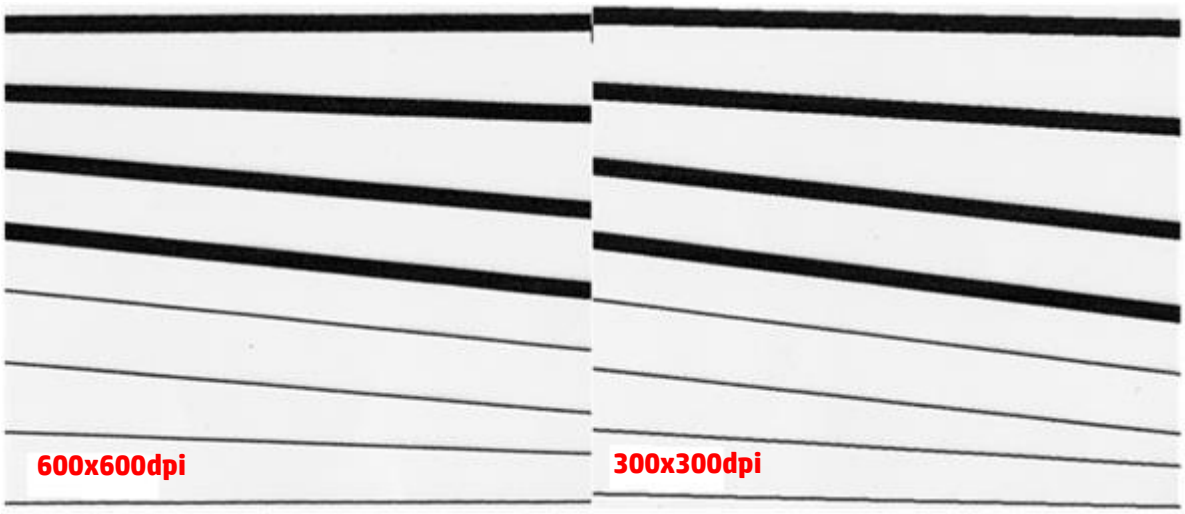
Latex 300 Printer Series

Rendering resolutions

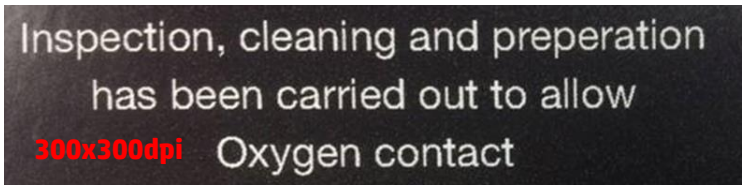
This document explains the rendering resolutions used by different RIPs (SAi, Onyx and Caldera) and how to change the parameters on these RIPs, in the event a customer needs to do so.

Original issue

Diagonal lines can, sometimes, appear jagged. Depending on the instance, increasing the rendering resolution from 300x300dpi to 600x600dpi from the RIP software may solve the problem. In the picture below you can see the output differences between the two rendering resolutions:



Poor text details have been observed when printing small white letters over a dark background. The most probable cause is insufficient printhead alignment and the advice is to align the printheads using self-adhesive vinyl. If this is not sufficient, then also increase the rendering resolution from 300x300dpi to 600x600dpi from the RIP software. The picture below shows one example of this defect:



Rendering resolutions available

In the current firmware rendering resolutions were set by default to the maximum available value for print modes equal to or greater than 6 passes (as shown in the table below), But for previous profiles, which were downloaded with the firmware NEXUS_0.2.9.4 or older, the rendering resolution was not modified and may not be set to the maximum available value. This document will show you how to change this resolution by changing the print modes through the RIP.

The table below shows the resolutions recommended according to the different passes used:

Passes	Printing resolution [dpi]	Allowed rendering resolution s (input) [dpi]	Old default resolution [dpi]	Current default resolution [dpi]
1	600x1200	150	150	150
2	600x1200	150, 300	150	150
4	600x1200	150, 300	150	150
6	600x1200	150, 300	150	**300**
8	600x1200	150, 300, 600	300	**600**
10	600x1200	150, 300, 600	300	**600**
12	600x1200	150, 300, 600	300	**600**
16	600x1200	150, 300, 600	300	**600**
18	1200x1200	150, 300, 600	300	**600**
20	600x1200	150, 300, 600	300	**600**

Explanation by column:

