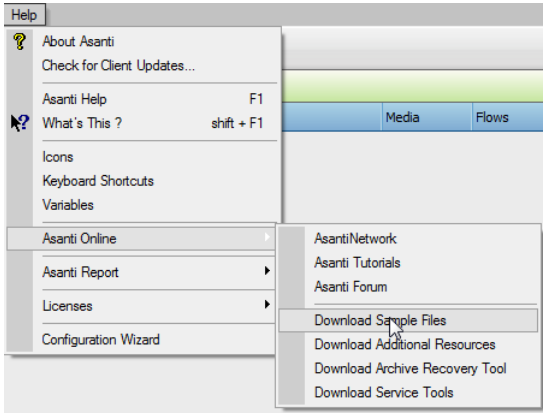
# Color Management-Basic

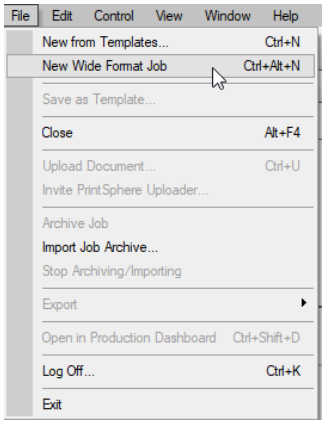


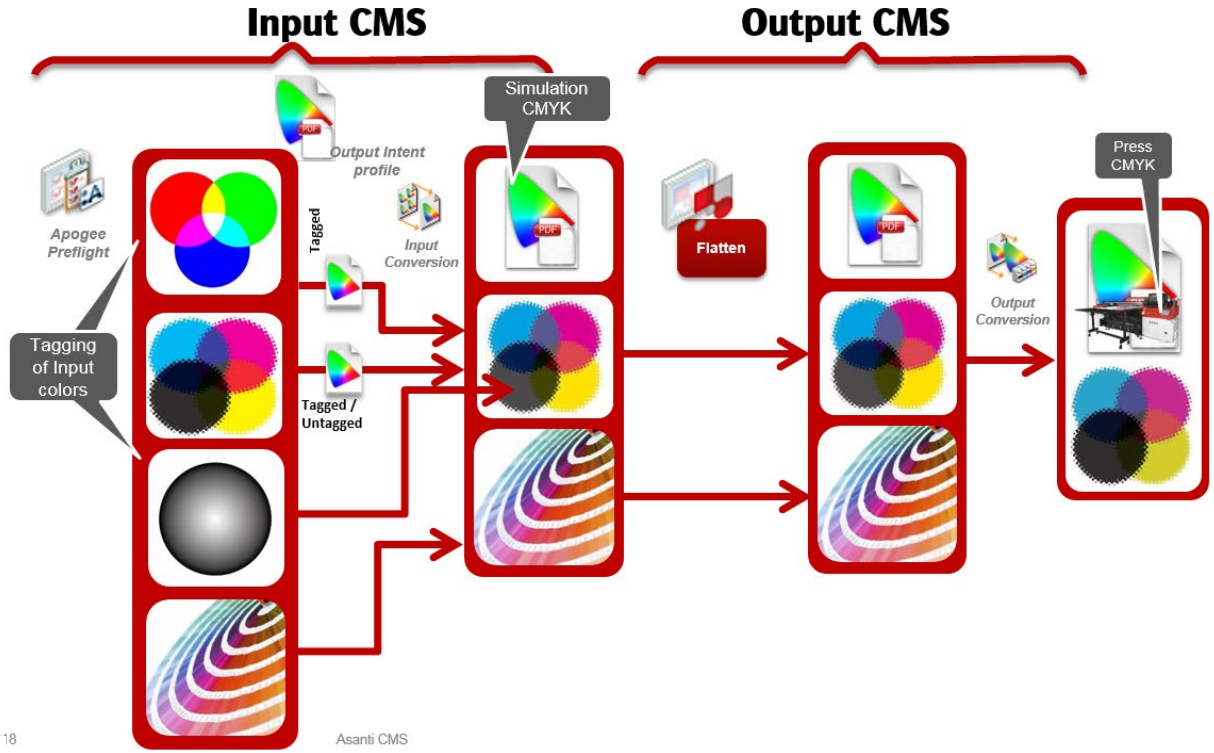
This tutorial demonstrates how to use the color management settings of Asanti.
This tutorial makes use of Adobe Acrobat Pro X or later (Windows version).

