Creating profiles application software

Reference Guide

MIMAKI ENGINEERING CO., LTD.

TKB Gotenyama Building, Kitashinagawa, Shinagawa-ku, Tokyo 141-0001, Japan
Phone: +81-3-5420-8671 Fax: +81-3-5420-8687
URL: http://eng.mimaki.co.jp/

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About this guide

This document explains how to operate Mimaki Profile Master II.

Notations used in this document

Items appearing on the menu are expressed with " " for example "creation".
Buttons appearing on the dialogs are expressed with [ ] for example [OK].
Tabs appearing on the dialogs are expressed with [ ] for example [Gray balance].

Ink colors

In this document, the ink colors are expressed with abbreviations as follows:

C = Cyan, M= Magenta, Y= Yellow, K= Black,
Lc = Light cyan, Lm= Light magenta, Or=Orange, Gr=Green

Symbols

NOTE! This symbol indicates points requiring attention in operating this product.

This symbol indicates what is convenient if you know it.

This symbol indicates reference pages of the related contents.

Mimaki Profile Master II

Mimaki Profile Master II (hereafter MPM II) is an application software for creating the following profiles.

- Device Profile and Input Profile of Raster Link series that is RIP application made by MIMAKI ENGINEERING CO., LTD.
- Output Profile for the RIP application compatible with ICC Profile made by other companies

Special features of the product

By using a new format Device Profile supporting 16 bit color, the printing quality is improved

Using together with RIP application later than Raster Link Pro III series v.1.00 or later, the accuracy of the gradation image will be improved.

Calibration function reduces the change of printer colors

Even when the printer has undergone a color change due to temporal change or due to change in season or weather, the original color can be regained easily.
This function can be used in the RIP application of Raster Link Pro III series v.1.00 or later.

Equalization function reduces the difference of the colors between printers

When the printed colors become different due to character proper to the equipment even if the same type of equipment is used with the same profile, the difference of colors of each printer are reduced and the same output result will be obtained from whichever printers used.
This function can be used in the RIP application of Raster Link Pro III series v.1.00 or later.

Profile can be created easily within short time

With a wizard type just to follow the instructions appearing on the screen, the profile can be made easily.

Color matching to the color sample has been realized

Combining the ColorPicker of X-Rite Corp. and the color replacement function of Raster Link series, it fits to the color sample for output.

Color simulation function reduces color adjusting work of image

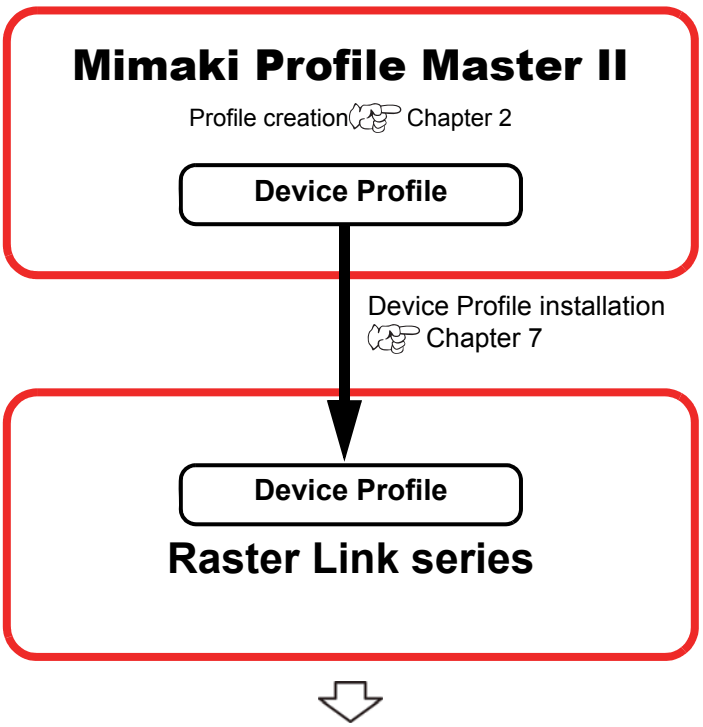
You can reproduce color output with the printer manufactured by Mimaki on the monitor or with the printer for proof (consumer printer).

What is profile ?

An output profile used in Raster Link series is called a "device profile".
MPM II can create two kinds of profiles shown below.

- A file with its extension "cot" used in Raster Link Pro to Raster Link Pro5.
- A file with its extension "icc" used in Raster Link Pro II v3 or later.

Various information required for the RIP processing are written in the extension "cot" Device Profile, which is a unique format for the Raster Link series.
Information unique to MIMAKI ENGINEERING is added to the extension "icc" Device Profile which complies with ICC format. It can be used as an Output Profile for the RIP application compatible with ICC Profile made by other companies.
Installing Device Profiles created by MPM II into the Raster Link series enables to print outputs to which the created profiles are applied.



Enable to print applying the Device Profile

Enable to print applying the Device Profile

If you use MPM II trial version, there are restrictions as follows:

- Trial period will be 60 days.
- Media name cannot be registered.
- The function to create ICC profiles of CMYK color, RGB color and monitor cannot be used.

NOTE!	♦ MPM II uses two dongles. Unless you use black-colored dongle (MPM II dongle), MPM II is activated as trial version. Unless you use violet-colored dongle (ProfileMaker dongle), MeasureTool5.0 and ColorPicker5.0 are activated in demonstration mode.

Chapter 1
Before creating a device profile

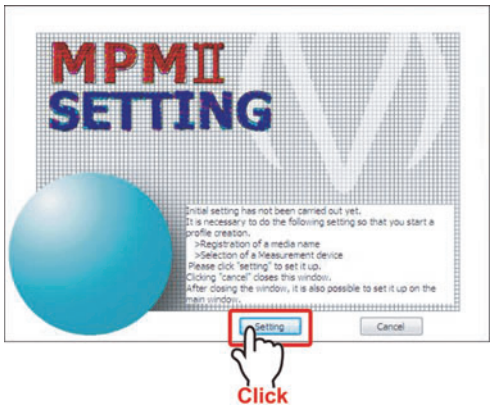
Starting MPM II

1 Double-click 

, then MPM II starts.

When starting MPM II for the first time,the screen on the right is displayed.

♦ Even when starting MPM II for the second time or more, if the media name registration or measurement device selection has not been completed, the screen on the right is displayed.



2 Click Setting for settings.

♦ **When ">Registration of a media name" is displayed,**
go to P.1-3 , Step 2.

♦ **When "> Selection of a Measurement device" is displayed,**
go to P.1-6 , Step 2.

Settings before creating a profile

Before creating a profile, complete registration of a media name (☞ this page) and the selection of a measurement device (☞ P.1-6).

Registration of a media name

Register the new media name desired to be used newly on the database.

NOTE!	♦ When using the MPM II trial version, a media name cannot be registered.

Registration of a media name

Register the media name desired to be used to the database.

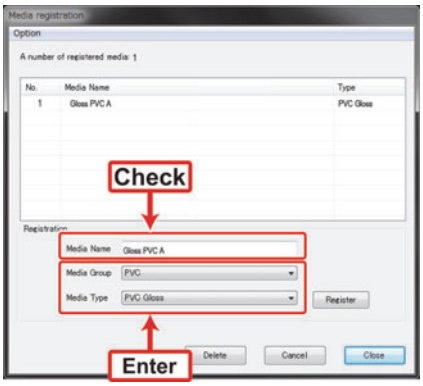
1 Select the [Setting] tab and click "Media name".

The dialog for the media name registration will appear.

2 Check the media name, then select the media material, as follows.

Media Group :
Select the media material group. This information is used only to broadly categorize [Media Type].

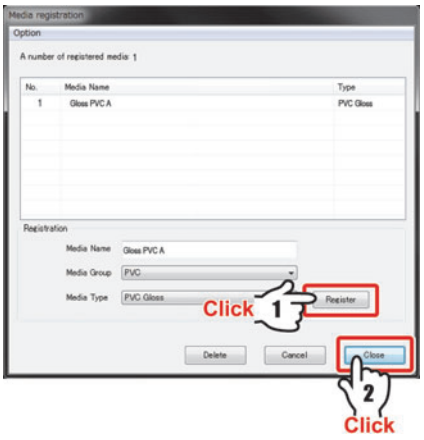
Media Type :
Select the type of media material. This information is used only with V3 profiles and is displayed in the RasterLink series that is later than the RasterLink6.



NOTE!	♦ A maximum of 29 one-byte characters can be entered as the Media Name. ♦ Characters that cannot be used ' " \ * / ? : < > | ♦ You cannot register a Media Name that has already been registered.

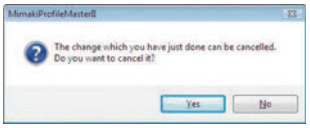
3 Click Register .

The registered media name will be added to the list.



♦ To cancel the registration of media name,

(1) Click Cancel .



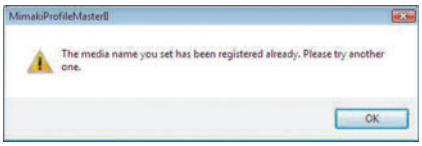
(2) Click Yes .

4 Click Close .

The screen returns to the main menu.

NOTE!

♦ The same media name that is included in an already registered list cannot be registered.As the following error messages appear, re-enter another name.



Deletion of a media name

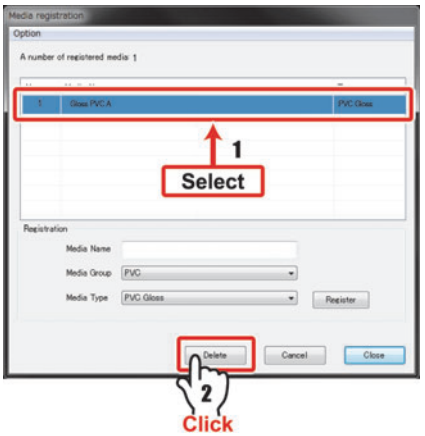
The registered media name is deleted.

NOTE!	♦ When a device profile has already been created with a media name registered on the database, do not delete the media name. When it is necessary to delete it, register a new media name and then rewrite to a new media name using the profile copy function (Chapter 5).

1 **Select the [Setting] tab and click "Media name".**

The registered media name will be displayed in the media name registration dialog.

2 **Select the media name that you wish to delete.**

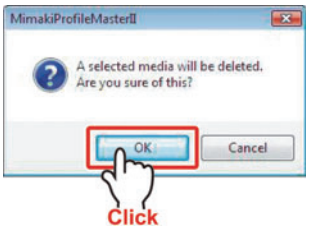


3 **Click Delete .**

The confirmation dialog is displayed.

4 **Click OK .**

The selected media name is deleted from the list.



5 **Click Close .**

The screen returns to the main menu.

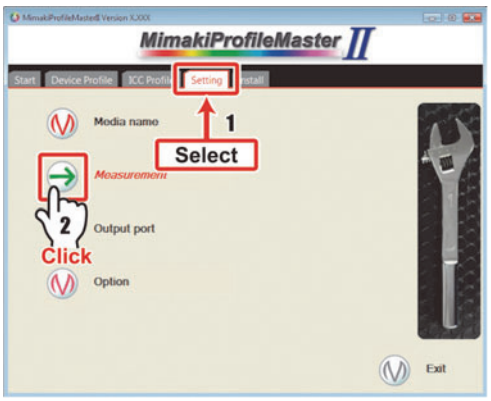
♦ If you click Cancel , the deletion is canceled.

Selecting a measurement device

Select a measurement device to be used for measuring the color chart.

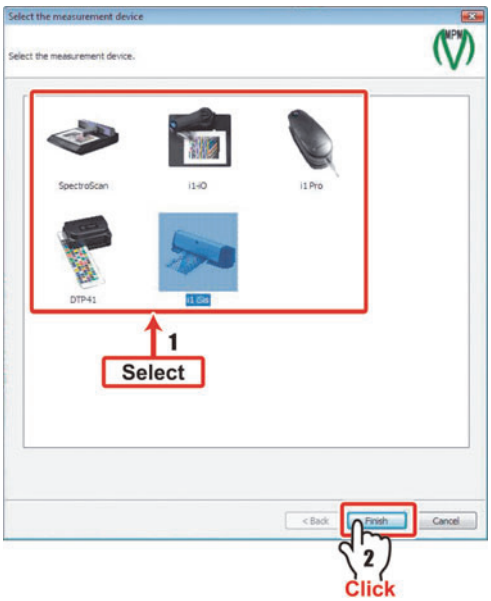
NOTE!	♦ Please confirm that the measurement device is connected to the computer and that the power is turned on. ♦ The driver must be installed if you are using the USB port to connect the measurement device. Refer to the included operation manual for the measurement device, install the driver, and then connect the measurement device to the computer. ♦ If a measurement device is used on Windows7, installation of the driver may fail when connecting the device to the computer. Please refer to Appendix "When a measurement device is used on Windows7" and update the driver.

1 **Select the [Setting] tab and click "Measurement".**



2 **Selecting a measurement device**

♦ To use i1 Pro2, select i1 Pro.
♦ To use i1iO2, select i1iO.



3 **Click Finish .**

The screen returns to the main menu.

Setting the output port

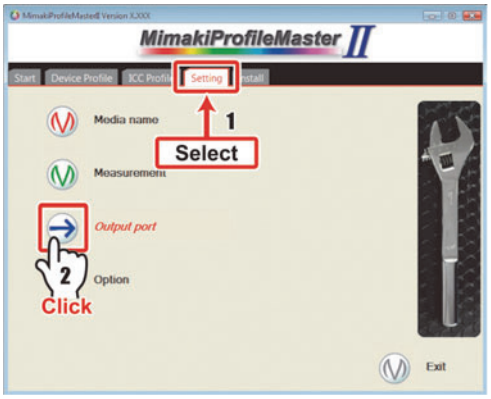
The details of the output port can be set. (If this is not necessary, no setting change is required.)

♦ Selection of output port can be set in the dialog for "Image Edit" that is displayed when a test print and a chart is printed. (P.2-66)

When outputting to a file

To send the output file to the printer, a separate application is necessary (Our RIP can make the output). When the output file is sent to the printer, the images are printed. If the file is sent to the printer that is different one specified at the time of creating the profile, then "Command error" or "Parameter error" may occur and it could not be printed properly.

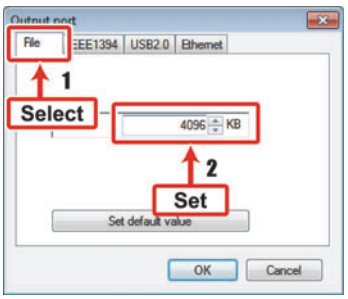
1 **Select the [Setting] tab and click "Output port".**



2 **Select the [File] tab and click "Buffer".**

Set the Buffer and the Timeout value when necessary.

♦ To set the "Buffer" to the default value, click **Set default value**.



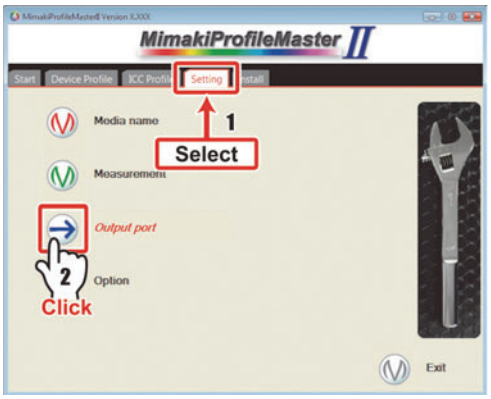
3 **Click OK.**

The screen returns to the main menu.

When outputting directly to the printer

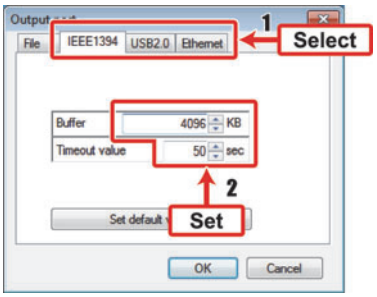
The charts or images are output to the printer connected to the computer by an IEEE1394, USB2.0 or LAN cablel.

1 **Select the [Setting] tab and click "Output port".**



2 **Select the [IEEE1394], [USB2.0] or [Ethernet] tab and set the "Buffer" and "Timeout value".**

Set the Buffer and the Timeout value when necessary.



♦ To set the "Buffer" and "Timeout value" to the default value, click **Set default value**.

3 **Click OK.**

The screen returns to the main menu.

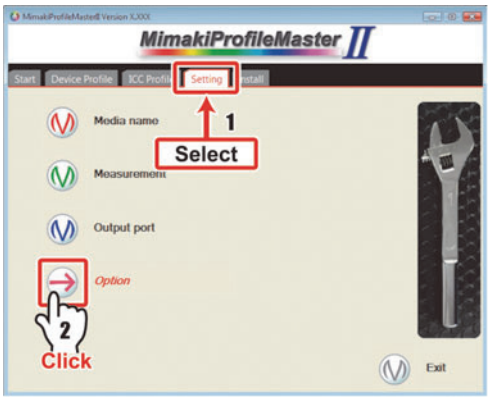
Option settings

You can set the following in the Option settings.

Unit setting : Select the unit of the length in mm/inch.
Operation : If this is set, when the Test print... is executed on the ICC profile creation page of the device profile, the estimated ink consumption is displayed after printing.
Label : Select the items to be printed when printing the images in the device profile creation/editing.

Device profile name
Print the device profile name. ("N/A" is printed during creating the device profile.)
Image file name
Print the printed image file name.
Default output condition
Print the number of Pass/Overprint/Print Direction/High speed print setting/ Half tone setting.
Actual output condition
Print the items set individually when test printing.
Information of profile data
Print the Feed correction value/Ink limit value/Variable dots and Light ink value/Imported file name, if these are set.

1 Select the [Setting] tab and click "Option".

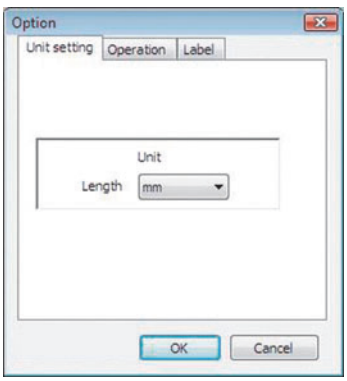


2 Select the tab.

Select the tab from which you wish to set [Unit setting], [Operation], and [Label].

3 Set the tab.

Unit setting : Select the unit to display.
Operation : If you check this on, the expected ink consumption is displayed at the end of the printing.
Label : Check the items to print.



4 Click OK .

Main menu

When starting MPM II, the "Main menu screen" appears. The Main menu screen includes the "Device Profile screen", the "ICC Profile screen", the "Setting screen", and the "Install screen".

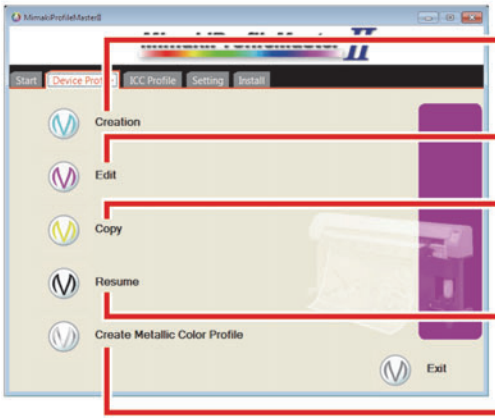
The screen indicates the profile creation/ edit/ copy screen for Raster Link only.

The screen indicates the ICC profile creation screen.

The screen indicates the MPM II setting screen.

The screen indicates the installation function.

Device Profile screen



Creates a device profile. Chapter 2

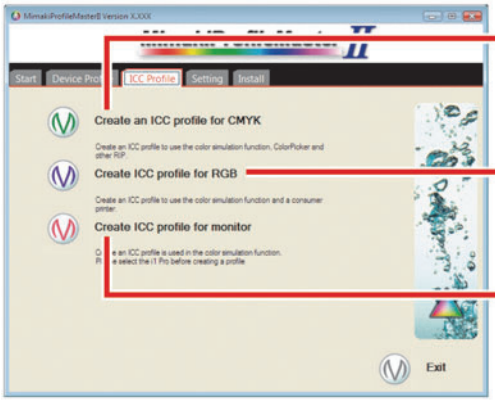
Edits the created device profile. Chapter 3

The created device profile is modified to a device profile for a different model or ink set. Chapter 5

Resumes the device profile creation using theinterrupt file created by the [Interrupt] button (P.2-74).P.2-75

Creates a metallic color profile. Chapter 3

ICC Profile screen

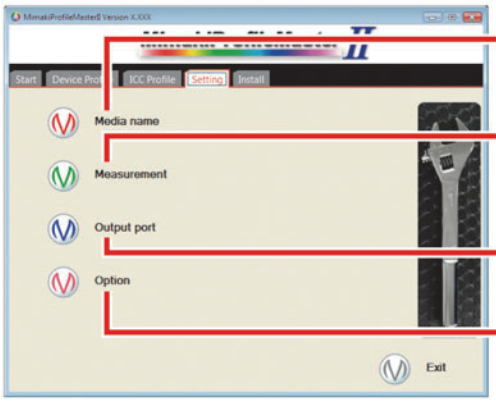


Create an ICC profile of CMYK color. P.6-3

Create an ICC profile of RGB color. P.6-7

Creates an ICC profile of monitor. P.6-11

Setting screen



Registers the media of the device profile to be created. P.1-3

Selects the measurement device to use when creating the device/ICC profile. P.1-6

Configures the settings of the output port. P.1-7

Sets various assistant functions such as display unit. P.1-9

Install screen

Installs/uninstalls the created device/input profile to/from Raster Link series other than Raster Link Pro. P.7-5

Chapter 2
Creating a device profile

Procedures for creating a Device Profile are explained.

Device profile creation flow

◆ Format selection ☞ P.2-4

Select a format for the device profile depending on the Raster Link you are using.

In case you use Raster Link Pro II Ver.3 or later：Select Profile (V3)

In case you would like to use a profile for Raster Link Pro to Raster Link Pro5：Select Profile (V2)

◆ Profile condition setting ☞ P.2-5

Set conditions for creating the device profile (such as Printer, Ink set, and Resolution).

◆ Media character setting ☞ P.2-7

If necessary, set the media character (such as Feed correction value and Heater temperature).

◆ Extended information setting ☞ P.2-13

If necessary, set the extended information (UV illumination).

◆ Variable dots setting (only when variable dots is selected) ☞ P.2-15

Select variable dots that match the printing ink set, and then check the printing.

Procedures to create a device profile vary depending on the format you have selected in Format selection.

When Profile (V3) is selected

◆ Ink limit for the whole color (when Profile (V3) is selected) ☞ P.2-18

Print the chart, and then set the ink limit that can be mounted on the media.

When Profile (V2) is selected

◆ Ink limit setting (when Profile (V2) is selected) ☞ P.2-22

Print the chart, and then set the ink limit that can be mounted on the media.

◆ Light ink setting (only when light ink is selected) ☞ P.2-26

Select light ink that match the media, and then check the printing.

◆ Automatic adjustment of Linearizaion ☞ P.2-27

The gradation characteristics of each CMYK ink is automatically adjusted by printing the chart and measuring the colors.
Print the chart applied linearization and check whether the gradation of each automatically adjusted CMYK color is smooth.

◆ Ink limit for tertiary color (when Profile (V3) is selected) ☞ P.2-45

Adjust the ink limit of the tertiary color by printing the chart.

◆ Automatic adjustment of Gray balance ☞ P.2-49

The gray-scale characteristics and the chromaticness expressed by CMY-mixed colors are automatically adjusted by printing the chart and measuring the colors. Print the chart applied gray balance and check whether the gradation of automatically adjusted gray is smooth.

◆ Automatic adjustment of Gray balance ☞ P.2-49 **(only when sublimation transfer ink is selected)**

The gray-scale characteristics and the chromaticness expressed by CMY-mixed colors are automatically adjusted by printing the chart and measuring the colors. Print the chart applied gray balance and check whether the gradation of automatically adjusted gray is smooth.

◆ ICC profile creation ☞ P.2-52

The ICC profile is created by printing the chart and measuring the colors.

◆ Basic setting of calibration (when selecting profile (V3)) ☞ P.2-57

By printing the chart and measuring the colors, record "base colors" to correct colors.

◆ Device profile saving ☞ P.2-60

Save the created device profile.

Device profile creation

Format selection

Select a format for the device profile depending on the Raster Link you are using.

In case you create a profile that can be used with RasterLinkPro to RasterLinkPro5
→ Select Profile (V2).
In case you use Raster Link Pro II Ver.3 or later
→ Select Profile (V3).
Using Profile (V3) achieves higher quality output results.

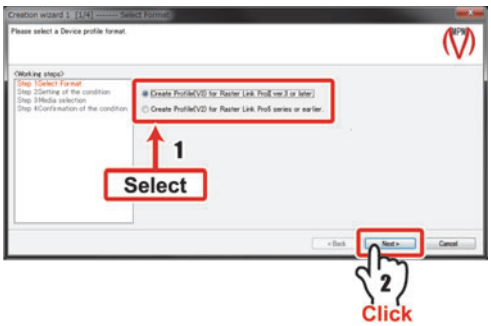
♦ Register the media name in advance. (P 1-3)
When the media name is not registered, you cannot select "creation" to create a device profile.

1 Select the [Device Profile] tab and click "Creation".

Creation wizard 1 is displayed.

2 Select a format depending on the Raster Link series you are using.

3 Click Next .



Continued on P.2-5 "Profile condition setting"

Profile condition setting

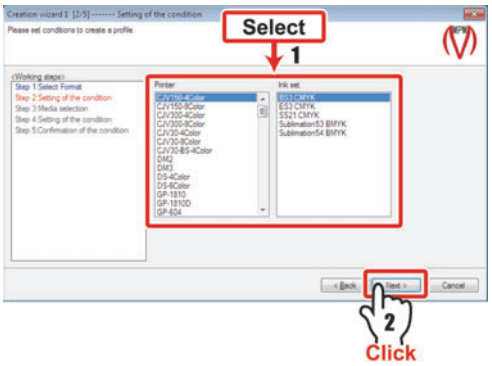
Select the conditions required for profile creation and the media you use.
The following are 9 creating conditions:

- Printer
- Ink set
- Resolution
- Number of Pass
- Overprint
- Print Direction
- High speed print ON/OFF
- Half tone
- Media name

Continued from P.2-4"Format selection"

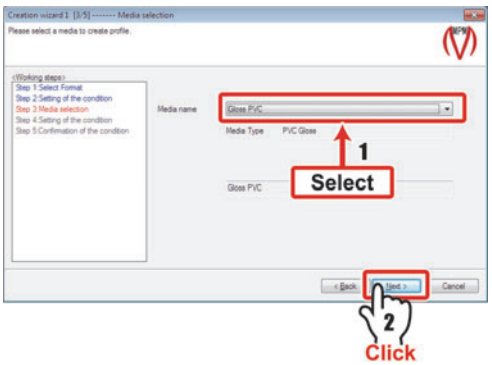
1 Select a printer and a inkset which you want to create a device profile and click Next .

♦ Selectable combinations of the printer, ink set are predetermined.



2 Select a media name and click Next .

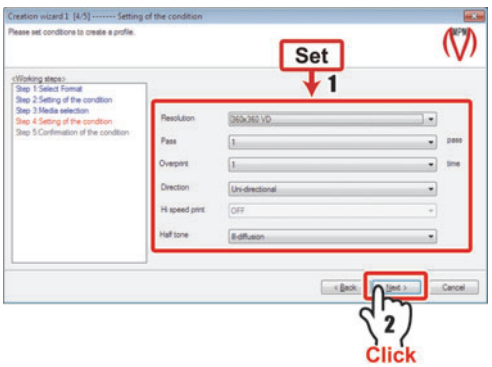
You may select from the registered media names already registered in media name registration procedures (☞ P 1-3).



3 Set the profile creation condition, and click Next .

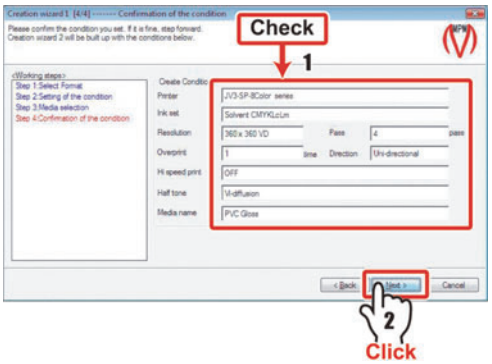
♦ Selectable combinations of the printer, ink set, resolution, pass, print direction and high speed print are predetermined.

♦ In the case of the back lit media, as the color is reproduced by the transmissive light, increase the number of times of overprinting to make printing of high den¬sity.



4 Check the previously set creation conditions.

To change the conditions, click **Back**, and then change the creation conditions.



5 Click **Next** .

Creation wizard 2 is displayed.

NOTE!	♦ You cannot return to "Creation wizard 1" from "Creation wizard 2". To change the profile condition after moving to Creation wizard 2, click **Cancel** and redo the process from Step 1.

Continued on P. 2-7 "Media character setting"

Media character setting

If necessary, set the information about characters (Feed correction value, Heater temperature, Dot size, Feed setting, Top Blower and Feed Direction).

NOTE!	♦ For the Raster Link series, settings on the printer panel have the priority during initialization. If settings are required for the profile, set them here.

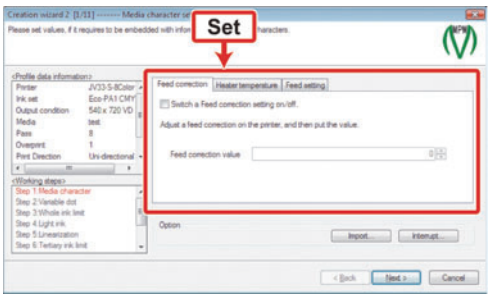
Continued from P. 2-6 "Profile condition setting"

1 Set each item below if required.

The items to be displayed differ depending of the printer type etc. when you set the profile creating conditions.

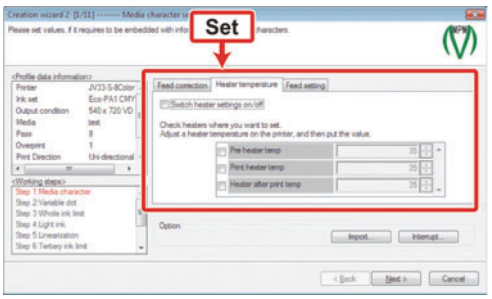
- **Feed correction**

  Perform feed correction on the printer and set the value.
  To store the value in the Device Profile, turn on the check box labeled [Switch a Feed correction setting on/ off] and then enter the value.



- **Heater temperature**

  Confirm the suitable heater temperature with the printer, and set the value.
  To store the value in the Device Profile, turn on the check box labeled [Switch a Heater setting on/ off] and then enter the value.



NOTE!	♦ On setting suitable heater temperature, see the operation manual for each model.

● **Dot size**

Only in the following cases, dot size can be set.

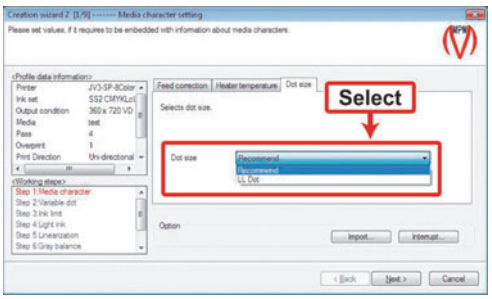
1. When SS2 ink is used on JV3-SP/SL(☞ This page)
2. When ES3 ink is used on JV3-SP/SL(☞ P 2-9)
3. When JF-1631/1610, JFX, UJV-160, UJF-706, UJF-3042FX, UJF-3042HG, UJF-6042 or Tx400 is used
   (☞ P 2-10)

When SS2 ink is used on JV3-SP/SL

♦ The details of the profile creating conditions are as follows:
- Printer : JV3-SP-4Color series, JV3-SP-8Color series
- Ink set : SS2 CMYK, SS2 CMYKLcLm
- Output setting : 360x360 ND, 360x360 VD, 360x540 ND, 360x540 VD, 360x540 HQ ND, 360x540 HQ VD, 360x720 ND, 360x720 VD

Out of the following two settings, select the dot size used at the time of outputting.

- Recommend
  : This is the recommended value.Select this setting in the normal cases.
- LL dot
  : The dots are bigger than the recommended case.
  Select this, when the image with recommended setting is rather thin as a whole, or when streaks are found.



NOTE!

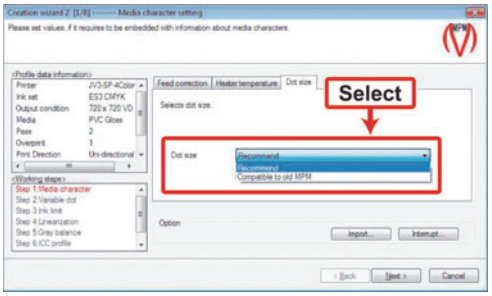
♦ When setting is made as LL dot, the printing time will become longer than the case of the recommended setting.
♦ LL dot setting is available when JV3-SP's firmware is Ver6.2 or above. For confirmation of firmware version, refer to the Operation Manual of your Printer.
♦ When SS2 ink is not set on the printer, the LL dot setting will be ignored.
♦ To identify the dot size used when profile is installed to Raster Link series, it is recommended to add description indicating the use of LL dot to the media name.

When ES3 ink is used on JV3-SP/SL

♦ The details of the profile creating conditions are as follows:
- Printer : JV3-SP-4Color series, JV3-SP-8Color series
- Ink set : ES3 CMYK, ES3 CMYKLcLm
- Output setting : 720x720 VD, 720x1440VD, 1440x1440 VD

Out of the following two settings, select the dot size used at the time of outputting.

- Recommend
  : This is the recommended value. Select this setting when you are using firmware of JV3SP and JV3SL Ver. 7.40 or later.
- Compatible to old MPM
  : Select this setting when you are using firmware of JV3SP and JV3SL Ver. 7.30 or prior version.



NOTE!

♦ If you select "Recommend" when your firmware of JV3-SP/SL is Ver.7.30 or prior one, the printer will display the parameter error. Although the drawing is possible, the concentration becomes low.

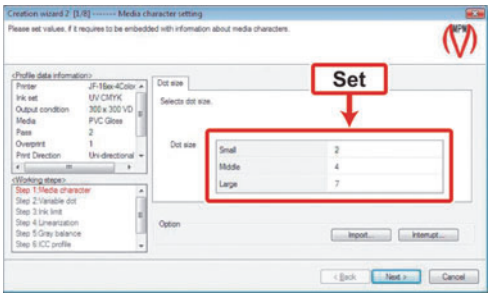
♦ For confirmation of firmware version, refer to the Operation Manual of your Printer.

When JF-1631/1610, JFX, UJV-160, UJF-706, UJF-3042FX, UJF-3042HG, UJF-6042 or Tx400 is used

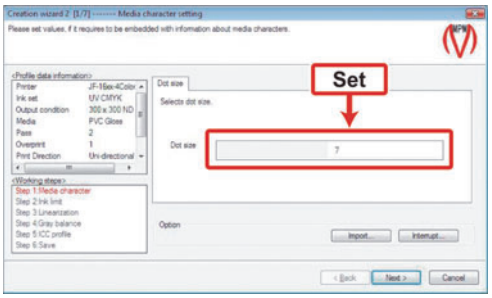
♦ The details of the profile creating conditions are as follows:
- Printer : JF-16XX-4Color series, JF-16XX-8Color series, UJV-160-4Color, JFX-4Color, JFX-8Color, UJF-706-6Color, UJF-706-8Color, UJF-3042FX-6Color, UJF-3042HG-8Color, UJF-6042-8Color, Tx400-4Color, Tx400-8Color

When you set printing setting to "VD", you can set three types of dot size below:

Small : The smallest dot size
Middle : The intermediate dot size
Large : The largest dot size



When you set printing setting to "ND", you can set normal dot size.

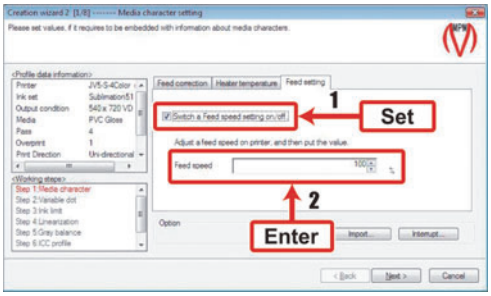


NOTE!

♦ Set the dot sizes in the manner: Small ≦ Middle ≦ Large.
♦ You are recommended to set the dot size in the order of Large - Middle - Small.
♦ If you have JF-16XX series,the setting of the dot size is possible when the firmware is Ver.2.80 or above. The version of the firmware will be displayed when the printer power is put on.
♦ For dot size setting of UJF-3042FX, UJF-3042HG, UJF-6042 and Tx400, the combination of selectable sizes has been determined in advance.

● Feed setting

(1) After checking "Enable setting of media feeding speed" box ,
(2)enter the value of media feeding speed set in the printer.



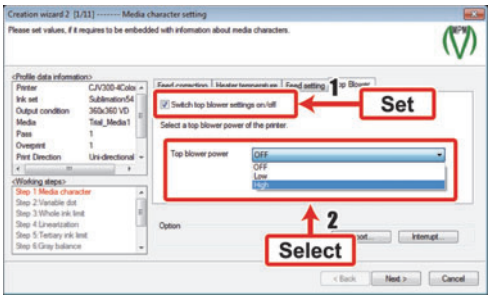
When using heavy media, media easy to be pasted, or the media the roll of which is bending, the feeding accuracy could be affected. By setting the Feed speed in slightly slower time, such effect may be mitigated.

● Top Blow

Only in the following cases, Top Blow can be set.

- When JV300 or CJV300 is used.

(1) Turn on the check box for “Switch top blower settings on/off”.
(2) Specify the wind amount at the output from "Top blower power".

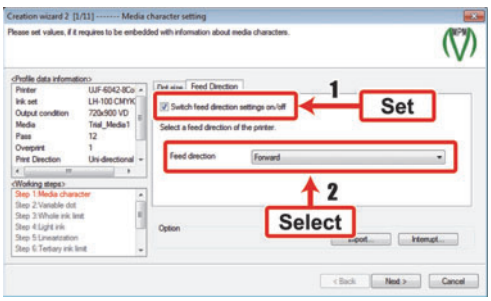


♦ “High” is the recommended value. Select this setting in the normal cases.
♦ When using a sublimation transfer ink, bleeding may occur at the “High”. Please select the “Low” in this case.
♦ If ink odor due to the ceiling fan is a concern, please turn the fan to “OFF”. However, the drying property is reduced, and it may become a cause of bleeding.

● Feed Direction

You can set FeedDirection when using CMYKLcLmColorSet in UJF-3042FX/UJF-3042HG/UJF-6042.

(1) Select ON in the “Switch feed direction settings on/off ” check box.



♦ If you select OFF in the “Switch feed direction settings on/off” check box, the feed direction settings from the profile created with MPMII Ver.4.30 or earlier will be applied.

(2) Select one of the following 2 printing directions for color printing.
- Forward : Printing from the front toward the back.
- Reverse : Printing from the back toward the front.

2 **Click** **Next** **.**

Continued on P. 2-13 "Extended information setting"

Extended information setting

If necessary, set the recommended print condition (UV illumination).

NOTE!	♦ This will not be displayed if you did not select a printer compatible with the recommended print condition when you set the profile creation conditions.

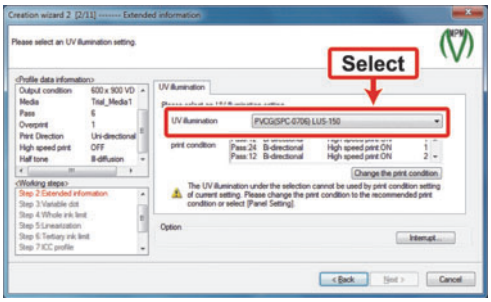
Continued from P. 2-11 "Media character setting"

1 Set the item below if required.

- **UV illumination**

NOTE!	♦ To heighten the print quality, you must set an optimized UV lamp illumination for each of the following conditions **Media, Ink, Output resolution, Pass、Print direction(Bi-direction/ Uni-direction), High-speed printing(On/Off), Special color over print(1 layer (only color, only special color) / 2 layers (special color → color, color →special color) / 3 layers)** With Mimaki ProfileMasterII, presettings are offered for the above conditions, and by selecting the presettings you can have them set for the UV lamp. (Note that for certain combinations of printer and output settings are not available those presettings.) For details of the presettings, see the separate Important Notes Regarding Mimaki Profile MasterII.

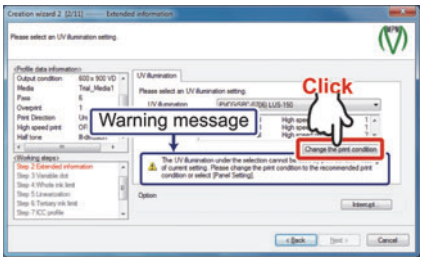
Select UV lamp presettings from “UV illumination
In “UV illumination”, you can select presettings that match the printer and output resolution in the profile.
The Pass, Print Direction, High-speed Printing and Special color overprint settings that correspond to the presettings currently selected will be displayed in the “Recommended print condition” field.



Changing the print conditions

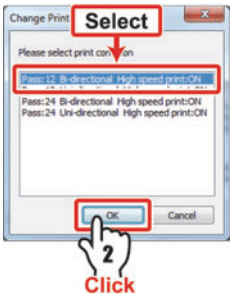
♦ If the Pass, Print Direction and High-speed printing settings that correspond to the presettings selected are different from the profile settings, a warning will be displayed. If this happens, follow the procedure below to change these values.

(1) Click Change the print condition .

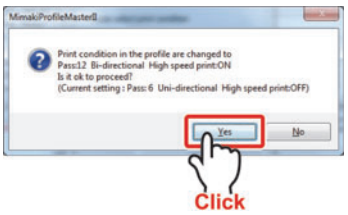


(2) A “Change Print Condition” list will be displayed.

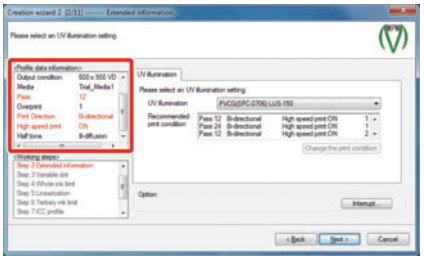
In the list, select the print conditions that you want to change to. Then click OK .



A dialog box for confirming the changes will be displayed. If the changes are acceptable, click Yes .



(3) The Pass, Print Direction and High-speed printing settings will be changed.
The new settings will be displayed in red in the “Profile data information” field.



About making settings on the printer

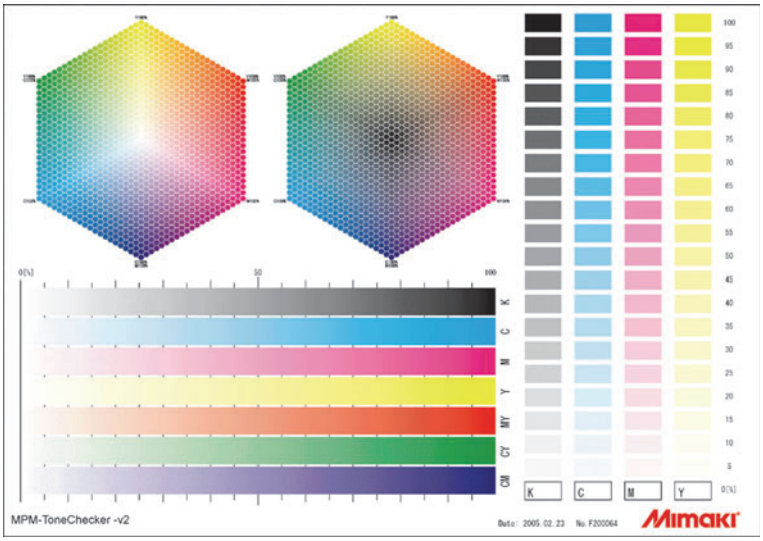
- If you want to use settings other than the presettings, select “PanelSetting”. (Note however that “PanelSetting” will only be displayed if the printer and output setting combination is one for which presettings are not available.)
  Now set “UV lamp” on the printer to “Manual”, and set the values for light intensity and so forth.
- To use settings other than “PanelSetting”, set “UV lamp” on the printer to “Host”.
  See the Operation Manual for your printer regarding the method for setting “UV lamp” on the printer.

Continued on P. 2-15 "Variable dots setting (only when variable dots is selected)"

Variable dots setting (only when variable dots is selected)

NOTE!	♦ This screen is not displayed when a resolution that includes variable dots has not been selected. Go to P.2-18 "Ink limit for the whole color (when Profile (V3) is selected)" or P.2-22 "Ink limit setting (when Profile (V2) is selected)".

Print the following chart, and then select variable dots that matches the ink set.



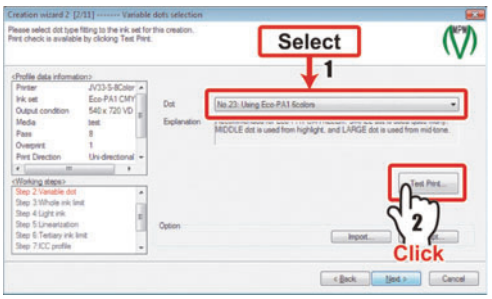
The variable dots spray the dots of 3 sizes (Small, Middle and Large) and make the gradation smooth. The optimum parameters are provided to make the gradation smooth according to the ink set you use.

Continued from P. 2-14 "Extended information setting"

1 Select variable dots.

The optimum dots for the selected ink set are displayed.

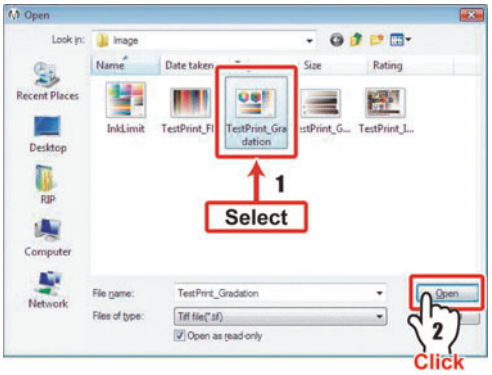
The content of the selected dots is displayed in [Explanation].



2 Click Test print... .

Check the printed result by using the selected dot.

3 Select an image file for the output check.



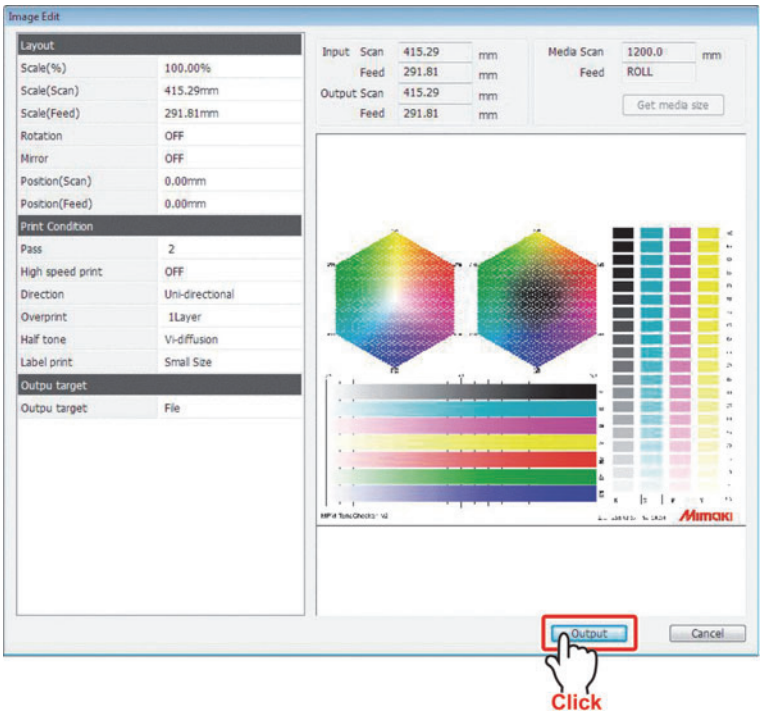
- ♦ Only a CMYK TIFF image can be output until ICC profile creation is completed.
- ♦ The image file supplied by MIMAKI is stored in the Image folder of MPM II. (TestPrint_Gradation.tif) When you have the chart exclusively for confirmation, select the image file you have.

4 Click Open.

The "Image Edit" dialog will be displayed.

5 Set the output condition (P 2-61) and click Output.

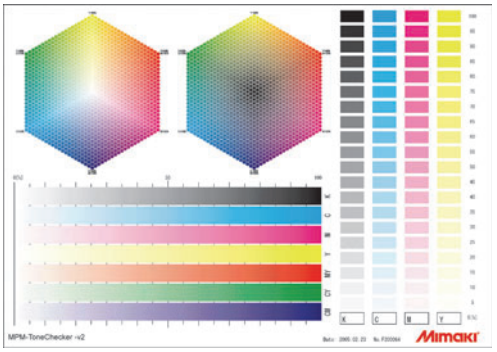
The printer connected to the computer starts printing.



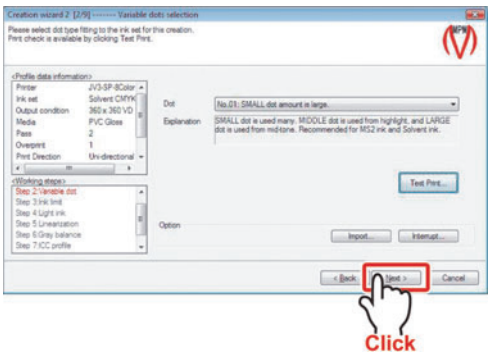
- ♦ Depending on the output image size, set the media having a width of 600 mm (23.6 inches) or wider to the printer when printing only images provided by our company.

6 Check the printed image.

Check whether the gradation of the image printed by using the selected parameter setting is smooth.



7 Click Next .



When Profile (V2) is selected
Continued on P.2-22 "Ink limit setting (when Profile (V2) is selected)"

When Profile (V3) is selected
Continued on P.2-18 "Ink limit for the whole color (when Profile (V3) is selected)"

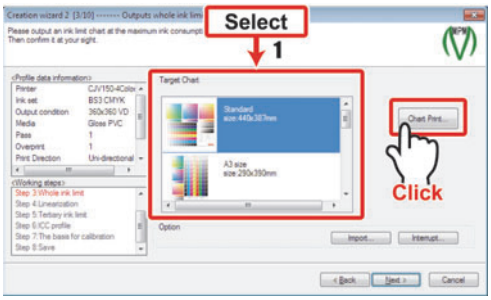
Ink limit for the whole color (when Profile (V3) is selected)

Print the chart, and then set the ink limit that can be mounted on the media.

Continued from P. 2-17 "Variable dots setting (only when variable dots is selected)"

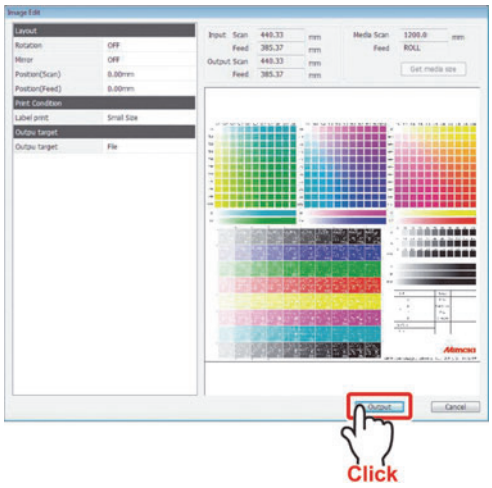
1 **Select a chart image from "Target Chart" list and click Chart Print... .**

♦When you create CMYK/CMYKLcLm/CMYKLcLmLk color set device profile, you can select "Select a other image…" item. It can select your one image. You can only use a TIFF(CMYK) image for this.

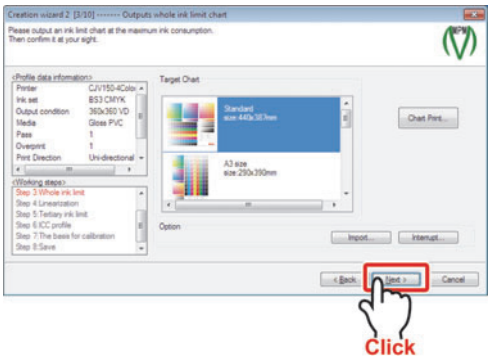


2 **Set the output condition (P 2-61) and click Output .**

The printer connected to the computer starts printing.



3 Click Next .



4 From the output image, determine the ink limit of each color.

♦ As priority order, the following order to set the ink limit of each color is recommended:

1 Red (R) hue
2 Black (K) density
3 Blue (B) hue
4 Green (G) hue

This order is recommended by MIMAKI. It is fine to change the order to set the ink limit of each color.

● How to determine the ink limit

Visual checking is used to determine the ink limit.

● The following status of ink could become the cause for not being able to measure the color of the chart in the next steps.

a. The media is not dried even after several minutes. (This state depends on the creation environment.)
b. The ink is not dried evenly. (When a small rectangle is output with highly concentrated ink, the ink moves toward the outside and the density cannot be made evenly.)
c. Thin white lines cannot be expressed.
d. A horizontally chained striped pattern like a necklace appears.
e. Waved media result. The media are swollen.
f. When output with UV-curable ink, the reflection of the light differs greatly if looked at different angles.
g. The gradation is lost in highly concentrated areas.

● For high density printing, thin lines may not be expressed, or bleeding of some degree may be resulted because such printing requires an ink value of more than usual.

● The Ink limit value may differ depending on the creation environment (place, season, weather, temperature, humidity, etc.) because printing is affected by the temperature and the humidity.

● Even when the Ink limit value is appropriate, the printed image may sometimes have a problem in its looking if variable dots printing is used. The variable dots spray the dots of 3 sizes (Small, Middle and Large) and make the gradation smooth. However, in the case of some media, the dot size is insufficient to fill the distance between the dots in the highlighted portion to the middle tone portion where the small dots are used and the surface cannot be fully filled with the dots. In this case, "streaky tone" or "roughness" is felt by human eyes and may not turn out to be a desired image. Possible measures are as follows:

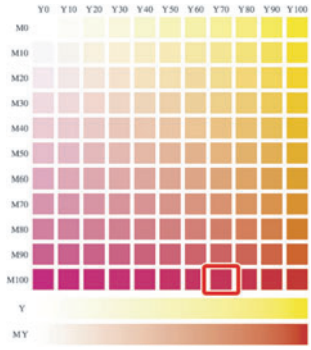
a. Adjusting the ink value after the Device Profile has been created.
b. Making the density of the linearization curve a little higher.

● Device Profiles can be created with evenly allocated ink value, however, a better Device Profile can be created by setting each ink value with the secondary color and the tertiary color (gray balance and the like) considered.

goodHow to decide the ink limit?

Then, some examples of deciding method of the ink limit are shown:

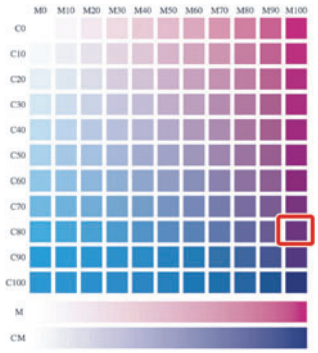
Select Red (R) hue



From the color mixed portion of M and Y, select the portion showing the most desired R.

Here we make M100% and Y70%.

Select Blue (B) hue

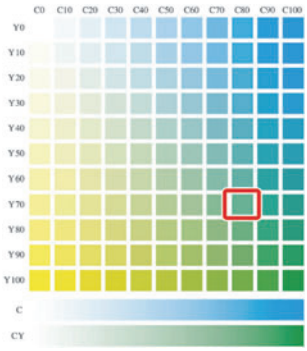


From the color mixed portion of M and C, select the portion showing the most desired B.

From the portion where R is selected, select the color located close to the ink value of M.

Here we make M100% and C80%.

Select Green (G) hue



From the color mixed portion of C and Y, select the portion showing the most desired G.

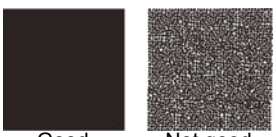
From the portions where R and B are selected, select the color located close to the crossing of the ink value of C and Y.

Here we make C80% and Y70%.

Select Black (K) density

densityThe ink limit of K is selected from the place of single color patch and of no ink excess. Also, the dots must be full.

Here we make K90%.



Good Not good

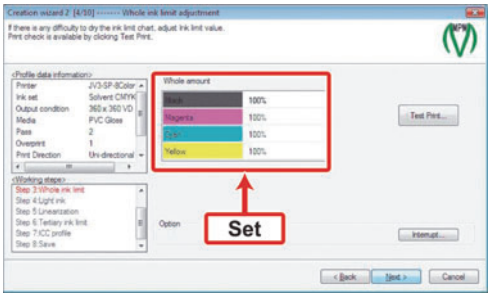
Therefore, the input values for primary color are C80%, M100%, Y70%, K90%.

♦ For the media liable to bleed the color, or difficult to absorb the ink, set the ink value taking into consideration the visual look and real color development.

♦ How to determine the ink limit for Or and Gr:
For Or, use the same ink limit as for M. For Gr, use the same ink limit as for C.

5 Enter the Whole amount.

Enter the Ink limit of each color that is determined in Step 3.
You can enter numbers when clicking the number portion of each color.



♦ There are three methods of entering a number:
- Entering a number on the keyboard.
- Changing the value by using up and down keys.
- Clicking the up and down buttons with the mouse.

6 Click Test print... and then check the printed result.

(☞ P 2-15 Step 2 to 5)

♦ The image file supplied by MIMAKI is stored. (Inklimit.tif)
When you have the chart exclusively for confirmation, use the image file you have.

7 Click Next .

Continued on P.2-26 "Light ink setting (only when light ink is selected)"

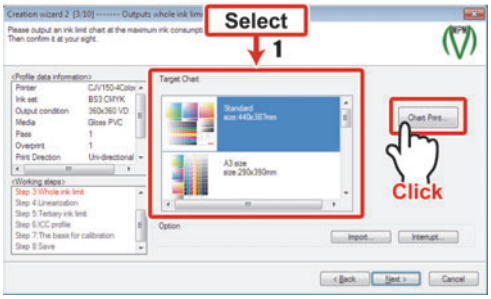
Ink limit setting (when Profile (V2) is selected)

Print the chart, and then set the ink limit that can be mounted on the media.

Continued fromP. 2-17 "Variable dots setting (only when variable dots is selected)"

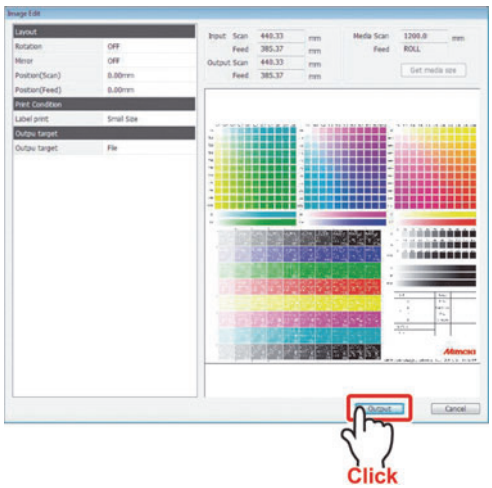
1 Select a chart image from "Target Chart" list and click Chart Print... .

♦When you create CMYK/CMYKLcLm/CMYKLcLmLk color set device profile, you can select "Select a other image…" item. It can select your one image. You can only use a TIFF(CMYK) image for this.

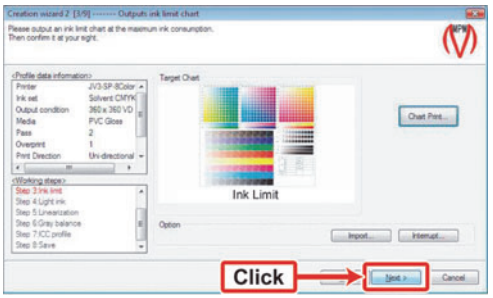


2 Set the output condition (P. 2-61) and click Output .

The printer connected to the computer starts printing.

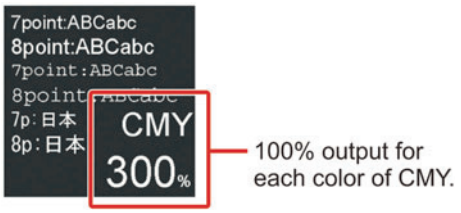


3 Click Next .



4 Determine the total ink value for tricolor (CMY) from the printed chart.

Decide the total ink value by checking the states of bleeding and outlined characters on the chart.
Search the chart for the total ink value that gives a clear view of outlined characters.



● How to determine the ink limit

Visual checking is used to determine the ink limit.

- The following status of ink could become the cause for not being able to measure the color of the chart in the next steps.
  - **a. The media is not dried even after several minutes. (This state depends on the creation environment.)**
  - **b. The ink is not dried evenly. (When a small rectangle is output with highly concentrated ink, the ink moves toward the outside and the density cannot be made evenly.)**
  - **c. Thin white lines cannot be expressed.**
  - **d. A horizontally chained striped pattern like a necklace appears.**
  - **e. Waved media result. The media are swollen.**
  - **f. When output with UV-curable ink, the reflection of the light differs greatly if looked at different angles.**
  - **g. The gradation is lost in highly concentrated areas.**
- For high density printing, thin lines may not be expressed, or bleeding of some degree may be resulted because such printing requires an ink value of more than usual.
- The Ink limit value may differ depending on the creation environment (place, season, weather, temperature, humidity, etc.) because printing is affected by the temperature and the humidity.
- Even when the Ink limit value is appropriate, the printed image may sometimes have a problem in its looking if variable dots printing is used. The variable dots spray the dots of 3 sizes (Small, Middle and Large) and make the gradation smooth. However, in the case of some media, the dot size is insufficient to fill the distance between the dots in the highlighted portion to the middle tone portion where the small dots are used and the surface cannot be fully filled with the dots. In this case, "streaky tone" or "roughness" is felt by human eyes and may not turn out to be a desired image. Possible measures are as follows:
  - **a. Adjusting the ink value after the Device Profile has been created.**
  - **b. Making the density of the linearization curve a little higher.**
- Device Profiles can be created with evenly allocated ink value, however, a better Device Profile can be created by setting each ink value with the secondary color and the tertiary color (gray balance and the like) considered.

5 From the output image, determine the ink limit of each color.

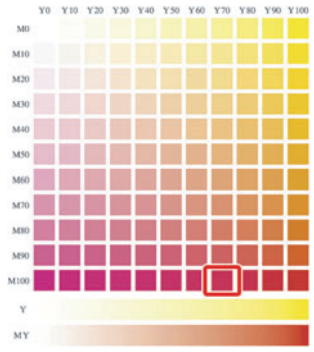
♦ As priority order, the following order to set the ink limit of each color is recommended:

1 Red (R) hue
2 Black (K) density
3 Blue (B) hue
4 Green (G) hue

This order is recommended by MIMAKI. It is fine to change the order to set the ink limit of each color.

Example : When 240% is selected as the total ink value in Step 4.

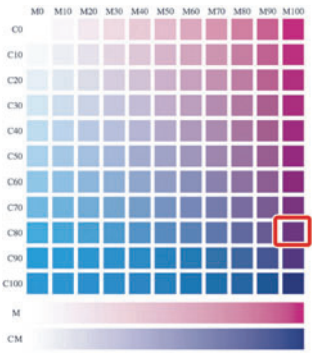
Select Red (R) hue



From the color mixed portion of M and Y, select the portion showing the most desired R.

Here we make **M100% and Y70%**.

Select Blue (B) hue

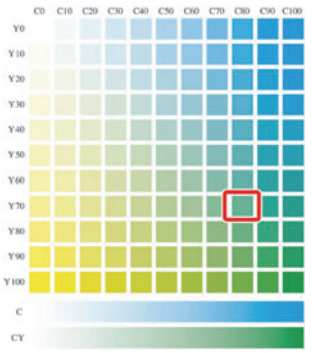


From the color mixed portion of M and C, select the portion showing the most desired B.

From the portion where R is selected, select the color located close to the ink value of M.

Here we make **M100% and C80%**.

Select Green (G) hue



From the color mixed portion of C and Y, select the portion showing the most desired G.

From the portions where R and B are selected, select the color located close to the crossing of the ink value of C and Y.

Here we make **C80% and Y70%**.

Select Black (K) density

densityThe ink limit of K is selected from the place of single color patch and of no ink excess. Also, the dots must be full.

Here we make **K90%**.

Good

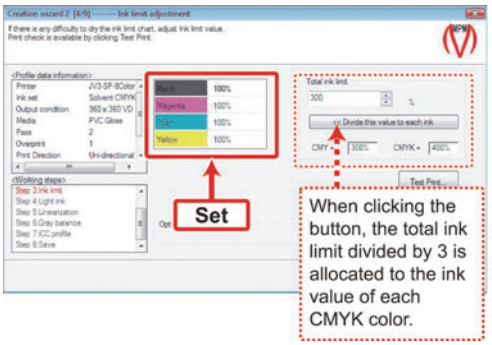
Not good

Therefore, C80%, M100%, Y70%, K90% are selected and the CMY total ink value comes to 250%, which exceeds the selected total ink value only by 10%.
In such a case, select the desired color again, and adjust the total ink value by reducing the ink value of each color.

♦ For the media liable to bleed the color, or difficult to absorb the ink, set the ink value taking into consideration the visual look and real color development.

6 Enter the Ink limit.

You can enter numbers when clicking the number portion of each color.



♦ There are three methods of entering a number:
- •Entering a number on the keyboard.
- •Changing the value by using up and down keys.
- •Clicking the up and down buttons with the mouse.

♦ When you wish to divide the total ink value determined in Step 4 to each CMYK color evenly, click **Divide this value to each ink** .The total ink limit divided by 3. The calcuated value is applied to the ink value of each CMYK color.

7 Click Test print... and then check the printed result.

(P. 2-15 Steps 2 to 5)

♦ The image file supplied by MIMAKI is stored in the Image folder of MPM II. (Inklimit.tif)
When you have the chart exclusively for confirmation, select the image file you have.

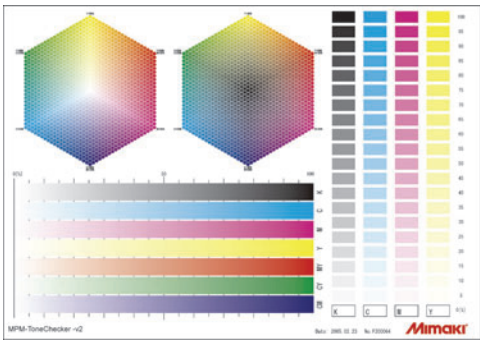
8 Click Next .

Continued on P.2-26 "Light ink setting (only when light ink is selected)"

Light ink setting (only when light ink is selected)

NOTE!	♦ This screen is not displayed when an ink set that includes light ink has not been selected. Go to P.2-27 "Automatic adjustment of Linearizaion".

Print the chart on the right and select a usage of light ink that matches the media.
In the highlighted to medium tone portions of the gradation, by replacing the light ink with the darker ink, you will get smoother gradation without granular feeling.
Several kinds of parameters are available to make the gradation expressed smoothly.

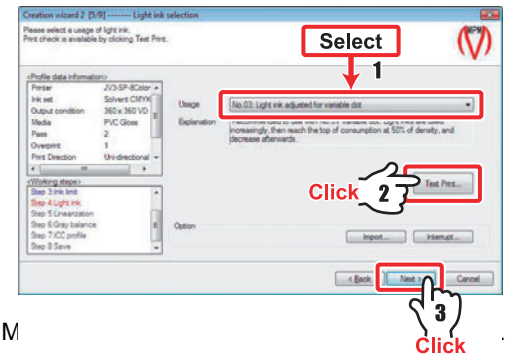


When Profile (V2) is selected
Continued from P. 2-25 "Ink limit setting (when Profile (V2) is selected)"

When Profile (V3) is selected
Continued from P. 2-21 "Ink limit for the whole color (when Profile (V3) is selected)"

1 Select a usage of light ink.

The usage of light ink is explained below.



2 Click Test print... and then check the printed result.

(P.2-17 Steps 2 to 5)

♦ The image file supplied by MIM
(TestPrint_Gradation.tif)
When you have the chart exclusively for confirmation, select the image file you have.

3 Click Next .

Continued on P.2-27 "Automatic adjustment of Linearizaion"

Automatic adjustment of Linearizaion

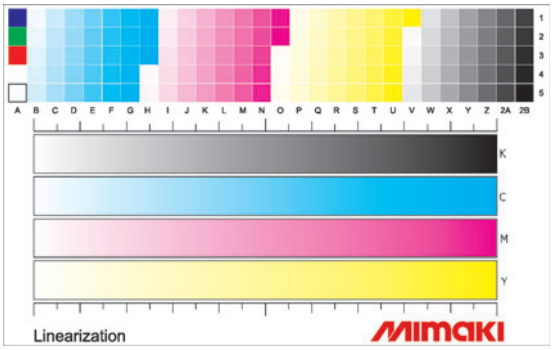
The gradation characteristics of each CMYK ink is automatically adjusted by printing the chart and measuring the colors.
(Light ink is not adjusted.)
Check whether the gradation of automatically adjusted single color of each CMYK color is smooth.

NOTE!	♦ Measure the colors after the ink has dried. Otherwise, correct measurement may not be executed. ♦ When Profile (V2) is selected and the ink has not dried after leaving it for a long time, reduce the ink limit, and then print the measurement chart again.

The chart for measuring the colors has two areas.
The chart to be printed differs depending on the measurement device.

a. Measuring part
Measure the colors by using a measurement device.

b. Visual checking part
Visually check this part.
(If you have selected the CMYKOrGr ink set, this part will be absent.)



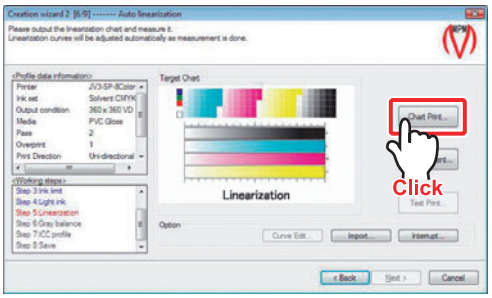
When SpectroScan is selected in [Measurement]

Continued from P. 2-26 "Light ink setting (only when light ink is selected)"

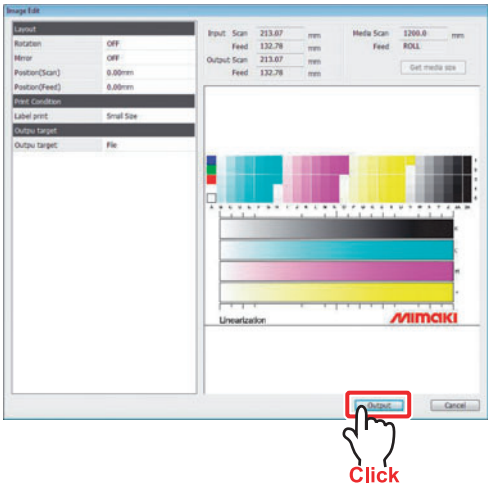
1 **Click** **Chart Print...** .

The "Target chart" screen displays different screens depending on the selected measurement device.

When the measurement device is not selected, the "Target chart" screen is not displayed.

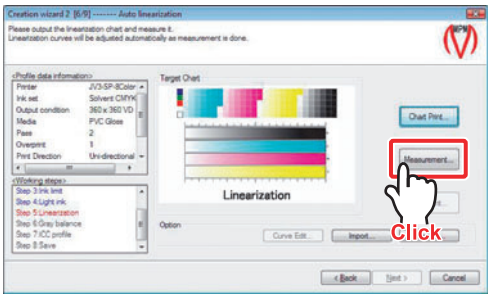


2 **Set the output condition (P. 2-61) and click Output .**

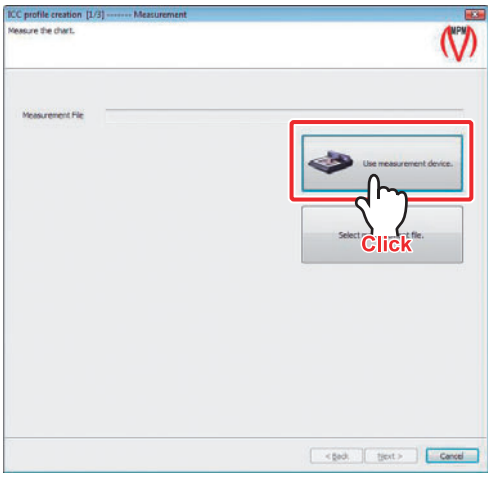


3 **Click Measurement... .**

♦When the measurement device has not been selected, the measurement device setting screen is displayed first.
(P. 1-6)



4 **Click Use measurement device. .**



5 The MeasureTool 5.0 is activated.

NOTE!	♦ When ProfileMaker dongle is not used, MeasureTool5.0 is activated in demonstration mode. When activated in demonstration mode, DTP-41 cannot be used. (Other color measuring device can measure the color without problem.)

6 Measure the colors.

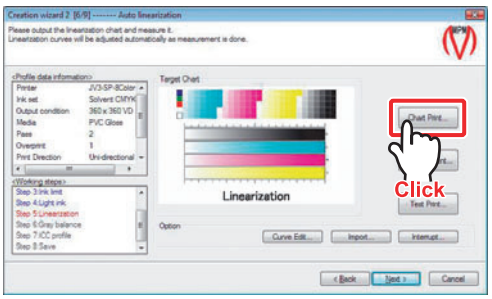
The measurement method varies depending on the measurement device you are using.

- When using Spectro Scan (☞ P 2-31)
- When using Eye-One Pro (☞ P 2-34)
- When using Eye-One iO (☞ P 2-37)
- When using DTP-41 (☞ P 2-40)
- When using i1 iSis (☞ P 2-42)

7 Click Chart Print... and then check the measurement results.

(☞ P 2-27 Steps 1 to 2)

Print the automatic adjustment results, and then check them.



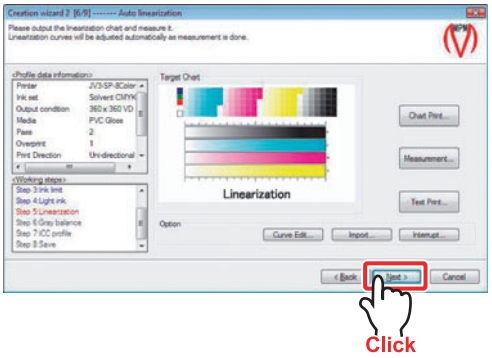
8 At the visual checking part of the chart, check whether the gradation of each color is smooth.

♦ If the adjustment looks insufficient, measure the colors on the chart printed in Step 7.
Re-execute the automatic adjustment by the measurement as the fine adjustment.

NOTE!	♦ Executing fine adjustment by the automatic adjustment several times may not produce desirable result because fine adjustment around the target value is cyclically executed. ♦ For media that cause bleeding easily, delicate adjustment of the gradation is difficult. Therefore, the gradation of the highlighted part becomes poor.

♦ Also, you can adjust the each color data manually by clicking Curve Edit.
(☞ P 2-69)

9 Click Next .



- When editing the curves, click Test print... and check the printed results. The image file supplied by MIMAKI is stored. (TestPrint_Gradation.tif)
- When you have the chart exclusively for confirmation, select the image file you have.

When Profile (V2) is selected
Continued on P.2-49 "Automatic adjustment of Gray balance"

When Profile (V3) is selected
Continued on P.2-45 "Ink limit for tertiary color (when Profile (V3) is selected)"

When measuring colors using Spectro Scan

NOTE!

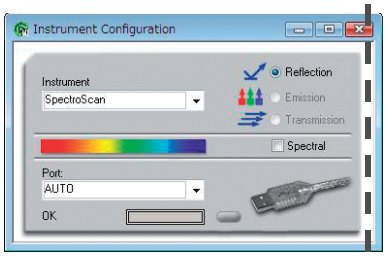
- ♦ When the measurement has to be made on the media the edge of which tends to wind up, fix the end of the media with tape, etc. so that the end of the media does not go up.
- ♦ If you desired to use Spectro Scan on the PC without serial port, please consult the sales agents of your color measurement device.
- ♦ Please do not change the setting of "Language" with MeasureTool 5.0.

1 **Set the printed chart in the measurement device.**

2 **Click "Device/ Port" of the tool bar.**

3 **"Instrument Configuration" is activated. Check the following items:**

- In the "Instrument", the color measurement device set in P.1-6 is displayed.
- "Reflection" is selected.
- "Spectral" is not checked.
- [OK] is displayed below the "Port".

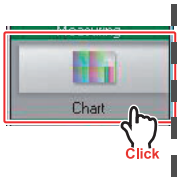


NOTE!

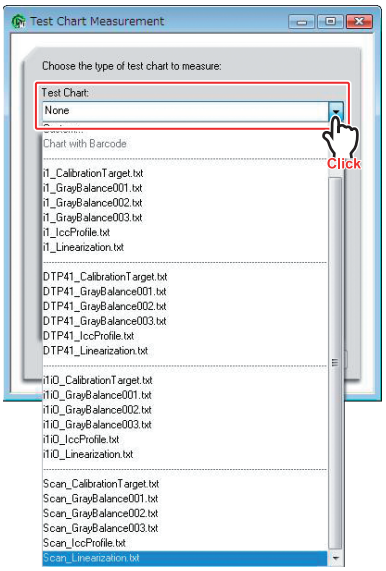
- ♦ Do not change the color measurement device already set.

4 **Close "Instrument Configuration".**

5 **Click "Chart" of the tool bar.**



6 **Click down-arrow of "Test Chart".**

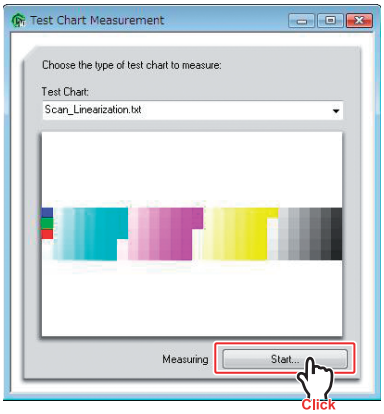


From the displayed lists, select the chart having the name of element for color measurement.
(In case of adjusting the linearization, select [Scan_Linearization.txt].)

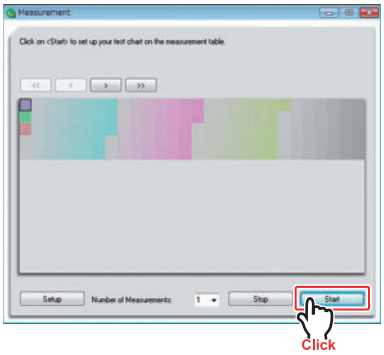
NOTE!

- ♦ The displayed list also includes color measurement devices other than Spectro Scan. Make sure to select the list starting with [Scan_].

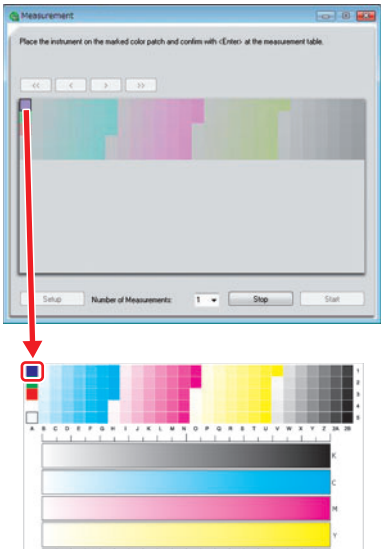
7 **Click Start.**



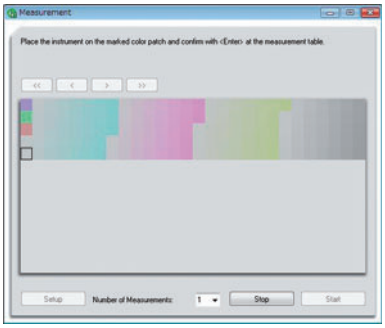
8 **Click Start.**



9 **Pressing the button on the measurement device, align the target chart with the part indicated on the screen (the upper left).**

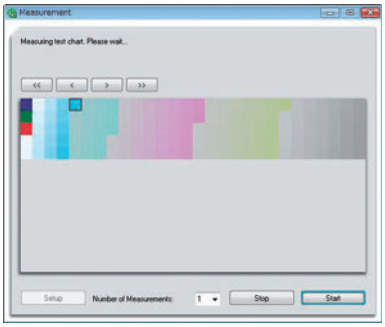


10 **Press the Enter button of the measurement device, then the following screen is displayed.**



11 **Same as Step 9, adjust the lower left and lower right.**

The measurement is automatically started.



12 **From the menu bar, select [File] → [Save As...] to save the color measurement results.**

When saving the color measurement results, make sure to designate the "Files of type" as [Text Files (*.txt *.text)] for saving.

13 Shut down MeasureTool 5.0.

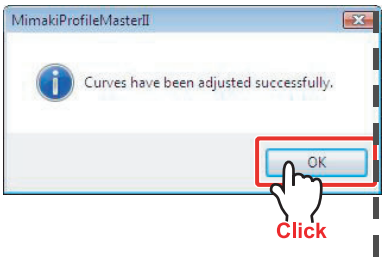
Make sure that the file name stored at Step 12 is displayed in "Measurement File".

NOTE!

♦ If you make color measurement more than once with MeasureTool, the last saved file name is displayed. If this is different from the color measurement result file you wish to use, click [Select measurement file.] to select the file of your choice.

14 Click Finish.

The curve is adjusted automatically. When completing the curve adjustment, the following dialog appears.



15 Click OK.

The measurement is finished. Perform the procedures starting from Step 7 of P.2-29 .

When measuring colors using Eye-One Pro

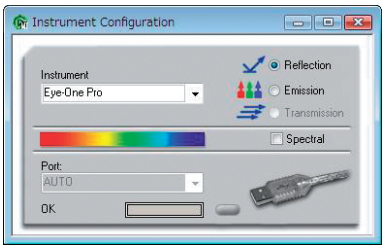
NOTE!

- ♦ Place the chart on a flat place where the measurement can be performed easily.
- ♦ Please do not change the setting of "Language" with MeasureTool 5.0.
- ♦ To use i1 Pro2, select Eye-One Pro.

1 **Click "Device/Port" of the tool bar.**

2 **"Instrument Configuration" is activated. Check the following items:**

- In the "Instrument", the color measurement device set in P.1-6 is displayed.
- "Reflection" is selected.
- "Spectral" is not checked.
- [OK] is displayed below the "Port".

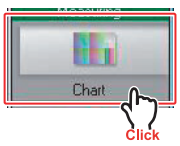


NOTE!

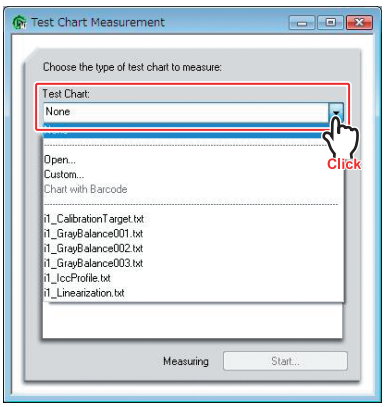
- ♦ Do not change the color measurement device already set.

3 **Close "Instrument Configuration".**

4 **Click "Chart" of the tool bar.**

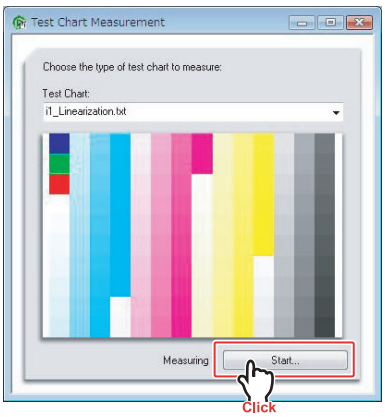


5 **Click down-arrow of "Test Chart".**

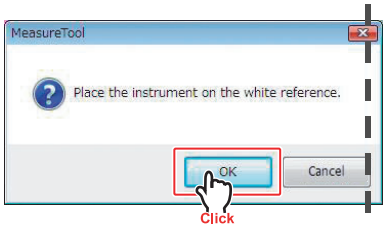


Eye-One Pro chart is displayed.
Select the chart having the name of element for color measurement.
(In case of adjusting the linearization, select [i1_Linearization.txt].)

6 **Click Start.**

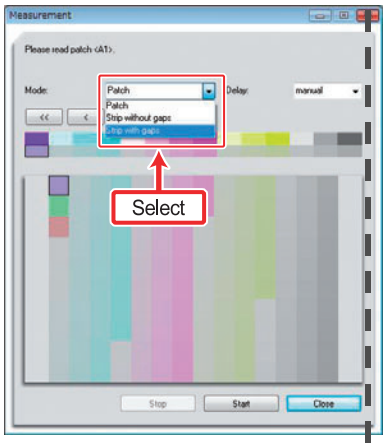


7 After the following dialog is displayed, put the main body of the measurement device on the white colored standard tile and then click OK.



Make calibration to display the measurement screen.

8 Set the "Mode" to [Strip with gaps].



9 In the first line of the chart (No.1) , put the measurement ruler, which is provided with the measurement device.

♦ When you use the back board attached to Eye-One Pro, it is recommended to prepare the chart as described below. You can measure colors more easily because the measuring guide for the basic chart matches the half circle at the left end of the chart.

(1) Cut the chart along the closing line.

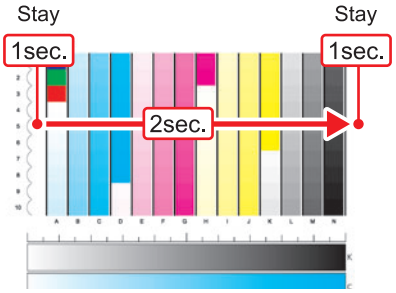
(2) Push the chart against the left rear of the back board and clip it on.

10 Align the measurement device with the measurement ruler and measure the colors.

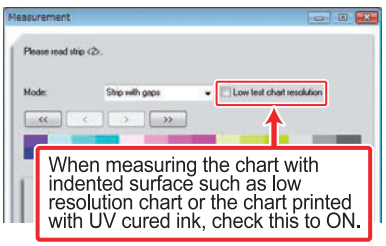
♦ Pressing the measurement button, measure the colors by sliding the Measurement device slowly at a constant speed from left to right.

♦ For details, see the User's Guide attached to the measurement device.

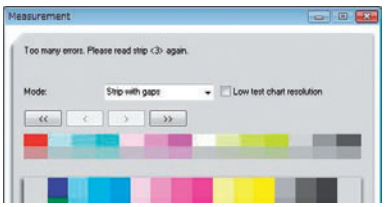
Measure from the non-printed part on the left end to the non-printed part on the right. (Time shown is estimated in seconds.)



When the color measurement is completed properly, the color of the line to which the color measurement is completed changes and the display will instruct the color measurement of the next line.



If the color could not be measured normally, the message indicating that the measuring color has been failed is displayed. Measure the color again.



11 **Similarly, measure the colors sequentially for the remaining lines.**

12 **When the measurement is completed, click [Close].**

13 **From the menu bar, select [File] → [Save As...] to save the color measurement results.**

When saving the color measurement results, make sure to designate the "Files of type" as [Text Files (*.txt *.text)] for saving.

14 **Shut down MeasureTool 5.0.**

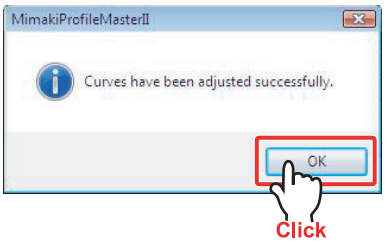
Make sure that the file name stored at Step 13 is displayed in "Measurement File".

NOTE!

- If you make color measurement more than once with MeasureTool, the last saved file name is displayed. If this is different from the color measurement result file you wish to use, click [Select measurement file.] to select the file of your choice.

15 **Click [Finish].**

The curve is adjusted automatically. When completing the curve adjustment, the following dialog appears.



16 **Click [OK].**

The measurement is finished. Perform the procedures starting from Step 7 of P.2-29 .

When measuring colors using Eye-One iO

NOTE!

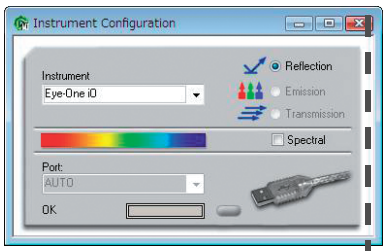
- ♦ When the measurement has to be made on the media the edge of which tends to wind up, fix the end of the media with tape, etc. so that the end of the media does not go up.
- ♦ Before measuring colors, confirm the driver with reference to the **App.-13 "Before using Eye-One iO"**.
- ♦ Please do not change the setting of "Language" with MeasureTool 5.0.
- ♦ To use i1iO2, select Eye-One iO.

1 Set the printed chart in the measurement device.

2 Click "Device/ Port" of the tool bar.

3 "Instrument Configuration" is activated. Check the following items:

- In the "Instrument", the color measurement device set in P.1-6 is displayed.
- "Reflection" is selected.
- "Spectral" is not checked.
- [OK] is displayed below the "Port".

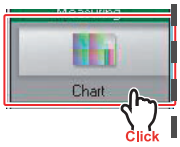


NOTE!

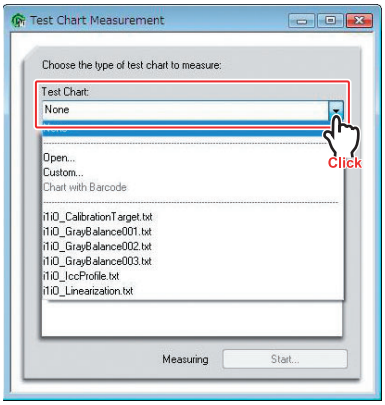
- ♦ Do not change the color measurement device already set.

4 Close "Instrument Configuration".

5 Click "Chart" of the tool bar.

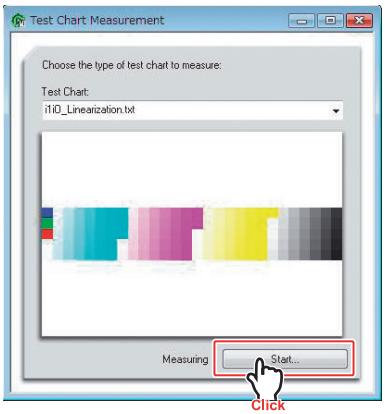


6 Click down-arrow of "Test Chart".

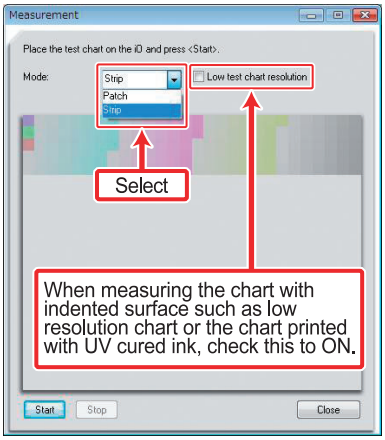


Eye-One iO chart is displayed.
Select the chart having the name of element for color measurement.
(In case of adjusting the linearization, select [i1iO_Linearization.txt].)

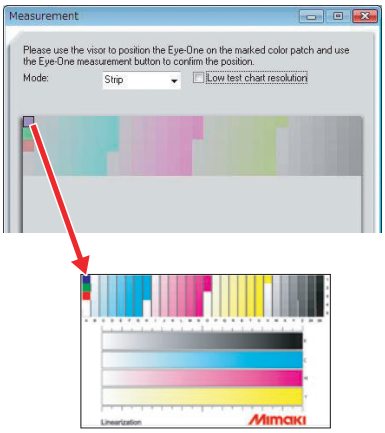
7 Click Start.



8 Set the "Mode" to [Strip].

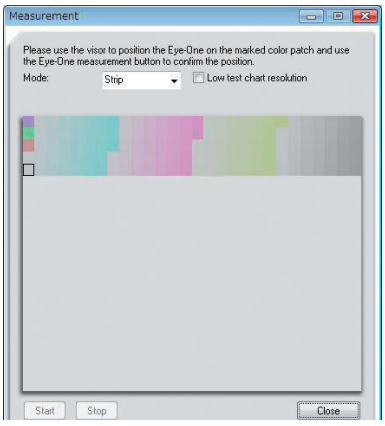


9 Move the arm of Eye-One iO and set the graticule on the marked patch (the upper left).



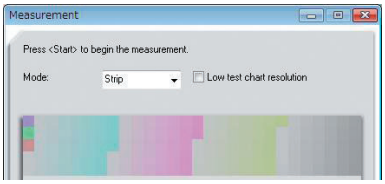
10 Press the button on the side of the Eye-One iO.

The following screen appears.



11 The same as step 9, set the graticule in the lower left and lower right.

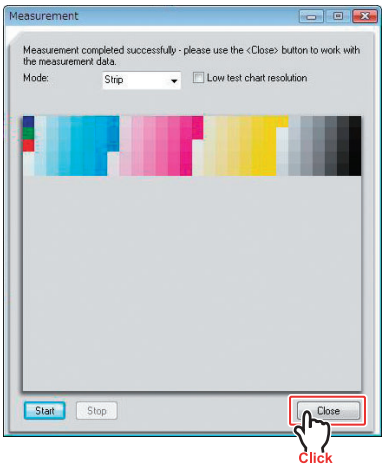
The following dialog appears after setting the bottom right patch.



When it is ready, click **Start**.

The measurement is automatically started.

12 When the measurement is completed, click **Close**.



13 From the menu bar, select [File] → [Save As...] to save the color measurement results.

When saving the color measurement results, make sure to designate the "Files of type" as [Text Files (*.txt *.text)] for saving.

14 Shut down MeasureTool 5.0.

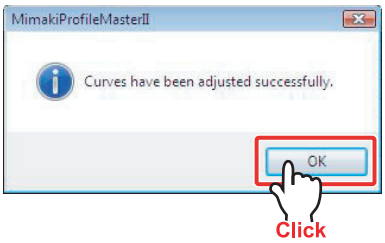
Make sure that the file name stored at Step 13 is displayed in "Measurement File".

NOTE!

- If you make color measurement more than once with MeasureTool, the last saved file name is displayed. If this is different from the color measurement result file you wish to use, click [Select measurement file.] to select the file of your choice.

15 Click Finish.

The curve is adjusted automatically. When completing the curve adjustment, the following dialog appears.



16 Click OK.

The measurement is finished. Perform the procedures starting from Step 7 of P.2-29 .

● Measuring method for transparent media

When measuring the colors on media through which the background can be seen, the background colors affect the measured values. When measuring the colors with Spectro Scan, Eye-One Pro, or Eye-One iO, please do the following:

a. Media through which the background can be seen

Measure the colors by placing one or more sheets of white media of the same type or reliable white media under the target chart. Placing a sheet of black paper darken the color reproduction. When the background of the measurement device is white, such white media is not required.

b. Cloth media

The measurement method varies depending on the roughness of the cloth surface.

When the surface is smooth (not fully transparent), measure the colors by placing a sheet of white paper in the same manner as the (transparent media) described above.

When the surface is rough (fully transparent), print two sheets of the same chart, and then measure the colors by placing them over the white media.

In particular, when measuring with a cloth media whose surface is glossy, use the polarizing filter provided with the measurement device. When using a measurement device that does not have a polarizing filter, a proper measurement may not result.

c. Transparent media whose backgrownd is printed in whiteink

Measure the colors from the observer.

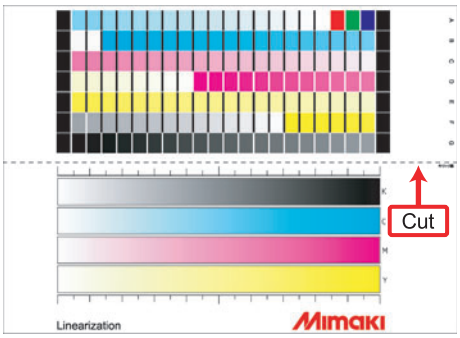
Since the white ink cannot fully hide the background, measure the colors by placing reliable white media or used as proofing print.

When measuring colors using DTP-41

NOTE!

- ♦ When connecting the old DTP-41, which has only serial cable, to PC without serial port, please consult your sales agents of the color measurement device.
- ♦ Please do not change the setting of "Language" with MeasureTool 5.0.
- ♦ When MeasureTool 5.0 is in demonstration mode, color measuring cannot be performed.
- ♦ Before measuring colors on the chart, confirm the surface and the inner surface of ink on it have dried and cured. If ink has not completely dried, the roller in the measurement device may be stained with ink.
- ♦ When using gummed media, please do not use it while stripped from the mount.

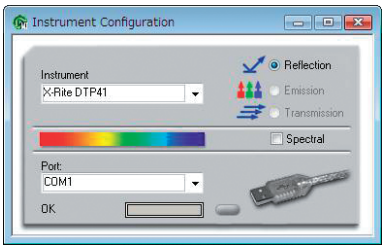
1 Cut the output chart along the dotted line.



2 Click "Device/Port" of the tool bar.

3 "Instrument Configuration" is activated. Check the following items:

In the "Instrument", the color measurement device set in P.1-6 is displayed.
"Reflection" is selected.
"Spectral" is not checked.
[OK] is displayed below the "Port".

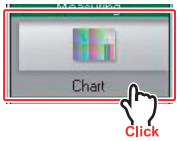


NOTE!

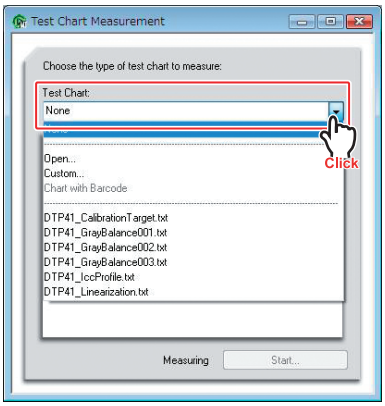
- ♦ Do not change the color measurement device already set.
- ♦ When [OK] is not displayed below the "Port", select the port on which the connection is made and let it display [OK].

4 Close "Instrument Configuration".

5 Click "Chart" of the tool bar.



6 Click down-arrow of "Test Chart".



DTP-41 chart is displayed.
Select the chart having the name of element for color measurement.
(In case of adjusting the linearization, select [DTP41_Linearization.txt].)

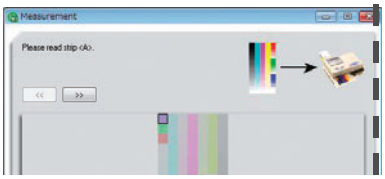
7 Click Start.

8 Measure the measuring chart.

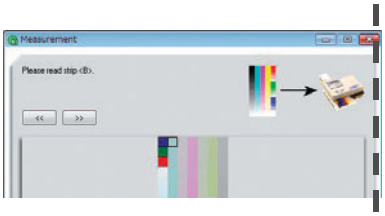
Measure the colors sequentially starting from the line at the left end.

When the chart is not taken in when it is inserted, press the button of the measurement device.

The line being measured is displayed on the screen.
The alphabet on the screen indicates the line to be measured.



When the measurement is performed properly, instructions for measuring the next line appears on the screen.



♦ When the color measurement was not performed properly, the lamp of the color measurement device flashes quickly and displays a message prompting to repeat the color measurement again. In this case, please perform the color measurement again.

9 From the menu bar, select [File] → [Save As...] to save the color measurement results.

When saving the color measurement results, make sure to designate the "Files of type" as [Text Files (*.txt *.text)] for saving.

10 Shut down MeasureTool 5.0.

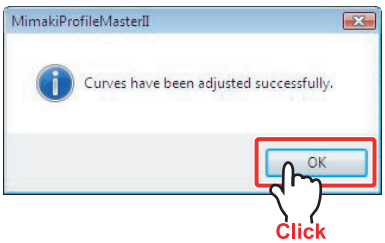
Make sure that the file name stored at Step 9 is displayed in "Measurement File".

NOTE!

♦ If you make color measurement more than once with MeasureTool, the last saved file name is displayed. If this is different from the color measurement result file you wish to use, click [Select measurement file.] to select the file of your choice.

11 Click Finish.

The curve is adjusted automatically.
When completing the curve adjustment, the following dialog appears.



12 Click OK.

The measurement is finished. Perform the procedures starting from Step 7 of P.2-29.

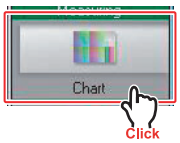
When measuring colors using i1 iSis

NOTE!

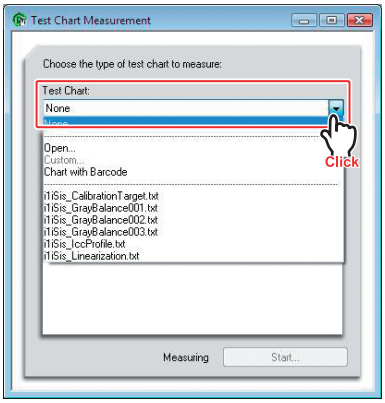
- ♦ Before measuring colors on the chart, confirm the surface and the inner surface of ink on it have dried and cured. If ink has not completely dried, the roller in the measurement device may be stained with ink.
- ♦ Please do not use tightly curled media. It may cause media jam.
- ♦ When using gummed media, please do not use it while stripped from the mount.

1 **Cut the output chart along the dotted line.**

2 **Click "Chart" of the tool bar.**

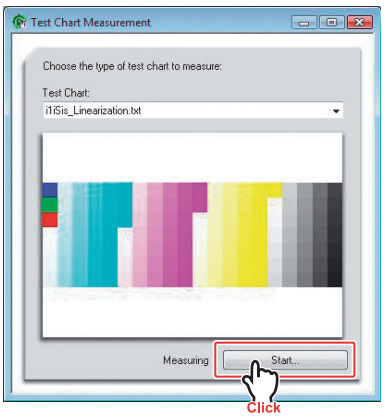


3 **Click down-arrow of "Test Chart".**



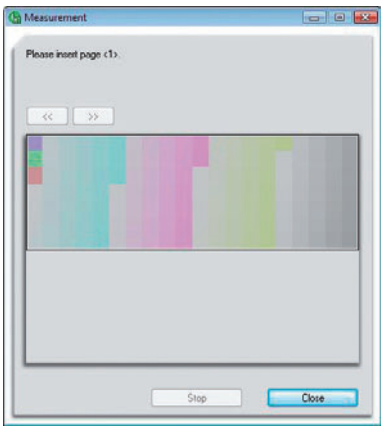
i1 iSis chart is displayed.
Select the chart having the name of element for color measurement.
(In case of adjusting the linearization, select [i1iSis_Linearization.txt].)

4 **Click Start .**



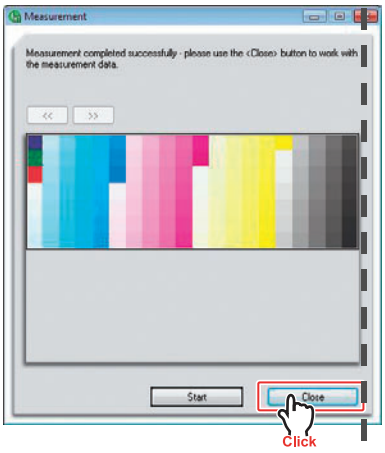
5 **Measure the measuring chart.**

The following screen appears. Then, insert the measuring chart aligning the left edge of the chart with the left edge of i1 iSis.

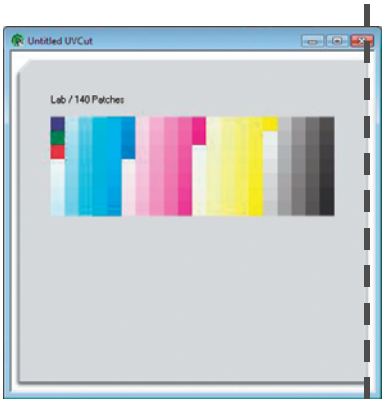


When the chart comes to the end of i1 iSis, the measurement is automatically started.

6 Click Close.



7 From the menu bar, select [File] → [Save As...] to save the color measurement results.



When saving the color measurement results, make sure to designate the "Files of type" as [Text Files (*.txt *.text)] for saving.

8 Shut down MeasureTool 5.0.

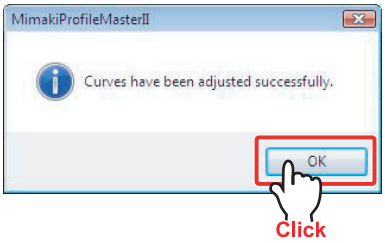
Make sure that the file name stored at Step 7 is displayed in "Measurement File".

NOTE!

♦ If you make color measurement more than once with MeasureTool, the last saved file name is displayed. If this is different from the color measurement result file you wish to use, click [Select measurement file.] to select the file of your choice.

9 Click Finish.

The curve is adjusted automatically. When completing the curve adjustment, the following dialog appears.



10 Click OK.

The measurement is finished. Perform the procedures starting from Step 7 of P.2-29 .

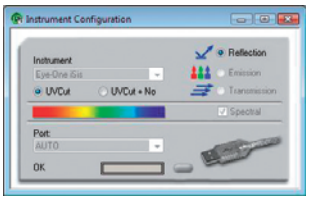
● When "Device/Port" of the tool bar is clicked after starting MeasureTool 5.0 to measure colors using i1 iSis.

When "Device/Port" of the tool bar on i1 iSis is firstly clicked and then the color is measured, follow the steps below.

1. Click "Device/Port" of the tool bar.

2. Check the following items:

- In the "Instrument", the color measurement device set in P.1-6 is displayed.
- "Reflection" is selected.
- "UVCut" is selected.
- [OK] is displayed below the "Port".

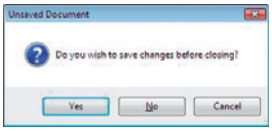


3. Close "Instrument Configuration".

4. Follow the step 2 to 6 of "When measuring colors using i1 iSis".

5. Click Export Lab... to save the color measurement results.
When saving the color measurement results, make sure to designate the "Files of type" as [Text Files (*.txt *.text)] for saving.

6. Shut down MeasureTool 5.0.
When MeasureTool 5.0 is shut down, the following dialog appears.



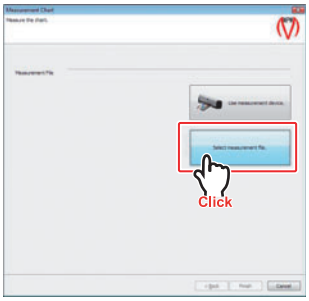
7. Click No .

8. Click Select measurement file. .

9. Select the file saved at step 5.

10.Click Finish .

11.Click OK .



Ink limit for tertiary color (when Profile (V3) is selected)

Print the chart, and then set the ink limit that can be mounted on the media.

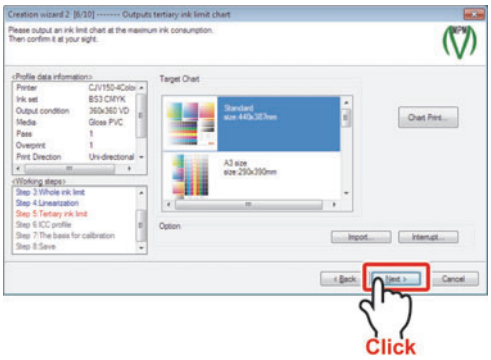
- At this adjustment, ink limit is set for the composite colors using more than 3 inks except for light ink.

Continued from P.2-30 "Automatic adjustment of Linearizaion"

1 **Click** Chart Print... **to print the chart for measurement.**

(☞ P.2-18 Steps 1 to 2)

2 **Click** Next **.**



3 Determine the total ink value for tricolor (CMY) from the printed chart.

Decide the total ink value by checking the states of bleeding and outlined characters on the chart.
Search the chart for the total ink value that gives a clear view of outlined characters.

100% output for each color of CMY.

● How to determine the ink limit

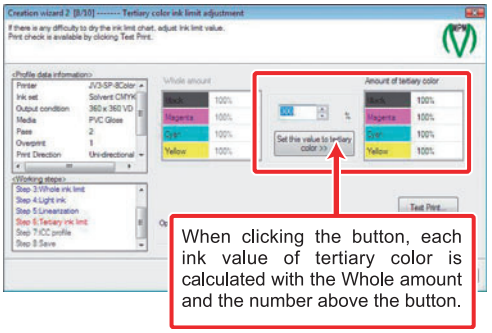
Visual checking is used to determine the ink limit.

- The following status of ink could become the cause for not being able to measure the color of the chart in the next steps.
  - **a. The media is not dried even after several minutes. (This state depends on the creation environment.)**
  - **b. The ink is not dried evenly.**
    (If you print a concentrated small rectangle, the density does not become even because ink is not taken on evenly.)
  - **c. Thin white lines cannot be expressed.**
  - **d. A horizontally chained striped pattern like a necklace appears.**
  - **e. Waved media result. The media are swollen.**
  - **f. When output with UV-curable ink, the reflection of the light differs greatly if looked at different angles.**
  - **g. The gradation is lost in highly concentrated areas.**
- For high density printing, thin lines may not be expressed, or bleeding of some degree may be resulted because such printing requires an ink value of more than usual.
- The Ink limit value may differ depending on the creation environment (place, season, weather, temperature, humidity, etc.) because printing is affected by the temperature and the humidity.
- Even when the Ink limit value is appropriate, the printed image may sometimes have a problem in its looking if variable dots printing is used.
  The variable dots spray the dots of 3 sizes (Small, Middle and Large) and make the gradation smooth. However, in the case of some media, the dot size is insufficient to fill the distance between the dots in the highlighted portion to the middle tone portion where the small dots are used and the surface cannot be fully filled with the dots. In this case, "streaky tone" or "roughness" is felt by human eyes and may not turn out to be a desired image.
  Possible measures are as follows:
  - **a. Adjusting the ink value after the Device Profile has been created.**
  - **b. Making the density of the linearization curve a little higher.**
- Device Profiles can be created with evenly allocated ink value, however, a better Device Profile can be created by setting each ink value with the secondary color and the tertiary color (gray balance and the like) considered.

4 Determine the ink limit of tertiary color.

There are 2 methods of entering a number:

- Entering a number after clicking each box of colors.
- Clicking **Set this value to thrtiary color** after entering a number into the box above the button.



♦ Entering a number, which is bigger than the number of the Whole amount, into the Amount of tertiary color is not allowed.

● **When dividing a number among the Amount of tertiary color.**

Ink values applied after clicking **Set this value to thrtiary color** depends on the value set at P.2-18 "Ink limit for the whole color (when Profile (V3) is selected)".

(1) Divide the total ink amount by 3.

(2) The divided value is calculated with each ink value of the Whole amount.

Calculation formula

Calculation formula

(Divided value at the Procedure 1) * (Each ink value set at Step 4 of P.2-19) / 100

Example:
240% is set at the Step 3.
And each ink value of the Whole amount is set as follows.
K:90%, M:100%, C:80% and Y:70%

- 240 / 3 = 80
- Ink limit of K: 80 * 90 / 100=72%
  Ink limit of M: 80 * 100 / 100=80%
  Ink limit of C: 80 * 80 / 100=64%
  Ink limit of Y: 80 * 70 / 100=56%

5 Click Test print... and then check the printed result.

(P.2-15 Steps 2 to 5)

♦ The image file supplied by MIMAKI is stored. (Inklimit.tif)
When you have the chart exclusively for confirmation, use the image file you have.

6 Click Next .

When Profile (V2) is selected
Continued on P.2-49 "Automatic adjustment of Gray balance"

When Profile (V3) is selected
Continued on P.2-52 "ICC profile creation"

Automatic adjustment of Gray balance

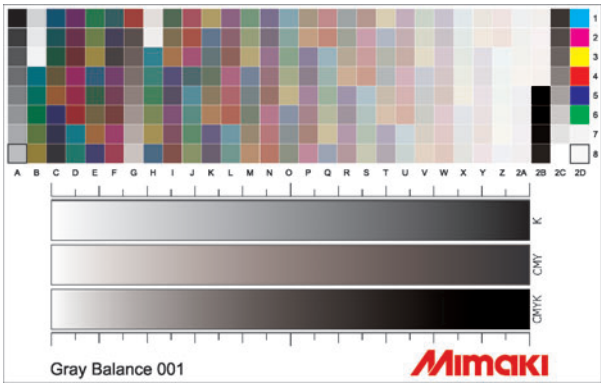
The gray-scale characteristics and the chromaticness expressed by CMY-mixed colors are automatically adjusted by printing the chart and measuring the colors.
Check whether the gradation of automatically adjusted gray is smooth.
Light ink and variable dots are not adjusted because they take the gray as a CMYK-mixed color.

NOTE!	♦ Measure the colors after the ink has dried. Otherwise, correct measurement may not be executed. ♦ If you have selected CMYKOrGr ink set, this will not be displayed.

The chart for measuring the colors has two areas.
The chart to be printed differs depending on the measurement device.

a. Measuring part
Measure the colors by using a measurement device.

b. Visual checking part
Visually check this part.

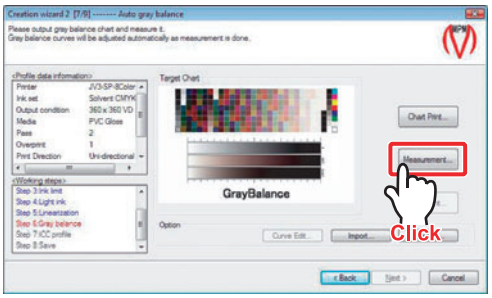


When SpectroScan is selected in [Measurement]

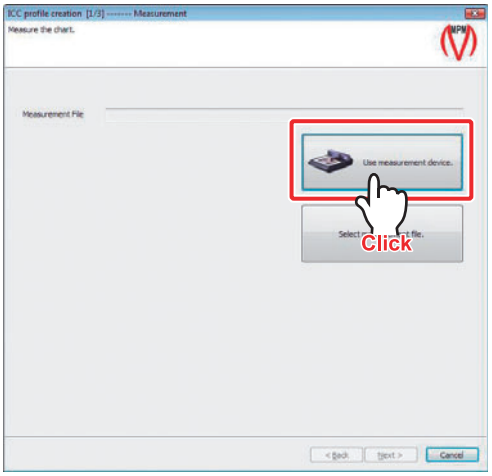
When Profile (V2) is selected
Continued from P.2-30 "Automatic adjustment of Linearizaion"

1 **Click Chart Print... to print the chart for measurement.**
(☞ P.2-27 Steps 1 to 2)

2 **Click Measurement... and measure the printed chart.**



3 **Click** **Use measurement device.** .



4 **The MeasureTool 5.0 is activated.**

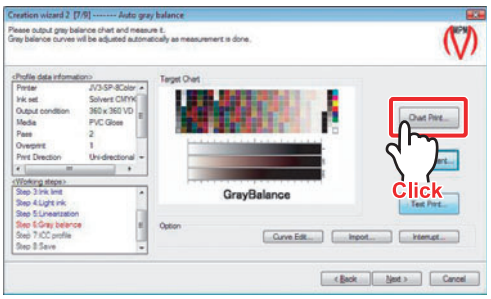
NOTE!	♦ When ProfileMaker dongle is not used, MeasureTool5.0 is activated in demonstration mode. When activated in demonstration mode, DTP-41 cannot be used. (Other color measuring device can measure the color without problem.)

5 **Measure the colors.**

(☞ P.2-29 Step 6)
Select "XX_GrayBalance.txt" for the chart name. (XX is the name of the color measuring device.)

6 **Click** **Chart Print...** **to print the automatic adjustment results.**

(☞ P.2-27 Steps 1 to2)



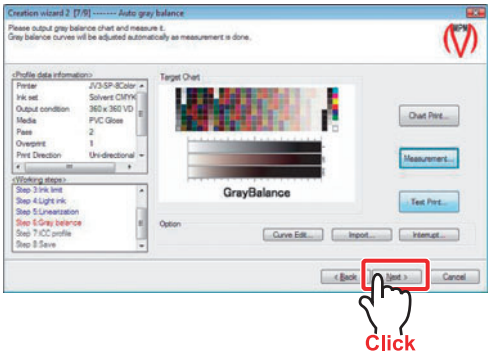
7 At the visual checking part of the chart, check whether the gradation of each color is smooth.

♦ If the adjustment looks insufficient, measure the colors on the chart printed in Step 6.
Re-execute the automatic adjustment by the measurement as the fine adjustment.

♦ Also, you can adjust the each color data manually by clicking **Curve Edit**. (☞ P.2-69)

Repeat this operation until the sufficient adjustment is made.

8 Click **Next** .

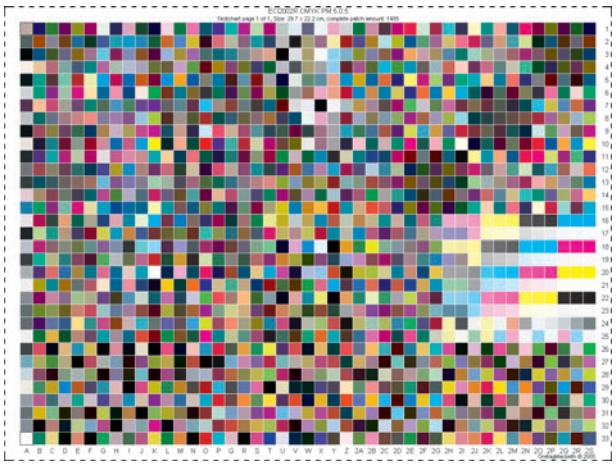


♦ When editing the curves, click **Test print...** and check the printed results.
The image file supplied by MIMAKI is stored. (TestPrint_GrayBalance.tif)
When you have the chart exclusively for confirmation, select the image file you have.

Continued on P.2-52 "ICC profile creation"

ICC profile creation

The ICC profile is created by printing the chart and measuring the colors.
This item applies to the case when "ICM" is selected in "Color matching" of the Raster Link series.

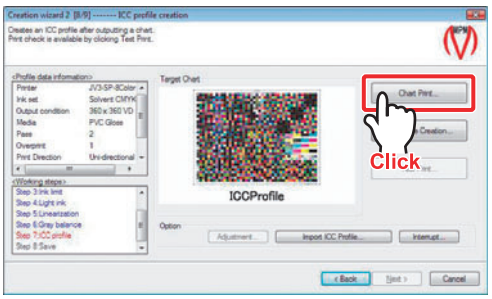


When SpectroScan is selected in [Measurement]

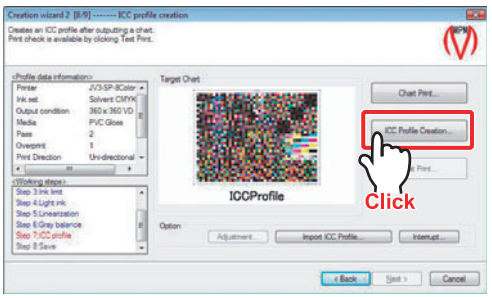
Continued from P.2-51 "Automatic adjustment of Gray balance"

1 **Click Chart Print... to print the chart for measurement.**

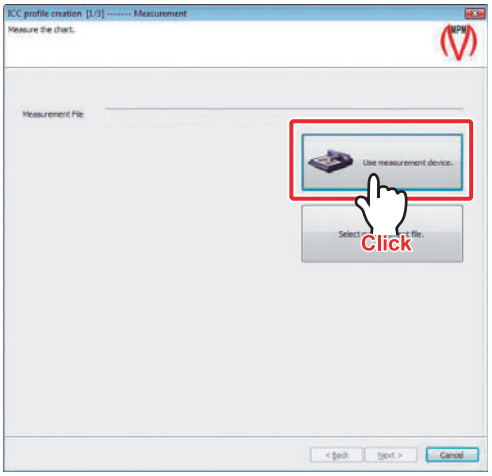
(☞ P.2-27 Steps 1 to 2)



2 **Click ICC Profile Creation... .**



3 **Click**
Use measurement device. .



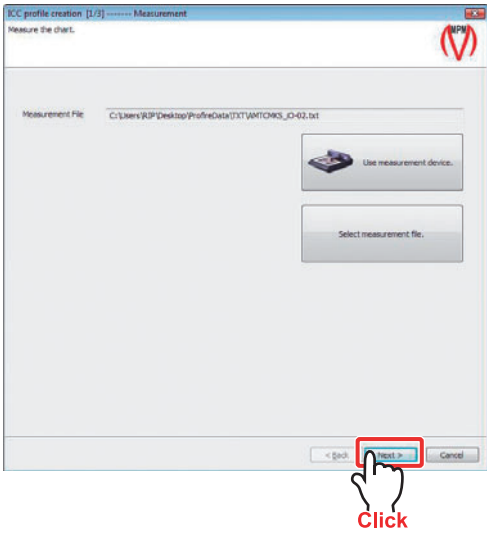
4 **The MeasureTool 5.0 is activated.**

NOTE!	♦ When ProfileMaker dongle is not used, MeasureTool5.0 is activated in demonstration mode. When activated in demonstration mode, DTP-41 cannot be used. (Other color measuring device can measure the color without problem.)

5 **Measure the colors.**

(☞ P.2-29 Step 6)
Select "XX_IccProfile.txt" for the chart name. (XX is the name of the color measuring device.)

6 When the measurement is completed, click Next .



7 Specify the "Profile Size" and "Perceptual Rendering Intent" then click Next .

- **Profile Size**

  High accuracy :

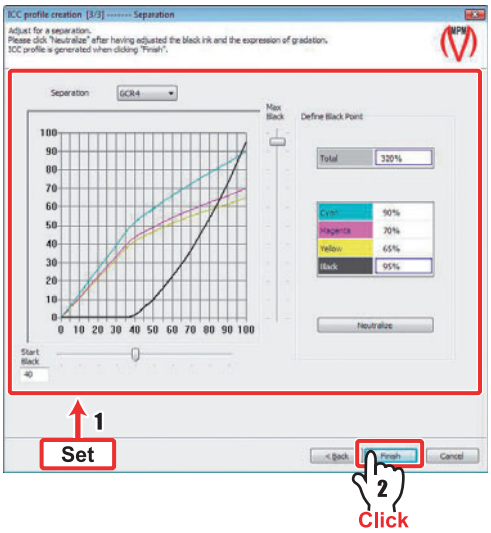
  Create the more accurate ICC profile than [Normal] for approximately 3 minutes.
  The file size of the ICC profile is about 2MB.
  Use this setting when creating the device profile with the print condition that it is easy to be grainy on printing.

  Normal:

  Create the ICC profile in short time (approximately 1 minutes).
  The file size of the ICC profile is about 700KB.

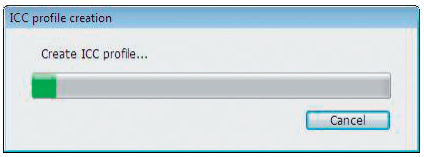
8 Adjust the black replacement.

(P.2-71)



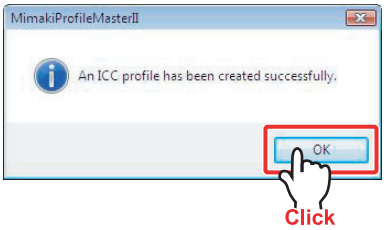
9 Click Finish .

10 ICC profile creation begins.



11 Click OK .

Control returns to the Creation wizard screen.



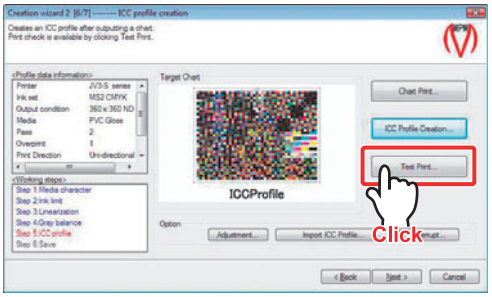
NOTE!

♦ If wrong color measurement file is selected, the message shown on the right appears.

12 Click Test print... and then check the printed device profile.

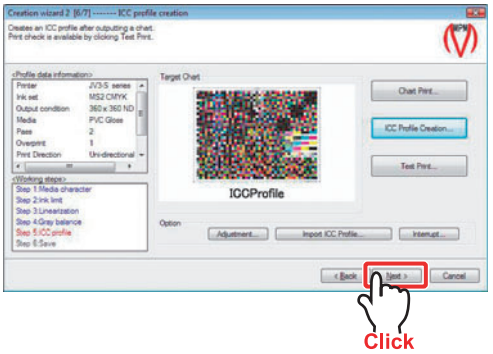
(P.2-15 Steps 2 to 5)

♦ The image file supplied by MIMAKI is stored.
(TestPrint_ICCProfile.tif)
When you have the chart exclusively for confirmation, select the image file you have.



13 When checking has been completed, click Next .

♦ If you set the black printer again, click [TestPrint] to check the printing contents.



When Profile (V2) is selected
Continued on P.2-60 "Device profile saving"

When Profile (V3) is selected
Continued on P.2-57 "Basic setting of calibration (when selecting profile (V3))"

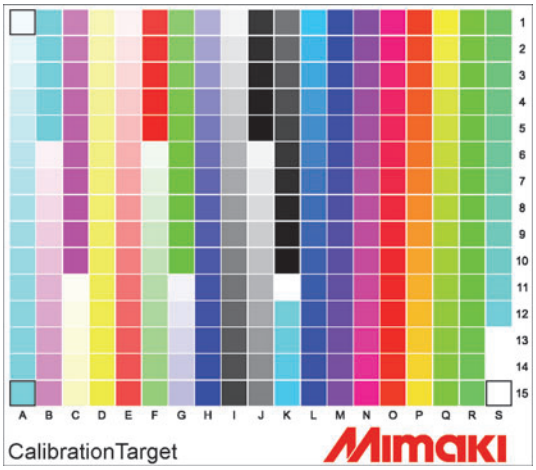
Basic setting of calibration (when selecting profile (V3))

Record the "base colors" to adjust the colors produced by the printer when they are different from the previous colors due to various factors.
With the calibration function, adjust the changed colors produced by the printer so that they may look similar to the "base colors".

♦ If you record the base colors in the profile, you will be able to adjust the profile so that it may look similar to the status recorded this time even if the colors may change due to temperature change or printer head adjustment.

NOTE!

♦ Before you perform the basic setting of the calibration, fully read the P.App.-6 "Note when measuring colors" so that you may not include an abnormal value in the color measuring result.
♦ If the recorded color measuring result in the basic setting has an abnormality, as the calibration cannot be performed normally, the changed colors cannot become similar to the "base colors".
♦ If you have selected CMYKOrGr ink set, this will not be displayed.

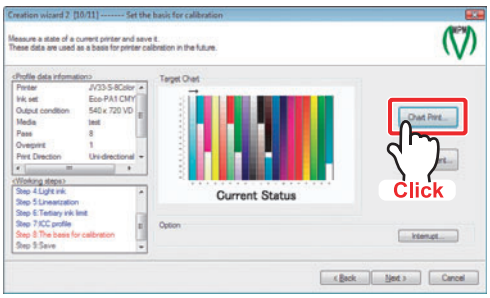


When SpectroScan is selected in [Measurement]

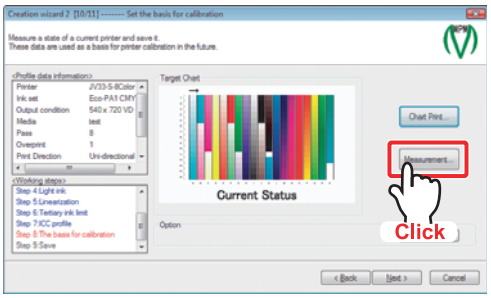
Continued from P.2-56 "ICC profile creation"

1 **Click Chart Print... to print the chart for measurement.**

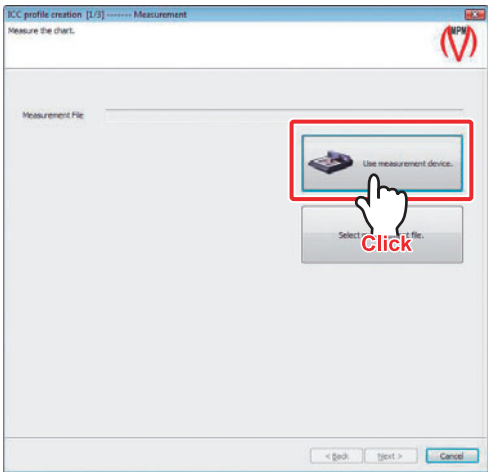
(☞ P.2-27 Steps 1 to 2)



2 **Click** Measurement... **and measure the printed chart.**



3 **Click** Use measurement device. **.**



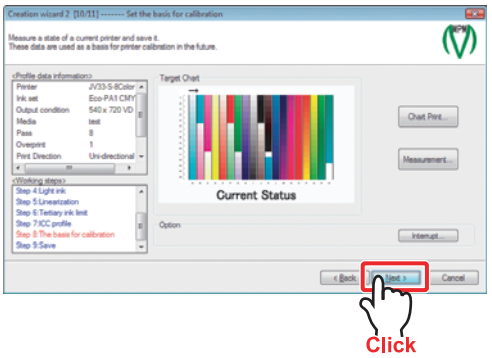
4 **The MeasureTool 5.0 is activated.**

NOTE!	♦ When ProfileMaker dongle is not used, MeasureTool5.0 is activated in demonstration mode. When activated in demonstration mode, DTP-41 cannot be used. (Other color measuring device can measure the color without problem.)

5 **Measure the colors.**

(P.2-29 Step 6)
Select "XX_CalibrationTarget.txt" for the chart name. (XX is the name of the color measuring device.)

6 **When the measurement is completed, click Next .**



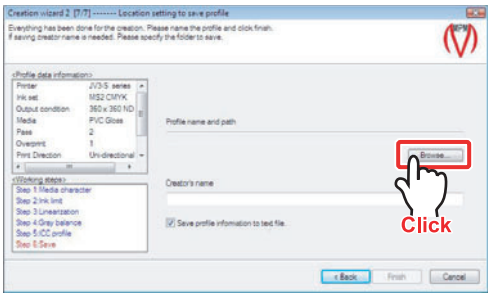
Continued on P.2-60 "Device profile saving"

Device profile saving

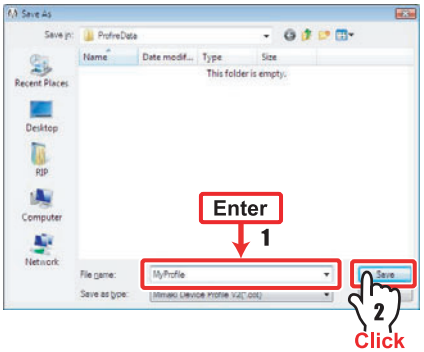
Save the created device profile.

Continued from P.2-56 "ICC profile creation"

1 **Click Browse .**



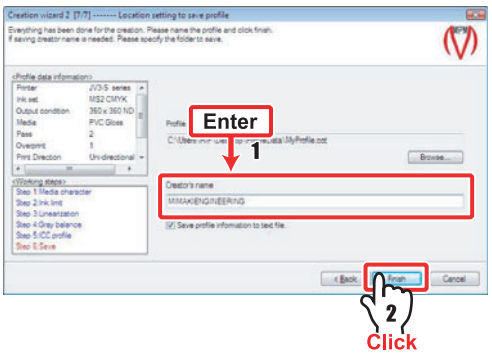
2 **Specify the folder for saving the profile, and then enter the file name.**



3 **Click Save .**

Control returns to the "Creation wizard".

4 **Enter the creator's name.**



5 **Click Finish .**

When the device profile creation has been completed, the screen returns to the main menu.

Function buttons

The explanation is the following function buttons used when creating and editing a device profile.

- Test Print button, Chart Print button (This page)
- Import button (P 2-67)
- Curve Edit button (P 2-69)
- Interrupt button (P 2-74)
- Adjustment button (P 2-71)
- Read measurement file (P 2-77)

Test Print button, Chart Print button

These buttons are displayed in the Device Profile Creation wizard and in the dialog used to edit the device profile.

Chart Print... ?Output the required charts at the time of device profile creation.

Test print... ?Select the image files and print the images applying the data that has been set.

♦ The following image formats can be selected in Test Print.

Image format	Color mode
TIFF	CMYK、RGB * (Images compressed with LZW cannot be printed)
BMP *	Full color, Index color

*. RGB color mode for TIFF and BMP can be selected only in the Test Print of the ICC profile.

*. CMYKOrGr inkset is selected, "Test Print" is not displayed than ICC profile.

NOTE!

♦ The image size of the chart used for measuring color cannot be changed. Set a media more than 600 mm (23.6 inch) wide. For small printers, there is a small chart.

♦ For handling media, see the User's Guide for each model.

The following dialog is displayed when:

Click Test print .→Select the image to be output.

Click Chart print .

Input scan, feed
Display the size of the input images.
Output scan, feed
Display the size of the output images after the layout has been adjusted.

Media scan, feed
Display the set media size. When clicking [Get media size], retrieve the media size in scan and feed from the connected printer.

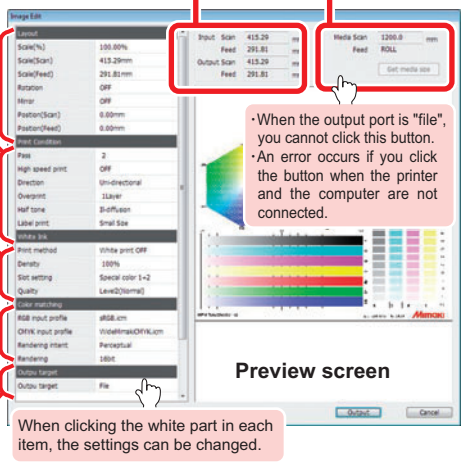
Layout
The layout of the output image, such as the size and position, is adjusted.

Print Condition
Printing conditions are set.

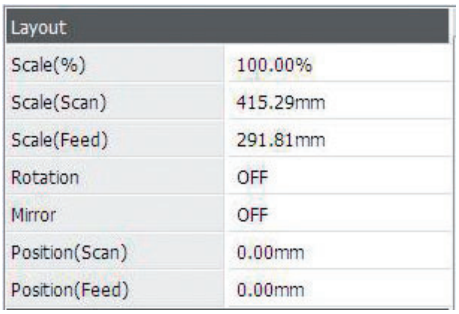
White Ink
When the printer that can use the white ink is selected, the printing method for white ink is set.

Color Matching
Using the completed profile, color-matching procedures are carried out. This item can be used after ICC profile is created.

Output target
Select a output target.



■ Layout



Layout	
Scale(%)	100.00%
Scale(Scan)	415.29mm
Scale(Feed)	291.81mm
Rotation	OFF
Mirror	OFF
Position(Scan)	0.00mm
Position(Feed)	0.00mm

● **Scale(%)/(Scan)/(Feed)**
The image size to be output is resized. Resize by entering the rate or value (millimeters or inches).
- The ratio of size of the scan and feed direction is fixed.
- The scale may be designated within a range of 25.4 to 2500mm (1 to 98.4 inches) or 300%.

● **Rotation**
The image to be output is rotated counter-clockwise.
(OFF, 90 deg, 180 deg, 270 deg)

● **Mirror**
The image to be output is turned over horizontally. (ON,OFF)

● **Position (Scan)/(Feed)**
Specify the distance of the image position from the origin designated by the printer.
- The range in which the images can be positioned 0 to 5000mm (0 to 196.85 inch).

NOTE!

- ♦ When using sublimation ink or when printing on the back of the transparent media, make sure to use mirror function. Otherwise, the image will be reversed when transfer printed. However, when the original image is already reversed, there is no need to use the mirror function.
- ♦ When the image size exceeds the media size, and when the data is out of media due to positioning data, the dialog to confirm whether you wish to continue to print appears. When you redo the setting and print the images within the media, click **No** and change the setting.
- ♦ When the image exceeds the output width, the exceeded portion is not output.
- ♦ When the position of the origin is outside the output range, the image is not output.

■ Print Condition

When Chart Printing, Pass/High speed print/Print Direction/Overprint/Half tone are not displayed.
These are printed using the profile conditions.

Print Condition	
Pass	2
High speed print	OFF
Direction	Uni-directional
Overprint	1Layer
Half tone	Ill-diffusion
Label print	Small Size

● **Pass**
Set the number of passes when printing.

● **High speed print**
When you wish to print quickly, select [ON]. (When set to [ON], the image quality is not as good as normal.)

● **Printing direction**
Select the print direction.

● **Overprint**
Set the number of overprints.

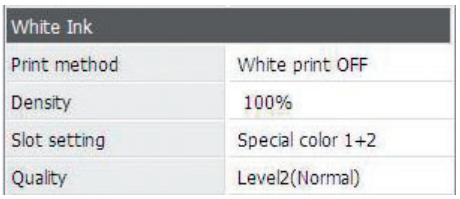
● **Half tone**
Select the method for Half tone.

● **Label print**
The device profile information is added to the image.
Whether label print is used or not, or the size of label print can be selected. (No Print, Small Size, Medium Size, Large Size)
The following information is printed.

- Date
- Output data in the adjustment stage
- Printer information (Printer name, output setting)
- Ink set name
- The items set in the [Label] in Option settings (☞P 1-9).

■ White Ink

It is displayed when a printer that can use the white ink is selected.



● **Print method**

White print off

Select this when using a media whose surface is white.

White ink to Full color

Select this when using a media whose surface is not white.

Full color to white ink

Select this when printing on the rear surface of a transparent media. When this parameter is selected, the [Mirror] setting is automatically activated.

● **Density**

Density of white ink is set.

● **Slot setting**

Select the color setting of the slot that includes white ink. To confirm the color setting, see the User's Guide for the printer.

● **Quality**

This is the setting when color ink is drawn over the white ink drawing. There are LEVEL 1 to 3. The larger the number, the longer the time from printing with white ink to printing with colored inks.

If you make the LEVEL larger, the drying performance of the white ink becomes better, but the time for drawing becomes longer.

NOTE!	♦ When using white ink with UJF series, JF-16XX series or JFX, the white image and the full color image are output in one stretch. As it is dangerous, do not touch the printer until the output ends completely. ♦ “Quality” is displayed only if you have selected an ink set that can include white ink, with a vertical printer.

■ Color Matching

Using the completed device profile, color matching procedures are carried out. This item is displayed in the test print of the ICC profile.

Color matching	
RGB input profile	sRGB.icm
CMYK input profile	WideMimakiCMYK.icm
Rendering intent	Perceptual
Rendering	16bit

● **RGB input profile**
This is the input profile used when an RGB image is output. This can be selected from the RGB input profile that has been installed in the target RIP.

● **CMYK input profile**
This is the input profile used when a CMYK image is output. This can be selected from the CMYK input profile that has been installed in the target RIP.

● **Rendering Intent**
This is to select means of color matching.

● **Rendering**
This is to select the accuracy of the color matching processes when output with V3 profile.

■ Output target

Out of the printers connected with the PC, the printer connected with the port held by the printer selected at the Setting of the Profile conditions (P 2-5) is displayed.

Outpu target	
Outpu target	File

Import button

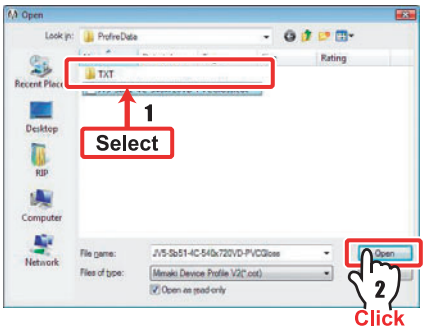
Click Import during device profile creation to copy the data from the existing file to the data for the items being set.
This is convenient when setting the same values as the profile that has already been created.

NOTE!	♦ Specify the device profile for the import source with the following conditions: • Data exists for the items that are being set • Ink with the same color as the device profile being created exists When a device profile with conditions other than the above is designated, an error message appears and data cannot be imported.

♦ There is no error when importing Feed correction and Heater temperature and when there is no data in the import source device profile. The default value will be set. If necessary, change the value.

1 **Click Import .**

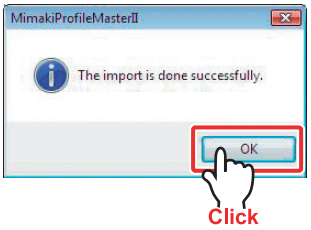
2 **Select a profile to be imported.**



3 **Click Open .**

4 **The import is completed.**

The confirmation dialog is displayed.



5 **Click OK .**

Import Compatibility Table

When the device profile of import source and of import destination are different, some items may not be imported.

	Media character	Lineariza-tion	Ink limit	Gray balance	ICC profile	Variable dot	Light ink
V2→V3	○	×	×	×	○	×	×
V3→V3	○	○	○	○	○	○	○
V3→V2	○	×	×	×	○	×	×
V2→V2	○	○	○	○	○	○	○

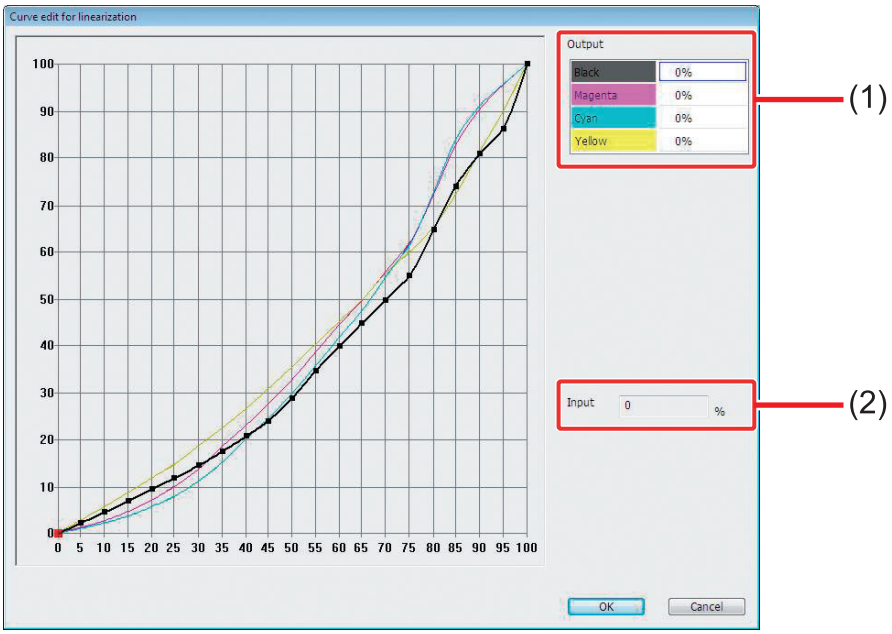
NOTE!

♦ Besides the above, there are the following restrictions on compatibility between CMYK profile and CMYKOrGr profile.

	Media character	Lineariza-tion	Ink limit	Gray balance	ICC profile	Variable dot
CMYK → CMYKOG	○	×	×	×	×	×
CMYKOG → CMYK	○	○	○	○	×	○

Curve Edit button

Curve Edit is function to adjust the linearization curve and the gray balance curve.
When Curve Edit is clicked, the following dialog appears.
The figure below shows the linearization curve.
To edit curves, use the mouse and the keyboard.
You can edit the curve indicating the control points (red).
The control points are shown at every 5% interval.
The color of the curve corresponds to the color of ink.
The curve shown in a solid line can be edited. The dotted line displays the initial state of the curve when the dialog was opened.



(1) Output
Display the ink value of each ink at the selected control points.
Click the figures to edit the value. If you click the value of a curve different from the curve currently selected, the selection of the curve is also switched.

(2) Input
The coordinates of the horizontal axis of the control point currently selected is displayed. These figures cannot be changed.

How to edit a curve

Operations with the mouse

Operation	Explanation
Left-click the control point of the selected curve	The selected control point turns red.
Double left-click the control point of the selected curve	The control point is deleted. This is used when you want to edit over a wider range.
Left-click the selected control point with the curve disappeared (Left-click the crossing point of the curve and the auxiliary line coming from the horizontal axis)	The deleted control point is restored.
Drag the control point of the selected curve	The control point is moved up and down. The control point does not move sidewise. While dragging, the control point moves up and down according to the movement of the mouse cursor in the curve editing area.
Right-click within the curve editing area	A pop up menu displays the following 6 functions for the curve displaying the control point: • Reset Return to the shape when the curve editing dialog was opened. • Identity Make a straight line (curve) of 0 to 100%. • Gamma Make the curve with a gamma value. Displays a dialog for inputting the gamma value. • Minimum The whole curve is made to the lowest value. • Copy Copy the selected curve on the memory. • Paste Overwrite the curve copied on the memory with the selected one. This function becomes selectable, when perform the copy.
Left double-click the curve not selected.	Changes the selection of the curve.

Operations with the keyboard

Operation	Explanation
↑, ↓ key	Moves the selected control point up and down.
←, → key	Moves the selection of the selected control point. When the control point does not exist on the curve, moves while adding the control points.
Shift + ↑, ↓ key	Changes the selection of the curve. The curve may be selected in the order indicated in the list of output values.

Adjustment button

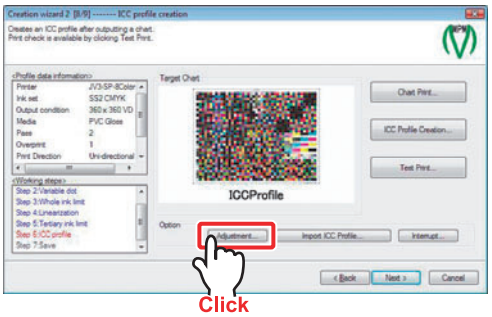
Clicking on Adjustment, "Improvement on Yellow" and "Black Replacement" can be set.

NOTE!	♦ When setting both "Improvement on Yellow" and "Black Replacement" are set, set Black Replacement before the Improvement on Yellow. If these are set in the reverse order, the process for improving impure yellow becomes invalid.

Improve impure Yellow

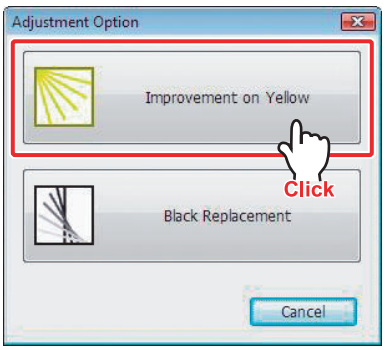
This avoids the phenomenon Cyan mixing with Yellow. The Yellow is hold at a constant hue without tone jump.

1 **Click Adjustment in the ICC profile creation screen.**

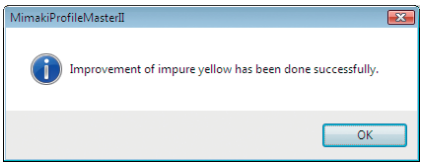


2 **Click Improvement on Yellow.**

The improvement on yellow is automatically processed.



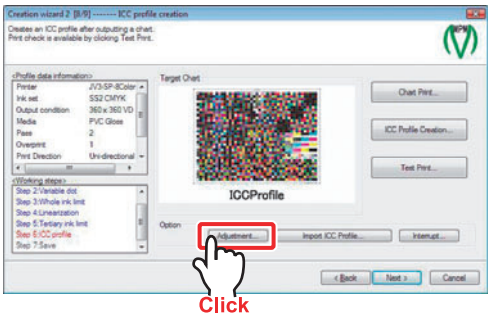
3 **Click OK.**



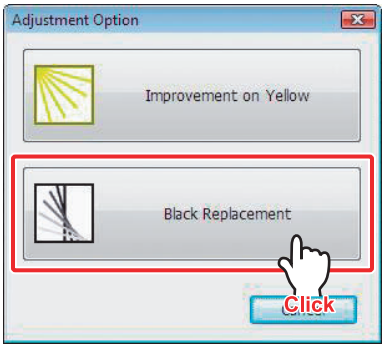
Black Replacement

Set for replacing the gray component when C+M+Y are mixed with K ink. Adjusting black replacement is effective in shadow areas, etc., when an excess ink value overflows, or the black printing is desired to be kept.
Replacement with K ink set here will become valid when the color matching and ICM are turned ON with the Raster Link series.

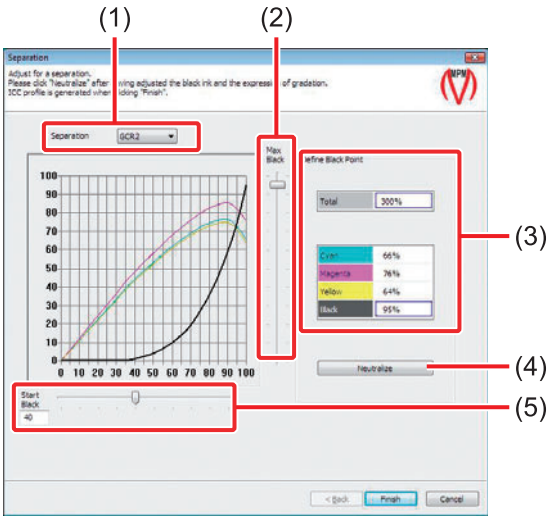
1 **Click Adjustment in the ICC profile creation screen.**



2 **Click Black Replacement .**



3 Perform the setting of each item.



(1) Separation
Change the balance between a quantity of black ink and quantity of CMY inks to replace with black ink in the gray scale.

(2) Max Black
Set the quantity of black ink in the case of the darkest color.

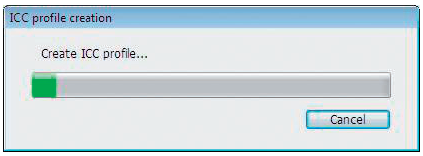
(3) Define Black Point
Set the quantity of each CMYK ink at the darkest color. The "Total" is the added value of the quantity of each CMYK ink.

(4) Neutralize
With the use of "Separation", "Max Black" and "Define Black Point", the distorted gray color will be automatically adjusted. Click after completing each setting.

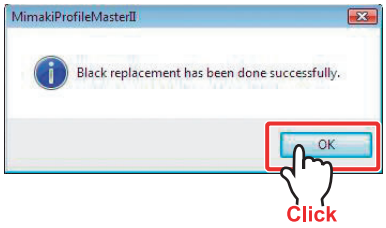
(5) Start Black
The density of black ink started to be contained is designated.
If you set this to 40 to 60, the granular feeling of the highlight of Black dots will disappear.

4 When finishing the setting, click Finish .

Creates an ICC profile.



5 Click OK .



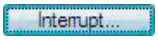
NOTE!	♦ In case that gray is expressed with CMY, if you increase the value of K ink, granularity may be felt in the highlighted portion or initial portion where K ink is entering, but the hue in the medium tone is better. Although slightly, K ink has a nature to be tinged yellowish or reddish, make sure not to increase value of K ink, if you want to output bluish gray.

Interrupt button

Interrupt is a function to save a device profile which has been created halfway (interrupt file).
The Interrupt button is displayed on every screen of the Creation wizard.
The file extension of the interrupt file is "*.chocot".
The interrupt file can be restarted by Resume (P 2-75).
The Interrupt file (*.chocot) cannot be installed with the Raster Link series.

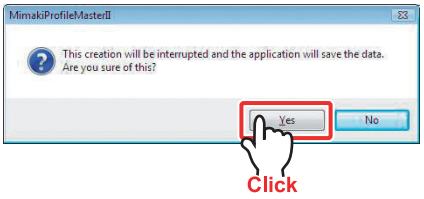
1 **Click . Interrupt**

The dialog to confirm interruption of profile creation appears.

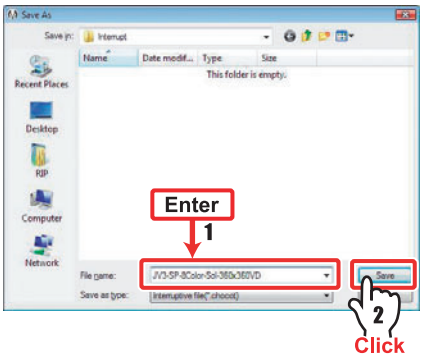


2 **Click Yes .**

The dialog to save the interrupt file appears.

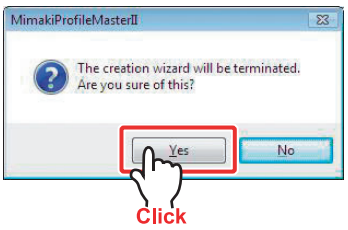


3 **Specify the folder for saving the profile, and then enter the file name.**



4 **Click Save .**

The dialog to confirm exiting the Creation wizard appears.



5 **Click Yes .**

The screen returns to the main menu.
When you continue to create the profile, click No .

Resume

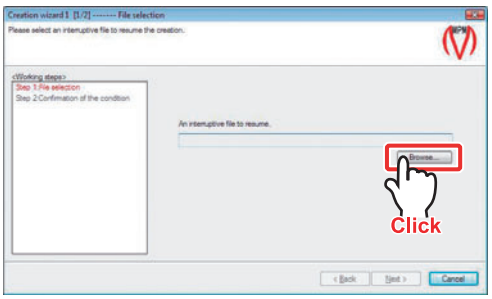
Opens the file saved in Interrupt (P 2-74) and completes the device profile creation.

1 **Select the [Device Profile] tab and click "Resume".**

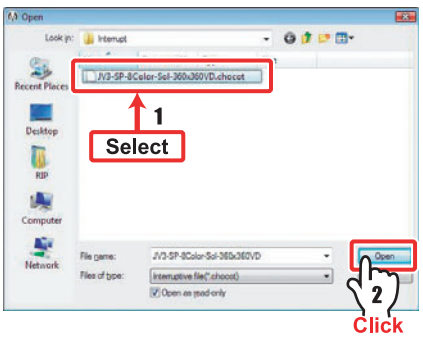
The Creation wizard will appear.

2 **Click Browse .**

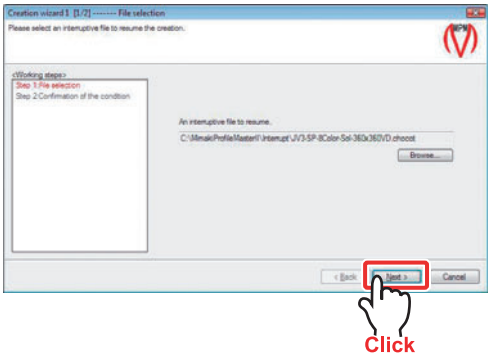
Open the interrupt file to be resumed. The only selectable file extension is "*.chocot".



3 **Select the file and click Open .**

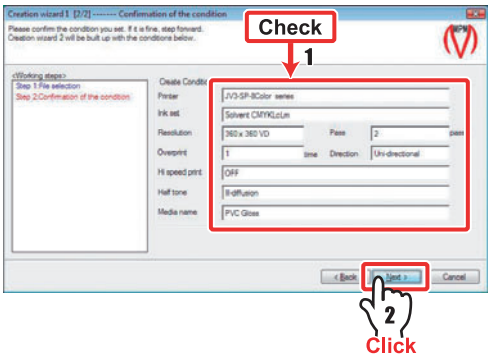


4 Click Next .



♦ When either the interrupt file created by the trial version or the interrupt file in which the media deleted from MPM II is specified, the media selection screen appears. Select the media and click Next .

5 Confirm the creation conditions.



6 Click Next .

The screen displays the Creation wizard interrupted on the way.

7 Resume the device profile creation.

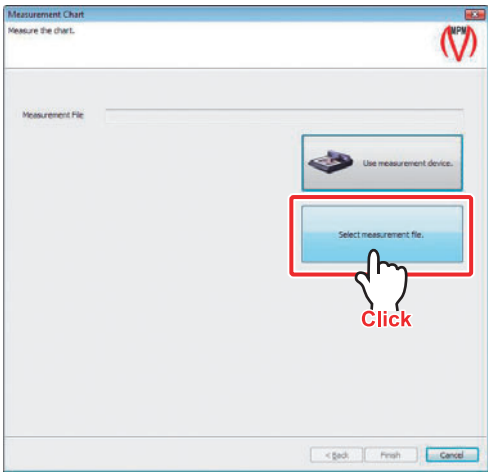
♦ The following procedures are the same as the those in the "Creation wizard 2". (P 2-7)

Read measurement file

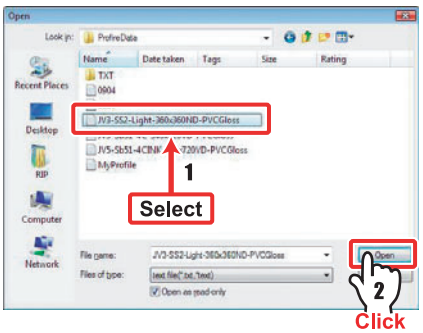
On the measurement screen of the Linearization/Gray Balance/ICC profile, the measurement that has already been saved can be read and used for the measurement of the profile you are creating.

1 **On the measurement screen, click Measurement... .**

2 **Click Select measurement file. .**



3 **Select the file to read the measurement and click Open .**



4 **Click Finish .**

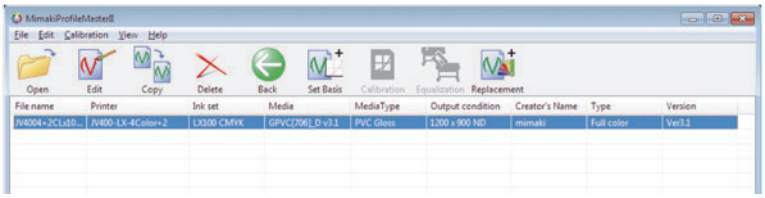
Chapter 3
Editing a device profile

Flow of the Device Profile editing

◆ **Select [Edit]** P 3-3

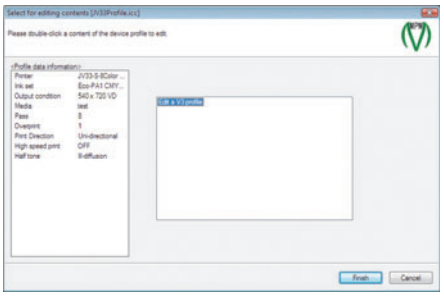
◆ **Adding the profile to be edited to the list.** P 3-4

Add device profile you want to edit to the editing list.



◆ **Editing a device profile** P 3-6

Edit the registered device profile.



Select [Edit]

1 **Select the [Device Profile] tab.**

2 **Click "Edit".**

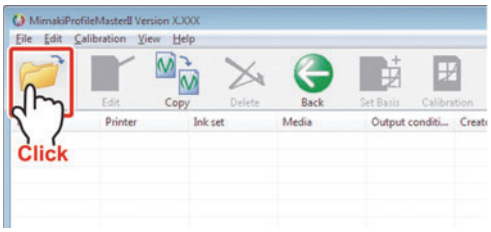
The edit list is appears.

Continued on P.3-4 "Adding the profile to be edited to the list."

Adding the profile to be edited to the list.

Continued from P.3-3 "Select [Edit]"

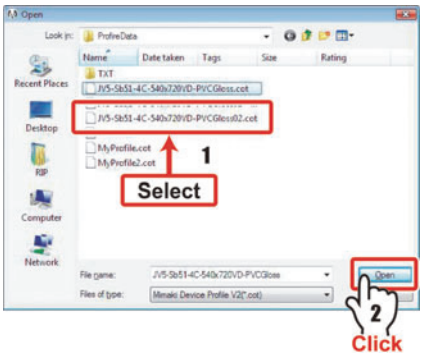
1 **Click "Open".**



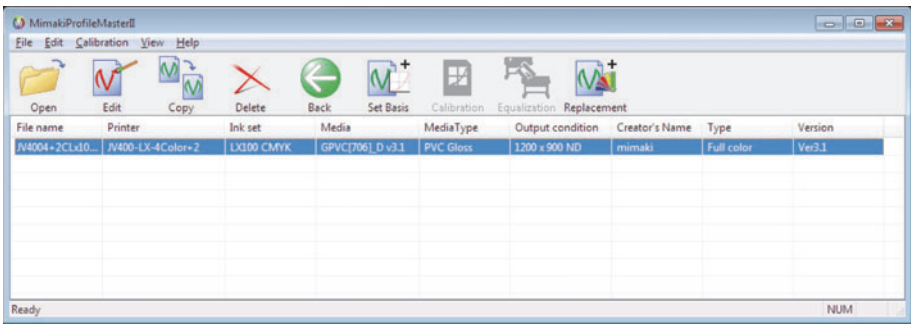
2 **Select the device profile to edit.**

To select more than one device profile, hold down the Ctrl key while clicking the left mouse button.

3 **Click Open.**

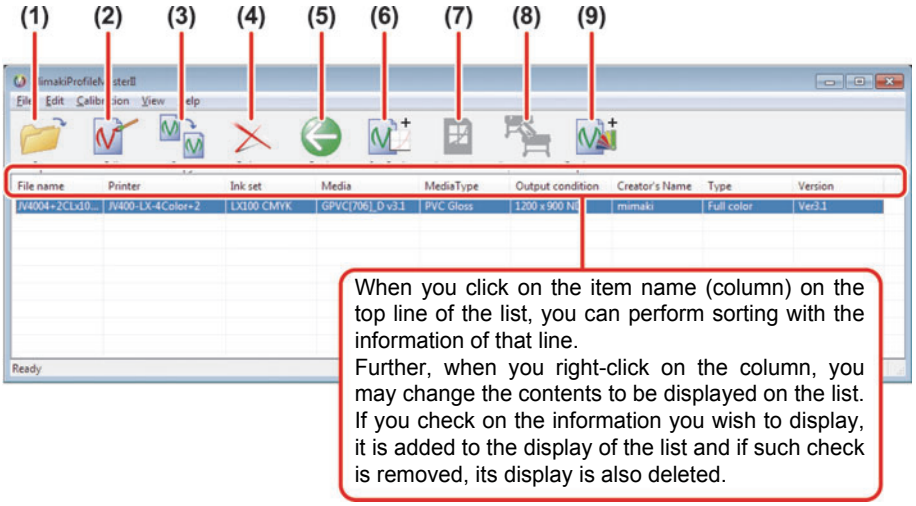


The selected profiles are added to the edit list.



Edit list

The added device profile is displayed.
The amount of ink that is consumed when a device profile is selected and used for printing can also be calculated.



(1) Open — Adds a device profile to the list. (☞ P.3-4)
Only profiles for use with the Raster Link series can be opened.

(2) Edit — Edits the device profile selected in the edit list.

(3) Copy — Creates a new device profile with different parameters based on the device profile selected in the list. (☞P.5-2 "Copy wizard")

(4) Delete — Deletes the selected device profile from the profile list.

(5) Back — The screen returns to the main menu.

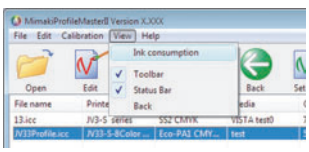
(6) Set Basis — The target information for using the calibration and equalization functions are registered. Valid only with V3 profile.
(☞P.4-3 "Recording the base colors (Set Basis)")

(7) Calibration — When the colors of the printer have changed, adjust to the colors recorded on "Set Basis". Effective only with the V3 profile in which the target information is recorded on "Set Basis".(☞P.4-5 "Performing calibration")

(8) Equalization — When more than one printer of the same type is used, approximate the colors between the printers. Effective only with the V3 profile in which the target information is recorded on "Set Basis".(☞P.4-14 "Performing Equalization")

(9) Replacement — The information for calculating the color information such as color collection of Raster Link Pro III or later in Raster Link series is recorded. Valid only with V3 profile.

♦ Select [Ink consumption] from the View menu to calculate the ink value consumed when the selected profile is used. (☞ P.3-17)



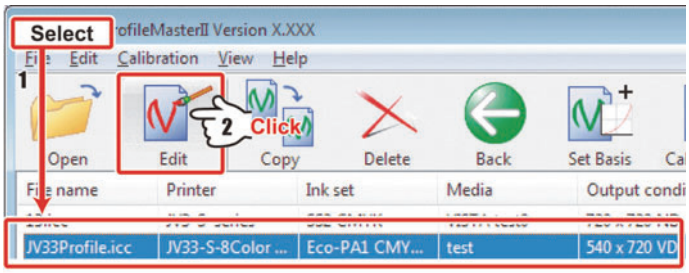
Continued on P.3-6 "Editing a device profile"

Editing a device profile

Continued from P.3-4 "Adding the profile to be edited to the list."

1 Select the device profile to edit and click "Edit".

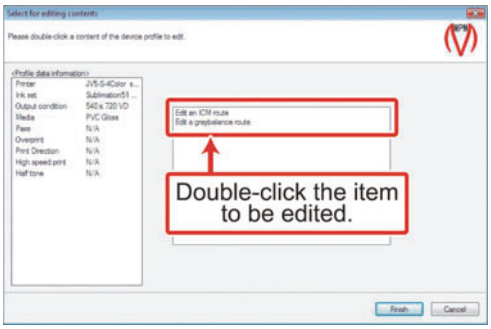
The “Profile edit” window appears.



2 Double-click the editing contents of the device profile.

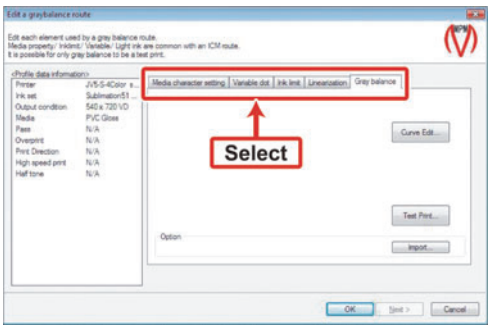
The number of items and the substance of editing vary depending on the device profile.

For details, refer to P 3-8 .



3 Select the item to be edited.

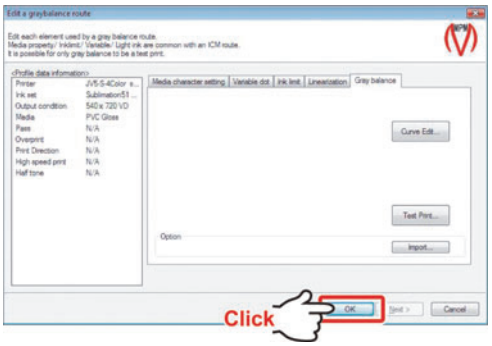
Select the tab, and make editing in the same manner as preparing the profile creation.



♦ If you adjust the linearization, the smoothness of gradations may be affected and C+M+Y gray that is printed using a Raster Link series (with color matching ON and gray balance ON) may appear with a tinge of color.
If this happens, reaadjust the gray balance so that the gray is reproduced correctly.

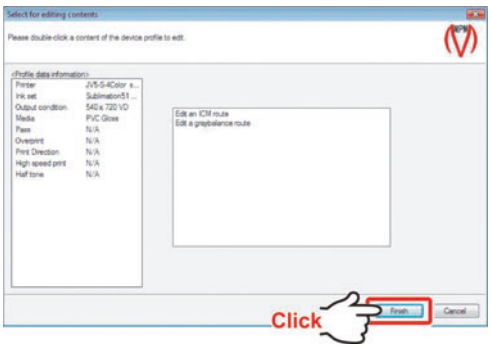
4 Click OK when you have finished making changes.

The screen of step2 appears.
When editing other route in a row, double-click it.



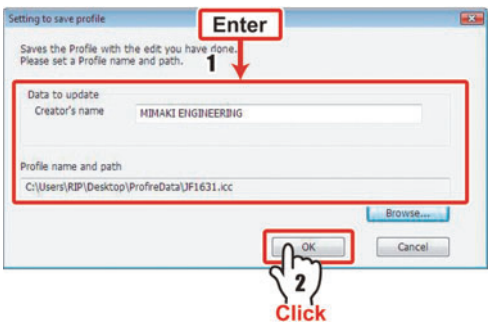
5 After editing all, click Finish.

"Setting to save profile" screen appears.

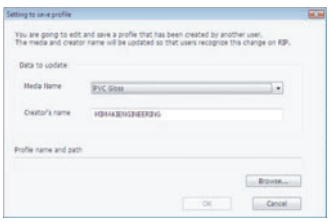


6 Enter the profile name and path, and creator's name, and then click OK.

The screen returns to the edit list screen.



♦ If you are editing and saving a device profile that was created by someone else, select the media name.



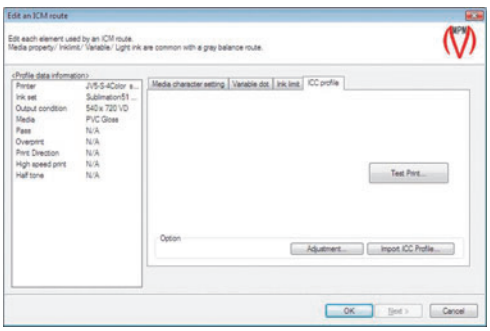
NOTE!

- ♦ The profile editor allows you to save device profiles under a different name. In this case, device profile parameters such as the printer, ink set, resolution, and media name are exactly the same as the original device profile.
- ♦ In Raster Link Pro, device profiles that are installed later overwrite previously installed device profiles. (When installed simultaneously, we do not guarantee which one is installed first.) Take care when installing device profiles in Raster Link Pro.
- ♦ In Raster Link series other than Raster Link Pro series, it is possible to use Profile-Manager to choose between using existing device profiles and device profiles that are installed later.

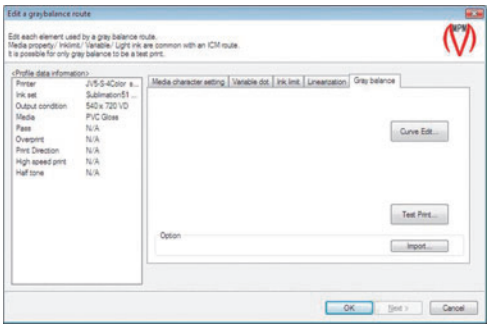
■ List of Editing Items

		V2 profile		V3 profile		
		ICM route	Graybalance route	V3 profile	Calibration	Equalization
Ink limit		○	○	○		
ICC profile		○		○		
Media character setting	Feed correction	○	○	○		
	Heater temperature	○	○	○		
	Feed setting	○	○	○		
	Dot size	○	○	○		
	Top Blower			○		
	Feed Direction			○		
Extended information	UV illumination			○		
Variable dot		○	○	○		
Gray balance			○	○		
Linearization			○	○		
Light ink		○	○	○		
Ink limit adjustment					○	○
Automatic adjustment of Linearizaion					○	○
Automatic adjustment of Gray balance					○	○
Confirm delta E					○	○

■ Edit an ICM route

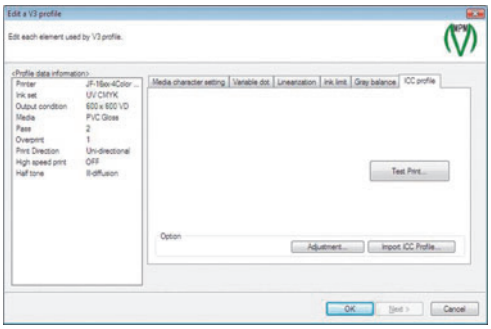


■ Edit a graybalance route

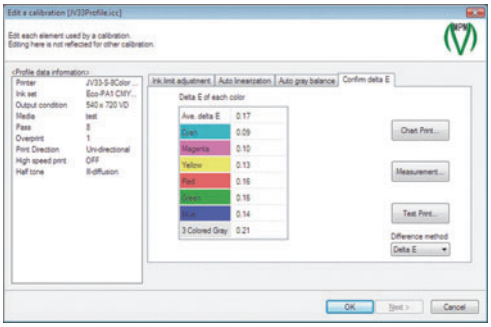


Explanation	Reference page
Adjust the quantity of each ink.	P 3-10
Perform adjustment, import, etc. of ICC Profile.	P 3-10
Check "Switch a Feed correction setting on/off" to adjust the media correction value.	P 3-10
Check "Switch heater settings on/off" to adjust the heater temperature.	P 3-11
Check "Switch a Feed speed setting on/off" to adjust the media feeding speed.	P 3-11
The dot size can be adjusted when JF-16XX series, UJV-160, JFXUJF-706, UJF-3042FX, UJF-3042HG, UJF-6042 or Tx400 is set on the printer. (When the printer is set to JV3, the editing of dot size cannot be performed.)	P 3-11
The air volume of Top Blow can be changed when JV300 or CJV300 are set on the printer.	P 3-12
When UJF-3042FX, UJF-3042HG or UJF-6042 is set on the printer and the CMYKLcLm color set is set on the ink set, you can change the feed direction.	P 3-12
The UV lamp's shine mode can be changed by changing the "UV lamp settings".	P 3-12
Parameter of the variable dots is displayed. (Only when variable dots is selected). This item is not for editing.	-
The curve of each ink is adjusted.	P 3-12
The curve of each ink is adjusted.	P 3-13
The setting of light ink being currently used is displayed. (Only when light ink is selected). This item is not for editing.	-
The quantity of each ink is automatically adjusted.	P 3-13
The curve of each ink is automatically adjusted.	P 3-13
The curve of each ink is automatically adjusted.	P 3-14
	P 3-14

■ Edit a V3 profile



■ Edit a calibration/Equalization

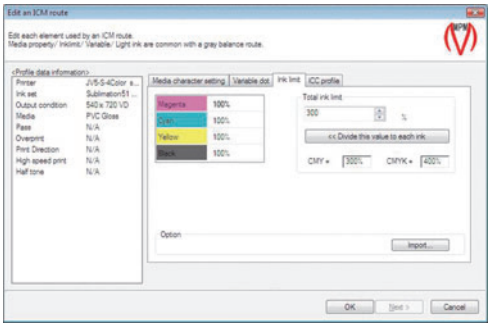


♦ Can be edited only when profiles set with Calibration Function(P.4-2) or Equalization Function(P.4-13) are selected.

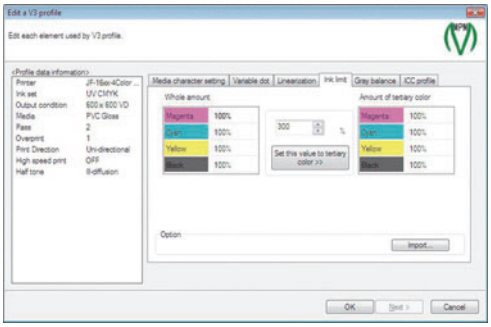
Editing the Ink limit

Click the [Ink limit] tab to display the following screen.

In the case of V2 Profile
For editing method, refer to P.2-22 .

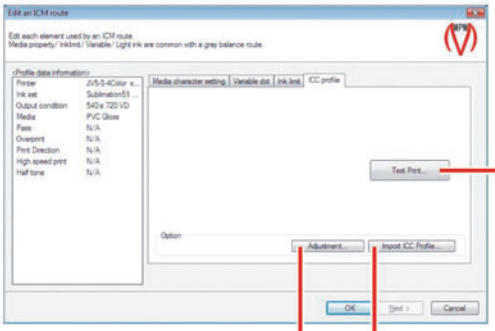


In the case of V3 Profile
For editing method, refer to P.2-45 .



Editing the ICC profile

Click the [ICC profile] tab to display the following screen.



Print out referring to P.2-15 .

Make adjustment referring to P.2-71 .

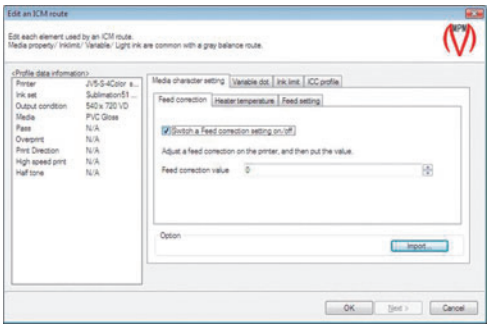
This function is almost the same as **Import** . You can select files that have a file extension of .cot, .icm or .icc.
Make adjustment referring to P.2-67 .

Editing the Media character setting

Click the [Media character setting] tab to display the following screen.
The items that can be edited on this tab vary depending on the profile.

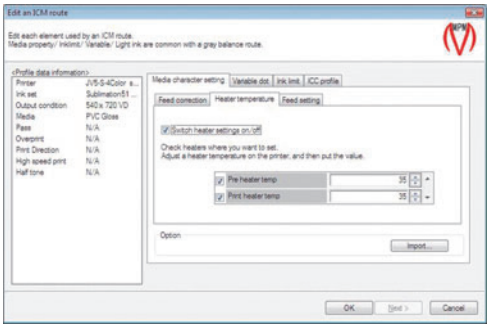
Editing the Feed correction

Edit referring to P.2-7 .



Editing the Heater temperature

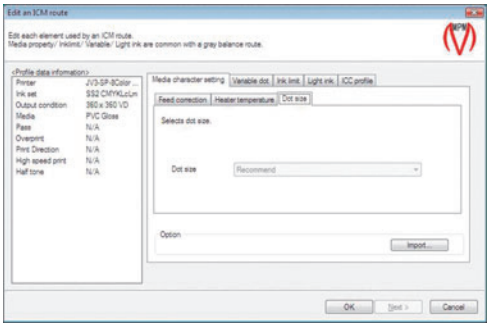
Edit referring to P.2-7 .



Editing the Dot size

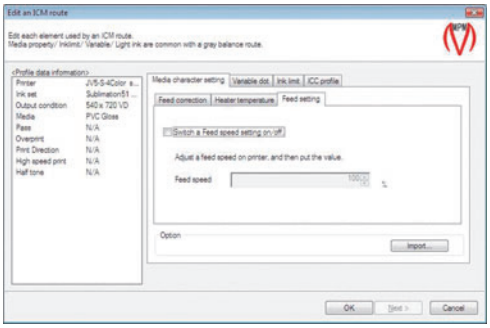
Edit referring to P.2-8 .

NOTE!	♦ You can edit the dot size for JF-16xx series, UJF-160, JFX, UJF-706, UJF-3042FX, UJF-3042HG, UJF-6042 and Tx400.



Editing the Feed setting

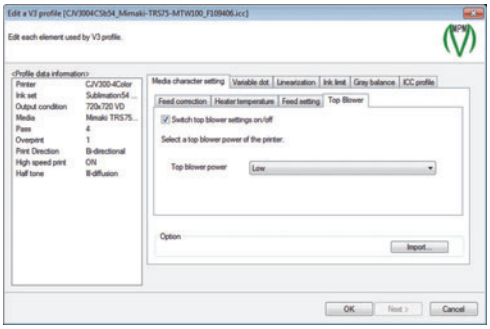
Edit referring to P.2-11 .



Editing the Top Blower

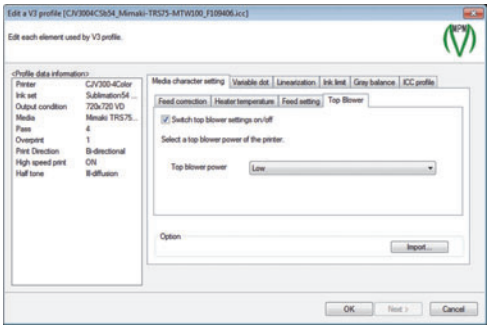
Edit referring to P.2-11 .

NOTE!	♦ You can edit the Top Blower for JV300 and CJV300.



Editing the Feed Direction

Edit referring to P.2-11 .



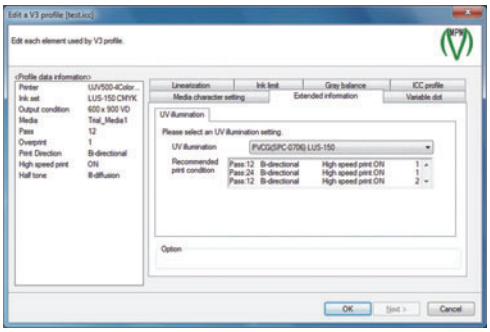
NOTE!	♦ You can edit the Feed Direction for UJF-3042FX, UJF-3042HG, and UJF-6042.

Editing the Extended information

Click the [Extended information] tab to edit the information.

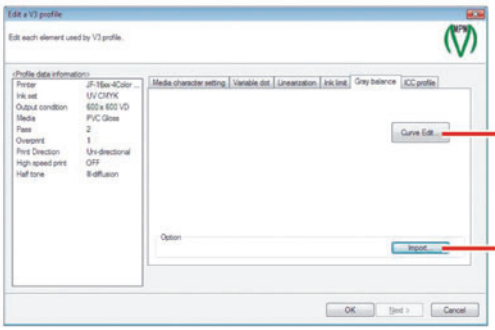
UV illumination

Edit referring to P.2-13 .



Editing the Gray balance

Click the [Gray balance] tab to display the following screen.

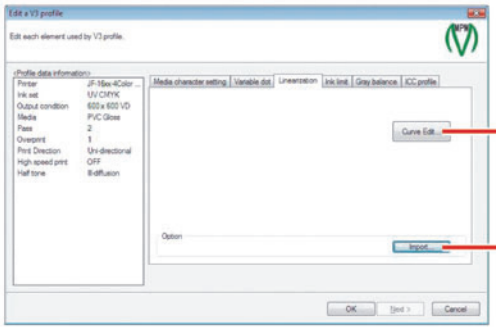


Refer to P.2-69 .

Refer to P.2-67 .

Editing the Linearization

Click the [Linearization] tab to display the following screen.

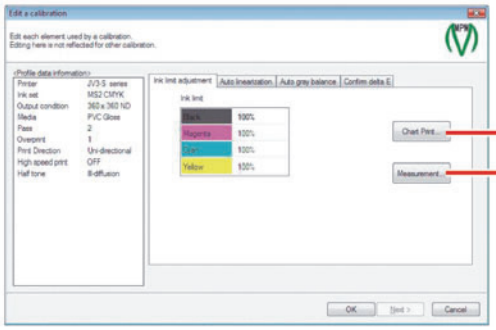


Refer to P.2-69 .

Refer to P.2-67 .

Editing the Ink limit adjustment (Calibration / Equalization Editing Screen)

Click the [Ink limit adjustment] tab to display the following screen.

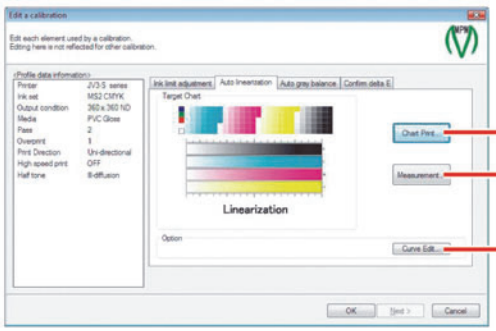


Refer to P.2-18 .

Refer to P.2-28 .

Editing the Auto linearization (Calibration/Equalization Editing Screen)

Click the [Auto linearization] tab to display the following screen.



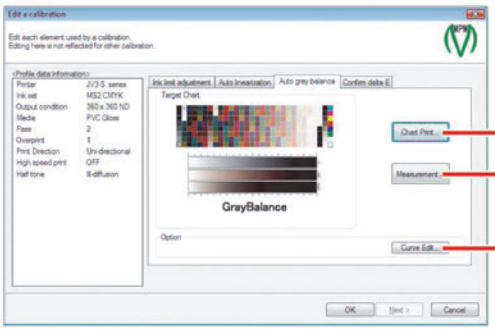
Refer to P.2-18 .

Refer to P.2-28 .

Refer to P.2-69 .

Editing the Auto gray balance (Calibration/Equalization Editing Screen)

Click the [Auto gray balance] tab to display the following screen.



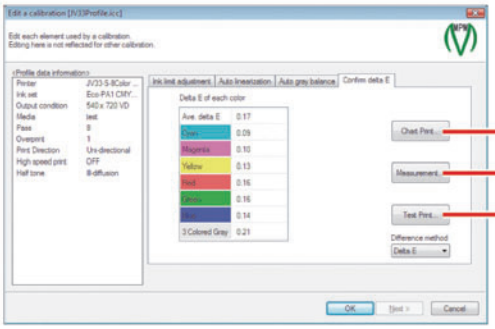
Refer to P.2-18 .

Refer to P.2-28 .

Refer to P.2-69 .

Confirm delta E (Calibration/Equalization Editing Screen)

Click the [Confirm delta E] tab to display the following screen.



Refer to P.2-18 .

Refer to P.2-28 .

Print out referring to P.2-15 .

Replacement

Raster Link Pro III or later in Raster Link series enables to replace the colors by calculating automatically the color approximate to the desired one using the color collection and scanner color measuring function. The information used for the calculation of color replacement will be taken from the profile.

In MPM II, the information used for color replacement can be added to V3 profile.

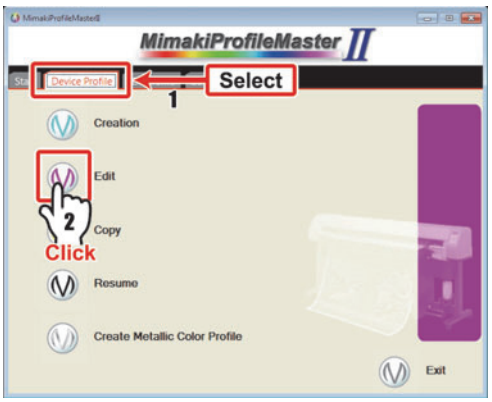
NOTE!	♦ When Replacement is added to the newly made V3 profile, perform it when editing of the profile is finished completely.

Adding Replacement

NOTE!	♦ "Replacement" is overwritten and recorded on the selected V3 profile. It is recommended to take a back-up of the profile in advance.

1 Select the [Device Profile] tab and click "Edit".

The edit list is displayed.

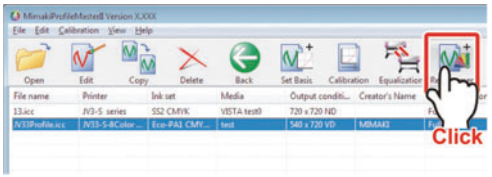


2 Add to the editing list the V3 profile.

☞ P.3-4 "Adding the profile to be edited to the list."

3 Click "Replacement".

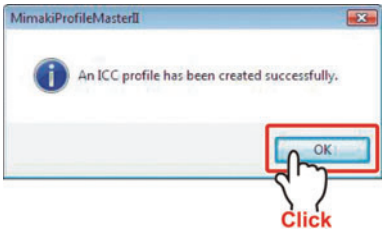
Generating wizard of high accuracy Replacement appears.



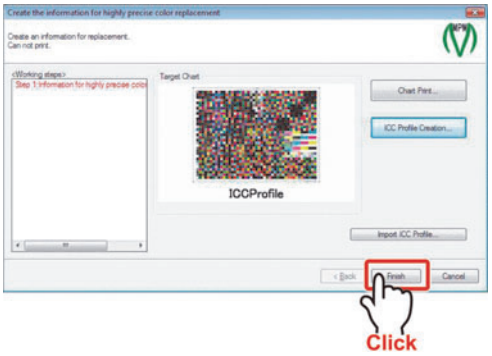
4 Output the chart and create the ICC profile.

☞ P.2-52 "ICC profile creation"

5 Click OK .



6 Click Finish .



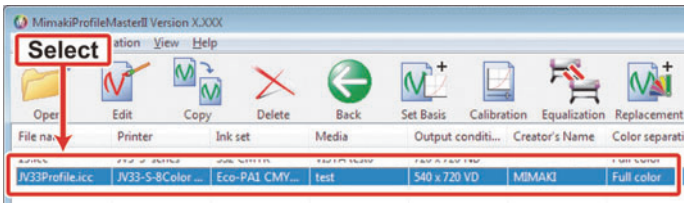
Ink consumption

Ink value that is consumed when a device profile is selected and used for printing can be calculated.

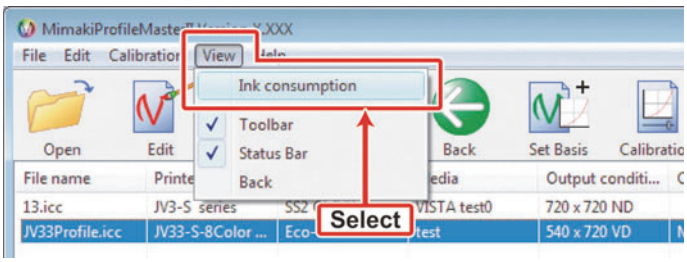
♦ When you want to calculate the quantity of ink consumption of the file actually outputting, select [Operation] tab in P.1-9 “Option” and check on “Calculate ink consumption”. When the printing is completed, the ink consumption will be displayed.

1 **Open the edit list by referring to "Adding the profile to be edited to the list." (P.3-4).**

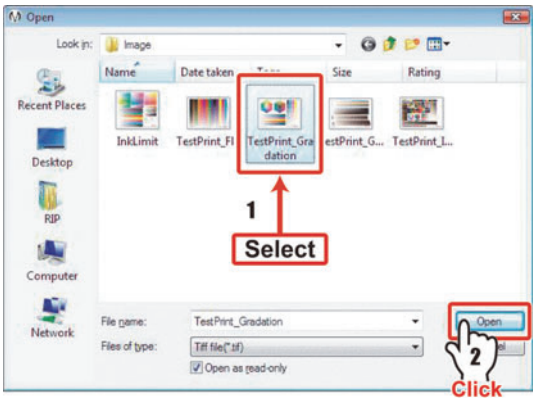
2 **Select the device profile with which you want to calculate the ink consumption.**



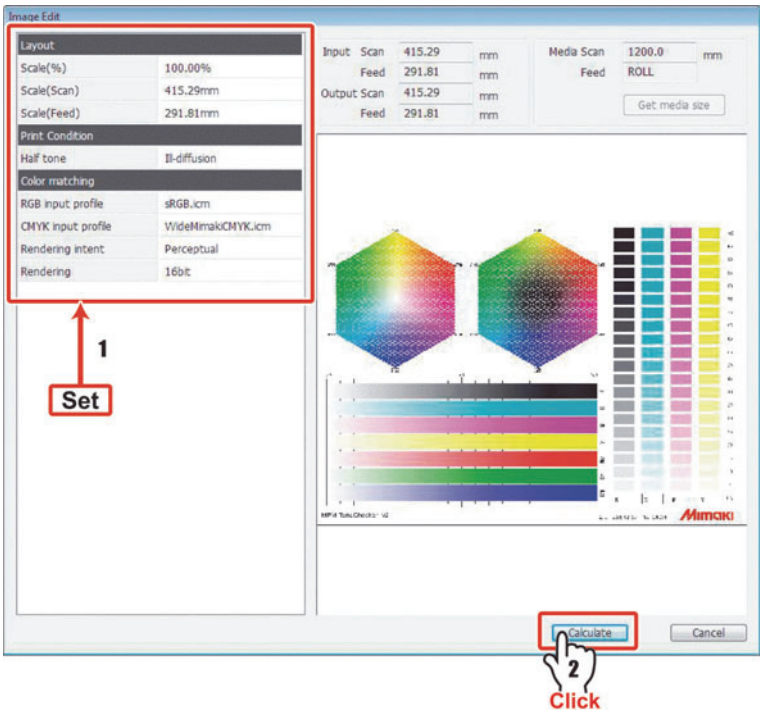
3 **Select "View" - "Ink consumption".**



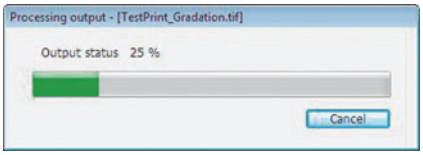
4 **Select the data for which you want to calculate the ink consumption when it is printed using the selected device profile, then click Open .**



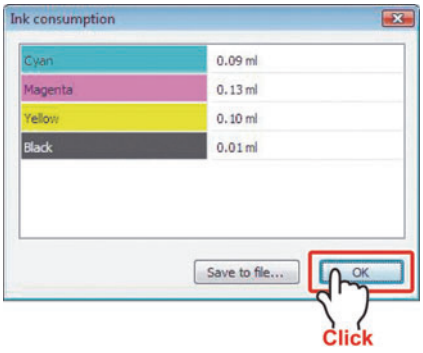
5 Set the print conditions and click Calculate .



The dialog shown on the right is displayed, and the expected ink consumption is calculated.



6 Check the calculated ink consumption, then click OK .



♦ You can click **Save to file** to save the calculated value.

Chapter 4
Calibration and equalization

The execution procedure and operation of calibration and equalization function are explained.

NOTE!	♦ Calibration/equalization cannot be carried out with CMYKOrGr ink set profile.

Calibration Function

When you print with an inkjet printer, the colors produced by the printer may differ due to the following factors:

Variation of temperature and humidity	Ink and media are affected and make an impact to colors.
Adjustment or replacement of the printer head	The change of the head could result in colors different from the previous ones.

If you recorded the "base color", you will be able to adjust the profile so that it may look similar to the "base colors" recorded in advance even if the colors produced by the printer changed due to temperature change etc.

NOTE!

- ♦ The profile corrected by calibration function can be used with Raster Link Pro III or later in Raster Link series.
- ♦ The calibration function can be used only with V3 profile (files with extensions of .icc).
- ♦ Calibration cannot be carried out correctly with a profile converted from V2 to V3 using the ProfileManager provided in Raster Link ProIII to RasterLinkPro5.
- ♦ To use calibration function, it is necessary to make "Set Basis" in advance.

♦ **The calibration function performs adjustment for each profile.**
As the spreading of the dot (dot gain) varies depending on the ink and the media, and the drying property of the ink varies depending on resolution and the number of pass, different adjustment is required for each profile.
When the most frequently used profile is decided, perform the "Set Basis".

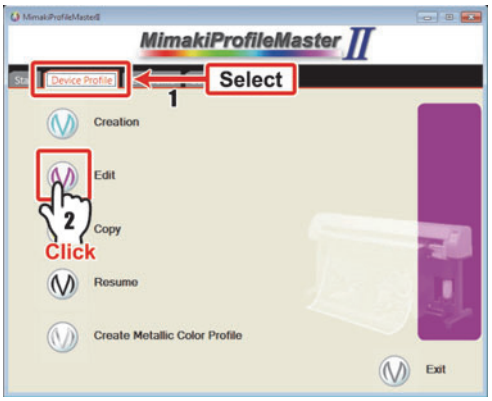
Recording the base colors (Set Basis)

Record the "base colors" to adjust the colors produced by the printer when they are different from the previous colors due to various factors.
The calibration function can adjust the changed colors produced by the printer so that they may look similar to the "base colors" recorded here.
If you recorded the "base colors" when you created the profile, it is not required to perform basic setting.

NOTE!	♦ "Set Basis" is overwritten and recorded on the selected V3 profile. It is recommended to take a back-up of the profile in advance.

1 Select the [Device Profile] tab and click "Edit".

The edit list is displayed.



2 Add to the editing list the V3 profile on which the base colors are recorded.

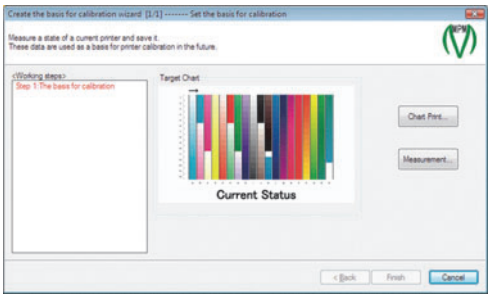
P.3-4 "Adding the profile to be edited to the list."

3 Click "Set Basis".

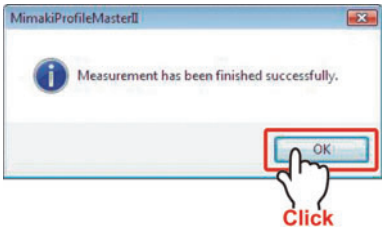
Set Basis wizard of calibration is activated.

4 Output the chart and measure the colors.

Refer to P.2-27 "Automatic adjustment of Linearizaion" steps 1 to 6.
Select "XX_CalibrationTarget.txt" for the chart name. (XX is the name of the color measuring device.)

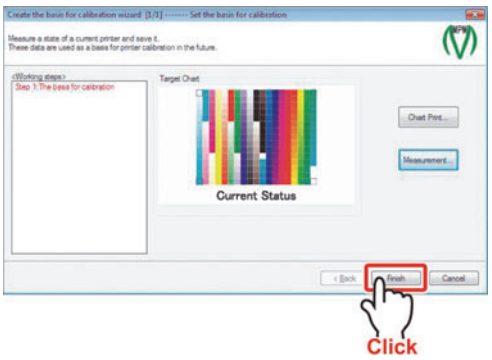


5 **Click** **OK** **.**



6 **Click** **Finish** **.**

The edit list will be displayed.



Performing calibration

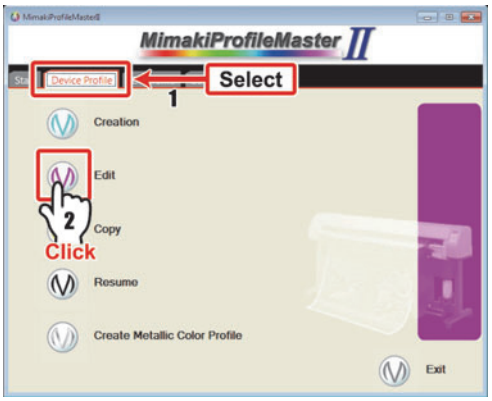
When the colors produced by the printer you are using are different from the previous colors, the three factors of ink limit, linearization and gray balance are adjusted using the V3 profile recorded in "Set Basis".

NOTE!	♦ The adjustment made by calibration is overwritten and stored in the selected V3 profile. It is recommended to take a back-up of the profile in advance. ♦ For the calculation of color difference, D50 light source is assumed. Accordingly, the same results cannot necessarily be obtained with the light source in your environment. You are requested to tolerate the difference between what it looks and the figures.

Measure the color under the current condition

1 Select the [Device Profile] tab and click "Edit".

The edit list is displayed.

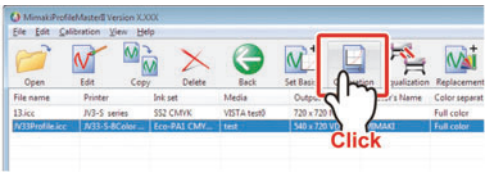


2 Add the V3 profile on which the basic setting has already been performed to the edit list.

☞ P.3-4 "Adding the profile to be edited to the list."

3 Click "Calibration".

Calibration wizard appears.



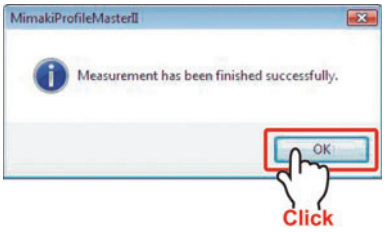
NOTE!	♦ When the "Calibration" is made invalid, first perform the "Set Basis". (☞ P.4-3)

4 Output the chart and measure the colors.

Refer to P.2-27 "Automatic adjustment of Linearizaion" steps 1 to 6.
Select "XX_CalibrationTarget.txt" for the chart name. (XX is the name of the color measuring device.)

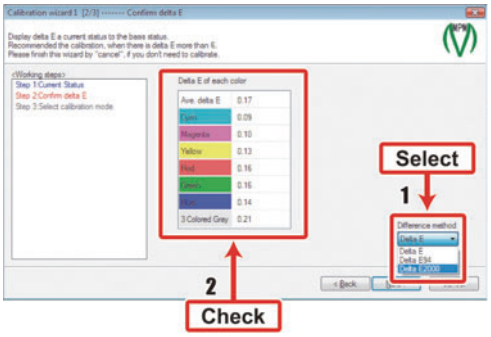
5 Click OK .

After a few seconds, the screen proceeds automatically.
Wait for a moment.



6 Confirm the value of color difference.

The difference between the recorded basic setting and the current color measuring result is displayed.
For the details of color difference figures, refer to Glossary.
(P.App.-3)



NOTE!	♦ To check color difference value, select "Display method of color difference" on the lower right of the screen. ♦ For the display method of color difference, there are ΔE, ΔE94 and ΔE2000, however, we recommend "ΔE2000" because it is the most similar to the color difference that human's eyes feel.

When performing calibration, click Next .

When not performing calibration, click Cancel . The edit list will be displayed.

♦ When the color difference is [6] or above, ⚠ mark is displayed. It is recommended to perform calibration when ⚠ mark is displayed.
♦ Calibration can be performed even if the ⚠ mark is not displayed. Perform calibration as necessary.
♦ When there are many ⚠ marks or when the numerical values are high, perform adjustment of the printer.

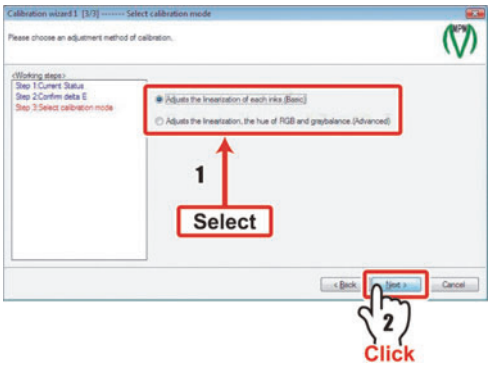
7 Select the contents of the work and click Next .

Adjusts the linearization of each inks. (Basic)

Only CMYK's gradation adjustment will be performed.
(The work for around 30 minutes.)

Adjusts the linearization, the hue of RGB and graybalance. (Advanced)

The adjustment of three factors of fine tuning of the hue of secondary colors, sequence of gradation, gray balance color adjustment are performed. (The work for around two hours.)



NOTE!

♦ The work selected here (Normal/Advanced) cannot be changed on the way.

♦ The color differences caused by making adjustment of the printer are due to changes in dot overlapping. As the mixing of colors varies when the overlapping of the dots are changed, it will affect to secondary or tertiary colors.
When you made the adjustment of the printer, please perform the calibration in detail mode.

When (Normal) is selected, Continued on P.4-8.
When (Advanced) is selected, Continued on P.4-10.

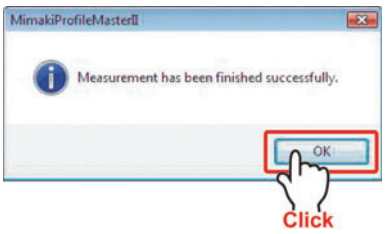
When the work (Normal) is selected

Continued from P.4-7 “Measure the color under the current condition”

1 Automatic adjustment of linearization will be performed.

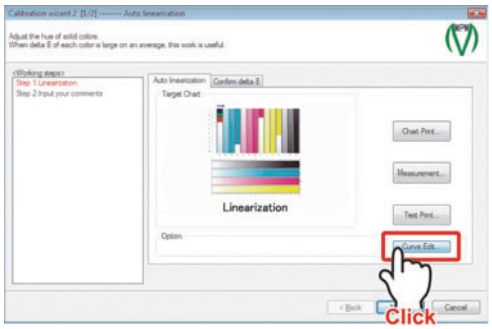
Output the chart and measure the colors.
Refer to P.2-27 "Automatic adjustment of Linearizaion" steps 1 to 6.
Select "XX_Linearization.txt" for the chart name. (XX is the name of the color measuring device.)

2 Click OK .



3 Perform curve editing when necessary.

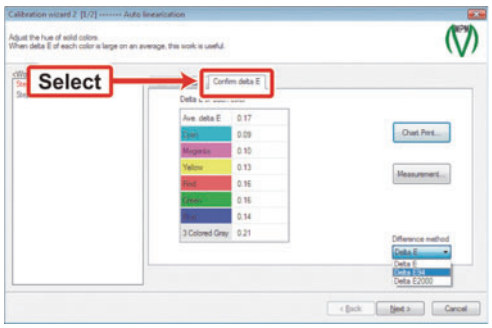
When editing of the curve is necessary, click Curve Edit .
For editing method, refer to P.2-69 "Curve Edit button".



♦ When the curve after adjustment is wound greatly or is in the form of S-curve, there could be the mistake in the color measuring. Make the curve straight, and repeat the color measuring again.

4 Select the [Confirm delta E] tab.

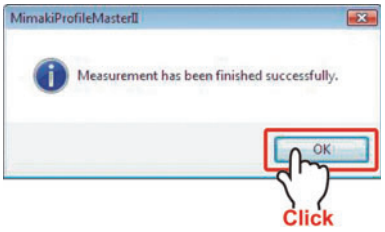
The color difference before performing calibration is displayed on the screen.



5 Output the chart and measure the colors.

By measuring colors of the chart on which the adjustment result is reflected, check the calibration result.
Refer to P.2-27 "Automatic adjustment of Linearizaion" steps 1 to 6.

6 Click OK .



7 Confirm the color difference after adjustment.

♦ As the measured color values include measuring errors, the values will vary each time you measure the color. Further, the value of color difference will also be varied.

♦ The color measuring errors have the following factors:

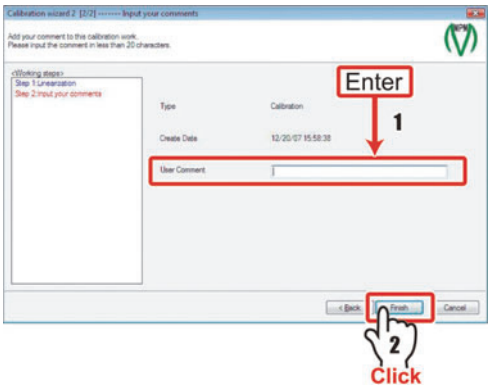
a. **Individual difference of color measuring deviceb.**
b. **Repeating accuracy of the measuring devicec.**
c. **Unevenness of the printed materiald.**
d. **Distance between the printed material and color measuring device or the manner of contacting.**

♦ The color measuring error by color measuring device is below 1 in delta E. When the value of color difference is greater than what you look, check if there is any nozzle missing or unevenness on the printed material, and repeat the color measurement.

8 Click Next .

9 Enter the Comment.(Max. 20 characters)

The comment is displayed when used with Raster Link ProIII or later in Raster Link series. Make it simple and easy to understand.



10 Click Finish .

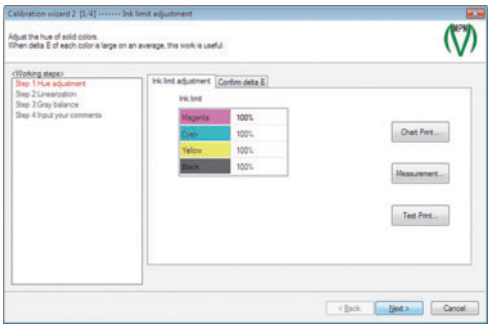
The calibration data is added to V3 profile, which is overwritten and stored.

When the work (Advanced) is selected

Continued from P.4-7 “Measure the color under the current condition”

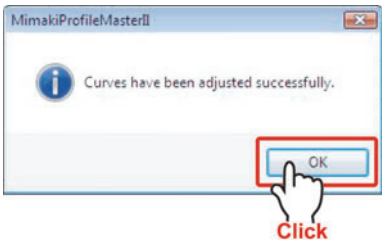
1 Adjust the hue of the secondary colors.

Output the chart and measure the colors.
Refer to P.2-27 "Automatic adjustment of Linearizaion" steps 1 to 6.
Select "XX_CalibrationTarget.txt" for the chart name. (XX is the name of the color measuring device.)



2 Click OK .

The amount of ink will be adjusted automatically.



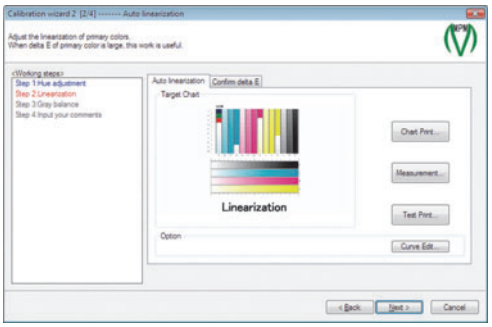
NOTE!

♦ The adjustment here is to make fine tuning. When the amount of ink has varied greatly (such as 90% or less), there is possibility of measuring mistake.
Return the amount of ink to 100%, and make color measuring again.

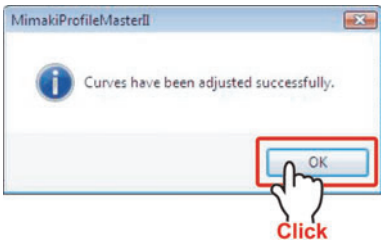
3 Click Next .

4 Automatic adjustment of linearization will be performed.

Output the chart and measure the colors.
Refer to P.2-27 "Automatic adjustment of Linearizaion" steps 1 to 6.
Select "XX_Linearization.txt" for the chart name. (XX is the name of the color measuring device.)



5 **Click OK .**

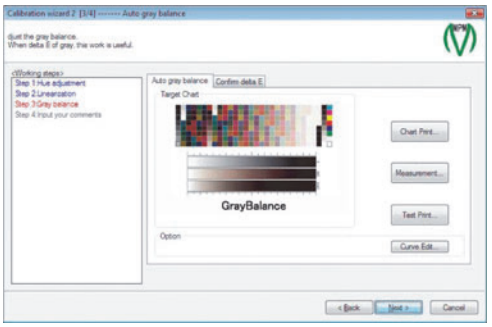


♦ When the color difference becomes greater due to adjustment of linearization, straighten all curves with **Curve Edit** .(Make to the state no calibration is made.)

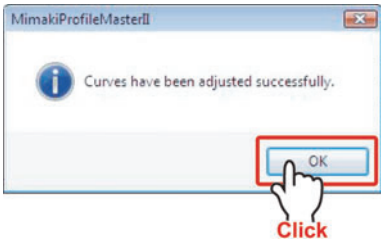
6 **Click Next .**

7 **Automatic adjustment of the gray balance will be performed.**

Refer to P.2-49 "Automatic adjustment of Gray balance".
Select "XX_GrayBalance001.txt" for the chart name. (XX is the name of the color measuring device.)



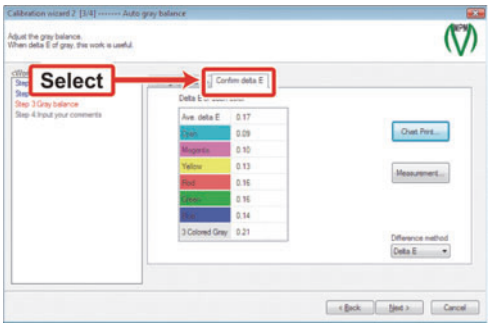
8 **Click OK .**



♦ When the color difference becomes greater due to adjustment of gray balance, straighten all curves with **Curve Edit** .(Make to the state no calibration is made.)

9 **Select the [Confirm delta E] tab.**

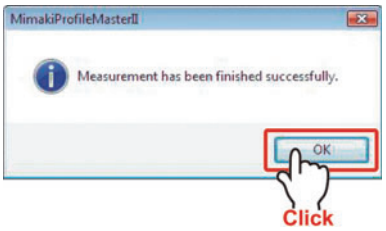
The color difference before performing calibration is displayed on the screen.



10 Output the chart and measure the colors.

By measuring colors of the chart on which the adjustment result is reflected, check the calibration result.
Refer to P.2-27 "Automatic adjustment of Linearizaion" steps 1 to 6.
Select "XX_CalibrationTarget.txt" for the chart name. (XX is the name of the color measuring device.)

11 Click OK .



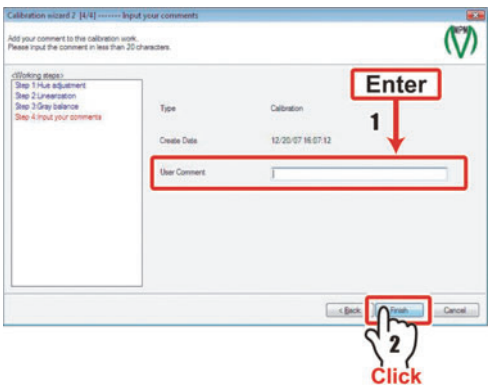
12 Confirm the color difference after adjustment.

- As the measured color values include measuring errors, the values will vary each time you measure the color. Further, the value of color difference will also be varied.
- The color measuring errors have the following factors:
  a. **Individual difference of color measuring deviceb.**
  b. **Repeating accuracy of the measuring devicec.**
  c. **Unevenness of the printed materiald.**
  d. **Distance between the printed material and color measuring device or the manner of contacting.**
- The color measuring error by color measuring device is below 1 in delta E. When the value of color difference is greater than what you look, check if there is any nozzle missing or unevenness on the printed material, and repeat the color measurement.

13 Click Next .

14 Enter the Comment. (Max. 20 characters)

The comment is displayed when used with Raster Link ProIII or later in Raster Link series. Make it simple and easy to understand.



15 Click Finish .

The calibration data is added to V3 profile, which is overwritten and stored.

Equalization Function

Even if output with multiple printers of the same type, the obtained colors could be different due to special characteristics of each printer.
In the case of MPM II, the correction of profile can be made so that the same output result may be obtained by multiple printers used under the same output condition.

■ Items to be conformed as output conditions

Kind of printer	Kind of Ink	Composition of ink set	Media used
Resolution	Dot size to be used (ND or VD)		Number of pass
Printing direction	On/Off of high speed printing		Number of overprinting

NOTE!

- ♦ The profile corrected by equalization function can be used with Raster Link Pro III or later in Raster Link series.
- ♦ The equalization function can be used only with V3 profile (files with extension of .icc).
- ♦ When the output condition is different, it is possible that the good results are not obtained.
- ♦ Equalization cannot be carried out correctly with a profile converted from V2 to V3 using the ProfileManager provided in Raster Link ProIII to RasterLinkPro5.
- ♦ To use equalization function, it is necessary to make "Set Basis" in advance.

NOTE!	♦ Prepare in advance the V3 profile on which the "Set Basis" are recorded. ♦ The contents adjusted by equalization are overwritten and saved on the selected V3 profile. It is recommended to take a back-up of the profile in advance. ♦ For the calculation of color difference, D50 light source is assumed. Accordingly, the same results cannot necessarily be obtained with the light source in your environment. You are requested to tolerate the difference between what it looks and the figures.

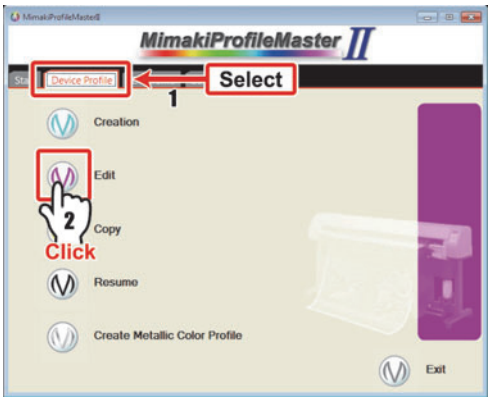
Outputting to the target printer

First, record the status of the target printer.

1 Connect the target printer with PC.

2 Select the [Device Profile] tab and click "Edit".

The edit list is displayed.

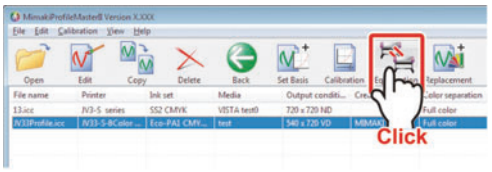


3 Add the V3 profile on which the basic setting has already been performed to the edit list.

☞ P.3-4 "Adding the profile to be edited to the list."

4 Click "Equalization".

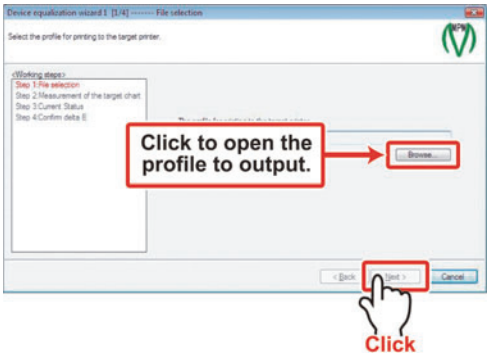
Equalization wizard appears.



NOTE!	♦ When the "Equalization" is made invalid, first perform the "Set Basis". (☞ P.4-3)

5 Select V3 profile for outputting to the printer to be targeted.

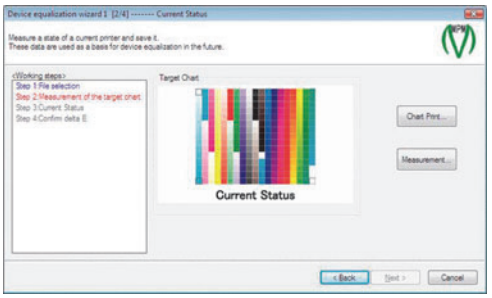
1 Click **Browse**.
2 Select V3 profile and click **Open**.
3 Click **Next**.



♦ The profile selected here will not be affected by the adjustment results of Equalization.

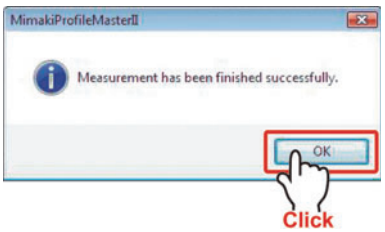
6 Measure the colors under the current condition of the target printer.

Output the chart and measure the colors.
Refer to P.2-27 "Automatic adjustment of Linearizaion" steps 1 to 6.
Select "XX_CalibrationTarget.txt" for the chart name. (XX is the name of the color measuring device.)



NOTE! ♦ When multiple number of printers is connected, make sure to select the target printer as output destination.

7 Click **OK**.



8 Click **Next**.

Continued on P.4-16 "Outputting to the printer to perform Equalization"

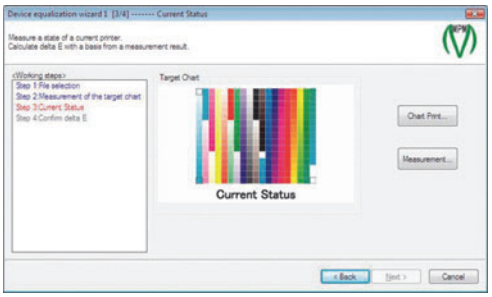
Outputting to the printer to perform Equalization

Continued from P.4-15 “Outputting to the target printer”

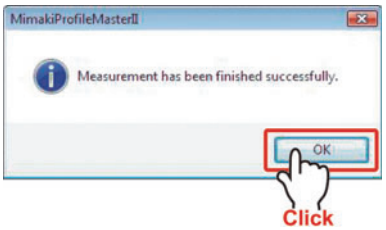
1 Connect the printer to which you wish to make Equalization with the PC.

2 Measure the color under the current condition of the printer to perform Equalization.

Output the chart and measure the colors.
Refer to P.2-27 "Automatic adjustment of Linearizaion" steps 1 to 6.
Select "XX_CalibrationTarget.txt" for the chart name. (XX is the name of the color measuring device.)



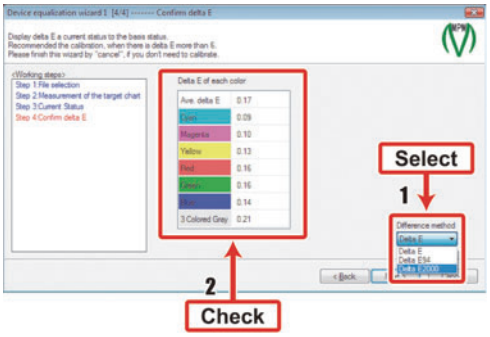
3 Click OK.



NOTE!	♦ When multiple number of printers is connected, make sure to select the printer for Equalization as output destination.

4 Confirm the color difference before adjustment.

The difference between the recorded basic setting and the current color measuring result is displayed.
For the details of color difference figures, refer to Glossary.
(☞ P.App.-3)



NOTE!

- To check color difference value, select "Display method of color difference" on the lower right of the screen.
- For the display method of color difference, there are ΔE, ΔE94 and ΔE2000, however, we recommend "ΔE2000" because it is the most similar to the color difference that human's eyes feel.

When performing equalization, click **Next**.
When not performing equalization, click **Cancel**. The edit list will be displayed.

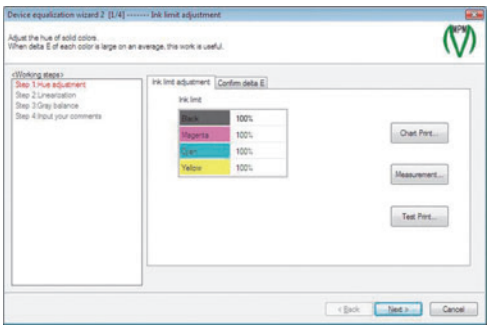
- When the color difference is [6] or above, ⚠ mark is displayed. It is recommended to perform equalization when ⚠ mark is displayed.
- Equalization can be performed even if the ⚠ mark is not displayed. Perform calibration as necessary.
- When there are many ⚠ marks or when the numerical values are high, perform adjustment of the printer.

NOTE!

- When the different ink or different profile is targeted, ⚠ marks could be displayed many times or the numerical number could become large. It is impossible to approximate the profiles with basically different colorings.

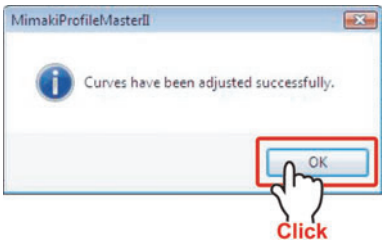
5 Adjust the hue of the secondary colors.

Referring to steps 1 to 6 of P.2-27 "Automatic adjustment of Linearizaion", perform the chart printing and color measuring.
Select "XX_CalibrationTarget.txt" for the chart name. (XX is the name of the color measuring device.)



6 Click OK.

The amount of ink will be adjusted automatically.

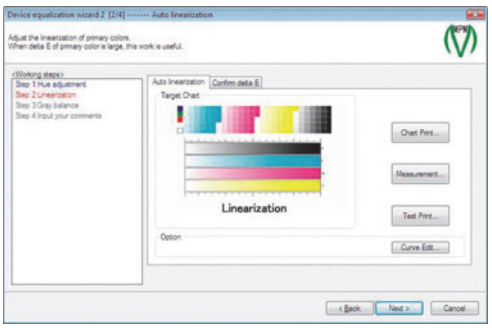


NOTE!	♦ When Equalization is made targeting different ink or different profile, the quantity of ink could vary greatly. In such a case, the results will not be approximated as sufficient density cannot be obtained.

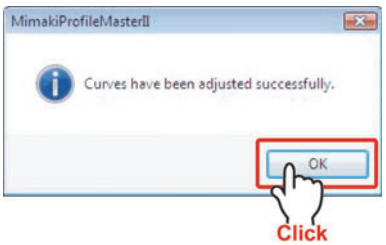
7 Click Next.

8 Automatic adjustment of linearization will be performed.

Referring to steps 1 to 6 of P.2-27 "Automatic adjustment of Linearizaion", perform the chart printing and color measuring.
Select "XX_Linearization.txt" for the chart name. (XX is the name of the color measuring device.)



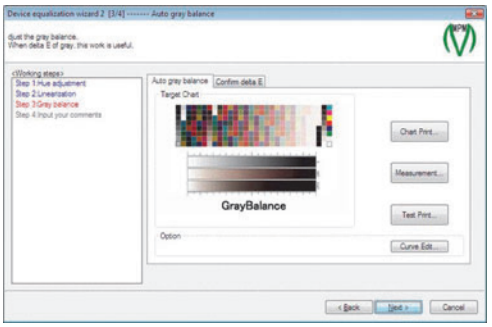
9 Click OK.



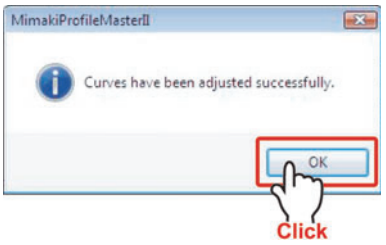
10 Click Next.

11 Automatic adjustment of the gray balance will be performed.

Output the chart and measure the colors.
Refer to P.2-49 "Automatic adjustment of Gray balance".
Select "XX_GrayBalance001.txt" for the chart name. (XX is the name of the color measuring device.)

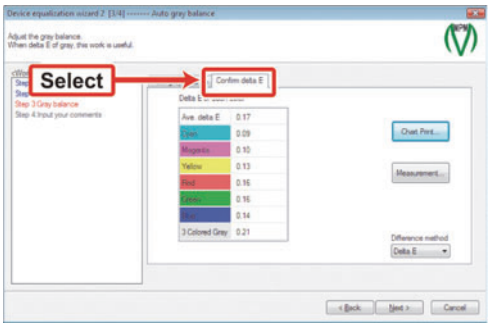


12 Click OK.



13 Select the [Confirm delta E] tab.

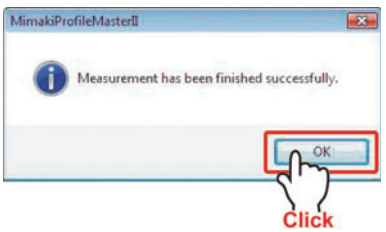
The color difference before performing equalization is displayed on the screen.



14 Output the chart and measure the colors.

By measuring colors of the chart on which the adjustment result is reflected, check the equalization result.
Refer to P.2-27 "Automatic adjustment of Linearizaion" steps 1 to 6.
Select "XX_CalibrationTarget.txt" for the chart name. (XX is the name of the color measuring device.)

15 Click OK.



16 Confirm the color difference after adjustment.

♦ As the measured color values include measuring errors, the values will vary each time you measure the color. Further, the value of color difference will also be varied.

♦ The color measuring errors have the following factors:

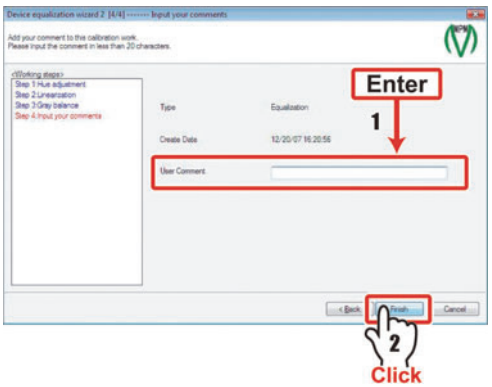
a. Individual difference of color measuring deviceb.
b. Repeating accuracy of the measuring devicec.
c. Unevenness of the printed materiald.
d. Distance between the printed material and color measuring device or the manner of contacting.

♦ The color measuring error by color measuring device is below 1 in delta E.
When the value of color difference is greater than what you look, check if there is any nozzle missing or unevenness on the printed material, and repeat the color measurement.

17 Click Next .

18 Enter the Comment. (Max. 20 characters)

The comment is displayed when used with Raster Link ProIII or later in Raster Link series. Make it simple and easy to understand.



19 Click Finish .

The calibration data is added to V3 profile, which is overwritten and stored.

♦ Install the device profile used at the steps of P.4-14 "Outputting to the target printer" to Raster Link ProIII series connected with the target printer.

♦ Install the device profile to which Equalization was made to Raster Link ProIII series connected with the printer to which Equalization was performed.

♦ Perform outputting to the target printer normally, and to the printer to which Equalization is made selecting the Equalization factors.

About operation of calibration/equalization

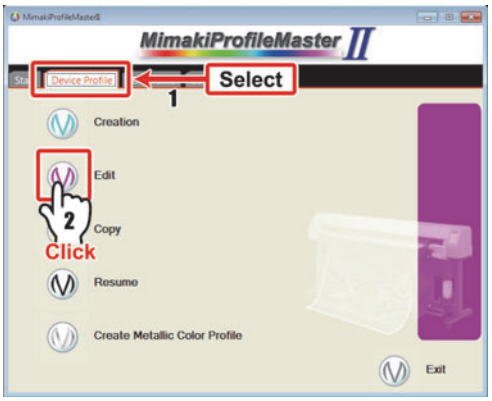
Check the daily color difference

The procedures for creating calibration data and checking color difference later are explained.

♦ What is calibration data?
It is correcting information of the V3 profile created with the calibration function/ the equalization function. By specifying calibration data and performing color conversion, you can print by reflecting calibration.

1 **Select the [Device Profile] tab and click "Edit".**

The edit list is displayed.

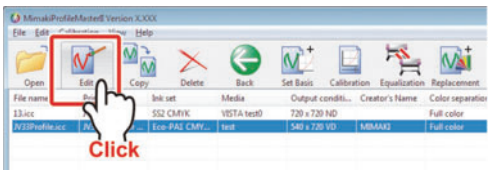


2 **Add the V3 profile with calibration data whose color difference you wish to check to the edit list.**

P.3-4 "Adding the profile to be edited to the list."

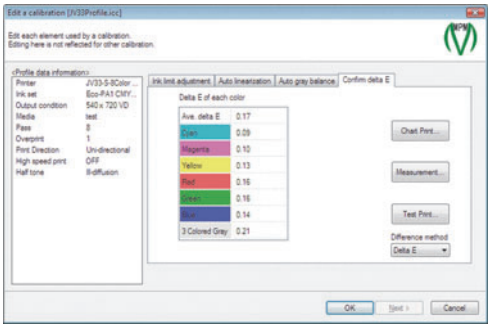
3 **Click "Edit".**

The editable items are displayed in the list.



4 Double-click the calibration data name whose color difference you wish to check.

The color difference when you created the calibration data is displayed in the [Checking color difference] tab.



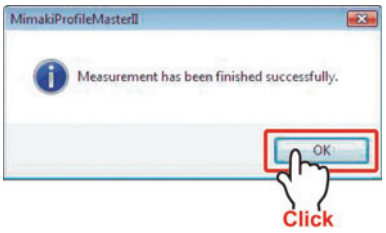
5 Output the chart and measure the colors.

Refer to P.2-27 "Automatic adjustment of Linearizaion" steps 1 to 6.
Select "XX_CalibrationTarget.txt" for the chart name. (XX is the name of the color measuring device.)

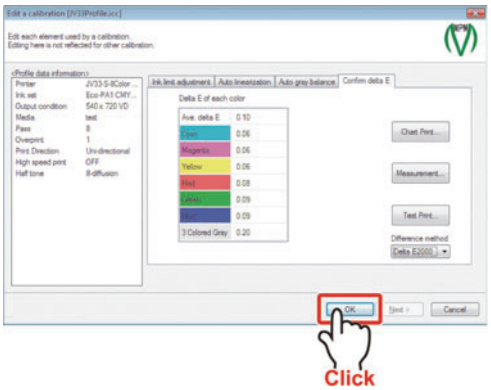
6 Click OK.

The color difference is updated to the current one.

After checking the color difference, if it is required to perform re-adjustment with calibration function or equalization function, operate the procedures in P.4-24.



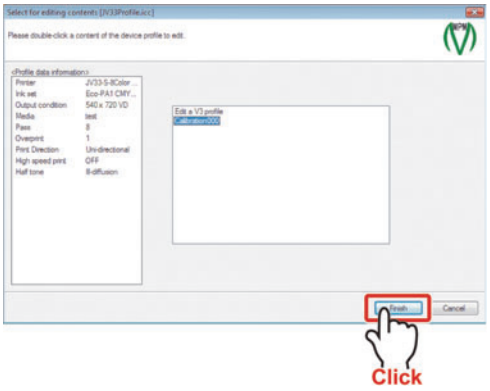
7 Click OK.



8 Click Finish.

The color difference calculated in this time is updated and saved.

Refer to P.3-6 "Editing a device profile" steps 5 to 6.



NOTE!

♦ The history of color difference is not saved. If you wish to keep the precious color difference, save the device profile with another name or cancel it.

Re-adjust the calibration data

NOTE!	♦ When the value of the color difference is two or below, the color difference may become wider due to measurement error or calculation error in some cases. ♦ The calibration data is overwritten and saved. Be careful because the previous data does not remain.

1 Select the [Device Profile] tab and click "Edit".

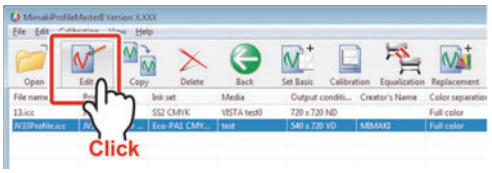
The edit list is displayed.

2 Add the V3 profile with the calibration data to adjust to the edit list.

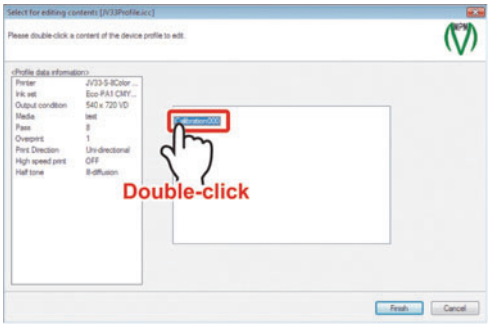
P.3-4 "Adding the profile to be edited to the list."

3 Click "Edit".

The editable items are displayed in the list.

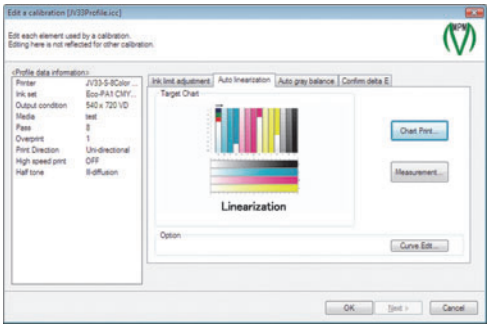


4 Double-click the calibration data name to adjust.

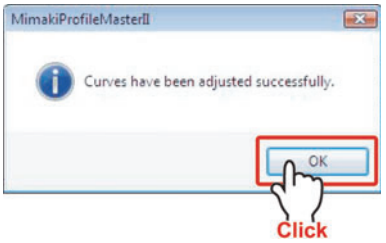


5 **Automatic adjustment of linearization will be performed.**

Output the chart and measure the colors.
Refer to P.2-27 "Automatic adjustment of Linearizaion" steps 1 to 6.
Select "XX_Linearization.txt" for the chart name. (XX is the name of the color measuring device.)

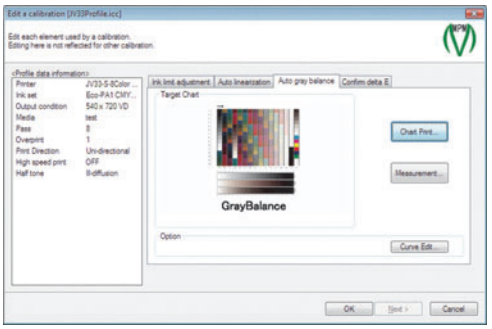


6 **Click OK.**

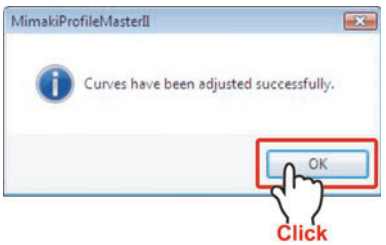


7 **Automatic adjustment of the gray balance will be performed.**

Refer to P.2-49 "Automatic adjustment of Gray balance".
Select "XX_GrayBalance001.txt" for the chart name. (XX is the name of the color measuring device.)

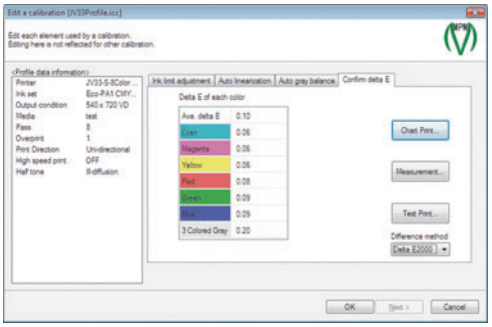


8 **Click OK.**



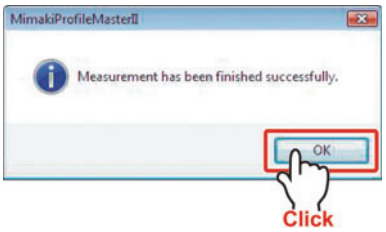
9 Check the color difference.

The previously set result is displayed on the screen.
Output the chart and measure the colors.
Refer to P.2-27 "Automatic adjustment of Linearizaion" steps 1 to 6.
Select "XX_CalibrationTarget.txt" for the chart name. (XX is the name of the color measuring device.)



10 Click OK.

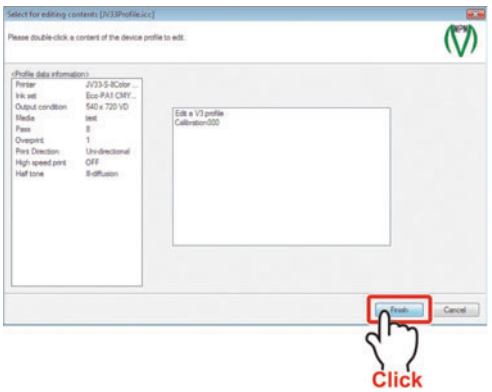
The color difference is updated to the current one.



11 Confirm the color difference after adjustment.

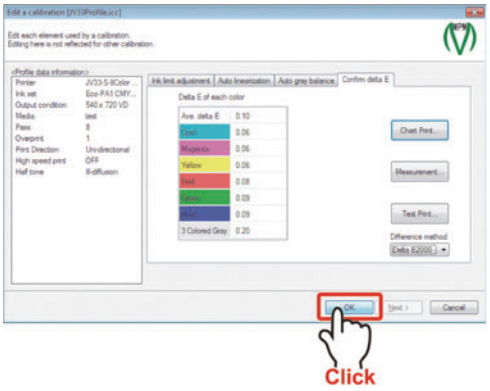
- As the measured color values include measuring errors, the values will vary each time you measure the color. Further, the value of color difference will also be varied.
- The color measuring errors have the following factors:
  - **a. Individual difference of color measuring deviceb.**
  - **b. Repeating accuracy of the measuring devicec.**
  - **c. Unevenness of the printed materiald.**
  - **d. Distance between the printed material and color measuring device or the manner of contacting.**
- The color measuring error by color measuring device is below 1 in delta E.
  When the value of color difference is greater than what you look, check if there is any nozzle missing or unevenness on the printed material, and repeat the color measurement.

12 Click OK.



13 **Click Finish .**

Refer to P.3-6 "Editing a device profile" steps 5 to 6.

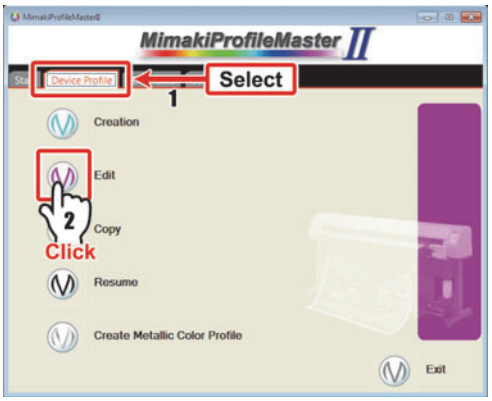


Add new calibration data

The procedures to add the calibration data newly are explained.
By adding calibration data newly, you can leave the calibration data as the history.

1 Select the [Device Profile] tab and click "Edit".

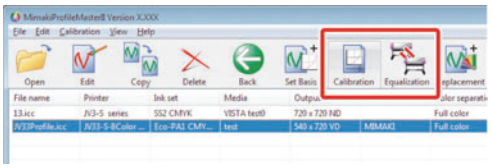
The edit list is displayed.



2 Add the V3 profile with the calibration data to adjust to the edit list.

P.3-4 "Adding the profile to be edited to the list."

3 Click "Calibration" or "Equalization".

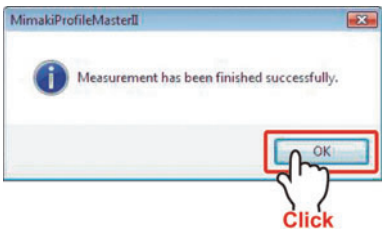


4 Output the chart and measure the colors.

Refer to P.2-27 "Automatic adjustment of Linearizaion" steps 1 to 6.
Select "XX_CalibrationTarget.txt" for the chart name. (XX is the name of the color measuring device.)

NOTE!	♦ The chart is output with the device profile uncorrected with the existing calibration data.

5 Click OK.



6 Check the color difference.

7 Perform calibration or equalization.

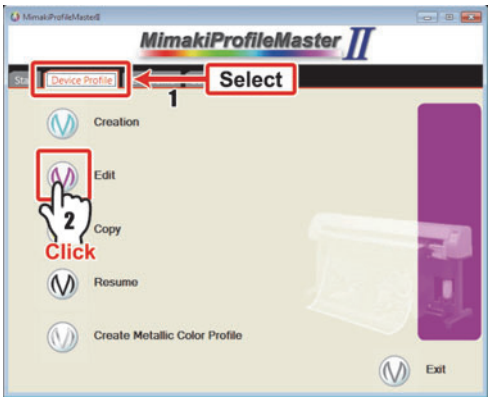
- When you perform calibration, refer to P.4-5 "Performing calibration".
- When you perform equalization, refer to P.4-14 "Performing Equalization".

Print by using calibration data

The procedures to print with the device profile corrected with calibration data are explained.

1 **Select the [Device Profile] tab and click "Edit".**

The edit list is displayed.

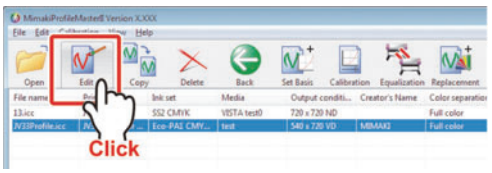


2 **Add the V3 profile with the calibration data to adjust to the edit list.**

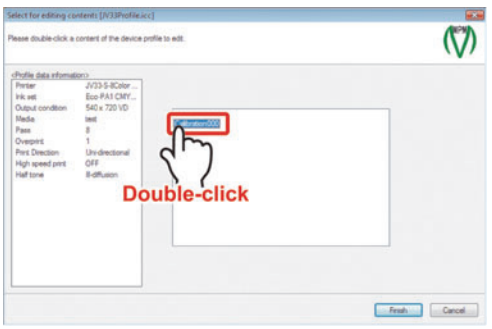
P.3-4 "Adding the profile to be edited to the list."

3 **Click "Edit".**

The editable items are displayed in the list.

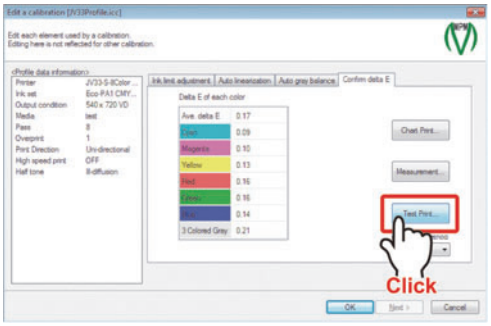


4 **Double-click the calibration data name.**



5 Click Test print... .

Print by referring to the Page 2-11.
It will be printed after it is corrected with calibration data.



Chapter 5
Copying a device profile

Copying device profiles

If you are creating device profiles that use print conditions and media that have similar characteristics, you can copy an existing device profile, then modify only the printing condition settings and save the profile.

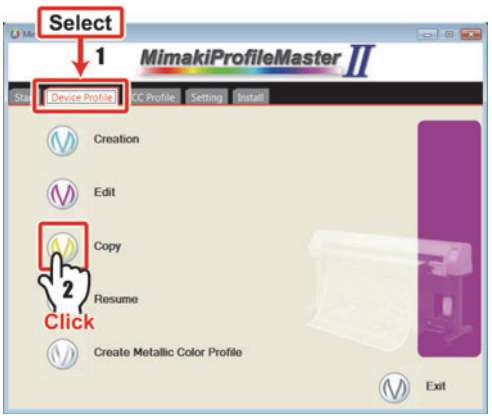
The profile copy function allows you to edit the printer, ink set, resolution, media name, and media character settings (Feed correction value and Heater temperature, etc.).

NOTE!	♦ The color set (CMYK, etc.) and dot type (VD/ND) in the copy will be the same as in the original. ♦ This function cannot convert a V2 profile into a V3 profile or vice-versa. For conversion from a V2 profile to a V3 profile, use the Profile Manager provided in Raster Link ProIII to RasterLinkPro5.

Copy wizard

1 **Select the [Device Profile] tab and click "Copy".**

Copy wizard 1 starts.



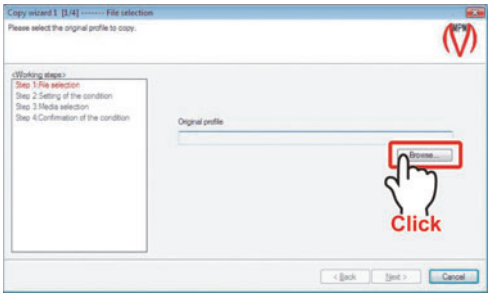
♦ The Copy wizard can also be started as follows:

1. Click “Edit” in the [Device Profile] tab.
2. Add the device profile that you want to copy to the edit list. (☞ P.3-4)
3. Click "Copy".

2 Select the source device profile.

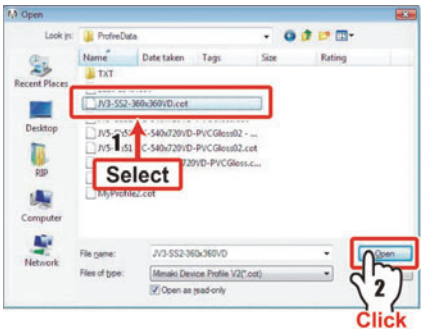
The source device profile opens.

If there is only one device profileselected in the edit list (☞ P.3-5) when the Copy wizard is started, the path of that device profile is already displayed. When there is no need for change, proceed to Step 5.

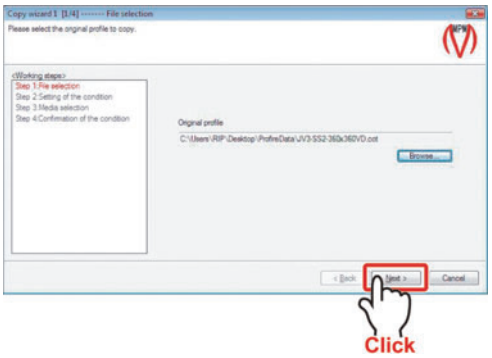


3 Click Browse and select the device profile to use as the copy source.

4 Select the source device profile and click Open.

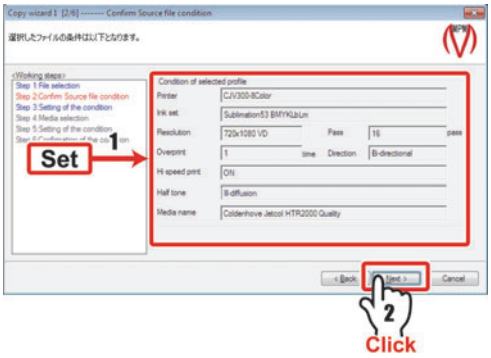


5 Click Next.



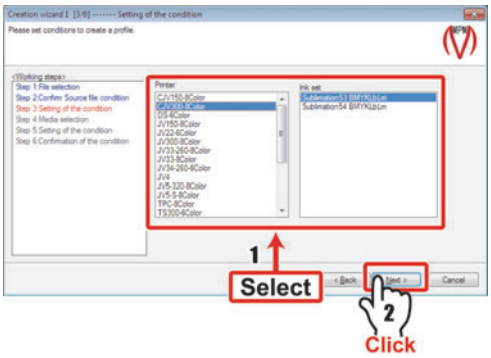
6 Confirm the source device profile condition and click Next .

Set the creation conditions of the destination device profile.



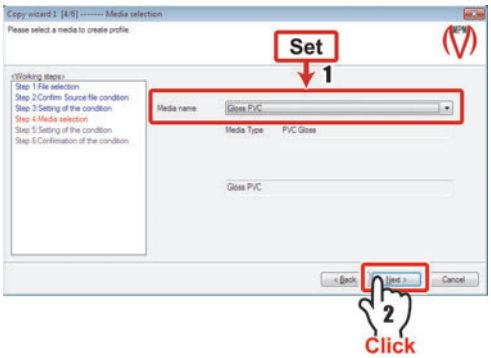
7 Select a printer and a inkset which you want to create a device profile and click Next .

♦ Selectable combinations of the printer, ink set are predetermined.



8 Set the media name of the destination.

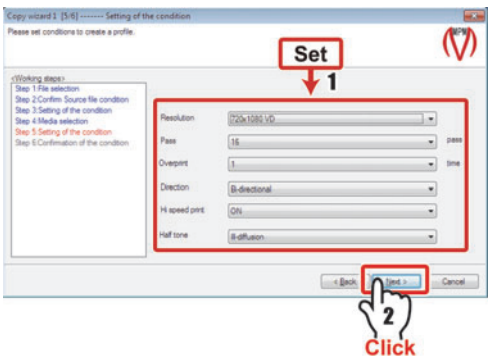
You may select from the registered media names already registered in media name registration procedures.
Set the creation conditions.



9 Click Next .

10 Set the creation conditions of the destination device profile.

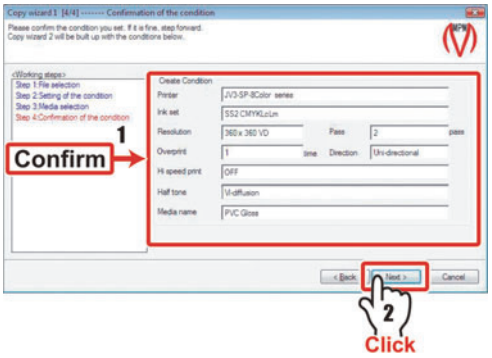
♦ The options that are displayed are limited by the source device profile.



11 Confirm the device profile creation conditions.

Check that the creation conditions have been applied.

To change the conditions, click **Back**, and then change the creation conditions.



12 Click Next .

Copy wizard 2 is displayed.

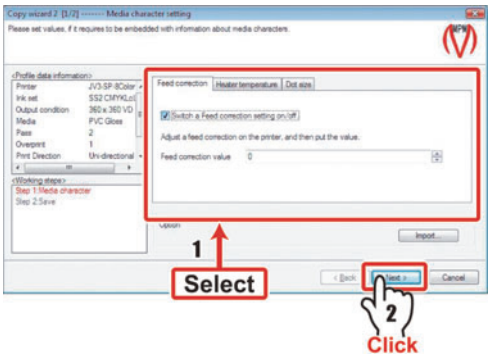
NOTE!	♦ You cannot return to Copy wizard 1 from Copy wizard 2. To change the profile conditions after you have moved to Copy wizard 2, you need to redo the procedure from Step 1.

13 Set the media character.

(☞ P.2-7)

Set the media character (Feed correction, Heater temperature, etc.).

The items that can be set here vary depending on the printer targeted by the destination device profile.

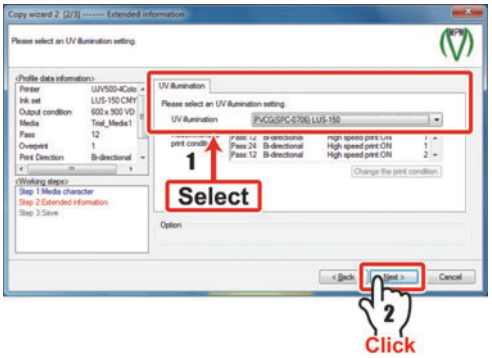


NOTE!	♦ Media character settings are copied if the same setting exists in the source device profile and the destination device profile. Furthermore, settings in the destination profile that do not exist in the source profile are set to the default values.

14 Set the extended information

(☞ P.2-13)

Set the extended information (UV illumination).

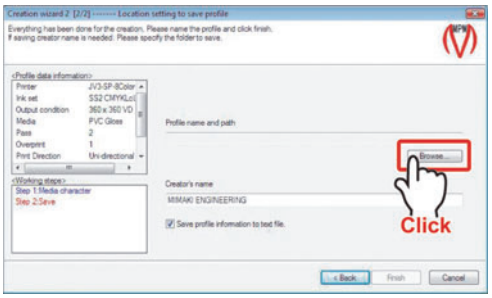


NOTE!	♦ If the copy source and copy destination printers are the same, the settings will be copied. ♦ If the copy source and copy destination printers are different, the initial values will be set.

15 Click Next .

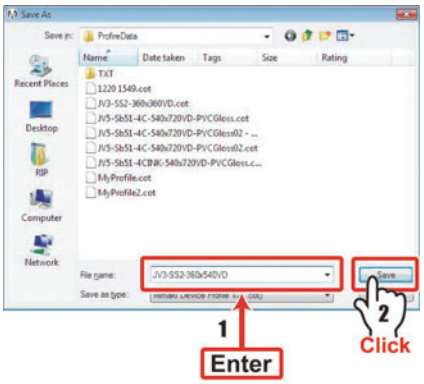
16 Save the device profile.

The new device profile is saved.



17 Click Browse .

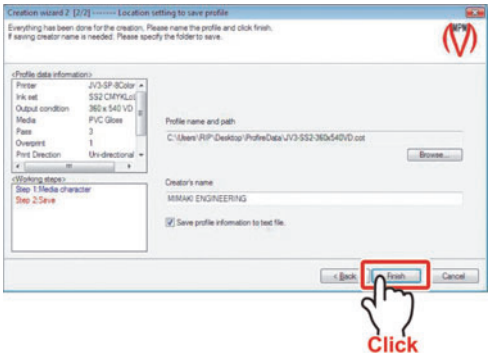
18 Specify the folder for saving the profile, and enter the file name to save.



19 Click Save .

20 **Click Finish .**

The device profile copy is completed and the screen returns to the main menu.



Chapter 6
Creating the ICC profile

Procedures for creating a ICC profile are explained.

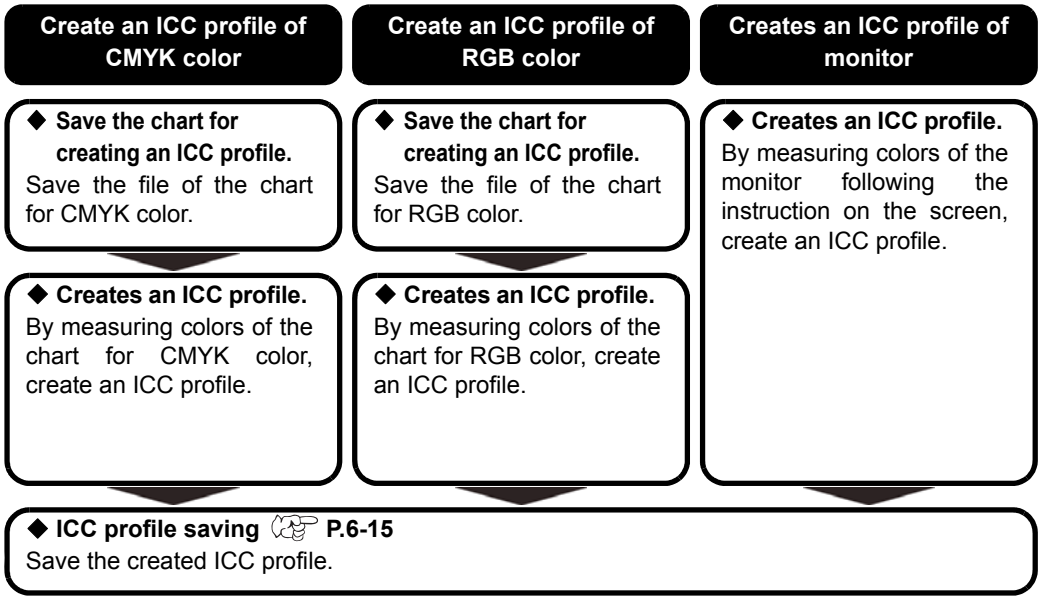
Flow of creating ICC profile

You can create three types of profiles below with MPM II.

Profile type	Details
ICC profile of CMYK color	● Profile to display CMYK color image on the monitor with color simulation function. (P.9-16) ● Profile to calculate CMYK value when printing specific colors using ColorPicker. (P.8-4) ● Output Profile for the RIP application compatible with ICC Profile made by other companies.
ICC profile of RGB color	● Profile to display RGB color image on the monitor with color simulation function. (P.9-19) ● Output profile of the printer for proof using printer driver. (P.9-13)
ICC profile of monitor	● Profile to reproduce colors produced with the printer manufactured by Mimaki on the monitor. (P.9-7)

NOTE!

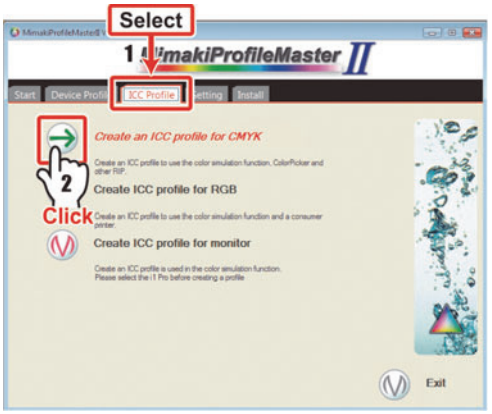
♦ For creating ICC profile of CMYK color and RGB color, only file saving of the chart for color measuring is performed. For printing the chart for color measuring, use other application to output with the printer.



ICC profile creation

Create an ICC profile of CMYK color

1 **Select the [ICC Profile] tab and click "Create an ICC profile for CMYK".**

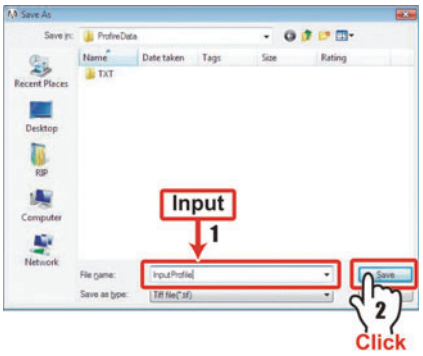


2 **Click Save as .**

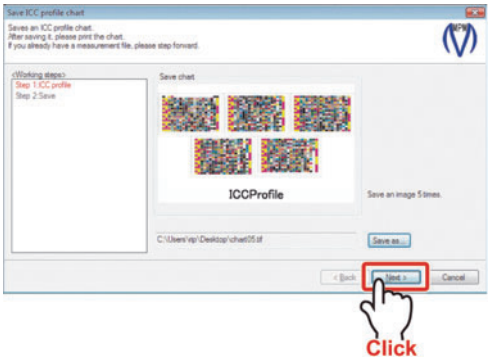
3 **Select the location for storing ICC Profile chart and enter the file name.**

4 **Click Save .**

The confirmation screen is displayed.
Click OK .

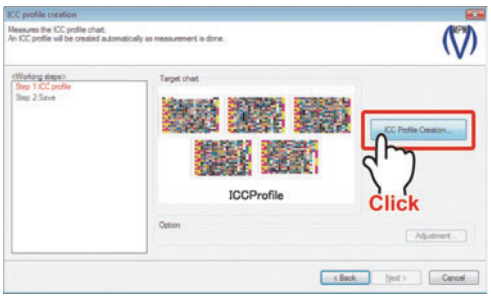


5 Click **Next** .

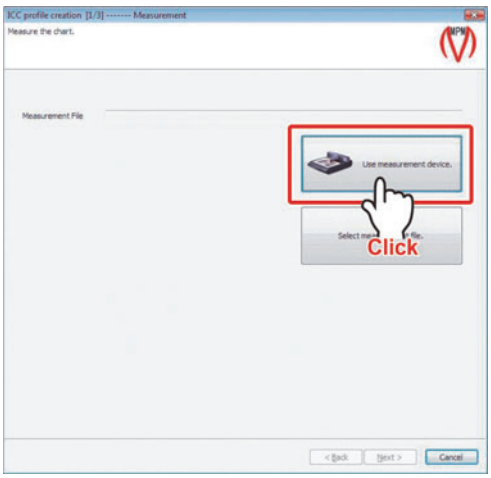


6 With the target printer, print out the ICC profile chart that has been saved.

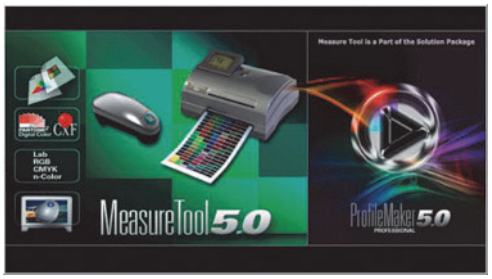
7 Click **ICC Profile Creation...** .



8 Click **Use measurement device.** .



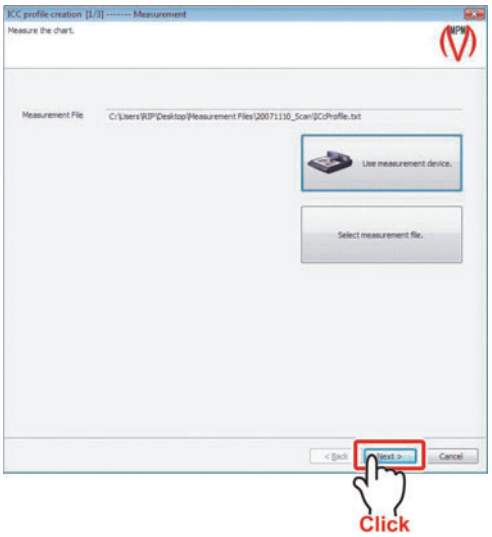
9 **The MeasureTool 5.0 is activated.**



10 **Measure the colors on the printed chart.**

(☞ P.2-29 Step 6)
Select "XX_IccProfileCMYK.txt" for the chart name. (XX is the name of the color measuring device.)

11 **When the measurement is completed, click Next .**



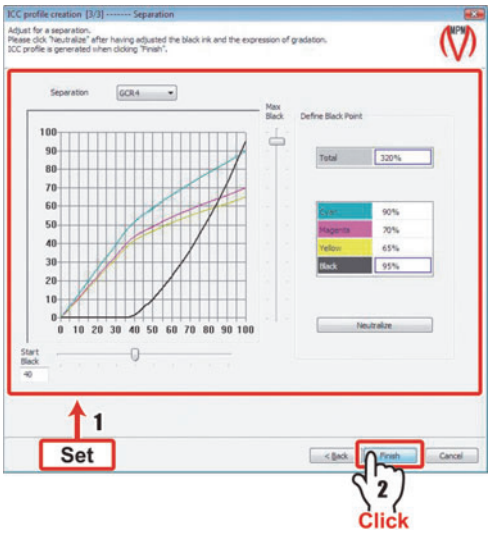
12 **Specify the "Profile Size" and "Perceptual Rendering Intent" then click Next .**

- **Profile Size**
  High accuracy :
  Create the more accurate ICC profile than [Normal] for approximately 3 minutes.
  The file size of the ICC profile is about 2MB.

  Normal:
  Create the ICC profile in short time (approximately 1 minutes).
  The file size of the ICC profile is about 700KB.

13 Adjust the black replacement.(☞ P.2-72)

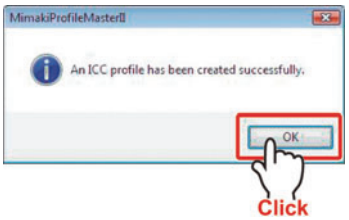
When creating an input profile, adjusting black replacement is not required. (There is no problem even if the black replacement is adjusted.)



14 Click Finish .

ICC profile creation begins.

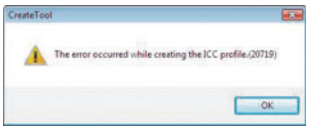
15 Click OK .



16 Click Next .

NOTE!

♦ If wrong color measurement file is selected, the message shown on the right appears.



Continued on P.6-15"ICC profile saving"

Create an ICC profile of RGB color

1 **Select the [ICC Profile] tab and click "Create an ICC profile for RGB".**

2 **Click Save as .**

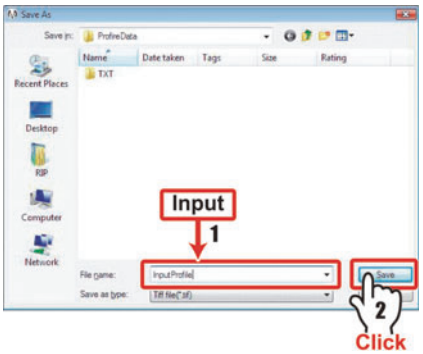
Depending on the set color measuring device, the number of charts to be saved differs.

3 **Select the location for storing ICC Profile chart and enter the file name.**

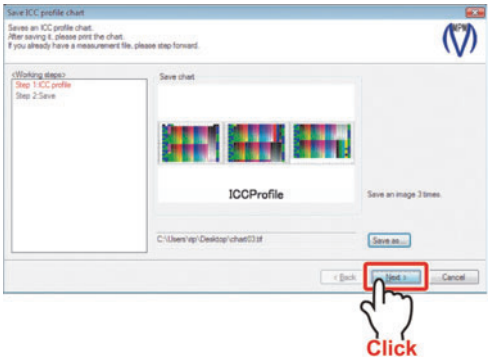
4 **Click Save .**

When you wish to save multiple charts, select the destination to save the chart again and enter the file name.

The confirmation screen is displayed.Click OK .

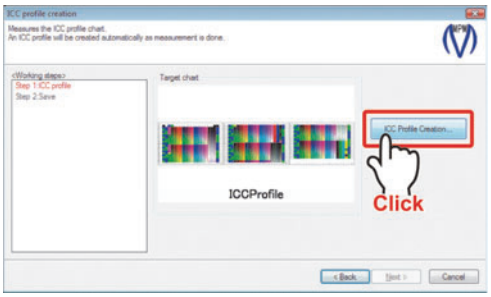


5 Click **Next** .

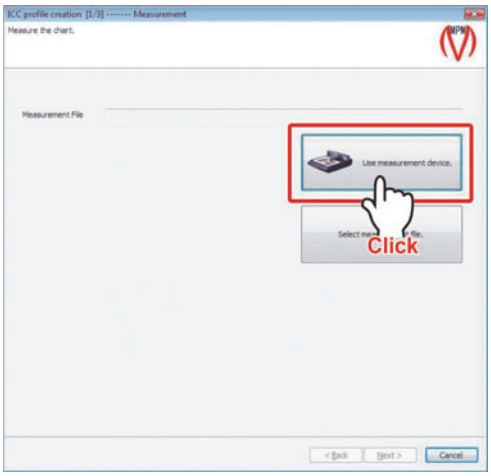


6 With the target printer, print out the ICC profile chart that has been saved.

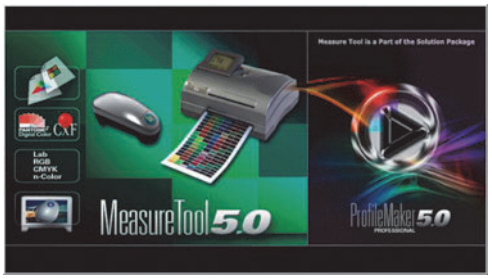
7 Click **ICC Profile Creation...** .



8 Click **Use measurement device.** .



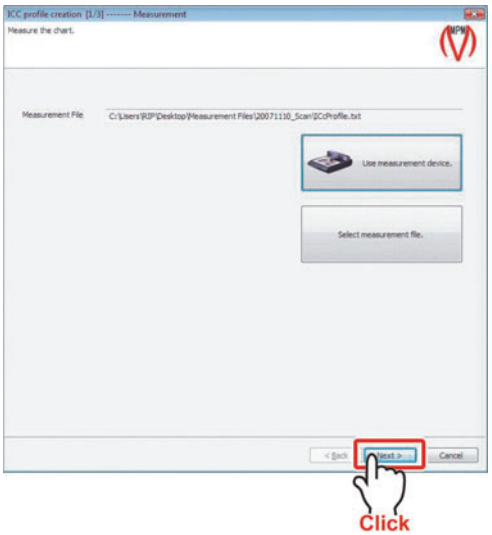
9 **The MeasureTool 5.0 is activated.**



10 **Measure the colors on the printed chart.**

(☞ P.2-29 Step 6)

11 **When the measurement is completed, click Next .**



12 **Set "Profile size" and "Perceptual Rendering Intent".**

- **Profile Size**

  High accuracy :

  Create the more accurate ICC profile than [Normal] for approximately 2 minutes.
  The file size of the ICC profile is about 1.2MB.

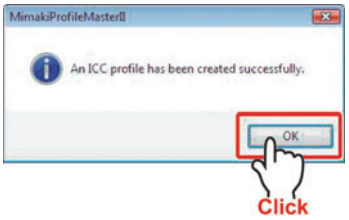
  Normal:

  Create the ICC profile in short time (approximately 1 minutes).
  The file size of the ICC profile is about 590KB.

13 **Click Next .**

ICC profile creation begins.

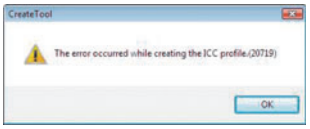
14 **Click** **OK** .



15 **Click** **Next** .

NOTE!

♦ If wrong color measurement file is selected, the message shown on the right appears.



Continued on P.6-15"ICC profile saving"

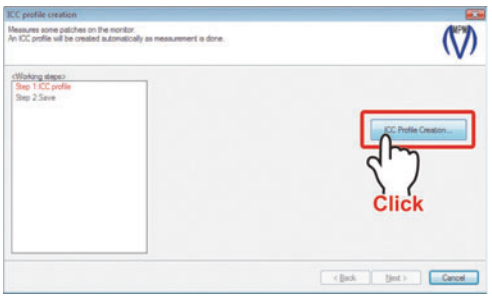
Creates an ICC profile of monitor

1 **Select the [ICC Profile] tab and click "Create an ICC profile for monitor".**

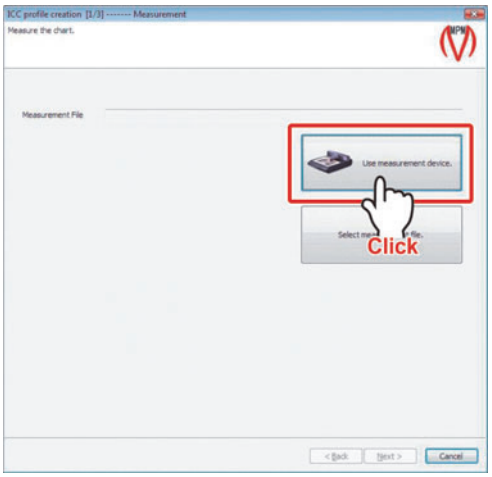
If the measurement device selected is not i1 Pro, it cannot be selected.

NOTE!	♦ Measure colors of the monitor for several minutes. Release the screen saver or the power saving function of the monitor.

2 **Click** **ICC Profile Creation...** .



3 **Click** **Use measurement device.** .



4 **The MeasureTool 5.0 is activated.**

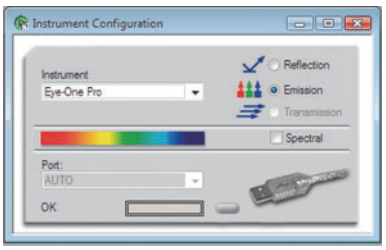
5 **Click "Device/Port" of the tool bar.**

"Instrument Configuration" is displayed.

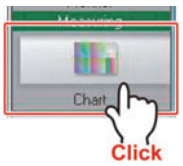
6 **Check the following items:**

- "Eye-One Pro" is selected to "Instrument".
- "Emission" is selected.
- "Spectral" is not checked.
- [OK] is displayed below the "Port".

After checking, close "Instrument Configuration".



7 **Click "Chart" of the tool bar.**

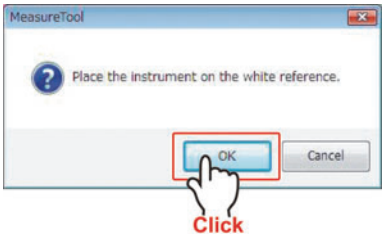


8 **Click the downward arrow of "Test Chart" to select "MonitorReference.txt".**

9 **Click** Start .

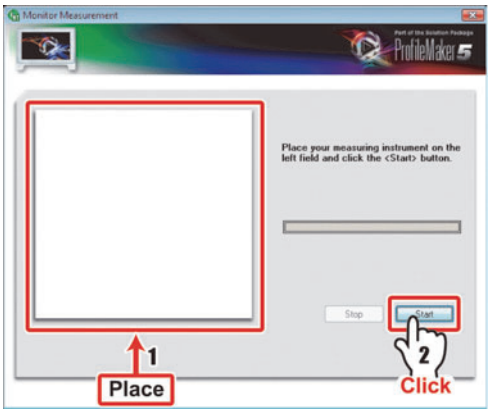
10 **Place the color measuring device on the white reference tile and click OK .**

Calibration of the color measuring device is performed and the color measuring screen is displayed.



11 **Place the sensor part of the color measuring device on the patch on the monitor.**

NOTE!	♦ Place the sensor so that there is no gap between the sensor and the monitor surface.



12 **After placing it, click Start .**

The measurement is automatically started.

13 **From the menu bar, select [File] → [Save as...] to save the color measurement results.**

Save the measured result surely making "File type" to [Text File (*.txt*.text)].

14 **Terminate MeasureTool 5.0.**

The file name saved in the Step 13 is displayed in the "Measuring color result file".

NOTE!	♦ If you make color measurement more than once with MeasureTool, the last saved file name is displayed. If this is different from the color measurement result file you wish to use, click [Select measurement file.] to select the file of your choice.

15 **Click Next .**

16 Set "Profile size".

● **Profile Size**

High accuracy :

Create the more accurate ICC profile than [Normal] for approximately 1 minutes.
The file size of the ICC profile is about 680KB.

Normal:

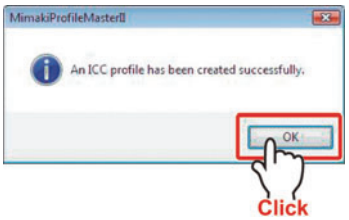
Create the ICC profile in short time (approximately 30 seconds). The file size of the ICC profile is about 10KB.

17 Click Finish .

ICC profile creation begins.

18 Click OK .

19 Click Next .



NOTE!

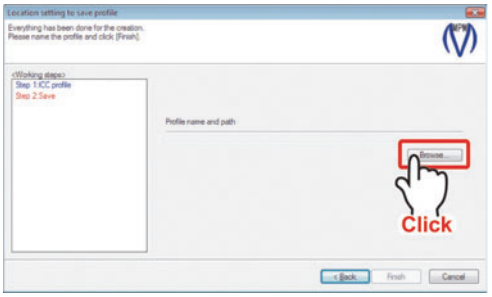
♦ If wrong color measurement file is selected, the message shown on the right appears.

Continued on P.6-15"ICC profile saving"

ICC profile saving

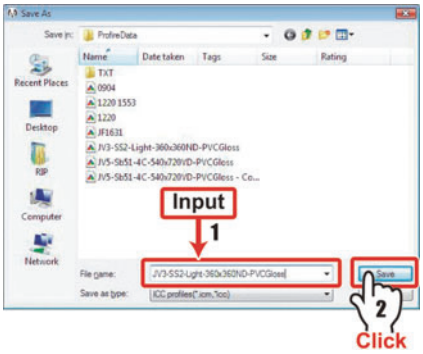
Continued from P.6-6 “Create an ICC profile of CMYK color”
Continued from P.6-10 “Create an ICC profile of RGB color”
Continued from P.6-14 “Creates an ICC profile of monitor”

1 Click Browse .

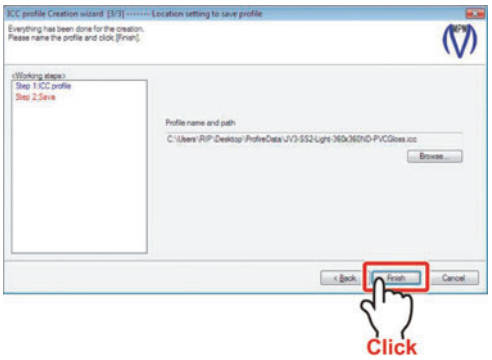


2 Specify the folder for saving the profile, and then enter the file name.

3 Click Save .



4 Click Finish .



Chapter 7
Installing and uninstalling profiles

Methods for installing/uninstalling the profiles on the Raster Link series are explained.

♦ "Raster Link series other than Raster Link Pro" indicates the following Raster Links.

Raster Link UJ	Raster Link GP
Raster Link Pro II	Raster Link Pro III
Raster Link IP III	Raster Link TA III
Raster Link Pro4 SG	Raster Link Pro4 IP
Raster Link Pro4 TA	Raster Link Pro5 SG
Raster Link Pro5 IP	Raster Link Pro5 TA
Raster Link 6	

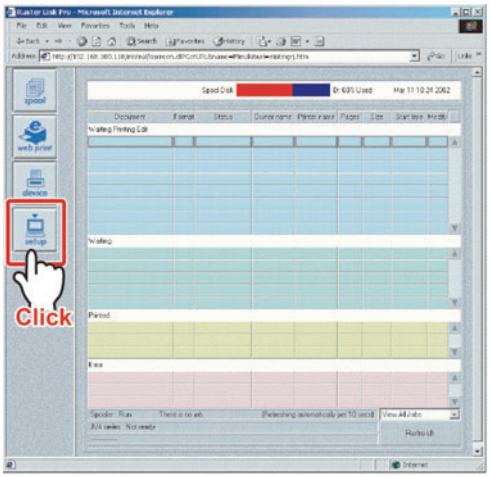
Install Device Profile in Raster Link Pro

Install the created device profile in the Raster Link Pro.

NOTE!	♦ Do not start the Raster Link Pro and MPM II concurrently. This may cause a failure. Be sure to exit MPM II first before starting Raster Link Pro. ♦ The device profile having the extension of ".icc" can not be installed to Raster Link Pro. ♦ The Device Profiles installed in Raster Link Pro cannot be uninstalled.

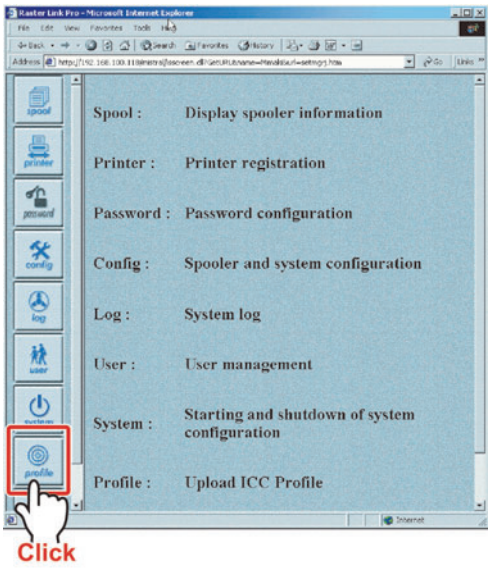
1 **Confirm that MPM II is terminated and start Raster Link Pro.**

The spool screen is displayed.

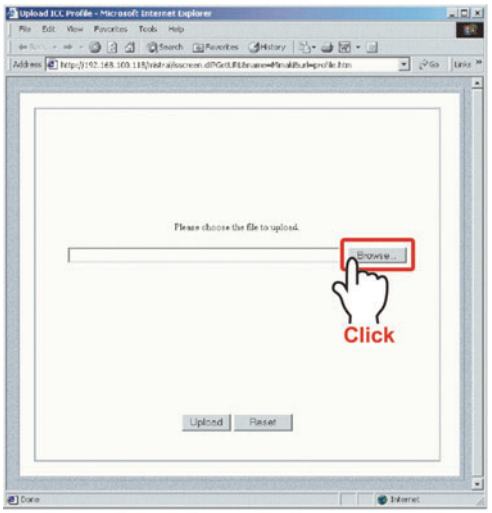


2 **Click** **setup** **.**

3 **Click** **profile** **.**

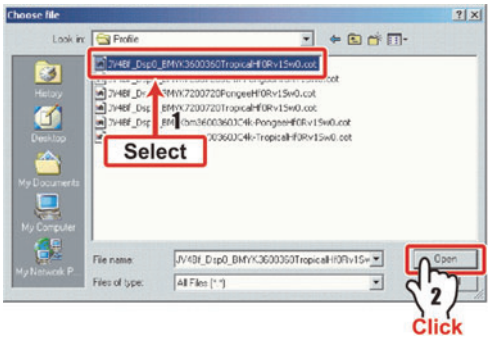


4 Click **Browse** .

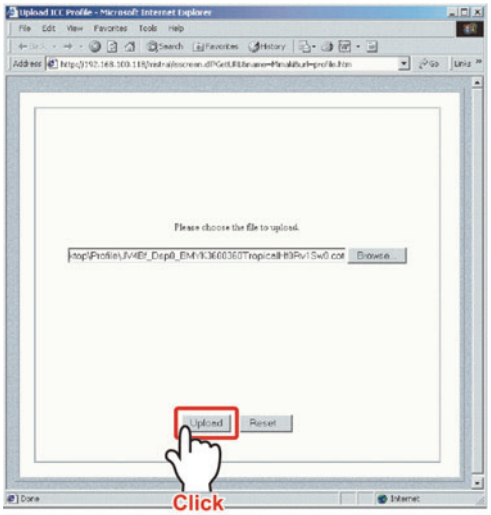


5 Select the device profile to be installed.

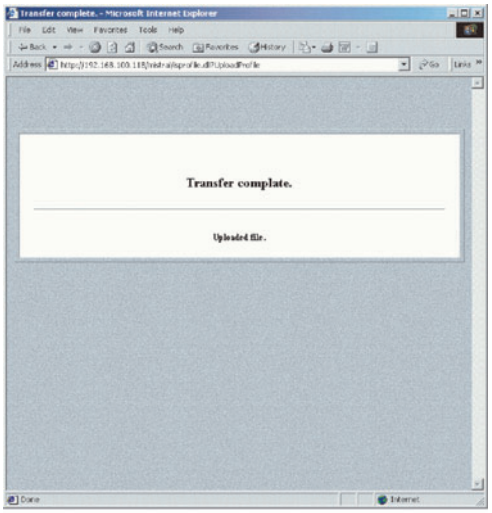
6 Click **Open** .



7 Click Upload .



The screen to confirm the transfer completion is displayed.



8 Restart the computer.

Device Profile installation is completed.

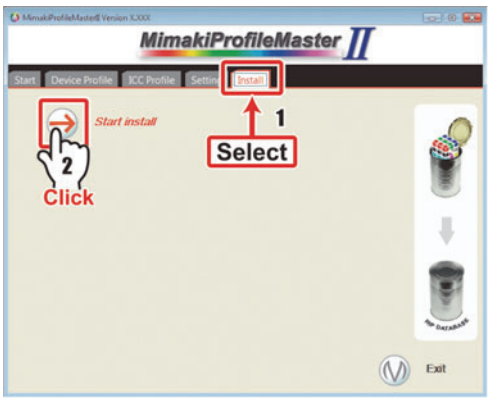
Installing/uninstalling to/from Raster Link series other than Raster Link Pro

Start ProfileManager

NOTE!	♦ MPM II cannot be used during "ProfileManager" is running.

1 **Select the [Install] tab and click "Start install".**

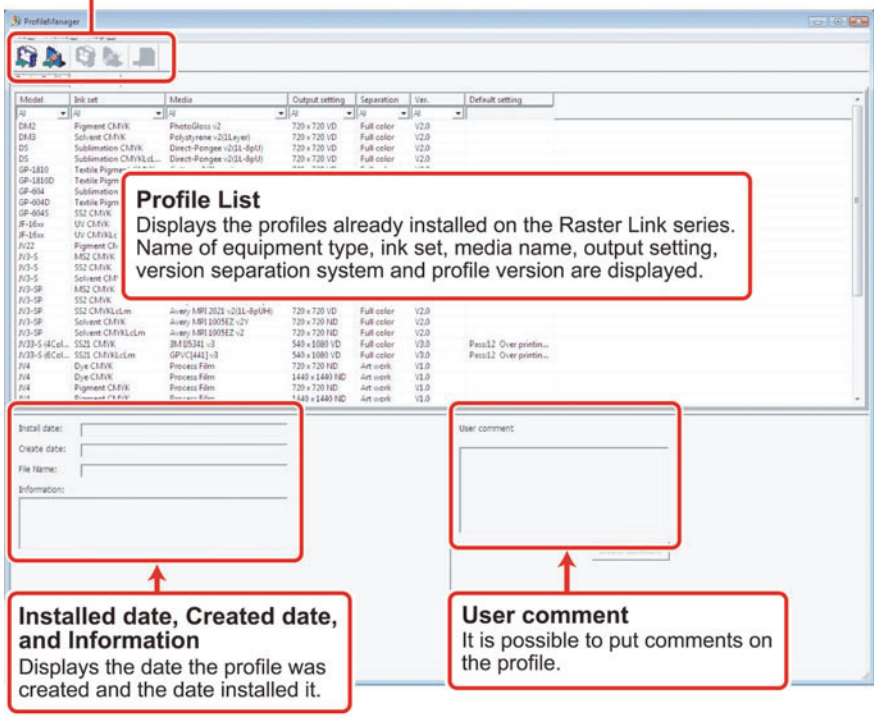
ProfileManager starts.



ProfileManager

Refer to the next page for icons.

This is the screen for RasterLinkPro5 and earlier.



Icons

RasterLinkPro5 以前	RasterLink6	
		Install the Device Profile. (☞P.7-7)
		Install the Input Profile. (☞P.7-7)
		Uninstall the Device Profile. (☞P.7-10)
		Uninstall the Input Profile. (☞P.7-10)
		Convert V2 profile to V3 profile. (This function is absent in RasterLink6 and later.)

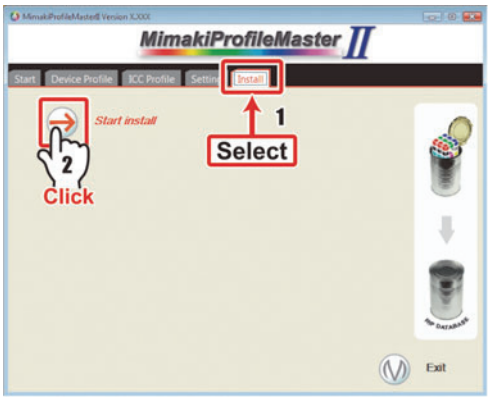
Install a Profile

Install the profile in Raster Link series other than Raster Link Pro by using ProfileManager.

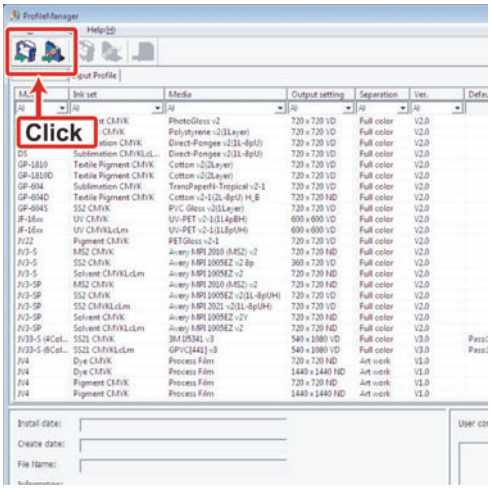
NOTE!	♦ MPM II cannot be used during "ProfileManager" is running. ♦ The extension of the profile displayed on "Select install device profile" varies between device profiles and input profiles. For Device Profile: .cot or .icc files For Input Profile: .icc or .icm files

1 **Select the [Install] tab and click "Start install".**

ProfileManager starts.



2 **To install the Device Profile, click  . To install the Input Profile, click  .**

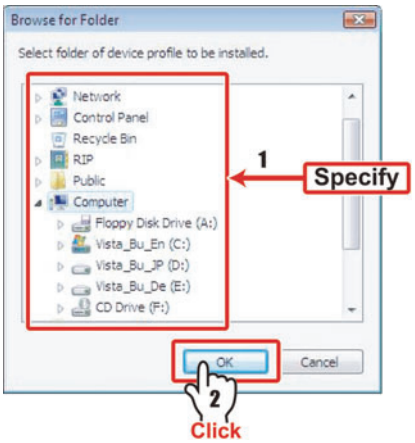


Or, on the [Profile] of the toolbar, click [Install Device Profile] or [Install Input Profile].

The "Browse for Folder" window is displayed.

3 Specify the plofile save folder.

♦ Saving profiles in one folder is recommended, as it is convenient that only one time installation is required.



4 Click OK .

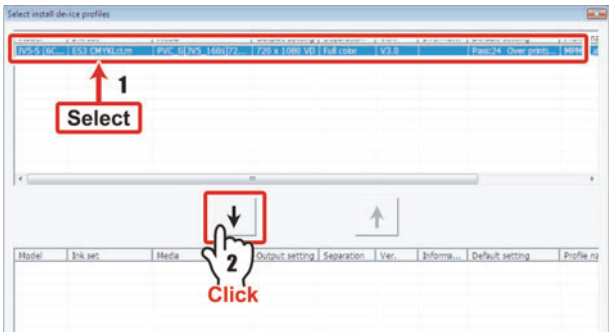
The "Select install device profile" window will be displayed.

♦ If no relevant profile exists in the specified folder, an error message is displayed.

5 Select the profile to be installed.

♦ When you wish to select multiple profiles, select them by pressing the Ctrl key.

The color of the selected profile is changed to blue.



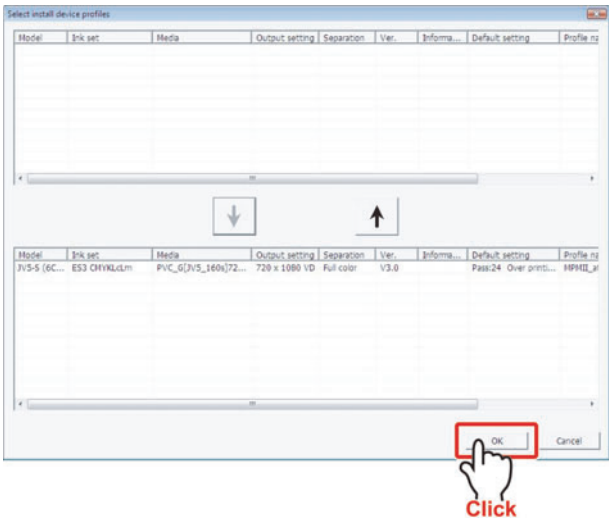
6 Click ↓ .

The selected profiles disappear from the upper list, and they are displayed in the lower list.

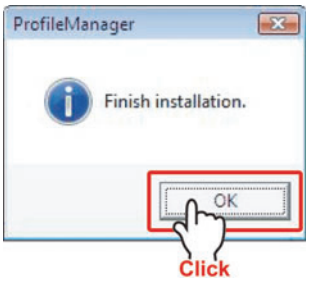
♦ When the profiles shown on the lower list are to be returned, select the profile to return and click ↑ .

7 Click OK .

♦ If profiles with the same setting exist in the list, a dialog to confirm overwriting is displayed.



The dialog shown on the right is displayed.



8 Click OK .

The added profiles are displayed in the ProfileManager list to complete the profile installation.

♦ The installed profiles are displayed in the [Device Profile] tab when Device Profile is installed, and in the [Input Profile] tab when input profile is installed.

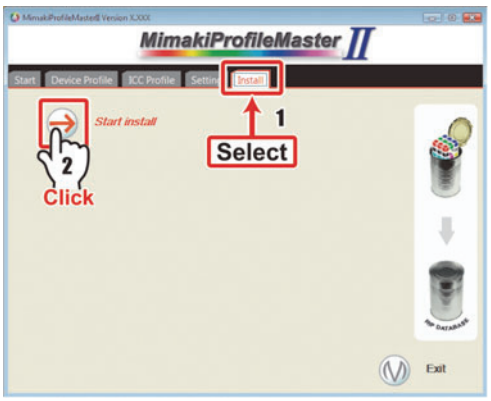
Uninstall a Profile

Uninstall a profile from Raster Link series other than Raster Link Pro.

♦ The uninstallation method for both the Device Profile and the input profile are the same.

1 Select the [Install] tab and click "Start install".

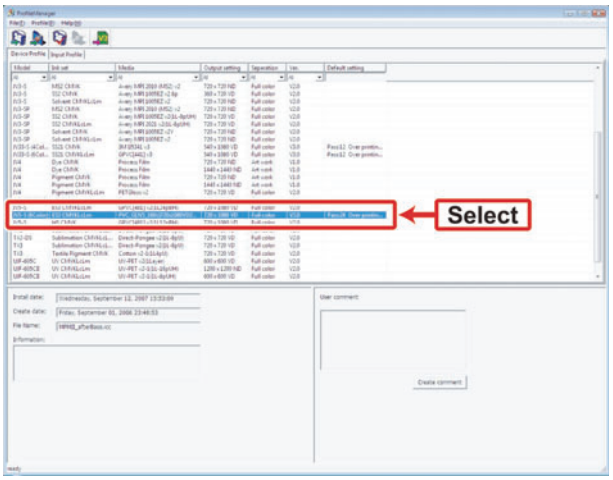
ProfileManager starts.



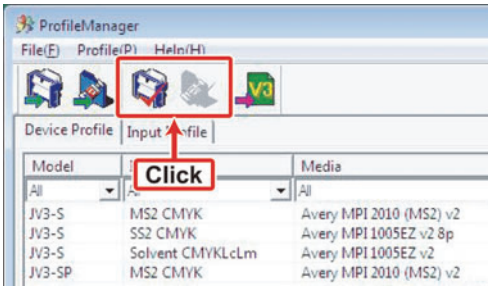
2 Select a profile you wish to uninstall from the list in [Device Profile] or [Input Profile].

♦ When you wish to select multiple profiles, select them by pressing the Ctrl key.

The color of the selected profile is changed to blue.



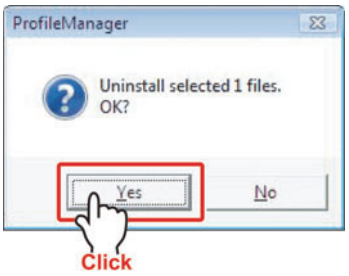
3 **To uninstall the Device Profile, click . To uninstall the Input Profile, click .**



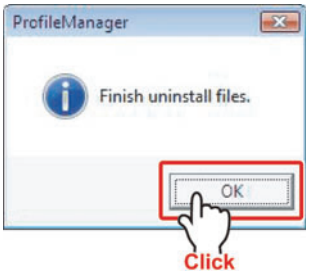
Or click [Uninstalling Device Profile] or [Uninstalling Input Profile] from [Profile] in the tool-bar.

The confirmation dialog is displayed.

4 **Click Yes.**



The dialog on the right appears.



5 **Click OK.**

The uninstalled profiles are deleted from the ProfileManager list to complete profile uninstallation.

Chapter 8
Performing color matching of spot color with ColorPicker

The color matching method of the spot color with the color exchanging function of ColorPicker and Raster Link series is provided here.

Spot color matching with ColorPicker

What is ColorPicker?

ColorPicker is software to measure a color of color sample and calculate its CMYK value for printing the color to reproduce a certain color.
In case a certain color sample is provided by the client, measure and calculate the CMYK value match the color sample with ColorPicker.

NOTE!	♦ If you want to use ColorPicker in a Macintosh, download it from X-Rite's web site. **X-Rite's web site http://www.xrite.com/**

Flow of color matching of spot color with ColorPicker

Provided here is the color matching work of spot color with ColorPicker.
Using color exchanging function of Raster Link series, it realizes color matching of vector data (CG drawn with Adobe Illustrator) for which spot color is specified.
For the details of the color exchanging function, see the instruction manual of Raster Link series.

NOTE!	♦ Use the color exchanging function of Raster Link Pro II or later of Raster Link series. ♦ Here, flow of the work with i1 Pro as an example is explained. ♦ Note that i1 iSis cannot be used as a color measurement device for ColorPicker. **Precautions for performing color matching of spot color** • A color outside the gamut cannot be reproduced. • It is assumed that D50 light source is with color matching calculation. Therefore, the result will not be always the same in your light source environment. You are requested to tolerate the difference between what it looks and the figures. *1

*1. The displayed color difference value is a predicted value for calculation. Therefore, it provides no assurance of the color difference between the actual color output and the color sample.

1 Create the ICC Profile with ColorPicker.

Work contents	Application to be used
Save the color chart for creating the ICC Profile.	MPM II
↓	
Print the color chart. Output the color matching in OFF.	Raster Link series
↓	
Measure the color chart and create the ICC Profile.	MPM II

2 Perform color matching of spot color with ColorPicker.

Work contents	Application to be used
Set up the color matching of ColorPicker.	ColorPicker
↓	
Read the created ICC Profile into ColorPicker.	
↓	
Measure the targeted sample color.	
↓	
Instruct ColorPicker to make delta E minimum.	
↓	
Write out the calculation result to the swatch library.	

3 Modify the image with Illustrator.

Work contents	Application to be used
Read in the swatch library.	Illustrator
↓	
Change the color with the swatch library.	

4 Exchange the color with Raster Link series to output.

Work contents	Application to be used
Register the job of the vector image in Raster Link series.	Raster Link series
↓	
Set up the color exchanging information.	
↓	
Output the job.	

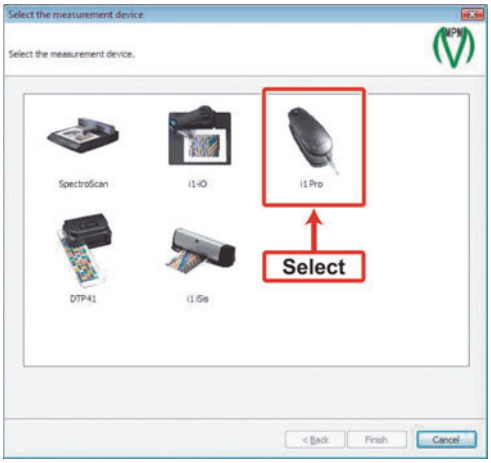
Creating the ICC Profile with ColorPicker

1 Starting MPM II.

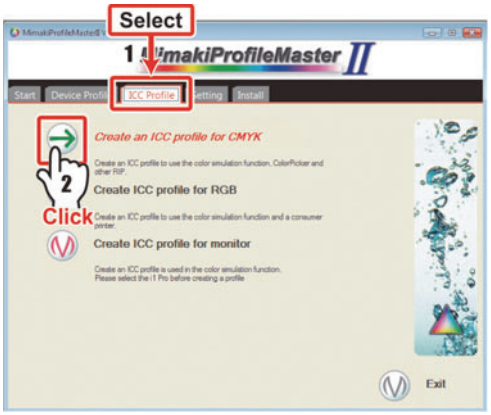
2 Select i1 Pro as the measurement device.

(1) Select the [Setting] tab and click "Measurement".
(2) Select i1 Pro.

For selection method of the measurement device, see P.1-6.



3 Select the [ICC Profile] tab and click "Create an ICC profile for CMYK".



4 Click Save as .

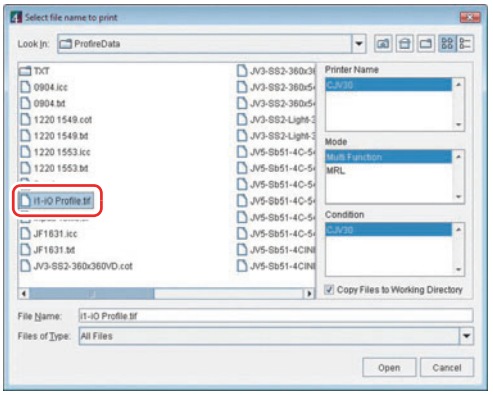
Depending on the set color measuring device, the number of charts to be saved differs.

5 Save the chart for an ICC profile.

6 Starting Rastser Link series.

7 Add the stored chart to Raster Link series as a job.

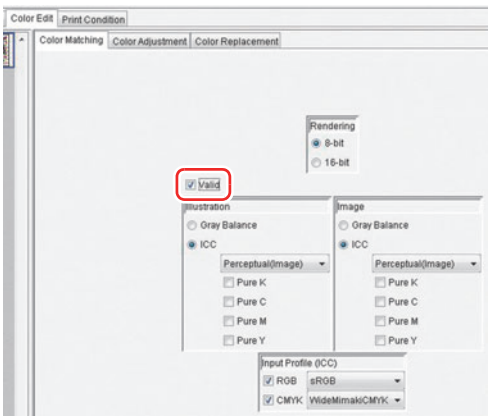
(1) Select [Open] from [File].
(2) Add the chart stored in the Step 3-(3).



8 Open the job editor of the created job.

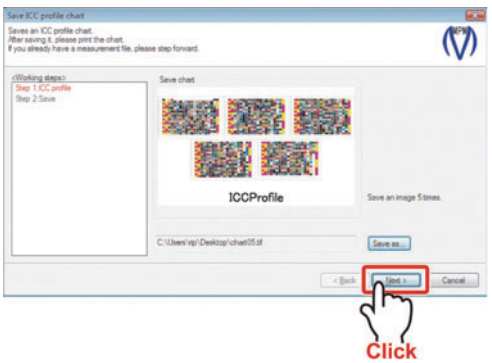
Turn off the check box for "Valid" in the [Color Matching] tag in the [Color Edit] tag.

Output the chart after performing setting.
For the output method in Raster Link series, see the Operation Manual of Raster Link series.



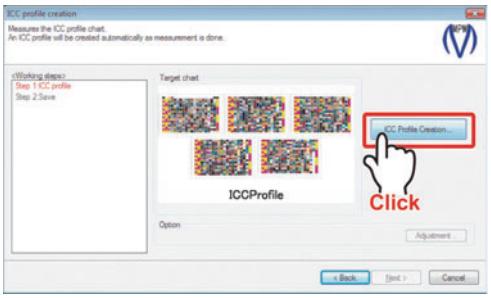
9 Measure the color of the chart output in the Step 7 and create the ICC Profile.

(1) Select the [ICC Profile] tab and click "Create an ICC profile for CMYK".
(2) Click **Next** .



(3) Click ICC Profile Creation... .

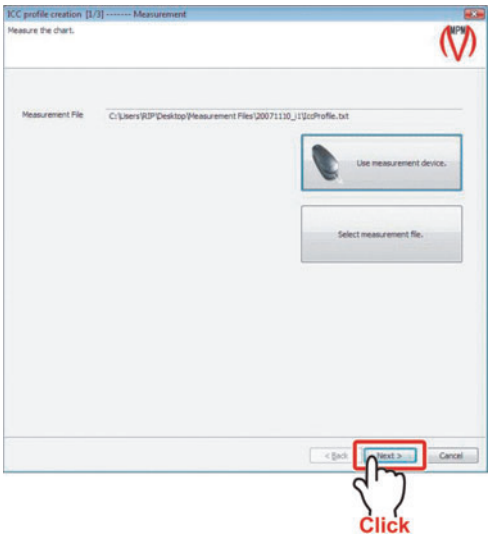
(4) Click Use measurement device. to measure the chart.For the measurement method, see P.2-34.



(5) When the measurement is completed, click Next .

(6) Perform basic setting of the Profile and the black printer.For setting method, see P.6-5.

Leave the black printer setting default.For the details of setting contents, see P.2-72.
Select "XX_IccProfileCMYK.txt" for the chart name. (XX is the name of the color measuring device.)



10 Click Finish .

After creating the ICC Profile, click Next .

11 Save the created ICC Profile and terminate MPM II.

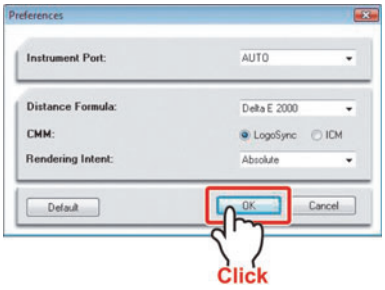
Continued on P.8-7"Color matching of spot color with ColorPicker"

Color matching of spot color with ColorPicker

1 **Connect i1 Pro (measurement device) to PC and start up ColorPicker.**

2 **Select [Preferences...] from [Edit] and perform setting as below. Then click OK .**

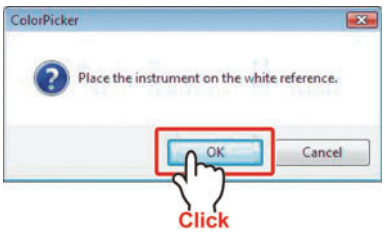
Instrument Port : AUTO
Distance Formula : ΔE2000
CMM : LogoSync
Rendering Intent : Absolute



3 **Click the list box of [Instrument] and select "Eye-One Pro".**

NOTE!	♦ If i1 Pro is not recognized, change the connection point of the USB cable or try to install the driver again.

4 **Click OK .**



5 Click Open and select the ICC Profile created in “Creating the ICC Profile with ColorPicker”.

6 Measure the color sample with i1 Pro.

Place the lens part of i1 Pro on the color sample and press the button on the side face of i1 Pro.

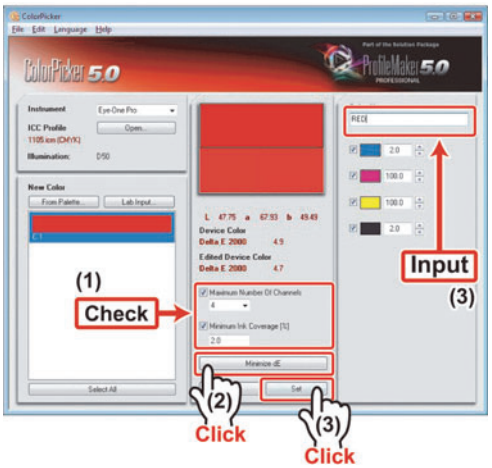
When the beep sound is heard the measured color will be displayed in ColorPicker.

7 Adjust the measured data.

(1) Check if the "Maximum Number Of Channels" box is checked and the value is set to "4". Check if the "Minimum Ink Coverage" box is checked and the value is set to "2.0".

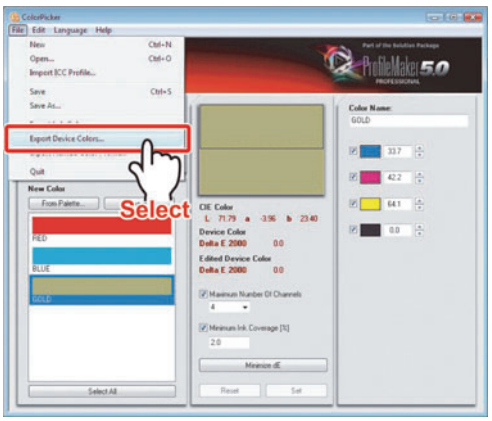
(2) Click Minimize dE .The value of color difference of "Edited Device Color" will become smaller and it can be edited to more proper color.

(3) Input the name of the measured color and click Set .

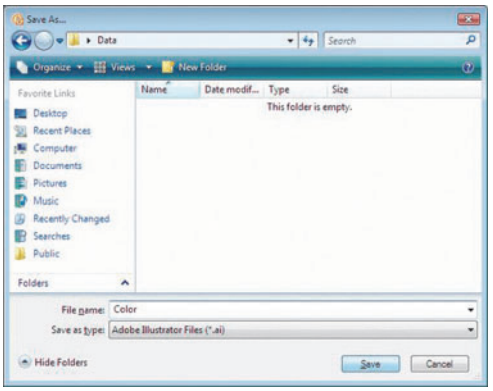


♦" ! " mark is displayed for the item of the color difference 5 and more. If " ! " mark is not cleared by clicking Minimize dE button, it indicates that the color is outside the Gamut (not to be reproduced).

8 After measuring the required color samples, select [Export Device Colors...] from [File].



9 **Click Save button with its extension being ".ai" to save it as Illustrator swatch library.**



♦ If you set a folder in Illustrator as the location for storing directly, setting in Illustrator will become easier.
C:\Program Files\Adobe\Illustrator(Version)\Presets\Swatches

Continued on P.8-9"Modifying image with Illustrator"

Modifying image with Illustrator

1 **Terminate ColorPicker and start up Illustrator.**

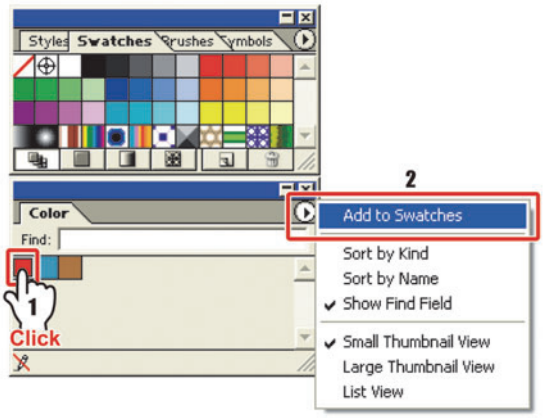
2 **Open the image to be output.**

3 **From [Window], select [Swatch Libraries] and then [Other Library]. Read the ".ai" file stored in the Step 9 of "Color matching of spot color with ColorPicker".**

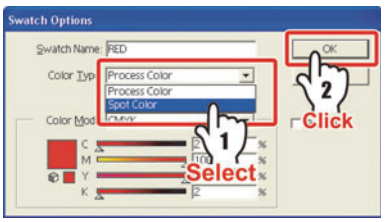
♦ If you set a folder in Illustrator as the location for storing in the Step 8 of "Color matching of spot color with ColorPicker", only selecting [Swatch Libraries] from [Window] will list up the created swatch library.

4 Set up the color read in the Step 3 to the spot color.

(1) Add the read color to the swatch library.



(2) Double-click the color added in the swatch library and set up the spot color.



5 Using the color added to the swatch library, modify the image.

6 Store the image as EPS, terminate the Illustrator.

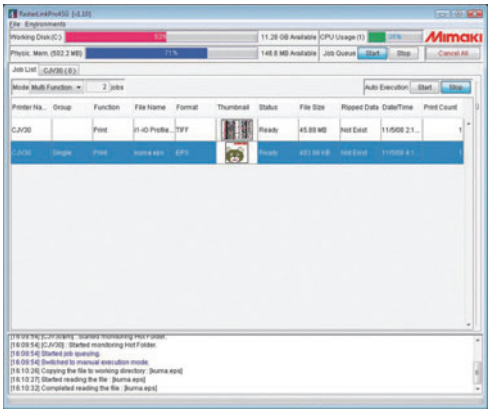
Continued on P.8-11"Exchanging the color to output in Raster Link series"

Exchanging the color to output in Raster Link series

1 Starting Rastser Link series.

2 Register the job of the vector image in Raster Link series.

For the job registration method, see the Operation Manual of Raster Link series.



3 Open the job editor, and select the [Color Replacement] tab.

Select the [Color Replacement] tab from the [Color Edit] tab.

4 Select the [Color Replacement] tab and add the color exchanging information.

(1) Input the name of color exchanging and click Add .

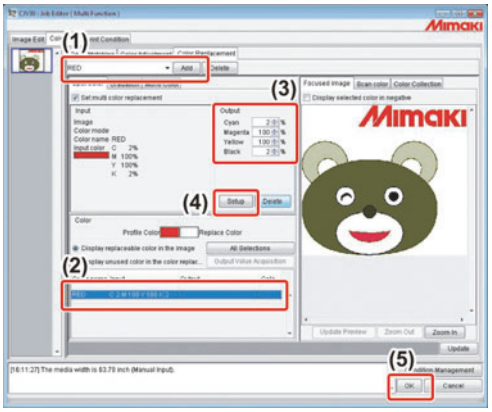
(2) Specify the color to be exchanged.

- If the spot color name is specified, click the listed spot color name.
- If the spot color name is not specified, click the color on the preview image.

(3) Input the CMYK value displayed in [Input] to [Output].

(4) Click Setup and add the color exchanging information.

(5) After performing setting, click OK to terminate the job editor.



5 Output in Raster Link series.

Chapter 9
Perform color simulation

The procedures to reproduce (simulate) colors printed with a printer manufactured by Mimaki using a monitor or a printer for proof (consumer printer) are explained.

Perform color simulation using Adobe Photoshop/ Illustrator

By performing color simulation, you can reproduce (simulate) colors produced with the printer manufactured by Mimaki on the monitor or the printer for proof.

Merit of using color simulation function

- ♦ It can eliminate the need for color adjustment in each time, comparing the color produced with the printer manufactured by Mimaki to the target color. You can reduce useless work and improve the working efficiency.
- ♦ As the color produced with the printer manufactured by Mimaki is displayed on the monitor, the accuracy of the color adjustment on the monitor can be improved.
- ♦ You can use the result printed with the printer for proof (consumer printer) as the color sample for your client.

Note on color simulation function

NOTE!	
	♦ Even if you use this function, the color does not always match the one produced with the printer manufactured by Mimaki. (This is because you cannot fully simulate the color produced with the printer manufactured by Mimaki, as each printer or monitor has characteristic difference or individual difference.) ♦ The color outside the gamut of the monitor or the printer for proof cannot be reproduced. ♦ To perform color simulation with the monitor or the printer for proof, it is required to create an ICC profile for simulating the color produced with the printer manufactured by Mimaki. ♦ The color of the printed material changes in appearance depending on your environment light source. It is supposed that D50 light source is to be used for this function.

System environment required for color simulation function

It is necessary to prepare environment below to use the color simulation function.

Mimaki Profile MasterII v2.00	Use to create an ICC profile.
Raster Link series	Outputs the required chart when creating an ICC profile.
i1 Pro	Use to measure colors of the monitor.
Adobe Photoshop Adobe Illustrator	Use to adjust the color of the image or to display simulation on the monitor. Use Photoshop 6.0 and later/Illustrator 9.0 and later supporting color management. (CS and higher is recommended.)
Operator PC	PC on which Adobe Photoshop/Illustrator has been installed.
Monitor supporting color management	Monitor of the operator PC. The one supporting AdobeRGB or sRGB. (The one with hardware calibration function is recommended.)
High color rendering fluorescent *1	Fluorescent with color temperature of 5000K for color appraisal. Use as the observation light source of the printed material.
Printer for proof	Consumer printer commercially available. (To output correctly, the one for professional use is recommended.)

*1. Prepare this optionally.

Preparation to use color simulation function

To use the color simulation function, install software below:

Raster Link series *1	MPMII
i1 Pro driver *2	Adobe Photoshop、AdobeIllustrator *3
Software used for calibration of monitor *3	Printer driver of printer for proof *4

*1. For installation procedures, refer to the installation guide of Raster Link series.
*2. The driver is included in the CD of MPMII.
Specify the folder below in the CD of MPMII when specifying the driver.
[CD drive]Driver\EyeOne
*3. For installation procedures, refer to the user's manual of each software.
*4. For installation procedures, refer to the user's manual of consumer printer to use.

NOTE!

♦ If the PC to use for adjusting image file requested by the client (operator PC) differs from the PC to output to the printer manufactured by Mimaki (PC for outputting), install the following items referring to the table below:

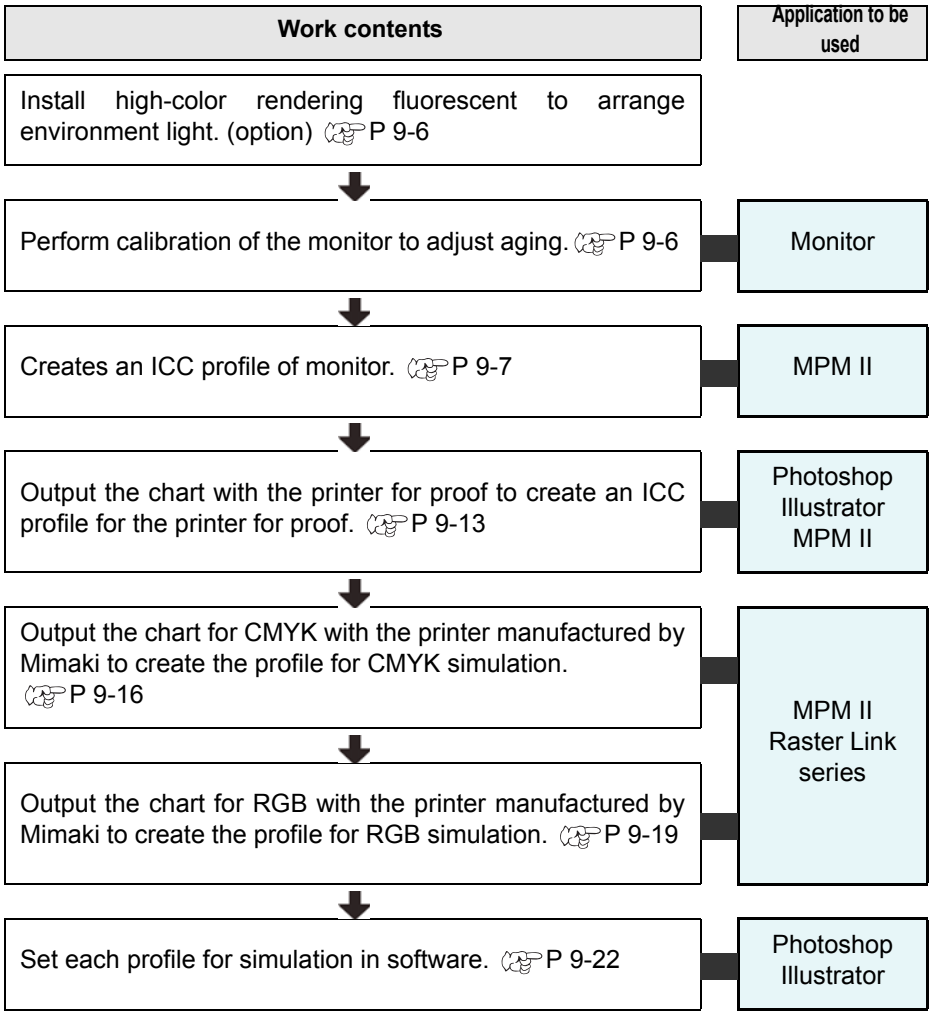
Raster Link series	PC for outputting
MPMII	PC for outputting, Operator PC *1
X-Rite i1 Pro driver	Operator PC, PC for outputting
Printer driver of printer for proof	Operator PC
Software for calibration of monitor	Operator PC
Adobe Photoshop、Adobe Illustrator	Operator PC

*1. Only when Windows is used for operator PC.

Flow of color simulation

1 Prepare to perform color simulation.

Prepare to simulate colors output with the printer manufactured by Mimaki with the monitor or the printer for proof.



2 Edit the image with Photoshop/Illustrator.

You can simulate colors produced with the printer manufactured by Mimaki on the monitor. In addition, you can output with the printer for proof and simulate the edited result.

NOTE!

- For Raster Link series, you can perform different rendering intent (color conversion) for raster data and vector data separately. However, you can simulate only one type of color conversion on the monitor.
- It is recommended to check raster data with Photoshop and to check vector data with Illustrator. In addition, to make each setting same as in Raster Link series is recommended.

Work contents	Application to be used
Adjust colors so that those of the monitor can become similar to the target colors. P 9-25	Photoshop Illustrator
Output with the printer for proof to check difference between it and the target color. P 9-28	

3 Output with the printer for proof.

Work contents	Application to be used
You can use calibration paper output with the printer for proof as the color sample. P 9-32	Photoshop Illustrator

4 Output the image with the printer manufactured by Mimaki.

Work contents	Application to be used
Output with the printer manufactured by Mimaki and make the client check finally. P 9-32	Raster Link series

Use high-color rendering fluorescent to arrange environment light (option)

Change environment light of the place to be used for color matching.

Target of environment light	
Color temperature	5000K
Illuminance	600lx

NOTE!

- ♦ Changing environment light is only as a recommended procedure. It is not required when you can always prepare a fixed environment or if environment light differs much from the presented place of the printed material.
- ♦ It is supposed that D50 light source is to be used. Depending on your environment, colors output with the printer manufactured by Mimaki do not match colors simulated with the printer for proof in some cases.

Perform calibration of the monitor

Using software for calibration attached to the monitor, perform hardware calibration. Operate by following instruction of software to use.

NOTE!

- ♦ Calibration to adjust the monitor display environment is required to demonstrate the performance of the monitor.
- ♦ The colors displayed on the monitor will change while it is used for a long time. If this color change will be left as it is, the simulation accuracy with the monitor will be degraded. To correct this color change, periodical calibration of the monitor is recommended.

Creates an ICC profile of the monitor

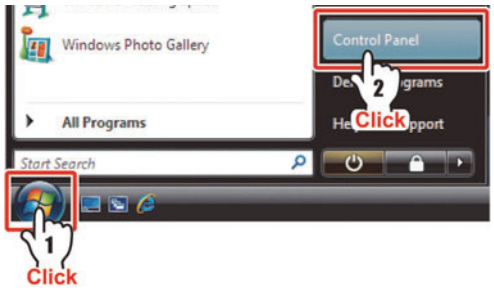
If an ICC profile has already been prepared by the monitor manufacturer, use the prepared ICC profile.

NOTE!	♦ If you create an ICC profile of the monitor using MPMII, refer to the P.6-11"Creates an ICC profile of monitor". Set the created ICC profile in the profile of the monitor you use.

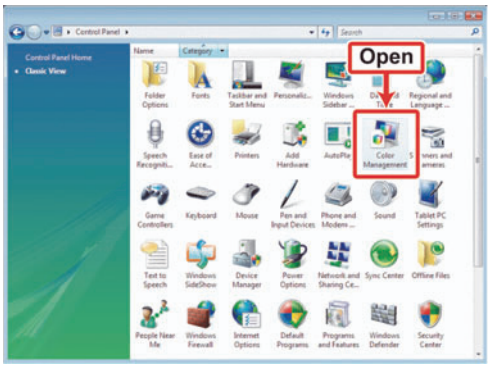
Set in the profile of the monitor you use (for Windows Vista)

1 **Install the created ICC profile in the PC.**

2 **Click [Start] → [Control Panel].**

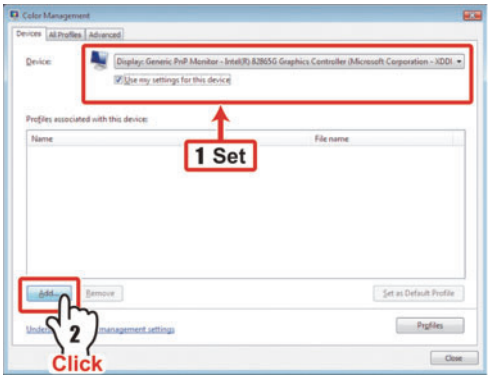


3 **Open "Color Management".**

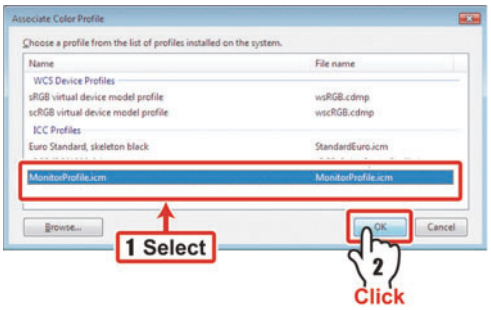


4 Set as below and click Add .

Device: "Display: ------"
Check the box of "Use my settings for this device."



5 Select the created ICC profile and click OK .

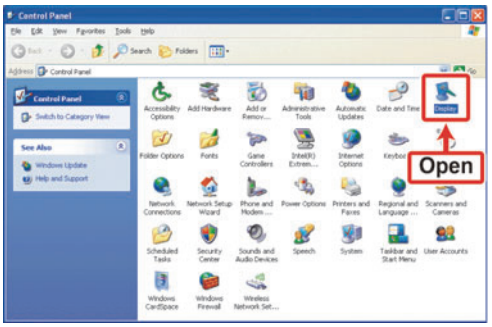


6 Set the added profile to the default profile.

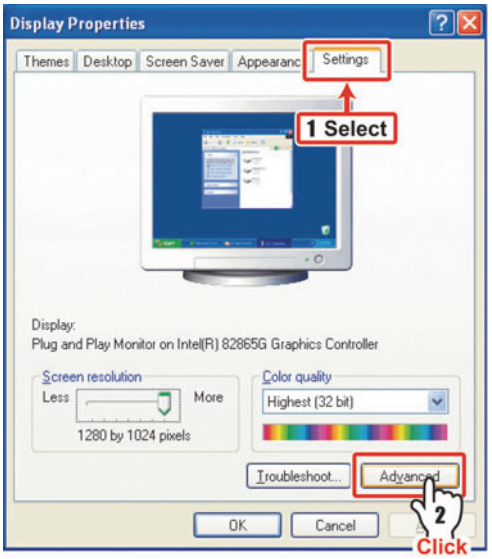
Set to the profile of your monitor (for Windows XP)

1 **Click**
[Start] → [Control Panel].

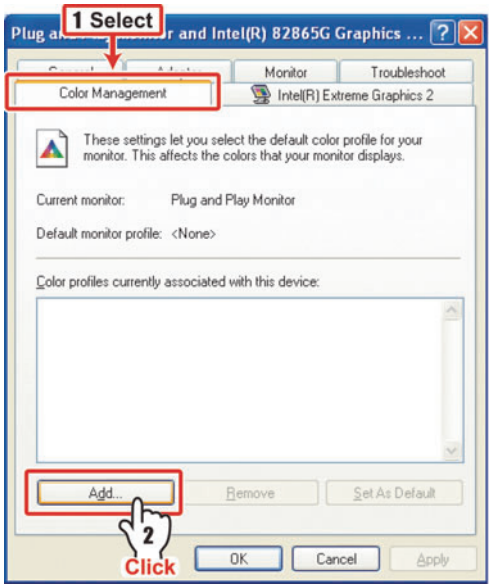
2 **Open "Display".**



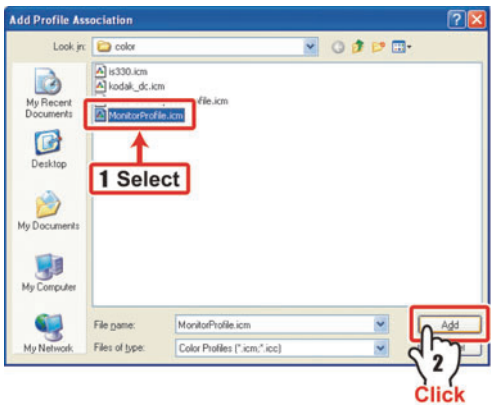
3 **Select "Setting" tab and click** Advanced .



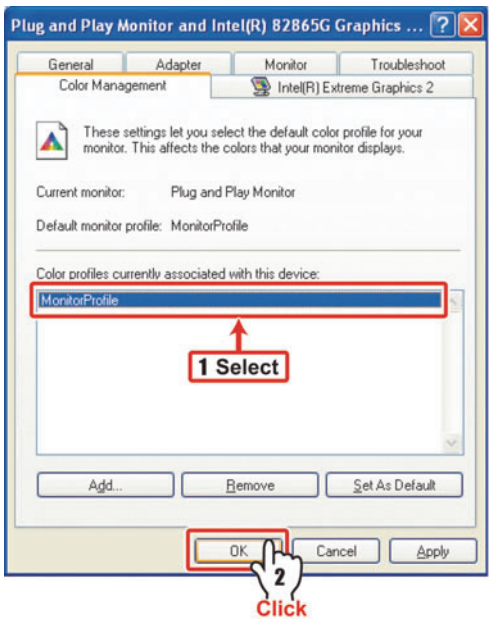
4 Select the "Color Management" tab and click Add .



5 Select the created Profile and click Add .



6 Select the added profile and click OK .

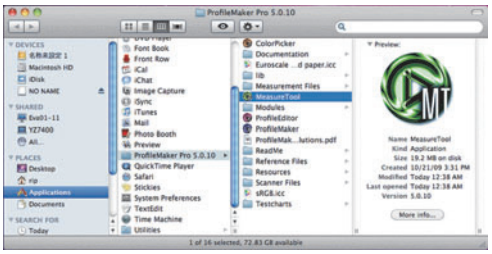


Create an ICC profile of the Macintosh monitor (for Mac OSX version 10.6)

1 **Download ProfileMaker from the Web site of X-Rite, Incorporated (http://www.erite.com/) and install it.**

If MeasureTool has already been installed, this step is not required.

2 **Start Measure Tool of ProfileMaker.**



3 **Measure colors with Measure Tool of ProfileMaker and save the measured result.**

For the test chart when measuring colors, select "LCD Monitor Reference 2.0.txt".

4 **Copy the color measuring file to the PC on which MPMII has been installed.**

5 **Starting MPM II.**

6 **Creates an ICC profile of monitor.**

Create by referring to the P.6-11"Creates an ICC profile of monitor".

7 Following procedures below, install the created ICC profile of the monitor into your Macintosh.

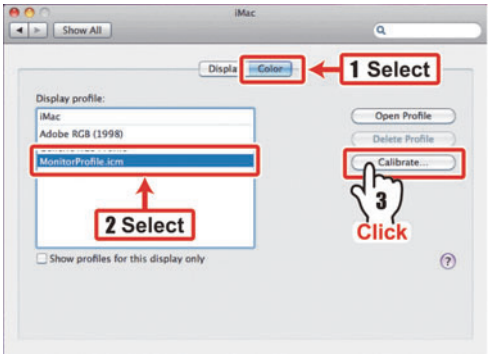
(1) For Mac OS 8.X or 9.X, copy the ICC profile in the ColorSync Profile folder in the system folder.

(2) For Mac OS X, copy the ICC profile in -User/ your log-in user name/ Library/ ColorSync/ Profiles or -Library/ ColorSync/ Profiles/ Display.

· However, the license for administrator is required for installing the ICC profile here.

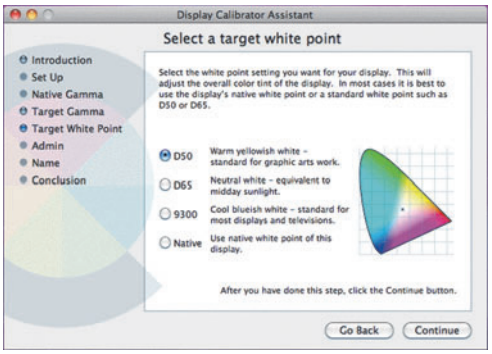
8 Click [Displays] of “System Preferences”.

9 Select [Color] tab and the ICC profile of the monitor created from the display profile list.



10 Click Calibrate... .

Apple Display Calibrator Assistant will start. As it is supposed that D50 light source is used for printing material, set the white point to use to D50.
For the procedures, refer to the system environment setting of Mac help.



Create an ICC profile of the printer for proof

Output the chart with the printer for proof and create the ICC profile of the printer for proof.
(The procedures when Adobe Photoshop CS is used are explained as an example.)

NOTE!	♦ Use the ICC profile created here for outputting from Adobe Photoshop/Illustrator to the printer for proof. Install the created ICC profile in the PC on which Adobe Photoshop/Illustrator has been installed.

1 Starting MPM II.

2 Save the chart to create the RGB printer profile.

Refer to P.6-7"Create an ICC profile of RGB color"steps 1 to 5.

3 Connect the printer for proof to use with the PC.

4 Start Adobe Photoshop.

5 Open the saved chart file without color management.

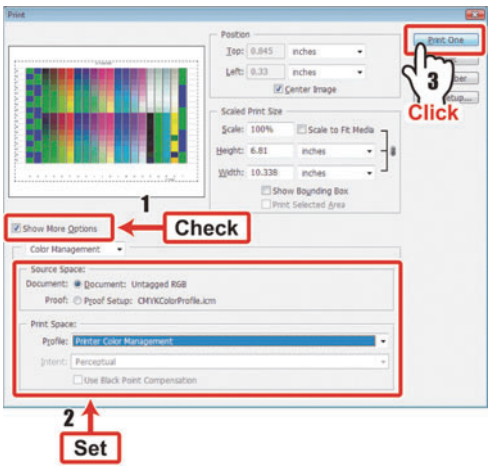
If you saved multiple charts, be sure to open all charts.

6 Click [File] → [Print with PreView].

7 Check the box of [Show More Options].

8 Make the setting of the color management like below:

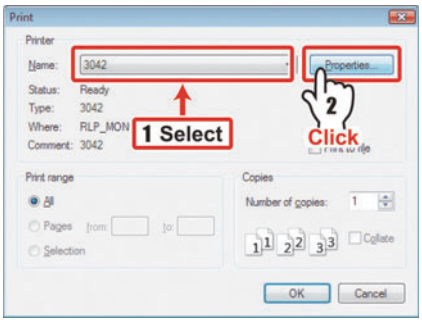
Select [Document] to "Souce Space".
Select "Same As Souce" to the profile of "Print Space".



9 Click Print .

10 In the "Name", select the printer for proof to use and click Properties... .

The selected printer setting screen is displayed.



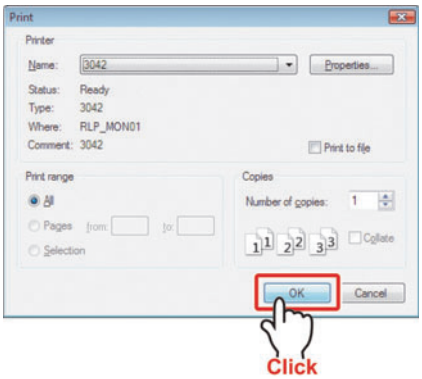
11 Set the color management option of the printer driver off.

For the setting items for color management or color adjustment of printer driver setting, set color management off or without color adjustment. For setting procedures, refer to the user's manual of the printer to use.

NOTE!	♦ If you do not set color management of the printer driver off, colors to be simulated with the printer for proof do not match.

12 Click OK .

The chart will be printed.
When there are multiple files, print all in the same setting.

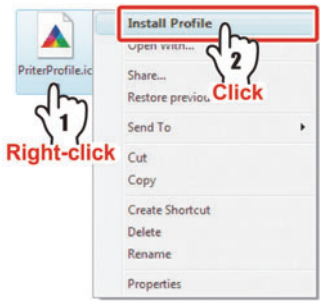


13 Start MPMII and perform color measuring to create an ICC profile of RGB color.

Refer to P.6-7"Create an ICC profile of RGB color" steps 7 to 15.

14 **Click the right mouse button on the created ICC profile to display the short cut menu.**

15 **Click [Install Profile].**



NOTE!	**When you use Macintosh for the operator PC, install the ICC profile by following the procedures below:** ♦ For Mac OS 8.X or 9.X, copy the ICC profile in the ColorSync Profile folder in the system folder. ♦ For Mac OS X, copy the ICC profile in -User/ your log-in user name/ Library/ ColorSync/ Profiles or -Library/ ColorSync/ Profiles. However, the license for administrator is required for installing the ICC profile here.

Create the profile for CMYK color simulation

Create an ICC profile to print the chart for CMYK with the printer manufactured by Mimaki and to simulate colors of CMYK image with the monitor or the printer for proof.

NOTE!	♦ Install the created ICC profile in the PC on which Adobe Photoshop/Illustrator has been installed.

1 **Starting MPM II.**

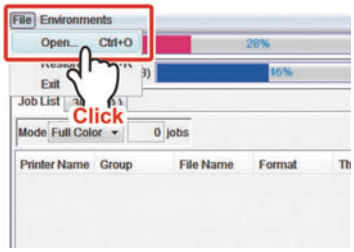
2 **Save the chart to create the CMYK printer profile.**

Refer to P.6-3"Create an ICC profile of CMYK color" steps 1 to 5.

3 **Starting Raster Link series.**

4 **Select [Open] from [File].**

5 **Select the saved chart.**



6 **Click the right mouse button with the chart selected and click [Edit].**

"Job Editor" screen will open.

7 Perform setting to output the chart.

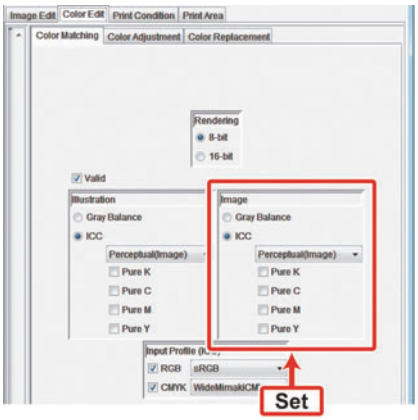
With job editor, you can perform setting for "image edit", "print condition" and "color edit".

Image Edit : It is not necessary to copy etc. normally. However, when you wish to transfer printing (mirror setting etc.), set if it is required. ?
Check whether the chart to output is within the valid drawing area on the preview screen.

NOTE!	♦ Check that "Valid" is not checked in [Scale] of the image edit tab. If you use the enlarged/reduced chart with "Valid" is checked, you cannot create proper profile when it is created in the Step 9.

Print Condition : Set the same printing condition as when you usually print with the printer manufactured by Mimaki.

Color Edit : Perform the same setting as when you usually print with the printer manufactured by Mimaki.

NOTE!	♦ The chart saved in the Step 2 is the raster data. In the [Color matching] of the color edit tab, set "Image". 

If the setting of "Illustration" differs from "Image" when you usually output with the printer manufactured by Mimaki

♦ For example, you output with [ICC] and [Perceptual] for "Image" and [Gray balance] for "Illustration", separate ICC profile is required for each to simulate both conditions.
You can simulate output of "Image (raster data)" for the ICC profile created by using the chart output with the setting of [ICC] and [Perceptual].
In addition, you can simulate output of "Illustration (vector data)" for the ICC profile created by using the chart output with the setting of [Gray balance].

8 **When the setting is completed, output the chart.**

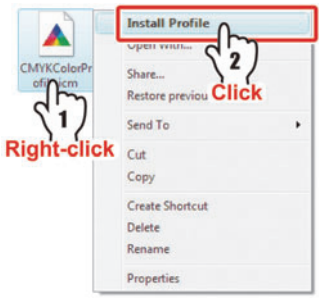
After printing the chart, terminate Raster Link series.

9 **Create the ICC profile of CMYK color with MPMII using the printed chart.**

Refer to P.6-3"Create an ICC profile of CMYK color" steps 7 to 16.

10 **Click the right mouse button on the created ICC profile to display the short cut menu.**

11 **Click [Install profile].**



NOTE!	**When you use Macintosh for the operator PC, install the ICC profile by following the procedures below:** ♦ For Mac OS 8.X or 9.X, copy the ICC profile in the ColorSync Profile folder in the system folder. ♦ For Mac OS X, copy the ICC profile in -User/ your log-in user name/ Library/ ColorSync/ Profiles or -Library/ ColorSync/ Profiles. However, the license for administrator is required for installing the ICC profile here.

Create the profile for RGB color simulation

Create an ICC profile to print the chart for RGB with the printer manufactured by Mimaki and to simulate colors of RGB image with the monitor or the printer for proof.

NOTE!	♦ Install the created ICC profile in the PC on which Adobe Photoshop/Illustrator has been installed.

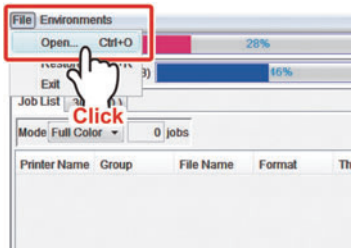
1 **Starting MPM II.**

2 **Save the chart to create the ICC profile of RGB color.**

Refer to P.6-7"Create an ICC profile of RGB color" steps 1 to 5.

3 **Starting Raster Link series.**

4 **Select [Open] from [File].**



5 **Select the saved chart.**

If you saved multiple charts, be sure to open all charts.

6 **Click the right mouse button with the chart selected and click [Edit].**

"Job Editor" screen will open.

7 Perform setting to output the chart.

With job editor, you can perform setting for "image edit", "print condition" and "color edit".

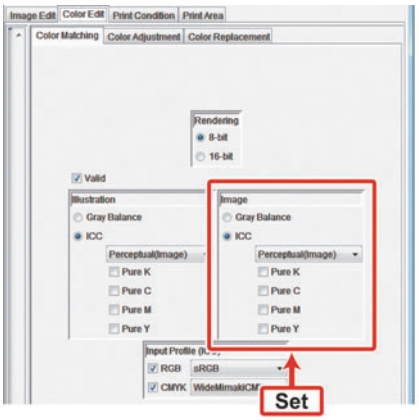
Image Edit : It is not necessary to copy etc. normally. However, when you wish to transfer printing (mirror setting etc.), set if it is required.
Check whether the chart to output is within the valid drawing area on the preview screen.

NOTE!	♦ Check that "Valid" is not checked in [Scale] of the image edit tab. If you use the enlarged/reduced chart with "Valid" is checked, you cannot create proper profile when it is created in the Step 9.

Print Condition : Set the same printing condition as when you usually print with the printer manufactured by Mimaki.

Color Edit : Perform the same setting as when you usually print with the printer manufactured by Mimaki.

NOTE!	♦ The chart saved in the Step 2 is the raster data. In the [Color matching] of the color edit tab, set "Image".



If the setting of "Illustration" differs from "Image" when you usually output with the printer manufactured by Mimaki

♦ For example, you output with [ICC] and [Perceptual] for "Image" and [Gray balance] for "Illustration", separate ICC profile is required for each to simulate both conditions.
You can simulate output of "Image (raster data)" for the ICC profile created by using the chart output with the setting of [ICC] and [Perceptual].
In addition, you can simulate output of "Illustration (vector data)" for the ICC profile created by using the chart output with the setting of [Gray balance].

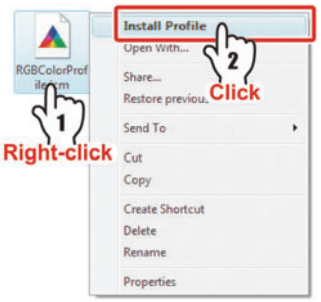
8 **When the setting is completed, output the chart.**

After printing the chart, terminate Raster Link series.

9 **Create the ICC profile of RGB color with MPMII using the printed chart.**

Refer to P.6-7"Create an ICC profile of RGB color" steps 7 to 15.

10 **Click the right mouse button on the created ICC profile to display the short cut menu.**



11 **Click [Install profile].**

NOTE!	**When you use Macintosh for the operator PC, install the ICC profile by following the procedures below:** ♦ For Mac OS 8.X or 9.X, copy the ICC profile in the ColorSync Profile folder in the system folder. ♦ For Mac OS X, copy the ICC profile in -User/ your log-in user name/ Library/ ColorSync/ Profiles or -Library/ ColorSync/ Profiles. However, the license for administrator is required for installing the ICC profile here.

Set the created profile in Photoshop/Illustrator

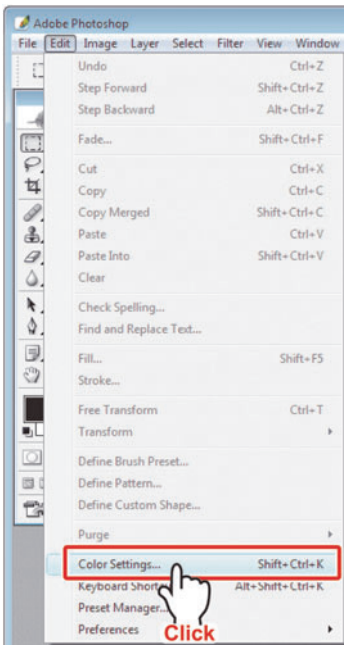
When setting in Photoshop

The procedures when the profile is set in Photoshop are explained. (example of Photoshop CS)

NOTE!	♦ Set the created profile in Photoshop/illustrator before you edit the image.

1 **Starting Photoshop.**

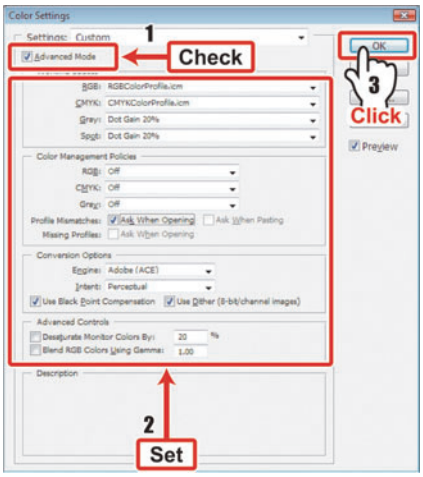
2 **Click [Edit] → [Color settings].**



3 Click "Advanced Mode".

4 Set each item as below and click OK .

Working Spaces	RGB	Select the created ICC profile of RGB color.
	CMYK	Select the created ICC profile of CMYK color.
Color Management Policies	RGB	OFF
	CMYK	OFF
	Check the box of [Profile Mismatches:Ask when Opening].	
Conversion Options	Engines	Adobe(ACE)
	Intent	Perceptual
	· Check the box of [Use Black Point Compensation]. · Check the box of [Use Dither].	

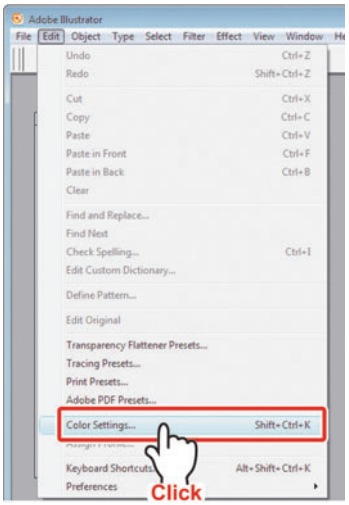


When setting in Illustrator

The procedures when the profile is set in Illustrator are explained. (example of Illustrator CS2)

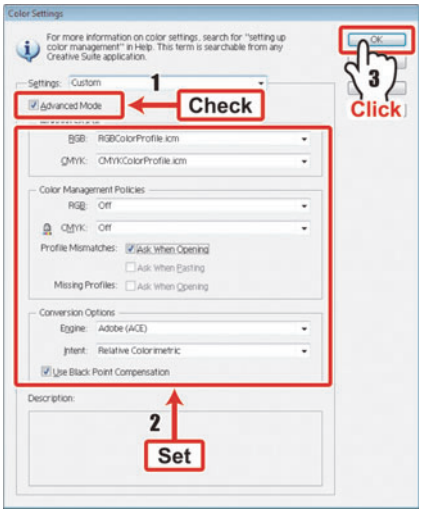
1 Starting Illustrator.

2 Click [Edit] → [Color settings].



3 Click "Advanced Mode".

4 Set each item as below and click OK .



Working Spaces	RGB	Select the created ICC profile of RGB color.
	CMYK	Select the created ICC profile of CMYK color.
Color Management Policies	RGB	OFF
	CMYK	OFF
	Check the box of [Profile Mismatches:Ask when Opening].	
Conversion Options	Engines	Adobe(ACE)
	Intent	Perceptual
	· Check the box of [Use Black Point Compensation].	

Adjust colors so that colors on the monitor can be similar to the target colors

Simulate and display colors output with the printer manufactured by Mimaki on the monitor.

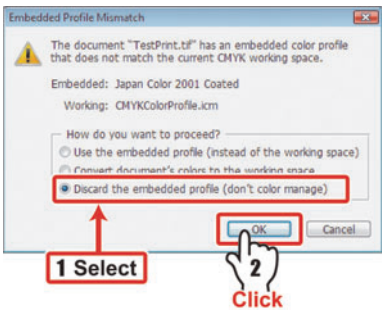
Adjusting procedures when opening image in Photoshop

The procedures when you open the image file to edit in Photoshop are explained. (example of Photoshop CS)

1. **Starting Photoshop.**

2. **Select the image file from [File] → [Open].**

3. **When you open the file, message window is displayed.**

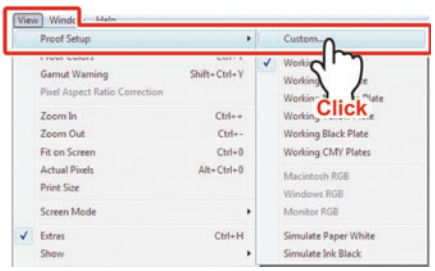


4. **Select "Discard the embedded profile (don't color manage)".**

5. **Click** OK **.**

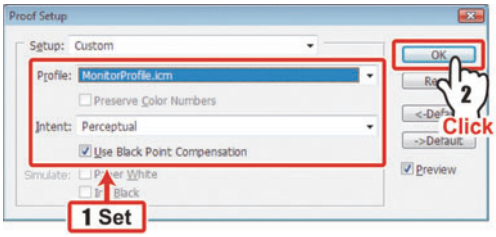
   The image is displayed.

6. **Click [View] → [Proof Setup] → [Custom].**



7 Set the calibration condition as below and click OK.

- Profile：
  ICC profile set for the monitor profile
- Do not check the box of [Preserve Color Mumbers].
- Intent：Perceptual
- Check the box of [Use Black Point Compensation].



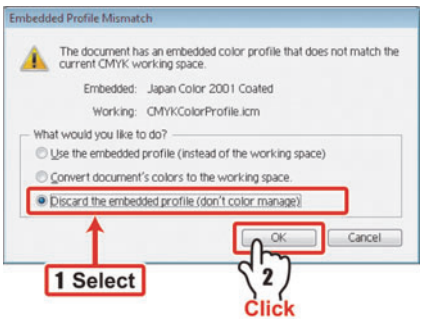
Adjusting procedures when opening image in Illustrator

The procedures when you open the image file to edit in Illustrator are explained. (example of Illustrator CS2)

1 **Starting Illustrator.**

2 **Select the image file from [File] → [Open].**

3 **When you open the file, message window is displayed.**

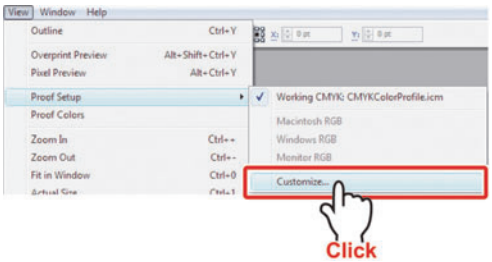


4 **Select "Discard the embedded profile (don't color manage)".**

5 **Click OK .**

The image is displayed.

6 **Click [View] → [Proof Setup] → [Custom].**



7 **Set the calibration condition as below and click OK .**

- Device to Simulate：
  ICC profile set for the monitor profile
- Do not check the box of [Preserve Color Mumbers].
- Intent：Perceptual

NOTE!	♦ If colors output with the printer manufactured by Mimaki do not match colors on the monitor easily, it is required to create the profile for simulation again.

Output with the printer for proof to check color difference between it and the target

Simulate colors output with the printer manufactured by Mimaki and output them on the paper.

When outputting in Photoshop

The procedures when you output to the printer for proof in Photoshop are explained. (example of Photoshop CS)

1 **Starting Photoshop.**

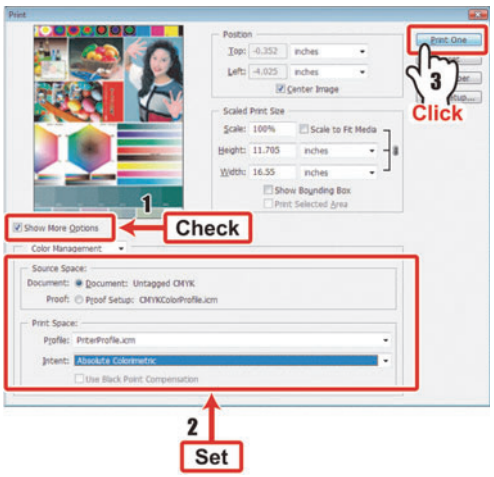
2 **Select the image file to print from [File] → [Open].**

3 **Click [File] → [Print with PreView].**

4 **Check the box of "Show More Options".**

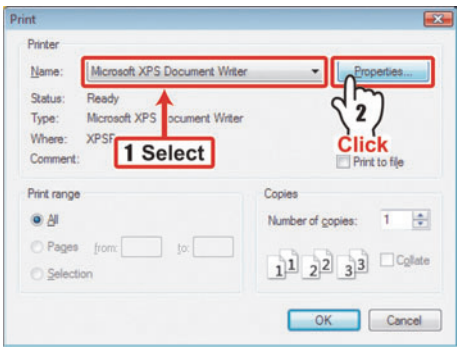
5 **Set the color management as below and click Print .**

Souce Space	Check [Document].	
Souce Space	Profile	Select the created ICC profile of the printer for proof.
	Intent	Keep absolute color range.



6 **Select the printer for proof for "Printer name" and click Properties... .**

The selected printer setting screen is displayed.



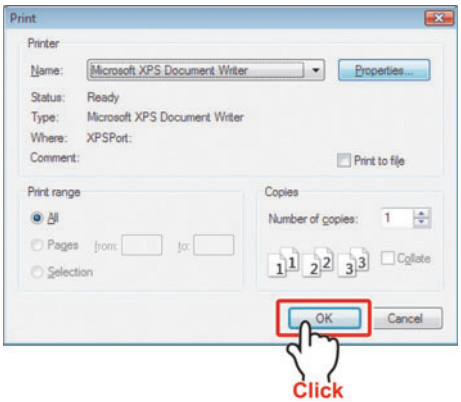
7 Set the color management option of the printer driver off.

For the setting items for color management or color adjustment of printer driver setting, set color management off or without color adjustment. For setting procedures, refer to the user's manual of the printer to use.

NOTE!	♦ If you do not set color management of the printer driver off, colors to be simulated with the printer for proof do not match.

8 Click OK.

The image is output.



When outputting in Illustrator

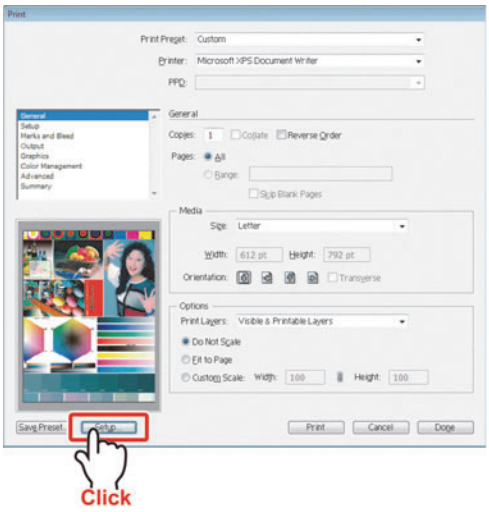
The procedures when you output to the printer for proof in Illustrator are explained. (example of Illustrator CS2)

1 **Starting Illustrator.**

2 **Select the image file to print from [File] → [Open].**

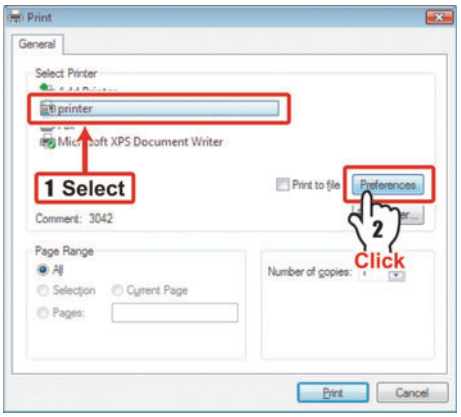
3 **Click [File] → [Print].**

4 **Click Setup .**



5 **Select the printer for proof to use from "Select Printer" and click Preferences .**

The selected printer setting screen is displayed.

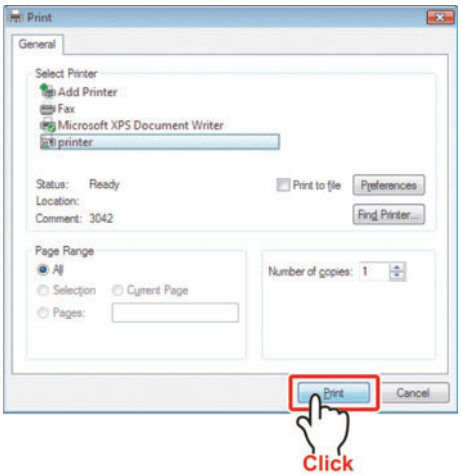


6 Set the color management option of the printer driver off.

For the setting items for color management or color adjustment of printer driver setting, set color management off or without color adjustment. For setting procedures, refer to the user's manual of the printer to use.

NOTE!	♦ If you do not set color management of the printer driver off, colors to be simulated with the printer for proof do not match.

7 Click **Print**.



8 Set the "Print Method" of "color management" as below.

Color Handring	Let Illustrator determine colors
Profile	Select the created ICC profile of the printer for proof.
Rendering Intent	Keep absolute color range.

9 Click **Print**.

The image is output.

NOTE!	♦ If colors output with the printer manufactured by Mimaki do not match colors on the monitor easily, it is required to create the profile for simulation again.

Print with the printer for proof

Output the image file on which color adjustment has been performed with Photoshop/Illustrator to the printer for proof.
You can use the output paper as color sample.

Output with the printer manufactured by Mimaki

Output with the printer manufactured by Mimaki and make the client check finally.
Output the image file on which color adjustment has been performed with Raster Link series to the printer manufactured by Mimaki.

Chapter 10
Create the Metallic Color Profile

The method of making the metallic color profile are explained.

Create the Metallic Color Profile

Target Environment

A Metallic Color Profile can be created in the following environment.

Printer	CJV300 / CJV150
Ink	SS21
Color	It require to mount Silver ink on the printer.
RIP	RasterLink6 Ver3.0 or later

Creation Condition

Only a Metallic Color Profile based on the following conditions can be created.

Printer	Ink set	Resolution	Pass
CJV300 8Color CJV150 8Color	SS21 CMYKLcLm SS21 CMYKLkOr	720x1080 VD	12 passes or more
		720x1440 VD	20 passes or more
		1440x1440VD	32 passes or more

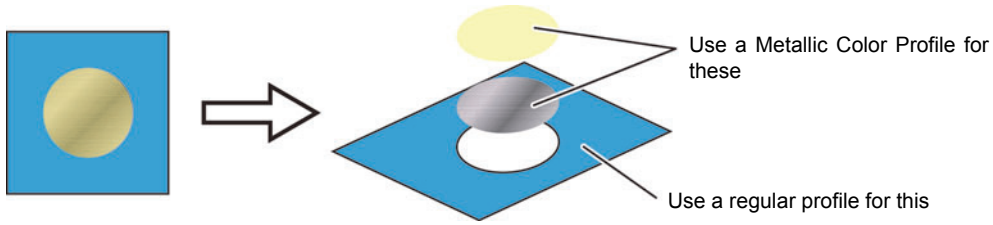
What is a Metallic Color Profile?

A profile specially designed to enhance the brightness of metallic tones in printed areas where color ink is applied over silver ink is called a "Metallic Color Profile".

1. Use with RasterLink6

With RasterLink6, you can set a Metallic Color Profile for silver and a color applied over it.

Example: To print metallic color circles over a blue square:



The method for setting the profiles is explained in “Print checking with RasterLink6” from P 10-16 .

1.1 Relationship with Full Color Profile

Metallic Color is usually used simultaneously with Color. The creation conditions with MPMII (resolution, number of passes, heater temperature) will vary depending on whether quality for the Color or the Metallic Color is prioritized.

Using Metallic Color for accent

In most cases, Metallic Color is used in an accentual way, and its print area is small compared to the Color. In such cases, it is best to prioritize the image quality of the Color, so you should make the creation conditions for the Metallic Color match the profile for the Color used simultaneously with it.

Using Metallic Color as main color

In cases where the print area of the Metallic Color is large compared to the Color and you want the image quality for the Metallic Color to be as good as possible, create it using the recommended conditions given on P.10-7.

2. Output of metallic color in MPMII

In print in Mimaki Profile Master II, it is compatible with the Silver or Silver → color output.

3. Hint for Metallic color

In regard to the color tone of Metallic color, please refer to the SS21 Metallic Color Library chart which is output using Metallic color profile released by Mimaki.
The outputting of SS21 Metallic Color Library chart is available on Metallic Color Print Guideh of RasterLink6.

Before Creating a Metallic Color Profile

1. Printer settings

Set the printer as follows:

1 Turn the power of the printer main unit ON.

Make sure that "Local" is displayed on the panel.

2 Set Logical Seek to OFF.

(1) Press "MENU" ([FUNC1] key).
(2) Press the [ENTER] key.
(3) Press the [▼] key a few times and select "LOGICAL SEEK".
(4) Press the [ENTER] key.
(5) Press the [▼] key a few times and select "OFF".
(6) Press the [ENTER] key.

3 Set Drying Time to 0.0 second.

(1) Press the [▼] key a few times and select "DRYING TIME".
(2) Press the [ENTER] key.
(3) Press the [▼] key a few times and select [SCAN].
(4) Press the [ENTER] key.
(5) Press [▲][▼] and set Drying Time to "0.0s".
(6) Press the [ENTER] key.

4 Press the [END] key a few times so that "Local" is displayed on the panel.

NOTE!	♦ Please make sure that whether the media which is created the profile is firmly set by the printer, and perform “Media Correction” after completing the above-mentioned setting. Regarding the “Media Correction”, please refer to the operation manual of the printer. If feed correction has not been set appropriately, the image quality at the portion where Silver Ink is used could be poor.

2. Registering a media name for Metallic Color Profile

To distinguish a Metallic Color Profile from a regular device profile, only a media name with "Si" added to the end can be used for Metallic Color Profile.
To add a media name for Metallic Color Profile:

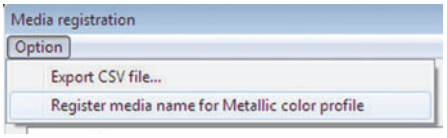
1 **In the main window, select the [Setting] tab and click [Media name].**

2 **The [Media registration] window appears.**

From the list displayed, select a media name for creating a Metallic Color Profile.

♦ If you do not find any media name you want to register in the list, register a new media name. For details on how to register a media name, see P.1-3 “Registration of a media name”.

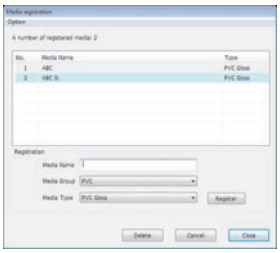
3 **In the menu, select [Option]–[Register media name for Metallic color profile].**



4 **A message appears, asking you to confirm that you are going to register the media name for Metallic Color Profile.**

Press [Yes] for registration.

♦ A media name for Metallic Color Profile is displayed in color in the list.
♦ In the regular media name registration procedure, a media name cannot be registered with "Si" added to the end. This is because a Metallic Color Profile is to be used with a regular device profile simultaneously.



5 **Use [Close] to close the [Media registration] window.**

Creating a Metallic Color Profile

1. Procedure for creating a Metallic Color Profile

Follow the procedure below to create a Metallic Color Profile.

1. Run the Metallic Color Profile creation wizard.

↓

2. Set the creation conditions.

↓

3. Media-specific information settings: set the heater temperature.

↓

4. Special color information settings: set the silver density.

↓

5. Check the variable dot setting for the color.

↓

6. Whole color ink limit settings:
- **(1)** Implement chart output, to print out a chart of the CMYK single colors.
- **(2)** Visually check the chart, and set the densities.

↓

7. Check the Light Ink settings for the colors.

↓

8. Set the ink limit for the tertiary colors.
- **(1)** Implement chart output, to print out a 3-color chromatic chart.
- **(2)** Visually check the chart, and set the densities.

↓

9. Save the profile.

↓

Install the Metallic Color Profile to RasterLink6, and run a print check.

2. Metallic Color Profile creation wizard startup

In the main window, select [Device Profile] and click [Create Metallic Color Profile].

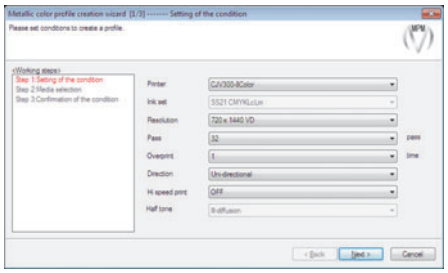
♦ If no media for Metallic Color Profile are registered, this wizard does not start even if you click [Create Metallic Color Profile]. In this case, add media by referring to 1 Preparation - Registering a media name for Metallic Color Profile.

3. Creation condition setting

3.1 Setting the print conditions

Metallic Color is usually used simultaneously with Color. The creation conditions with MPMII (resolution, number of passes, heater temperature) will vary depending on whether quality for the Color or the Metallic Color is prioritized.

The Metallic Color Profile creation wizard starts. Select the desired conditions for creation and press [Next].



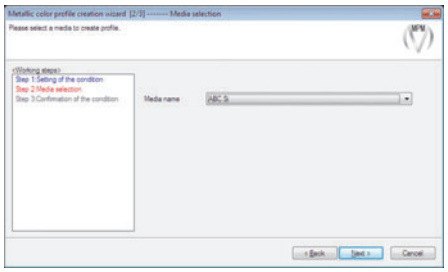
Recommended creation conditions

♦ The recommended conditions for the desired quality are as in the table below.
However, if there are Full Color Profile conditions that are to be used simultaneously, you should apply them instead according to P.10-3.

Quality	Resolution	pass	Print direction	Hi-speed print
Standard	720x1080VD	16	Bidirectional	ON
High	720x1440VD	32	Bidirectional	ON

3.2 Media selection

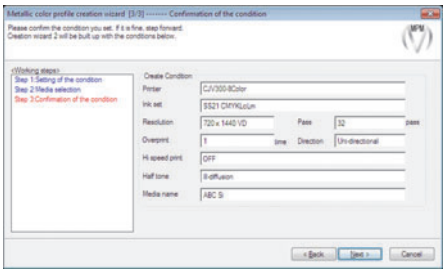
Select the media name and press [Next].



♦ Only a media name for Metallic Color Profile (with “Si” added to the end) can be selected.

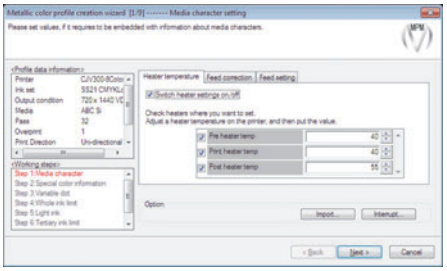
3.3 Creation condition checking

Check the set conditions, and if they are OK, press [Next].



4. Media character setting

Set Heater temperature, Feed correction, Feed setting and press [Next].



NOTE!	**About heater temperature** ♦ Be sure to enable heater temperature. ♦ The recommended values for heater temperature are the following: CJV300: Pre 50°C / Print 45°C / Post 60°C CJV150: Pre 50°C / Print 45°C / Post 50°C ♦ With RasterLink6, if a job that a Full Color Profile has been set for is composited with a job that a Metallic Color Profile has been set for and you set “Profile Setting” for [Device Adjustment], a heater temperature for the Metallic Color Profile will be set.

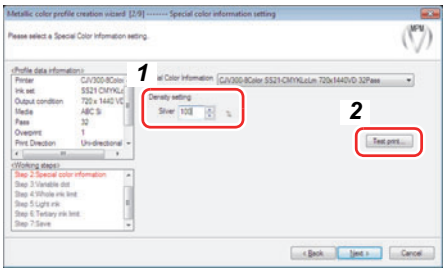
5. Special color information setting - Setting Silver Density

Special color information refers to information used for setting silver and white appropriately. A regular (color) device profile for JV300/150 and CJV300/150 each automatically sets preset information; a Metallic Color Profile can change only the silver density in the above information.
By changing the silver density, you can adjust the print quality of silver monochrome.

5.1 Chart outputting

Perform a Test Print to adjust the density of silver.

1 **Check that the density of silver is [100%].**



2 **Press [Test Print].**

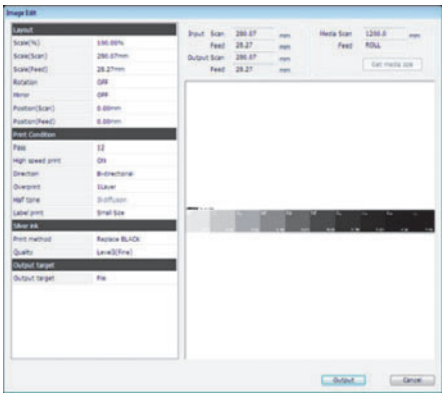
3 **The Open dialog box appears.**

Select the following file:
MPMII installation folder¥Image¥SilverInkLimitTestChart.tif

NOTE!	♦ For Test Print in [Special color information setting], an image is output after Mono color replacement based on Silver ink.

4 **The [Image Edit] window appears.**

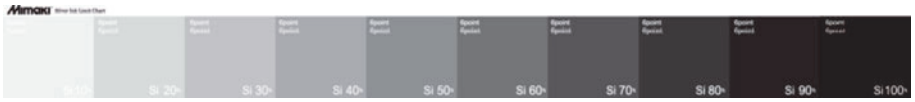
Check that “Replace BLACK” is set for [Silver ink]–[Print method], and press the [Output] button for printing.



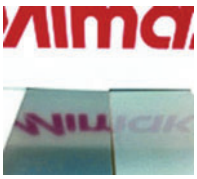
NOTE!	♦ A metallic color is usually outputted as a Special Color Over Print in the form of Silver → Color. Therefore, here you should print silver as a single color, using the same print method as for Special Color Over Print.

5.2 Assessing the chart printed out

The chart below will be printed. Use the hints set out below to determine the density.



Finding a mirror-surface glossiness

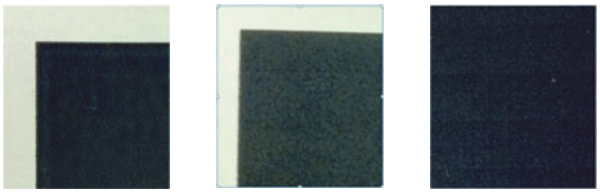


Select a patch that reflects light like a mirror and gives a glossy feel.
[How to find mirror-like quality]
Place some printed matter or similar at right angles to the chart, and observe the degree of reflected glare.

Check the image quality

Check for bleeding, faintness or banding, and choose a patch where none of these occurs.

Examples of poor image quality



Bleeding　　Faintness　　Banding

Bleeding : Ink spills over at the patch's edge, giving a whitish look.
Faintness : Roughness occurs, as if the surface had been scraped.
Banding : Bands occur in the scan direction.

Check the wind-up performance

Due to its properties, Silver Ink has poorer abrasiveness and wind-up performance than Color Ink. And the higher Silver Ink's density, the poorer its performance is. If you often use wind-up, check the performance using the following procedure.

(1) Wind up the chart you printed out.
(2) Leave it for 12 to 24 hours or so.
(3) Take out the wound-up chart and visually check its condition.
A patch whose density is such that blocking occurs in it due to offset cannot be used.

NOTE!

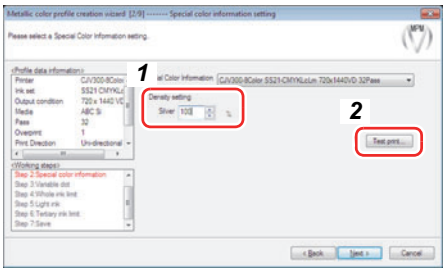
If there is no usable patch:

- If you find no usable patch when you assess the chart, go back to the [Media Character setting] page, **raise the temperatures of the pre-heater, printing heater and post-heater by roughly 5°C, and print again.**
  Assess the reprint to see if there is a patch that can be used.
- **If there is still no usable patch after you have raised the heater temperatures, implement a test print once more. Before doing so, increase the number of passes on the Image Edit screen.** If there is a usable patch, exit the Wizard, and start it up again. Then, on the Print Condition page, set the number of passes used in the test print.
- With some media, the mirror-surface glossiness and/or image quality may still be poor even after the print conditions and/or heater temperatures are changed. If so, you should change the media you are using.

5.3 Checking the glossiness and image quality with the silver density determined

Set the silver density determined, print the same chart again, and check the silver's glossiness feel.

1 **Adjust the silver density to the density determined.**



2 **Press [Test print...].**

3 **The [Open] dialog box will appear.**

Select the following file:
MPMII installation folder ¥Image¥SilverInkLimitTestChart.tif

4 **The [Image Edit] screen will be displayed.**

Check that "Replace BLACK" is set for the [Silver ink]-[Print method], then press the [Output] button to execute printing.

5 **Check the glossiness feel and image quality of the 100% portion of the chart printed out.**

♦ As mentioned earlier, the higher the silver ink's density, the poorer its abrasiveness and wind-up performance are. Accordingly, you are recommended to set the silver density as low as possible.
If, in the chart printed the second time, there is a usable patch with lower density than the 100% patches, use the following formula to determine the density value to use for MPMII:

Value to use: Value determined from first print × Density of good patch in second print

Example : If the density determined from the first print is 70% and the density of the patch judged as good in the second chart is 90%:
70% × 90% = 63%.
So set 63% for MPMII.

5.4 Setting the final value

Enter the silver density on the [pecial color information setting] screen, and press [Next].

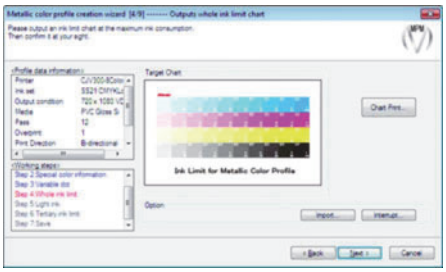
6. Whole ink limit

Set the color Whole ink limit.

6.1 Chart print

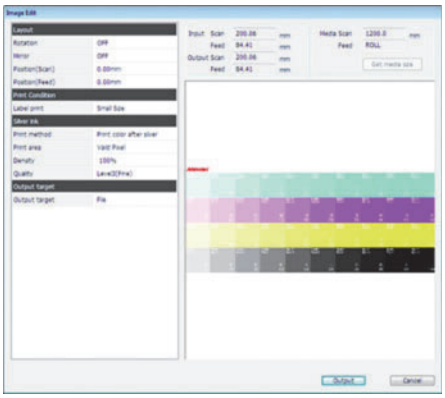
Print out a chart for checking the density variation of the CMYK single colors. The chart will be printed in the form of Silver → Color.

1 **Return to MPMII, display the [Outputs whole ink limit chart] screen, and press the [Chart Print...] button.**



2 **The [Image Edit] screen will appear.**

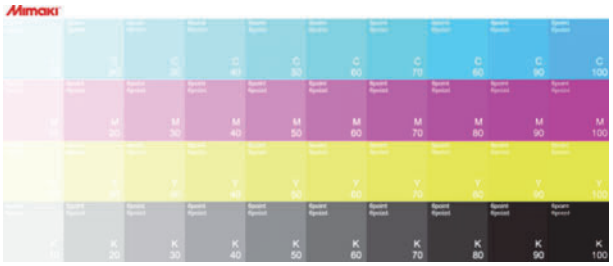
♦ Leave the silver ink setting at the initial value.



3 **Print the chart.**

6.2 Assessing the chart printed：Determining the ink limits for the single inks

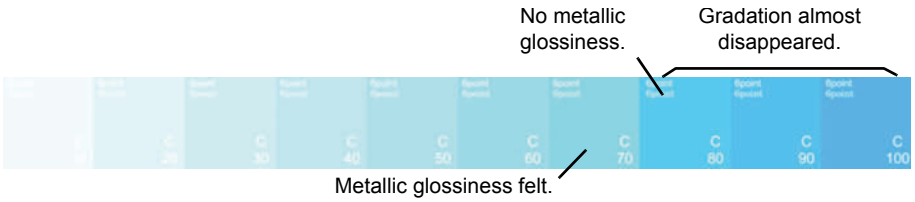
The chart below will be printed.



Examine the chart visually to find patches that match the following conditions, and determine the ink limits for the single colors to be the densities of those patches.

- Patch with density above which density variation is not observed.
- Patch with density above which metallic glossiness is not obtained

Example: With the print results below, the ink limit will be 70%.



1 **Press [Next], to go to the [Whole ink limit adjustment] screen.**

2 **Set for the various colors the ink densities determined.**

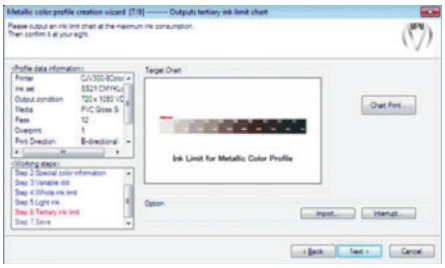
7. Tertiary ink limit

Set the color ink limit (tertiary color).

7.1 Chart print

Print out a chart for checking the density variation and spillover status of the tertiary colors (CMY). The chart will be printed as Silver → Color.

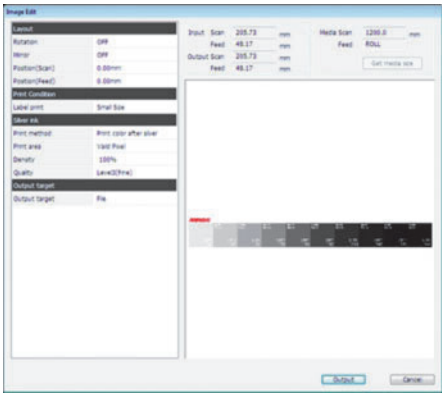
1 **Return to MPMII, display the [Outputs tertiary ink limit chart] screen, and press the [Chart Print...] button.**



2 **The Image Edit screen will appear.**

NOTE!

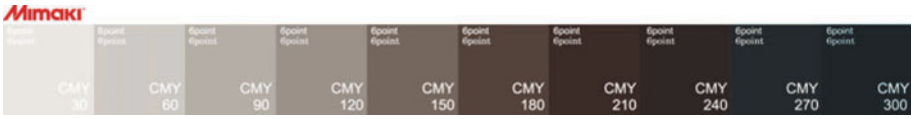
♦ Leave the Silver Ink setting at the initial value.



3 **Print the chart.**

7.2 Assessing the chart printed out

The chart below will be printed.



Select the patch with the highest density from among the patches that match the following conditions:

- Patch that dries within the fixed period.
- Patch whose ink dries evenly.
- Patch whose writing is not blurred.
- Patch that is not in the high-density portion where gradations have disappeared.

7.3 Test Print

Now run a test print and check the Metallic Color Profile results.

1 **Press the [Test print...]**

2 **The [Open] dialog box will appear.**

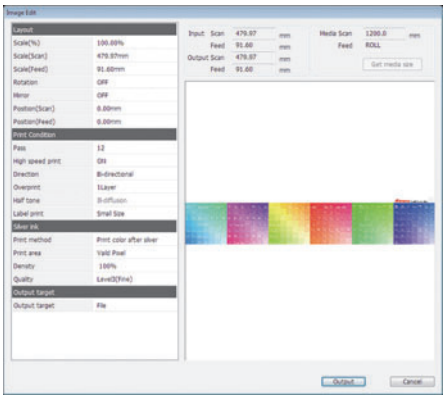
Select the following two Images:
MPMII installation folder \Image\MetallicColorChart.tif
- This chart uses 294 colors from the “SS21 Metallic Color” color collection supported by RasterLink6. It will enable you to check the output if you use the color collection.

MPMII installation folder \Image\MetallicColorInkLimitChart2.tif
- Chart of the CMYK single colors, secondary colors and tertiary colors. Use it to check the overall color tones and/or metallic feel.

3 **The [Image Edit] screen will appear.**

Set a color and press [Output].

Check the color tones and glossiness feel of the chart printed out.
Besides that, also print out one of your own images whose metallic feel you want to check.



NOTE!	♦ You can only use a TIFF (CMYK) image for this.

8. Saving

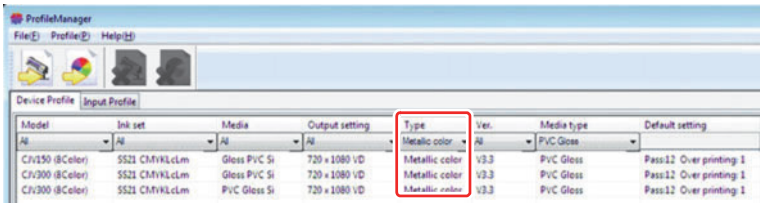
Save the file.

Print checking with RasterLink6

Install to RasterLink6 the Metallic Color Profile you created, and run a final print check.

1. Installing the Metallic Color Profile

Use the Profile Manager to install the Metallic Color Profile, in the same way as with a regular device profile.
When you have installed it, “Metallic color” will appear in the [Type] column.



2. Creating a job and applying the profile

Here we give an outline of the operations from creating a job to applying the profile.
For the detailed operations, see the “Metallic Color Pinting Guide” of RasterLink6.

(1) Separating the data for Metallic color and for Color

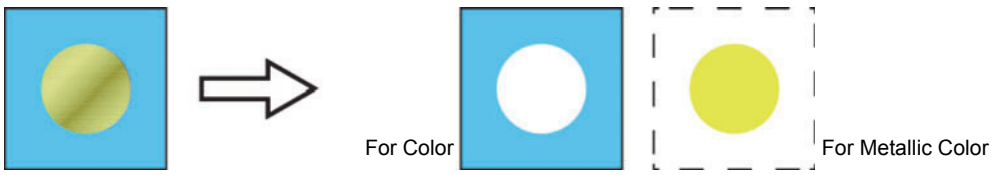
With RasterLink6, if you want to print an image with Metallic Color and Color mixed together, you must separate the image data for Metallic Color from the image data for Color. This is because a Metallic Color Profile must be set for the Metallic Color image and a regular profile for the Color image.

RasterLink6 provides the following methods for printing Metallic Color.

- ♦ Color replacement using the “SS21 Metallic Color” collection
- ♦ Color replacement via manual setting
- ♦ Creating a silver version via special color generation, and compositing with the color to be printed over the silver
- ♦ Creating a single-color image for the silver, replacing the single color with the silver, then compositing with the color to be printed over the silver

Here we give the procedure for manual-operation color replacement of an image for Metallic Color.

Example: To print a circle of Metallic Color inside a square:

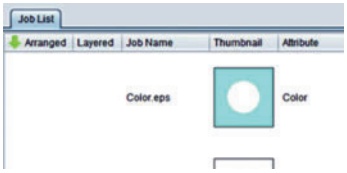


Final outcome

Two data sets are needed

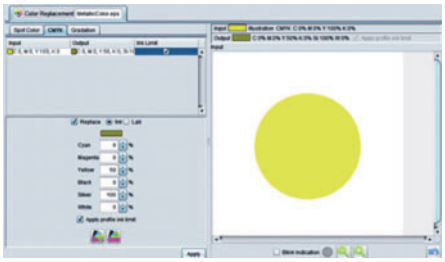
(2) Loading the job

Load the image for Metallic and the image for Color into RasterLink6.



(3) Making the settings for printing with Metallic Color

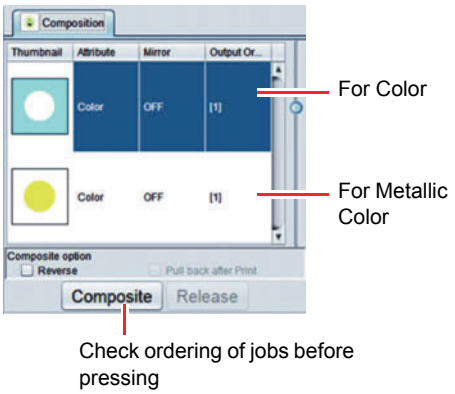
Select the image job for Metallic Color, and open the [Color Replacement] screen.
Select the color that is to be rendered metallic, then specify 100% for Silver, plus the color density.



NOTE!	♦ If you have executed color replacement, be sure to put a check in the “Apply profile ink limit” box. If you do not, the Metallic Color Profile’s color data will not be applied.

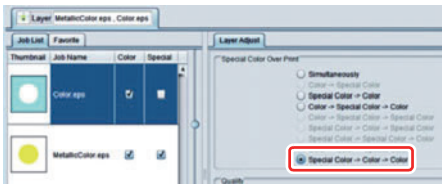
(4) Compositing

Select the job for Color and the job for Metallic Color, then open the [Composition] screen. Adjust the jobs' positions so that the order become job for Metallic Color → job for Color from the bottom to the top, then press the [Composite] button to execute composition.



(5) Making the settings for overprinting

Select the job you have composited, and open the [Layer Adjust] screen. Then select “Special Color → Color → Color” from the [Special Color Over Print].
For [Quality], the value contained in the profile to be set a little later will be set automatically.

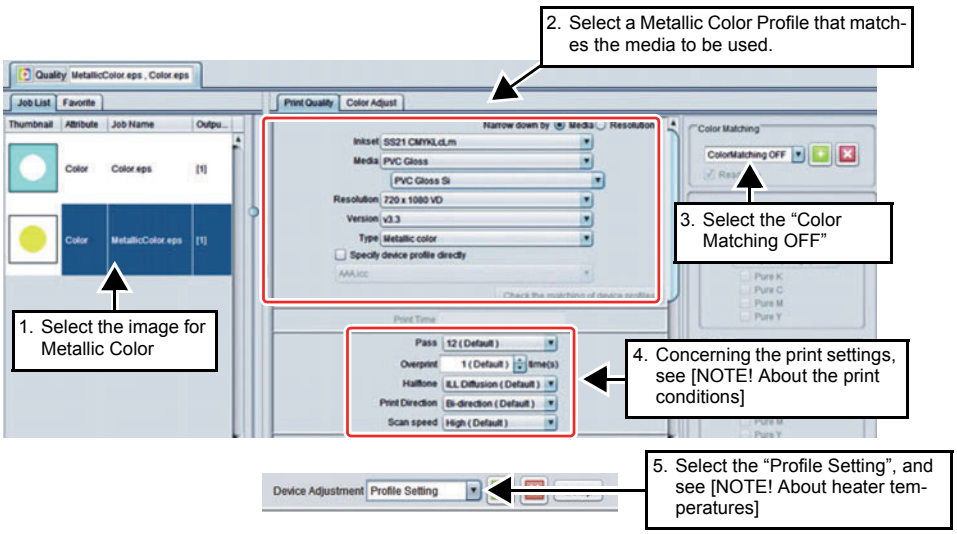


NOTE!	**Before setting the profile in the print conditions, carry out layer editing.** ♦ If you select the profile in the print conditions without making the [Special Color Over Print] settings, it will not be possible to set separate profiles for Metallic Color and for Color.

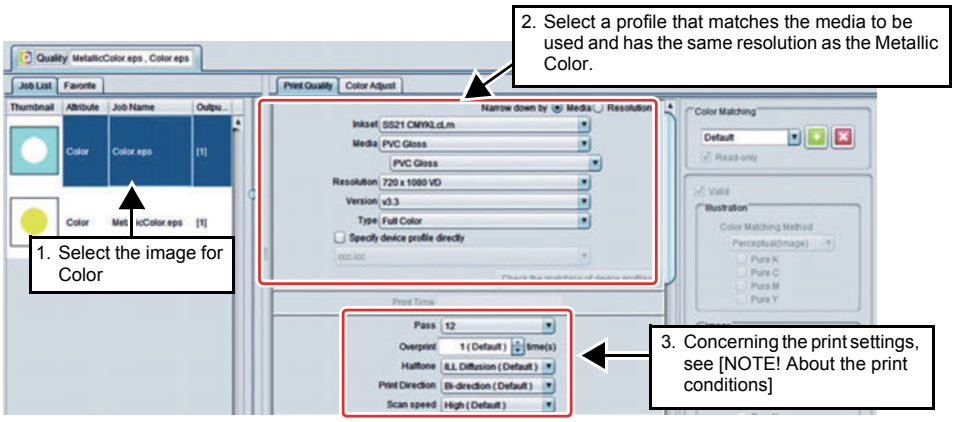
(6) Setting the profile

Select the composited job, and open the [Quality] screen.

(6)-1 : Setting the image for Metallic Color



(6)-2 : Setting the image for Color



NOTE!

About the print conditions

♦ the print conditions will vary depending on whether quality for Color or for Metallic Color is prioritized. After making the above settings, carry out the settings for number of passes, print direction and hi-speed.

- If quality for Color is prioritized:
  Select the image for Color, then change the settings for number of passes, print direction and hi-speed to the values indicated as “Default”.
- If quality for Metallic Color is prioritized:
  Select the image for Metallic Color, then change the settings for number of passes, print direction and hi-speed to the values indicated as “Default”.

About heater temperatures

♦ If you set “Profile Setting” for [Device Adjustment], the heater temperature values in the Metallic Color Profile will be used.

(7) Printing

Print after completing RIP.

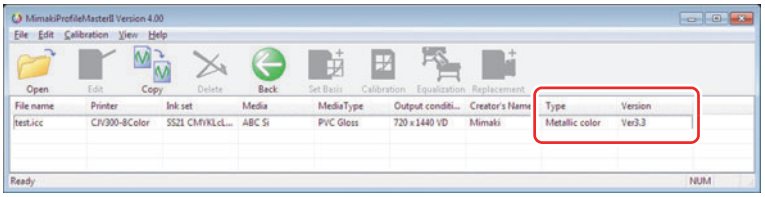
NOTE!	**If you print using Silver single-color:** ♦ In the case of the following conditions, printing will be executed with settings that exclude Special Color Over Print. a A job that was generated via Single Color Replacement or Special Color Version is printed using Silver alone. b Compositing with Color has been executed, but [Profile Setting] has been set for a Silver-only job such as in (a) In these cases, compared with Special Color Over Print, a large head width will be used for printing Silver and it will not be possible to gain time for drying, with the result that the image quality will be lower. If you want to carry out printing in such cases, set a value higher than the default for the number of passes on the print conditions screen after setting the Metallic Color Profile.

Editing/Copying/Resuming a Metallic Color Profile

1. Edit

Like a regular device profile, you can edit a Metallic Color Profile.

1 **In the main window, select [Device Profile]–[Edit] to open the Edit window.**



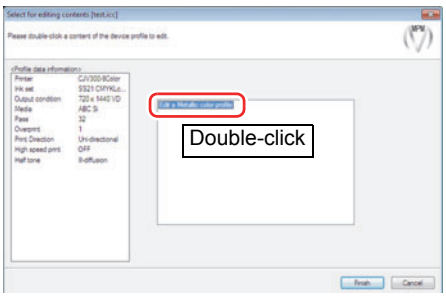
The Type is "Metallic color" and the Version is "Ver3.3".

2 **Open a Metallic Color Profile.**

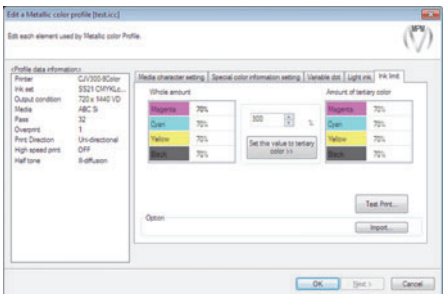
NOTE!	**For a Metallic Color Profile, you cannot use the following functions:** ♦ Calibration (Base setting/Calibration/Equalization) ♦ Add Information for Replacement

3 **Select a Metallic Color Profile and press [Edit].**

4 **Double-click "Edit a Metallic color profile" in the list box.**



5 **Edit the elements of a Metallic Color Profile.**



♦ **Test Print**

You can perform a Test Print from either of the following pages:

- Special color information setting : Outputs an image in silver monochrome.
- Ink limit : Outputs an image in the following order: silver → color.

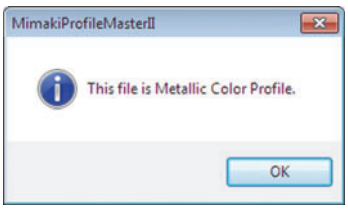
6 **Like a regular device profile, save the edited profile.**

2. Copy

Copy a created Metallic Color Profile if you want to use it for some other Printer/Resolution, etc.

1 In the main window, select [Device profile]–[Copy] to start the Copy wizard.

2 When the file selection page is displayed, select a Metallic Color Profile.
Press [Next].



♦ When a Metallic Color Profile is selected, a dialog box appears, indicating that the selected file is a Metallic Color Profile.

3 The creation condition setting page is displayed.
Select such items as Printer and Resolution and press [Next].

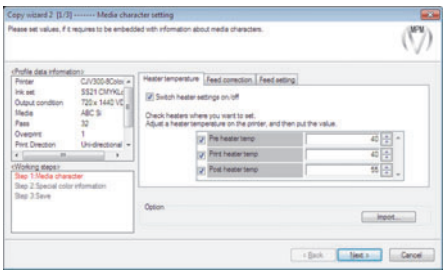
♦ Like the example used for describing Metallic Color Profile creation, only the silver print conditions we recommend are enabled.

4 The media name selection page is displayed.
Select a media name and press [Next].

♦ Only a media name for Metallic Color Profile (with "Si" added to the end) can be selected.

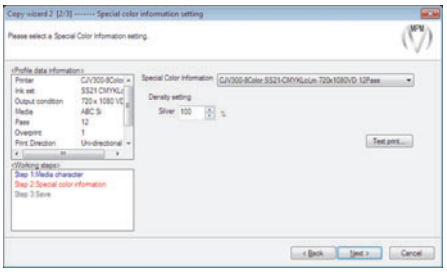
5 The creation condition check page is displayed.
Check the contents, and if they are OK, press [Next].

6 The Media Character setting page is displayed.
When you are finished setting the above, press [Next].



NOTE!	♦ The recommended heater temperatures vary depending on the printer. To copy data into a different printer, enter the recommended values for that printer. CJV300 : Pre:50°C/Print:45°C/Post:60°C CJV150 : Pre:50°C/Print:45°C/Post:50°C

7 **The Special color information setting page is displayed.**
When you are finished setting the above, press [Next].



NOTE!	♦ If the Printer/Resolution/Pass data of the original profile is changed, set an option other than "Profile setting". The preset information in Special color information depends on the Printer/Resolution/Pass data. However, its default value is "Profile setting" and if it is selected, the information in the original profile is used as-is.

8 **The save page is displayed.**
Save the profile and exit.

3. Creation restart

Like the procedure taken for a regular device profile, you can stop and restart the creation process.

Chapter 11
Other functions

Useful functions when using MPM II are explained.

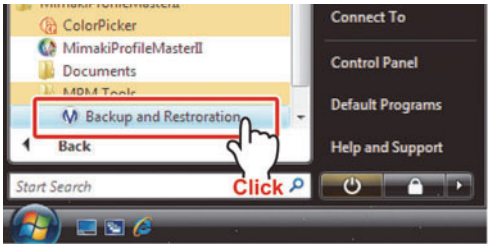
Backup the information of MPM II

Backup function

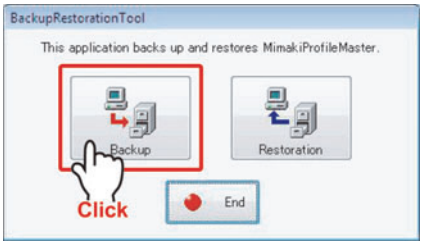
When reinstalling MPM II, registered media names and interrupt files will be deleted. Backup function enables to save the data such as registered media names or interrupt files before uninstalling. Backup file can be loaded to the reinstalled MPM II by restore function (☞ P.11-4).

1 Confirm that MPM II is terminated and start "Backup and Restoration".

(1) From the [Start] menu, select [All programs].
(2) Select [Mimaki Profile Master II]-[MPM tools].
(3) Select [Backup and Restoration].

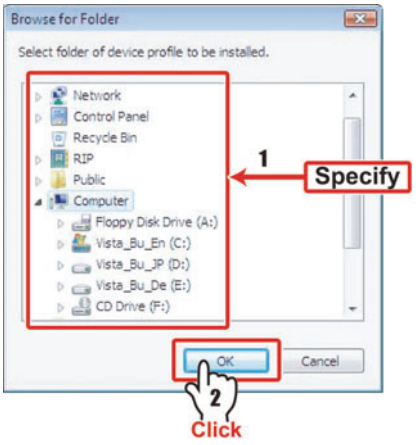


2 Click Backup .



3 Specify the destination to save the backup.

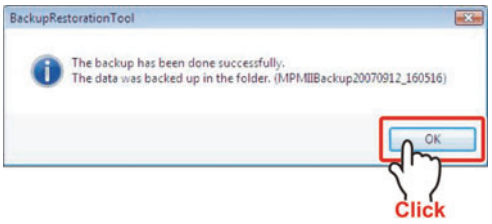
- When creating a new folder,click [Make New Folder]..
- Do not specify the folder which MPM II is installed.
  If the backup is saved in the same folder which MPM II is installed, the backup will be deleted when MPM II is reinstalled.



4 **Click OK .**

Backup starts.

A dialog will appear when backup is completed.

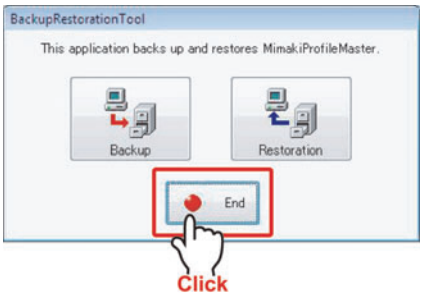


5 **Click OK .**

The folder named "MPM IIBackupYYYYMMDD_hhmmss" is created at specified destination.

6 **Click End .**

Close "BackupRestoration Tool".



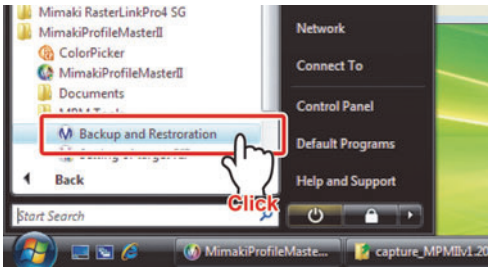
Restore the backup file to MPM II

Restore function

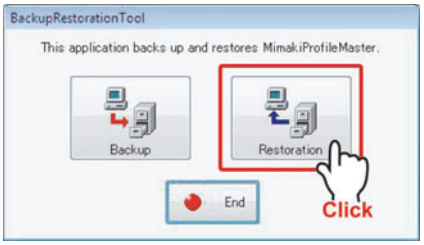
"Restoration" function restores the information in the backup data created by backup function (☞ P.11-2) to MPM II. This function is used when MPM II is reinstalled.

1 **Confirm that MPM II is terminated and start "Backup and Restoration".**

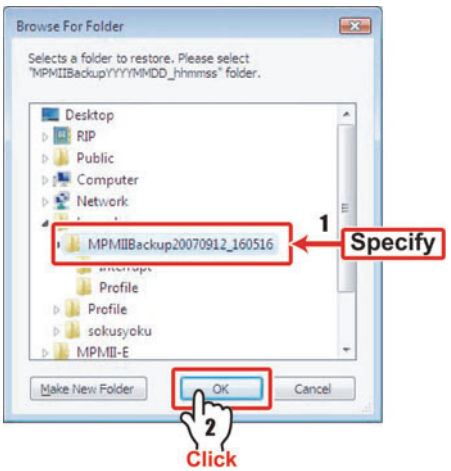
(1) From the [Start] menu, select [All programs].
(2) Select [Mimaki Profile Master II]-[MPM tools].
(3) Select [Backup and Restoration].



2 **Click Restoration .**



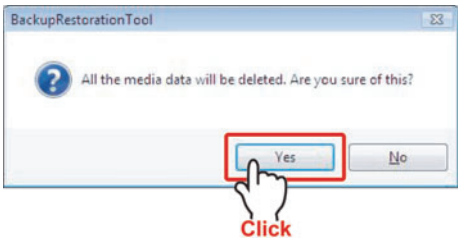
3 **Specify the backup folder named ("MPMIIBackupYYYYMMD-D_hhmmss" folder) to restore.**



4 Click OK.

Restoration is started.

The dialog on the right will appear when restoration is completed.



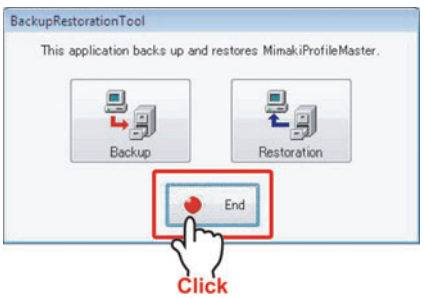
5 Click Yes.

Restoration is completed.

NOTE!	♦ If there is no useful information for restoration in the specified folder, an error massage will appear. In this case, perform procedures from the Step 2 again.

6 Click End.

Close "BackupRestoration Tool".



Appendix

Glossary

Term	Explanation
Device Profile	The file used for color management. Information of the color space for each device such as printer are included in the device profile. It is used to convert between the device color and the absolute color space.
Input profile Target profile	The file made the printer and the designer's output environment to ICC profile when matching between the color output from the printer and the color sample provided by the designer.
ICC	Abbreviation of International Color Consortium, an organization established aiming at creating international standard of color management technology. http://www.color.org/
ICC profile	The files used by software such as Photoshop for performing color management. In accordance with the format set forth by ICC, color conversion information is written in the file. As the data creation policy is different depending on the company who developed ICC Profile creation application, the results of the output could be different.
Color Space	In this document, color space means the composite colors the ICC Profile is able to output. The ICC profiles that can be handled by MPM is those with color space of CMYK.
Black printer	Indicate K ink.
Color Matching	With a view to obtaining good finish at the output device, to convert the data of input image in the internal processing of RIP or print driver.
Gamut	Means the color reproduction range. Mainly expressed by Lab or X-Y-Z coordinate system. Formally, Gamut is a 3-dimentional figure connecting max./min. brightness, max./min. saturation, and total color hue that can be reproducible by the device. However, for easier comparison, it is often seen with the projectedplanes deleting the brightness information. The colors looked to be located inside of Gamut on the plane may actually be located outside of the Gamut when looked on the 3D figure. Such color cannot be reproduced.

<table>
<tr><th>Term</th><th>Explanation</th></tr>
<tr><td>Delta E
(ΔE, ΔE94, ΔE2000)</td><td>Means the difference of the color. The value is shown as "E".
In general, using Lab space, the distance between two colors within such space is called color distance.
The bigger ΔE may be, the more color difference becomes.
ΔE94 and ΔE2000 calculate color difference taking into consideration the problem of difference between visual evaluation generated from color coding range of human eyes' about shape/size and the figure of ΔE. The formula is defined so that it may become similar to visual evaluation of human eyes'.
<table>
<tr><th>Delta E</th><th>Application range</th></tr>
<tr><td>～0.2</td><td>Within the measurement error range. Deemed as same color in the color measurement.</td></tr>
<tr><td>0.3</td><td>Accuracy with which recognized as the same color.</td></tr>
<tr><td>0.6</td><td>Accuracy of allowable limit as practical difference.</td></tr>
<tr><td>1.2</td><td>Accuracy with which recognized as the same color when compared side by side.</td></tr>
<tr><td>2.5</td><td>Accuracy with which recognized as the same color when compared apart.</td></tr>
<tr><td>5.0</td><td>Accuracy with which recognized as the same color when compared separately.</td></tr>
</table></td></tr>
<tr><td>Pure color</td><td>A color without unnecessary color mixed in its composition.
For example, the color composed of red only in the case of RGB and M+Y in the case of CMYK only is called pure color.</td></tr>
<tr><td>Hue</td><td>Hue is the gradation of color.
As the colors are arranged cyclic like red, orange, yellow, green, blue, bluish purple, reddish purple and red, it is expressed as a circle. (called hue circle)</td></tr>
<tr><td>Brightness</td><td>Indicates the brightness of the printed items.
If the brightness is raised, the image becomes brighter and when maximized the color turns to white. On the contrary, if the brightness is decreased, the image becomes darker and when minimized the color turns to black. When the color is designated only with brightness information, the image becomes gray scale.</td></tr>
<tr><td>Saturation</td><td>Indicates color saturation.
When the saturation is increased, the color turns to colorful (vivid) and when it is decreased, the color turns to colorless (black and white). Saturation of white, gray and black is zero (no saturation).</td></tr>
<tr><td>Density</td><td>Indicates deepness of the color. Since the density is brought about with the change of brightness and saturation, the density is felt differently depending on the colors. For example, red or green is felt deeper when slightly darker,but yellow looks deeper when it is brighter.</td></tr>
</table>

Term	Explanation
Rendering Intent	A color matching method specified in the ICC Profile. The ICC Profile specifies the following four: The colors to which the colors outside of the Gamut are replaced are different depending on each. • Perceptual The color outside of the Gamut is replaced by near color by changing the brightness and the saturation without changing the hue. The color within the Gamut will be adjusted globally maintaining the gradation. • Saturation The color outside of the Gamut will be replaced by near color by changing the brightness maintaining the hue and the saturation as much as possible. The replacing color tends to become darker (deeper) and the color outside the Gamut could be converted to the same color. • Relative Colorimetric The color outside of the Gamut will be replaced by the nearest color by changing the saturation maintaining the hue and the brightness as much as possible. The color outside of the Gamut could be converted to the same color but the gradation is maintained relatively well. Since the colors inside the Gamut reproduce the color truly, this is good for proofing application. • Absolute Colorimetric The same processing is done as the Relative Colorimetric. However, when the white point possessed by input profile is chromatic color (news paper or papers with less whiteness), such color is reproduced truly. Since the white color on the image is not detained, this is not used except for proofing where even the pure color is truly reproduced.
Gray balance	Gray is theoretically composed of equal value of C, M and Y. In actuality, however, the ink contents are different from the ideal hue. Gray balance is the adjustment of the ink quantity to reproduce ideal gray.
UCR	Abbreviation of Under Cover Removal. This is a technology considered to improve proper printability. To lower the total value of CMYK inks, the gray portion of CMY is replaced by K ink.
GCR	Abbreviation of Gray Component Replacement. This is a technology considered to improve plate making. The gray contents composed of C, M and Y is entirely replaced by K ink and all colors are expressed by 3 colors (K ink plus 2 of CMY inks).
Primary color	For four-color ink set (CMYK) : C/M/Y/K For six-color ink set (CMYKLcLm) : C+Lc/M+Lm/Y/K
Secondary color	For four-color ink set (CMYK) : Red(M+Y)/Green(C+Y)/Blue(C+M)/K+C/K+M/K+Y For six-color ink set (CMYKLcLm) : Red(M+Lm+Y)/Green(C+Lc+Y)/Blue(C+Lc+M+Lm)/ K+C+Lc/K+M+Lm/K+Y
Tertiary color	For four-color ink set (CMYK) : CMY/CMK/CYK/MYK For six-color ink set (CMYKLcLm) : C+Lc+M+Lm+Y/C+Lc+M+Lm+K/C+Lc+Y+K/M+Lm+Y+K
Quaternary color	For four-color ink set (CMYK) : CMYK For six-color ink set (CMYKLcLm) : C+Lc+M+Lm+Y+K

Term	Explanation
Spot color	Indicates the named color. Mainly indicates the color specification with swatch library of Illustrator, and marks the color (position) for color replacement on Raster Link series.

Note when measuring colors

Depending on the operation for measuring colors, the measured result may be an abnormal value in some cases. MPMII adjusts automatically based on the measured value (automatic adjustment of linearization, automatic adjustment of gray balance, checking of color difference, adjustment of hue, etc.) If there is an abnormality in the measured result, you cannot gain the correct result. Especially, abnormality will occur in i1 Pro manually measuring colors.

NOTE!

- ♦ On the MeasureTool5.0 screen, the color of the patch that has already been measured depending on the progress of the measuring colors is displayed in dark color.
- ♦ Be sure to check that this is correct by comparing the color of the patch displayed in dark color and the chart actually measured in the middle of measurement. (In the right figure, the measured colors in the second line are misaligned by ones.)

Possible phenomena when measured colors result is abnormal

Automatic adjustment of Linearizaion	When you click [Curve adjustment] to display curve, there is a billowing color.
Automatic adjustment of Gray balance	
Set Basis	When performing calibration adjustment, color difference values differ much depending on the color at "Measuring colors of current status" that performed first. In addition, as each factor of calibration becomes status below, calibration cannot be performed properly.
Hue adjustment	Ink limit value differs much depending on the color. Especially, when the value below 90% is displayed, check the measured colors result.
Confirm delta E	Color difference values differ much depending on the color.

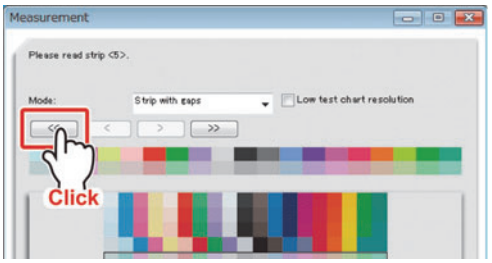
NOTE!

- ♦ For basic setting, be sure to check there is no abnormality in the measured colors result and then terminate color measuring. If there is an abnormality in the measured colors result of the basic setting, calibration adjustment cannot be performed properly.

If you find an abnormality during measuring colors

You can begin to measure colors again in the middle of the operation.
As an example, procedures of i1 Pro are explained.

1 **Click [<<] on the measuring colors screen to return to the line with measuring colors abnormality.**



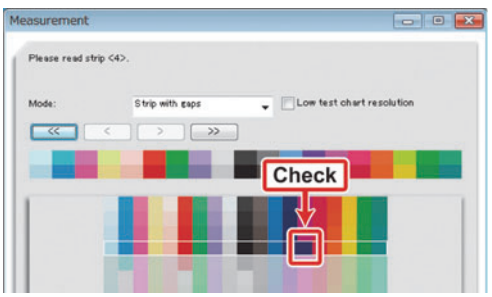
2 **Measure colors in the line with an abnormality again.**

When whole line is misaligned

While pressing the i1 Pro button, stop for longer time in the non-printed part on the left end. Then, slide it.

When patch color in the middle is abnormal

Make the speed to slide i1 Pro slower.



3 **Repeat the Step 1 and 2 until the measuring colors can be performed properly.**

4 **Click [>>] to move to the next line to measure colors.**

Then, continue the measuring colors.

Check the result of the measuring colors result file

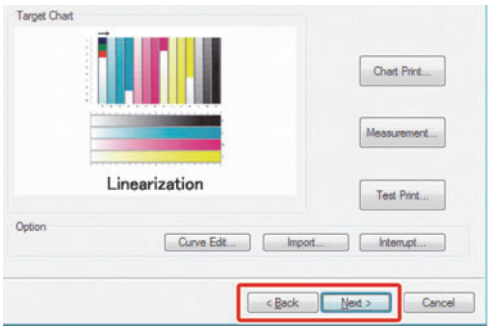
The procedures to check the result of the measuring colors result file when an abnormality has occurred in the measured result and it may be abnormal.

1 Move the screen until you can click Measurement... .

Depending on the current operation, the procedure to display Measurement... differs.

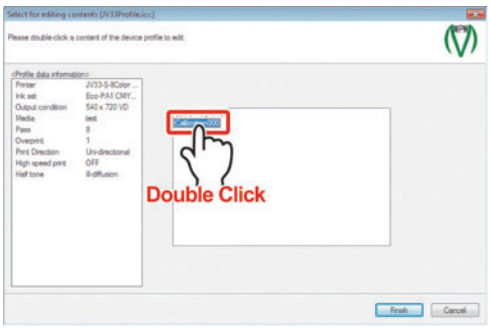
When you perform device profile creating wizard, calibration wizard or equalization wizard

Click Back or Next to display the screen with Measurement... .

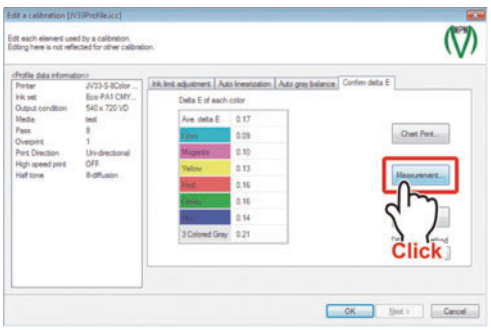


When you edit the device profile

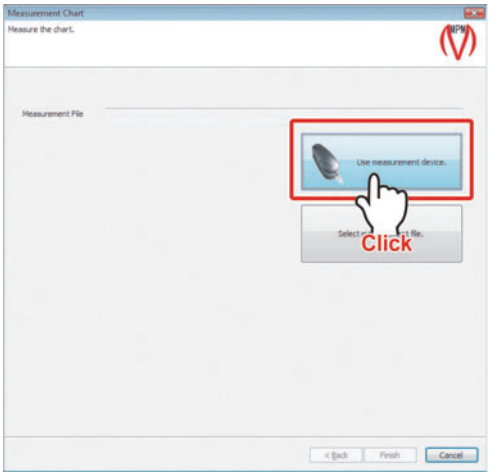
Double-click the item of the calibration data.



2 Click Measurement... .

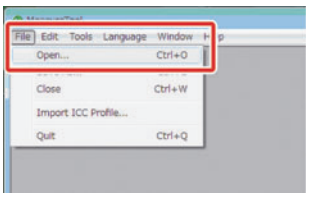


3 **Click**
Use measurement device. .



4 **The MeasureTool 5.0 is activated.**

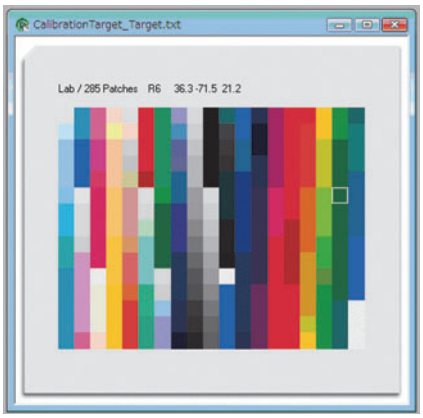
5 **Select the measured colors result from [File] → [Open].**



6 **The preview of the measured colors result is displayed.**

Comparing the measured colors chart to the preview, check that there is no abnormality in the measured colors.

If there is an abnormal result, measure colors again.



When a measurement device is used on Windows7

On Windows7, installation of the driver may fail when a measurement device is connected to the computer. In this case, update the driver.

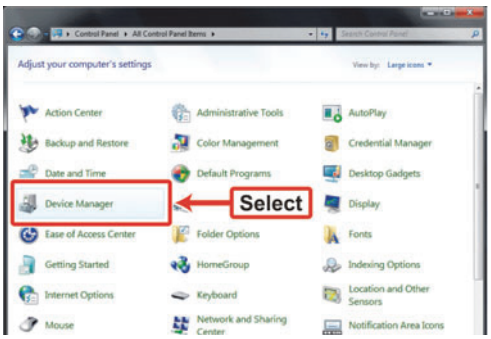
(1) First, refer to "Check the driver of the measurement device" to check the driver is properly installed.
(2) If update of the driver is needed, refer to "Update the driver" to update the driver.

Check the dirver of the measurement device

1 Connect the target printer with PC.

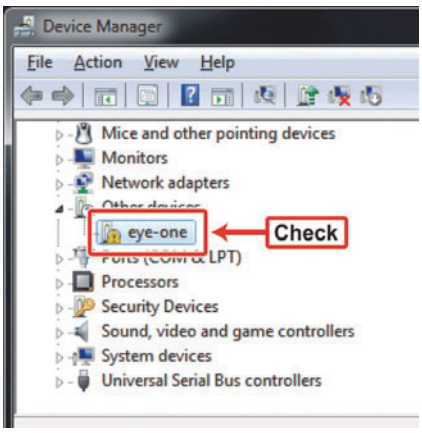
2 Select "Start" and then "Control Panel".

3 Open the device manager.



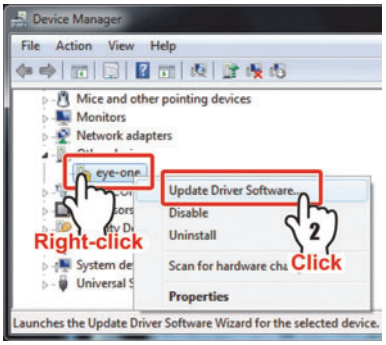
4 Check if the device requires updating.

When "⚠" is displayed next to the name of the connected measurement device shown as the right, update it.

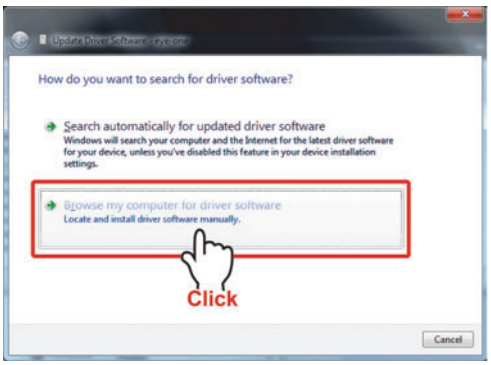


Update the driver

1 **Select and right-click the measurement device to be updated, and then click "Driver-update software" on the shortcut menu.**



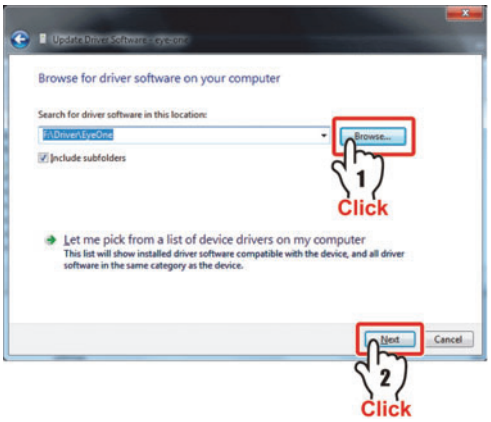
2 **Click “Browse my computer for driver software”.**



3 **Place the installation CD of MimakiProfileMasterII in the CD drive.**

4 **Click Browse and specify the following folder.**

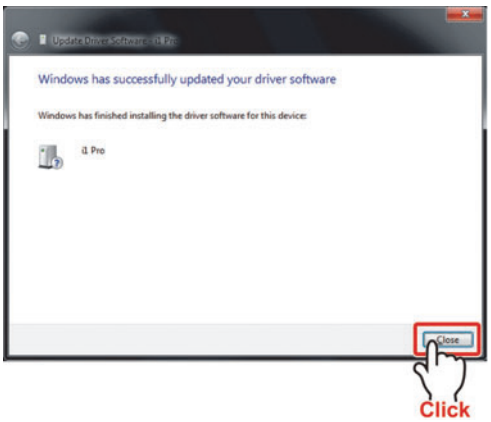
[CD drive]Driver\EyeOne



5 **Click Next .**

The driver software is installed.

6 **Click Close .**



Before using Eye-One iO

If you use Eye-One iO as a measurement device, there may be a case that requires you to update the device driver.

(1) Confirm the driver with reference to the “Confirm Eye-One iO driver”
- If driver update is not required, use the driver as it is.

(2) If driver update is required, Uninstall the installed Eye-One iO driver.

(3) Install the new driver.

NOTE!	♦ In some case, Eye-One iO can not be used with software besides Mimaki Profile Master after updating the device driver. In this case, confirm to the software distributor whether the software supports the Eye-One iO new driver.

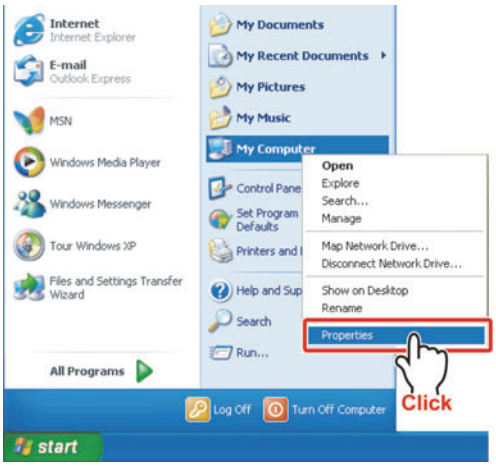
Confirm Eye-One iO driver

1 Turn on Eye-One iO and connect with PC.

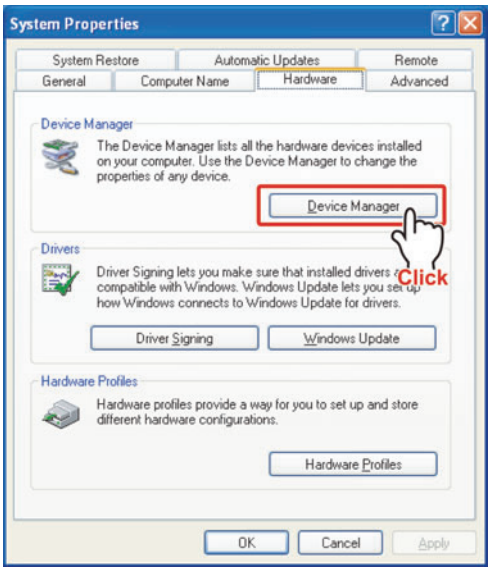
2 Open the device manager.

The following steps open the device manager. (Screen shots are in WindowsXP.)

1 Select [start], do the right click on [My Computer] and Click [Properties] on the displayed menu.

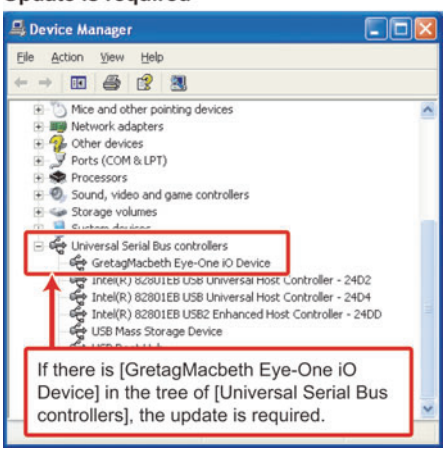


2 Select [Hardware] tab on [System Properties] and then click **Device Manager** .

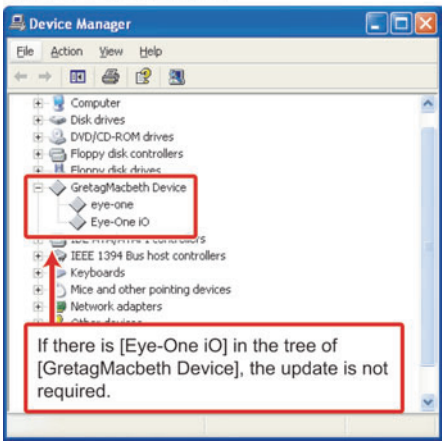


3 Confirm whether update is required.

Update is required



Update is not required



Way to update the device driver

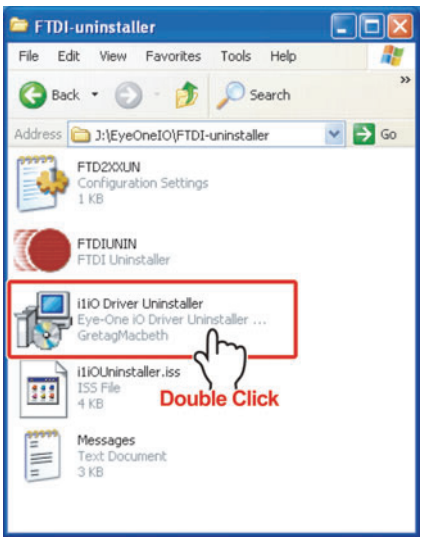
Uninstalls a device driver which has already been installed.

1 **Disconnect Eye-One iO from PC.**

2 **Insert the install CD of Mimaki Profile Master II. Click [Display CD contents] when the below window is displayed.**

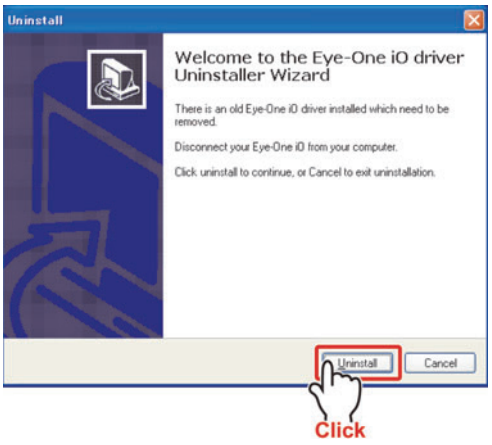
3 **Open [FTDI-uninstaller] folder in [EyeOneIO].**

Double-click “ i1iO Driver Uninstaller.exe ”.

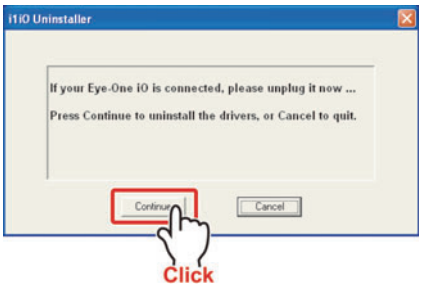


4 **Uninstaller of Eye-One iO starts up.**

Click **Uninstall**.

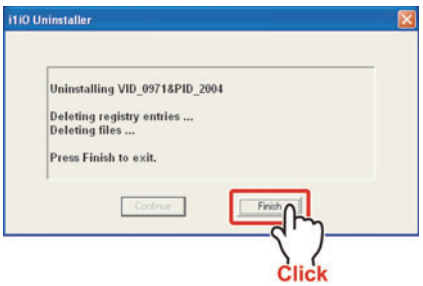


5 **The right window is displayed, click Continue.**

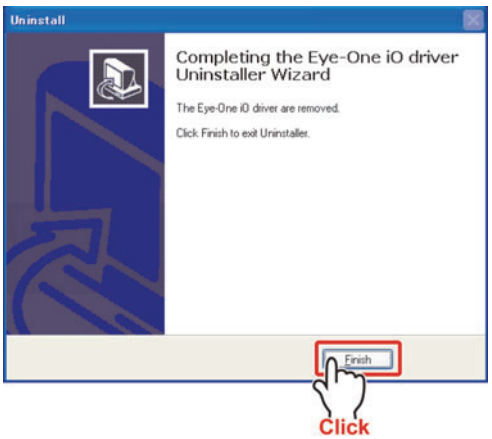


6 **When Finish is activated, click the button.**

Uninstallation is done.



7 **Click Finish to close the window.**

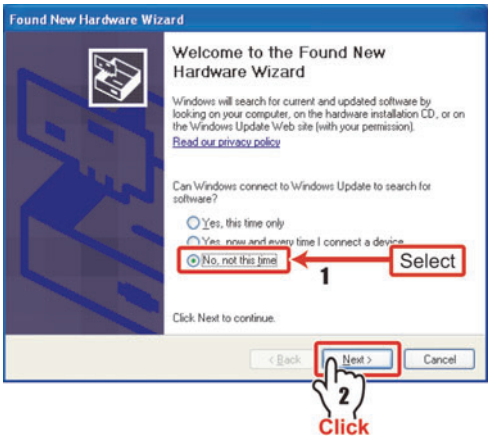


Installs a new device driver

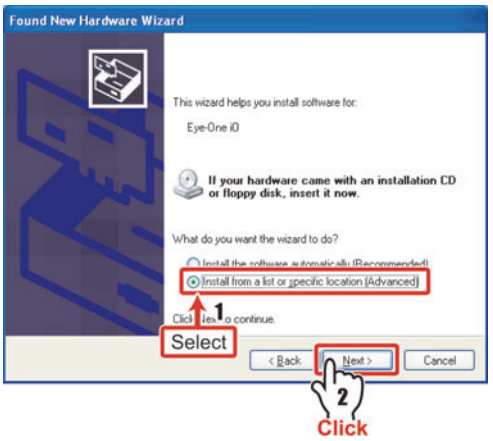
1 Turn on Eye-One iO and connect with PC.

[Found New Hardware Wizard] is displayed.
Click **Next** .

In WindowsXP SP2, select [No, not this time] and click **Next** .



2 Select [Install from a list or specific location.] and click **Next** .

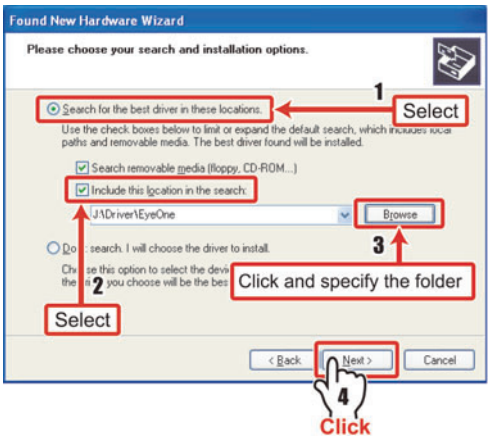


3 **Select [Search for the best driver in these locations.].**

4 **Select [Include this location in the search].**

5 **Click Browse and specify the following folder.**

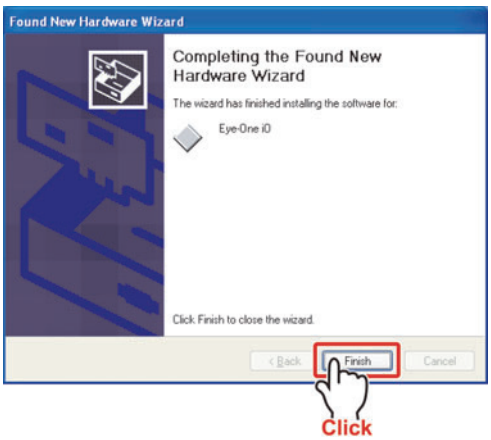
[CD drive] Driver\ EyeOne



6 **Click Next .**

7 **Installation is done.**

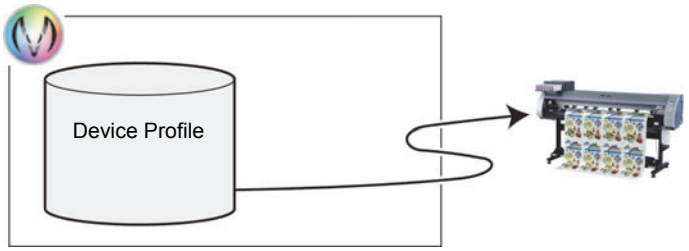
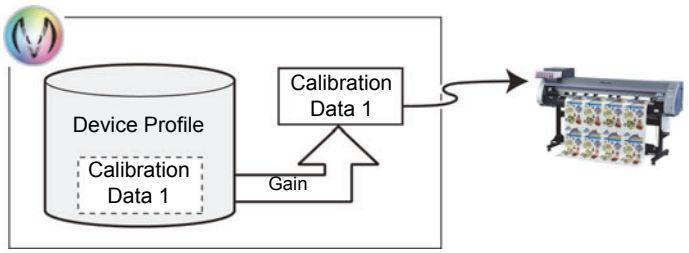
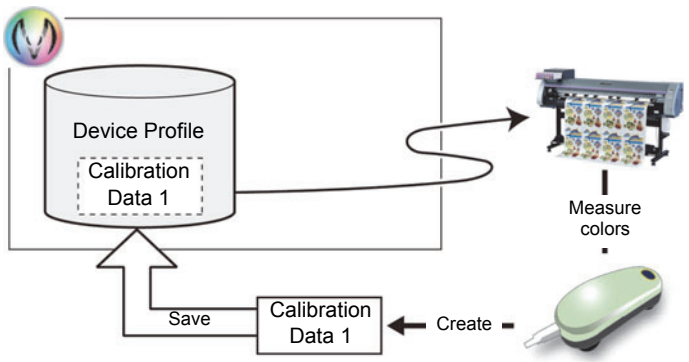
Click Finish to close the window.



About handling calibration data when outputting

- When you create the calibration data, measure colors of the chart on which color conversion has been performed only with device profile.
- When you output with MPMII, use the device profile and the calibration data as below:

NOTE!	♦ You cannot create new calibration data using the existing calibration data.

Output method	Output conceptual diagram
Normal output Color conversion is performed only with device profile.	
Output by using calibration Gain the calibration data form the device profile. Correct the device profile with the calibration data and then convert colors.	
Output when creating calibration data For calibration function/ equalization function, colors are converted only with the device profile. Measure colors and create the calibration data. The calibration data is saved in the device profile.	

Error Messages

Error Messages and Remedies

How to make remedies when error messages are displayed will be explained below:

Error message	Indicate condition	Remedies
No license matches.	At the time of activation	• The trial use period has expired. Please activate using MPMII dongle (SafeNet).
Failed to find a dongle. Please plug the dongle into the PC, then restart the application.	At the time of activation	• When you activated MPMII using dongle, use the dongle to activate in the subsequent occasion, too.
Filed to initialize the application.	At the time of activation	• A crucial error has occurred in MPMII system. Please reinstall the MPMII.
There are media names which have been registered with another dongle. Only the media names for the connecting dongle are displayed.	At the time of activation	• You are using dongle which is different from the previous one. Although this causes no problem to the operation of MPMII, it becomes impossible to select the media name registered using other dongle.
As the connected dongle differs from the one at starting, the process cannot be continued.	At the time of various operations	• Do not remove the black-colored dongle while activating MPMII.
The application has stopped transactions. Any dongle has not been detected. Please plug the dongle into the PC, then restart the application.	At the time of various operations	
The file is not supported.	Loading file	• Make sure that you are not designating the file other than the device profile. • You are trying to edit the profile of new printer or new ink set. Perform version upgrade of MPMII to the latest one.
Cannot display a chart to output.	Device Profile Creation wizard	• Perform various works after selecting the color measuring device.

Error message	Indicate condition	Remedies
Filed to create curves. Please make sure the chart is set and printed correctly. Then do the measurement again.	At the time of reading color measuring file	• A proper curve cannot be calculated from the measured color values read. Check if the file you are using is for measured color values of different factors. • When error message appears even though the correct file is used, there is possibility of mistakes in color measuring. Confirm there is no uneven density on the printed chart and repeat the color measuring once again.
Filed to get valid ink values.	At the time of reading color measuring file	• Check if the file you are using is for measured color values of different factors.
Failed to load the measurement file beacause of an invalid fomat.Please choose a measurement file saved with a correct format.	At the time of reading color measuring file	• The color measuring result has been saved in spectral reflectance. Use the file saved in Lab value. (Especially, this may occur when you use i1iSis. ☞ P.2-44)
Only CMYK tiff images can be outputted during a prolife creation. Please select a CMYK tiff file.	Test print	• Until the device profile is completed, it is impossible to output RGB image.
Selected image size is too small to load. Selected image size is too large to load.	Test print	• The image size that can be output is over 25.4 mm (1 inch) and less than 2500 mm. Change the size within this scope.
Filed to import, cannot find valid data in the file.	Import	• Make sure that you are not designating the file other than the device profile. • Check if you have designated the standard ICC profile instead of V3 profile in the file with extension of ".icc". • Confirm that the ink set of the profile currently being edited and the ink set of the selected profile are same. • When the profiles with variable setting have been made, select the profile with variable setting.
The loaded ICC profile does not have any CMYK color space.	Import	• When importing ICC profile, you have selected profile other than CMYK profile. When taking in the ICC profile, select the one with color space of CMYK.

Error message	Indicate condition	Remedies
Cannot adjust color. This profile has not been created by MPMII.	Editing the ICC profile	• You are using ICC profile prepared by MPM1 or other company's ICC profile making application. Since it is impossible to adjust with MPMII, make the adjustment with pplication used when that ICC profile was made.
Cannot get media size from printer. Please check the connection to a printer.	Editing image	• Check the cable and make sure that the connection with the printer is made. • • Check, on the Windows, if the printer is recognized.
There is the case that is not possible adjust by calibration so that delta E is too big.	Calibration	• The color difference is not the size adjustable with MPMII. Prior to performing calibration with MPMII, make adjustment of the printer. • Confirm if the same printer, same ink set, same media, same profile as the target for calibration and Equalization are used.

Errors at the time of color measuring and the remedies

Kind of color measuring device	Phenomenon	Remedies
SpectroScan	Initialization operation is not completed.	• Confirm that the white reference plate is inserted to the upper left part of the color measuring surface. • Confirm that the serial ID written on the white reference plate and the serial number written on the back of SpectroLino (the head part to perform the color measuring) are in agreement with each other. • Pull off the cord for power intake and enter the power again after around 5 minutes.
	The head returns on the way to perform the position setting of 3 markers.	• Continue to press "Online" and "Enter" at the same time, and reset SpectroScan and repeat the operation again.
	Connecting error arises.	• When using USB-serial conversion adaptor, designate the COM port number to be allocated by the software attached to the adaptor. Select such COM port number with MeasureTool5.0.

Kind of color measuring device	Phenomenon	Remedies
i1 Pro	Initialization operation is not completed.	• Confirm that the serial ID written on the calibration plate and the serial ID written on the back of i1 Pro are in agreement. • Confirm that i1 Pro is firmly placed on the calibration plate.
	Color measuring error arises.	• Color measuring is performed for each line. Continue to press i1 Pro button while making the color measuring. • At the beginning of the line (white portion on the left) and the end of the line (white portion on the right) to be measured, wait for around 1 second while pressing the button. • Move i1 Pro slowly at a constant speed. • While sliding on the ruler, do not make i1 float from the chart. (It is not necessary to push it forcibly).
	Connecting error arises.	• Confirm if the driver is installed properly. • Change the USB port to insert. (Do not use USB hub). • Remove other USB devices.
	The light stays on.	• Suspend the color measuring and pull off the USB cable. Re-insert the cable again after a while.
i1 iO	Color measuring error arises.	• Confirm that i1 Pro is firmly inserted into the pedestal for i1 iO. Push i1 Pro into the pedestal until you feel resistance. (It is not necessary to push forcibly.) • When deciding the position of 3 markers, decide the position at slightly outside of the center of the batch with frame.
	Connecting error arises.	• Confirm that two drivers of i1 Pro/i1 iO are properly installed. • Confirm if i1 iO is firmly assembled. • Change the USB port to insert. (Do not use USB hub). • Remove other USB devices.

Kind of color measuring device	Phenomenon	Remedies
DTP-41	Initialization operation is not completed.	• Press the button for a while and when LED is lighted in red, press the button once more. (Initialized to the state at the time of shipment from the plant.) Then, press the button for a while and when the LED is lighted in orange color, press the button once again. Have the calibration plate be read to perform the calibration of the color measuring device.
	Color measuring error arises.	• Check if the white portions before and after the chart are not stained. As these portions have to be in white, refrain from writing letters etc. there. • Measure the color while adjusting the position so that the chart is fed straightly.
	The chart stops on the way.	• Change the color of the separator between the batches close to the line where measuring stops of the currently measured line. When the separator is white colored, make it black with magic ink etc. When the separator is black colored, make it white with correcting pen or seal, etc. • If you pull the chart off forcibly, it will be stained. If you pull up the color measuring device, you can pull it out easily.
	Connecting error arises.	• When using USB-serial conversion adaptor, designate the COM port number to be allocated by the software attached to the adaptor. Select such COM port number with MeasureTool5.0.
i1 iSis	Initialization fails.	• The white plate may have been stained. Clean the white plate in accordance with the i1 iSis Operation Manual.

Kind of color measuring device	Phenomenon	Remedies
i1 iSis	Media jams.	• Remove the jammed media in accordance with the i1 iSis Operation Manual. • If a specific media often jams, the media is not suitable for the color measuring using i1 iSis. Use the other color measuring device.
	Color measuring fails.	• Did you cut outside the frame line widely spaced ? When cutting outside the frame line, cut the position within 1cm of the frame line.

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SW : 4.40