Calibrated Printing Modes (CPMs) may require adjustments to enhance their usefulness. These adjustments can range from small tweaks like different color profile settings (GCR) or updated print modes (e.g., faster bi-directional CPM), to more significant changes such as switching media or engine (as long as they are compatible).

In some cases, these modifications can be made by creating new derived CPMs. However, creating new derived CPMs involves several print and measure steps, which may not always be feasible due to time constraints. Therefore, there is a need for a quick test using a modified CPM. This tutorial will explain how to modify existing CPMs without the need for printing or measuring.

*Generic CPMs cannot be edited. They need to be kept unaffected to derive new CPMs.*

1. Copying CPMs

CPM can be copied in different directions: to a different media type or even towards another engine (as long as both source and destination engines are compatible).

Copying a CPM to another media

This exercise will learn how to copy existing CPMs to a new media type.

1. Open the Media Hub.
2. Click File – New Media
3. Name the new media "Tutorial.
4. Go to your original CPM (e.g. from the Generic Media), select the CPM, and drag it to the new "Tutorial" media.
5. Once released the Asanti client will ask in what status the CPM needs to get.
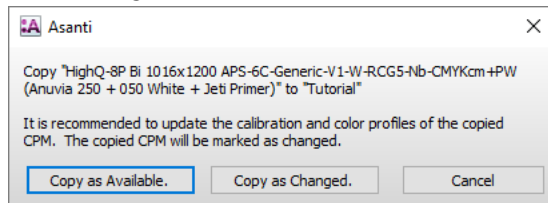
- As available: The CPM has the same resources (Calibration table, ICC profile, print mode, etc....) as the original, but with a new name. These CPMs may be less than optimal for the new media as they are not measured.

- As changed: CPM receives a changed label. The CPM can be used but a warning will be generated mentioning the CPM has been changed. The changed label can be resolved by calibrating the new CPM and doing a profile tune.
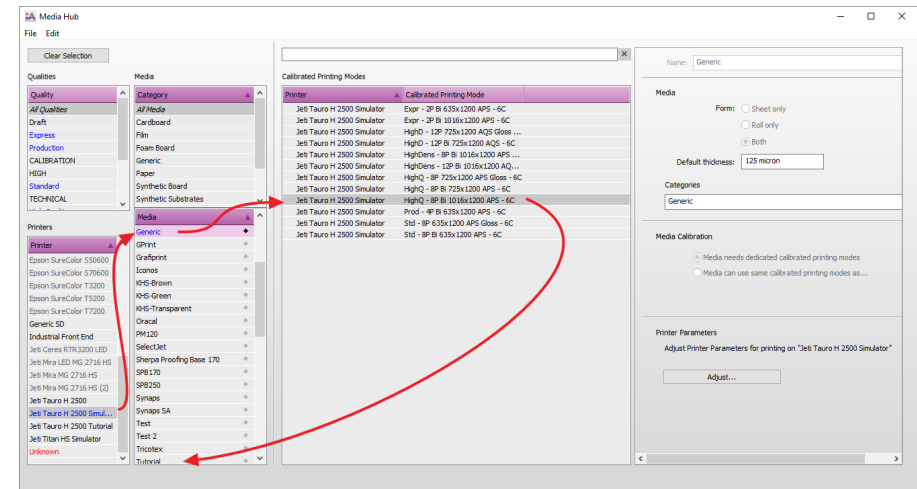
6. Click "Copy as Changed". The CPM is then copied and converted to the new media (this might need some time). The CPM will become available but each calibration set will be labeled changed.

