

Release Notes - Cenon CAM 5.0.x

2019-12-04

1. Requirements

5.0.0: Mac OS X >= 10.8 (Mountain Lion) up to 10.14 (Mojave)
Computer: Intel 64 Bit, Intel 32 Bit

Warning:

! Users who depend on true Single Line Fonts (1Line) shouldn't update to Mac OS 10.10 - 10.14, until Apple has fixed an issue preventing certain characters from working! However, the 2-Line Fonts work.

2. File Locations and Installation

Generally it is good advice to make a copy of an Application, before installing a new version (Cenon.app -> Cenon-4.0.2.app). This way, you can always go back to the previous release, if necessary.

With version 4.0.3 Cenon received a new App-Id (com.Cenon). When installing Cenon 4.0.3 or higher the old database will be copied from "de.vhf.Cenon" to "com.Cenon". This way old and new versions remain working with the same defaults. When updating to Cenon 4.0.3, the installation creates a copy of an existing Version of Cenon (Cenon_old.app). To start Cenon the first time after the Installation, you have to start Cenon directly from the Application folder (not the Dock).

Version 4.0.3 creates a convenience link to the hidden User Library:
"Documents/Cenon" -> "Library/Application Support/Cenon"

You can enable the Library folder with a terminal command:
chflags nohidden ~/Library

3. Cenon-Files (.cenon)

The files written with Release 5.0 can be read by older Versions of Cenon (down to Version 3.6). However, some features (including the features listed below) will be ignored:

- Project Settings	3.9.0	new
- Coordinate Precision	4.0.0	increased
- counter-direction	5.0.0	flag for counter-direction added, older Cenon files (< 4.2) use the default [counter direction]
- Tool-Parameters of Layer	5.0.0	new, you can override tool parameters for a layer

4. Device Files ("Library/Application Support/Cenon/Devices/xyz/*.dev")

The following features have been added to the Device Configuration:

+ Vacuum Matrix (#VAC, #VXA, #VXP)

New in 5.0.0

```
/* vacuum tables (matrix)
* command allows 1 (value), 2 (port+value) or 3 (addr+port+value) parameters
* matrix to layout the vacuum matrix:
*   X = number of vacuum tables in x (0 = Left) 2, 3
*   Y = number of vacuum tables in y (0 = Low) 0, 1
*   vMin, vMax, vInc define the range of the values
*/
// single vacuum table (On/Off)           " val" X Y min max inc
vacuum table ("CMD" X Y vMin vMax vInc) #VAC "OS2,%d;" 1 1 0 1 1
// vhf Sign X vacuum matrix              "add prt val" X Y min max inc
vacuum table ("CMD" X Y vMin vMax vInc) #VAC "!V%dP%d=%d;" 2 4 0 100 100
// matrix translation tables for address and ports (defaults = 0)
// index = y * cntX + x (row by row, LL to UR)
// example (x = 2, y = 2): 2, 3
//                               0, 1
vacuum matrix addr ... (default = 0)     #VXA 1 1 1 1 2 2 2 2
vacuum matrix port ... (default = 0)     #VXP 15 35 55 75 15 35 55 75
```

+ Stoppers (#STP, #SXP)

New in 5.0.0

```
/* Stoppers
* command supports two values only (port, status)
*   X = number of stoppers along x axis
*   Y = number of stoppers along Y axis (negative: display stoppers at top)
* translation table is a list of ports along x axis, then y axis (start counting at LL)
*/
// STP " prt val" X Y
```

```
stopper ("CMD" X Y) #STP "OS%d,%d;" 2 -3
stopper x ports, y ports (default = 0) #SXP 6 7 3 4 5
```

+ Safety Scanner (#LQS, #LRS) New in 5.0.0

```
/* safety laser scanner
*/
laser check 1+2 (<- I14=0/1) #LQS "?IA14;" "I14=" "?IA15;" "I15="
laser restart #LRS "OA13,1;" "OA13,0;"
```

+ Camera (#COF, #CPM) New in 5.0.0

```
camera offset (X Y Angle) #COF 90.0 -21.8 0
camera position mode (0 = off, 1 = on) #CPM 0
```

+ Camera Light (#LON, #LOF) New in 5.0.0

```
camera light ON #LON "OS3,1;"
camera Light OFF #LOF "OS3,0;"
```

+ Multi-Head Option (#KOF, #MOF) New in 5.0.0

```
knife offset XY to spindle [mm] #KOF -10.0 -10.0
tool offset XY to spindle [mm] #MOF 10.0 10.0
```

+ Output Loop (#LOP) New in 5.0.0

```
output loop command (vhf CNC 950) #LOP "WI5,0,0,2;WI5,1,0,2;"
output loop command (NC M-Code) #LOP "M66 P5 L1 Q3600"
```

+ Lock Magazine range (#TML) New in 5.0.0

```
tool magazine locked positions (from to) #TML 3 5
```

5. Camera+Targeting

Camera+Targeting can run in 32 Bit or 64 Bit Mode:

32 Bit Mode is needed for Digitus Video-Grabber and VideoGlide Driver.

64 Bit can be used with certain new UVC Video-Grabber devices. No driver needs to be installed.

If you have a Digitus Video-Grabber/VideoGlide driver and a 64 Bit Computer, you need to start Cenon in 32 Bit Mode ! In Finder, select Cenon.app and pick "File -> Get Info" from the menu. In the inspector check "Open as 32-bit mode".

Bit	OS X	Camera+Technology
32	>= 10.5	QTCapture with VideoGlide Driver
64	>= 10.7	AVCapture with special UVC Video Grabber

Warning Mac OS 10.12 (Sierra): Users with the UCD-211 Video Grabber (black) need to upgrade to at least Mac OS 10.12.4.

6. User-Experience

We take great care not to make critical changes to the accustomed user experience.

The following changes of the User-Experience seem to be worth noting:

- + Copy/Paste [5.0.0]:**
The behavior of copy and paste changed:
Graphic objects are pasted to the same layer they are copied from.
If graphic objects from multiple layers are selected, they each are pasted to their source layer.
If the source layer is not editable, graphics is pasted to the selected layer instead.
If the selected layer is not editable, nothing gets pasted, and a warning appears.
- + CAM-Panel, Layers, double click on Tool [5.0.0]:**
A double click on the tool still brings you to the tool parameters, however changing the tool parameters from here will change the tool parameter of the layer (not the tool magazine!). This is reflected in the color red for the font of every tool parameter, which differs from the tool magazine. Additionally, three icons appear in the left side of the panels to coordinate the layer parameters with the magazine and other layers.
To change the tool in the magazine, you can access the tool via the magazine.
- + Display Moves (Webs) [5.0.0]**
webs are displayed in false color to make them more visible. This means, the z height will be displayed inverted: black = surface, white = full material depth
- + CAM-Panel with vertical Tabs [5.0.0]**

The tabs of the CAM-Panel are vertically aligned on the left side of the Panel now.

The only way to return to the old horizontal tabs is via command line:

```
defaults write com.Cenon verticalTabView -bool NO
```

+ **Mirror Layer**

[5.0.0]

If you mirror a layer in the CAM Layer-Details, the switch "Change Direction" is automatically set.

In prior versions, the direction of the output path had been changed in the background, which was no transparent behavior.

Older projects will be updated to the new behavior: switch set, direction of the graphics paths updated

+ **Composite-Window**

[5.0.0]

The new version offers the choice to display projects in a composite window combining the project and most of the panels.