1. Download the Asanti Sample Files via the Asanti Client (Help > Asanti Online > Download Sample Files).




2. Create a New Wide Format job.



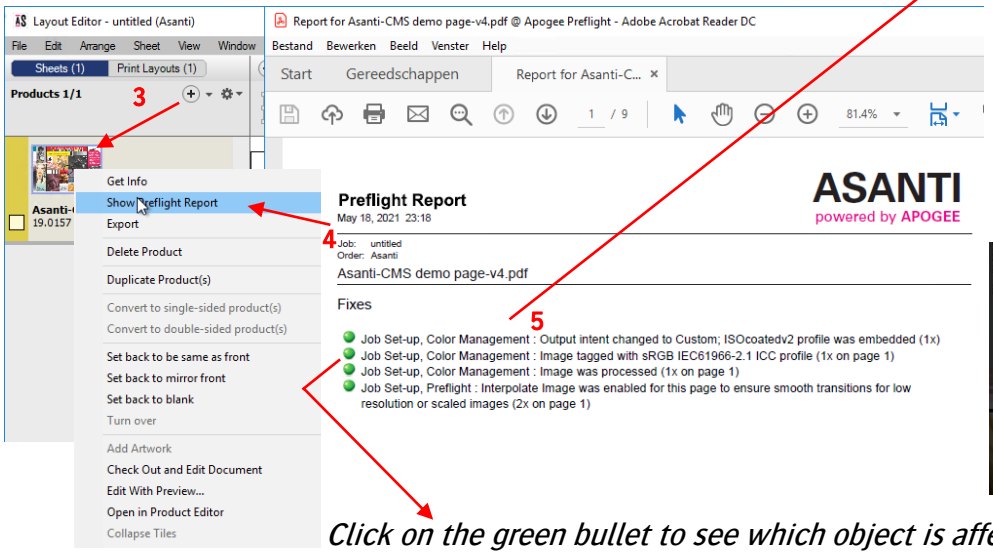



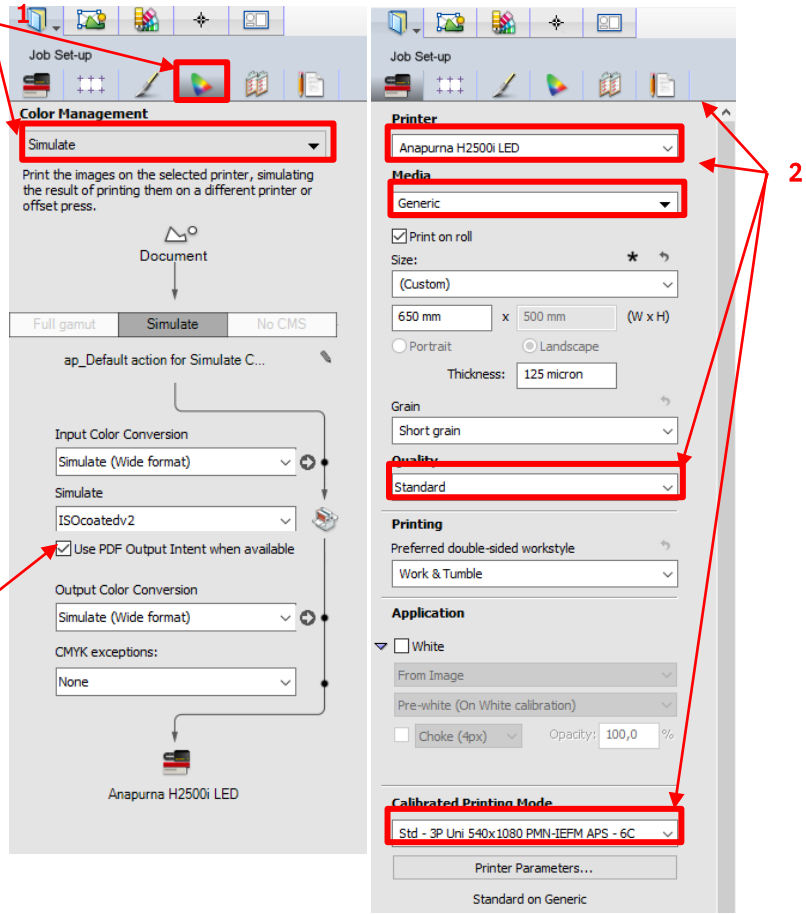
## 1. Simulate CMS mode

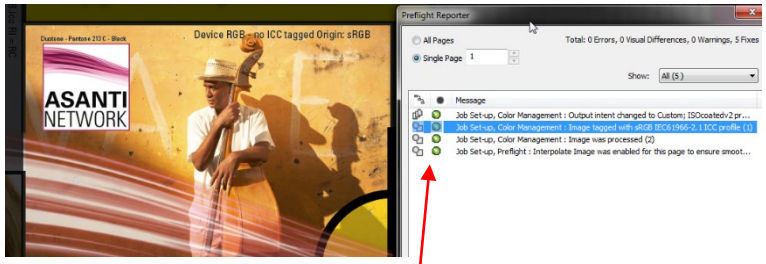
1. Input Color Conversion:
   Select Simulate color management mode in the CMS inspector pallet.
2. Output Color Conversion:
   Select a printer (Anapurna or Jeti, **not** a Generic SD); Media & Quality:
   The Asanti client automatically selects a Calibrated Printing Mode if available for the selected combination.

*All products will now be converted from input to the simulation profile (by default ISOcoatedv2) and consecutively towards the digital press profile (from the CPM).*

3. In the products panel click "+" and browse for "Asanti-CMS demo page v4.pdf" from the Sample Files.
4. Consult the Preflight Report, by context clicking on the product thumbnail.
5. In the Preflight Report you can verify which profiles were tagged to images during preflighting.

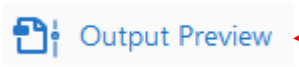



*Click on the green bullet to see which object is affected by the Preflight action.*

Close the "preflight reporter plugin" and select "Output Preview" from the "Print Production" tools.

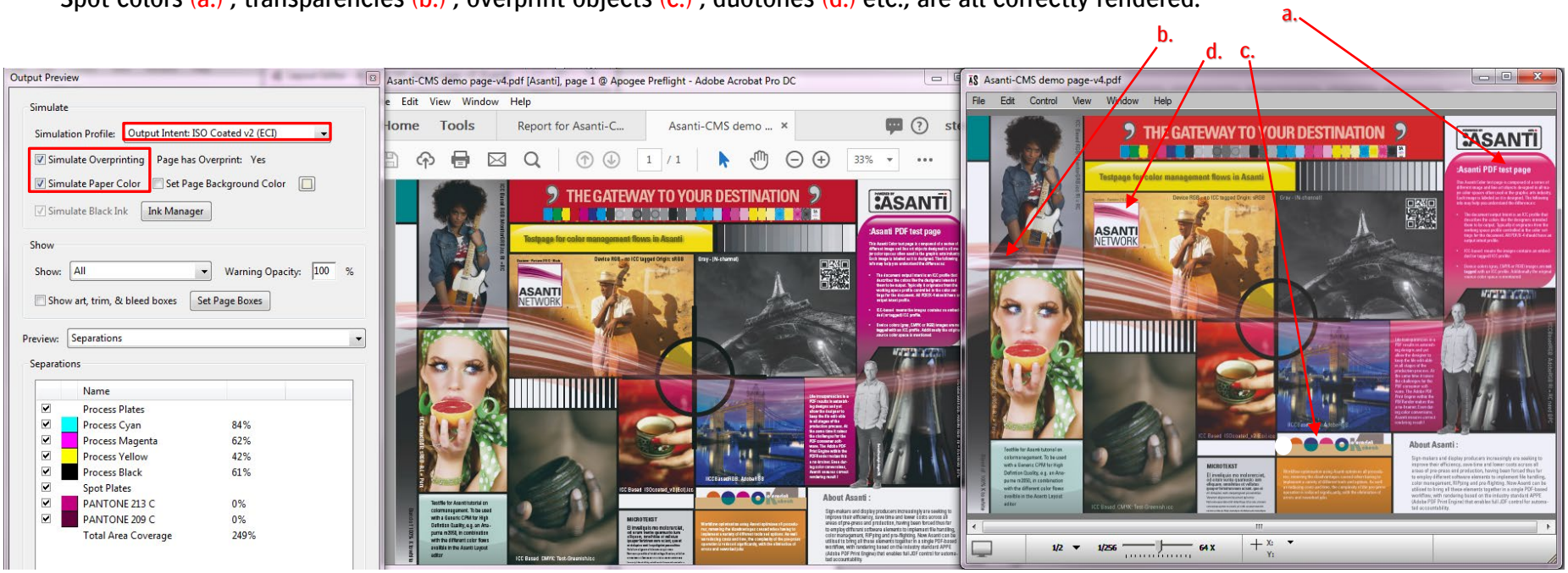



In the Asanti Layout editor, double click on the product thumbnail or select Edit With Preview.


6. Compare it to the Acrobat result.

   The color differences between the input document and Asanti color managed preview, are caused by difference in color gamut of the simulation profile (ISOcoatedv2) and the digital press profile.

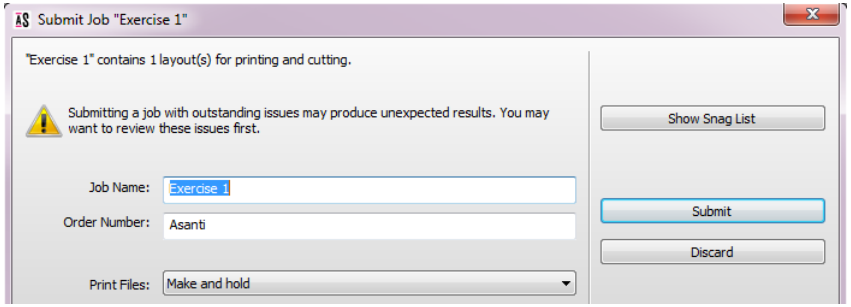
   Spot colors (a.) , transparencies (b.) , overprint objects (c.) , duotones (d.) etc., are all correctly rendered.




Acrobat DC with "Output Preview" simulating ISOcoatedv2

Asanti color managed preview with simulation CMS

7. Close Acrobat and the Asanti color managed preview.
8. Drag the product on the sheet and submit the job. Change the name of the job to ″Exercise 1″ and use ″Make and Hold″ to submit the job.

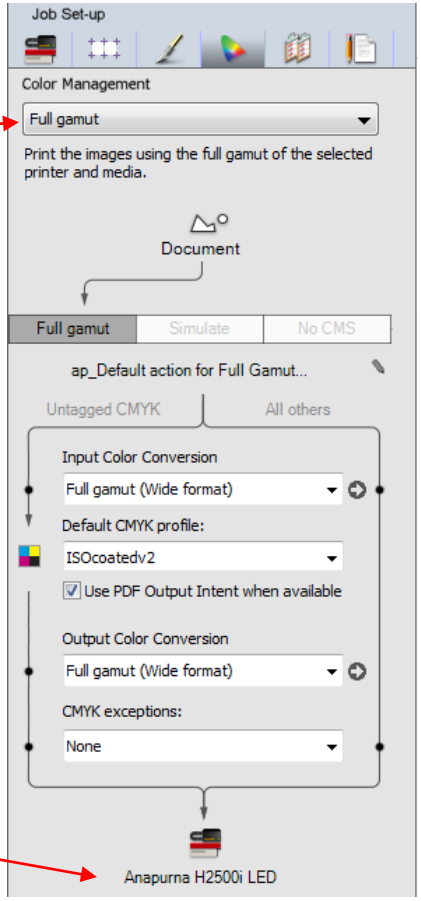



*The Simulation flow is the advised CMS mode for complex PDF's with transparencies and overprint, it ensures identical rendering compared to Acrobat Pro with Output Preview enabled.*

*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 easy control of the CMS settings across different jobs.*

## 2. Full Gamut Printing

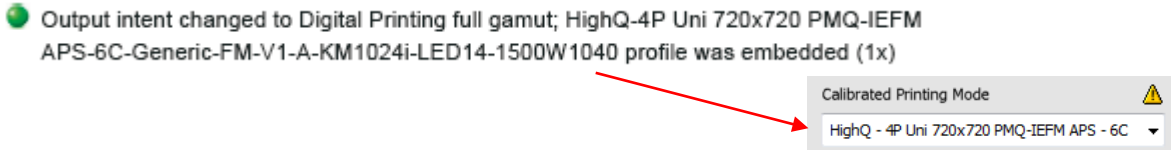
1. In the Jobs window, context-click on the job "Exercise 1" and select "Duplicate Job" from the list. The new job will be opened immediately in Asanti Layout editor. Change the name of the job to "Exercise 2".
2. Select the Color Management inspector.
3. Enable the "Full Gamut" color management mode.



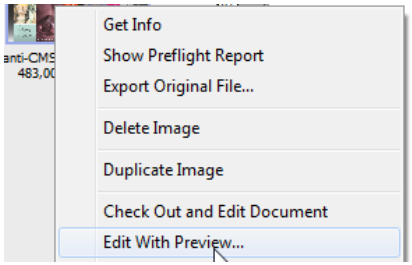

*Untagged CMYK images will be simulated as the "Default CMYK profile" (default setting = ISOCoatedv2), all other color spaces will be converted directly to the digital press profile (from the CPM).*

4. Click the "Apply Changes" button and click "Update" in the following window. The job will now be preflighted for the full gamut mode.
5. Notice the little color gamut Icon left of the product thumbnail, this indicates that the product will use the full gamut CMS mode.