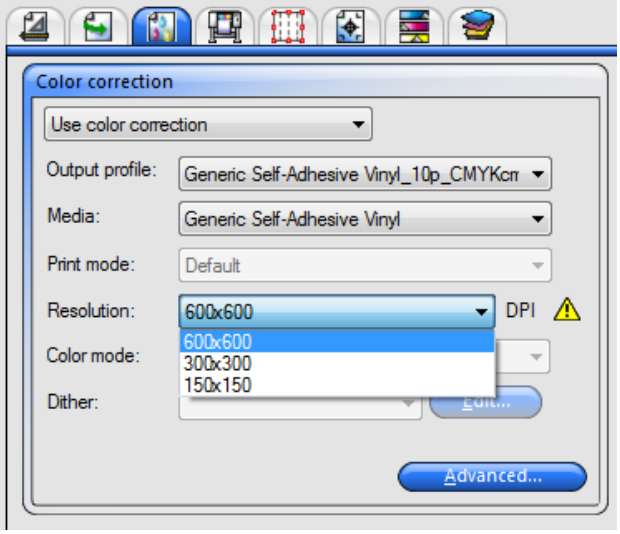
- **Passes:** shows the number of passes used by the print mode.
- **Printing resolution:** this column displays the output resolution used by the printer.
- **Allowed rendering resolution s (input)**: indicates the rendering resolutions available from the RIP.
- **Old default resolution:** this column shows the default rendering resolution on the firmware version NEXUS_0.2.9.4 and older.
- **Current default resolution:** this column shows the default rendering resolution from the firmwares that followed the version Nexus_0.2.9.4 (not included).

It is possible to change default rendering resolutions via the RIP. The following steps show how to change this setting in SAi, Onyx and Caldera for a single job file and permanently for the media preset.

How to change the default rendering resolution with SAi

Single job file:

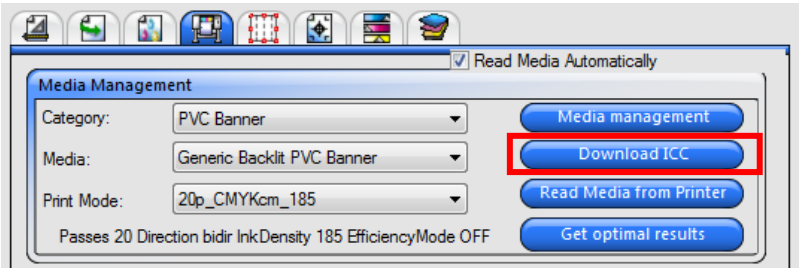
1. In "Job properties…", go to the "Color Management" tab and select the rendering resolution to be used:

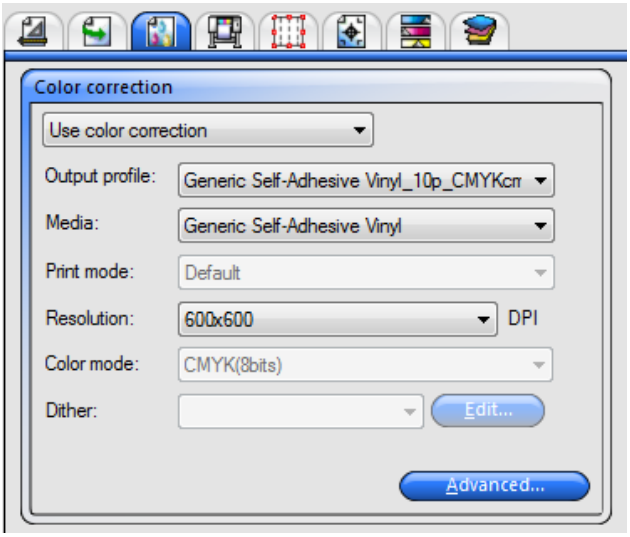


After changing the resolution, a warning message appears next to the selection ("*Your resolution selection does not match what is stored in the ICC Profile*"). This warning message does not prevent printing in the resolution selected. These settings will only apply to the current print job, after which the settings will return to default and the warning message will disappear.

Entire media preset:

To change the rendering resolution for all jobs printed from now on, follow the above process for a "single job file"; then go to the "Printer Options" tab and click on the "Download ICC" button. When this is done, return to the "Color Management" tab to check that the warning message has gone. The settings selected will now always apply to that media profile, unless changed manually again as above:



