UJF-7151 plus / UJF-7151 plusII / UJF-7151 plusII e

Clear Ink Print Guide

This manual describes the effects that can be expressed when clear ink is used in UJF-7151 plus / UJF-7151 plusII / UJF-7151 plusII e, and how to set and print them.
Please read this manual carefully and use it correctly.

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Notations used in this document

- Items and buttons displayed in menus and on screens are marked with square brackets ([ ]) as in [File].
- RasterLink6, RasterLink6Plus, RasterLink7 and RasterLink8 are referred to as RasterLink in together.

Screen image used in this document

- The explanation is based on the screen image of RasterLink6Plus as an example.

Symbols

Important!	• This symbol indicates important information for using this product.
	• This symbol indicates useful information.

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Applicable environment

● UJF-7151 plus

Ink	Printer F.W.Ver	RIP / Driver			
		RasterLink6*1	RasterLink6Plus*1	RasterLink7 / Mimaki Driver	RasterLink8 / Mimaki Driver
LH-100	F.W. Ver. 1.80 or later	Ver.5.4 or later	Ver.1.0 or later	Ver.2.0.0 or later / Ver.5.5.0 or later	Ver.1.0.0 or later / Ver.5.13.0 or later
LUS-120					
LUS-350					
ELH-100	F.W. Ver. 5.10 or later	-	Ver.2.20 or later	Ver.3.3.2.1 or later / Ver.5.9.14 or later	
ELS-120	F.W. Ver. 5.20 or later	-	Ver.2.23 or later	Ver.4.0.2 or later / Ver.5.10.4 or later	

***1.For RasterLink6 and RasterLink6Plus, install the version that is compatible with the printer you are using.**

● UJF-7151 plusII

Ink	Printer F.W.Ver	RIP / Driver	
		RasterLink7 /Mimaki Driver	RasterLink8 / Mimaki Driver
LH-100	F.W. Ver.1.80 or later	Ver.2.0.0 or later / Ver.5.5.0 or later	Ver.1.0.0 or later / Ver.5.13.0 or later
LUS-120			
LUS-350			
ELH-100	F.W. Ver.3.1.0 or later	Ver.3.3.2.1 or later / Ver.5.9.14 or later	
ELS-120	F.W. Ver.4.2.6 or later	Ver.4.0.2 or later / Ver.5.10.4 or later	

● UJF-7151 plusII e

Ink	Printer F.W.Ver	RIP / Driver	
		RasterLink7 /Mimaki Driver	RasterLink8 / Mimaki Driver
LH-100	F.W. Ver.1.00 or later	Ver.4.0.0 or later / Ver.5.10.2 or later	Ver.1.0.0 or later / Ver.5.13.0 or later
LUS-120			
LUS-350			
ELH-100			
ELS-120			

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Setting the printer

Before printing with this Guide, carry out setting of the printer as follows.

1. Turn on the printer's power.

- Wait until <Local> is displayed on the panel.

- If the power is already on, have the panel display <Local>.

2. Select [UV MODE] on the panel, as follows:

(1) With "Local" displayed, press the FUNC1 key.
(2) Use the ▲, ▼ key to select [SETUP], then press the ENTER key.
(3) Use the ▲, ▼ key to select [UV MODE], then press the ENTER key.
(4) Use the ▲, ▼ key to select [ON].
(5) Press the ENTER key.
(6) Return to [SETUP], by pressing the END/POWER key just once.

3. Select [MAPS2] on the panel, as follows:

(1) Make sure that [SETUP] is selected.
(2) Use the ▲, ▼ key to select [MAPS4], then press the ENTER key.

4. Select "AUTO" for [MAPS2], as follows:

```
MAPS4
:AUTO
```

(1) Use the ▲, ▼ key to select "AUTO".
(2) Press the ENTER key.

5. Return to "Local", by pressing the END/POWER key several times.

- If you use the clear ink according to the procedures in this Guide, the settings will be made so that good-quality images are obtained, with the specified quality feel. Sometimes however, the image quality may be poor due to the media material or other factor. In that case, change the setting of 1-4 of the following procedures, please do a test print.
- If you have set the following two types of printing conditions, changing the settings of 1-4 of the following procedures is not effective.
  In this case, please change the setting of the printing conditions to other recommended value.
  -> See P. 19 " 3. Set the recommended values for the printing conditions "

Print cundition	Pass	Print direction	High speed
600x600dpi	8	Uni	ON
600x900dpi	12	Uni	ON

1. Turn on the printer's power.

- Wait until "Local" is displayed on the panel.

Important!
- If the power is already on, have "Local" displayed on the panel.

2. Select [MAPS4] on the panel, as follows:

(1) With "Local" displayed, press the [FUNCTION] key.
(2) Use the ▲, ▼ key to select [SETUP], then press the ENTER key.
(3) Use the ▲, ▼ key to select [MAPS4], then press the ENTER key.

3. Select "MANUAL" for ［MAPS4］, as follows:

```
MAPS4
:MANUAL
```

- Use the ▲, ▼ key to select "MANUAL".

4. After setting to "MANUAL", make the settings for the ink colors, as follows.

(1) Press the ENTER key.
(2) Make the setting for [COLOR], as follows.
Use the ▲, ▼ key to change level. (0 to 100%)
Changing this value will change the color image quality.
Then press ENTER .
(3) Make the setting for [SPOT], as follows.
Use the ▲, ▼ key to change level.
Changing this value will change the spot color image quality.
Then press ENTER .
(4) Return to "Local", by pressing the END/POWER key several times.

Important!
- UV ink appears yellowish immediately after printing, but tends to fade over time as the yellowish tint diminishes and the color stabilizes.
- The appearance may vary depending on printing conditions, ink volume, and media.
- When exposed to heat around 40–60°C, wind, light, etc., the yellow tint tends to fade more easily.

Precautions for Storing Printed Media
Immediately after printing, storing the material in a dark place or in a state where the printed surface is covered may cause the color tones to become unstable.
- Store in a well-lit place.
- Do not stack printed media.
- Do not roll it up like a roll covering the printed surface.

Effects and printing with clear ink

Clear ink's effects

The effects below can be obtained by using clear ink.

Gloss feel effect - "Glossy Print"

Matte feel effect - "Matte Print"

3D feel effect - "Emboss Print"

These effects can be obtained via the "UV MODE" settings in RasterLink.

Recommended settings for printing a clear ink

In order to obtain a better effect of the clear ink, depending on the conditions of media and printing, please use the following recommended density of the clear ink.

•Glossy print

Print condition		Media				
Resolution	**Pass**	FOREX®print	White PET	LEXAN™ Film	Acrylic	Coated paper
600x600dpi	8	100 %	80 %	80 %	80 %	100%
	10	100 %	100 %	100 %	100 %	100 %
600 × 900dpi	12	80 %	80 %	80 %	80 %	80 %
	16	100 %	100 %	100 %	100 %	100 %
1200 × 1200dpi	12	100 %	100 %	100 %	100 %	100 %
	16					
1800 × 1800dpi*1	16	70%	70%	70%	70%	70%
	24					

*1.UJF-7151plusII, UJF-7151plusII e only

If the clear ink does not achieve the desired effect even at the recommended concentration above, due to your specific conditions or media, please verify the following.

•When the amount of clear ink is too small, there are times when small holes are generated on the surface.
-> Please Raise the density of clear ink (increase).

•When the amount of clear ink is too high, there may occur streaks of regular intervals.
-> Please lower the amount of clear ink (reduce).

Important! When using KebabHS for glossy printing on UJF-7151plusII and UJF-7151plusII e, only the following resolutions are supported.
•600x900dpi

•**Matte printing**

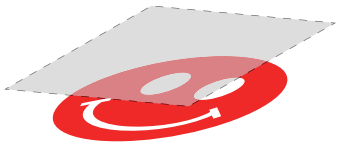
Print condition		Media				
Resolution	**Pass**	FOREX®print	White PET	LEXAN™ Film	Acrylic	Coated paper
600x600dpi	8	60 %	60 %	60 %	60 %	60 %
	10					
600 × 900dpi	12					
	16					
1200 × 1200dpi	12	70 %	70 %	70 %	70 %	70 %
	16					
1800 × 1800dpi*1	16	70 %	70 %	70 %	70 %	70 %
	24					

*1.UJF-7151plusII, UJF-7151plusII e only

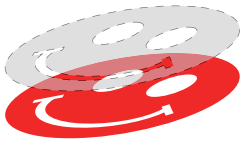
•When the amount of clear ink is too high, there may occur streaks or gloss out.
-> Please lower the amount of clear ink (reduce).

Ways clear ink can be printed

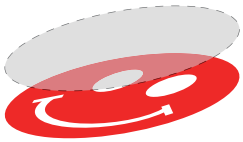
Clear ink can be printed in the ways below with RasterLink.



Printed over the whole of a color image



Printed onto valid pixels of a color image



Printed on a background other than the background of the color image (RasterLink7 only)

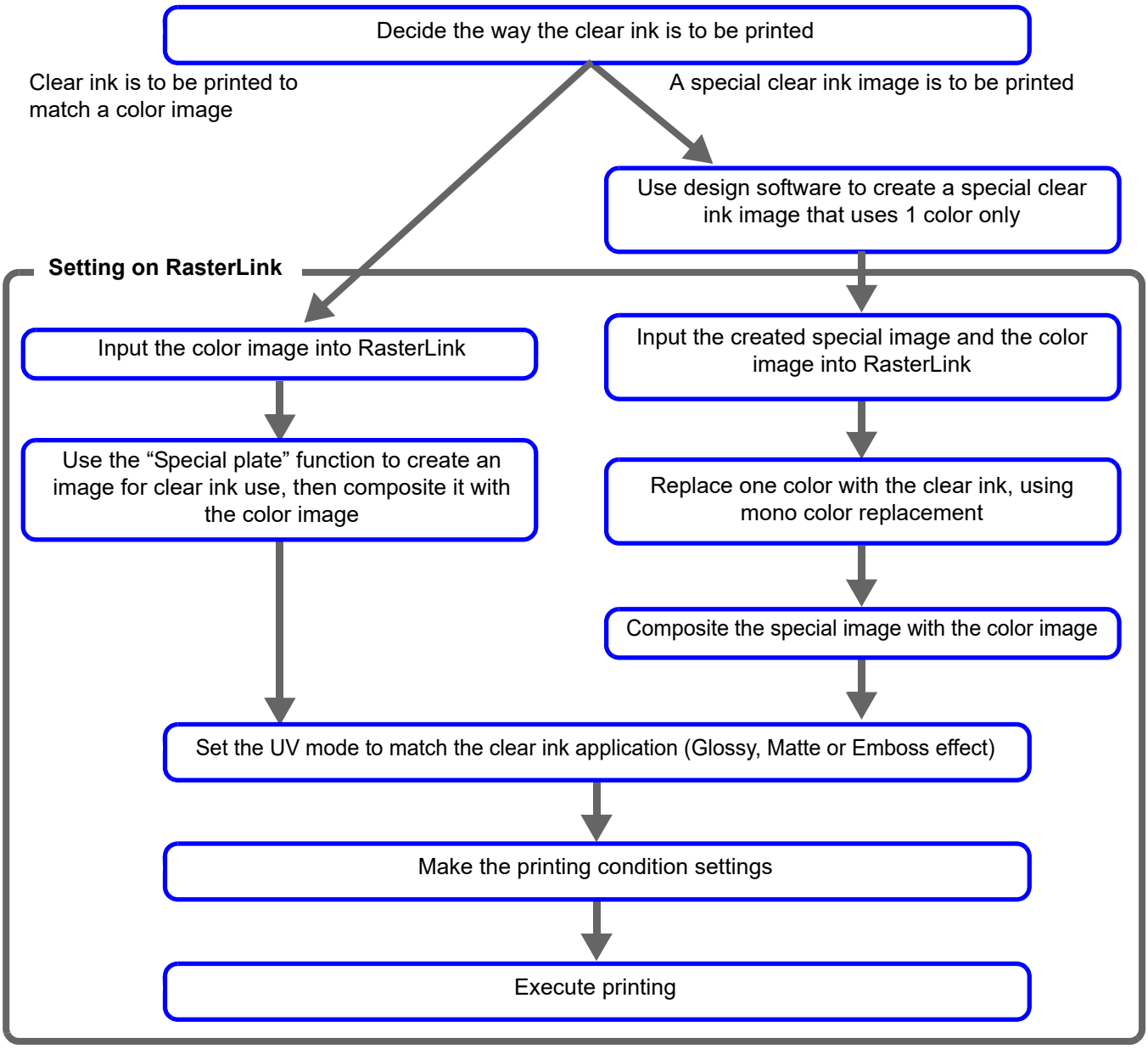
Printed as a special image for clear ink use

In the case of "Printed over the whole of a color image", "Printed onto valid pixels of a color image", and "Printed on a background other than the background of the color image" (RasterLink7 only), the "Create Plate" function of RasterLink is used to create a job for clear ink.
In the case of "Printed as a special image for clear ink use" it is necessary to create images exclusively for clear ink using design software such as Illustrator.

Printing methods

Data creation and printing procedures

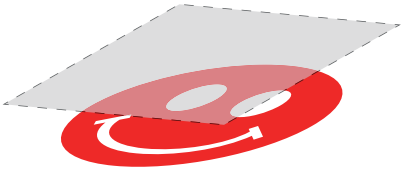
In order to print, you must first create clear ink data and make the settings for it on RasterLink, using the procedure below.



1. Decide the way the clear ink is to be printed

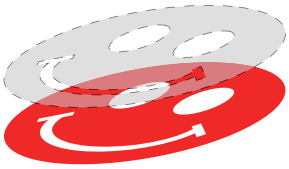
Suppose you have the following color image. You can print the clear ink in any of the three ways shown below.

Print it over the whole of the color image



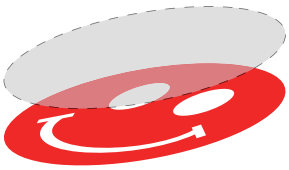
-> Go to A. Printing the clear ink over the whole of the color image

Print it onto the valid pixels of the color image



-> Go to B. Printing the clear ink onto the valid pixels of the color image

Print on a background other than the background of the color image (RasterLink7 only)



-> Go to C. Printing the clear ink on top of a color image except on the background (RasterLink7 only).

Print a special image for clear ink use

-> Go to D. Printing a special clear ink image

A. Printing the clear ink over the whole of the color image

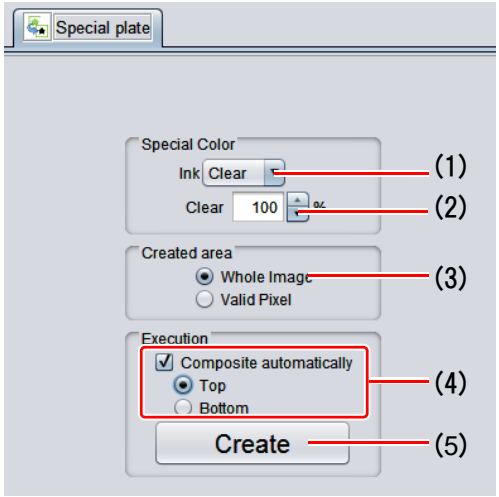
To print the clear ink over the whole of the color image, create a special plate on the basis of the image.

1. In the job list, select the job that will be the basis for the plate.

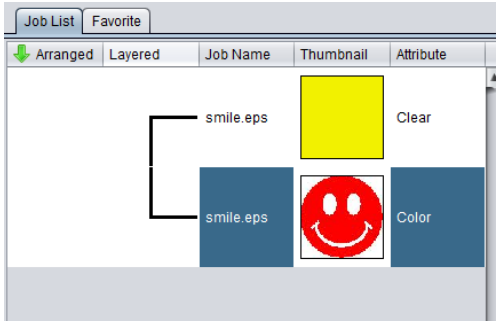
- Click the [Special plate] icon.

2. Make the settings as follows.

(1) [Ink]: Select “Clear”
(2) [Ink volume]: Set “100%”
(3) [Created area]: Select “Whole image”.
(4) [Composite automatically]: Check the box, and select “Top”.
(5) Click the [Create] button.



3. The clear ink job will be created, in a composited state.



B. Printing the clear ink onto the valid pixels of the color image

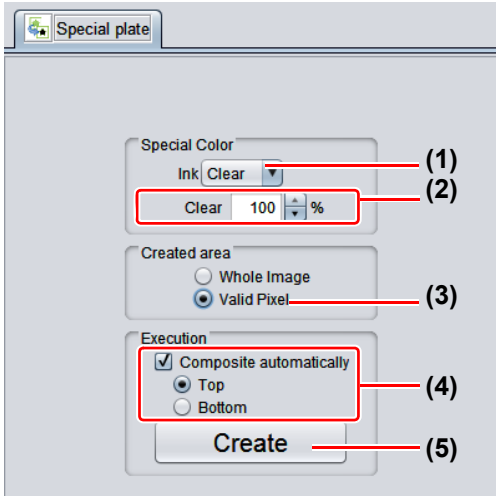
To print the clear ink onto the valid pixels of the color image, create a special plate on the basis of the image.

1. In the Job List, select the job that will be the basis for the plate.

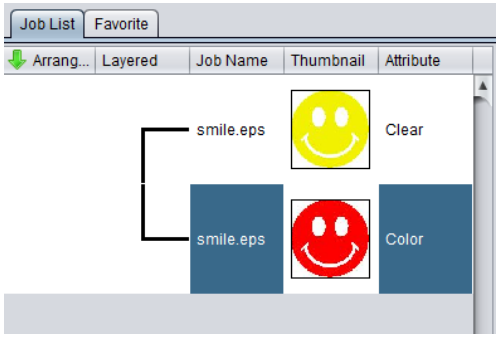
- Click the “Special plate” function icon.

2. Make the settings as follows.

(1) [Ink]: Select “Clear”
(2) [Ink volume]: Select “100%”.
(3) [Created area]: Select “Valid Pixel”.
(4) [Composite automatically]: Check the box, and select “Top”.
(5) Click the [Create] button.



3. The clear ink job will be created, in a composited state.



C. Printing the clear ink on top of a color image except on the background (RasterLink7 only).

To print the clear ink on top of a color image except on the background, create a special plate on the basis of the image.

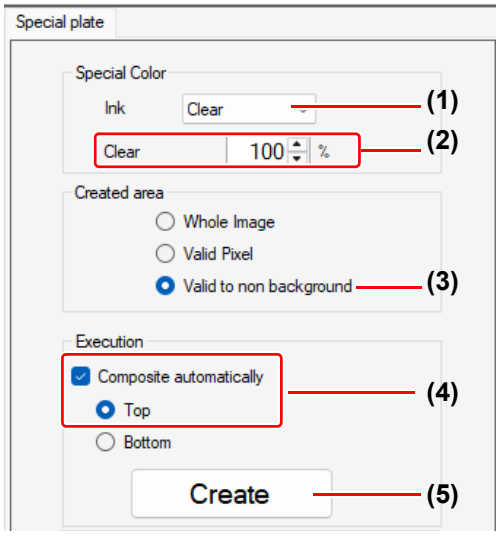
1. In the Job List, select the job that will be the basis for the plate.

- Click the “Special plate” function icon.

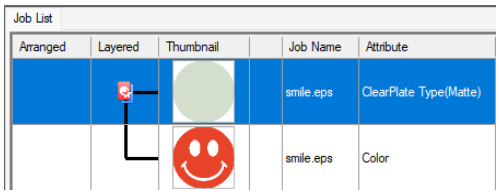
Important! Effective when the image data format is EPS, PS, or PDF and a color (including white) is specified in the data section.

2. Make the settings as follows.

(1) [Ink]: Select “Clear”
(2) [Ink volume]: Select “100%”.
(3) [Created area]: Select “Valid to non background”.
(4) [Composite automatically]: Check the box, and select “Top”.
(5) Click the [Create] button.



3. The clear ink job will be created, in a composited state.



D. Printing a special clear ink image

To print an image designed for clear ink, create a special image, separate from the color image, and carry out mono color replacement with RasterLink. After that, composite the clear ink image with the color image.

Creating the clear ink image

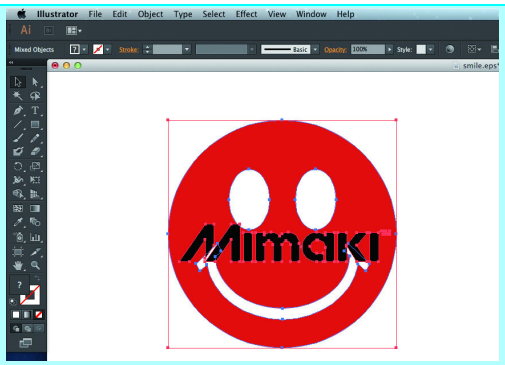
1. Using design software such as Illustrator or Photoshop, create a clear ink image with the following conditions:

- Color Mode: CMYK
  Colors used: One color only - cyan or magenta or yellow or black. Set 100% density for the color. For the other colors, set 0%.
  In this procedure, black 100% is used as an example.

Make the clear ink image's size match the color image's.

You can do this by creating a non-fill/non-line path around the periphery of both images, as shown on the right.

You are recommended to save the color image and clear ink image separately from each other after you have done the layout for them with the design software.



2. Save the created image in PDF or TIFF format.

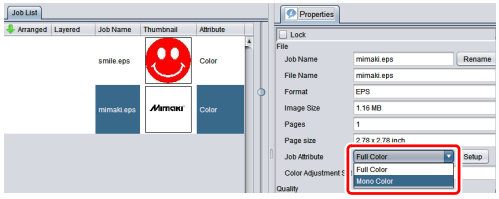
- The recommended image file formats are PDF or TIFF, but the following formats can also be used as clear ink images.
  - EPS, JPEG, PostScript (PS)

3. Import the image saved in procedure 2 into RasterLink.

1. In the job list, select the clear ink job.

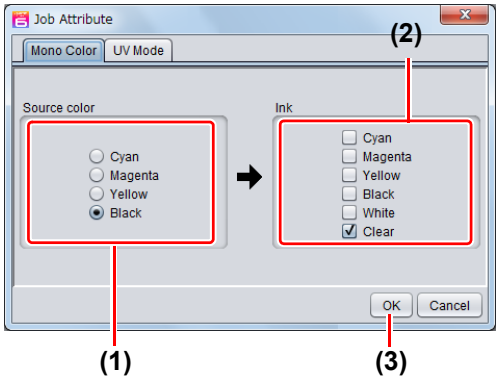
- Click the “Properties” icon.

2. Select “Mono color” in the [Job Attribute] dropdown list.

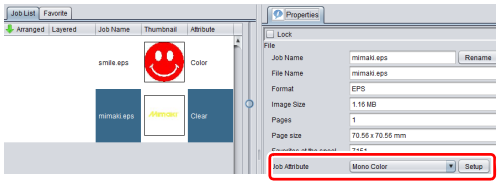


3. Select the [Mono color] tab.

(1) [Source color]: “Black”
(2) [Ink]: “Clear”
(3) Click the [OK] button.



4. The job’s attribute is now “Mono color”. In the job list, the job will have a yellow thumbnail color and “Clear” will be displayed in its “Attribute” field.



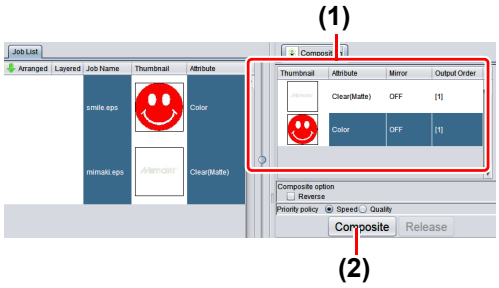
1. In the job list, select the color job and the clear ink job.

- Click the “Composition” icon.

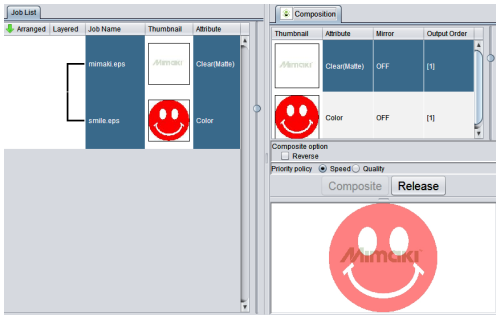
2. Carry out the following check.

(1) Is the clear ink job above the color job in the job list.
- If it is not, use drag and drop to change the positions around.

(2) After the above check, click the [Composite] button.



3. The images will be composited.



- Printing will be carried out in either of the following ways, depending on the [Priority Policy] setting on the ［Composition］screen.

  “Speed”: The color image and clear ink image are printed simultaneously using special color overprinting.
  In this case, the UV mode set for the color image is ignored and the conditions set for the clear ink image are used.

  “Quality”: The color image is printed first and the clear ink image is printed after.
  In this case, the UV modes set respectively for the color image and clear ink image are applied respectively to each image.
- In the case of gloss printing, please seeP.17 "a. Setting Glossy Print"

2. Select the clear ink's effect: set the UV mode

The clear ink's effect is determined by the [UV mode setting] in RasterLink.

Gloss feel effect - "Glossy Print"

-> Go to a. Setting Glossy Print

Matte feel effect - "Matte Print"

-> Go to b. Setting Matte Print

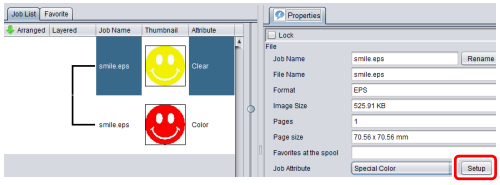
3D feel effect - as "Emboss Print"

-> Go to c. Setting Emboss Print

a. Setting Glossy Print

1. In the job list, select the clear ink job.

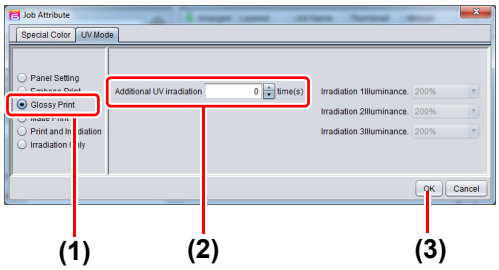
- Click the “Properties” icon.
- Click the [Setup] button in the [Job Attribute] field.



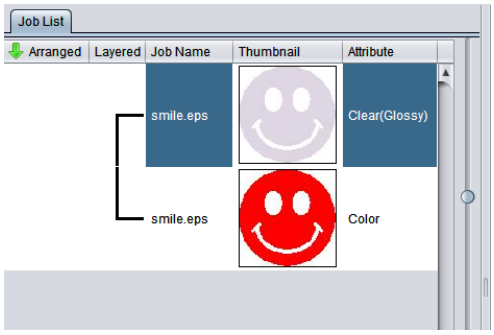
2. Select the [UV Mode] tab.

- Make the settings as follows.

(1) Select “Glossy Print” in the mode list on the left side.
(2) Set “0” for [Additional UV irradiation].
(3) Click the [OK] button.



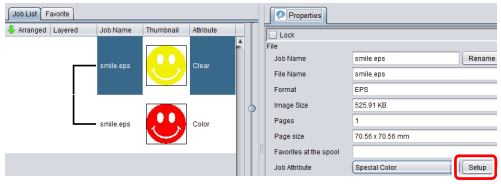
3. Thumbnail of attribute becomes a "Clear (Glossy)".



b. Setting Matte Print

1. In the job list, select the clear ink job.

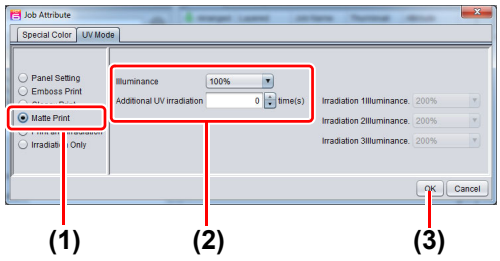
- Click the “Properties” icon.
- Click the [Setup] button in the [Job attribute] field.



2. Select the [UV Mode] tab.

- Make the settings as follows.

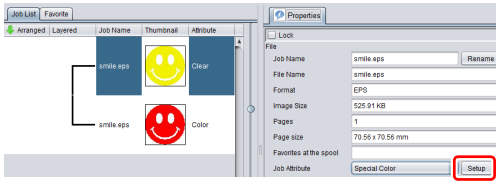
(1) Select “Matte Print” in the mode list on the left side.
(2) Set “100%” for [Illuminance].
Set “O” for [Additional UV irradiation].
(3) Click the [OK] button.



c. Setting Emboss Print

1. In the job list, select the clear ink job.

- Click the “Properties” icon.
- Click the [Setup] button in the [Job Attribute] field.



2. Select the [UV Mode] tab.

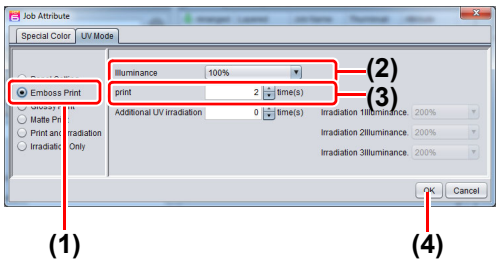
- Make the settings as follows.

(1) Select “Emboss Print” in the mode list on the left side.

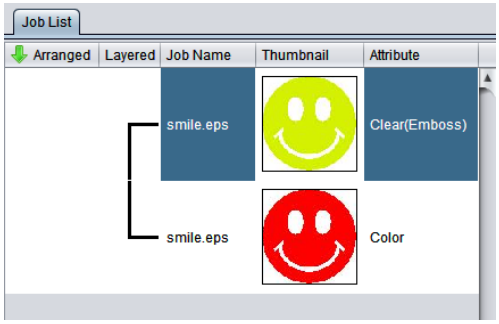
(2) [Illuminance]: Set “100%”.

(3) [Number of printings]: Set this according to the thickness of the embossing. (See “Hint!” below for rough calculation of the number of printings for the thickness).

(4) Click the [OK] button.



3. Thumbnail of attribute becomes a“Clear(Emboss)”.



- After you have set Emboss Print, the clear ink job will be printed the specified number of times after the color job is printed, regardless of the [Priority policy] settings on the [Composition] screen.
- When print with high head gap, missing nozzle is likely to occur. Recommend the head gap between 1.5mm and 2.0mm and the number of emboss printing up to 14 times.
- At an output resolution with 600x900 dpi, when you print the 100% density clear ink job with the following specified number of times after the color job, the estimated emboss thickness is as follows.

	Embossing thickness [mm]		
Specified number of times	LH-100 / ELH-100 clear ink	LUS-120 / / ELS-120 clear ink	LUS-350 clear ink
2	0.08	0.10	0.10
4	0.17	0.19	0.20
6	0.23	0.28	0.28
8	0.38	0.38	0.39
10	0.46	0.44	0.48
12	0.58	0.55	0.57
14	0.61	0.62	0.62

- When you specify Emboss Print, make sure that there is ample head clearance.
- If you set just Emboss Print, the finish will be matte. See P. 21 for the settings to make in order to obtain a glossy print result.

3. Set the recommended values for the printing conditions

To obtain better effects from the clear ink, use the settings below that are appropriate for the image quality and output speed that you want.

Output resolution	Passes	Print direction	High speed print
600x600 dpi	8 / 10	Uni-direction	Yes
600x900 dpi	12 / 16	Uni-direction	Yes
1200x1200 dpi	12 / 16	Uni-direction	Yes
1800x1800 dpi*1	16	Uni-direction	Yes

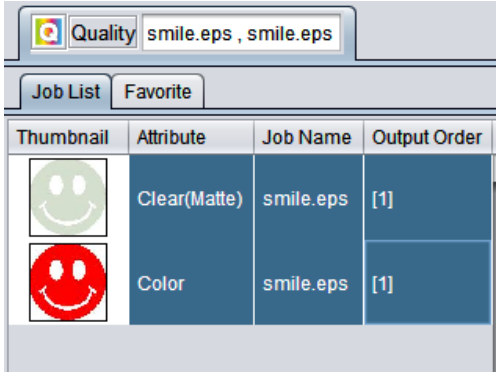
*1.UJF-7151plusII, UJF-7151plusII e only

1. In the job list, select the applicable job.

- Click the “Quality” icon.

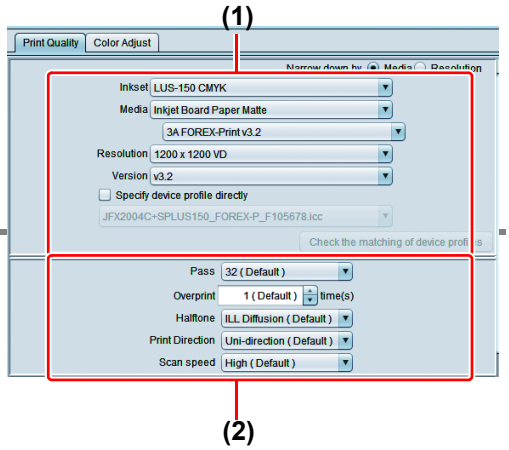
2. Select both the color job and the clear ink job that are displayed in the job list.

- You can select multiple items by holding down the CTRL key while clicking on them.
- By selecting both jobs, you can set the same conditions for both of them.



3. In the profile field (1), select a profile that matches the media to be printed on.

4. Refer to the table above to set the output setting field (2)



4. Execute printing

1. In the job list, select the applicable job.

- Click the “Execution” Icon.

2. Select “RIP and print”.

- Click the [Start] button.

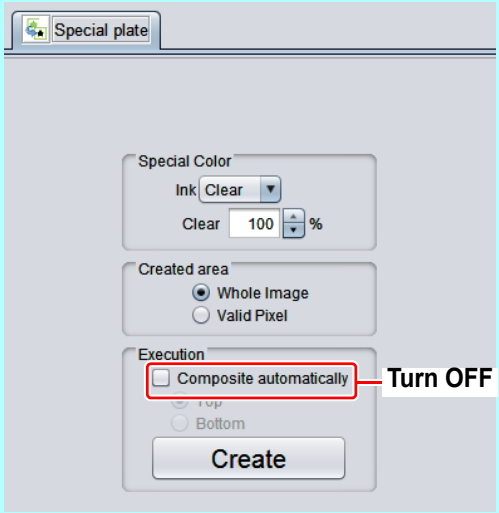
Setting glossy finish for Emboss Print

If you set just Emboss Print, the finish will be matte. To obtain a glossy finish, you must reate a Glossy clear ink job, separate from the Emboss Print clear ink job.

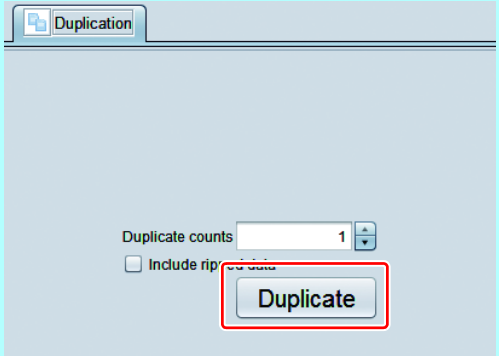
1. Referring to "1. Decide the way the clear ink is to be printed" (P. 9~) to , create 1 color job and 2 clear ink jobs.

Important!

- In the case of "A. Printing the clear ink over the whole of the color image" or "B. Printing the clear ink onto the valid pixels of the color image":
  Turn off "Composite automatically" in Special plate printing before creating the clear ink job.
  Otherwise it will not be possible to create multiple clear ink jobs, since a special plate cannot be made from a composited job.
  Carry out the above procedure 2 times to create the 2 clear ink jobs.

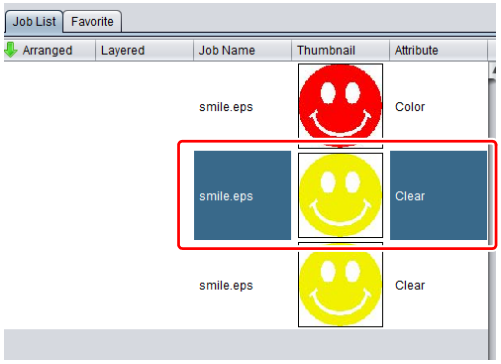


- In the case of "D. Printing a special clear ink image":
  Carry out the "Setting mono color replacement" procedure, then carry out the following procedure to duplicate the job.
  1. Select the clear ink job.
  2. Click the "Duplicate" icon.
  3. Set "1" for [Number of duplicates], and click the [Duplicate] button.
  The clear ink job will be duplicated.



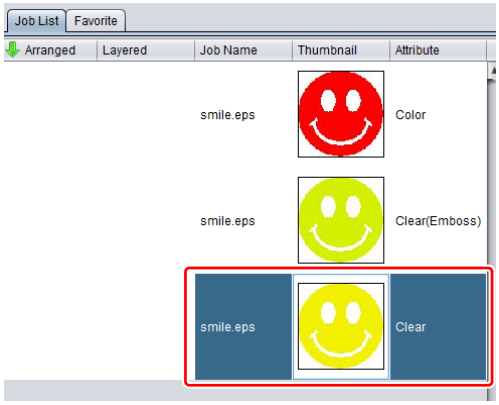
2. Choose one job of clear ink from the job list.

- Refer to "c. Setting Emboss Print"and set the thick print.



3. Choose the job of clear ink from the job list that is not selected in step 2.

- Refer to “a. Setting Glossy Print”and set the glossy print.



4. Choose the color job and clear ink of step2+3 from the job list,

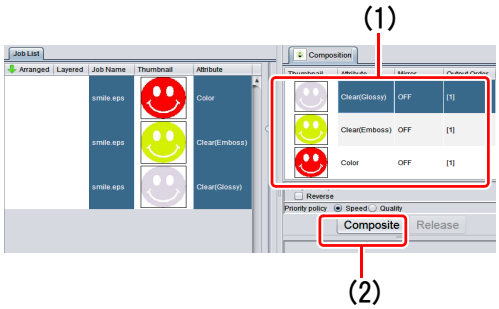
- Press [Composite] from function icon.

5. Check the following.

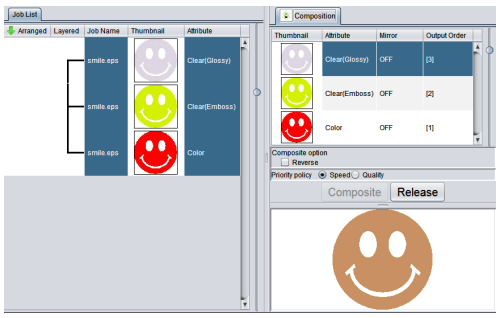
(1) From the top order of the list
Clear(Glossy) -> Clear(Emboss) ->Color
Check the order

- If the order is not as above, please replace the composition List by Drag & Drop.

(2) Press [Composite] button.



6. Synthesized.



7. Execute printing.

D202960-21-05102026
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