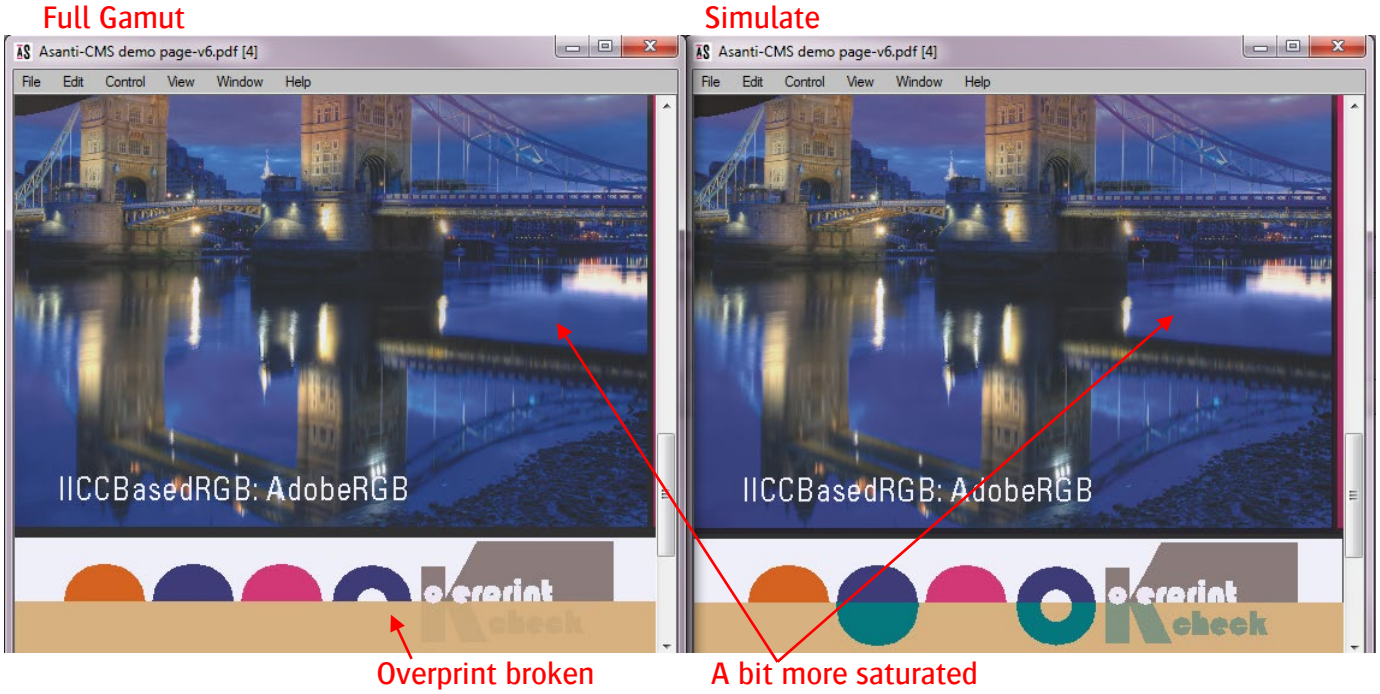

6. Consult the Preflight Report, by context clicking on the image thumbnail.
   In the Preflight Report you can verify which profiles were tagged during preflighting.
   Notice that the output Intent was changed to "Digital Printing full gamut"




7. Close the Preflight Report and select "Edit With Preview" from context menu to create and open the color managed preview (this takes a while).



8. Zoom in on the overprint check and the "Blue London Bridge "image and notice that the black text overprint effect which was originally in the PDF has partially disappeared.
   The blue tints of RGB images are indeed a bit more saturated compared to the simulate mode.



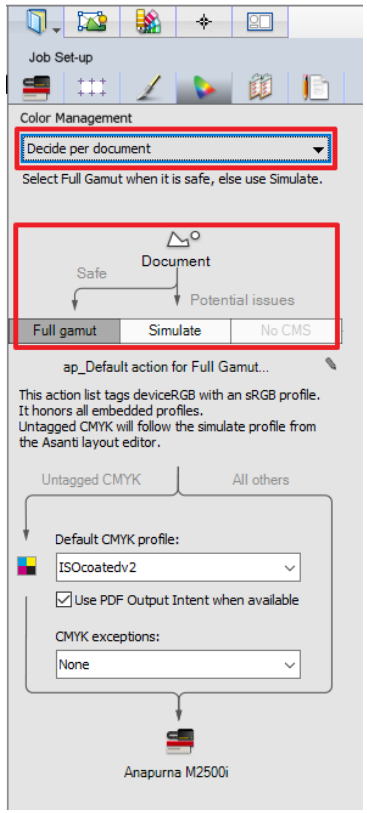

*Full Gamut CMS mode can break overprint effects in PDF's! This is because this mode requires tagging of CMYK objects which is incompatible with overprint attributes. Similarly, also transparency effects can change due to the tagging of CMYK objects within a PDF. Therefore, the Full Gamut mode is only advised for single RGB image file formats (Tiff, JPG, ….)*

9. Submit the job, select "Make and Hold".

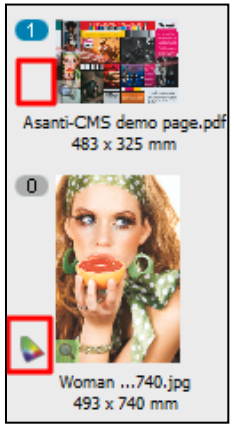
## 3. ″Decide per document″ color management mode

1. In the Jobs list Context-click on the job ″Exercise 3″ and select ″Duplicate Job″ from the list. The new job will be opened immediately in Asanti Layout editor. Change the name of the job to ″Exercise 4″.
2. Select the Job Set-up > Color Management inspector.
3. Enable the ″Decide per document″ color management mode.

*In this mode Asanti uses full gamut printing when it's safe to do so, and switches back to simulation printing when it's not safe.*

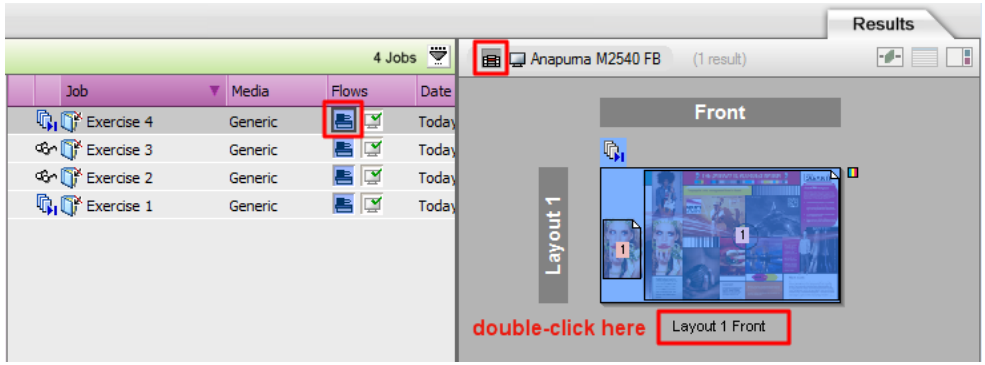


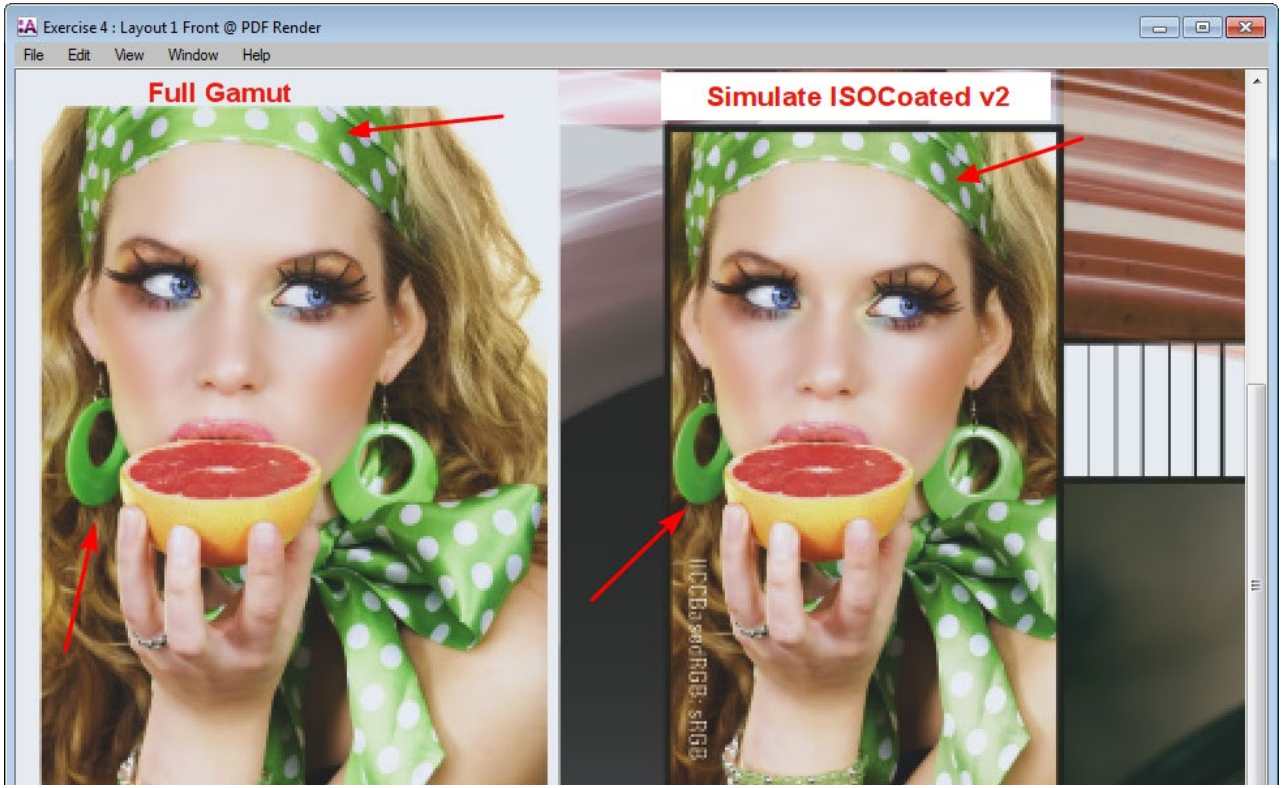

4. Because 2 CMS modes may be used, the input tagging options for both modes are manageable. Click on the "Full gamut" tab as well as on the "Simulate" tab, to verify the input tagging settings for both CMS modes. Use the default settings (if you see an asterisk (*) next to the input tagging option, click on the crayon and use the revert button (bended arrow) to revert to the default settings.
5. Click the ″Apply Changes″ button and click "Update" in the following window. The job will now be checked on the occurrence of overprint objects, complex transparency objects and other complex graphic constructions that require the simulate CMS mode. (this may take a while).
6. Notice that the little color gamut Icon left of the image thumbnail has disappeared, this indicates that the full gamut CMS mode will not be used for the pdf file.
7. In the images pane click "+" and browse for "Woman with grapefruit 493x740.jpg".
8. Notice the little color gamut Icon left of the image thumbnail, indicating that this image can safely be use the full gamut CMS mode.
9. Drag the "Woman with grapefruit 493x740.jpg" on the Sheet and scale it to 18%, and place it next to same image within the Asanti-CMS demo page PDF.
   Submit the job, select ″Make and Hold", and wait until the rendering has finished.




*Notice that by using "decide per document", products that are processed with Simulate mode and Full Gamut mode can be combined on one Print Layout. The actual steering of the CMS flows is controlled by the Apogee preflight input tagging which can be different for each product within a job.*

10. In the Jobs pane, select “Exercise 4” and click the main output icon in the flows column.
11. Open the Color managed preview of the main flow by double-clicking on the “Layout 1 Front” label.
12. Compare the Woman with grapefruit image.
    Look for the differences between the Simulate (pdf) and Full gamut (jpg) mode. The green colors are a bit more saturated on the full gamut result.
13. Close the color managed preview.



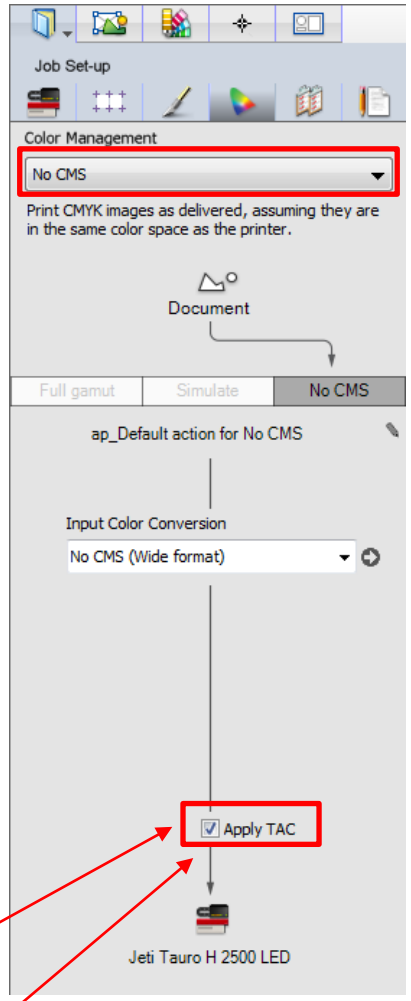



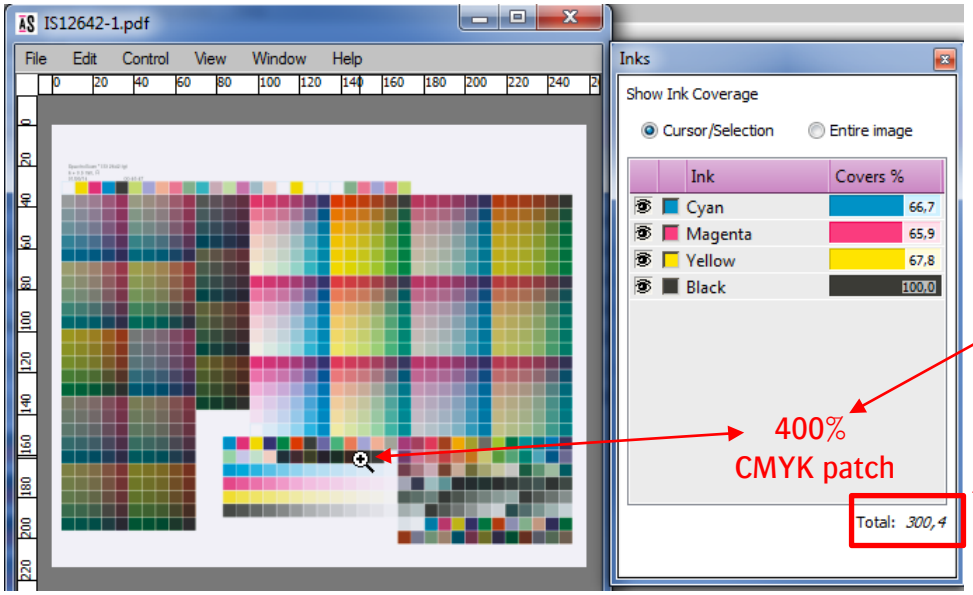
## 4. No CMS mode:

1. Create a New Wide Format job.
2. Select the Job Set-up Inspector and select Generic media, a printer (Anapurna or Jeti, not a Generic SD) and as Quality "High Definition".
3. Select the CMS inspector and enable the "No CMS" color management mode.

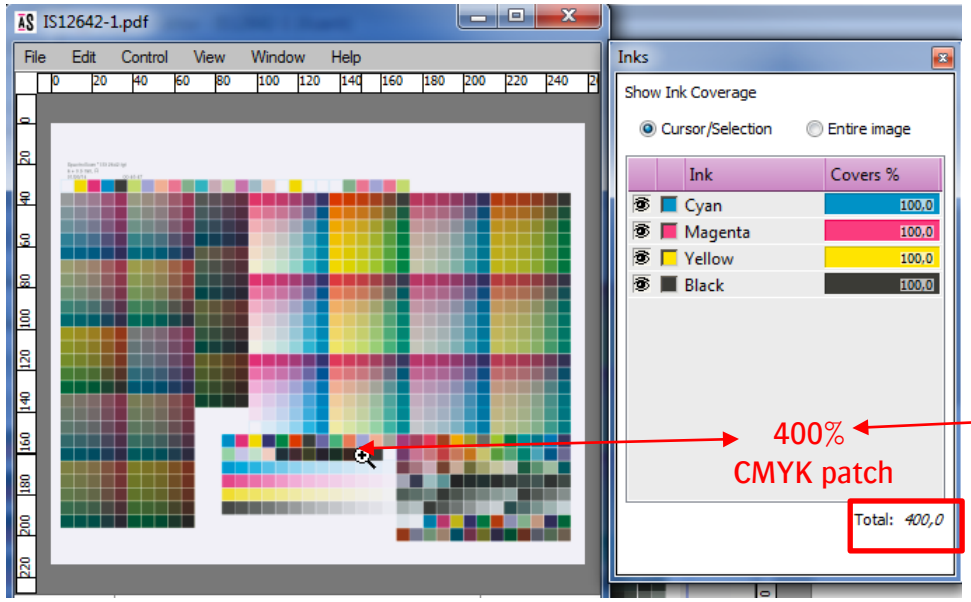
*No CMS mode will remove all tags from CMYK objects and will not convert CMYK. Colors with higher total Ink values than the TAC % will be reduced towards the TAC %.*
*The TAC % of the press profile can be found in the Job Set-up inspector panel.*

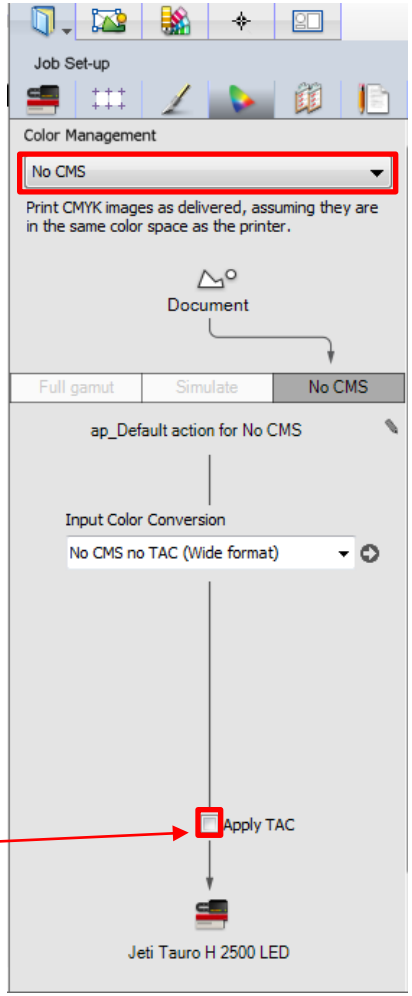
4. In the products Panel click "+" and browse for "IS12642-1.pdf".
5. Select "Edit With Preview" from context menu when the Preview is created to open the color managed Preview.
6. Verify the TAC percentages, as well as the CMYK break down of the different patches. Notice that none of the color patches exceeds 300%.



7. Close the color managed Preview.
8. Disable the “Apply TAC” checkbox in the color management inspector.
9. Click the “Apply Changes” button, and click “Update” in the following window to update the Preview results. Wait for the preview to become ready again.
10. Select “Edit With Preview” from context menu to open the Preview and verify the TAC percentages, as well as the CMYK break down of the different patches. Notice that some of the color patches exceeds the 300%, e.g. 400%.




*This CMS mode should be used when you want to print targets to be measured (e.g. for external profile creation)*

11. Submit the job, select ″Make and Hold”.

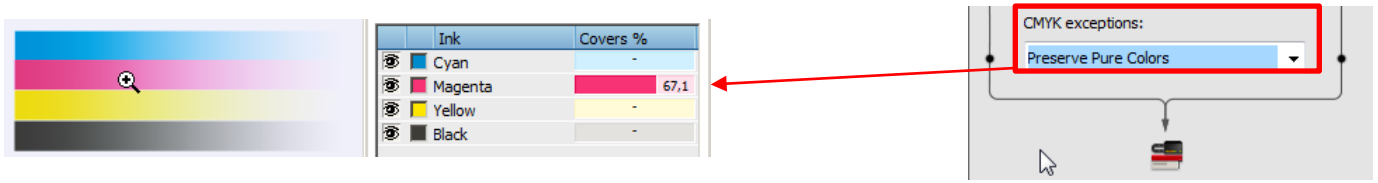
## 5. Profile Link Exceptions:

1. Create a New Wide Format job.
2. Select "Simulate" color management mode.

*All images will be converted from input towards the digital press profile - Selected "Profile Link exceptions" will customize these conversions.*

3. In the Products Panel click "+" and browse for "CMS_Exceptions_Test.pdf".
4. Open the color managed Preview.


5. select "preserve Pure Colors" in the CMYK exceptions
6. Open the color managed Preview.




7. Verify the CMYK gradients. Notice that CMYK stays pure after CMS
8. select "preserve K" in the CMYK exceptions: open the color managed Preview and Notice that the K channel is preserved after CMS
9. select "Normal" : open the color managed Preview and Notice that the 4x100% CMYK is preserved after CMS.
10. select "Keep 100%K" : open the color managed Preview and Notice that the 100% K is preserved after CMS.

*All available Profile Link Exceptions can be applied for "Simulate" as well as "Full Gamut" Color Management.*