# Color Management-Advanced

This Advanced tutorial is an extension to the Basic Color Management Tutorial, and also uses the completed exercises from that tutorial.
It demonstrates how you can apply different to the default color management settings of Asanti.

1. Alternative Input profile tagging and Rendering Intents
2. Changing Rendering intent of output color conversion
3. The PDF Output Intent when available option
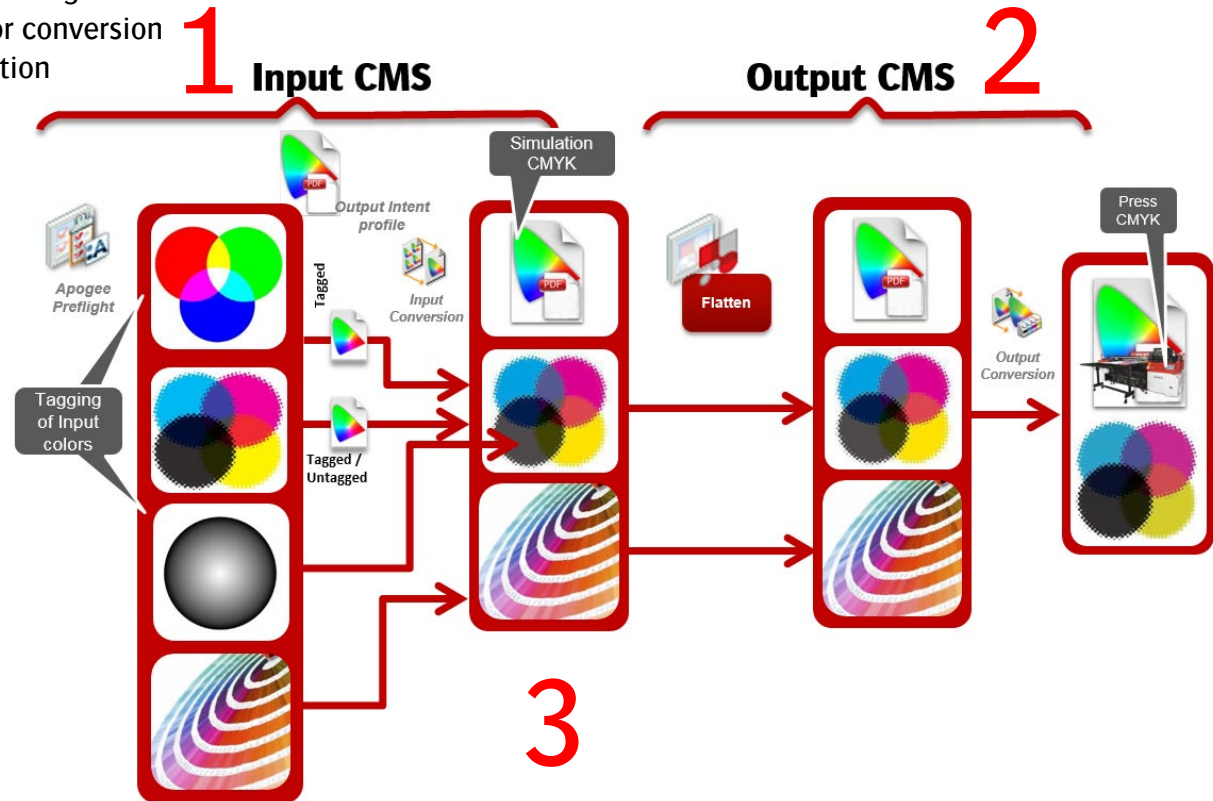
For each Color Flow, by default Asanti uses the most optimal setting to ensure correct render result.
Changing input tagging policies can easily result in less than optimal result, (especially for CMYK objects).

1. Using alternative profile tagging and Rendering Intents

1. Context-click on a previously created job "Exercise 1" (Basic CMS tutorial) and select "Duplicate Job" from the list. The new job will be opened immediately in Asanti Layout editor.
   In the Job Identification inspector, change the name of the job to "Exercise 6".
2. Select the color management inspector.
3. Click on the crayon ✎ icon (1) this will open a new window which allows to control the input tagging policies. For each color space alternative policies can be set individually for untagged and tagged objects, as well as policies to handle images differently from line art object. Also the rendering intent for the input color conversions can be set.
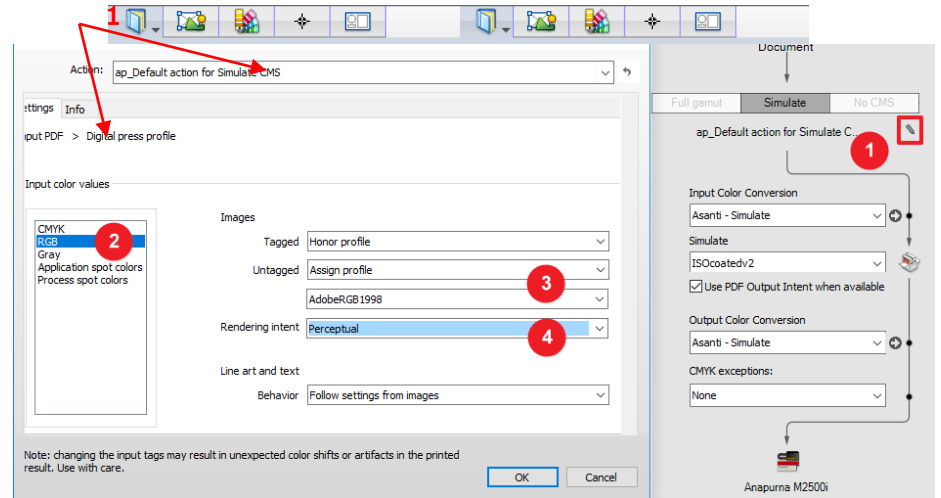
For each Color Flow, Asanti uses the most optimal setting to ensure correct render result. Changing input tagging policies can easily result in less than optimal result, both in terms of image quality (color) and interpreted result (especially for CMYK objects). Transparencies and or overprint objects may be rendered not as expected due to changed input tagging policies.

4. Click on the RGB color category (2)
5. Select "AdobeRGB 1998" for untagged RGB objects. (3)
6. Select "Perceptual" for Rendering Intent (4) and Click OK.
7. Notice that an asterisk is placed in front of the default CMS actions. This indicates that custom (non-default) settings were used. To revert to the default settings, click on the crayon and click the bended arrow icon. ("cancel" to continue the exercise).
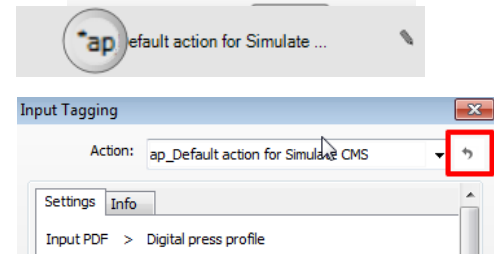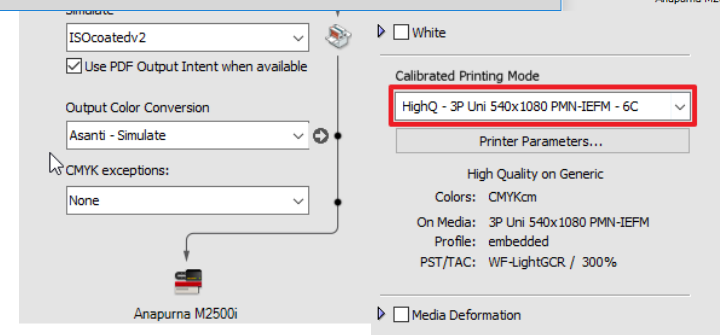
8. Notice that the right side of the toolbar turned "Orange" indicating that the current thumbnail is out of date. Click on the "Apply Changes" button.

9. Click "Update" in the following window. The job will now be preflighted again with the new settings.

10. Open the Preflight Report by context clicking on the image thumbnail, and verify that the RGB images are now tagged with the AdobeRGB profile and that the Rendering Intent is set to Perceptual.

11. Select "Edit With Preview" from context menu, the preview will be generated in the background (this may take a few minutes). Once ready, open the Asanti color managed preview, and compare the result of exercise 1 with the result of exercise 2. The result of Exercise 1 can be re-opened by double clicking on the job and again double clicking on the image thumbnail in the layout editor (of exercise-1). The difference is very obvious on the Cuban bass player image.
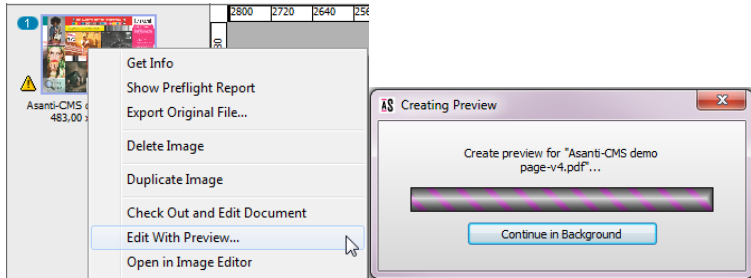
Preflight Report
May 18, 2021 22:40

Job: untitled
Order: Asanti

Asanti-CMS demo page-v4.pdf

Fixes

- Job Set-up, Color Management : Output intent changed to Custom; ISOcoatedv2 profile was embedded (1x)
- Job Set-up, Color Management : Image tagged with Adobe RGB (1998) ICC profile (1x on page 1)
- Job Set-up, Color Management : Image was processed (1x on page 1)
- Job Set-up, Preflight : Rendering intent for iccRGB objects is set to Perceptual (2x on page 1)
- Job Set-up, Preflight : Interpolate Image was enabled for this page to ensure smooth transitions for low resolution or scaled images (2x on page 1)

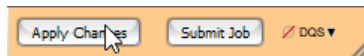12. Close both preview windows and submit exercise-6, select "Make and Hold".

Get Info
Show Preflight Report
Export Original File...
Delete Image
Duplicate Image
Check Out and Edit Document
Edit With Preview...
Open in Image Editor

Creating Preview
Create preview for "Asanti-CMS demo page-v4.pdf"...
Continue in Background

Device RGB - no ICC tagged Origin: Device RGB - no ICC tagged Origin: sRGB

**sRGB - Relative Colorimetric**   **AdobeRGB - Perceptual**

The settings for CMS are part of the job template settings (along with many other job processing settings). So any CMS setting that is saved into a job template will automatically be used for jobs made with these templates. This allows for easier control of the CMS settings across different jobs.

2.   Changing Rendering intent of output color conversion.

1. Context-click on the previously created job ″Exercise 6″ and select ″Duplicate Job″ from the list. The new job will be opened immediately in Asanti Layout editor. In the Job Identification inspector, change the name of the job to ″Exercise 7″.
2. Select the color management inspector.
3. Click on the arrow right of the Output Color Conversion presets
4. In the output color conversion presets editor , select "Perceptual" as new Render Intent
5. Notice that the header of the image panel has turned "Orange" indicating that the current thumbnail is out of date. Click on the "Apply Changes" button in the lower right corner of the Layout editor window
6. Select "Edit With Preview" from context menu, the preview will be generated in the background (this may take a few minutes). Once ready, open the Asanti color managed preview, and compare the result of exercise 2 with the result of exercise 3. The difference is once more very obvious on the Cuban bass player image.
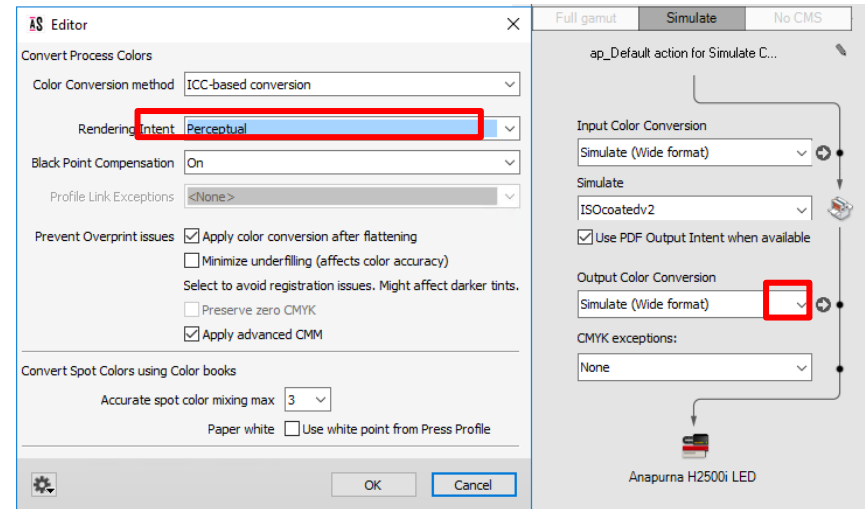
Perceptual aims to preserve the visual relationship between colors so it's perceived as natural to the human eye. The relationship between out of gamut colors is maintained. This can result in inaccuracies for in gamut colors as well.
Perceptual Render Intent typically maps the colors a bit more saturated.

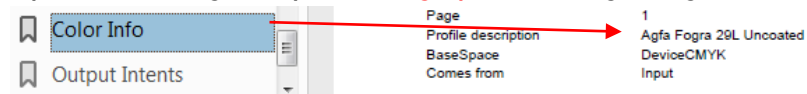7. Close both preview windows and submit exercise-7, select ″Make and Hold″.

Input Color conv. RI: Perceptual
Output Color conversion: Perceptual + BPC

Input Color conv. RI: Perceptual
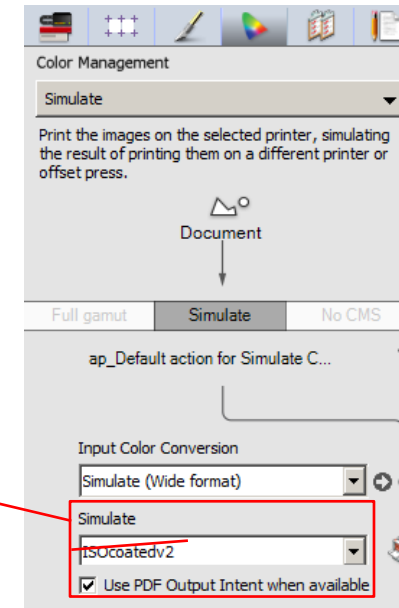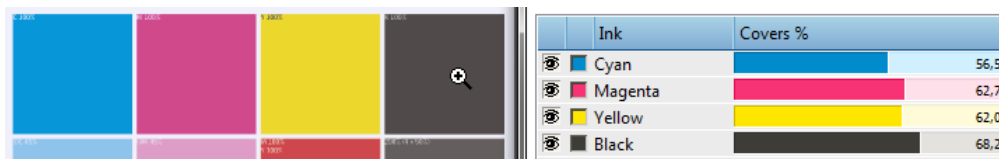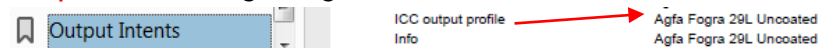Output Color conversion: Relative Colorimetric + BPC

3. Use PDF Output Intent when available option.

1. Create a new Wide Format job.
2. Select ″Simulate″ color management mode.
3. In the Products Panel click "+" and browse for "PDF X4_AF29U.pdf".
4. Consult the Preflight Report, by context clicking on the image thumbnail.
5. Open the Preflight Report : image profile = Agfa Fogra 29L Uncoated

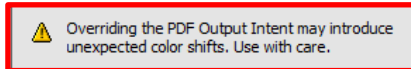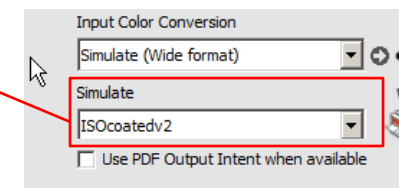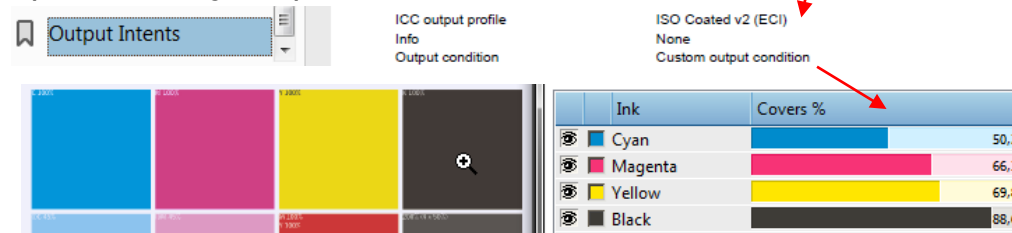|	
Page	1
Profile description	Agfa Fogra 29L Uncoated
BaseSpace	DeviceCMYK
Comes from	Input

and :

Output Intent = Agfa Fogra 29L Uncoated

ICC output profile	Agfa Fogra 29L Uncoated
Info	Agfa Fogra 29L Uncoated

Ink	Covers %
Cyan	56,5
Magenta	62,7
Yellow	62,0
Black	68,2

6. Uncheck "Use PDF Output Intent…"

⚠ Overriding the PDF Output Intent may introduce unexpected color shifts. Use with care.

7. Open the Preflight Report :

ICC output profile	ISO Coated v2 (ECI)
Info	None
Output condition	Custom output condition

Ink	Covers %
Cyan	50,2
Magenta	66,3
Yellow	69,8
Black	88,6

8. Close the preview window and submit exercise-8, select ″Make and Hold″.

Color Management

Simulate

Print the images on the selected printer, simulating the result of printing them on a different printer or offset press.

Document

Full gamut | Simulate | No CMS

ap_Default action for Simulate C...

Input Color Conversion
Simulate (Wide format)

Simulate
ISOcoatedv2
☑ Use PDF Output Intent when available

Input Color Conversion
Simulate (Wide format)

Simulate
ISOcoatedv2
☐ Use PDF Output Intent when available

4. Extra excersise – Alternative profile tagging policy.

Context-click on the previously created job ″Exercise 8″ and select ″Duplicate Job″ from the list. The new job will be opened immediately in Asanti Layout editor. In the Job Identification inspector, change the name of the job to ″Exercise 9″.

9. Select the color management inspector.
10. Click on the crayon ✎ icon (1) this will open a new window which allows to control the input tagging policies. For each color space alternative policies can be set individually for untagged and tagged objects, as well as policies to handle images differently from line art object. Also the rendering intent for the input color conversions can be set.

For each Color Flow, by default Asanti uses the most optimal setting to ensure correct render result.

Changing input tagging policies can easily result in less than optimal result, (especially for CMYK objects).

11. Click on the CMYK color category (2)
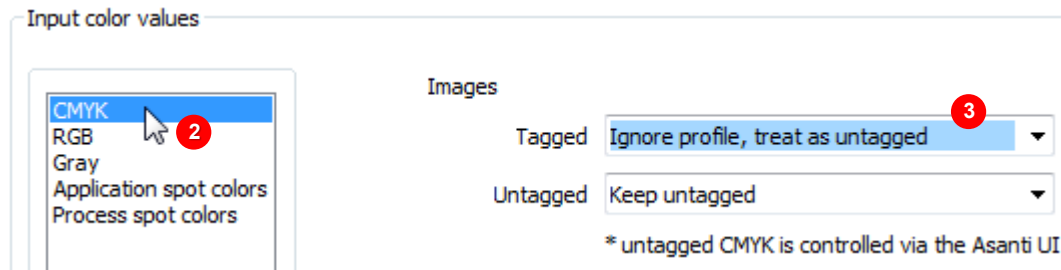
12. Select ″Ignore profiles, treat as untagged″ for tagged CMYK objects (3) and Click OK.
13. Notice that an asterisk (4) is placed in front of the default CMS actions.
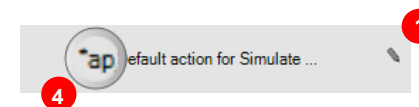   This indicates that custom (non-default) settings are used.
14. Open the Preflight Report : image profile = Device CMYK

15. Close the preview window and submit exercise-9, select ″Make and Hold″.