The new CPM has now been labeled as changed. This label indicates that the quality of output cannot be guaranteed and needs to be checked. This can be done by calibrating (and eventually profile tune). Once the quality is acceptable, then the CPM changes can be accepted.
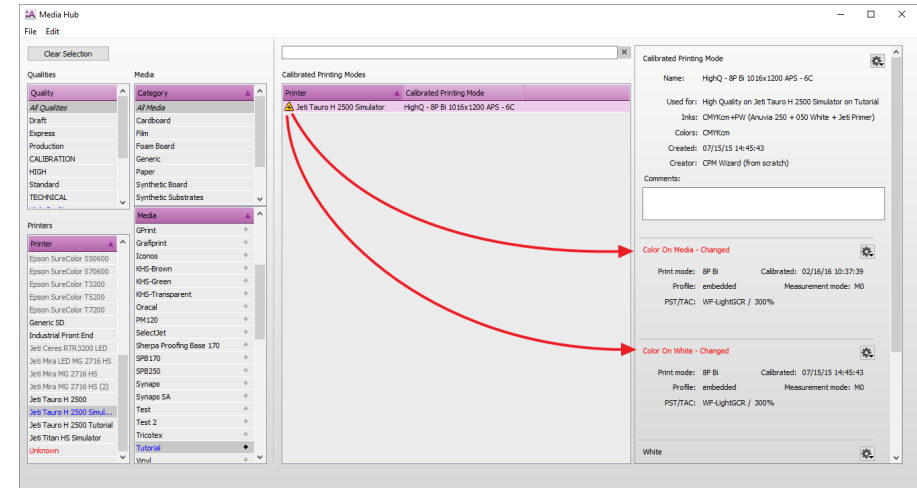

Accepting the CPM changes

The status of the CPM can be updated to mark it as "Available" without an orange label.

1. Click on the cogwheel of the CPM (or context-click on the CPM itself).
2. Click on "Accept Changes..." and click "OK" to accept the changes.
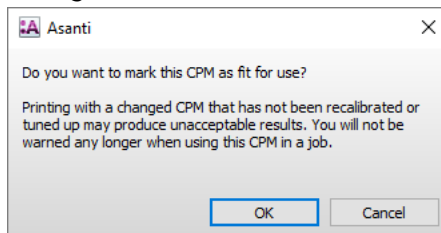

Changes can also be accepted on an individual calibration set (on media, on white ...) by clicking on the cogwheel next to the individual calibration set.
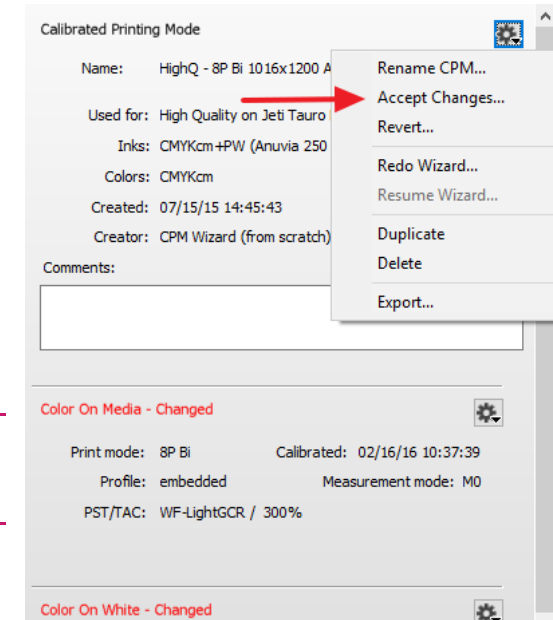
Copying a CPM to another engine.

Drag and drop can also be used between digital presses if they are compatible. The system will refuse to copy when this isn't the case. The drag and drop is an alternative and more user-friendly way than exporting/importing (still available to exchange CPMs between different Asanti servers).

1. Go to your original CPM, select the CPM, and drag it to another digital press.
2. Once released the Asanti client will copy the CPM to the alternative engine.
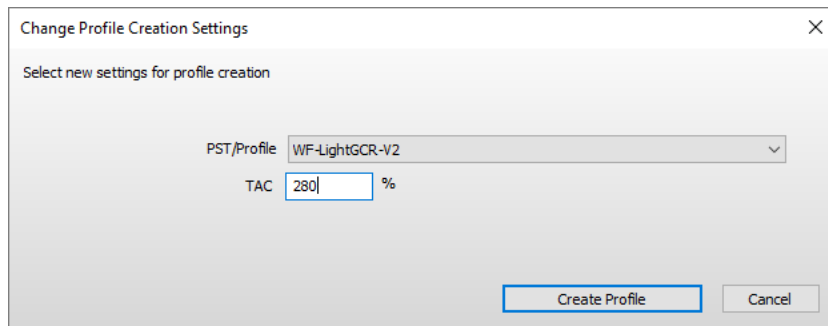3. The CPM is now available in a changed status.
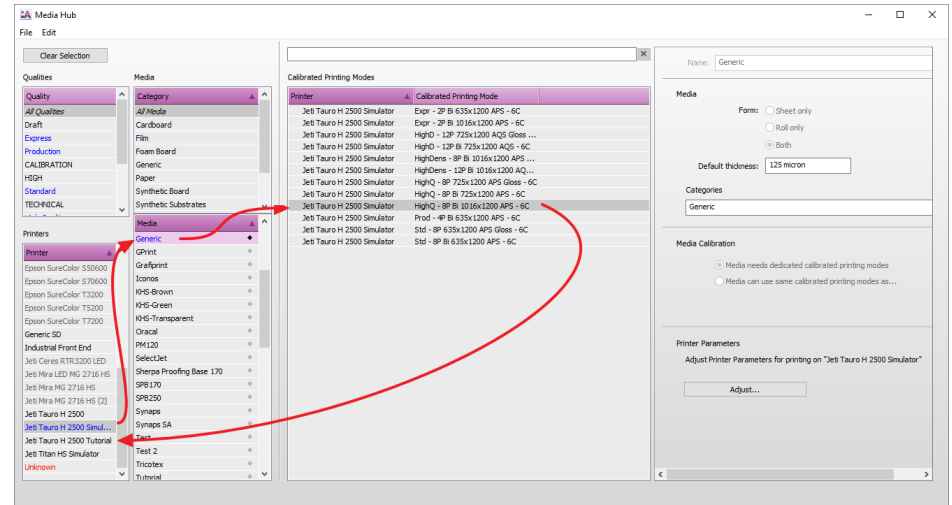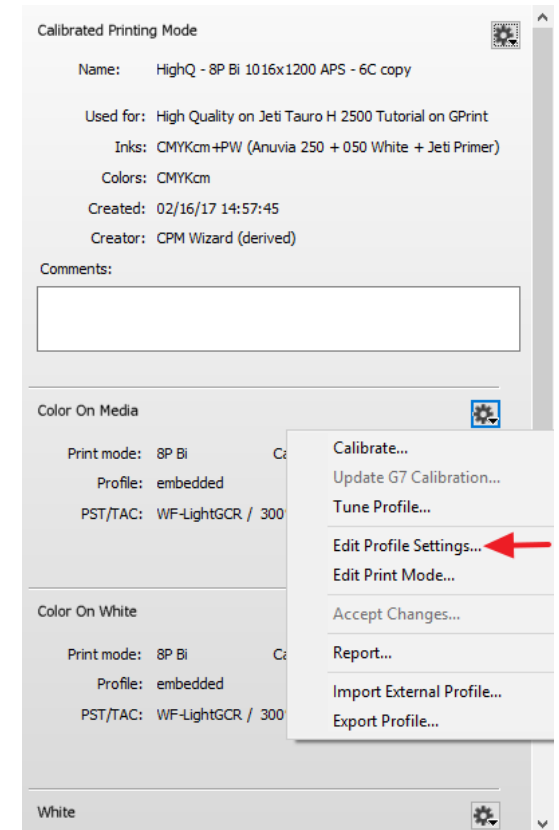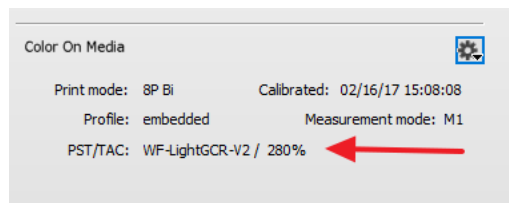
2. Changing the profile settings of a CPM.

Profiles are always created based on a measurement file. This can be done by various applications that can generate ICC profiles (including the Asanti client). How this measurement file is calculated to a profile is described in the profile steering file (PST). The calculation can be done with different settings. One of the differences in the GCR settings (replacement by the common CMYK black component by the black ink). Low GCR settings use more CMY tints. Heavy GCR settings use more black ink and less CMY. This can make output noisy (black drops can easily be distinguished) but these prints dry much better.

Lowering the TAC can be useful when drying problems affect the shadow parts of an image. The TAC level is the maximum amount of ink/color that will be printed on top of each other.

1. Select a CPM of the "Tutorial" media, context-click, and click "Duplicate".
2. Select the newly duplicated CPM.
3. In the right pane (CPM details) click on the cogwheel next to the Color on Media details. Click on "Edit Profile Settings …"
4. A profile settings window will open. From the dropdown menu select the WF-LightGCR-v2 steering file (PST). Lower the TAC to 280%. Click OK.

Change Profile Creation Settings	×
Select new settings for profile creation	
PST/Profile WF-LightGCR-V2 ⌄	
TAC 280 %	
Create Profile Cancel	

5. The CPM details are updated with the new PST and TAC level active.

Color On Media ⚙

Print mode: 8P Bi   Calibrated: 02/16/17 15:08:08
Profile: embedded   Measurement mode: M1
PST/TAC: WF-LightGCR-V2 / 280% ←

Calibrated Printing Mode ⚙

Name: HighQ - 8P Bi 1016x1200 APS - 6C copy

Used for: High Quality on Jeti Tauro H 2500 Tutorial on GPrint

Inks: CMYKcm+PW (Anuvia 250 + 050 White + Jeti Primer)

Colors: CMYKcm

Created: 02/16/17 14:57:45

Creator: CPM Wizard (derived)

Comments:

Color On Media ⚙

Print mode: 8P Bi   Ca   Calibrate…
Profile: embedded   Update G7 Calibration…
PST/TAC: WF-LightGCR / 300   Tune Profile…

Edit Profile Settings… ←
Edit Print Mode…

Color On White Accept Changes…

Print mode: 8P Bi   Ca   Report…
Profile: embedded   Import External Profile…
PST/TAC: WF-LightGCR / 300   Export Profile…
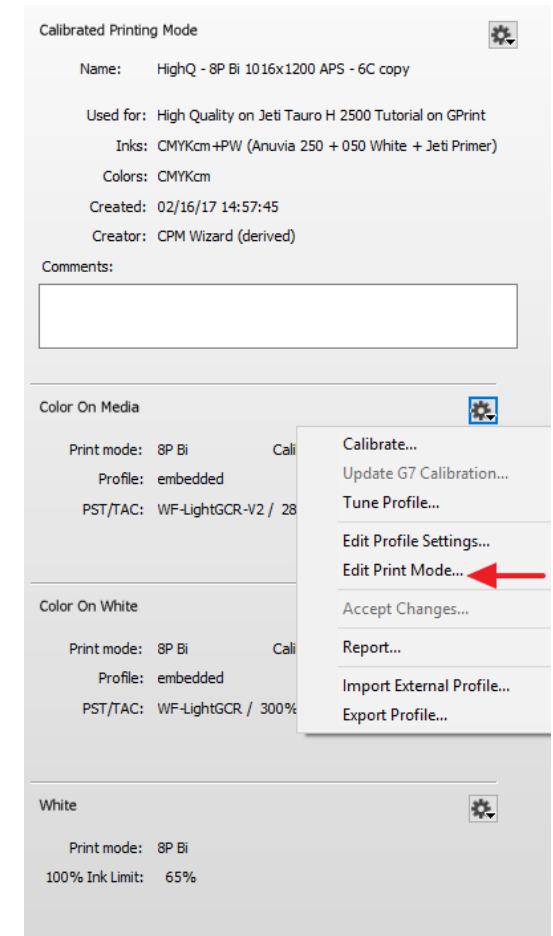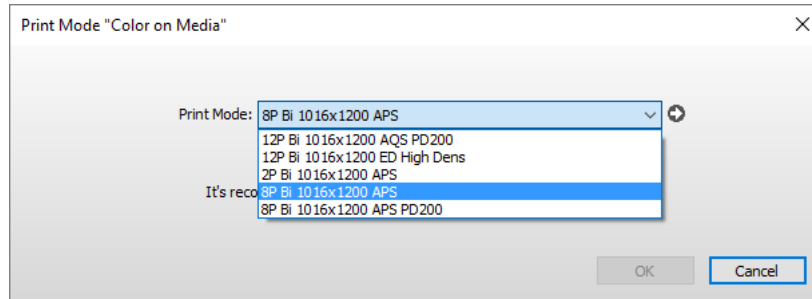
White ⚙

3. Changing the Print Mode of a CPM

The print mode of an existing CPM can be changed. This can be done to make the additional flavor of a CPM (bi- and uni-directional) or to improve the print quality (e.g. adjust the paper feed adjustment parameters of an Epson digital press).

Keep in mind that Agfa Certified CPMs are made in the Agfa labs by taking into account the capacity of the engine in speed/quality balance but also what the print heads can handle. Derived CPMs build further on these experiences. Changing print modes may affect this balance. So, be careful in changing print modes since they do not guarantee a good quality or worse: faster aging of the print heads.

1. Again, duplicate a tutorial CPM.
2. Select the newly duplicated CPM.
3. In the right pane (CPM details) click on the cogwheel next to the Color on Media details. Select "Edit Print Mode …" from the menu.
4. The dropdown menu allows selecting from a list of print mode presets.

Print Mode "Color on Media"

Print Mode: 8P Bi 1016x1200 APS

- 12P Bi 1016x1200 AQS PD200
- 12P Bi 1016x1200 ED High Dens
- 2P Bi 1016x1200 APS
- 8P Bi 1016x1200 APS
- 8P Bi 1016x1200 APS PD200

Calibrated Printing Mode

Name: HighQ - 8P Bi 1016x1200 APS - 6C copy

Used for: High Quality on Jeti Tauro H 2500 Tutorial on GPrint

Inks: CMYKcm+PW (Anuvia 250 + 050 White + Jeti Primer)

Colors: CMYKcm

Created: 02/16/17 14:57:45

Creator: CPM Wizard (derived)

Comments:

Color On Media

Print mode: 8P Bi   Cali

Profile: embedded

PST/TAC: WF-LightGCR-V2 / 28

Calibrate…
Update G7 Calibration…
Tune Profile…
Edit Profile Settings…
Edit Print Mode…
Accept Changes…
Report…
Import External Profile…
Export Profile…

Color On White

Print mode: 8P Bi   Cali

Profile: embedded

PST/TAC: WF-LightGCR / 300%

White

Print mode: 8P Bi

100% Ink Limit: 65%

Only print modes with the same resolution will be displayed.

5. Click ➡ to open the Print Mode parameters window of the presets, which allows changing a limited amount of (safe) print settings. Change a couple of things and notice the updated naming convention.

6. Click "OK" to accept the changes.

7. The filename of the print mode will now be displayed in italics to indicate the changed print mode (the print mode is not "standard" anymore). Click "OK" to update the CPM.

8. The CPM is now updated but is in a changed state. Eventually, do a calibration (and profiling) cycle to update the CPM with new measurements.
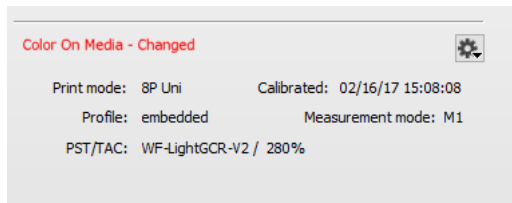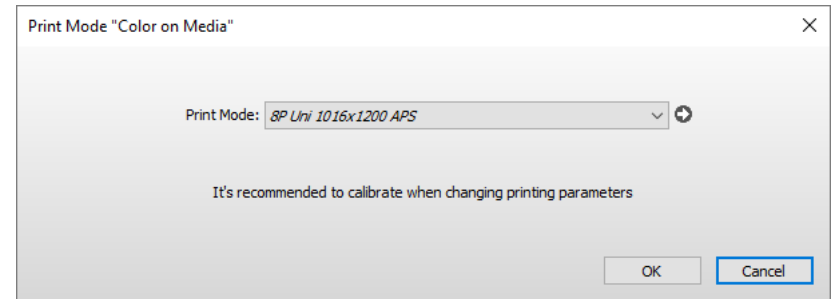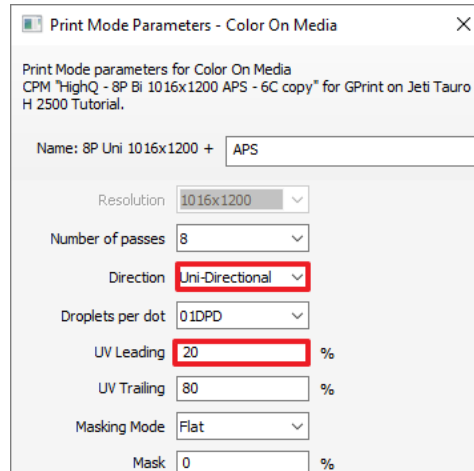

9. Open the cogwheel and click "Accept Changes..." to make the CPM available without restrictions.
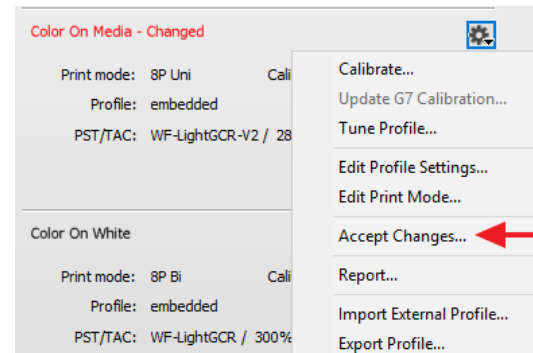
4. Importing an external profile.

An external profile can be added to the CPM. This external profile will replace the existing profile. Keep in mind that there will be no possibility to tune the profile with a limited profile target. It is always possible to revert to the original profile.

1. Again, duplicate one of the "Tutorial" CPMs.
2. Select the newly duplicated CPM.
3. Click on the cogwheel in the right pane (CPM details) next to the Color on Media details.
4. Click "Import External Profile ..."
5. A file dialogue will open. Browse to your external profile (ICC or icm) and click open to add the profile to the CPM.
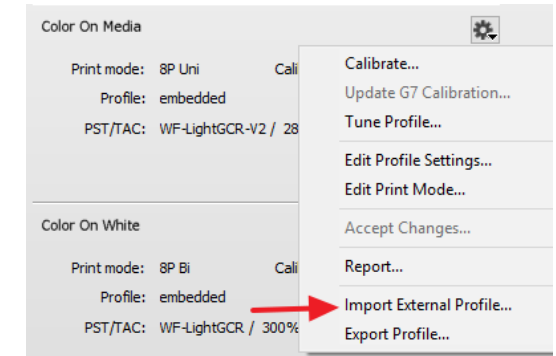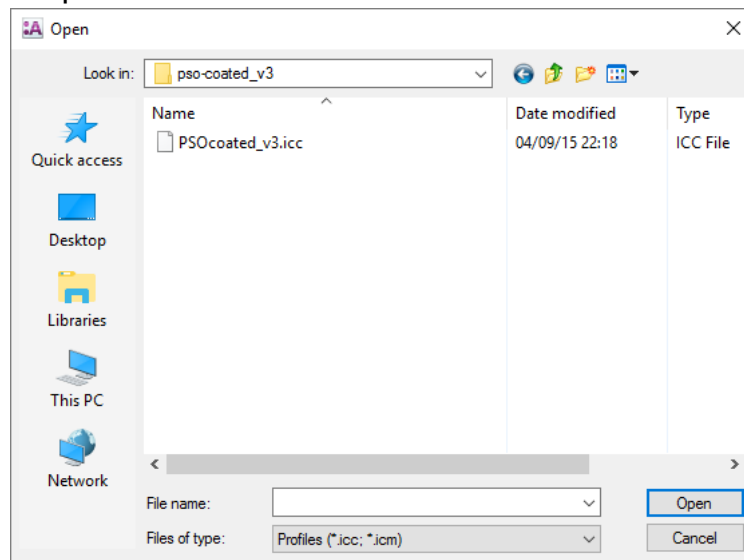
6. The profile is now added to the CPM. The CPM details are updated.
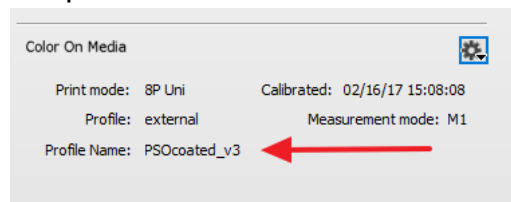
The options to tune the profile or to change the profile settings will now be greyed out. The Media Hub is not able to change or update any profile parameters of third-party profiles.

To revert a CPM to the initial profile.
The media hub still allows going back to a previous profile (also valid for calibration). The CPM is not lost if the external profile is not suitable for any reason.

1. Select the CPM with the external profile.
2. In the cogwheel of the CPM itself. Click "Revert...".
3. This will open the CPM history.
   Select the Profile import action and click revert to go back in time.
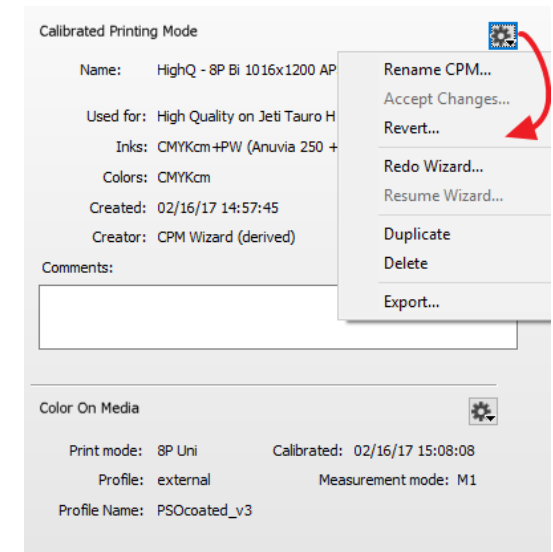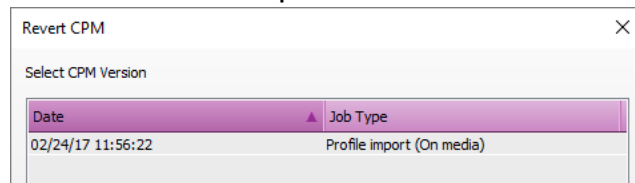
5.   Changing the 100% ink limit of varnish or white layers.

Additional inks such as white, varnish, and primer are printed as a fixed layer of ink, no characterization is done. In certain situations, it might be that the print quality of these additional inks isn't as it should be (media specificities, print limitations …). In those cases, it might be useful to change the level (100% ink level) of used white or varnish.

1. Context-click on the CPM in the Media Hub.
2. Click on the cogwheel next to the White (or Varnish) calibration set.
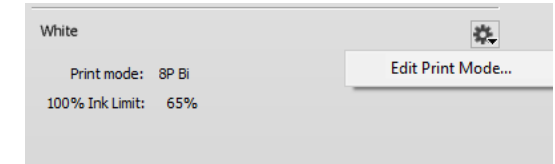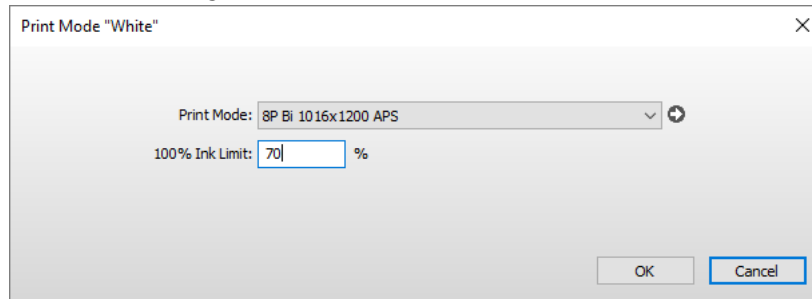
3. Change the 100% Ink Limit levels of white and/or varnish.

The available levels of varnish and white depending on the applications available in the CPM. Varnish will be disabled when there is no varnish calibration set available. A CPM without an "on white" calibration set can still contain a white printing mode and ink limit level. The white is then used for post-white printing.

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4. The CPM will be updated with the new 100% Ink Level for white.