

Printing with WH/MS (DINAX Mirage)

Before Using

Before Using

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Screen Appearance

- ❑ The screens in this manual may slightly differ from the actual screens. Also be aware that the screens may differ due to a difference in the OS or the usage environment.
- ❑ The software RIP screens that appear in this manual use the following screens, unless otherwise specified.
When using DINAX Mirage (V3.50) on Windows 7

OS Notation

Notation for Windows

In this manual, "Windows" is used as a generic name for all OS (operating systems) for Microsoft® Windows®.

Mac OS Notation

In this manual, "Mac OS X" is used as a generic name for all OS (operating systems) for Mac OS X.

Contents

Before Using

Copyrights and Trademarks.	2
Screen Appearance.	2
OS Notation.	2

Introduction

What to Prepare.	4
Workflow.	6

Processing Print Data

Illustrator Settings.	7
Photoshop Settings.	10

Print Settings in the RIP

Settings in DINAX Mirage.	15
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Troubleshooting

WH/MS does not Print.	19
Color and WH/MS Overlapping Parts Do Not Print Correctly.	19
Gradation Skipping Occurs When Printing at High Densities.	20

Introduction

Introduction

When using White ink (hereafter WH) or Metallic Silver ink (hereafter MS) for RIP printing, some additional work, apart from that needed to print with only other color inks, is needed. This manual explains the procedures and workflow for WH/MS printing.

See the *Manual for RIP Printing* (PDF), which also has the basic information on RIP printing.

What to Prepare

Software RIP (hereafter RIP)

Use a RIP that supports WH/MS. Check the web site of the manufacturer regarding the information on supported RIP.

Epson Control Dashboard(Dashboard)

Use the latest version of Dashboard. (Update as soon as possible if you are notified of new information.)

Use when importing setting information for the printer or RIP, or download an EMX file for printing with WH/MS. For more information, see the *Manual for RIP Printing* (PDF).

Print data (PDF)



Important:

When printing with WH/MS, it is necessary to do the following process with image processing software before reading the data to be printed with the RIP.

For example, when printing with WH, the RIP does not automatically process WH as the print area by just putting all the print objects on a specified layer named “White” for WH in the print data.

Specify the areas printed in WH/MS as spot colors.

This section explains examples when printing with WH. The white (RGB = all 255 or CMYK is all 0%) in the print data is processed by the RIP as an area in which ink does not need to be applied, the same as when printing with other color inks only. Because of this, the RIP cannot automatically process the parts that look white on screen = WH in print areas even when using a printer that supports WH.

We recommend first splitting the areas to be printed using color ink and the areas to be printed using WH/MS into layers.

Specify the order in which inks are layered (print order). (Adobe Illustrator only)

We recommend splitting the layers for color ink and for WH/MS so you can more easily specify the order in which inks are layered during printing.

Details about processing procedures  [“Processing Print Data” on page 7](#)

Introduction

Image processing software

Use this for processing data to print. In this manual, we explain the procedures for Adobe Illustrator and Adobe Photoshop. In either case, we recommend version CS1 or later.

Introduction

Workflow

Follow the steps below to perform printing work.

For the first time only, see “1. Prepare Printing” in the *Manual for RIP Printing* (PDF).

1. Perform Change Color Mode on the printer.

Proceed to step 2 if you have installed the ink cartridge to be used for printing.

If you have not installed it, be sure to perform **Change Color Mode**. See the *User's Guide* (PDF) for more information.



2. Load media in the printer and select the media setting number.

Load the media correctly and select the media setting number which has been registered to the printer.

See the *User's Guide* (PDF) for more information about loading media and selecting media setting number.



3. Check the data to be printed, and process it for WH/MS printing.

Open the print data in the image processing software. Make such settings as how to layer the ink and the specified spot colors for the areas to print with WH/MS.

Proceed to step 4 if you are using a RIP that can print unprocessed data the same as processed data by using the print settings.

 [“Processing Print Data” on page 7](#)



4. Read the print data to the RIP, and then print it. (The procedure varies depending on the RIP that is used.)

Open the print data in the RIP and select the print mode according to the colors of ink being used and make the print settings.

We recommend that you always check the data in a preview before you start printing.

 [“Print Settings in the RIP” on page 15](#)

Processing Print Data

In this section we present the procedure to process the print data, including the parts that are printed with WH/MS, using Adobe image processing software. Use Adobe Illustrator (hereafter Illustrator) to process vector data, in which the object and text are the main thing, as in diagram A. Use Adobe Photoshop (hereafter Photoshop) to process raster data, in which photos and graphics are the main thing, as in diagram B. See the following for the processing procedure.

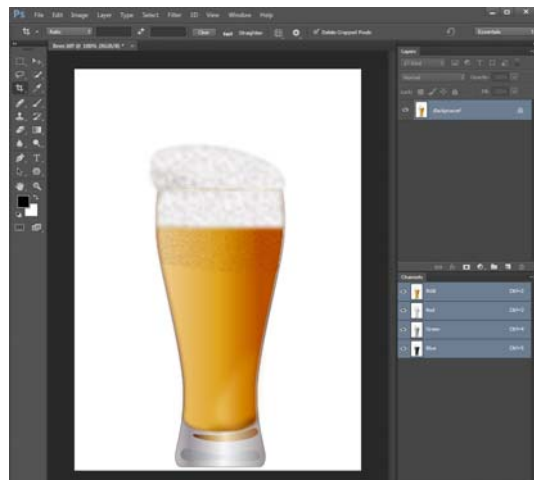
 [“Illustrator Settings” on page 7](#)

 [“Photoshop Settings” on page 10](#)

Diagram A



Diagram B



Note:


When the print data includes no parts that are printed with WH/MS, write the data with the image processing software before processing.

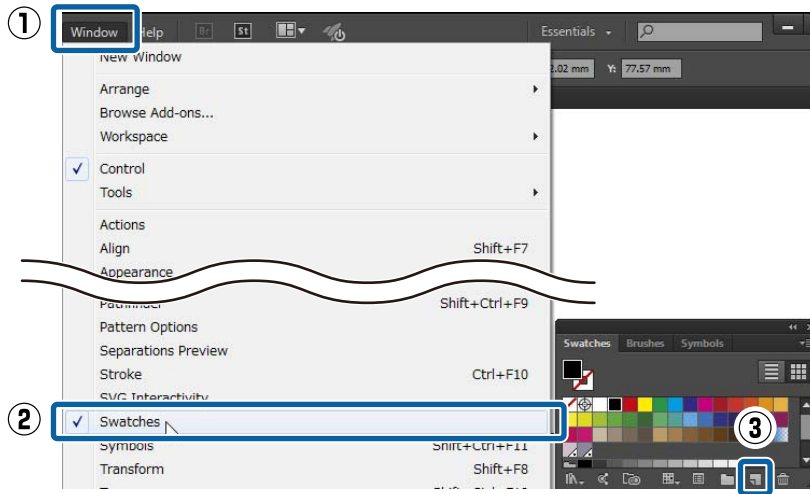
Illustrator Settings

This section uses an example of data that includes WH to explain the data processing procedure of Adobe Illustrator CC(2015) in Windows 7.

- 1 Start Illustrator and open the print data.

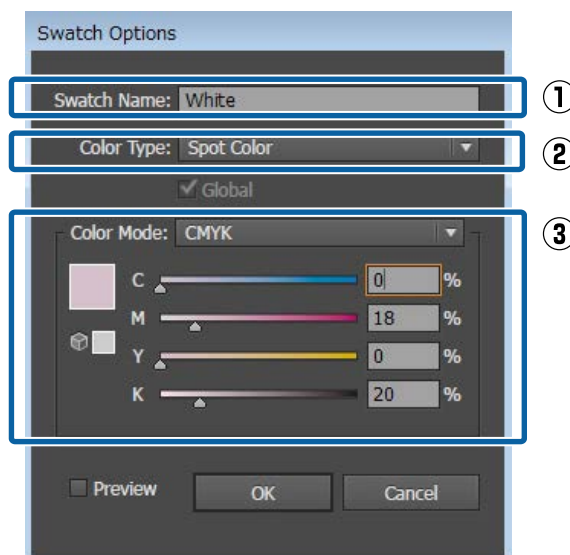
Processing Print Data

2 Click **Window - Swatches**, and then click  (New Swatch).



3 Refer to the following table and specify the color to be used for areas printed with WH, and then click **OK**.

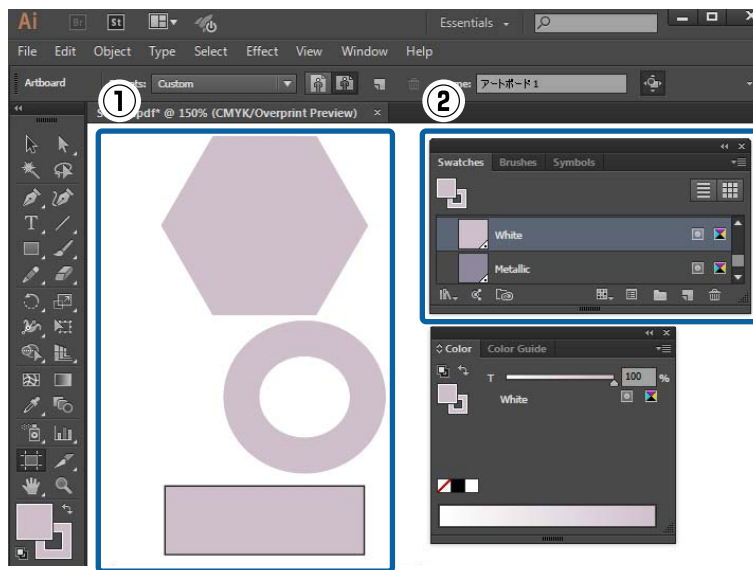
(1)	Swatch Name	Input the name of the spot color in single-byte characters. We recommend using names that allow you to identify the color of the ink, such as "White" for printing with WH and "Metallic" for printing with MS. Use the names that are assigned here when making print settings in the RIP. Keep a record of the names, so you do not mistake the upper and lower cases.
(2)	Color Type	Select Spot Color .
(3)	Color Mode	Select CMYK and specify the color to print. We recommend specifying a bright color that is not used in the image for checking because it is difficult to identify the background color if you use white (all CMYK at 0%). (In the example diagram, the color is set as a very light ash gray.)



In the following, the parts of the image that are specified with the color from the swatch are printed in WH.

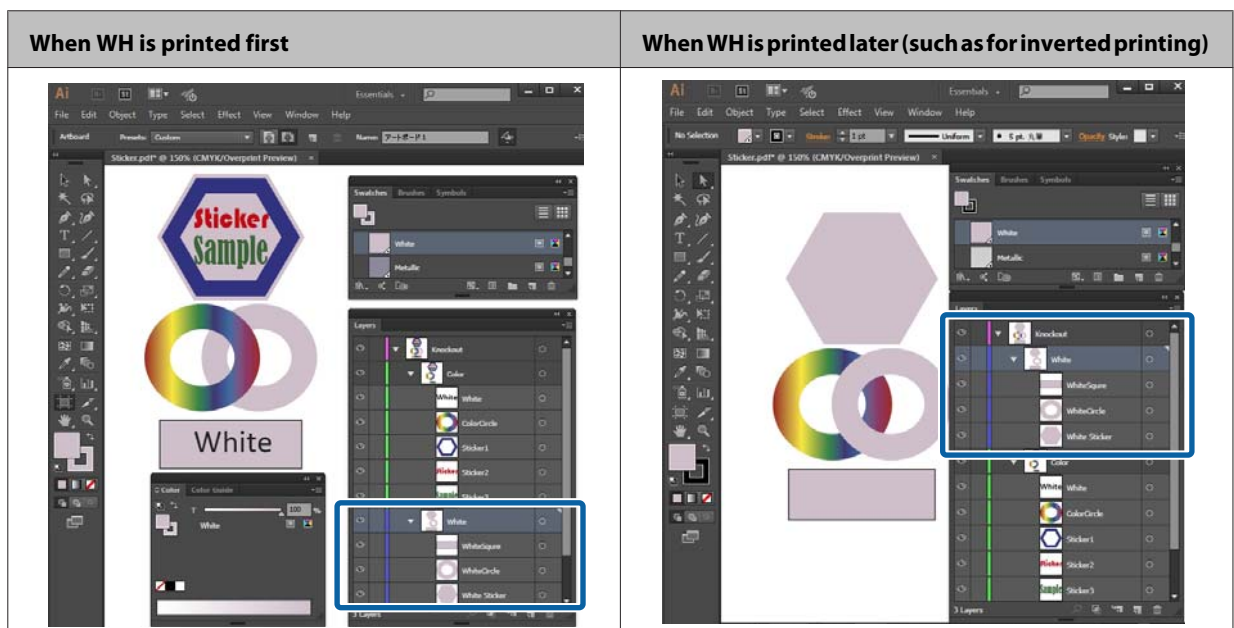
Processing Print Data

- 4 Select the objects to print with WH, and specify the spot color you saved to the swatch in step 3 to color them.



- 5 Click **Window - Layer**, and then specify the order of the layers of ink (print order).
When all of the objects are on the same layer, the lower objects are printed first.

When you divide the layers on which there are objects printed in WH, the lower layer are printed first.

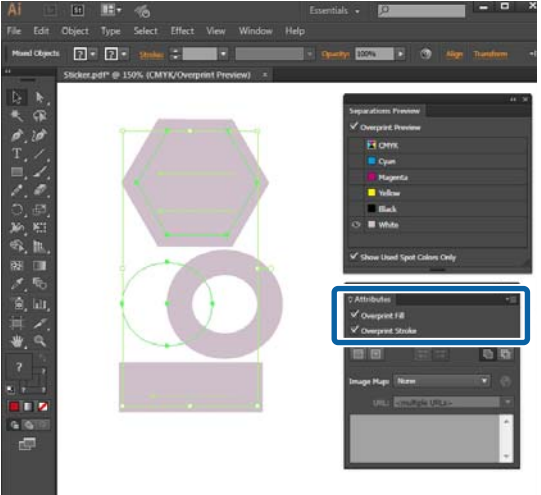
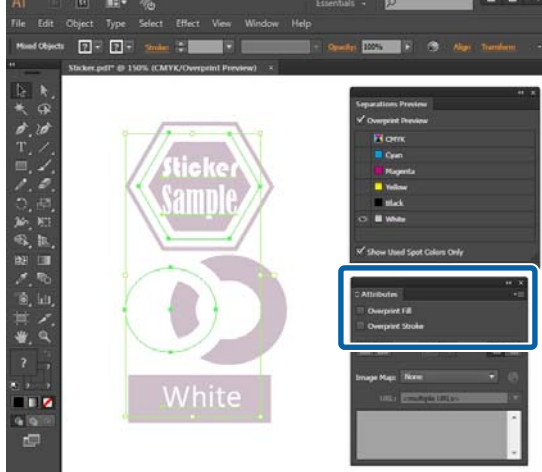


Note:
Depending on the RIP you are using, the print order set in the RIP may have priority over the print order that is decided here. See the manual supplied with the RIP for more details.

- 6 Click **Window - Attributes**, and then make the settings according to the print results of the parts where objects overlap.

Refer to the following table and make the settings while the object that will be on top when they overlap is selected.

Processing Print Data

When checked	When not checked
<p>The shapes of the objects are printed as they appear using colors or WH according to the order of layers. (Overprint is enabled.)</p> 	<p>When they overlap, the parts on the lower layer are not printed. (Overprint is disabled.)</p> 

Note:

- ❑ The diagrams in the table are when **Overprint Preview** is selected in **Separations Preview**, and the CMYK plates are not displayed, so it is easy to understand the results of printing with WH. **Separations Preview** is displayed by clicking **Separations Preview** in the **Window**.
- ❑ With **Overprint**, you can get the same effect as with **Transparency**. (To overprint, select **Multiply**. And, to not overprint, select **Normal**.) For more information, see the online help for Illustrator.

7 When you have set all the objects the same way, save the data in PDF format.



In **Compatibility**, we recommend **Acrobat 4 (PDF 1.3)** or **Acrobat 5 (PDF 1.4)**.

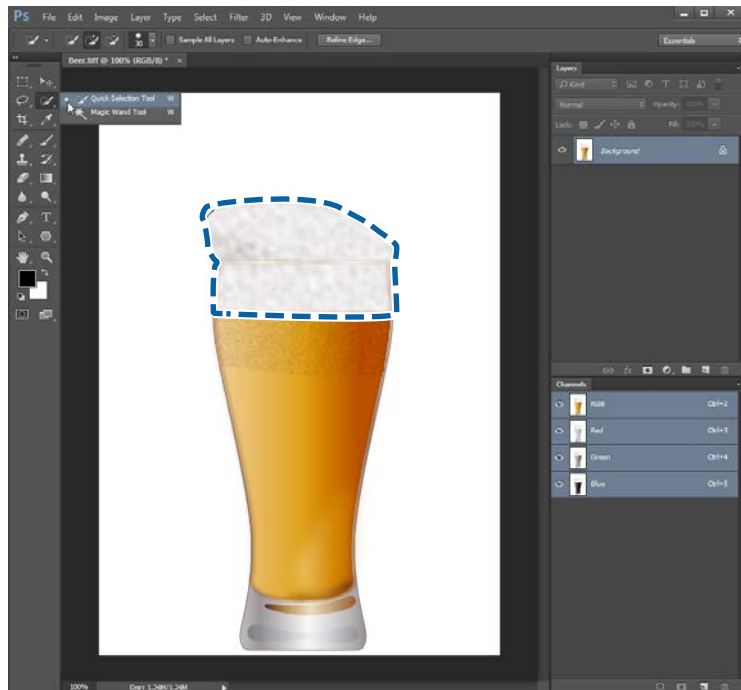
Photoshop Settings

This section uses an example of data that includes WH to explain the data processing procedure of Adobe Photoshop CC(2015) in Windows 7.

- 1** Start Photoshop and open the print data.
- 2** Click **Window - Layer**.
- 3** Right click on a layer that includes parts that are printed in WH, and then click **Duplicate Layer**.
The image is copied and there are now two image layers.
- 4** On the **Layer**, select the original image layer, and then delete the part that is printed in WH.
There are two ways to select only the part that is printed in WH. For more information, see the online help for Photoshop.

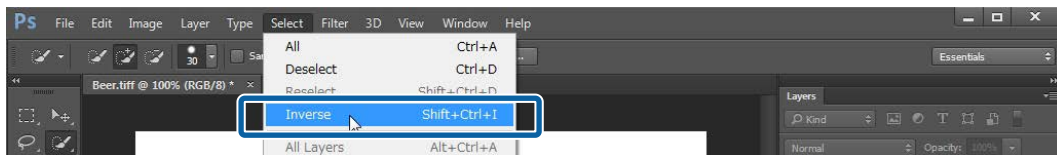
Processing Print Data

- ❑ Use the  (Quick Selection tool) or  (Magic Wand tool) for selecting things.
- ❑ After using the **Select** tool to select an area that includes WH, use **Select - Color Range** to specify the color for WH.




- 5** On the **Layer**, select the copied layer and click **Select - Inverse**, and then delete all the parts except those printed in WH.

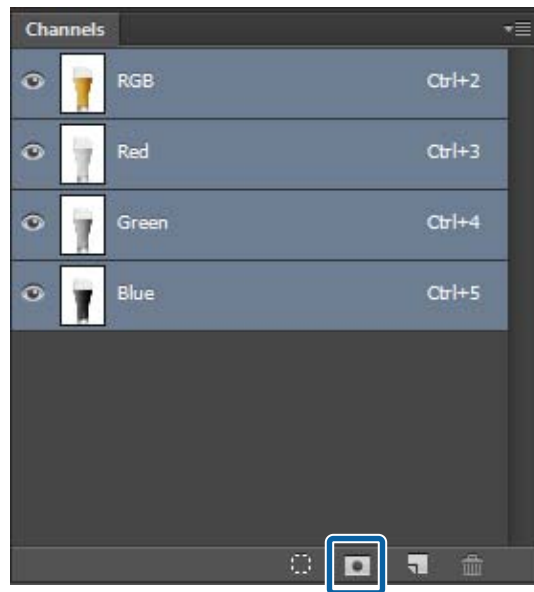
The parts that are not printed in WH disappear so that parts where there is nothing are selected.



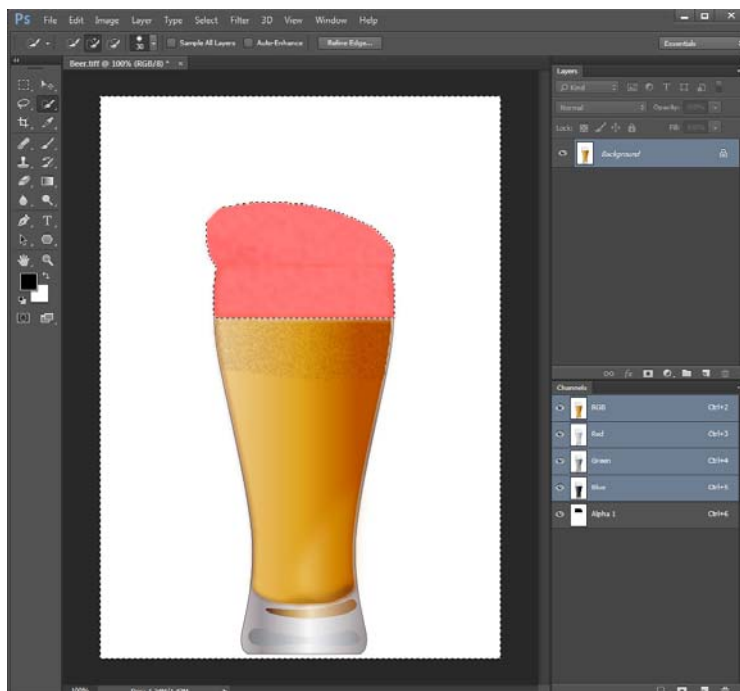
- 6** Click **Window - Channel**.

Processing Print Data

7 Click  (Save selection as channel).

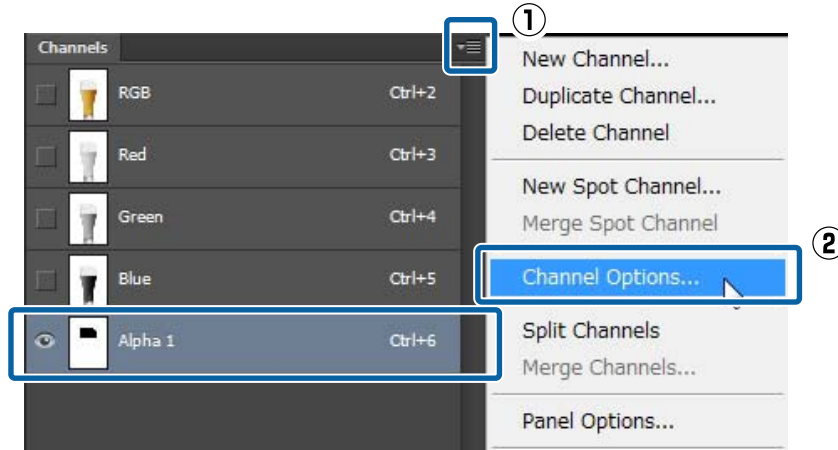


The parts that are printed in WH are masked. (The red colored parts are the masked areas.)



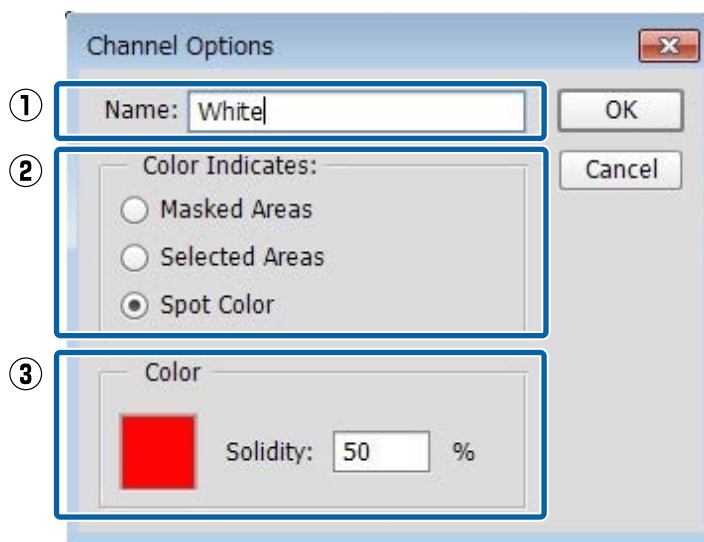
Processing Print Data

8 While **Alpha channel** is selected click the menu and then click **Channel Options**.



9 Refer to the following table and set (1) to (3), and then click **OK**.

(1)	Name	Input the name of the channel in single-byte characters. We recommend using names that allow you to identify the color of the ink, such as "White" for printing with WH and "Metallic" for printing with MS. Use the names that are assigned here when making print settings. Keep a record of the names, so you do not mistake the upper and lower cases.
(2)	Color Indicates	Select Spot Color .
(3)	Color	Specify the color in which to display parts that are printed in WH. (In the example diagram, the red colored parts are printed in WH.)



When printing the image on this layer using only WH/MS:

Hide the copied layer so you do not use color ink unnecessarily when printing. (Make the setting while the copied layer is selected using **Window - Layer**.) Only the alpha channel remains and printing can be done using only WH/MS.

When color ink overlaps with WH/MS:

Proceed to step 10.

Processing Print Data

10

Save the data in PDF format.

In **Compatibility**, we recommend **Acrobat 4 (PDF 1.3)** or **Acrobat 5 (PDF 1.4)**.

Print Settings in the RIP

When printing with WH/MS, it is necessary to check the print data in the RIP as you make the settings. We do not recommend printing without checking the print data as in hot folder printing.

See the following for details.

Settings in DINAX Mirage

Important:

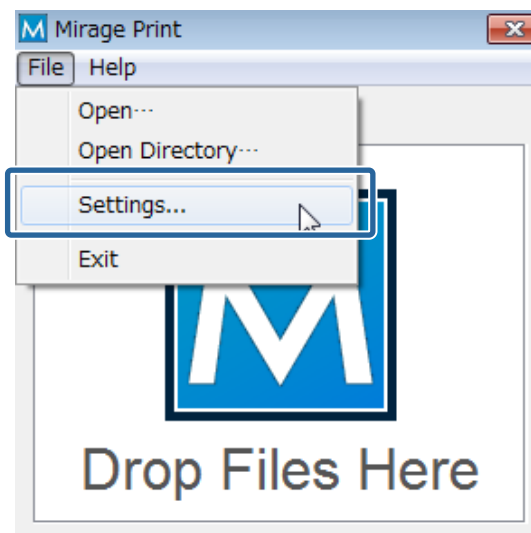
See the *Manual for RIP Printing (PDF)* before you start the following tasks and import “Install and Connect” and “Importing Print Information”.

This section explains the procedure for printing in DINAX Mirage (Ver. 3.50) on Windows.

- 1 Start Mirage Print.



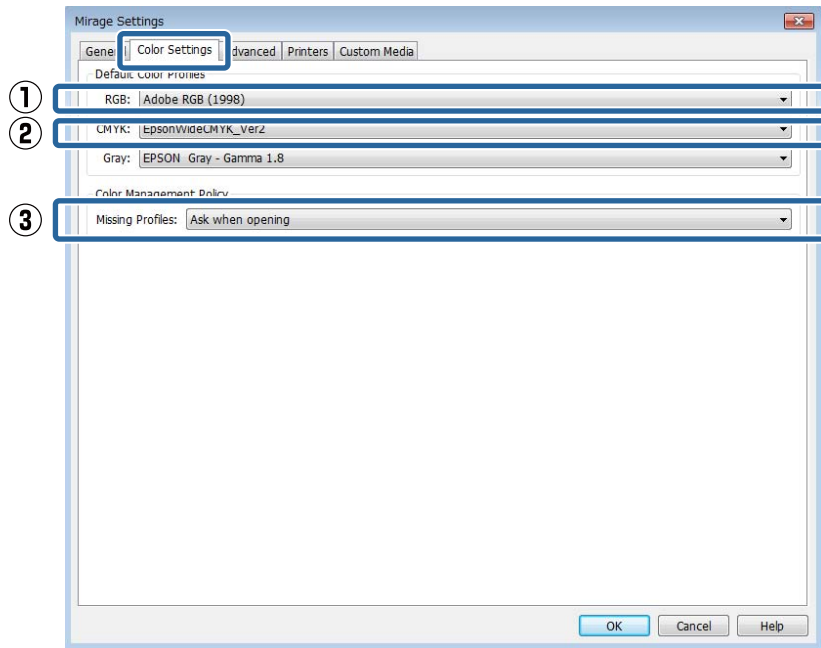
- 2 Select **Settings** in **File**.



- 3 Refer to the following table and set (1) to (3) in the **Color Settings** tab.

	For printing with a wide color gamut	For general printing
(1)	AdobeRGB1998.icc	sRGB.icc, etc.
(2)	EpsonWideCMYK Ver2.icc	Select general profile for printing.
(3)	Assign default profiles	Leaves as is

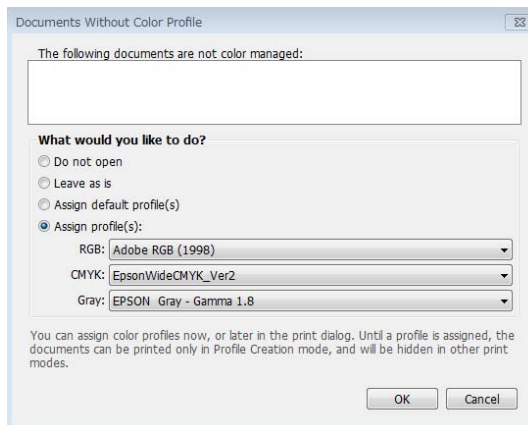
Print Settings in the RIP



Note:

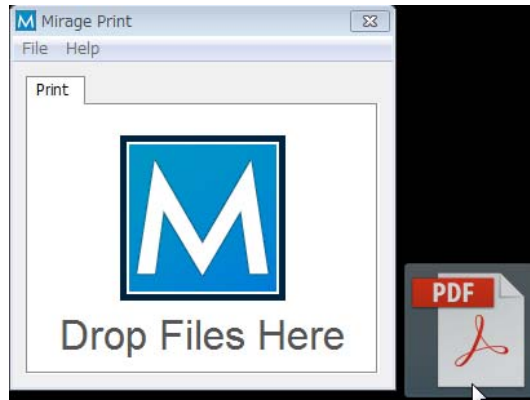
If your print data falls into one of the categories below, we recommend selecting **Ask when opening** in (3). When you open the data, the following screen is displayed and you can check and change the settings.

- No profile is embedded
- Uncertain whether a profile is embedded

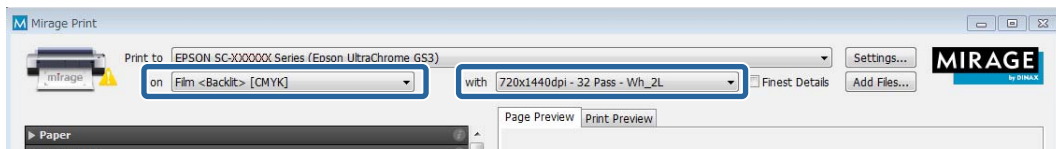


Print Settings in the RIP

4 Drag and drop the print data to **Mirage Print**.

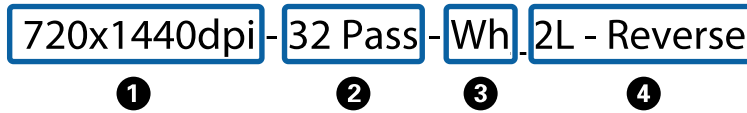


5 Select the name of the media loaded in the printer in **on**, and the print mode in **with**.



How to Read Print Mode

In the following setting example, the print data is output at 720 x 1440 dpi and then print 32 passes in WH and color. Descriptions of the settings from ① to ④ are shown in the following table.



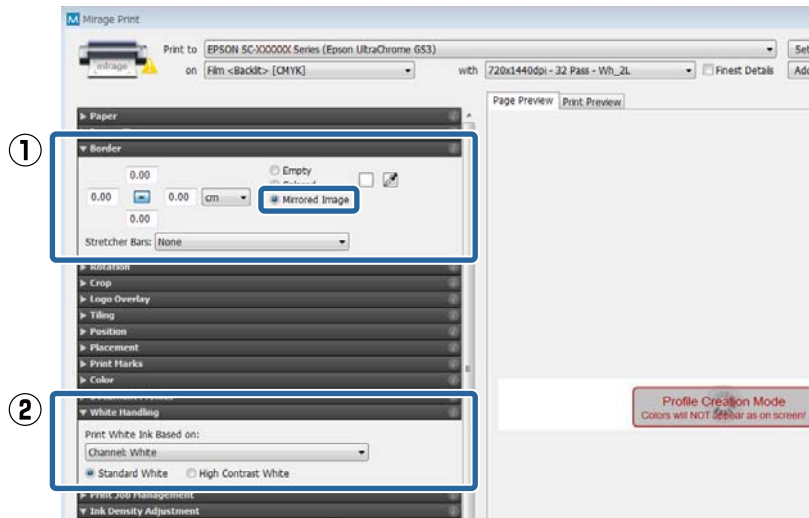
①	Indicates the output resolution of the RIP. The higher the number the better the print quality, but the printing speed decreases.
②	Indicates the print passes (how many times printing is split for one interval). The higher the number the better the print quality, but the printing speed decreases. Depending on the media you are using, the term High Quality may appear following the name of the media. This setting helps prevent the occurrence of uneven density and banding from the setting of the same number of passes, but it reduces the print speed.
③	Indicates spot colors are used. (Wh or Ms) When printing with only color ink, select a mode that does not have ③ or ④.
④	Indicates number of layers and print order. <input type="checkbox"/> When printing WH/MS without overlapping with color ink (when printing WH/MS and color ink at the same time): mode that does not have ④ <input type="checkbox"/> When printing WH two times overlapping: mode that has 3L_1Way* <input type="checkbox"/> When printing WH/MS on colors: mode that has "-Reverse" at the end

* Depending on your country or region, you may not be able to select 3L. For more details, contact your dealer or Epson Support.

Print Settings in the RIP

6

Set (1) and (2) according to the print mode you selected in step 5.



(1) Border (only when you have selected a mode that has “-Reverse” in ④)

When you want to be able to read printed characters correctly when looking at the printout from the back side, select **Mirrored Image**.

(2) White Handling (only when printing WH)

Select **Print White Ink Based on** according to the print data.

- Data processed in Illustrator: **Channel: White**
- Data processed in Photoshop: **Use Alpha for White**
- When not printing WH: **No White**

If you select anything other than **No White** for **Print White Ink Based on**, then also select the following.

- Standard White**: Normally select this one.
- High Contrast White**: When the data includes parts that are printed all over (solid printing) with WH.

7

Click **Print** in the bottom right of the screen to start printing.

Troubleshooting

WH/MS does not Print

Check the following.

Was the print data processed beforehand?

When printing with WH/MS, processing is necessary before reading the print data with the RIP. And, be sure to make the print settings for unprocessed data when printing the data, without processing.

Steps for data processing [↗](#) [“Processing Print Data” on page 7](#)

Print settings for DINAX Mirage [↗](#) [“Settings in DINAX Mirage” on page 15](#)

Is your RIP setting for WH/MS printing?

The ink is not correctly assigned if the input name in the RIP is not the same as the spot color layer name or channel name, such as White and Metallic, that was given in the image processing software. Make sure that there are no misspellings, case errors, or 2-byte characters. Also, make sure to select a print mode for WH/MS.

[↗](#) [“Settings in DINAX Mirage” on page 15](#)

Is your printer's color mode correct?

The printer's color mode does not switch just by replacing the ink cartridge. Be sure to perform **Change Color Mode** on the menu of the control panel.

Setting procedure [↗](#) [User's Guide \(PDF\)](#)

Color and WH/MS Overlapping Parts Do Not Print Correctly

The items to check vary depending on whether or not the print data is processed.

Processed Data

Check the following points.

Is the order of the overlapping layers correct?

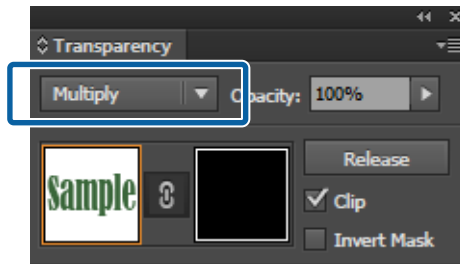
Open the print data in Illustrator or Photoshop and check the order of the layers.

Troubleshooting

❑ Are the settings for overprint (Attributes/Transparency) correct? (Illustrator only)

Open the print data in Illustrator and check whether the settings have been done to either print or not print the parts on the lower layer when objects overlap.

Also, depending on the RIP used, if the setting for overprint is selected in **Attributes**, printing may not be done correctly. Clear everything in **Attributes** and select **Multiply** in **Transparency** for the **Blending Mode**.



❑ Are the print settings for the RIP correct?

Depending on the RIP used, you can set to overprint (knockout) or reshuffle the print order of the layers in the print settings of the RIP. Check whether there is a problem with the print settings of the RIP.

Steps for data processing [↗ “Processing Print Data” on page 7](#)

Print settings for DINAX Mirage [↗ “Settings in DINAX Mirage” on page 15](#)

Unprocessed Data

Check the following points in the print settings of the RIP.

- Are the selected print order, number of layers for the print mode, and way to see the print results appropriate?
- Is the print order of the layers correct?
- Are the settings for overprint (knockout) correct?

[↗ “Settings in DINAX Mirage” on page 15](#)

Gradation Skipping Occurs When Printing at High Densities

Check the following.

Are you using an EMX file that suits the media you are using?

You cannot achieve optimal print results if you do not use an EMX file that suits the media you are using. The mode for high-density printing is in the EMX file for Back Lite Film. Select the mode for high-density printing in the RIP settings.

When using media for which Epson does not provide an EMX file, edit the media settings based on the EMX file for media with similar characteristics.

Troubleshooting

Is the density of ink (Ink Density) set over 100%?

You can print with concentrated colors by setting the ink density to over 100% in the RIP. However, gradation skipping and unevenness in color may occur. Also, if you raise the density too high, the ink will take a long time to dry.

When setting the ink density over 100%, lower the setting value.