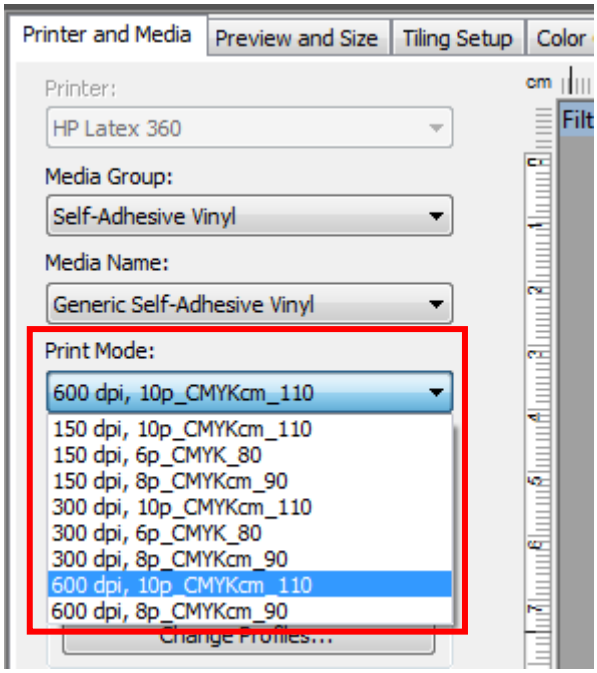


How to change the default rendering resolution with Onyx

Single job file:

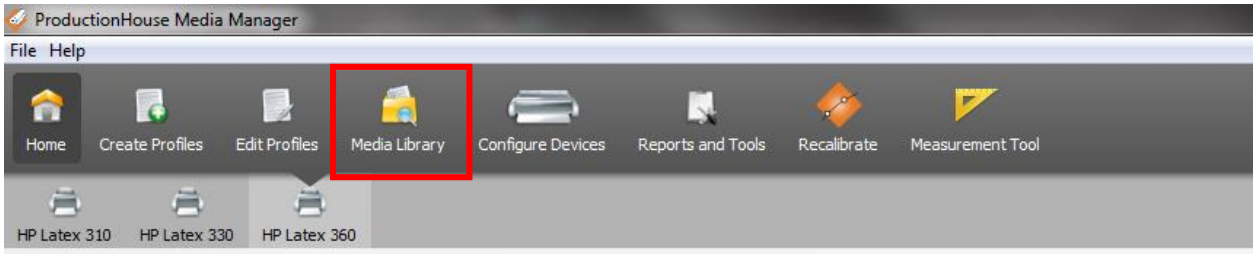
With the latest driver available from Onyx, it is possible to change the rendering resolution using "Job Editor".

1. Go to the "Printer and Media" tab and expand the "Print mode" section. Select from the list of all print modes available.

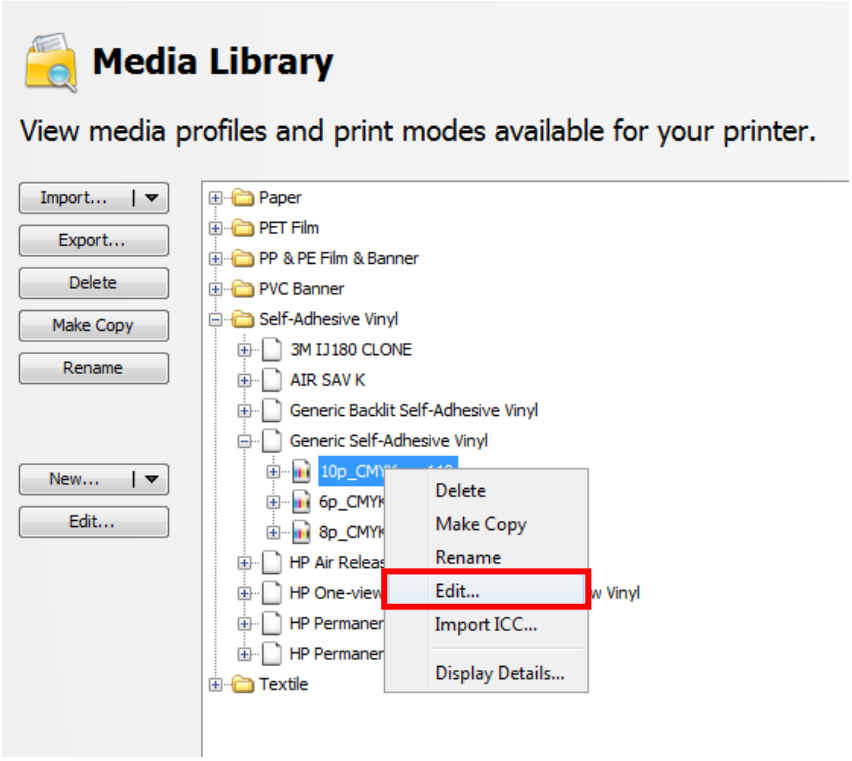


Entire media preset:

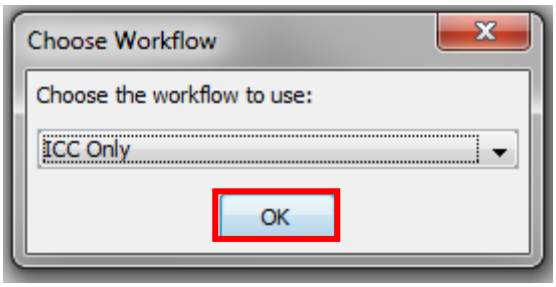
1. Open the “Media Manager” in Production House 11.
2. Select the printer model and click on “Media Library”:



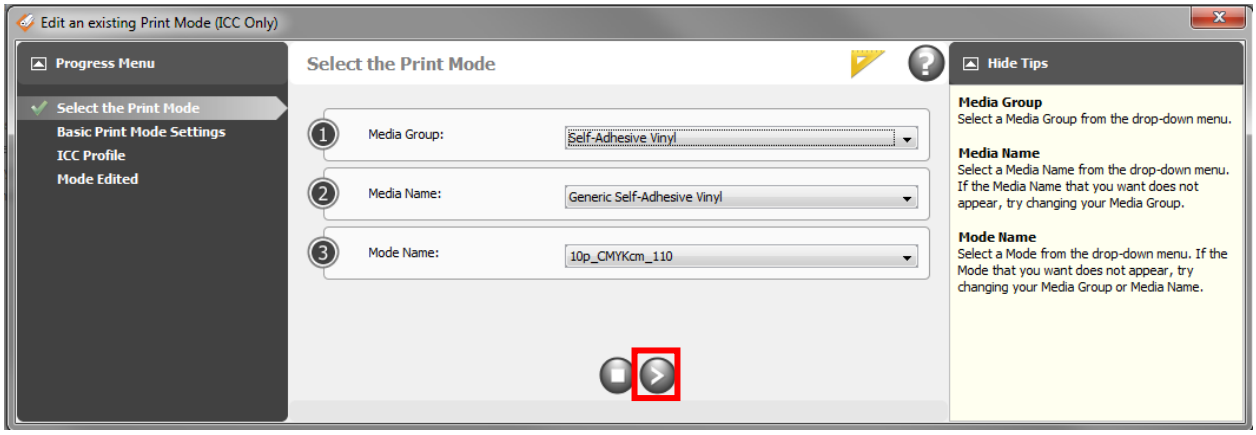
3. Select the profile and print mode to be changed by right-clicking and selecting “Edit…”:



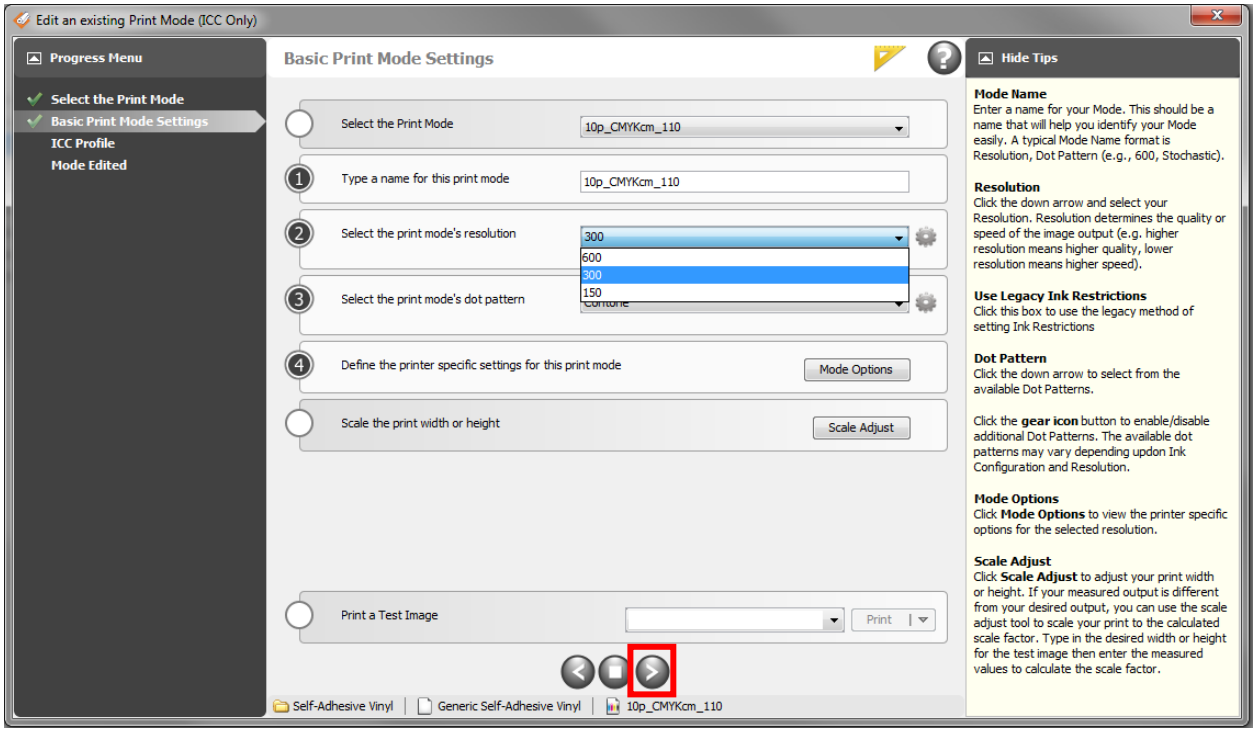
4. In the “Choose Workflow” window, click OK:



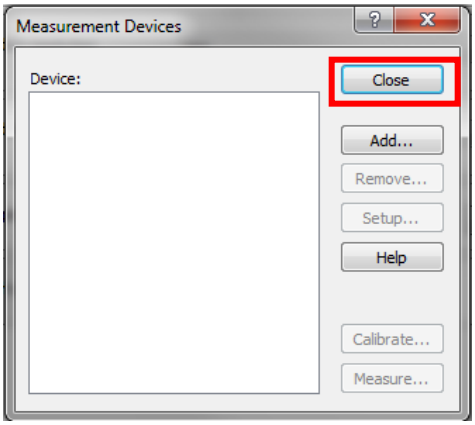
5. In the following window press “Next”. No modification is required:



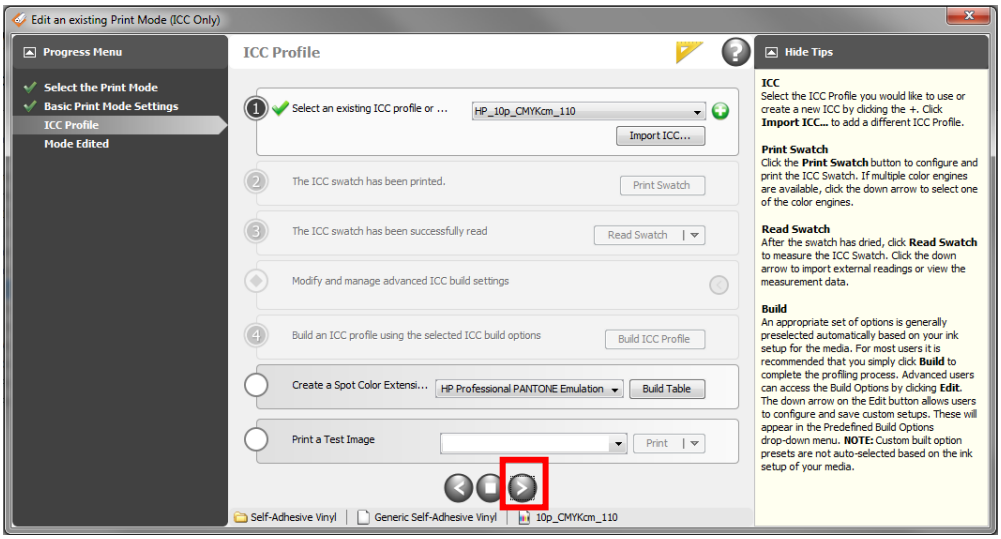
6. Then, select the resolution required in box 2 and press “Next”:

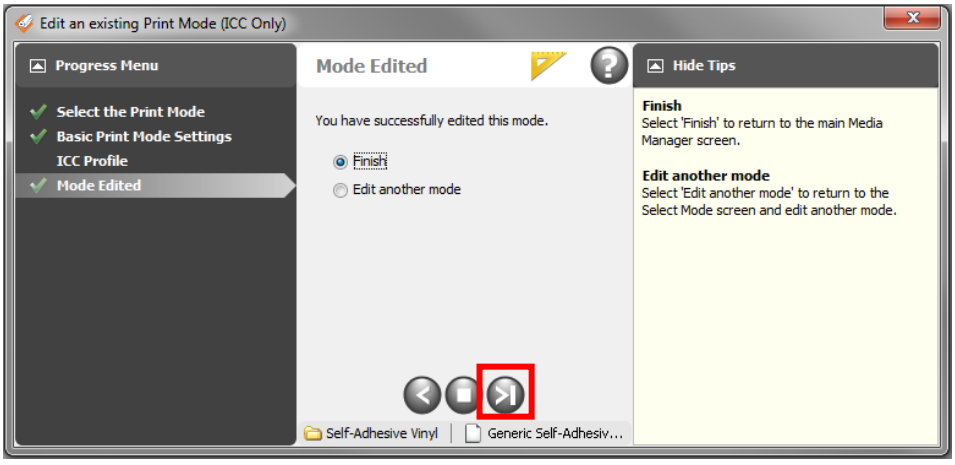


7. In the “Measurement Devices” window, press “Close”:



8. Finally, press “Next” and “Finish” respectively in the last two windows:



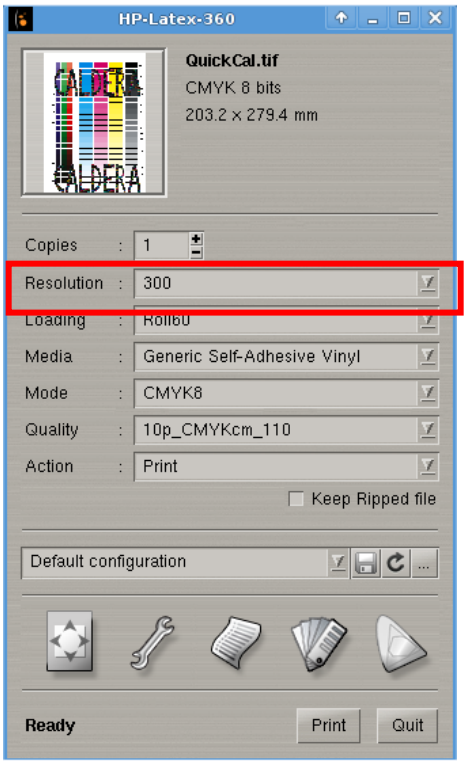


The resolution has now been changed permanently for this print mode. These settings will be applied each time this print mode is used, unless changed again as above.

How to change the default rendering resolution with Caldera

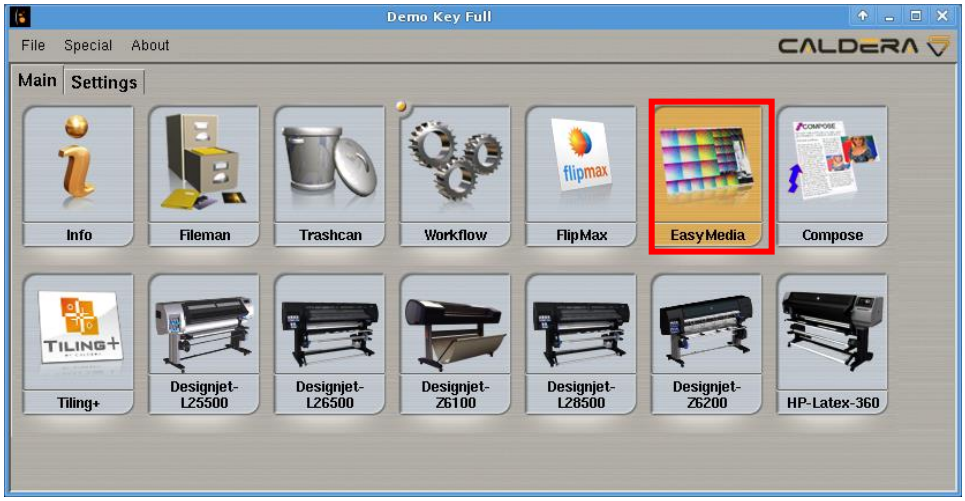
Single job file:

It is more obvious where to change the rendering resolution than the previous RIPs. The following screenshot shows the location of this setting:

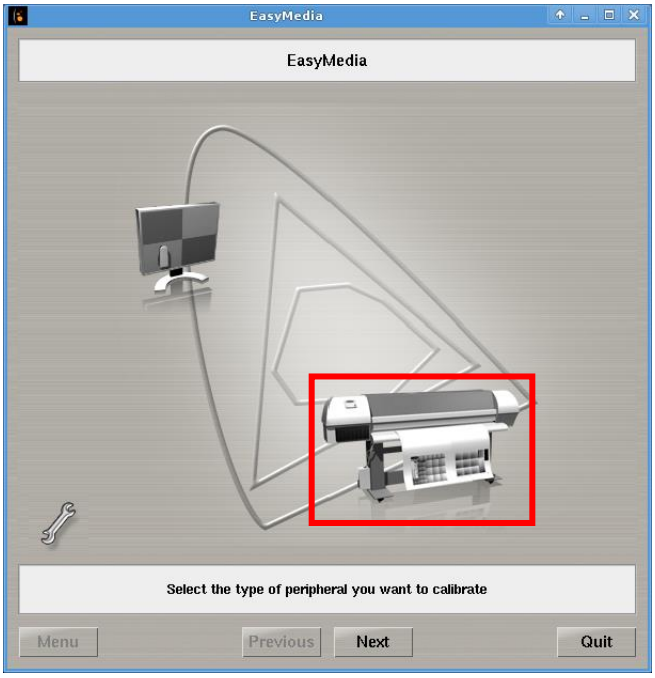


Entire media preset:

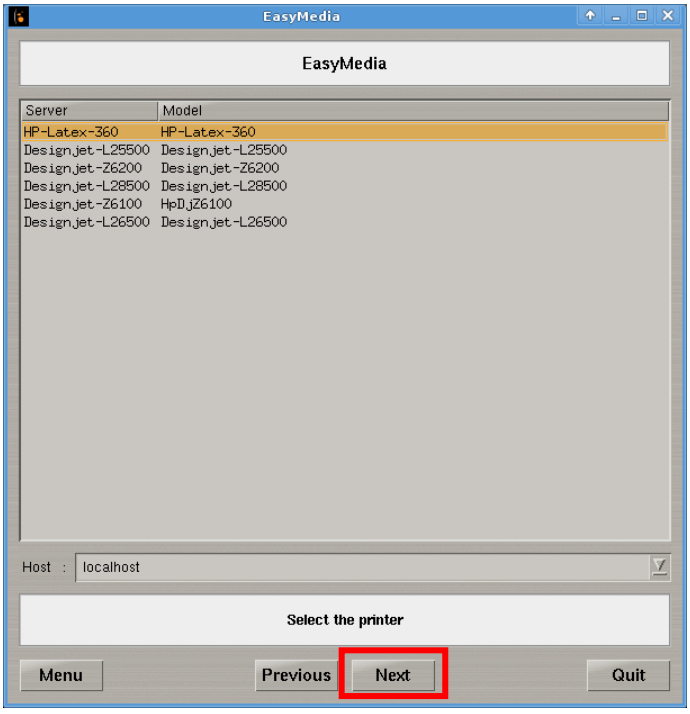
1. Double-click the “Easy Media” menu inside the Caldera RIP:



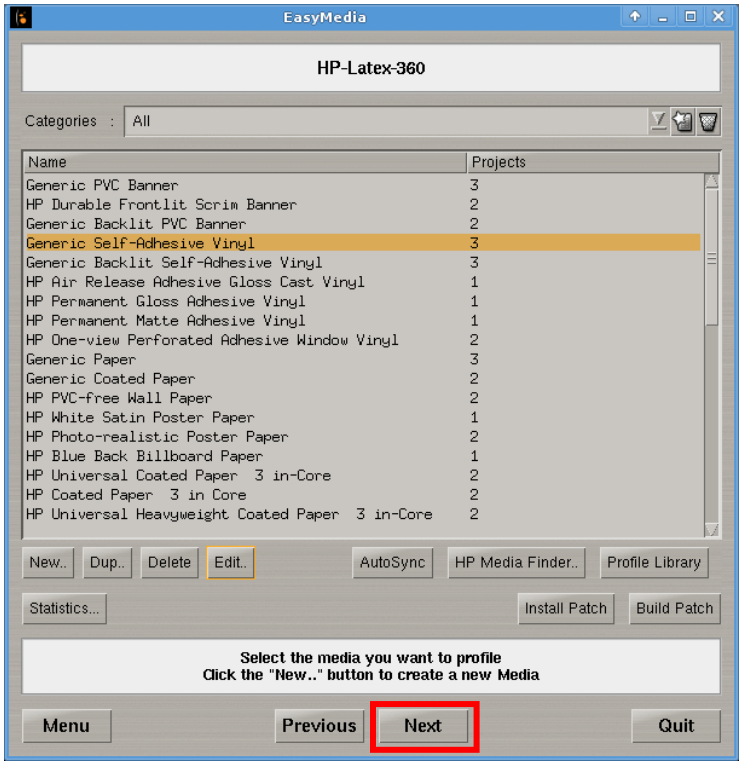
2. Then, double-click the printer icon:



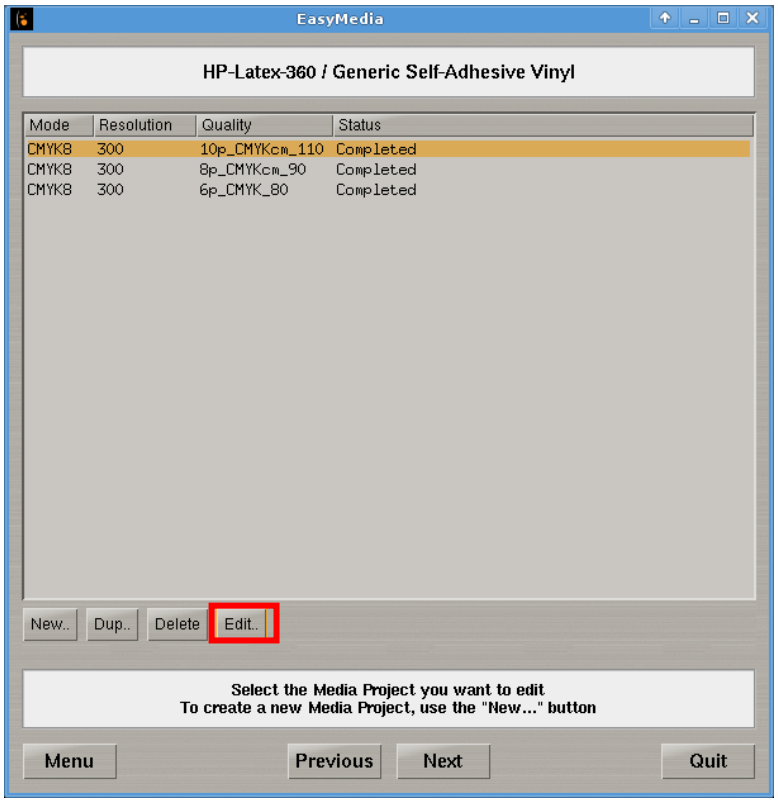
3. Select the printer on which the settings are to be changed and press “Next”:



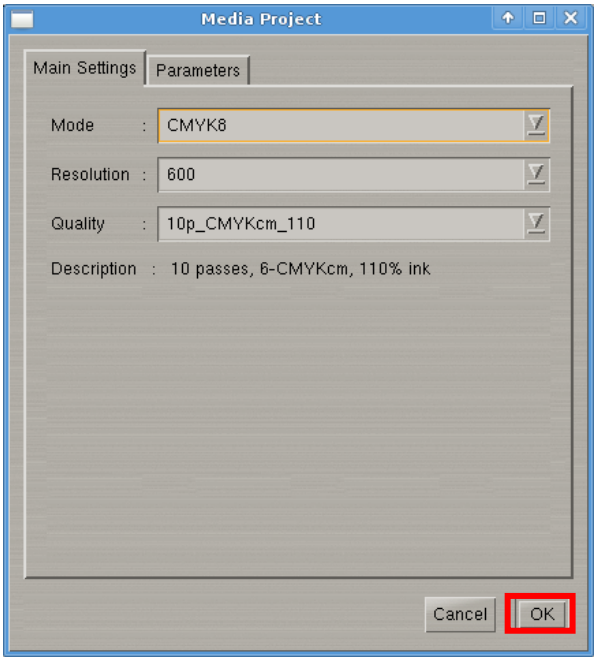
4. Then, select the media profile to be modified and press “Next”:



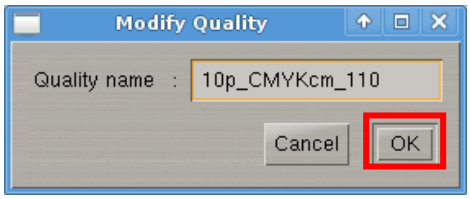
5. Now, select the media preset to be modified and press “Edit…”:



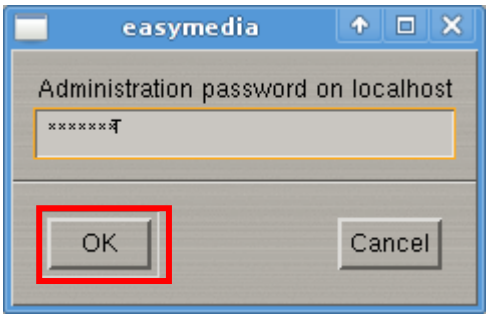
6. In this window, choose the resolution and the quality, then press “OK”:



7. In the following window, rename the quality name, if required, then press “OK”:



8. The enter the administration password on localhost:



9. Confirm the change, by clicking “Yes”:

10. The screen returns to the “EasyMedia” window. The resolution change for the specific media preset can be seen. Finally, press “Quit” to complete the rendering resolution modification: