Tutorial # Creating Sandwich White jobs for Tauro v4.x

This tutorial demonstrates how to create sandwich white jobs for different applications. It also explains how you can control the order of the printer layers using the correct calibrated print modes.
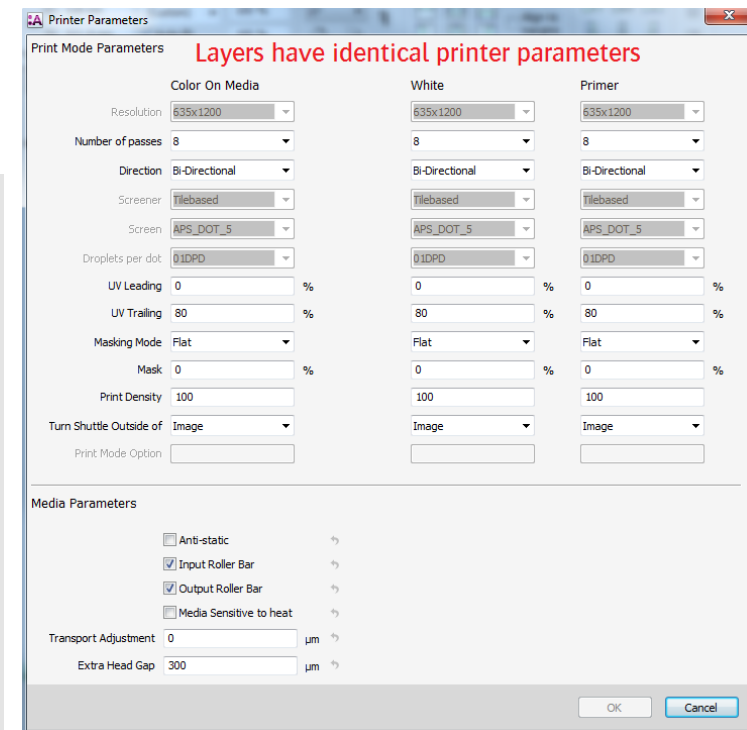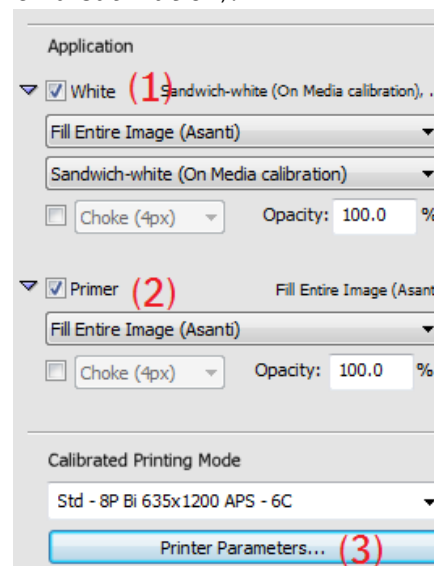Download the Asanti Sample Files via the Asanti Client: Help > Asanti Online > Download Sample Files.
Tauro 4.x software must be installed on the printer.

1. Process a job with concurrent or sequential print layers.

This exercise explains the difference between printing layers concurrently and sequentially.

1. File > New Layout Job.
2. In the Media inspector select these settings:

- Printer Tauro.

- Size: 600 mm x 600 mm.

- Quality: Standard.

- Enable White (1).

- Fill Entire Image and Sandwich-white (On Media Calibration).

- Enable Primer (2): select Fill Entire Image.

3. Import image "Agfa_logo_color.jpg".
4. Place the image to the sheet.
5. Context click the placed image > Step and Repeat> Copies: Fill Entire Grid.
6. Select all images and mirror them.
7. Click the Printer Parameters button (3). All Layers have identical printer parameters.
8. Click Cancel.
9. Submit job, name the job "Primer-Color-White-Color-Concurrent" and select "Make and send to Printer".

Application

White (1) Sandwich-white (On Media calibration), …

Fill Entire Image (Asanti)

Sandwich-white (On Media calibration)

Choke (4px) Opacity: 100.0 %

Primer (2) Fill Entire Image (Asanti)

Fill Entire Image (Asanti)

Choke (4px) Opacity: 100.0 %

Calibrated Printing Mode

Std - 8P Bi 635x1200 APS - 6C

Printer Parameters... (3)

Printer Parameters

Print Mode Parameters   Layers have identical printer parameters

	Color On Media	White	Primer
Resolution	635x1200	635x1200	635x1200
Number of passes	8	8	8
Direction	Bi-Directional	Bi-Directional	Bi-Directional
Screener	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
Turn Shuttle Outside of	Image	Image	Image
Print Mode Option			

Media Parameters

- Anti-static
- ☑ Input Roller Bar
- ☑ Output Roller Bar
- Media Sensitive to heat

Transport Adjustment 0 μm
Extra Head Gap 300 μm

OK   Cancel

10. Select the job in the Tauro client. The concurrent layers are marked in the Job Name (1): P+W+C+P and visualized as layers in the print task pane (2). The media will be printed in 1 print run (=concurrent printing).
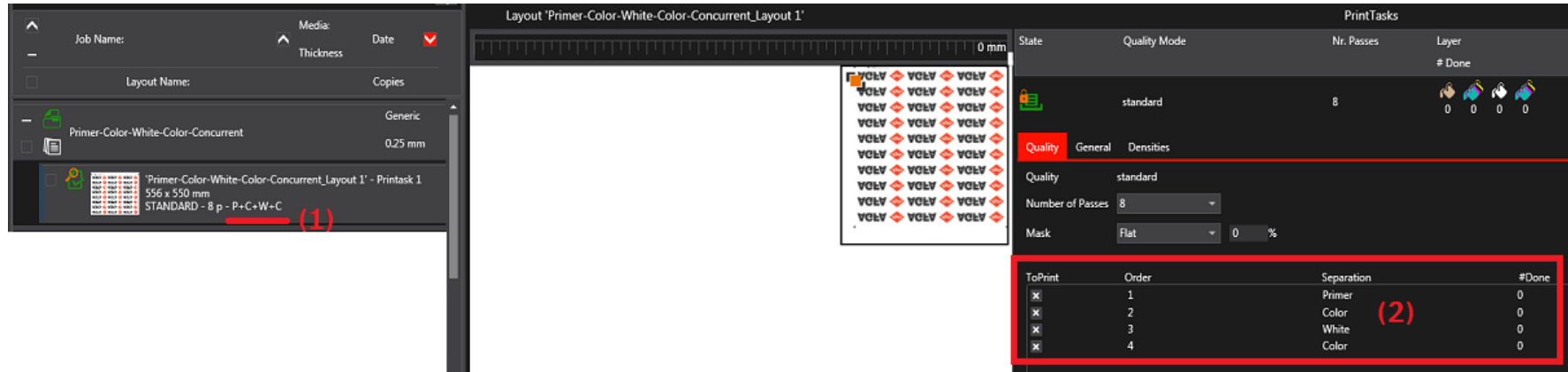
11. Go back to the Asanti client and duplicate job "Primer-Color-White-Color-Concurrent".

12. Open the printer parameters and change the number of passes of Primer to 2.
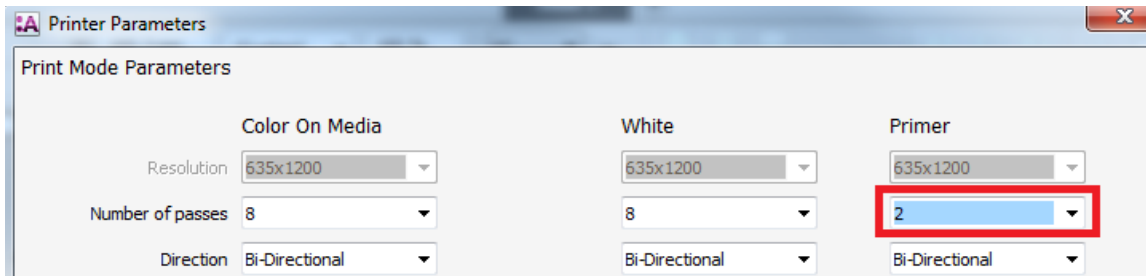
13. Click OK and Submit Job, Use "2p Primer+8p Color-White-Color" as job name.

14. In the Tauro client, select job "2p Primer+8p Color-White-Color". This job has now 2 print layouts and will be printed in 2 print runs (= sequential printing).

- The first Print run (1) contains primer (2 pass).
- The second Print run (2) is C+W+C (8 pass).

Tauro can print up to 4 layers concurrently; Primer-Color-White-Color. To print different layers concurrent, equal print mode settings must be selected in Asanti.

---

2. C1-W-C1 Sandwich white on the backside of media

This application is also known as day and night printing at the backside of transparent media. Two identical images are printed with a white layer in between. The first image is printed mirrored on the media; the second layer is a post white layer. The third layer contains the same image as the first layer. The printed image is viewed through the media. During the day the first 2 layers produce a good print and 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.
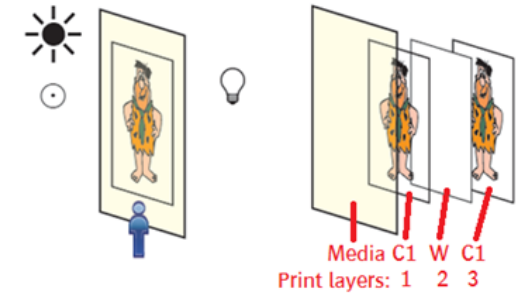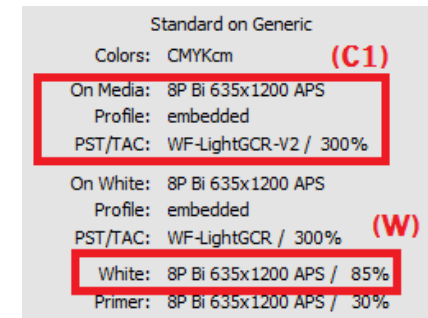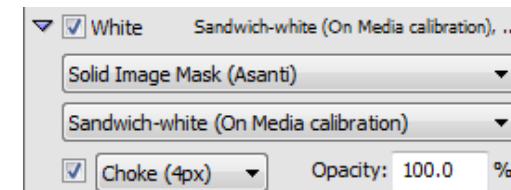
Print Result	Print Run 1
Media-C1-W-C1	C1-W-C1 = Sandwich white (on media calibration)

Media C1 W C1
Print layers: 1 2 3

1. File > New Layout Job.
2. Import image CHIMAY.jpg.
3. In the positioning tool bar set scaling to 300%.
4. Drag the image to the sheet.
5. Mirror the image.
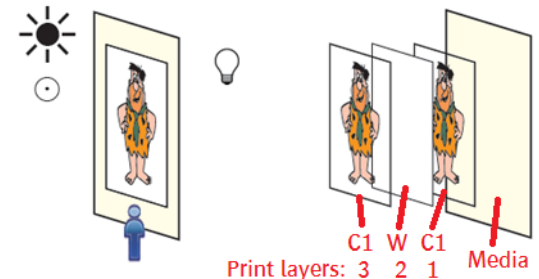6. In the Media inspector select these settings:
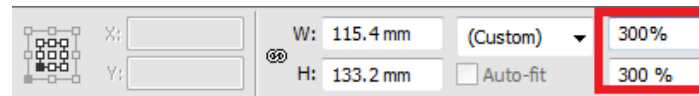
- Printer: Tauro.
- Media: Generic (or a transparent media).
- Media size 500 x 500 mm.
- Select White, solid Image Mask (Asanti), sandwich-white (On Media Calibration).
- Calibrated Print Mode: e.g. Std- 8P Bi 635x1200 APS – 6C.

7. Submit job, name the job "Sandwich white on backside" and select "Make and send to Printer".

- The "on media" Calibrated Print Mode and print mode parameters are used for the color layer (C1).
- The "White" Calibrated Print Mode and print mode parameters are used for the white layer (W).

8. Print the job in the Tauro client. The Tauro job contains 3 layers. All 3 layers will be printed in 1 print run (=concurrent printing).

W: 115.4 mm (Custom) 300%
H: 133.2 mm Auto-fit 300 %

☑ White   Sandwich-white (On Media calibration), ...
Solid Image Mask (Asanti)
Sandwich-white (On Media calibration)
☑ Choke (4px)   Opacity: 100.0 %

Standard on Generic
Colors: CMYKcm   **(C1)**
On Media: 8P Bi 635x1200 APS
Profile: embedded
PST/TAC: WF-LightGCR-V2 / 300%

On White: 8P Bi 635x1200 APS
Profile: embedded
PST/TAC: WF-LightGCR / 300%   **(W)**

White: 8P Bi 635x1200 APS / 85%
Primer: 8P Bi 635x1200 APS / 30%

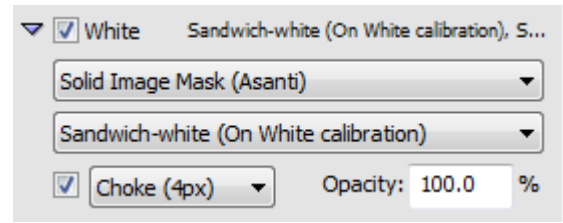| ToPrint	Order	Separation	
✗	1	Color	**(C1)**
✗	2	White	**(W)**
✗	3	Color	**(C1)**

3. C1-W-C1 Sandwich white on the front side of media

This application is also known as day and night printing at the front side of transparent media. Two identical images are printed with a white layer in between. 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. You look directly to the printed image (Not through the media).

Print Result	Print Run 1
C1-W-C1- Media	C1-W-C1 = Sandwich white (on white calibration)

1. File > New Layout Job.
2. Import image CHIMAY.jpg.
3. In the positioning tool bar set scaling to 300%.
4. Drag the image to the sheet. Don't mirror the image.
5. In the Media inspector select these settings:

- Printer: Tauro.
- Media: Generic.
- Media size 500 x 500 mm.
- Select White, solid Image Mask (Asanti), Sandwich-white (On White Calibration).
- Calibrated Print Mode: e.g. Std- 8P Bi 635x1200 APS – 6C.
6. Submit job, name the job "Sandwich white on front side" and select "Make and send to Printer".

- The "on white" Calibrated Print Mode and print mode parameters are used for the color layer (C1).
- The "White" Calibrated Print Mode and print mode parameters are used for the white layer (W).
7. Print the job in the Tauro client. The Tauro job contains 3 layers. All 3 layers will be printed in 1 print run (=concurrent printing).

4. C1-W-C2-W-C3 Block out application

This job can only be printed on Tauro in 2 print runs.
Following Combinations of print runs are possible:

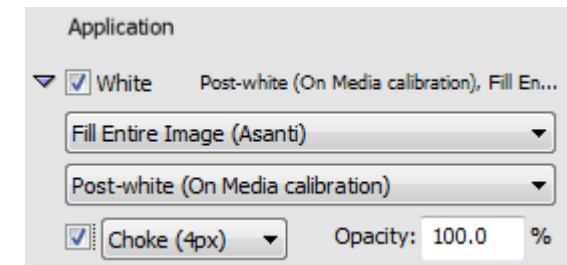| Print Result	Print Run 1	Print Run 2
Media-C1-W- C2(Black) -W-C3	C1-Postwhite	C2(Black) -Prewhite-C3
C1-W- C2(Black) -Media-W-C3	C2(Black) -Prewhite-C1	PreWhite-C3
C1-W-Media- C2(Black) -W-C3	PreWhite-C1	C2(Black) -PreWhite-C3

For this exercise, we will print all layers on the backside of the media
(Media-C1-W- C2(Black) -W-C3).
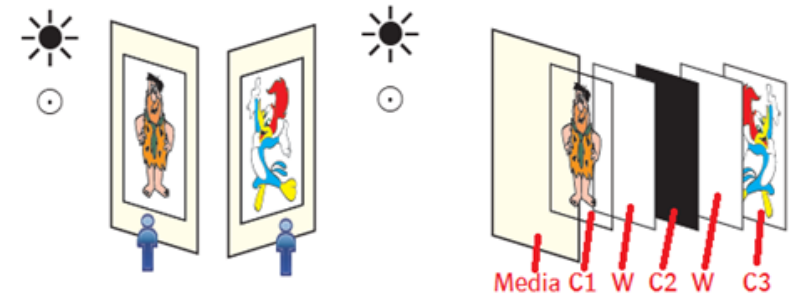
Create print run1 (C1-W).

In Asanti, a sheet can't contain multiple color layers (e.g. C1 and C2). Multiple jobs are needed to accomplish that. Job 1 contains the first 2 layers: the color image layer 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.

1. File > New layout job.
2. Import image disco_ball_600x400.jpg.
3. Drag the image to the sheet.
4. Mirror the image.
5. In the Media inspector select these settings:

- Printer: Tauro.
- Media: Generic (or a transparent media).
- Size: 1000 x 700 mm.
- Quality: e.g. High Definition.
- Enable White.
- Set Fill Entire Image.
- Set Post-White (On Media calibration).
- Calibrated Print Mode: HighD-12p Bi 725x1200 AQS – 6C.

6. Submit job, name the job "Block out application run1" and select "Make and send to Printer".

Create print run2 (C2-W-C3)

For print run 2, 2 jobs must be created in Asanti. Because these Asanti jobs must be printed in 1 print run, they must be merged in the Tauro client. Jobs are merged on Tauro if their job names end with a # character.

1. In Asanti, duplicate the job "Block out application run1".
2. Context click the image in the frame > Clear Frame.
3. Delete Disco_ball_600x400.jpg from the available images pane.
4. Import image "black.jpg".
5. Drag "black.jpg" to the empty frame.
6. Media Inspector: Uncheck White.
7. Submit job, name the job "Block out application run2#K;" and select "Make and send to Printer".


Job Name:	Block out application run2#K;

To merge jobs on Tauro, a name convention must be used for the job name:

- Each job name must end with a #

- The name used before the # has to be identical for each job that needs to be merged.

- A comment can be added after the #. The comment needs to end with a ;
  The comment is used to indicate the print layer names.

Merged jobs on Tauro must have identical settings for:

- Sheet size, image size and position. When these are different, an error is given next to the Asanti job: Error Merging Job, Incompatible Sheets, Incompatible Sheet positions or alignment.

- Calibrating Print Modes

- Printer Parameters

8. In the Tauro client select the job "Block out application run2#K;". The job is in collecting state.
9. In the Asanti client, duplicate the job "Block out application run2#K;".
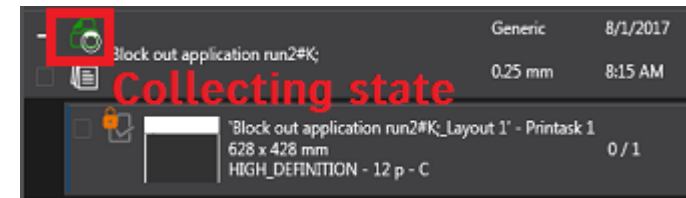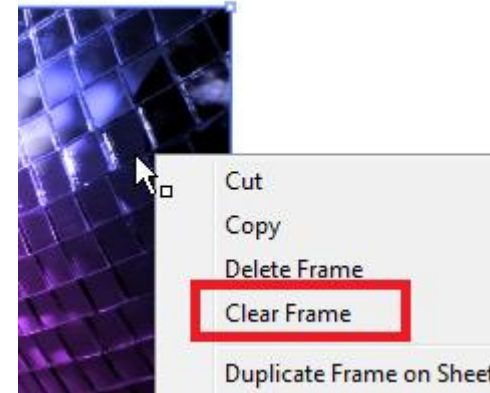
10. Context click the image in the frame > Clear Frame.
11. Delete Black.jpg from the available images pane.
12. Import image "CHIMAY BLEU.jpg".
13. Drag "CHIMAY BLEU.jpg" to the empty frame.
    The image is mirrored. Click mirror, so the image is placed right reading.
14. Select White, Fill Entire Image (Asanti), Pre-white (On White calibration).
15. Submit job, name the job "Block out application run2#PreWC;" and select "Make and send to Printer".

> Job Name: Block out application run2#PreWC;

16. In the Tauro client, the original job is renamed to "Block out application run2#K;+PreWC;". Select the job. Tauro has merged the 2 jobs,

- No collecting state is shown anymore.

- The job shows 3 layers: C2 + W + C3.

17. Print job "Block out application run1".
18. Print job "Block out application run2#K;+PreWC;" on the same side of the media.
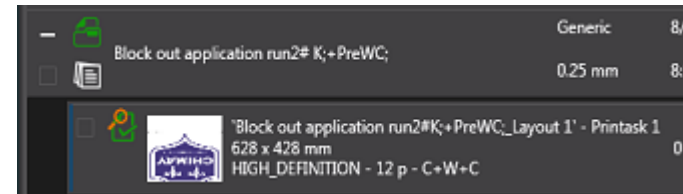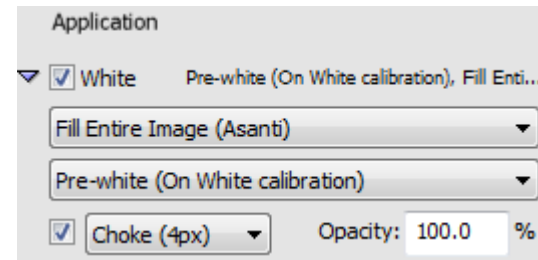
5. C1-W-C2 Sandwich white on backside with different content

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

Print Result	Print Run 1
Media-C1-W-C2	C1-PreWhite-C2

1. File > New layout job.
2. In the Media inspector select these settings:

- Printer: Tauro.

- Media: Generic (or a transparent media).

- Quality: High Definition.

3. Import image "Disco_ball_600x400.jpg".
4. Drag the image to the sheet.
5. Mirror the image.
6. Submit job,
   name the job "Sandwich white on backside Mirror#C1;" and
   select "Make and send to Printer".
7. Duplicate job "Sandwich white on backside Mirror#C1;"
8. Enable White.
9. Select Fill Entire Image.
10. Select Pre-white.
11. The image placed on the layout is mirrored. Select the image on
    the sheet, reselect the mirror button to undo the mirror.
12. Submit job,
    name the job "Sandwich white on backside Mirror#PreWC2;"
    and select "Make and send to Printer".
13. Tauro will merge these 2 jobs, print the merged job.
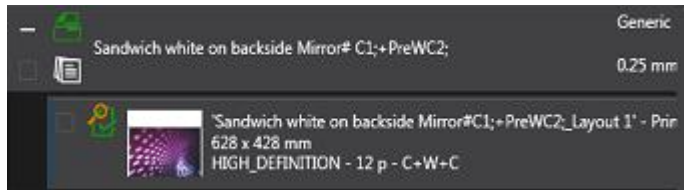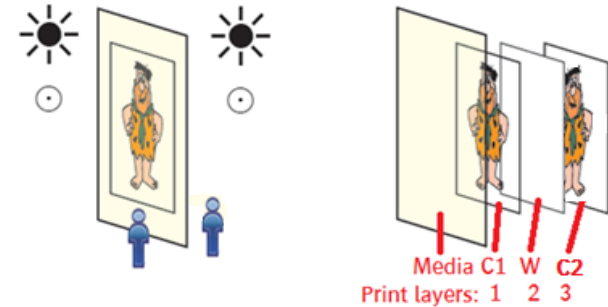
6. P-C1-W-C1 Sandwich white with Primer

Print Result	Print Run 1
Media-Primer-C1-W-C1	Primer-C1-W-C1 = Sandwich white (on Media calibration)
C1-W-C1-Primer-Media	Primer-C1-W-C1 = Sandwich white (on white calibration)

1. File > New layout job.
2. In the Media inspector select these settings:

- Printer: Tauro.

- Media: Generic (or a transparent media).

- Quality: High Quality.

- Select White, Fill Entire Image, Sandwich White on Media (print on backside) or on White (print on front side).

- Enable Primer, Fill Entire Image.
3. Import image "Disco_ball_600x400.jpg".
4. Drag the image to the sheet.
5. Mirror the image if using Sandwich White on Media.
6. Submit job, name the job "Sandwich white with Primer" and select "Make and send to Printer". A job with 4 layers will be created and Tauro.
7. Print your job
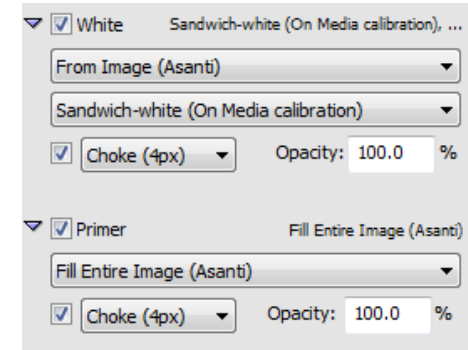
7. P-C1-W-C2 Sandwich white with different content with Primer

| Print Result	Print Run 1
Media-Primer-C1-W-C2	Primer-C1-PostWhite-C2

Create layers Primer-Color1- White

Primer is the first layer to be printed and therefor this job needs to be submitted first.

1. File > New layout job.
2. In the Media inspector select these settings:

- Printer: Tauro.

- Media: Generic (or a transparent media).
- Quality: High Quality.
- Select White, Fill Entire Image, Post-white (on media calibration).
- Select Primer, Fill Entire Image.

3. Import image "Disco_ball_600x400.jpg".
4. Drag the image to the sheet.
5. Mirror the image
6. Submit job, name the job
   "Sandwich white Primer Mirror#PC1W;" and select
   "Make and send to Printer".

Job Name: Sandwich white Primer Mirror#PC1W;
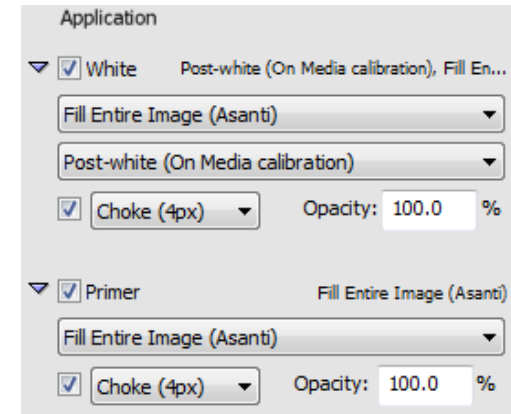
Create layer Color 2

1. Duplicate the job "Sandwich white Primer Mirror#PC1W;".
2. Uncheck White.
3. The image placed on the layout is mirrored. Select the image on the sheet, reselect the mirror button to undo the mirror.
4. Submit job,
   name the job "Sandwich white Primer Mirror#C2;" and select
   "Make and send to Printer".
5. Tauro shows a job with 4 layers.

ToPrint	Order	Separation		#Done
✖	1	Primer	P	0
✖	2	Color	C1	0
✖	3	White	W	0
✖	4	Color	C2	0