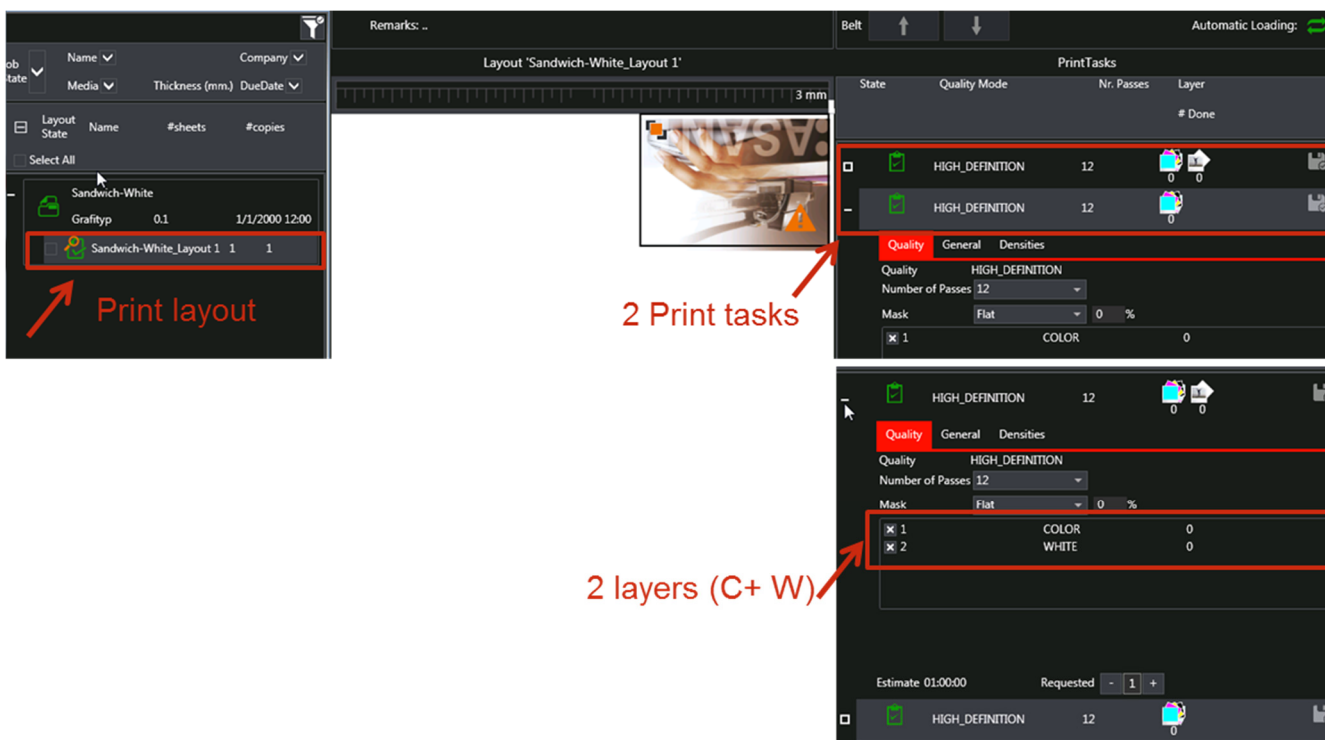


This tutorial demonstrates how to create sandwich white jobs for different applications that need to be printed concurrently. It also explains how you can control the order of the printer layers using the correct calibrated print modes. Download the Asanti Sample Files via the Asanti Client (Help > Asanti Online > Download Sample Files).

1. Intro: The concept of Print Task and Layers on Tauro

- Tasks are printed sequentially
- Layers are printed concurrent

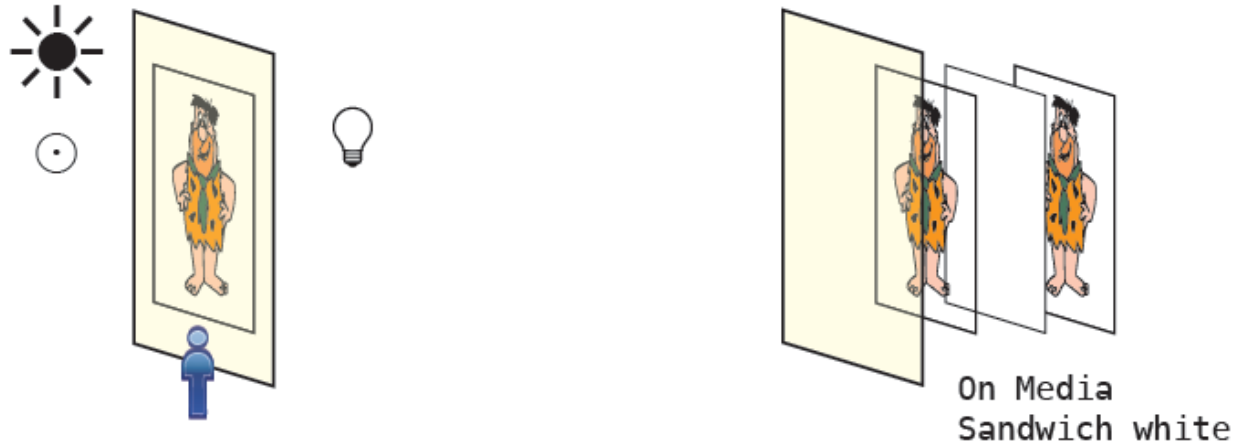


Tauro can print up to 4 layers concurrently; Primer-Color-White-Color.

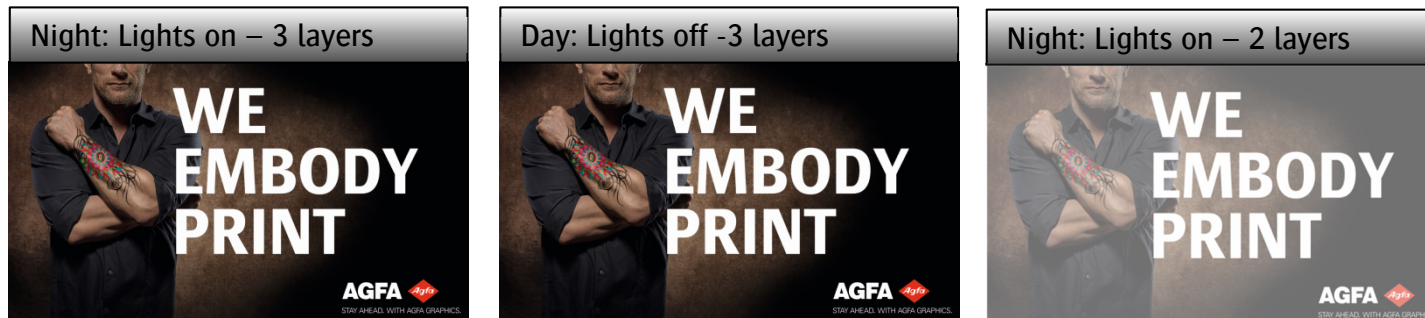
To improve the overall adhesion and in combination with more than 2 print runs it is advised to end the separate print runs where possible with a white layer.

2. Sandwich White Printing: Color 1 – White – Color 1 ([Use Case1](#))

Day/Night application: Printed at the back side of transparent media. The image is viewed through the media.



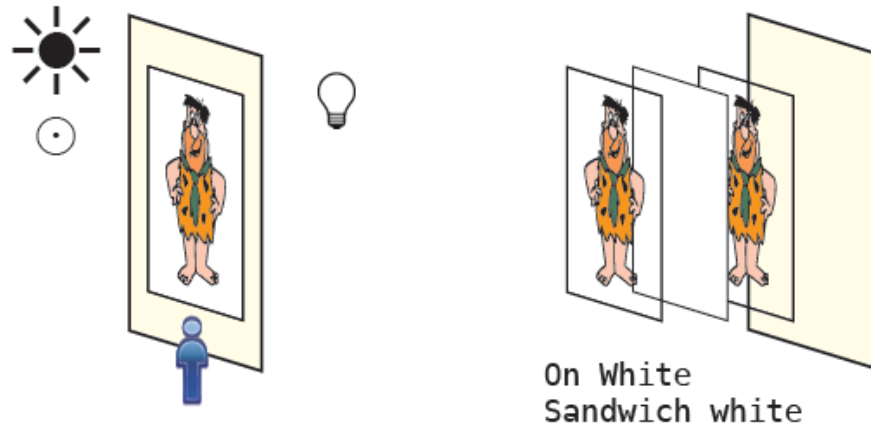
Sandwich White on **Transparent media**. You look through the media to the print. The image is mirrored. The first image is printed on the media; the second layer is a post white layer. During the day the first 2 layers produce a good print & color result. The 3th layer increases the image density when the light at the back is enabled during the night. The color output during the night and day should look equal. Normally the 3th layer is not visible.



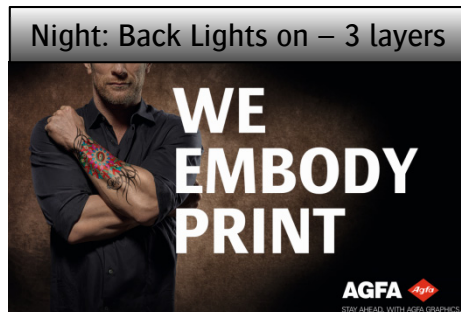
The CPM to be used is on media and a post white layer.

3. Color1-White-Color1 (Use Case 2)

Day/Night application printed at front side of transparent media.



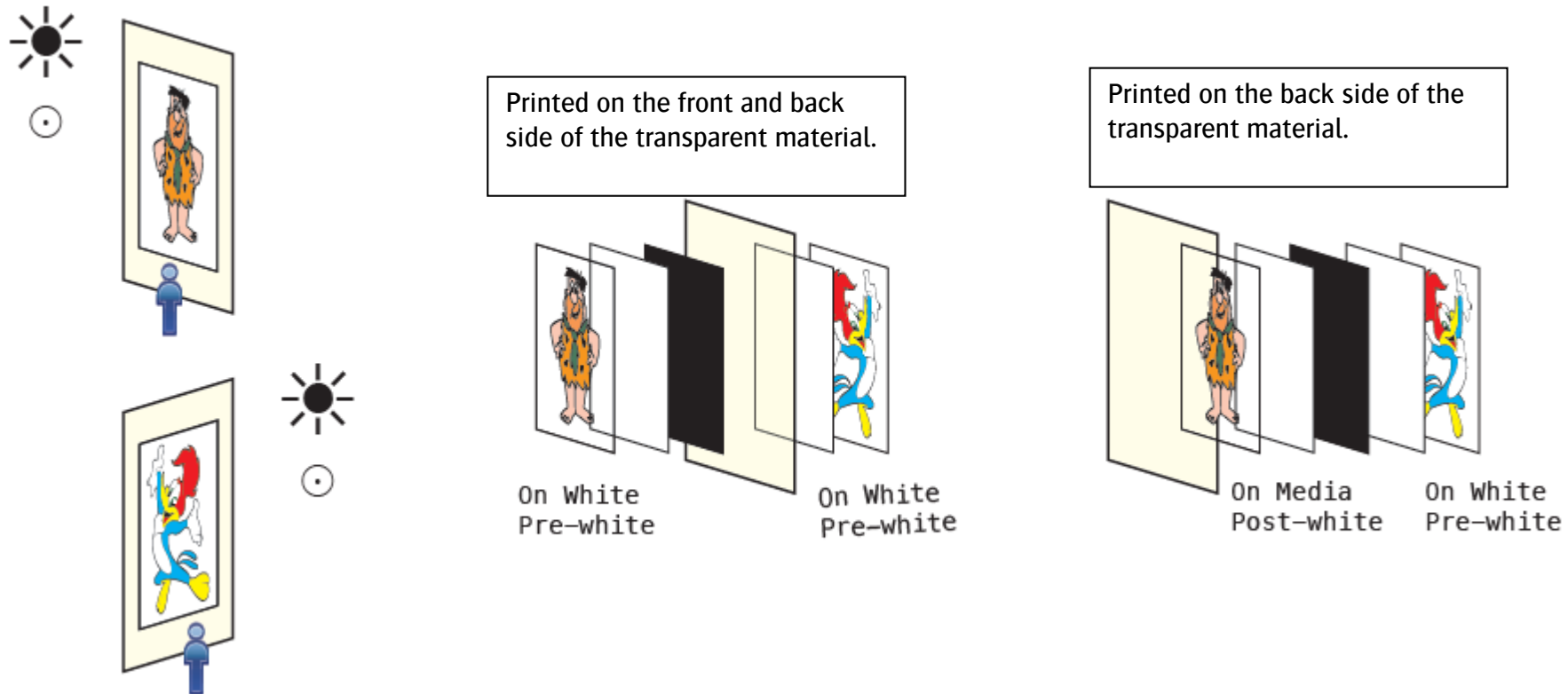
Sandwich White: **the 3 layers are printed** on the media and you look directly to the printed image. The first image is printed on the media but is not directly visible because a white layer is printed on top. This second layer is a pre-white layer and the 3th layer is printed on the white layer. During the day the first 2 layers produce a good print result. The 3th layer increases the image density when the light at the back is enabled during the night. The color output during the night and day should look equal. A different approach in job creation is needed here because the CPM to be used is the on white CPM.



4. Color 1 – White – Color 2 – White – Color 3 (Color – White – Black – White – Color 3, Use Case 3)

Block out application printed on transparent media.

Typically, these type of jobs are finished with white as layer 4 and another cmyk image as layer5. This can be done on Tauro in 2 print runs thus by printing 2 jobs.



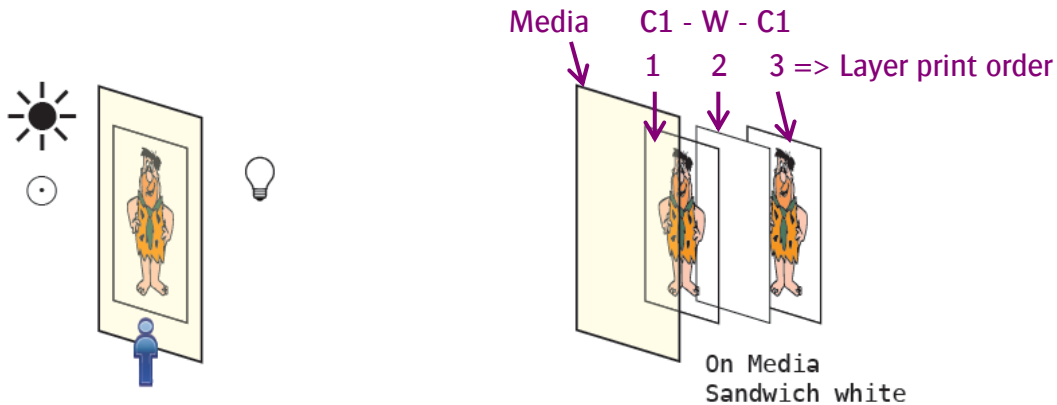
E.g. Print on the Back: C-W-K-W-C: Color uses the on media CPM – White uses the post-white layer- Black uses on media cpm – White use the pre-white layer – Color use the on white CPM. The black layer acts as a block out layer.

5. Use Case 1 – C1WC1 – Day & Night application printed on the back side of transparant media.

Layer 1 and layer 2 are using the same print data and are equal for color and content.

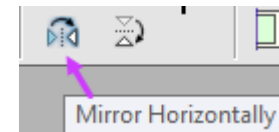
The print result

How it will be printed.



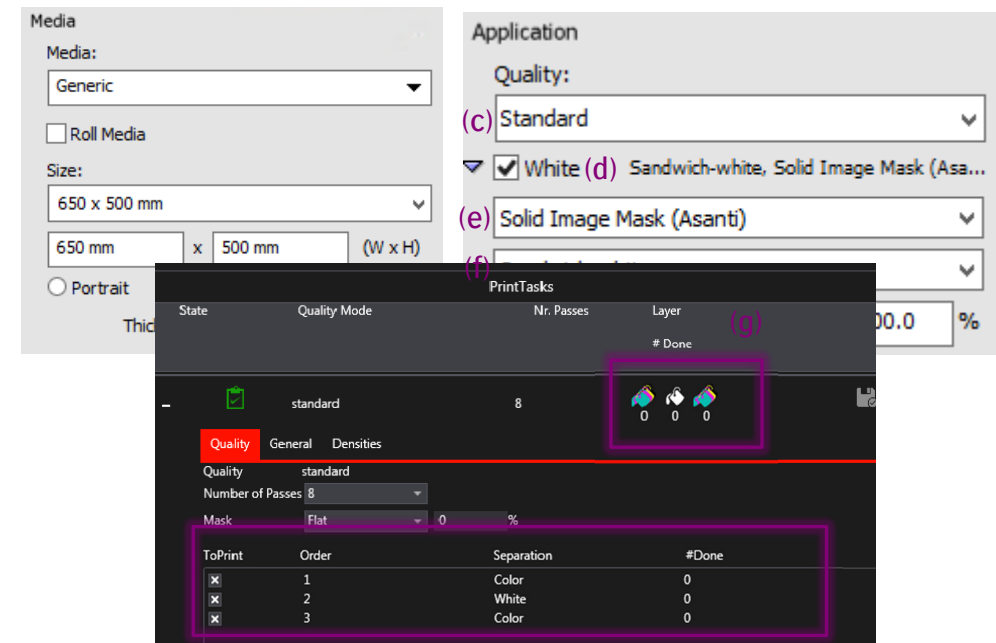
The first layer is mirrored and printed directly on the back side of the transparant media. The second layer is the white layer and has typically a lower opacity. This layer will be printed on the first cmyk layer. Layer 3 is the same print data as layer 1.

It is advised to created a dedicated on Media Calibrated Print Mode using for transparant media. If no dedicated CPM is available the generic can be used.



Create a sandwich white C1WC1 job.

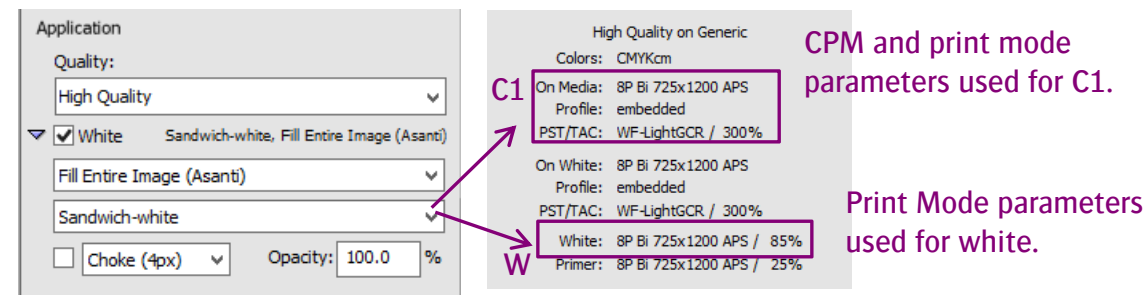
1. Create a new layout job- drag your image to the sheet.
 2. Mirror your image
 3. Job Inspector
 - a. Set Media to the transparent media with a custom CPM or Set Generic.
 - b. Set the correct media size and thickness.
 - c. Set the Quality to Standard
 - d. Enable White
 - e. Set Solid Image Mask (Asanti)
 - f. Set Sandwich-white
 - g. Change the opacity to 50%
 - h. Set Tauro as printer
 - i. Set Calibrated Print Mode to Std- 8P Bi 635x1200 APS – 6C
 - j. Submit your job, make and send to print; use the name UC1-SandwichWhite
 - k. Select and Print your job on the Tauro GUI
- The Print Task result on Tauro includes 3 layers



What CPM and printer parameters are used in Asanti to create this job.

CPM

Asanti will use the on media CPM and print mode parameters to create the Color1 layer (C1). Asanti will use the print mode parameters of the white(W).



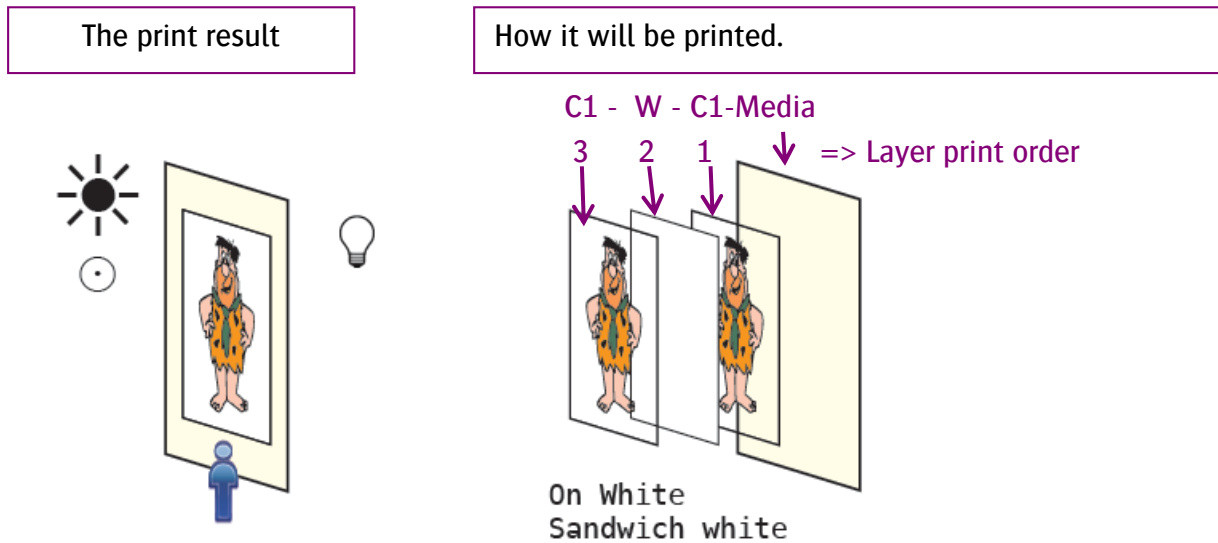
Printer Parameters

The printer parameters need to be identical for Color on Media and white to create concurrent sandwich white jobs for Tauro.

The screenshot shows the 'Printer Parameters' dialog box with three columns: 'Color On Media' (labeled C1), 'Color On White', and 'White' (labeled W). All parameters are identical across the columns.

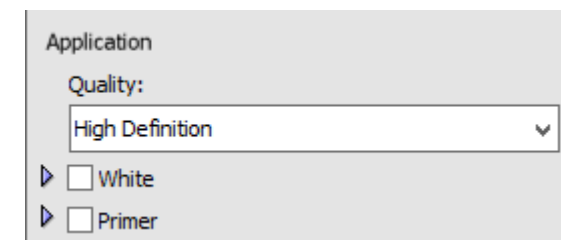
Parameter	Color On Media (C1)	Color On White	White (W)
Resolution	1016x1200	1016x1200	1016x1200
Number of passes	8	8	8
Direction	Bi-Directional	Bi-Directional	Bi-Directional
Screen	Tilebased	Tilebased	Tilebased
Screen	APS_DOT_5	APS_DOT_5	APS_DOT_5
Droplets per dot	01DPD	01DPD	01DPD
UV Leading	0 %	0 %	0 %
UV Trailing	80 %	80 %	80 %
Masking Mode	Flat	Flat	Flat
Mask	0 %	0 %	0 %
Print Density	100	100	100
Print Mode Option			

6. Use Case 2- Day & Night Application printed on the front side of the media.



Create a sandwich white C1WC1 job

1. Create a new layout job.
2. Job Inspector
 - a. Set Media to Generic
 - b. Set the correct media size and thickness
 - c. Set the quality to High Definition
 - d. Disable white
3. Add cleaning white.pdf to the image pane, place it on the sheet,
4. Make and send to printer, use the name: **UC2 SandwichFront#C;** and submit.
 - a. Jobs to be merged need to end with a #
 - b. The name used before the # has to be identical for the jobs that need to be merged.




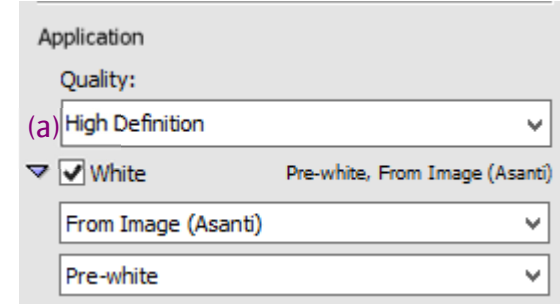
- c. A comment field can be added after the # and this comment needs to end with a ;
 - d. This can be used to indicate the print layers and the print order. The comment field is not mandatory
 - e. The first job submitted will be printed as layer 1.
 - f. The to be merged jobs need to use identical
 - i. Sheet size and position
 - ii. Image size and position
 - iii. CPM's
 - iv. Printer Parameters
5. Select this job in the Tauro GUI job list.
- a. The job is locked because a second part is expected before it is complete and ready for printing
 - b. The job details and preview of a locked job are empty.



UC2 SandwichFront#C;			
	Generic	0.125	7/28/2016 2:45 PM
	UC2 SandwichFront...	1	1

Order Number:	Company:	Media:
Name:	Operator:	RollMedia:
Remarks:		Name: Generic
		Thickness: 0.125 mm
		Type: Paper
		Automatic Loading:
Layout		PrintTasks
		State: Quality Mode
		No. Passes: Layer
		# Done

6. In the Asanti job list duplicate the job **UC2 SandwichFront#C;**
7. Job Inspector
 - a. Set Enable White
 - b. Set from Image (this image contains white data, if no white data is available choose to generate white by Asanti)
 - c. Set Pre-White
8. Submit your job, make and send to printer and give it the name **UC2 SandwichFront#PreWC;**
 - a. In the comment field add **PreW**(hite) to indicate that the second layer is a pre-white, Use **C** to indicate that layer 3 is color.
9. Tauro will merge these 2 jobs on Tauro, the first job submitted will be the first layer printed, the second job generates layer 2&3.
 - a. A merged job is indicated with a 
 - b. The comment data from both jobs between # and ; has been merged and is combined like this: **#C;+PreWC;**



Application

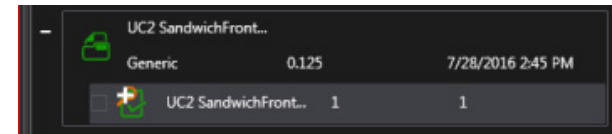
Quality:


(a) High Definition

☒ White Pre-white, From Image (Asanti)

From Image (Asanti)

Pre-white



UC2 SandwichFront...	Generic	0.125	7/28/2016 2:45 PM
 UC2 SandwichFront...	1	1	

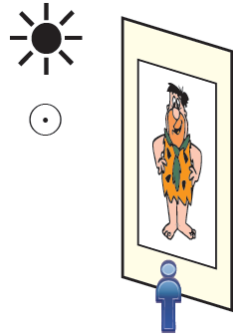
- c. Select and print the UC2 SandwichFront#C;+PreWC;_Layout1 in the job list of Tauro.
- d. The job has 3 layers and will be printed concurrently.

The screenshot displays the AGFA Tauro 3.x software interface. The top bar shows the AGFA logo and the word 'Operator'. Below this, the job name 'UC2 SandwichFront#C;+PreWC;' and operator 'be/dspp' are visible. The 'Media' section shows 'RollMedia: ' and 'Thickness: 0.125 mm'. The 'PrintTasks' section shows 'State: high definition', 'Quality Mode: high definition', 'Nr. Passes: 8', and 'Layer: # Done'. A table below shows the 'ToPrint' settings for 3 layers: Layer 1 (Color), Layer 2 (White), and Layer 3 (Color). The 'Requested' value is set to 1.

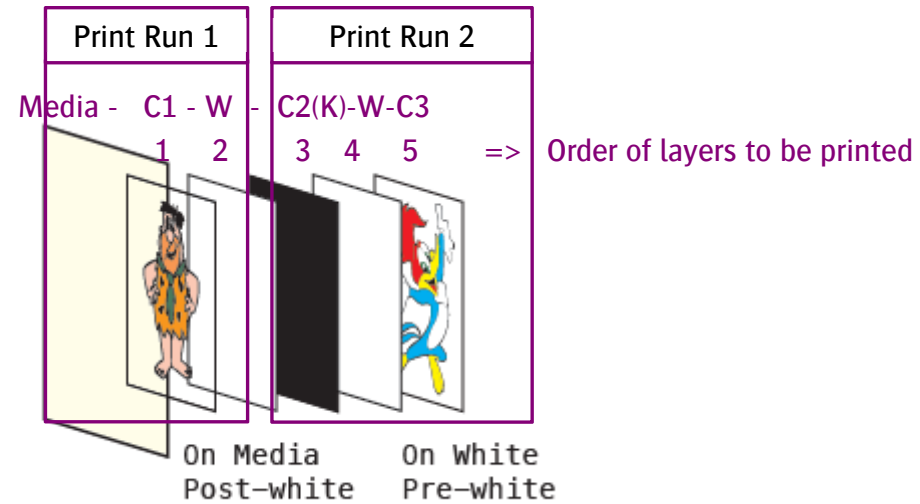
ToPrint	Order	Separation	#Done
☒	1	Color	0
☒	2	White	0
☒	3	Color	0

7. Use Case 3 – Block out application

The print result

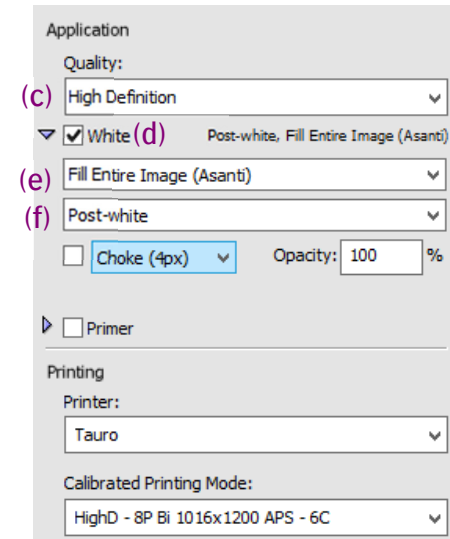


How it will be printed.



Create a Sandwich White job with a block out layer and 2 content different CMYK layers



1. Create a new layout job to print the first 2 layers; The image and a post white layer. To achieve optimal adhesion in this application it is advised to end the first print run with a white layer.
2. Job Inspector
 - a. Set Media to Generic or a transparent media having a dedicated CPM.
 - b. Set the correct media size and thickness.
 - c. Set the quality to High Definition.
 - d. Enable White.
 - e. Set Fill Entire Image.
 - f. Set Post-White.
 - g. Set Tauro as printer.
 - h. Set Calibrated Print Mode to HighD-8p Bi 1016x1200 APS 6c.
3. Place your image disco_ball_600x400.jpg.
4. Write down the X and Y coordinates and the Width and Height of the disco_ball_600x400.jpg.

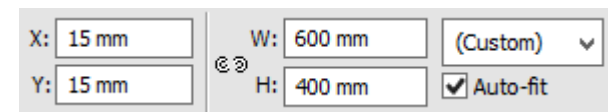
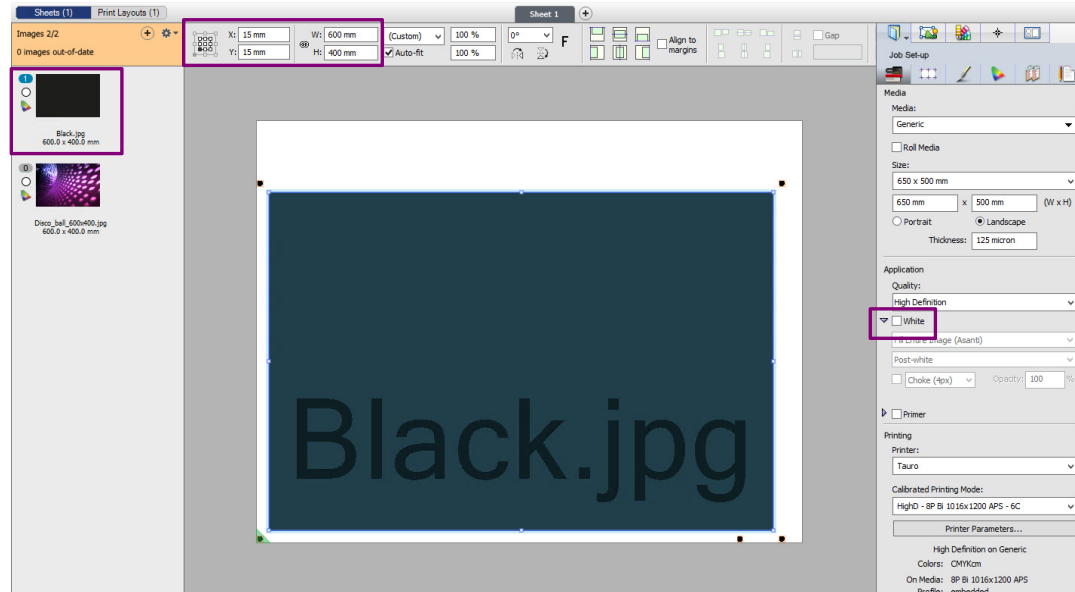


The screenshot shows the 'Application' settings panel in a software interface. It includes a 'Quality' dropdown set to 'High Definition' (labeled with a red (c)), a checked 'White' checkbox (labeled with a red (d)) with a sub-label 'Post-white, Fill Entire Image (Asanti)', a 'Fill Entire Image (Asanti)' dropdown (labeled with a red (e)), and a 'Post-white' dropdown (labeled with a red (f)). Below these are 'Choke (4px)' and 'Opacity: 100 %' settings. A 'Primer' checkbox is also visible. The 'Printing' section shows the 'Printer' set to 'Tauro' and the 'Calibrated Printing Mode' set to 'HighD - 8P Bi 1016x1200 APS - 6C'.

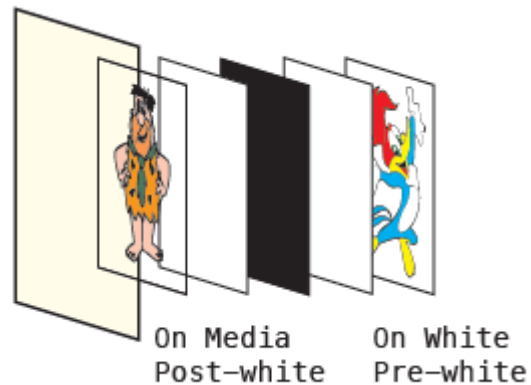


The screenshot shows a panel for defining layout dimensions. It includes a small grid icon, input fields for 'X: 15 mm' and 'Y: 15 mm', and input fields for 'W: 600 mm' and 'H: 400 mm'. A registration mark icon is also present.

5. Submit your job give it the name:
UC3 PR1 Sandwich PostWhite
6. Make and send to printer - submit
7. Duplicate the job UC3 PR1 Sandwich PostWhite
8. Remove the image disco_ball_600x400.jpg from the sheet 1 layout.
9. Add black.jpg to the image pane and place the image on the sheet.
 - a. Make sure that the black image has the same size and X&Y coordinates as the disco_ball_600x400.jpg.
10. Job Inspector - Disable White.
11. Submit – make and send to printer.
12. Give it the name UC3 PR2 Sandwich#K;
13. Duplicate the job UC3 PR2 Sandwich#K;
14. Remove the black.jpg from the sheet 1 layout.
15. Add CHIMAY BLEU.jpg.
16. Select chimay blue.jpg in the image pane.
17. Select the  to deactivate the constrain aspect ratio. 
18. Change the width of the image to 600mm and height to 400mm.
19. Add your chimay blue to the layout.
20. Check if the chimay blue uses the same X and Y coordinates as the 2 previous jobs.



21. The quality was set to High Definition.
22. Enable White.
23. Set Fill Entire Image (Asanti).
24. Set Pre-white.
25. Submit – make and send to printer.
26. Give it the name UC3 PR2 Sandwich#PreWC;
27. Tauro will merge these 2 jobs, the first of the to be merged job generates the black layer, the second job generates the Pre-white layer and the color 2.
28. Print job UC3 PR1 Sandwich PostWhite
29. Print job UC3 PR2 Sandwich#KPreWC to achieve this sandwich block out result.



Application

Quality:
High Definition

☒ White Pre-white, Fill Entire Image (Asanti)

Fill Entire Image (Asanti)

Pre-white

☐ Choke (4px) Opacity: 100 %

☐ Primer

Printing

Printer:
Tauro

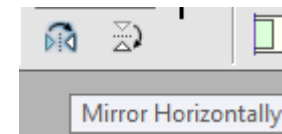
Calibrated Printing Mode:
HighD - 8P Bi 1016x1200 APS - 6C

8. Other Use Cases

a. Use Case 4: Day Application: Color1-White-MirroredColor1 on Transparent media,

The image is viewed from both sides and will be printed on the back side of the transparent media.

1. Create a new layout job.
2. Job Inspector
 - a. Set Media to the transparent media with a custom CPM or Set Generic.
 - b. Set the correct media size and thickness
 - c. Set the quality to High Definition or the quality selected to your custom CPM.
 - d. Disable white.
3. Add cleaning white.pdf to the image pane, place it on the sheet, mirror the image, submit
4. Make and send to printer, use the name: **UC4 SandwichDay#C;** and submit.
5. Duplicate job **UC4 SandwichDay#C;**
 - a. Enable White.
 - b. Set Fill Entire Image.
 - c. Set Pre-white.
6. The image placed on the layout is mirrored, reselect the mirror button to undo the mirror.
7. Make and send to printer, use the name: **UC4 SandwichDay#PreWC;** and submit.
8. Tauro will merge these 2 jobs, print the merged job.



b. Use Case 5: Primer-Color-White-Color

1. Create a new layout job.
2. Job Inspector
 - a. Set media to generic
 - b. Set the correct media size and thickness
 - c. Set the Quality to High Definition
 - d. Enable White – Fill Entire Image – Sandwich White
 - e. Enable Primer – Fill Entire Image
3. A job with 4 layers will be created and Tauro
4. Print your job

c. Use Case 6: Color 1 and Color 2 can be different in

1. On white or on media CPM usage
2. Color Corrections done through raster preview
3. Image Content

The screenshot shows the 'Application' settings in the Job Inspector. Under 'Quality', 'High Definition' is selected. The 'White' layer is enabled with 'Sandwich-white, Fill Entire Image (Asanti)' selected. The 'Primer' layer is also enabled with 'Fill Entire Image (Asanti)' selected. Both layers have a 'Choke (4px)' dropdown and an 'Opacity: 100 %' field.

Layer	Quality	Fill Type	Choke	Opacity
White	High Definition	Sandwich-white, Fill Entire Image (Asanti)	Choke (4px)	100 %
Primer		Fill Entire Image (Asanti)	Choke (4px)	100 %

9. Tips and Tricks to create sandwich white jobs

a. Order of print layers

1. When using the # method to merge jobs the first submitted job will be the first layer and this layer is printed on the media. This is important when selecting the correct CPM
2. To improve adhesion and when the sandwich job is printed in separate print runs it is advised to always end with the white layer.
3. Following Combinations are advised

Print Result	Print Run 1	Print Run 2
Media-C1-W-B-W-C2	Color1-Postwhite	Black-Prewwhite-Color 2
C1-W-B-Media-W-C2	Color1-PreWhite-Black	PreWhite-Color1
C1-W-Media-Black-W-C2	Color1-PreWhite	Black-PreWhite-Color1

b. Jobs can only be merged if they fulfill following requirements:

The 2 be merged jobs **must have**

1. An identical **name** before the #
e.g. **SandwichFront#CPostW**; and **SandwichFront#K**;
2. The **name should end** with an #
SandwichFront#CPostW; and **SandwichFront#K**;
3. The data between the # and ; is a comment field is not mandatory. E.g. **SandwichFront#CPostW**; and **SandwichFront#K**;
The comment field can be used to track the layers on Tauro.
4. The comment should end with ;. E.g. **SandwichFront#CPostW**;
and **SandwichFront#K**;
5. The **same position and the same image and sheet size**
 - a. The job error status message is: Error Merging Job
Incompatible Sheets, Incompatible Sheet positions or
alignment

6. The **same printer parameters.**
7. In **total 2 colour layers and 1 white layer**
 - a. If the 2 jobs each contain a color and a white layer, then the job in Asanti will error:
The job error status message is: Error Merging Job
Merged PrintTask has <4> Layers, expected <3> :
<COLOR><WHITE><COLOR><WHITE>
 - b. If the 2 jobs contain not enough layers then the job in Asanti will error: The error status message is: Error
Merging JobMerged PrintTask has <2> Layers, expected
<3> : <COLOR><COLOR>