on the icon will check the number of cores on your system and will start UcamX with the same number of parallel processes
- Trial PP8 license adapts itself automatically to the physical number of cores available on the system to avoid overloading
- UcamX PP8 trial can be launched as many times as you have UcamX licenses available in your license file
- UcamX title bar shows this is a trial. Expiry date: 31 May 2016

The image shows a screenshot of the UcamX monitoring GUI and Windows Task Manager. The UcamX GUI window, titled "Ucam MP monitor GUI - whiteboard-9232", displays a table of process information:

Slot	Flags	Ticket	Function	Effort	rSHM size	Object	Progress	PID
0	A R	---	daemon_msman	---	0	---	0%	9232
1	A R D F	---	daemon_testtask	---	0	---	0%	---
2	A R D	17862	000000000530670	1	9943	FUNCTION_PARALLEL	100%	9368
3	---	---	---	---	---	---	0%	---
4	A R F	13402	000000000530670	1	9943	FUNCTION_PARALLEL	100%	---
5	R	9790	000000000530670	1	0	FUNCTION_PARALLEL	100%	4024
6	R	15256	000000000530670	1	0	FUNCTION_PARALLEL	100%	9848
7	R	16424	000000000530670	1	0	FUNCTION_PARALLEL	100%	9184
8	R	5003	000000000530670	1	0	FUNCTION_PARALLEL	100%	11372
9	R	10586	000000000530670	1	0	FUNCTION_PARALLEL	100%	4104
10	R	24183	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
11	R	10286	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
12	R	27089	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
13	R	31427	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
14	R	28618	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
15	R	23758	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
16	A	9833	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
17	A	30933	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
18	A	4170	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
19	A	2155	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
20	A	25722	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
21	A	17190	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
22	A	19977	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
23	A	31330	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
24	A	2369	000000000530670	1	0	FUNCTION_PARALLEL	0%	---
25	A	28693	000000000530670	1	0	FUNCTION_PARALLEL	0%	---

The Windows Task Manager window shows the "Performance" tab, displaying CPU usage at 100% and physical memory usage at 4.91 GB. The UcamX icon on the desktop is labeled "PP8 trial".

The CPU Monitor dialog box shows the following information:

- CPU utilization: 8 of 8 (indicated by a green progress bar)
- Completed layers: 38 of 59 (indicated by a green progress bar)
- Buttons: "R&D" and "Cancel all"

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Gerber X2 input upgrade

- Captures incoming Gerber X2 .FileFunctions and converts them to your life-long Ucam manufacturing layer subclasses automatically
 - After input your X2 job is ready to roll, taking into account all of your production-specific job set-up requirements and peculiarities
 - Simply hit the ground running with X2 jobs
- Gerber X2 output is adopted by an increasing number of CAD software vendors. Check out the most recent list of software vendors supporting X2 at <https://www.ucamco.com/en/file-formats/gerber/vendors>
- Remind your customers of this unique opportunity.
- Contact us for any assistance you may need to help convince them to supply you with this state-of-the-art data format

.FileFunction value	Usage
Copper, L<p>, (Top Inr Bot) [, <type>]	A conductor or copper layer. L<p> specifies the position in the stack. (p is an integer). The mandatory mark (Top Inr Bot) specifies it as the top, an inner or the bottom layer; this redundant information helps in handling partial data. Note that the top copper layer is L1; its specification is "Copper, L1, Top [, label]"; L0 does not exist! The type is optional. If present it must take one of the following: Plane, Signal, Mixed or Hatched.
Soldermask, (Top Bot) [, <index>]	The image represents the solder mask openings. The index is not present if there is only one solder mask on a side. If there are more than one solder masks the numerical index numbers the masks on a side from the PCB surface outwards, starting with 1 for the mask closest to the surface.
Legend, (Top Bot) [, <index>]	A legend is printed on top of the solder mask to show which component goes where. A.k.a. 'silk' or 'silkscreen'. See the Soldermask row for an explanation of the index.
Goldmask, (Top Bot) [, <index>]	See the Soldermask row for an explanation of the index.
Silvermask, (Top Bot) [, <index>]	See the Soldermask row for an explanation of the index.
Tinmask, (Top Bot) [, <index>]	See the Soldermask row for an explanation of the index.
Carbonmask, (Top Bot) [, <index>]	See the Soldermask row for an explanation of the index.
Peelablesoldermask, (Top Bot) [, <index>]	See the Soldermask row for an explanation of the index.
Glue, (Top Bot) [, <index>]	See the Soldermask row for an explanation of the index.
	indicates via's that must be tented
	indicates via's that must be filled

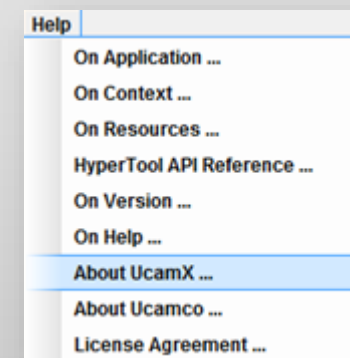
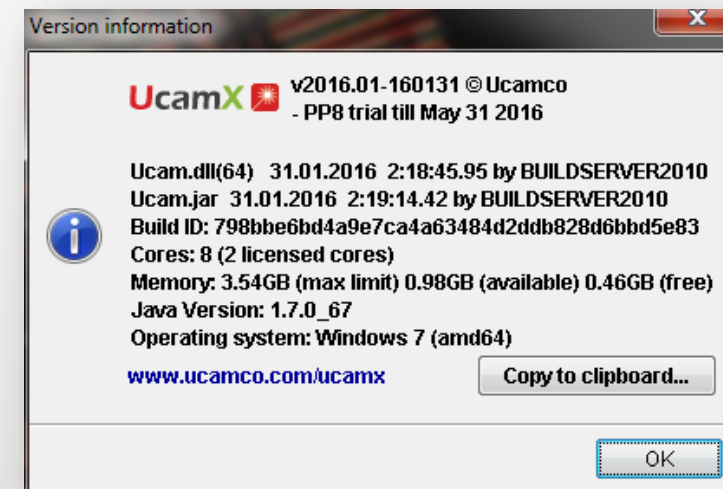


UcamX v2016.01 Release Notes

And many more...



- Input of ODB++ version 8 data sets
 - Keep up your integration level with 3rd party CAM data suppliers
- New speed-optimized UcamX workspace defaults
 - Faster program startup
 - Responsive switching between workspaces
- New "About UcamX..." dialogue with "Copy to clipboard..." functionality helps establish the correct software/hardware /OS/license/... configuration accurately in case of a support issue.
 - Easier and faster diagnosis of issues related to a specific OS, hardware or version
 - UcamX website link included for accessing up-to-date product info
- A wealth of enhancements to existing features
 - Check out the version list of maintenance enhancements



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