RICOH

RICOH Auto Color Adjuster

User Guide

For information not in this manual, refer to the Help System in your product.
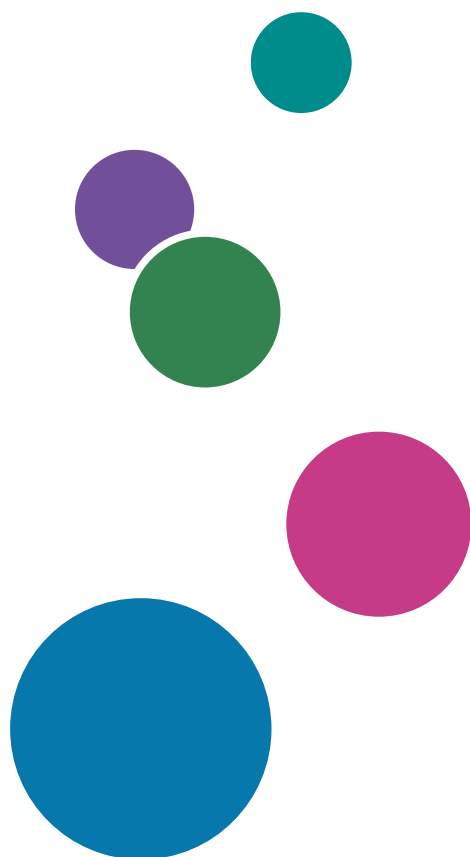
Preface

Publications for This Machine

Additional information about the RICOH Auto Color Adjuster is available in other publications.

Instruction Manuals

These instruction manuals are included:

- *RICOH Auto Color Adjuster: Safety Information*

  This guide describes precautions for safe and proper use of the machine, as well as various regulations and environmental measures. Read this manual before using the machine.

- *RICOH Auto Color Adjuster: Installation Guide*

  This guide describes the installation procedure of various applications, and the settings that need to be configured before you can use this machine. Read this manual before you start using the machine.

- *RICOH Auto Color Adjuster: User Guide*

  This guide describes the functions of the machine and how to operate each function. It also describes the solutions for resolving the causes of displayed error messages.

- *RICOH Auto Color Adjuster: Quick Guide*

  This guide describes the basic operations of the machine and the functions that are frequently used. It also describes the solutions for resolving the causes of displayed error messages.

- The RICOH Auto Color Adjuster release notes

  These release notes provide information about the RICOH Auto Color Adjuster release, including new functions and updates, known limitations, problems, and workarounds, and code change requests.

The guides are available in English, Japanese, Dutch, French, German, Italian, and Spanish. The release notes are available only in English.

You can download the publications from the RICOH Software Information Center (https://help. ricohsoftware.com/swinfocenter/) or from the help menu inside the product.

RICOH Auto Color Adjuster Information Center

The Information Center contains topics that help administrators, supervisors, and operators learn about, install, and use RICOH Auto Color Adjuster. The Information Center provides quick navigation and search features.

RICOH Auto Color Adjuster Help

The help system contains topics that help administrators, supervisors, and operators learn about and use RICOH Auto Color Adjuster. The RICOH Auto Color Adjuster help is available from both the application user interface and the web user interface.

Symbols Used in the Manual

This manual uses the following symbols:

This symbol indicates points that you must pay attention to when using the machine. It also indicates explanations of likely causes of paper misdeeds, damage to originals, or items that might lead to loss of data.

This symbol indicates supplementary explanations of the machine functions, and instructions on resolving user errors.

⚠ CAUTION

Indicates a potentially hazardous situation which, if instructions are not followed, might result in minor or moderate injury or damage to property.

[Bold]

Bold type inside square brackets indicates the names of keys, menus, menu items, field labels, settings, and buttons.

[]

Square brackets indicate the names of keys, menus, menu items, field labels, settings, and buttons.

Italic

Italic type indicates variables that you must replace with your own information.

`Monospace`

`Monospace type` indicates computer input and output and file names.

Differences in the functions of Region A and Region B models are indicated by Region A and Region B symbols. Region A refers mainly to Europe. Read the information indicated by the symbol that corresponds to the region of the model you are using.

Differences in the functions of Region A and Region B models are indicated by Region A and Region B symbols. Region B refers mainly to North America. Read the information indicated by the symbol that corresponds to the region of the model you are using.

Abbreviations Used in This Manual

A

Ampere

APPE

Adobe PDF Print Engine

AVE

Average

C

Celsius

C

Cyan

CCW

Counterclockwise

CGATS

Committee for Graphic Arts Technologies Standards

CMY

Cyan, Magenta, Yellow

CMYK

Cyan, Magenta, Yellow, Key (Black)

CPSI

Configurable PostScript Interpreter

CSV

Comma-Separated Values

CW

Clockwise

dB

Decibel

dB (A)

A-weighted Decibel

DFE

Digital Front End

F

Fahrenheit

g

Gram

GPL

General Public License

gsm

Grams per Square Meter

HTTPS

Hyper Text Transfer Protocol Secure

Hz

Hertz

ID

Identifier

ICC

International Color Consortium

IP

Internet Protocol

ISO

International Standard Organization

K

Black

kg

Kilogram

lbs

Pounds

M

Magenta

m

Meter

mm

Millimeter

MAX

Maximum

NG

Not Good

nm

Nanometer

PDF

Portable Document Format

PDF/X

Portable Document Format / Level X

REST

Representational State Transfer

RIP

Raster Image Processor

RGB

Red Green Blue

SSL

Secure Socket Layer

TIF

Tagged Image File

TIFF

Tagged Image File Format

TXT

Text

USB

Universal Serial Bus

UTF-8

8-Bit Unicode Transformation Format

V

Volt

W

Watt

Y

Yellow

Important

To the maximum extent permitted by applicable laws, in no event will the manufacturer be liable for any damages whatsoever arising out of failures of this product, losses of documents or data, or the use or non-use of this product and operation manuals provided with it.

Make sure that you always copy or have backups of important documents or data. Documents or data might be erased due to your operational errors or malfunctions of the machine. Also, you are responsible for taking protective measures against computer viruses, worms, and other harmful software.

In no event will the manufacturer be responsible for any documents created by you using this product or any results from the data executed by you.

Cautions Regarding This Guide

- The contents of this guide are subject to change without notice.

- Some illustrations or explanations in this guide could differ from your product due to improvements or changes in the product.

- Depending on which country you are in, certain units may be optional. For details, please contact your local dealer.

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- Microsoft® Windows® 10 Home

- Microsoft® Windows® 10 Pro

- Microsoft® Windows® 10 Enterprise

- Microsoft® Windows® 10 Education

- Microsoft® Windows® 10 Mobile

- Microsoft® Windows® 10 Mobile Enterprise

The product names of Windows 11 are as follows:

- Microsoft® Windows® 11 Home

- Microsoft® Windows® 11 Pro

- Microsoft® Windows® 11 Pro Education

- Microsoft® Windows® 11 Pro for Workstations

- Microsoft® Windows® 11 Enterprise

- Microsoft® Windows® 11 Education

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Microsoft product screenshots reprinted with permission from Microsoft Corporation.

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5 Management Console

6 Colorimetry

7 Troubleshooting

1. Overview of the Machine

This chapter describes the configuration of devices that are required to use the machine, and the names of machine parts. It also describes the applications for controlling the machine.

What Can Be Done on the Machine

This product provides an efficient solution for achieving color adjustment, color matching, colorimetry, and management of printers.

The RICOH Auto Color Adjuster comprises the following four functions:

[Quick Color Adjustment]

Scans a color chart and generates a profile automatically. Use this function at a regular interval to avoid the changes in the machine condition or printing environment to affect the colors on the output sheets.

[Color Sample Matching]

Generates a profile based on the printed color sample that you scanned using the Color Sample Matching function. Use the generated profile to reproduce the color tone of the color sample on the printed page as closely as possible.

[Management Console]

Performs quick certification on the color adjustment result of the printer, according to various certification standards. You can manage the records of changes in the certification result over time, for individual printers.

[Colorimetry]

The machine measures the colors on a printed test chart at a regular interval. You can save the measurement results in a file and manage them using a color management or other similar application.

⬇ Note

• A separate contract is required to use each function except **[Colorimetry]**.

Device Configuration

You can operate the machine, register a profile to the DFE, and perform other operations using a computer that is connected to the machine via USB. Use a computer that is connected to the machine in a network environment shown below.
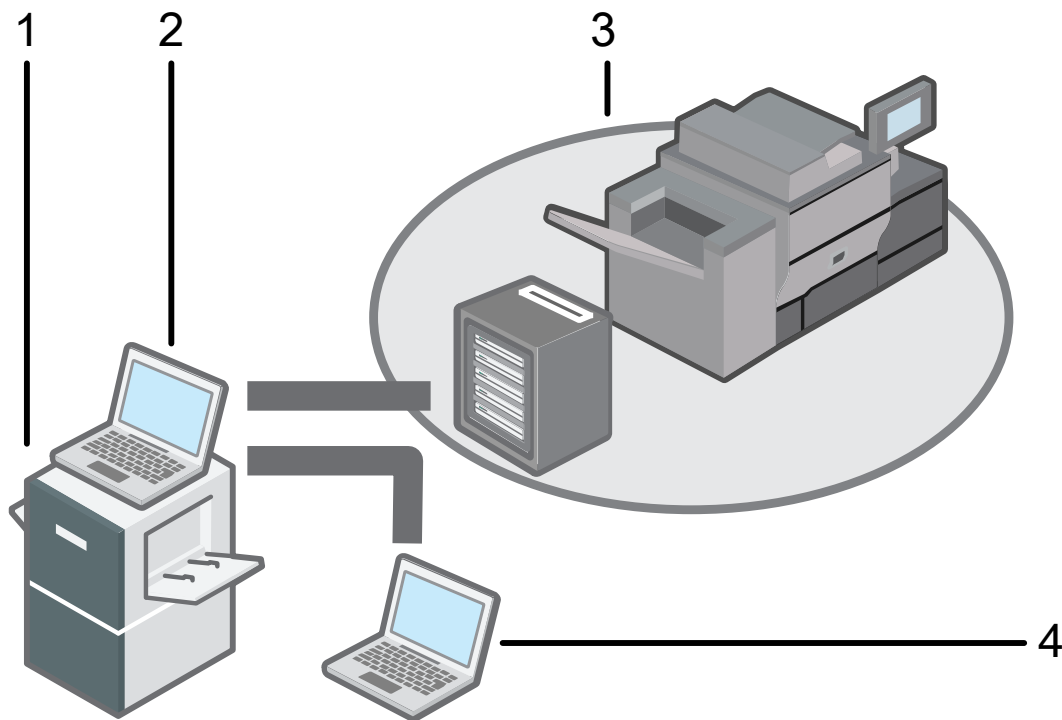
M582IM0151

1   Machine

2   A computer that is connected to the machine via two USB cables provided with the machine. You can use all functions including **[Quick Color Adjustment]**, **[Color Sample Matching]**, **[Colorimetry]**, and **[Management Console]**.

3   A printer and its DFE: Fiery color controller, TotalFlow Print Server, or another printer controlling device.

4   A network computer

     To manage the colors of the printer, use **[Management Console]**.

⬇Note

- For details about setting up the machine, see *RICOH Auto Color Adjuster: Installation Guide*.

Usage Environment of the Computer

It is recommended to use the computer that is connected to the machine with the environment described below. If you connect the computer in a non-recommended environment, outside parties might view your login ID, password, and other information.

- Hard disk encryption (BitLocker) setting
- Firewall settings
  The access source of the HTTPS/8080 port is restricted appropriately.
- Enforcing an appropriate user and login management on the computer

Names of Machine Parts

Describes the basic components of the machine and the terminology used to describe them.

⭐**Important**

• Do not apply an excessive force to the upper part of the machine. The machine may topple over and cause injury.

Front and Left View

Describes the basic components located at the front and left side of the machine.
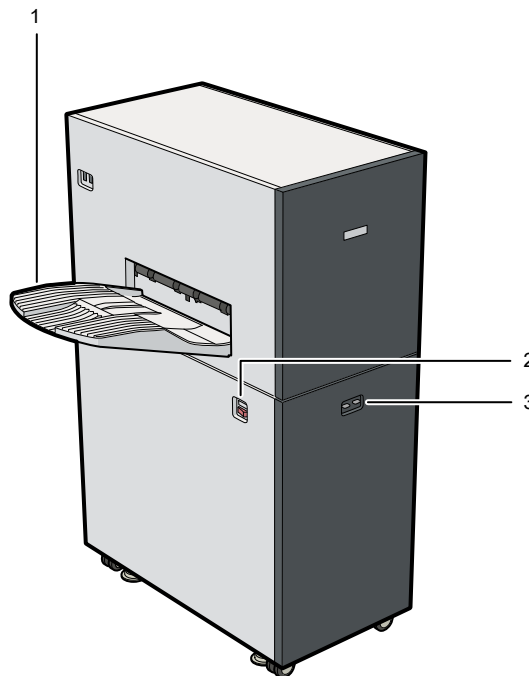
M582IM0152

1. Output tray

The scanned document or color chart is ejected onto this tray.

If the ejected sheets are curled or not stacked neatly, attach the auxiliary tray that is provided with the machine. For more information, see If Paper Jams Occur Frequently, p. 114.

💧**Note**

• Do not apply an excessive force to the output tray. Doing so might damage the machine.

2. Power switch

Push to turn on or off the power of the machine. For more information, see Turning On the Machine, p. 21 and Turning Off the Machine, p. 22.

3. Indicator

Indicates the machine status.

- Blue (left): The machine is operating normally. The machine is ready to scan originals and color charts.

- Red (right): A paper jam or other error occurred. Check the message that is displayed on the computer, and then resolve the cause of the error. For more information, see When Messages Appear (Common to All Functions), p. 110.

Front and Right View

Describes the basic components located at the front and right side of the machine.
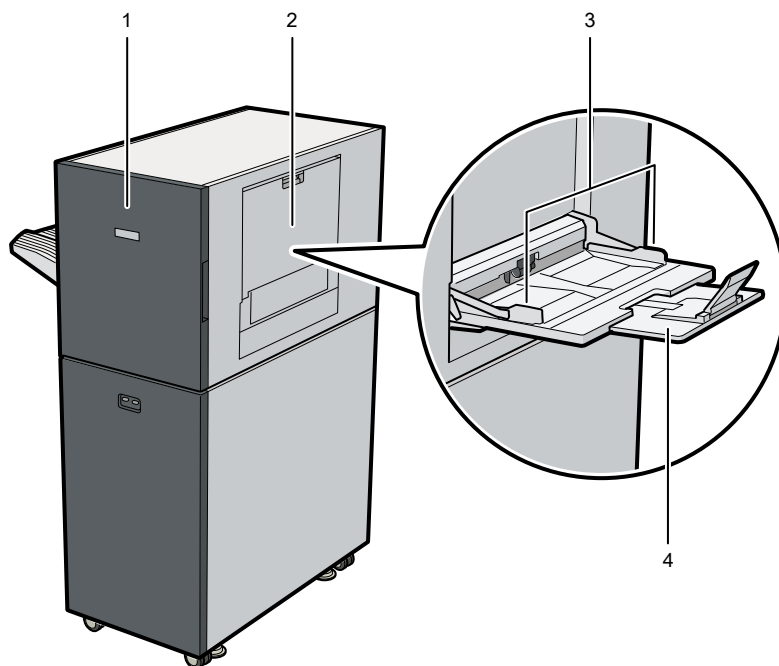
M582IM0153

1. Front door

Open the cover when removing jammed paper. For more information, see When a Paper Jam Occurs, p. 112.

2. Paper tray

Open the tray when placing an original or color chart to scan on the machine. For more information, see Placing an Original or Color Chart on the Paper Tray, p. 29.

3. Paper guides

Slide the paper guides until they are aligned with the edges of the paper when setting the original or color chart on the paper tray.

4. Extension tray

Extend the extension tray when placing an original or color chart that is longer than 210 mm (8.3 inches) on the paper tray.

🔻Note

- Do not apply an excessive force to the front door, source tray, paper guides, or extension tray. Doing so might damage the machine.

Rear and Left View

Describes the basic components located at the rear and left side of the machine.
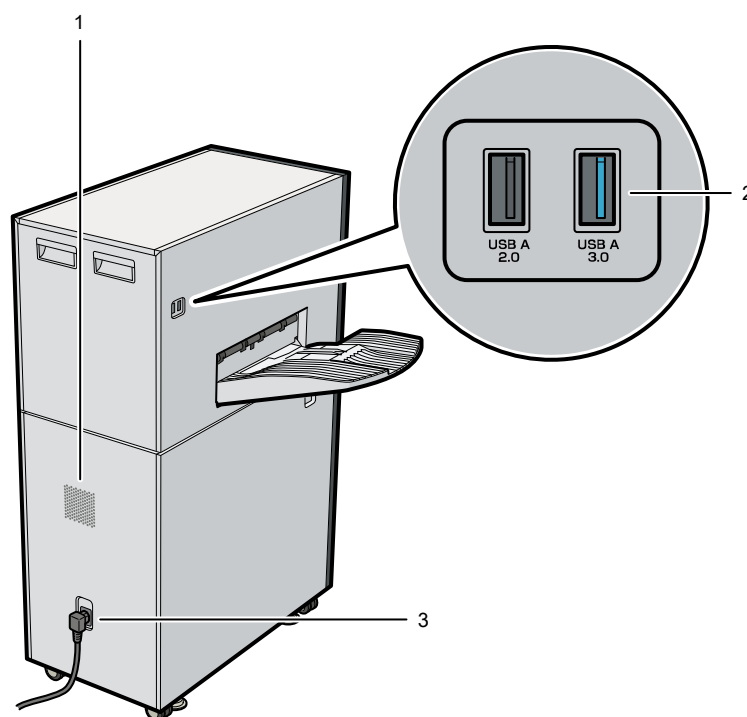
M582IM0154

1. Ventilation holes

Prevents the internal components of the machine from overheating. Do not block the ventilation holes.

2. USB interface

The computer connects to the machine using two provided USB cables.

- USB A 2.0: Connect a USB cable from this port to a USB 2.0/2.1 port of a computer. This port is used to control the machine from the computer.

- USB A 3.0: Connect a USB cable from this port to a USB 3.0 port on a computer. This port is used to transfer the data scanned on the machine to the computer.

⭐ **Important**

- Do not use a USB cable other than the cable provided with the machine. Proper operation of the machine is guaranteed only when it is connected to your computer via the provided USB cable.
- Do not use an USB extension cable or a hub.

3. Power cord inlet

Connect the power cord that is provided with the machine to this inlet.

- Region **A**: Plug the power cord into a wall outlet that supplies electricity of 220–240 V, 1 A or more, 50/60 Hz.
- Region **B**: Plug the power cord into a wall outlet that supplies electricity of 120–127 V, 1.2 A or more, 60 Hz.

⬇ **Note**

- Make sure that the power cord is securely plugged directly into the wall outlet.

Specifications

Specifies technical details and characteristics of the machine.

Item	Specification
Spectral output	Wavelength between 400-700 nm at 10 nm pitch, spectral reflectance output of 31 points
Lighting conditions	M0 (A), M1 (D50), M2 (A+UV cut) conforming to ISO13655
Measurement backing	White backing conforming to ISO13655
Warm-up time (20°C, rated voltage)	Less than 300 seconds
Scan speed[1]	First sheet: 40 seconds, second and subsequent sheets: 35 seconds (A3)
Power source	Region **A** (mainly Europe) 220-240 V, 1 A, 50/60 Hz Region **B** (mainly North America) 120-127 V, 1.2 A, 60 Hz
Power consumption (max.)	150 W or less
Dimension (width x length x height)	374 × 727 × 1,098 mm (14.8 × 28.7 × 43.3 inches)
Area occupied by the machine (width x length)	1,102 × 727 mm (paper tray and extension tray opened, and output tray attached)
Mass	86 kg (190 lbs.) including the items provided with the machine
Interfaces	USB 3.0 (for transferring the measured color image data)

Item	Specification
	USB 2.0/2.1 (for controlling the machine)
Recommended temperature and humidity range	Optimum temperature and humidity: 23°C (73.4°F) at 50% • Temperature: 10-32°C (50-89.6°F) • Humidity: 15-80%
Noise emission (Sound power level)	Standby: 58 dB (A) Scanning: 65.4 dB (A)
Noise emission (Sound pressure level)	Standby: 43.5 dB (A) Scanning: 54.2 dB (A)
Noise emission	Sound power levels and sound pressure levels are actual values measured in accordance with ISO 7779. Sound pressure levels are measured from the position of the bystander.

[1]The scan speed might become slower depending on the specifications or usage status of the computer that is connected to the machine.

↓Note

2. Basic Operations of the Machine

- Turning the Machine On and Off
- Using the RICOH Auto Color Adjuster Application
- Using an Original or Color Chart

This chapter describes basic information about operating the machine and the RICOH Auto Color Adjuster application.

Turning the Machine On and Off

To turn the machine on and off, use the power switch on the left side of the machine.

⭐ Important

- Do not turn on the power of the machine immediately after turning it off. Before turning the machine back on, wait for the indicator to remain unlit for 10 seconds or more.

- Do not turn off the power of the machine immediately after turning it on. Before turning off the machine, wait for the indicator to remain lit for 10 seconds or more.

Turning On the Machine

To turn on the machine, use the power switch on the left side of the machine.

⭐ Important

- Do not turn on the power of the machine immediately after turning it off. Before turning the machine back on, wait for the indicator to remain unlit for 10 seconds or more.

To turn on the machine:

1. Check that the power indicator of the machine is not lit.

2. Make sure that the power cable is plugged securely into the wall outlet.

3. Turn on the power switch on the left side of the machine.

   The indicator lights up in blue.

4. Turn on the power of the computer that is connected to the machine.

Turning Off the Machine

To turn off the machine, use the power switch on the left side of the machine.

⭐**Important**

- Do not turn off the power of the machine immediately after turning it on. Before turning off the machine, wait for the indicator to remain lit for 10 seconds or more.
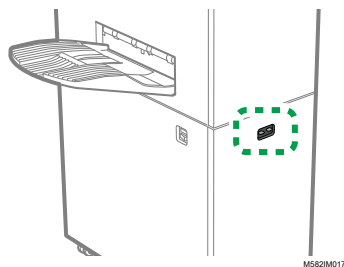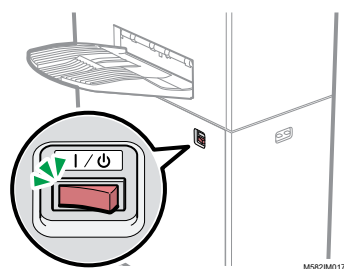
To turn off the machine:

1. Turn off the power of the computer that is connected to the machine.

2. Close the source tray as required.

    1. Fold the extension tray **(1)**, and set it back to its original position **(2)**.
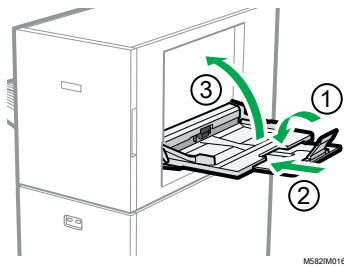
    2. Close the source tray by lifting it until it is locked in place **(3)**.

3. Remove the output tray from its fixed base as required.

    1. Push the output tray upward **(1)**.
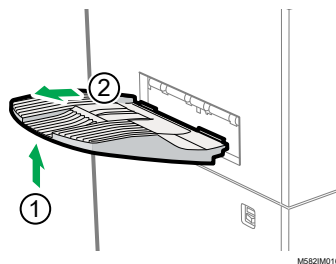
    2. Pull out the output tray **(2)**.

4. Turn off the power switch on the left side of the machine.

    The indicator turns off.

Using the RICOH Auto Color Adjuster Application

To operate the machine, use the RICOH Auto Color Adjuster that is installed on the computer. This section describes the functions and settings of the RICOH Auto Color Adjuster, and the procedure for starting each function and accessing the settings menus.

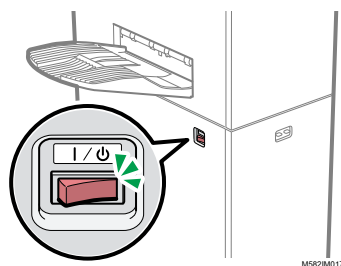| How to Access Functions and Settings	Function/ Settings	Overview
Select the function or the settings button in the menu screen of the RICOH Auto Color Adjuster	**[Quick Color Adjustment]**	Scans a color chart and generates a profile automatically. Register the created profile as the output (printer) profile on the DFE, and use the profile when printing a document. Use this function at a regular interval to avoid the changes in the machine condition or printing environment to affect the colors on the output sheets. For more information, see Quick Color Adjustment, p. 31.
	[Color Sample Matching]	Generates a profile based on the printed color sample that you scanned using the Color Sample Matching function. Register the created profile as the CMYK input (source) profile on the DFE, and use the profile when printing a document. You can use the generated profile to reproduce the colors of the color sample on the printed page as closely as possible. For more information, see Color Sample Matching, p. 59.
	[Colorimetry]	The machine measures the colors on a printed test chart at a regular interval. You can save the measurement results in a file and manage them using a color management or other similar application. For more information, see Colorimetry, p. 95.
	[Machine Settings]	Specify various settings of the machine. For more information, see *RICOH Auto Color Adjuster: Installation Guide*.
Select the function or the settings button in a web browser	**[Management Console]**	Performs quick certification on the color adjustment result of the printer according to various certification standards. You can manage the records of changes in the certification result over time for each printer. For more information, see Management Console, p. 85.
	[Initial Settings]	Specify the printer, paper type, and other settings to use for **[Quick Color Adjustment]**. For more information, see *RICOH Auto Color Adjuster: Installation Guide*.

↓Note

- You can also use **[Initial Settings]** and **[Management Console]** from a computer on the network. For information about the computer that can be used, see *RICOH Auto Color Adjuster: Installation Guide*.

Displaying the Menu Screen of the RICOH Auto Color Adjuster

2

Display the menu screen of the RICOH Auto Color Adjuster, and use the **[Quick Color Adjustment]**, **[Color Sample Matching]**, and **[Colorimetry]** functions.

To display the menu screen of the RICOH Auto Color Adjuster:

1. Start the computer that is connected to the machine via USB cables.
   The menu screen is displayed.

2. If the RICOH Auto Color Adjuster menu screen is not displayed, double-click the **[RICOH]** icon ( ).

3. Select the function to use.
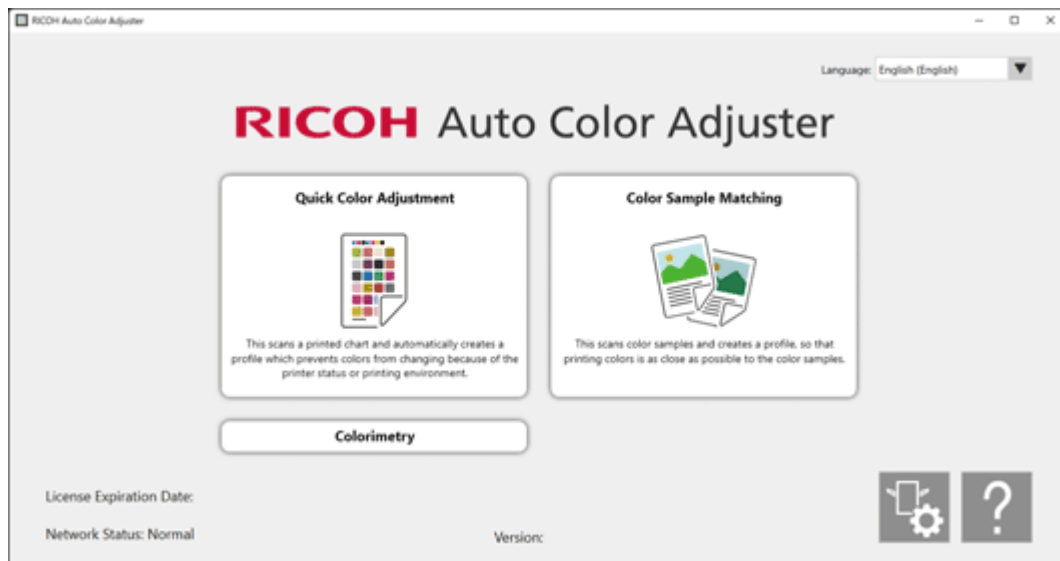
m5820m0850

↓Note

- To display the online manual, click the **[Help]** button ( ) on the menu screen.

The screen of each function is displayed:

- **[Quick Color Adjustment]** screen

2
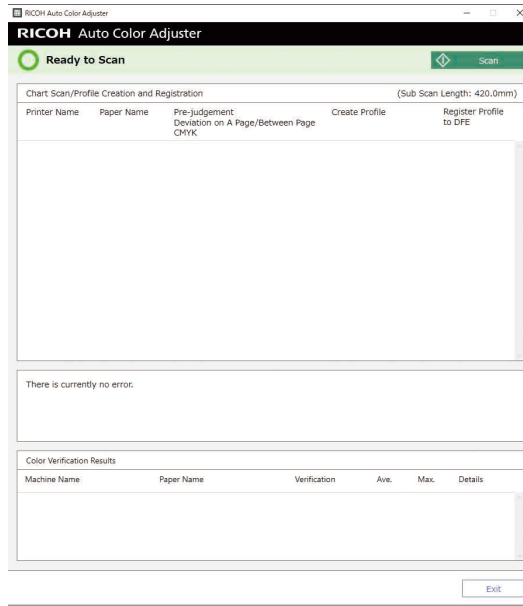
m582om0655

- **[Color Sample Matching]** screen
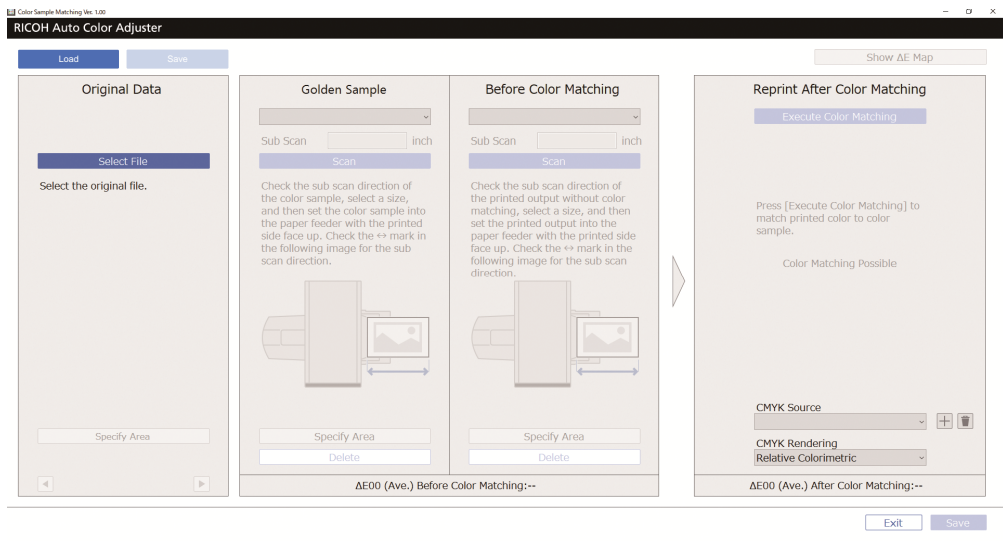
m582om0664

- **[Colorimetry]** screen

m582om0851

25
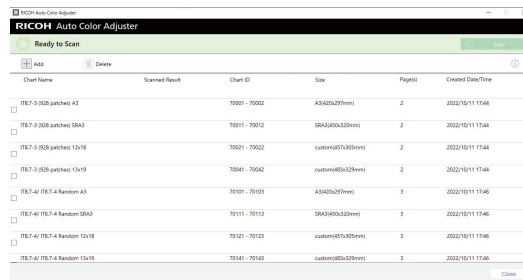
Starting the Management Console in a Web Browser

To start the Management Console in a web browser:

1. Start the computer that is connected to the machine via USB cables.

2. Check the IP address and port number of the server.

   1. Click the **[Machine Settings]** button ( ) on the menu screen.
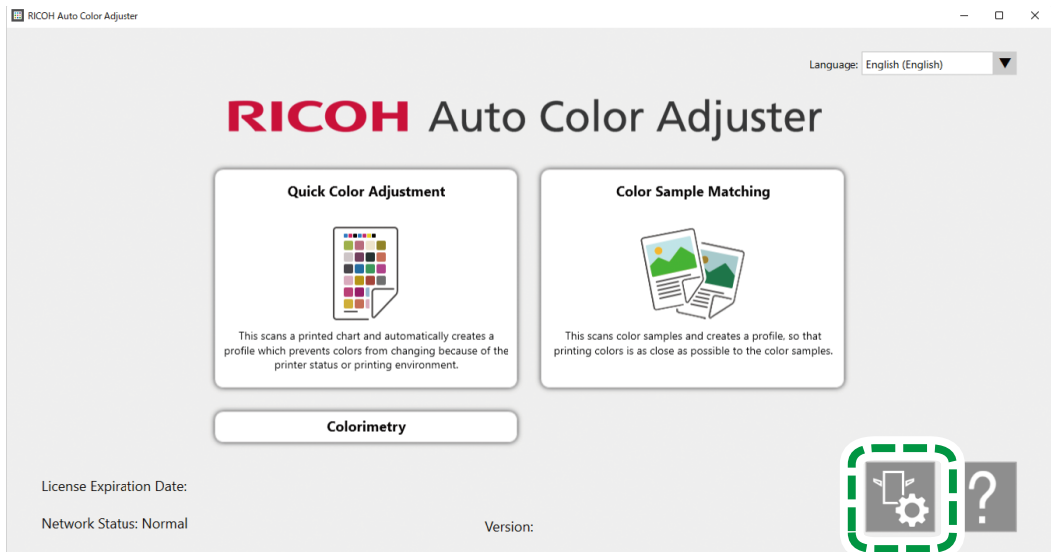
M582OM5958

   2. If the RICOH Auto Color Adjuster menu screen is not displayed, double-click the **[RICOH]** icon ( ).

   3. To check the IP address and port number, click **[Auto Color Adjuster Server Settings]**.
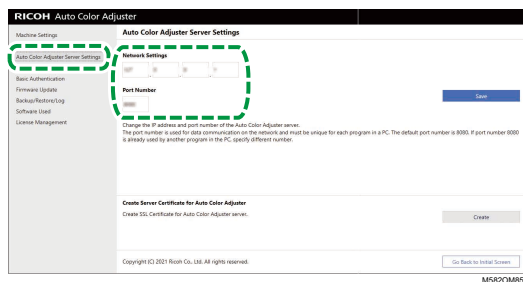
M582OM8570

3. Start a web browser, and enter the IP address and port number in the address bar.
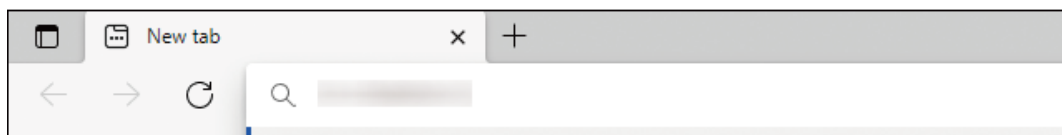
m582wm9560

⬇Note

- Use the following format of the IP address and port number: https://*(IP Address)*:*(port number)*. Do not omit the colon (:) and periods (.). You can omit the entry after ":" when the port number is "80".

- You can also use the Management Console from a computer on the network. In the address bar of the web browser, enter the IP address and port number of the computer that is connected to the machine via USB cables. For information about the computer that can be used, see *RICOH Auto Color Adjuster: Installation Guide*.

- When you are operating more than one machine and using a client computer, consult the administrator for the IP address and port number of the server.

4. Enter the user name and password.

    ⬇Note

    - The default user name and password are as follows:

        – User name: aca-user

        – Password: user

The Management Console screen is displayed.

Using an Original or Color Chart

Available Paper Size and Thickness
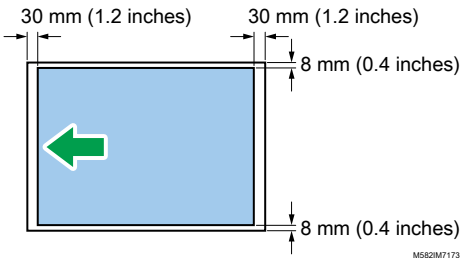
The machine can scan paper with the following specifications.

⭐Important

- Paper that does not conform to these specifications might cause a paper jam or may not be measured correctly.

- Even if the paper conforms to the specifications, the normal operation of the machine or the scan quality might not be guaranteed.

Paper Specifications

Item	Specification
Type	Wood free paper, coated paper, matte paper, art paper **⬇Note** • Use the recommended paper when using **[Quick Color Adjustment]**. • For details, see Performing Quick Color Adjustment, p. 36.
Paper size: width	210–330.2 mm (8.3–13 inches) 297–330.2 mm (11.7–13.0 inches) when using **[Quick Color Adjustment]**

Item	Specification
Paper Size: length	210–487.7 mm (8.3–19.2 inches) 420–487.7 mm (16.5–19.3 inches) when using **[Quick Color Adjustment]**
Paper weight	73.3–279.0 g/m² (63–240 kg: 5 x 7.4 inches)
Number of sheets	70 sheets when using gloss coated paper of 104 g/m²
Scan area	The machine scans the following blue area: 30 mm (1.2 inches)　　30 mm (1.2 inches) 8 mm (0.4 inches) 8 mm (0.4 inches) M582IM7173

⬇ Note

- When using **[Colorimetry]**, use paper of size from A4 (210 x 297 mm, 8.27 x 11.69 inches) or Letter (215.9 x 279.4 mm, 8.5 x 11 inches) up to A3 (330.2 x 482.6 mm, 13 x 19 inches).

Original or Chart That Cannot Be Used

Do not place an original or color chart in the condition as shown below on the machine:

- Bound by a staple or paper clip
- Has a hole, rip, or notch
- Has a rip or is wrinkled
- Pasted together with another piece of paper
- Has a piece of adhesive tape or glue on it
- Has a protruding part such as an index tab or tag

⭐ Important

- Placing an original or chart in one of the conditions previously mentioned might generate a paper jam, or the machine might malfunction.

Correct the curl before placing a heavily curled original or color chart on the machine. You can scan an original or color chart that has a curl that satisfies the following condition:
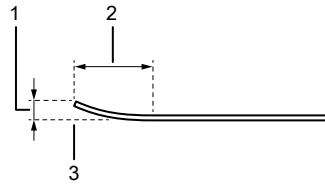
1	7.5 mm (0.3 inches) or less
2	30 mm (3.9 inches) or more
3	On the leading or trailing end of an original/chart

Placing an Original or Color Chart on the Paper Tray

⭐**Important**

- Do not add an original in the tray while some sheets are still remaining on the tray. Doing so might cause double feeding to occur.

- Faint streaks or linear imprints might appear on the surface of the paper when you use an original or color chart that is printed on coated paper or media that is easily scratched.

- When loading multiple sheets of paper together, fan the sheets thoroughly, bend and then align the edges slowly several times while holding both edges. If misfeed occurs, place one sheet at a time.
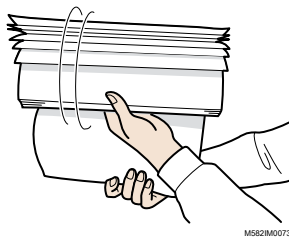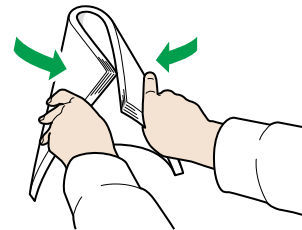
To place an original or color chart on the paper tray:

1. Open the paper tray.

2. Pull out the extension tray when you are placing an original that extends beyond the edge of the tray (longer than A4 size paper in portrait orientation).

M582IM0176
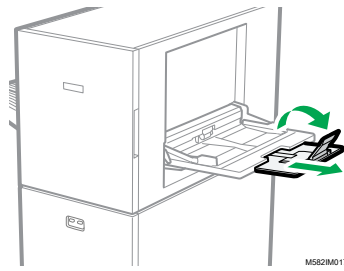
3. Gently insert the paper with the side to be scanned facing up.

M582IM0177
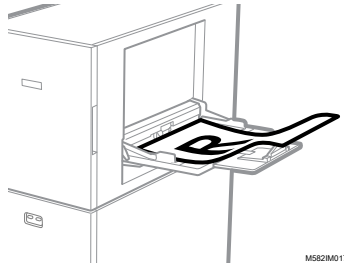
Note

- Place an original so that it is not stacked above ▼▼, the upper limit indicator. If you place an original beyond the upper limit indicator, it might be scanned at an angle or cause a paper jam.

4. Adjust the paper guide to fit the paper size.

M582IM0178
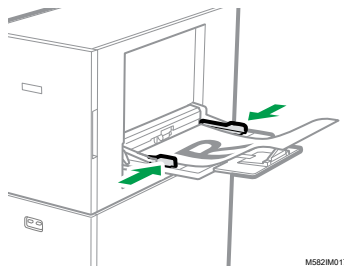
3. Quick Color Adjustment

- The Operation Flow in Quick Color Adjustment
- Performing Quick Color Adjustment
- Troubleshooting (Quick Color Adjustment)

Scans a color chart, and generates a profile automatically. Use the function at a regular interval to avoid the colors on the output sheets to be affected by changes in the machine condition or printing environment.

The Operation Flow in Quick Color Adjustment

Scans a color chart, and generates a profile automatically. Register and use the created profile as the output profile (printer profile) on the DFE, and use the profile when printing a document. Use the function regularly to prevent the colors on the output sheets from being affected by changes in the condition of the machine or printing environment (color adjustment).

Also, you can determine if the printed colors are within the tolerance of the standard that you selected in **[Initial Settings]** after performing color adjustment or at regular intervals (evaluating the result).

Color Adjustment

Use **[Quick Color Adjustment]** to perform color adjustment on a printer and evaluate the result.

To perform color adjustment:

1. Print the color chart for creating a profile on the printer whose color you want to adjust.
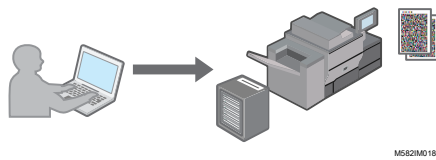
2. On the machine, scan the printed color chart for creating a profile.
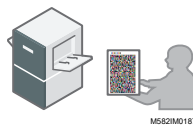
3. A profile is created automatically and registered to the DFE.
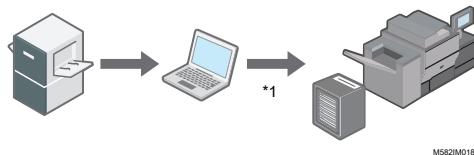
*1The profile might not be registered automatically depending on the DFE that you are using. In this case, register the profile manually on the DFE.

🖊 Note

- For more information, see Precautions When Registering a Profile, p. 36.

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Color Verification

You can evaluate the result of color adjustment and check the status of the specified printer.

To perform color verification:

1. Print the color chart for color verification on the printer you want to evaluate.
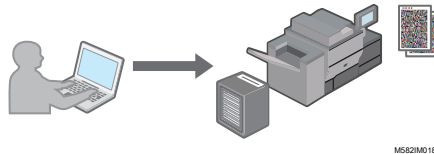
2. Scan the printed chart for color verification on the machine.
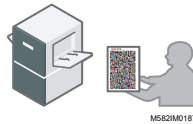
3. On the computer, check that the deviation of the printed colors are within the tolerance of the selected standard.

When Performing Color Adjustment and Color Verification

Before performing a high-volume printing run, or after performing maintenance or image quality adjustment on the printer, perform Color Adjustment or Color Verification as follows.

- When Color Adjustment is not performed: Perform Color Adjustment.

- When Color Adjustment is performed already (when a profile is created and registered): Perform Color Verification. However, perform Color Adjustment, and then perform Color Verification again, when the result of Color Verification is determined to be **[NG]**.

During color verification, the average/maximum delta E values in color deviation are evaluated using the standard and tolerance values of the colors that are specified in the selected print standard. Note that the color chart used in the evaluation is modified for use on the machine and does not guarantee conformance with various certification standards.

	Color Chart	Evaluated Item	Print Standard	Tolerance
JA	**[JC Digital 2011 Coated, Wedge]**	Average and Max ΔE00	Japan Color 2011 Coated	Digital print certification
US	**[ISO12647-8 Coated V3 F51]**	Average and Max ΔE00	GRACoL2013 CRPC6	GRACoL Digital Press Cert
EU	**[Verify GRACoL2013, Wedge]**	Average and Max ΔEab	Fogra51	ISO 12647-8

	Color Chart	Evaluated Item	Print Standard	Tolerance
EU	**[ISO12647-8:2021 Coated V3 F51]**	Average ΔE2000 (without boundary patches) 95 % ΔE2000 (without boundary patches) CMY gray average ΔCh CMY gray maximum ΔCh Paper white ΔE2000	Fogra51	ISO 12647-8
US	**[Simple Gray Scale, Wedge 2013]**	K gray average w ΔL K gray maximum w ΔL CMY gray average w ΔL CMY gray maximum w ΔL CMY gray average w ΔCh CMY gray maximum w ΔCh	GRACol2013 CRPC6	G7 Grayscale

The color deviation and judgment result (**[OK]**/**[NG]**) displayed in Post-judgment might differ from those when a different colorimeter is used.

How to Use the Quick Color Adjustment Screen

To display the Quick Color Adjustment screen, click **[Quick Color Adjustment]** on the computer.

You can view the working status of the profile registration process. You can also check the result of Post-judgement.

M582OM5667
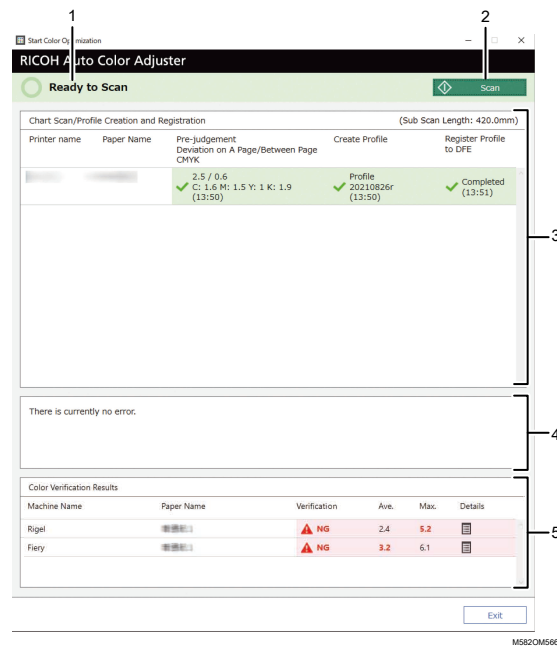
1. Machine Status

Displays the status of the machine.

2. [Scan]

Click here to scan the color chart for creating a profile.

3. Chart Scan/Profile Creation and Registration

Displays the status of each printer. Up to 1,000 statuses are displayed. Any older statuses exceeding 1,000 are deleted in chronological order.

- Printer Name: Machine name.

- Paper Name: Name of the paper registered to the printer in Initial Settings.

- Pre-judgement: Deviation on A Page/Between Pages, and the time and result of judgement on the maximum density of CMYK.

- Create Profile: Status of creating a profile and the time it was updated.

- Register Profile to DFE: Status of registering a profile and the time it was updated.

After you scan a color chart for creating a profile, the process proceeds in the following order: Pre-judgement, Create Profile, and then Register Profile to DFE.

4. Error

Displays a message when an error occurs during a color adjustment process.

5. Color Verification Results

Displays the most recent result of evaluating the adjusted colors on each printer. Up to 1,000 judgement results are displayed. Any older results exceeding 1,000 are deleted in chronological order.

- Machine Name: Printer name.

- Paper Name: Name of the paper registered to the printer in Initial Settings.

- Verification: Post-judgement result.

- Ave.: Value of the average color deviation (up to first decimal place).

- Max.: Value of the maximum color deviation (up to first decimal place).

- Details: Displays the Post-judgement details.

Color Chart Types

In the **[Quick Color Adjustment]** section, use a color chart that is assigned individually to each combination of the printer and paper to perform color adjustment. When generating the chart, use the PDF that is registered to the DFE during the initial setting process of the machine.

There are two kinds of charts:

Color chart for creating a profile

Use this color chart when registering a profile. Print the chart using with the print setting set to not convert the profile.

Color chart for color verification

Use this chart to determine if the result of color adjustment conforms to the standard. Specify to use the profile of each certification standard as the CMYK source (input) profile and the profile that is created in **[Quick Color Adjustment]** as the output (printer) profile, and print the chart.

The following information is included in the printed color chart:

M582IM0183
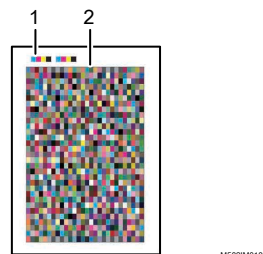
1. Color code

The color code indicates the information of the printer and paper that is specified in the initial setting. Scan the color code on the machine to identify the combination of the printer and paper.

2. Color chart

A group of color boxes that is used to create a profile or evaluate its quality.

↓Note

- You can confirm the name of the PDF file for the color chart that is assigned to each combination of a printer and paper on which to perform color adjustment in Details of Initial Settings. For details, see *RICOH Auto Color Adjuster: Installation Guide*.

Precautions When Registering a Profile

A profile is created automatically on the computer when you scan a color chart for creating a profile on the machine. To use the created profile, register it to a DFE (*1).

M582IM0182
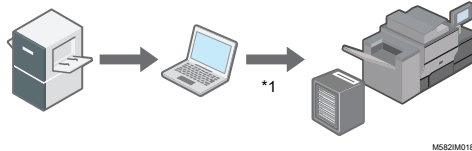
The procedure for registering a profile to a DFE varies depending on the setting in **[DFE Type]** in Initial Settings.

- When the DFE name is specified in **[DFE Type]**:

  The profile is registered automatically. No user operation is required. Also note that an output profile is associated with a calibration set on Fiery. To register a profile automatically on Fiery, specify the calibration set to which to associate the profile in advance. Enter the correct name in **[Calibration Set Name]** in the Add Paper screen of Initial Settings to register the profile automatically while associating it to the calibration set.

  ⭐**Important**

  - Do not update Fiery Command WorkStation and ColorGATE Productionserver that are installed on the computer connected to the machine. The profile might not be registered automatically if the operating environment changes as a result of the update.

- When the DFE that you are using is not available in **[DFE Type]**, and **[Other]** is specified:

  Register a profile that is stored on the computer to the DFE manually. For details about the operation, see the manual of the DFE.

  Profiles are stored in the folder that you specify in **[Save Profile]**. To display this screen, click **[Miscellaneous]** in Initial Settings.

For details about Initial Settings, see *RICOH Auto Color Adjuster: Installation Guide*.

Performing Quick Color Adjustment

Use **[Quick Color Adjustment]** to perform color adjustment on a printer and evaluate the result.

⭐ **Important**

- It is recommended to perform image density adjustment in advance.

- Check the following before using this function:

  - On the printer whose color you want to adjust: The density of the printed image is normal and there are no errors. Check that the paper registered in Initial Settings is loaded.

  - The machine: The red indicator is not lit.

  - The computer connected to the machine: The menu screen of RICOH Auto Color Adjuster is displayed. Also, the ColorGATE Productionserver must be started and running.
    For details, see Displaying the Menu Screen of the RICOH Auto Color Adjuster, p. 24.

  - To use the **[Quick Color Adjustment]** function with a Fiery controller, set the Fiery Command WorkStation language to English or Japanese.

↩ **Note**

- When printing a color chart, use paper that matches the following settings, and specify the paper correctly in the print settings. For details about the settings, see *RICOH Auto Color Adjuster: Installation Guide*.

  - Paper of the size specified in **[Quick Color Adjustment]** on the **[Scan Settings]** screen.

  - The same paper as specified in **[Paper Type]** on the Add Paper screen of the Initial Settings screen.

- Use the paper that matches the size specified in **[Quick Color Adjustment]** on the **[Scan Settings]** screen. Otherwise, a paper jam may occur. Change the setting when using paper of a different size.

- When **[ISO12647-8 Coated V3 F51]** is specified as the verification standard to verify colors in **[Verification Wedge]**, it is recommended to print the color chart on **[UPM Digi Finesse gloss (250gsm)]** to determine pass or fail in Color Verification.

- Print about 10 copies of the chart, and use the copy that is printed last.

Performing Color Adjustment

Adjust the colors printed on the printer by scanning a color chart on the machine and registering the created profile to a DFE.

↩ **Note**

- You can confirm the name of the PDF file for the color chart that is assigned to each combination of a printer and paper on which to perform color adjustment in **Initial Settings** → **Details**. For more information, see *RICOH Auto Color Adjuster: Installation Guide*.

To perform color adjustment:

1. On the operation screen of the Fiery Command WorkStation or the TotalFlow Print Server, print the PDF file of the color chart for creating a profile.

⭐**Important**

- Do not specify duplex print.

- Print 10 copies of the chart to obtain a stable color output. Use the copy of the profiling chart that is printed last.

    1. Select the printer on which to perform color adjustment.

    2. Print the document data using the required print settings. For information about print settings, see Using Fiery to Print the Color Chart PDF File for Color Adjustment, p. 40 or Using the TotalFlow Print Server to Print the Color Chart PDF File for Color Adjustment, p. 42.

    3. When using Fiery, register the print job in the job archive to omit importing the chart.

    4. When using the TotalFlow Print Server, keep the job as a saved job to omit importing the chart.

2. Take the last copy of the profiling chart that you printed.
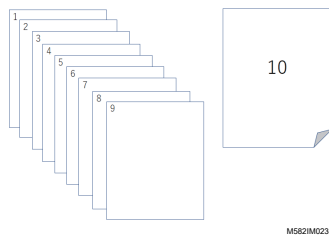
3. Place the color chart for creating a profile on the machine, with the print side facing up.
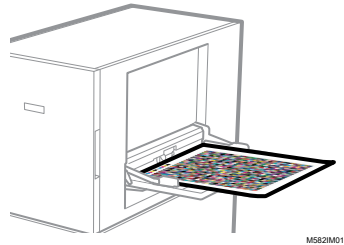
For more information, see Placing an Original or Color Chart on the Paper Tray, p. 29.

4. On the computer taskbar, click the **[RICOH]** icon ( ).

👇**Note**

- Do not close the Productionserver screen.

5. Click **[Quick Color Adjustment]**.

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6. In the Quick Color Adjuster dialog, click **[Scan]**.

7. In the Scan Chart dialog, click **[Start Scan]**.

m582om0660
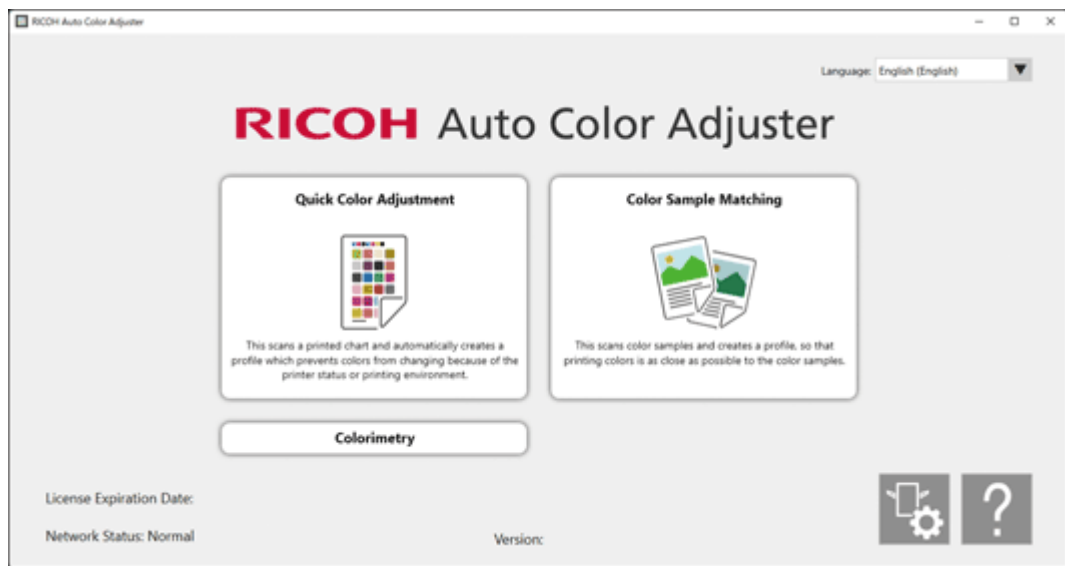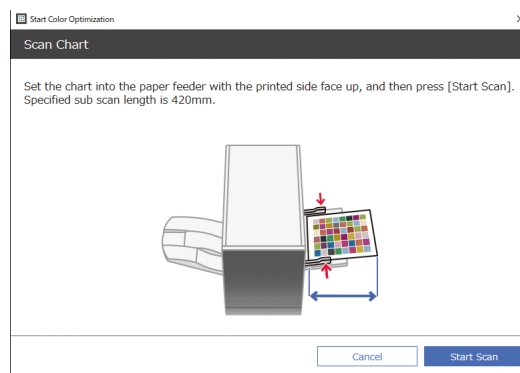
The machine starts scanning the chart for creating a profile and generates a profile automatically.

⭐ **Important**

- Do not operate the computer while the message "Command WorkStation (TM) or TotalFlow is running." "Do not touch the mouse or keyboard." is displayed on the screen.

8. Check that the Pre-judgement, Create Profile, and Register Profile to DFE checkboxes are selected.
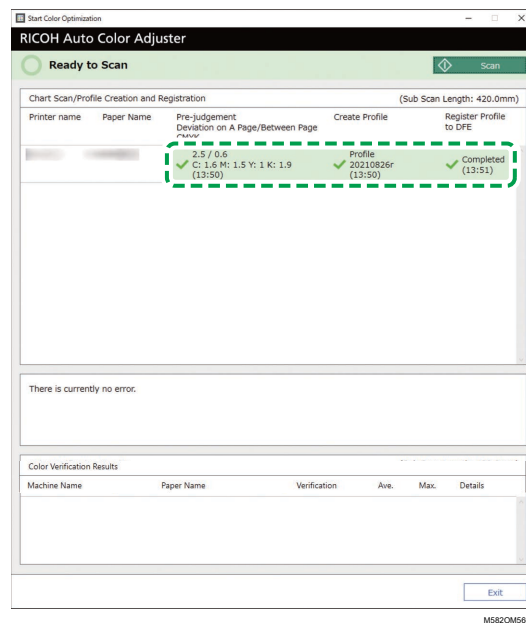
Note

- For details about each item on the screen, see How to Use the Quick Color Adjustment Screen, p. 33.

9. If an error occurs, follow the instructions displayed on the screen. For more information, see Troubleshooting (Quick Color Adjustment), p. 50.

10. Click **[Exit]**.

11. When you are using a DFE that does not support automatic registration of profiles, register the stored profile manually to the DFE. For details, see Precautions When Registering a Profile, p. 36.

Using Fiery to Print the Color Chart PDF File for Color Adjustment

To obtain a stable color output, print 10 copies of the chart. Use the copy of the profiling chart that is printed the last.

To use Fiery to print the color chart PDF file for color adjustment:

1. Set the paper specified in **[Paper Name]** on the Add/Edit Chart screen of Initial Settings onto the paper tray.

2. In the **[MEDIA]** section, select **[Paper Catalog]** or specify the **[Paper Type]**, **[Paper Weight]**, and **[Paper Size]** manually.

3. In the **[LAYOUT]** section, set **[Duplex]** to **[Off]**.

M582OM5701
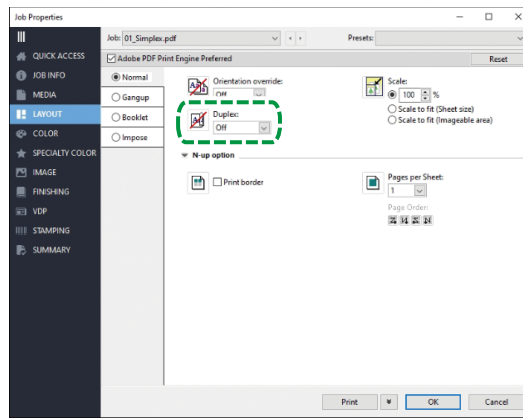
4. In the **[COLOR]** section, specify the **[Output profile]** assigned to **[Verification Wedge]** that is registered in the Add/Edit Chart screen of Initial Settings. However, specify **[Verify GRACoL2013, Wedge]** when **[Simple Gray Scale, Wedge 2013]** is specified in **[Verification Wedge]**.

M582OM5702
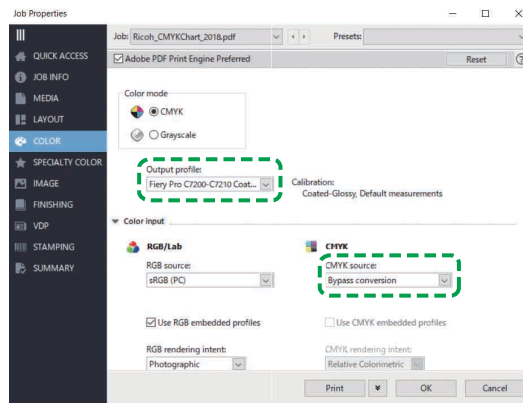
5. Set **CMYK source** to **[Bypass conversion]**.

6. Set **[Black text and graphics]** to **[Normal]**.
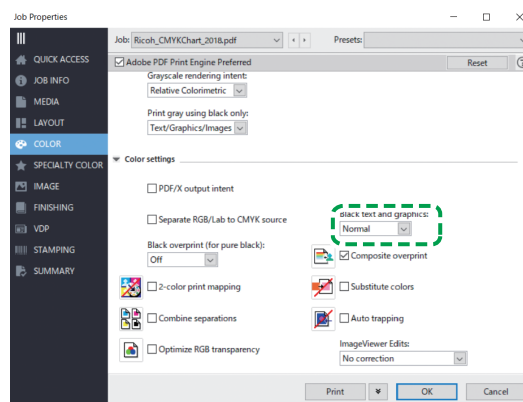
M582OM5564

Using the TotalFlow Print Server to Print the Color Chart PDF File for Color Adjustment

To obtain a stable color output, print 10 copies of the chart. Use the copy of the profiling chart that is printed the last.

To use the TotalFlow Print Server to print the color chart PDF file for color adjustment:

1. Set the paper specified in **[Paper Name]** on the Add/Edit Chart screen of Initial Settings onto the paper tray.

2. In the **[Paper]** section, click **[Paper catalog]** to select a paper from the paper catalog. To specify the paper **[Type]**, **[Size]**, and **[Weight]** manually, click **[Manual paper]**.

3. In the **[Color]** section, set the **[CMYK input profile]** to **[Pass through]**.
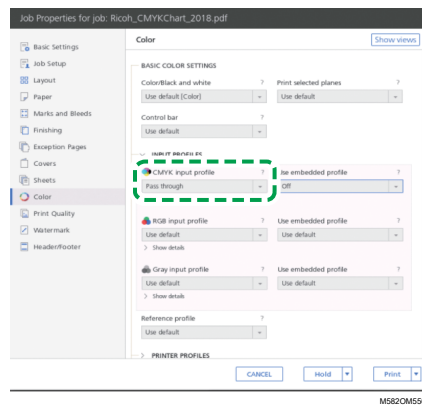
4. Set the **[Reference profile]** to **[None]**.
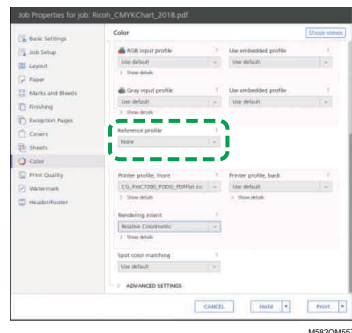
5. Set **[Black (text/line art)]** to **[Normal]**.
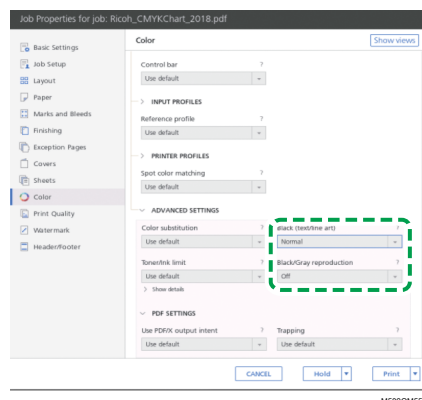
6. Set **[Black/Gray reproduction]** to **[Off]** when the **[PDF job processor (RIP)]** is SCREEN APPE, Kodak APPE, or CPSI.

7. Set **[Preserve Pure Black]** to **[Off]** when the **[PDF job processor (RIP)]** is Heidelberg APPE.

M582OM5577
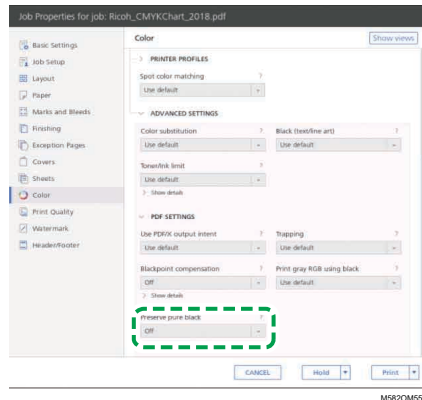
8. In the **[Print Quality]** section, set the **[CMYK overprint sequence]** to **[After color conversion]** when the **[PDF job processor (RIP)]** is SCREEN APPE or Kodak APPE.

M582OM5578
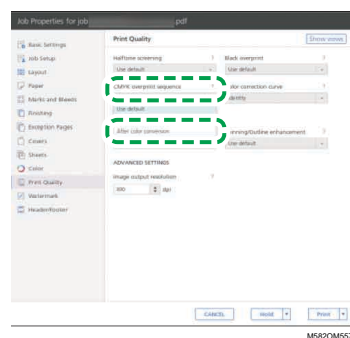
Performing Color Verification

You can evaluate the result of the color adjustment, and check the status of the specified printer.

🔽**Note**

- You can confirm the name of the PDF file for the color chart that is assigned to each combination of a printer and paper on which to perform color adjustment in **Initial Settings** → **Details**. For more information, see *RICOH Auto Color Adjuster: Installation Guide*.

To perform color verification:

1. On the operation screen of the Fiery Command WorkStation or the TotalFlow Print Server, print the PDF file of the color chart for verification.

    ⭐**Important**

    - Do not specify duplex print.

    - Print 10 copies of the chart to obtain a stable color output. Use the copy of the profiling chart that is printed last.

    1. Select the printer on which to perform color verification.

2. Print the document data using the required print settings. For information about print settings, see Using Fiery to Print the Color Chart PDF File for Color Verification, p. 46 or Using the TotalFlow Print Server to Print the Color Chart PDF File for Color Verification, p. 48.

3. When using Fiery, register the print job in the job archive to omit importing the chart.

4. When using the TotalFlow Print Server, keep the job as a saved job to omit importing the chart.

5. Specify not to retain the RIP-processed data after the process is complete.

2. Take the last copy of the profiling chart that you printed.
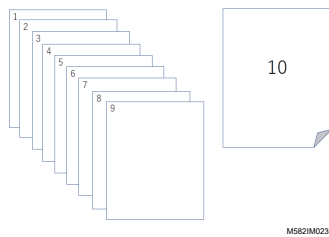
3. Place the color chart for verification on the machine, with the print side facing up.
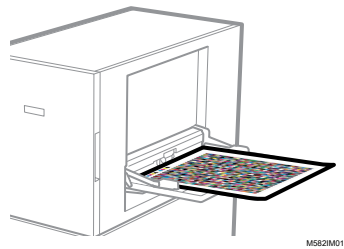
For more information, see Placing an Original or Color Chart on the Paper Tray, p. 29.

4. On the computer taskbar, click the **[RICOH]** icon ( ).

🔸Note

• Do not close the Productionserver screen.

5. Click **[Quick Color Adjustment]**.

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6. In the Quick Color Adjuster dialog, click **[Scan]**.

7. In the Scan Chart dialog, click **[Start Scan]**.

m582om0660
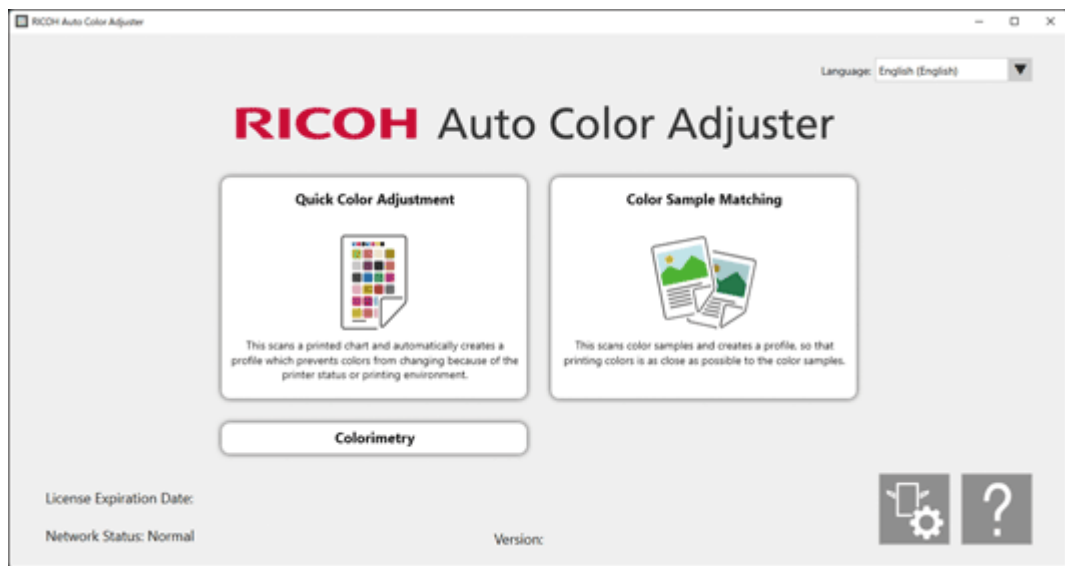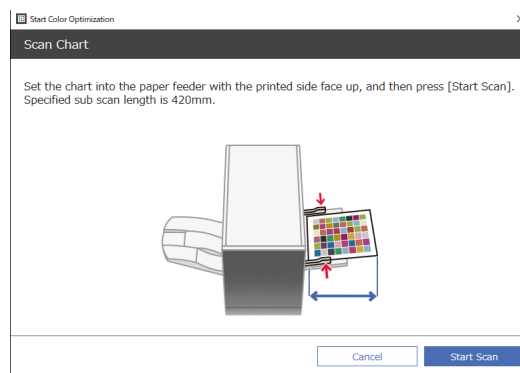
The color chart for color verification is scanned, and the scan result is evaluated.

8. Check the Color Verification Results.

M582OM5669
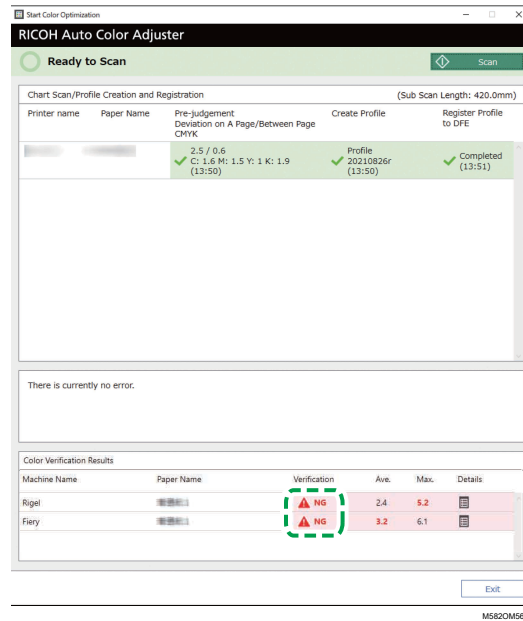
9. If **[NG]** is displayed, click the **[Details]** button to see the Post-judgement details.

10. If **[NG]** is displayed, check that the print settings are specified correctly and the paper conforms to the specified standard, and then perform **[Quick Color Adjustment]** again.

11. Click **[Exit]**.
The color verification of the color adjustment result is complete.

⬇ Note

- You can check the change in color over time in **[Management Console]**. For details, see Checking the Color Adjustment Result in Management Console, p. 85.

Using Fiery to Print the Color Chart PDF File for Color Verification

To obtain a stable color output, print 10 copies of the chart. Use the copy of the profiling chart that is printed last.

To use Fiery to print the color chart PDF file for color verification:

1. Set the paper specified in **[Paper Name]** on the Add/Edit Chart screen of Initial Settings onto the paper tray.

2. In the **[MEDIA]** section, select **[Paper Catalog]** or specify **[Paper Type]**, **[Paper Weight]**, and **[Paper Size]** manually.

3. In the **[LAYOUT]** section, set **[Duplex]** to **[Off]**.

M582OM5701
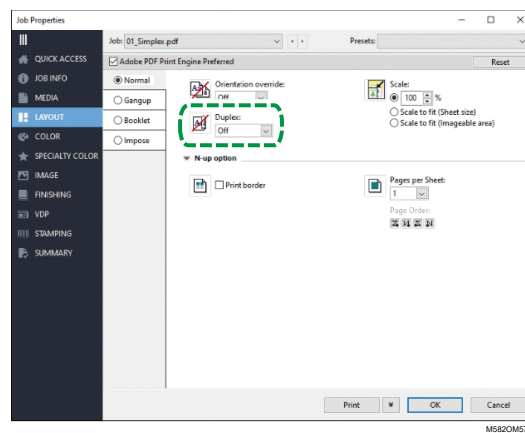
4. In the **[COLOR]** section, select the **[Output profile]** that is generated by the color adjustment process.

M582OM5563
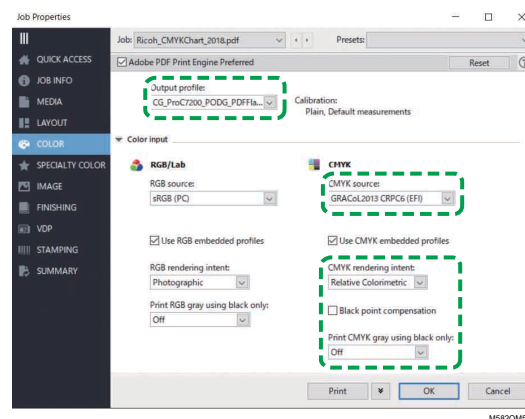
5. Set **CMYK source** to the profile that is specified in **[Verification Wedge]** on the Add/Edit Chart screen of Initial Settings.

   ⬇ Note

   • Specify **[Japan Color 2011 Coated]** when **[Japan Color Digital 2011 Coated, Wedge]** is specified in **[Verification Wedge]**, specify **[PSO Coated FOGRA51 (EFI)]** when **[ISO12647-8 Coated V3 F51]** is specified, or specify **[GRACoL2013 CRPC6 (EFI)]** when **[Verify GRACoL2013, Wedge]** is specified.

6. Set the **[CMYK rendering intent]** to **[Relative Colorimetric]**.

7. Clear the **[Black compensation point]** checkbox.

8. Set **[Print CMYK gray using black only]** to **[Off]**.

9. Set **[Black text and graphics]** to **[Normal]**.

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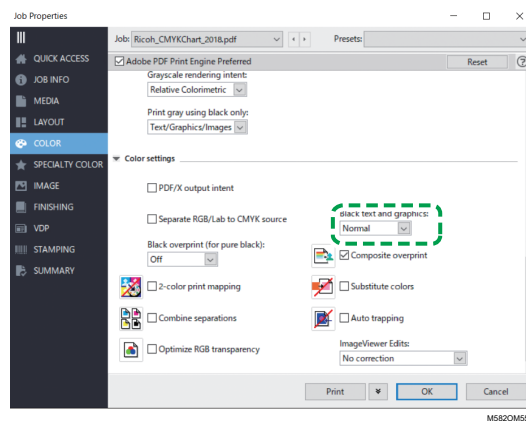
10. For the **[Halftone mode]**, specify the same setting as the one that was used when the output profile specified in Initial Settings was created.
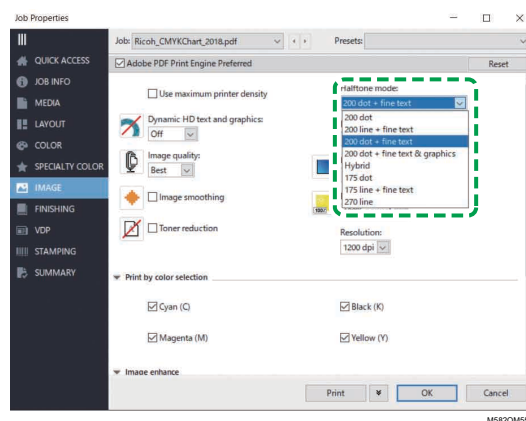
M582OM5565

Using the TotalFlow Print Server to Print the Color Chart PDF File for Color Verification

To obtain a stable color output, print 10 copies of the chart. Use the copy of the profiling chart that is printed last.

To use the TotalFlow Print Server to print the color chart PDF file for color verification:

1. Set the paper specified in **[Paper Name]** on the Add/Edit Chart screen of Initial Settings onto the paper tray.

2. In the **[Paper]** section, click **[Paper catalog]** to select a paper from the paper catalog. To specify the paper **[Type]**, **[Size]**, and **[Weight]** manually, click **[Manual paper]**.

3. In the **[Color]** section, set the **[CMYK input profile]** to the profile that is specified in **[Verification Wedge]** on the Add/Edit Chart screen of Initial Settings.

   🖊Note

   - Specify **[Japan Color 2011 Coated]** when **[Japan Color Digital 2011 Coated, Wedge]** is specified in **[Verification Wedge]**, specify **[PSO Coated v3]** when **[ISO12647-8 Coated V3 F51]** is specified, or specify **[GRACoL2013 CRPC6]** when **[Verify GRACoL2013, Wedge]** is specified.

4. Set the **[Reference profile]** to **[None]**.

48

M582OM5579
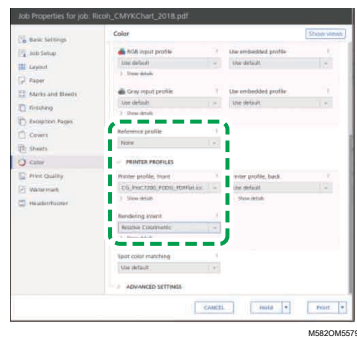
5. Set the **[Printer profile, front]** to the output profile that is created in color adjustment.

6. Set **[Rendering intent]** to **[Relative Colorimetric]**.

7. Set the **[Blackpoint compensation]** to **[Off]** when the **[PDF job processor (RIP)]** is Heidelberg APPE.

M582OM5567
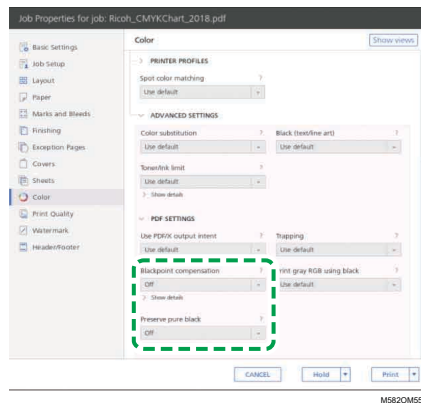
8. Set **[Preserve Pure Black]** to **[Off]** when the **[PDF job processor (RIP)]** is Heidelberg APPE.

9. Set **[Black (text/line art)]** to **[Normal]**.

M582OM5568
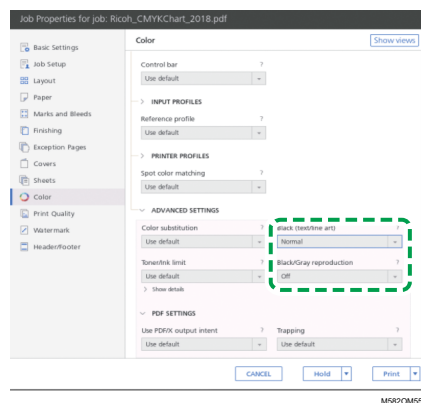
10. Set **[Black/Gray reproduction]** to **[Off]** when the **[PDF job processor (RIP)]** is SCREEN APPE, Kodak APPE, or CPSI.

11. In the **[Print Quality]** section, set the **[Halftone screening]** to the same settings as specified when creating the output profile that is specified in Initial Settings.

M582OM5569
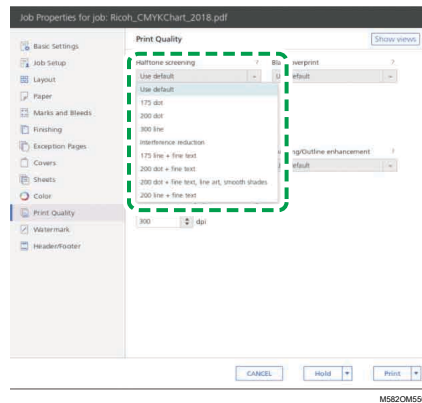
3

12. Set the **[CMYK overprint sequence]** to **[After color conversion]** when the **[PDF job processor (RIP)]** is SCREEN APPE.

M582OM5578
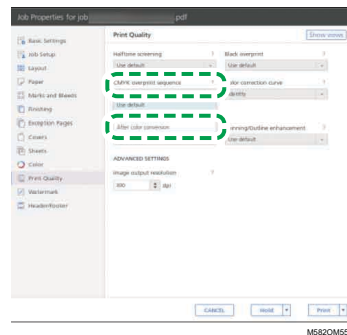
Troubleshooting (Quick Color Adjustment)

This section describes the solution when a message appears in Quick Color Adjustment or **[NG]** occurs frequently in Color Verification Results.

📥Note

- See below when a paper jam or other problem occurs on the machine, or when starting up an application fails.

    –

    –

    –

Close the menu screen and restart Windows when the Quick Color Adjustment screen does not appear after you click **[Quick Color Adjustment]** on the menu screen. If you still cannot open the Quick Color Adjustment screen from the menu screen, contact your service representative.

When a Message Is Displayed (Quick Color Adjustment)

Message	Cause	Solution and Reference
"At least one of the maximum densities of C, M, Y, or K does not meet the alert criteria."	The chart was printed on a printer that requires adjustment.	Using the adjustment function of the printer, adjust the toner density of the color that does not meet Alert criteria. Adjust the maximum image density if you are using a RICOH printer. If you are using another printer, adjust the print density. For details about adjusting the printer, see the manual of the printer.
	The threshold value is not specified properly.	Click **[Set Threshold]** on the Initial Settings screen, and then check that a proper value is specified. For details, see *RICOH Auto Color Adjuster: Installation Guide*. If the error persists, contact your service representative.
"Failed to register the profile to Command WorkStation (TM) or TotalFlow. Please try again from the beginning." "Call service if this error message is displayed repeatedly."	You operated the computer while the message "Command WorkStation (TM) or TotalFlow is running." "Do not touch the mouse or keyboard." is displayed on the screen.	Do not operate the computer while the message "Command WorkStation (TM) or TotalFlow is running." "Do not touch the mouse or keyboard." is displayed on the screen.
	The power of the printer is turned off.	Check that the power of the printer is turned on.
	Connection to the DFE of the printer over the network could not be established, or the network is crowded.	• Check that the machine and the DFE of the printer are connected to the network. For details on the network environment, contact the administrator. • Restart the DFE and network router.
	The DFE of the printer is operated from another computer.	Do not operate the DFE of the printer when using Quick Color Adjustment.
	When you are operating more than one machine, you cannot access the server from a client computer.	• Check that the computer is connected to the network. • Restart Windows on the computer and server.
"Failed to register the profile to Command WorkStation (TM) or	When using Fiery, the **[Calibration Set Name]** is not	Confirm the calibration set name registered on the DFE, and then check that it matches the **[Calibration Set Name]** that is registered in

Message	Cause	Solution and Reference
TotalFlow. Please try again from the beginning." "Call service if this error message is displayed repeatedly."	registered correctly in **Initial Settings → Add Paper**.	**Initial Settings → Add Paper**. For details, see *RICOH Auto Color Adjuster: Installation Guide*. To confirm the calibration set name registered on the DFE: 1. On the **[Start]** menu, click **Fiery → Fiery Command Workstation**. 2. Click **Server → Device Center**. 3. Click **GENERAL → Tools → Calibrator**. 4. Specify **[Recalibrate]**, and then click **[Next]**. 5. Check the name that is displayed in the **Calibration name** pop-up menu. You can also check the calibration set name registered on the DFE by clicking **RESOURCES → Profiles → Import → Output → Calibration** on the **Device Center** screen, and then specifying a new, unregistered ICC profile.
"Failed to register the profile to Command WorkStation (TM) or TotalFlow. Please try again from the beginning." "Call service if this error message is displayed repeatedly."	When using Fiery, the **[DFE Server Name]** is not registered correctly in **Initial Settings → Add/Edit Chart**.	To check that the **[DFE Server Name]** is registered correctly in Initial Settings: 1. On the Initial Settings screen, specify a combination of **[Machine Name]** and **[Paper Name]**, and then click **[Edit Chart]**. 2. Check the **[DFE Server Name]**. For details, see *RICOH Auto Color Adjuster: Installation Guide*.
"Failed to register the profile to Command WorkStation (TM) or TotalFlow. Please try again from the beginning." "Call service if this error message is displayed repeatedly."	A DFE system that is not guaranteed to operate properly is used.	• When using Fiery: Check that you are using the system under which normal operation of Fiery is guaranteed. • When using the TotalFlow Print Server: Check that you are using the system under which normal operation of TotalFlow Print Server is guaranteed.
	When using Fiery, the printer you are using is installed with a system of a version that is not guaranteed to operate properly.	Check the version of Fiery Command WorkStation that is installed on the computer.
	The password on the DFE does not match the	Check that the password on the DFE matches the password in the database. If the error persists, contact your service representative.

Message	Cause	Solution and Reference
	password registered in the database.	
"A newer version of TPS23 is available."	A newer version of ColorGATE Productionserver is available.	RICOH Auto Color Adjuster might not work properly after updating ColorGATE Productionserver. To prevent an unintended update of the application, clear the **[Update notification]** checkbox.
"The IP address entered in initial settings might be incorrect. Check the setting."	When using Fiery, the **[DFE IP Address]** that is registered in **Initial Settings → Add/Edit Chart** is specified incorrectly.	To check that the **[DFE IP Address]** is registered correctly in Initial Settings. • On the Initial Settings screen, specify a combination of **[Printer Name]** and **[Paper Name]**, and then click **[Edit Chart]**. • Check that the **[DFE IP Address]** is specified correctly. For details, see *RICOH Auto Color Adjuster: Installation Guide*.
"The calibration setting name entered in initial settings might be incorrect. Check the setting."	When using Fiery, the **[Calibration Set Name]** is not registered correctly in **Initial Settings → Add Paper**.	Confirm the calibration set name registered on the DFE, and then check that it matches the **[Calibration Set Name]** that is registered in **Initial Settings → Add Paper**. For details, see *RICOH Auto Color Adjuster: Installation Guide*. To confirm the calibration set name registered on the DFE: 1. On the **[Start]** menu, click **Fiery → Fiery Command Workstation**. 2. Click **Server → Device Center**. 3. Click **GENERAL → Tools → Calibrator**. 4. Specify **[Recalibrate]**, and then click **[Next]**. 5. Check the name that is displayed in the **Calibration name** pop-up menu. You can also check the calibration set name registered on the DFE by clicking **RESOURCES→Profiles→Import→Output→Calibration** on the **Device Center** screen, and then specifying a new, unregistered ICC profile.
"Either the password or server name entered in initial settings might be incorrect. Check the setting."	When using Fiery, the **[DFE Server Name]** or **[DFE Password]** that is registered in **Initial Settings → Add/Edit**	To check that the **[DFE Server Name]** and **[DFE Password]** are registered correctly in **[Initial Settings]**: • On the Initial Settings screen, specify a combination of **[Printer Name]** and **[Paper Name]**, and then click **[Edit Chart]**.

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Message	Cause	Solution and Reference
	Chart is specified incorrectly.	• Check that the **[DFE Server Name]** and **[DFE Password]** are specified correctly. For details, see *RICOH Auto Color Adjuster: Installation Guide*.
"Judgement has failed. Please try again from the beginning." "Call service if this error message is displayed repeatedly."	An incorrect color chart is used.	Check that the correct color chart is printed. To check the correct number of the color chart: 1. On the Initial Settings screen, specify a combination of **[Machine Name]** and **[Paper Name]**, and then click **[Details]**. 2. Check the Profiling Chart ID. For details, see *RICOH Auto Color Adjuster: Installation Guide*.
	The color chart is not scanned correctly.	Place the color chart correctly on the machine. For details, see Placing an Original or Color Chart on the Paper Tray, p. 29.
	A malfunction occurred temporarily, and the chart was not scanned correctly.	• Turn off the power of the machine, and then turn it on again. For details, see Turning the Machine On and Off, p. 21. • Exit **[Quick Color Adjustment]**, **[Color Sample Matching]**, **[Colorimetry]**, and the machine settings if those applications are running, and then start them again from the menu screen. If only the menu screen is displayed, start the RICOH Auto Color Adjuster again.
"Judgement has failed. Please try again from the beginning." "Call service if this error message is displayed repeatedly."	When you are operating more than one machine, you cannot access the server from a client computer.	• Check that the computer is connected to the network. • Restart Windows on the computer and server. If the error persists, contact your service representative.
"Failed to create the profile. Please try again from the beginning." "Call service if this error message is displayed repeatedly."	The connection timed out before a profile was created.	• Check that the ColorGATE Productionserver is running. • When the REST is not running, click **Options → REST Server... → Start server** on the ColorGATE Productionserver menu. • Restart Windows. When you are using a client computer, restart Windows on the server also.
	Another application is using the file with an extension such as IT8 and ICC that is used when creating a profile.	Quit all other applications when using **[Quick Color Adjustment]**. If the error persists, contact your service representative.

Message	Cause	Solution and Reference
"Adjustment will be executed even though the deviation between pages exceeds the alert criteria."	The chart was printed on a printer that requires adjustment.	Adjust the printer following the instructions described in the message. For details about adjusting the printer, see the manual of the printer.
"Use the adjustment functions on the printer for image quality adjustment." "In the case of a Ricoh machine, execute the following." "[02 Machine: Image Quality] - [0201 Execute Image Quality Adjustment] - [01: Adjust Image Density]" "In the case of a machine that is not a Ricoh, use the adjustment functions on the printer to reduce deviation between pages."	The threshold value is not specified properly.	Click **[Set Threshold]** on the Initial Settings screen, and then check that a proper value is specified. For details, see *RICOH Auto Color Adjuster: Installation Guide*. If the error persists, contact your service representative.
"Adjustment will be executed even though the deviation on a page exceeds the alert criteria."	The chart was printed on a printer that requires adjustment.	Adjust the printer following the instruction described in the message.
"Use the adjustment functions on the printer for image quality adjustment." "In the case of a Ricoh machine, execute the following." "[02 Machine: Image Quality] - [0201 Execute Image Quality Adjustment] - [02: Density Difference: With Fd]" "[10 Density Difference Printing: Across Feed]"	The threshold value is not specified properly.	Click **[Set Threshold]** on the Initial Settings screen, and then check that a proper value is specified. For details, see *RICOH Auto Color Adjuster: Installation Guide*. If the error persists, contact your service representative.

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Message	Cause	Solution and Reference
"In the case of a machine that is not a Ricoh, use the adjustment functions on the printer to reduce unevenness in the print density on a page."		
"Failed to scan."	An incorrect color chart is used.	Check that the correct color chart is printed. To check the correct number of the color chart: 1. On the Initial Settings screen, specify a combination of **[Machine Name]** and **[Paper Name]**, and then click **[Details]**. 2. Check the Profiling Chart ID. For details, see *RICOH Auto Color Adjuster: Installation Guide*.
	The color chart is not scanned correctly.	Place the color chart correctly on the tray of the machine. For details, see Placing an Original or Color Chart on the Paper Tray, p. 29.
	A malfunction occurred temporarily, and the chart was not scanned correctly.	• Turn off the power of the machine, and then turn it on again. For details, see Turning the Machine On and Off, p. 21. • Exit **[Quick Color Adjustment]**, **[Color Sample Matching]**, **[Colorimetry]**, and the machine settings if those applications are running, and then start them again from the menu screen. If only the menu screen is displayed, start the RICOH Auto Color Adjuster again.

↓Note

• If any other message is displayed, follow the instructions in the message.

[NG] occurs frequently in Color Verification Results

Cause	Solution and reference
An incorrect color chart is used.	Check that the correct color chart is printed. To check the correct number of the color chart: 1. On the Initial Settings screen, specify a combination of **[Machine Name]** and **[Paper Name]**, and then click Details. 2. Check the Verification Wedge ID. For details, see *RICOH Auto Color Adjuster: Installation Guide*.
The color chart is not scanned correctly.	Place the color chart correctly on the tray of the machine. For details, see Placing an Original or Color Chart on the Paper Tray, p. 29.
The color chart is not printed on correct paper.	Print the color chart on the type of paper that is specified in **[Paper Type]** under **[Manage Paper]** on the Initial Settings screen. For details, see *RICOH Auto Color Adjuster: Installation Guide*.
The threshold value is not specified properly.	On the Initial Settings screen, specify the default value in **[Set Threshold]**. For details, see *RICOH Auto Color Adjuster: Installation Guide*.
The color chart for creating a profile or the color chart for color verification is printed using incorrect print settings.	• Print the color chart for creating a profile using the correct print settings. For details, see Performing Color Adjustment, p. 37. • Print the color chart for verification using the correct print settings. For details, see Performing Color Verification, p. 43.
Data that was processed by the RIP remains in the job for printing color chart for color verification registered on the DFE.	Check for RIP-processed data in the job for printing the color chart for color verification on the DFE, delete the data if any remains, and print the job again. For details about the operation, see the manual of the DFE.
The color reproduction status of the printer changed after the profile was created.	Perform **[Quick Color Adjustment]** again. For details, see Performing Color Adjustment, p. 37.

⬇ Note

• If **[NG]** continues to occur frequently, contact your service representative.

3

4. Color Sample Matching

- Operation Workflow in Color Sample Matching
- Performing Color Sample Matching
- Use Cases
- Troubleshooting (Color Sample Matching)

Color sample matching creates a profile based on the printed color sample that you scanned. Register and use the created profile as the CMYK input (source) profile on the DFE, and use the profile when printing a document.

Use the created profile to reproduce the color tone of the color sample on the printed page as closely as possible.

Operation Workflow in Color Sample Matching

Scan or load a color sample, then scan the test print of a document (PDF) on the machine. Afterwards, compare and match their colors using **[Color Sample Matching]**. Use the ICC profile generated by the color matching process to print the document in colors approximating the colors of the color sample as closely as possible.

1. If you have the saved original data and the saved golden sample, load them.

2. If you do not have the saved original data and the saved golden sample, prepare the original PDF and the color sample.

    1. Print the document on paper (generate a hard copy of the document).

        M582IM0190
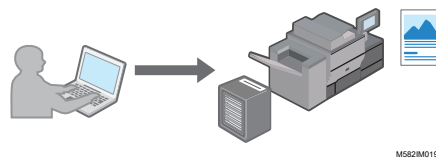
    2. Select **[Color Sample Matching]**, and then display the document in the application.

        M582IM7291

    3. Place the color sample on the paper tray of the machine, and then scan it in **[Color Sample Matching]**.

3. Place the hard copy of the document that you printed in step 2 on the machine, and then scan it in **[Color Sample Matching]**.

    M582IM7292

4. Perform color matching in **[Color Sample Matching]**, and then save the profile.

5. **Optional:** Save the original data and the golden sample data.

6. Register the profile to a DFE, and then print the document using the profile.
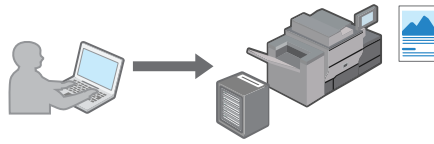
The colors are matched to the sample and the document is printed.

How to Use the Color Sample Matching Screen

To open the **Color Sample Matching** dialog, select **[Color Sample Matching]** in the **[RICOH Auto Color Adjuster]** application. Operate the items in the **Color Sample Matching** dialog from left to right to create a profile to be used when printing.
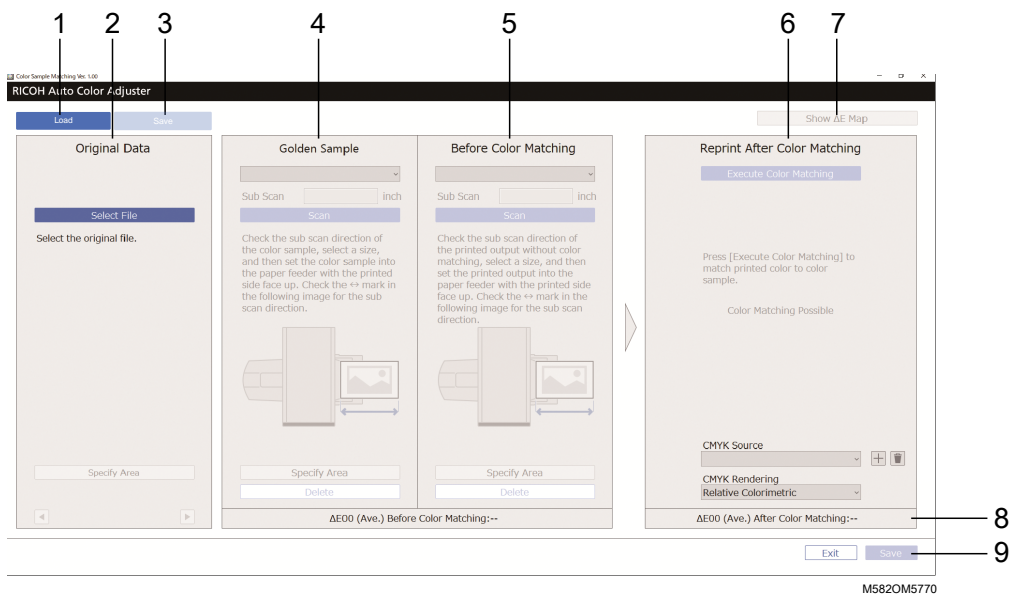
M582OM5770

1. **[Load]**

   Select the **[Load]** button to load the file containing the original data and the scanned golden sample.

2. **Original Data**

   Open the document (PDF) on the computer, and then display the image.

   - **[Select File]**: Specify the document.

   - **[Specify Area]**: Specify the image orientation and area in order to match the position of the color sample and printed document.

   - ◆▶: Specify the page

3. **[Save]**

   Select **[Save]** on the upper-left side of the Color Sample Matching dialog to save the files containing the original data and the scanned golden sample. This action allows you to reuse the original PDF file and the scanned golden sample, without keeping the physical golden sample and scanning it again.

⊕ Note

- This button is active only after the color sample matching is complete.

4. Golden Sample

Place the color sample on the machine, and then display its image on the screen.

- Paper Size, **[Sub Scan]**: Specify the paper size of the color sample placed on the machine. If you specified **[Custom Size]**, enter the paper length along the sub scan direction from 210 through 487.7 mm (from 8.3 through 19.2 inches) in **[Sub Scan]**.

Sub Scan Direction

m582om9550_1
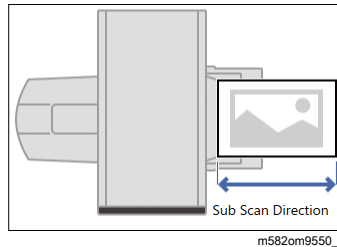
- **[Scan]**: Scan the color sample.
- **[Specify Area]**: Specify the image orientation and area to match the position with the printed document (PDF).
- **[Delete]**: Select to delete the scanned image.

5. Before Color Matching

Scan the printed document on the machine, and then display its image on the screen.

- **[Scan]**: Select to scan the printed document.
- **[Specify Area]**: Specify the image orientation and area to match the position with the printed document (PDF).
- **[Delete]**: Select to delete the scanned image.

6. Reprint After Color Matching

Perform color matching. A simulated image is displayed when the color matching process is complete.

- **[Execute Color Matching]**: Select to adjust the printed color to match the Golden Sample.
- **[CMYK Source]**, **[CMYK Rendering]**: Specify the source profile and rendering intent to be used when printing the document data.

7. [Show ΔE Map]

Visually inspect the color deviation. Before Color Matching shows the color deviation map before applying color matching and Reprint After Color Matching shows the map after you apply color matching. The bright area in the color deviation map indicates colors that have a large deviation in color. The color deviation is calculated by subtracting the value of paper color and truncating the decimals.

8. Average Color Deviation

Displays the average color deviation before and after (simulated) matching colors. The average color deviation is derived by calculating the average color deviation value of all pixels in the image.

9. [Save]

Select **[Save]** on the lower-right side of the Color Sample Matching dialog to save the profile that is generated after performing a color matching process.

Supported Format of Document Data in Color Sample Matching

[Color Sample Matching] supports document data that fulfills the following conditions simultaneously:

- Data in a format that is supported on the printer used to output "Original Data"
- CMYK (Data containing special colors, RGB, grayscale, or DeviceN is not supported)
- A PDF file of any of the following versions:
  - PDF1.3 (Acrobat 4.x) to PDF1.6 (Acrobat 7.x)
  - PDF1.7 Adobe Extension Level 3 (Acrobat 9.x)
  - PDF1.7 Adobe Extension Level 8 (Acrobat X)
  - PDF/X-1a
  - PDF/X-3
  - PDF/X-4
- A PDF file with embedded fonts

Color matching might fail on the following images even if the above conditions are fulfilled:

- An image that is entirely filled in a solid color and comprises no gradation or edge.
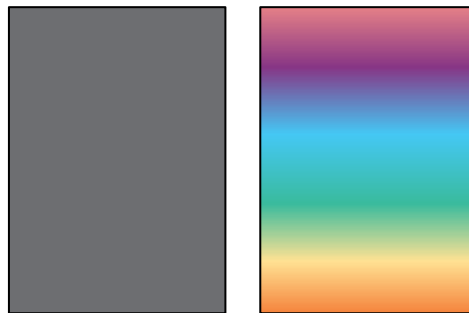
M582IM0193

- An image comprising a design of line symmetry or rotation symmetry.
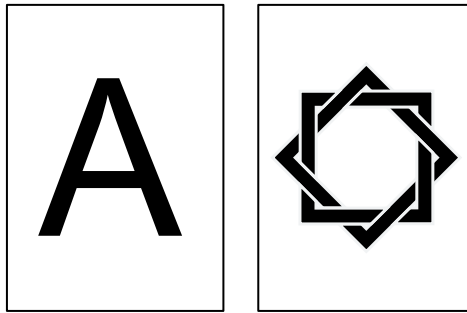
M582IM0194

- When the same image is imposed repeatedly

- Page comprises a lot of characters and line drawings

- Page comprises an extreme color scheme, such as mainly containing colors of a specific color family

- Page is covered entirely by a fine pattern

- When the screen size is small

↓Note

- When using a color chart for color sample matching, the area outside the color patches that comprises the color chart is also subject to the effect of color matching.

- Color matching may fail in the following cases even when you are using original data that can be used for color sample matching.

  – The color gamut of the printer to print the original data is too small.

  – The number of inks used in the original data and that of the printer used for printing differ, for example, when the color sample is printed using a printer with 4-color ink and the original data is printed on a printer with 7-color ink.

  – When the color of the paper in the color sample differs from the color of the paper loaded in the printer that prints the document data.

Performing Color Sample Matching

This function prints a document on paper while matching the colors in the document to the colors of printed color samples. This section describes the basic operation when color matching a single-page document.

⭐Important

- It is recommended to perform image density adjustment in advance.

- Check the following before performing this function:

  – The printer: Paper of the size specified in the document data is loaded, and there are no errors.

  – The machine: The red indicator is not lit.

  – The computer connected to the machine: The menu screen of the RICOH Auto Color Adjuster is displayed, and no other applications are running. For details, see Displaying the Menu Screen of the RICOH Auto Color Adjuster, p. 24.

  – Original Data: Specify data that can be used in **[Color Sample Matching]**. For details, see Color Sample Matching, p. 59.

  – Printed color sample: The color sample must be printed in the same size as the size that is specified in the document data.

Preparing the Data for Color Sample Matching

Select the original data, scan the color sample and the printed document on the machine, and display them on the **[Color Sample Matching]** screen.

🔽Note

- Print more than one copy of the document data (PDF), and use the copy that is printed last.

To prepare the data required in sample matching:

1. Print the document data (PDF).

   1. Select the printer on which to perform color matching.

   2. Print the document data using the required print settings. For information about print settings, see Using Fiery to Print the PDF File for Color Matching, p. 67 or Using the TotalFlow Print Server to Print the PDF File for Color Matching, p. 68.

      ⭐Important

      - Do not reduce or enlarge the document when printing.

2. On the computer, select **[Color Sample Matching]**.
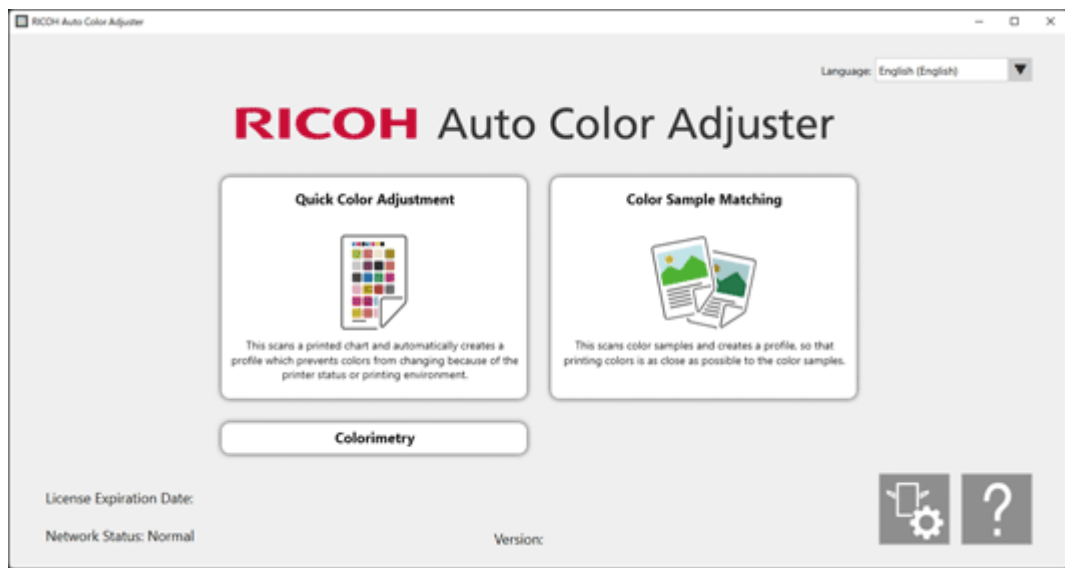
m5820m0850

The **[Color Sample Matching]** screen is displayed.

↓Note

- Operate the items displayed on the screen from left to right.

3. If you have the saved original data and the saved golden sample, load them.

   1. To load the saved original data and the saved golden sample, select **[Load]**.

   2. In the Select Folder dialog, select the folder containing the saved original data and golden sample data.

   3. Click **[Select Folder]**.
      The original file and the golden sample are displayed in the Color Sample Matching dialog.

4. If you do not have a saved golden sample, scan it.

   1. In the Original Data section, click **[Select File]**.

   2. In the Select Original Data dialog, select the file containing the original data.

      ↓Note

      - The CMYK Source Profile Setting Error is displayed when a profile is not specified in **[CMYK Source]** under Reprint After Color Matching.

      The image from the selected file is displayed in the Original Data section.

   3. Place the color sample with the side to scan facing up on the source tray of the machine. For details, see Placing an Original or Color Chart on the Paper Tray, p. 29.

M582IM0177
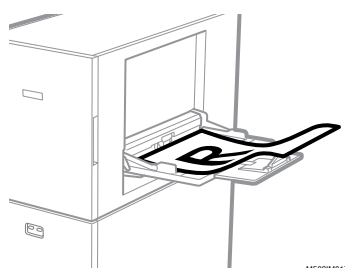
4. In the Golden Sample section, select the paper size of your printed color sample.

5. If you select **[Custom Size]**, enter the paper length along the sub scan direction in **[Sub Scan]**.
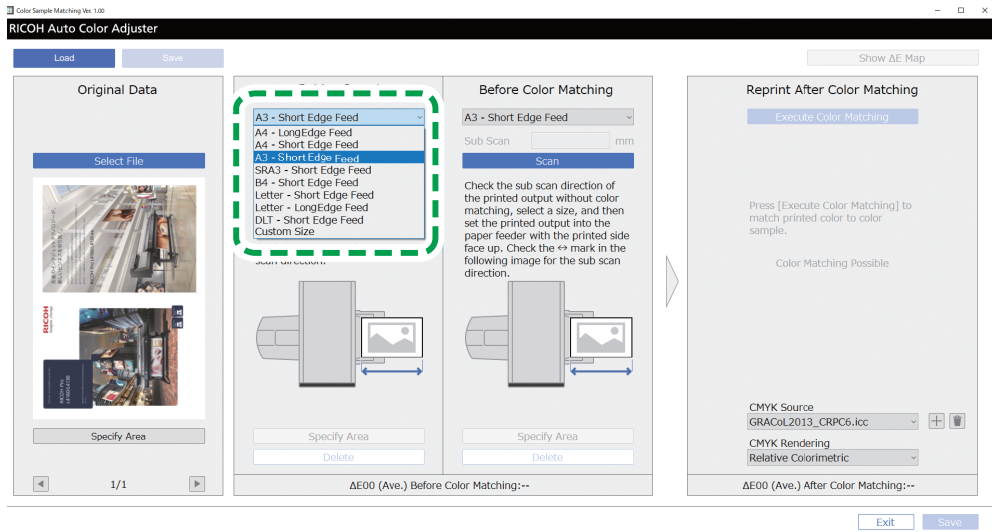
M582OM5772

⭐**Important**

- A paper jam might occur if you select a paper size that differs from the paper size of the golden sample you want to scan.

6. In the Golden Sample section, select **[Scan]**.
   When the scaninng is complete, the scanned image appears in the Golden Sample section.

5. Place the printed document with the side to scan facing up on the machine.

⬇**Note**

- If you printed more than one copy of the document data (PDF), use the copy that is printed last.

6. In the Before Color Matching section, specify the paper size of the printed original. If you specified **[Custom Size]**, enter the paper length along the sub scan direction in **[Sub Scan]**.

M582OM5774

⭐ **Important**

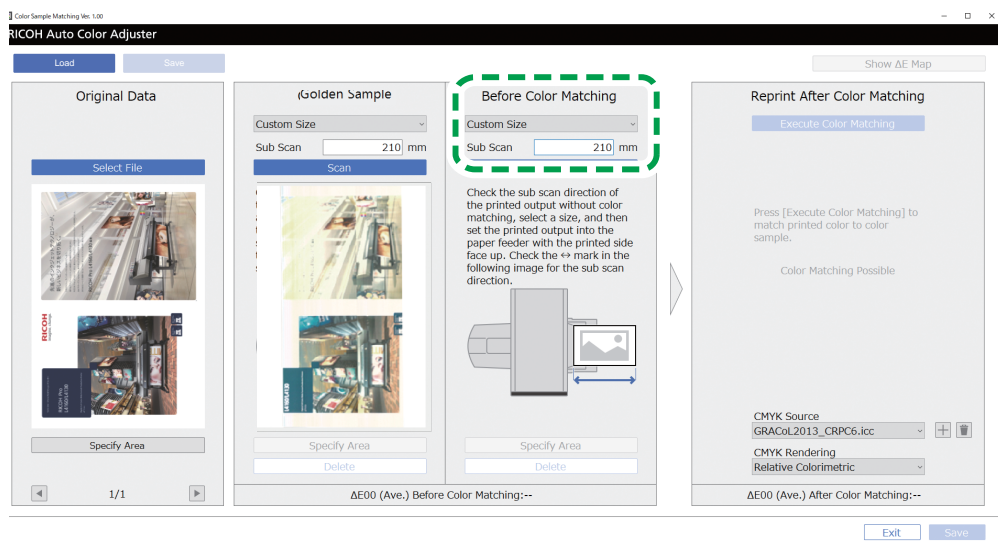- A paper jam might occur if you select a paper size that differs from the paper size of the original you want to scan.

7. Select **[Scan]** in the Before Color Matching section.
   When the scan is complete, the scanned image appears in the Before Color Matching section.

8. Proceed to the process of creating a profile. For details, see Matching Colors and Creating a Profile, p. 69.

Using Fiery to Print the PDF File for Color Matching

To use Fiery to print the PDF file for color matching:

1. In the **[COLOR]** section, set the **[Output profile]** to a profile that matches the paper that you use or specify the profile that you updated using **[Quick Color Adjustment]**.

M582OM5581
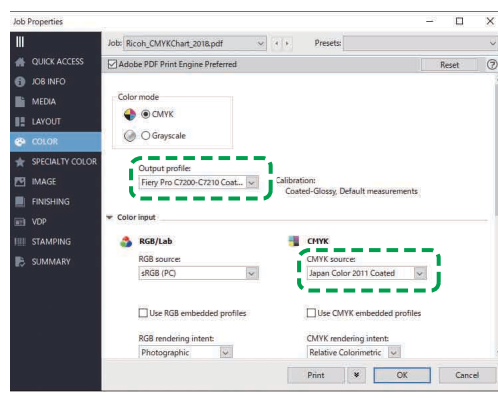
2. For the **CMYK source**, select other setting than **[ColorWiseOFF]** or **[Bypass conversion]**.

3. Clear the **[Use CMYK embedded profiles]** checkbox.

M582OM5582
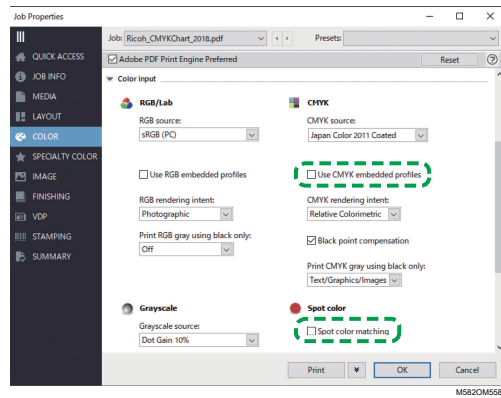
4. Clear the **[Spot color matching]** checkbox.

5. Clear the **[PDF/X output intent]** checkbox.

M582OM5573
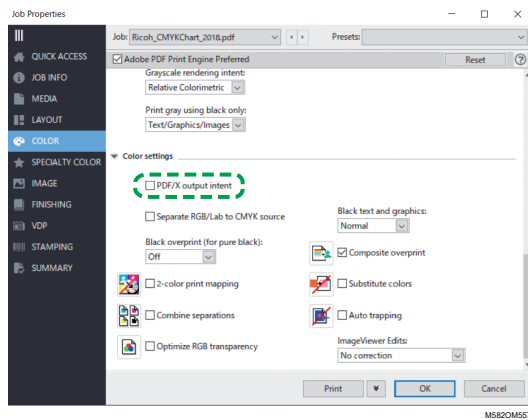
Using the TotalFlow Print Server to Print the PDF File for Color Matching

To use the TotalFlow Print Server to print the PDF file for color matching:

1. In the **[Color]** section, set the **[Printer profile, front]** to a profile that matches the paper that you use or specify the profile that you updated using **[Quick Color Adjustment]**.

M582OM5566
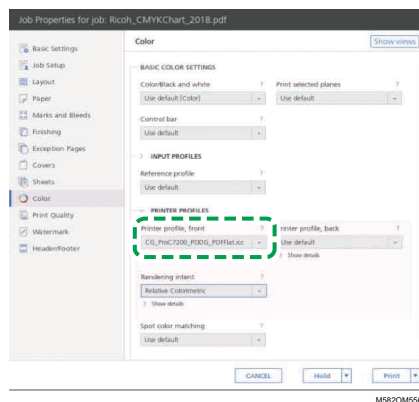
2. For the **[CMYK input profile]**, select other setting than **[Pass through]**.

M582OM5584
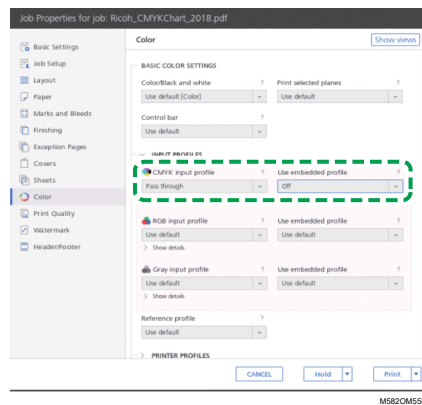
3. Set the **[Use embedded profile]** next to **[CMYK input profile]** to **[Off]**.

4. Set **[Spot color matching]** to **[Off]**.

M582OM5575
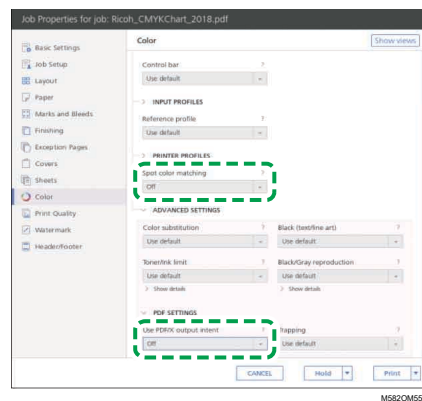
5. Set the **[Use PDF/X output intent]** to **[Off]**.

Matching Colors and Creating a Profile

Match colors to the image displayed in the Before Color Matching section, and then create a profile.

To match colors and create a profile:

1. Check the profile that is specified in the print setting when printing the document data.

Note

- The name of the item to check varies depending on the DFE that you use.

  – For Fiery, the name of the setting is **[CMYK source]**.
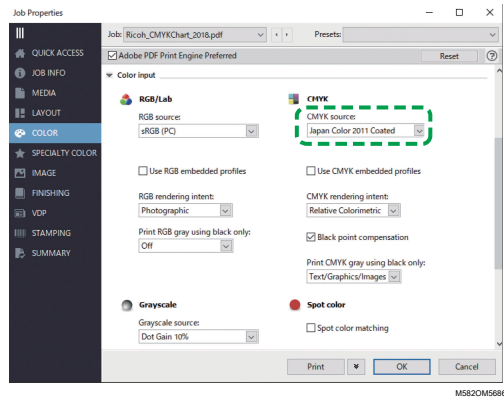
  – For the TotalFlow Print Server, the name of the setting is **[CMYK input profile]**.
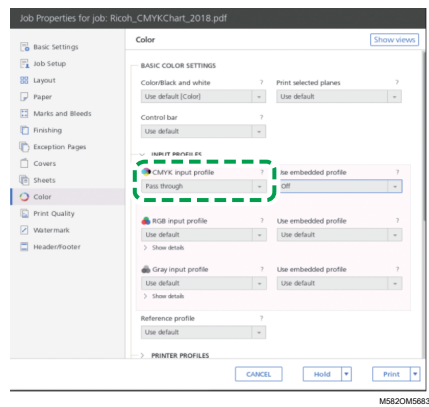
2. Specify the profile that you checked in step 1, p. 69 of **[CMYK source]** in Reprint After Color Matching.
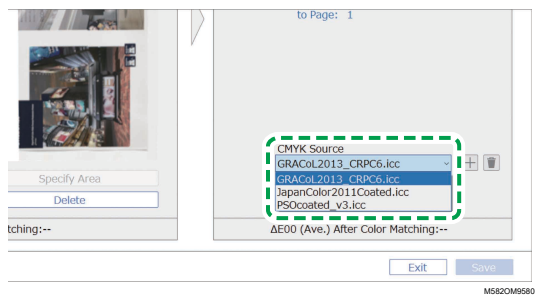
Note

- To add a profile, select the **[Add]** button (⊞), and then specify the profile to add.

3. Check the rendering intent that was specified in the print setting when printing the document data.

Note

- The name of the item to check varies depending on the DFE that you use.

  – For Fiery, the name of the setting is **[CMYK rendering intent]**.
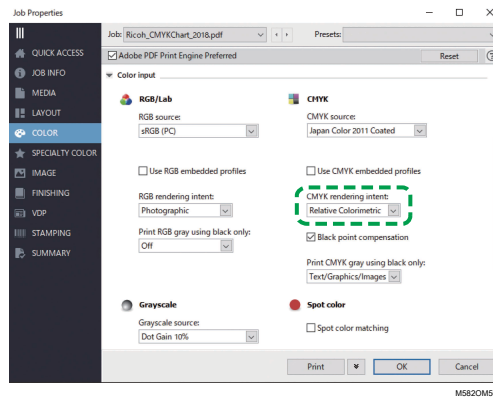
  – For the TotalFlow Print Server, the name of the setting is **[Rendering intent]**.
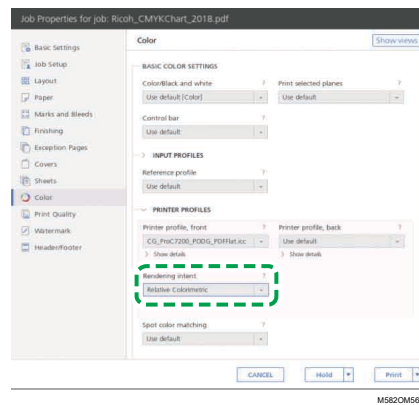
4. Specify **[CMYK Rendering]** in Reprint After Color Matching.
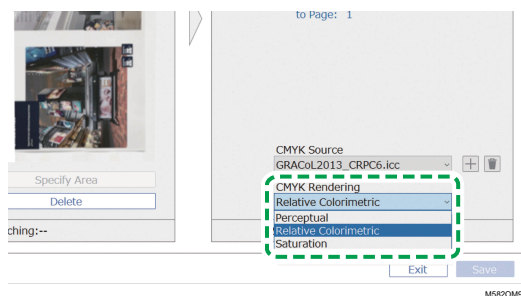
Note

- Specify **[Perceptual]** when **[Photographic]** is specified in Fiery, or specify **[Saturation]** when **[Presentation]** is specified.

5. Select **[Execute Color Matching]**.

M582OM9582
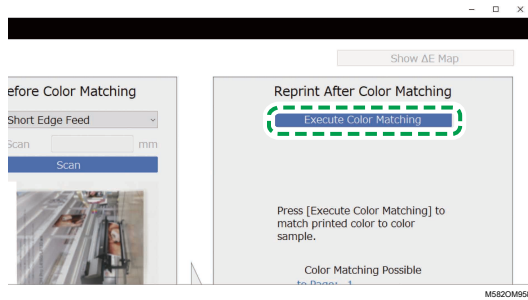
The color matching process starts, and a profile is created. Wait for the process to finish. When the color matching process is complete, the processed image is displayed in Reprint After Color Matching.

6. Check the average color deviation (simulated) after color matching is applied.
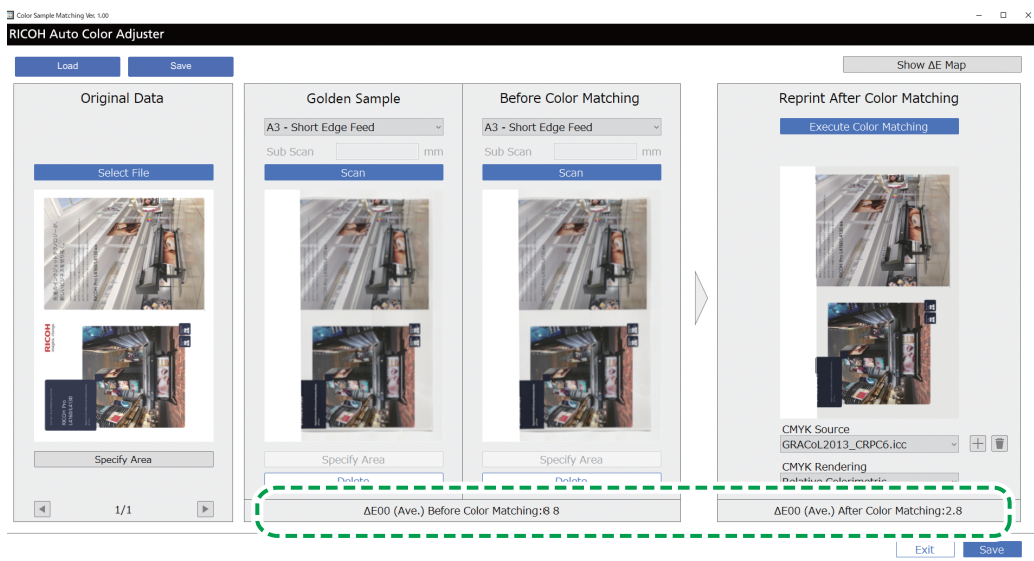
M582OM5775

↓Note

- The average color deviation is derived by averaging the color deviation values of all pixels in the image.

7. Check the color deviation on the color deviation map.

1. Select **[Show ΔE Map]**.

M582OM9583
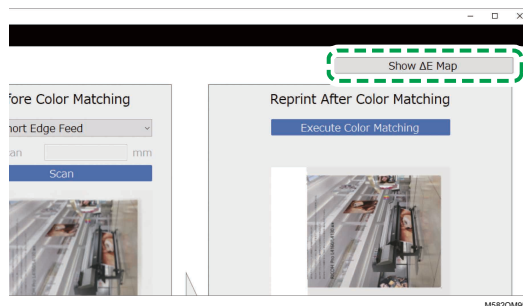
The color deviation map is displayed, and the button label changes to **[Hide ΔE Map]**.

2. Check the deviation of colors.

M582OM5776
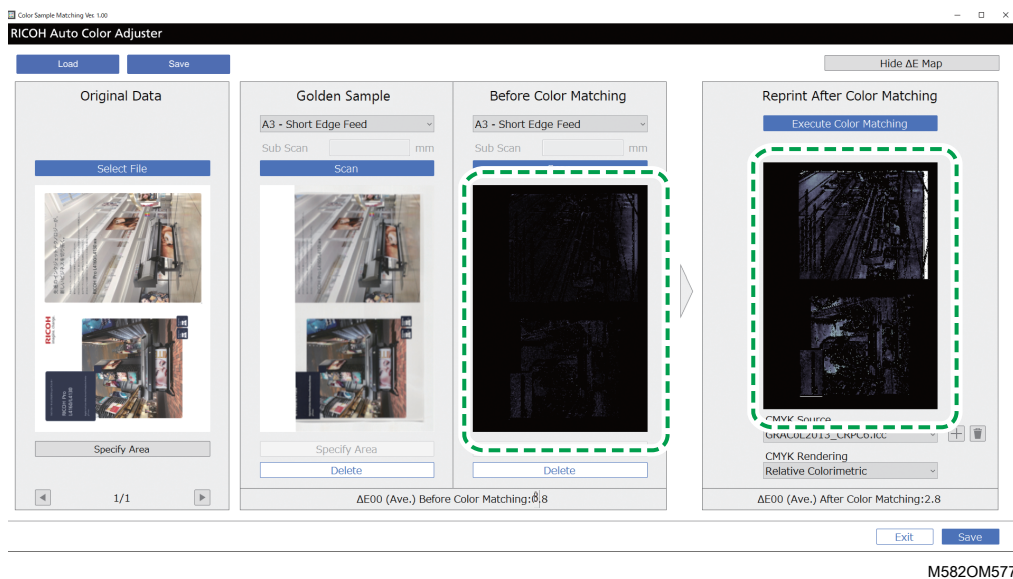
Note

- The color deviation is calculated by subtracting the value of paper color and truncating the decimals.

- The brighter area in the map indicates the color of a larger deviation.

3. Select **[Hide ΔE Map]**.

8. **Optional:** Save the files containing the original data and the scanned golden sample data.

   1. To save the files containing the original data and the scanned golden sample, select **[Save]** on the upper-left side of the Color Sample Matching dialog.

   2. If the folder where you want to save the original data and the golden sample data is not yet created, select **[New Folder]** in the Select Folder dialog. Then enter the name of the new folder.

   3. Select the folder where you want to save the original data and the golden sample data and click **[Select Folder]**.
   The application saves the original data and the golden sample data to the selected folder.

9. To save the profile, select **[Save]** on the lower-right side of the Color Sample Matching dialog.

   Note

   - The format of the file name assigned to a profile is *Match_yyyymmddhhmm.icc*. Change it as required.

10. Select **[Exit]**.
   The color matching process is complete, and the profile is saved. If you saved the golden sample data, load it next time you need to match colors and create a profile based on the same golden sample.

Using the Profile to Print a Document with Fiery

Use the profile created by the color matching process to print documents in the colors that match the colors in the color sample.

Note

- The operation procedure varies depending on the DFE that you are using. When using a DFE other than Fiery or the TotalFlow Print Server, see the manual of your DFE.

1. Start the Fiery Command WorkStation.

2. Log in to the application as the system administrator.

3. Click **Server** → **Device Center**.

4. Click **RESOURCES** → **Profiles**.

5. Click **[Import]**, and then specify **[CMYK Source and Simulation]**.

6. Specify the profile that has been created.
   The profile is imported to Fiery.

7. Specify the imported profile in **[CMYK source:]** of the print setting.

8. For other items, specify the same settings that you specified when printing the document data before performing color matching.

9. Print the document.

Using the Profile to Print a Document with TotalFlow Print Server

Use the profile created by the color matching process to print documents in the colors that match the colors in the color sample.

Note

- The operation procedure varies depending on the DFE that you are using. When using a DFE other than Fiery or TotalFlow Print Server, see the manual of your DFE.

1. Start the TotalFlow Print Server using an account that has administrator rights.

2. Click **Settings** → **Profiles**.

3. Click **Color Management** → **Profiles**.

4. Click the **[Edit]** button ( ), in **[CMYK input profile]**.

5. Click **Import** → **CMYK Source and Simulation**.

6. Specify the created profile, and then click **[Import]**.

7. Specify the **[CMYK input profile]**, and then click **[OK]**.

8. Specify the profile that has been created.
   The profile is imported to the TotalFlow Print Server.

9. Specify the imported profile in **[CMYK input profile]** of the print setting.

10. In other fields, specify the same settings that you specified when printing the document data before performing color matching.

11. Print the document.

Use Cases

By using a document comprising multiple pages, or specifying a specific area on a page, you can improve the quality of color reproducibility.

Using a Multipage Document

To improve the quality of color reproducibility, use a document comprising up to 15 pages.

To use a multipage document:

1. Print the document data (PDF).

    1. Select the printer on which to perform color matching.

    2. Print the document data. For information about print settings, see Using Fiery to Print the PDF File for Color Matching, p. 67 or Using the TotalFlow Print Server to Print the PDF File for Color Matching, p. 68.

        ⭐ **Important**

        • Do not reduce or enlarge the document when printing.

2. On the computer, click **[Color Sample Matching]**.
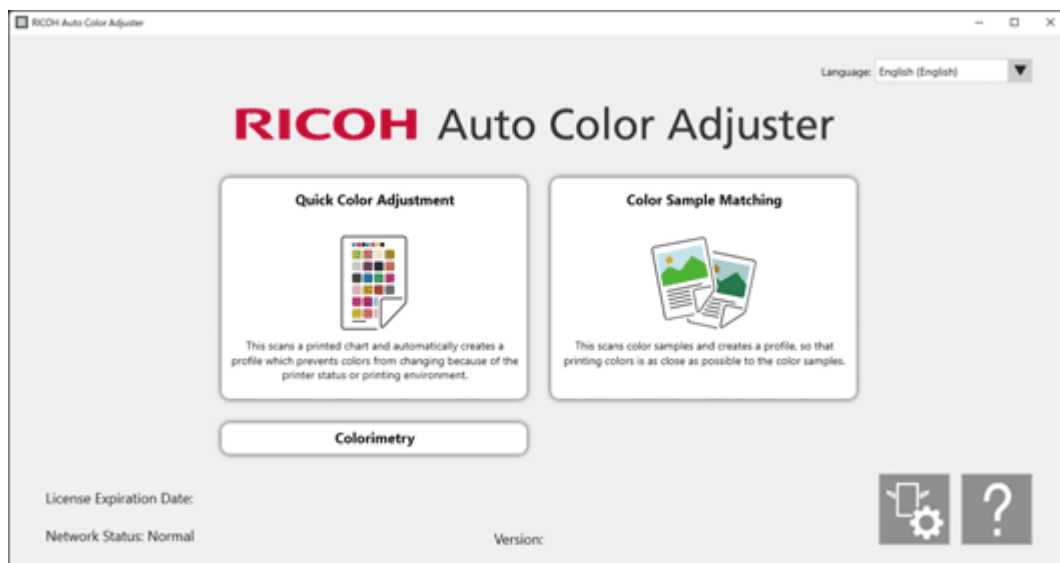
m5820m0850

    The **[Color Sample Matching]** screen is displayed.

    ⬇ **Note**

    • Operate the items displayed on the screen from left to right.

3. In the Original Data section, click **[Select File]**.

4. In the Select Original Data dialog, select the file containing the original data.
    The selected file is displayed in the Original Data section.

5. Click the **[Previous Page]** button (◀), and the **[Next Page]** button (▶) to move to the page where to match colors.

6. Place the color sample with the side to scan facing up on the source tray of the machine. For details, see Placing an Original or Color Chart on the Paper Tray, p. 29.

M582IM0177

7. In the Golden Sample section, select the paper size of your printed color sample.

8. If you select **[Custom Size]**, enter the paper length along the sub scan direction in **[Sub Scan]**.

M582OM5772

⭐ **Important**

- A paper jam might occur if you select a paper size that differs from the paper size of the golden sample you want to scan.

9. In the Golden Sample section, select **[Scan]**.
   When the scanning is complete, the scanned image appears in the Golden Sample section.

10. Place the printed document with the side to scan facing up on the machine.

11. In the Before Color Matching section, specify the paper size of the printed original. If you specified **[Custom Size]**, enter the paper length along the sub scan direction in **[Sub Scan]**.

M582OM5774

⭐ **Important**

- A paper jam might occur if you select a paper size that differs from the paper size of the original you want to scan.

12. In the Before Color Matching section, click **[Scan]**.
    When the scanning is complete, the scanned image is displayed in Before Color Matching.

13. To scan all pages, repeat steps from 3 through 13.

14. In the Original Data section, click the **[Previous Page]** button (◀), and the **[Next Page]** button (▶) to check that all pages are scanned.

15. Proceed to the process of creating a profile. For details, see Matching Colors and Creating a Profile, p. 69.

Specifying the Area and Orientation

When you are matching colors on the pages in imposed document data that are printed separately for each page, specify the same area and orientation on all pages to improve the quality of color reproducibility. Also, specify the area to align the position when Alignment Error is displayed.

To specify the area and orientation:

1. Print the document data (PDF).

   1. Select the printer on which to perform color matching.

   2. Print the document data using the required print settings. For information about the print settings, see Using Fiery to Print the PDF File for Color Matching, p. 67 or Using the TotalFlow Print Server to Print the PDF File for Color Matching, p. 68.

      ⭐ **Important**

      - Do not reduce or enlarge the document when printing.
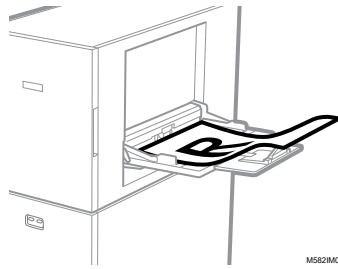
2. On the computer, click **[Color Sample Matching]**.

m5820m0850
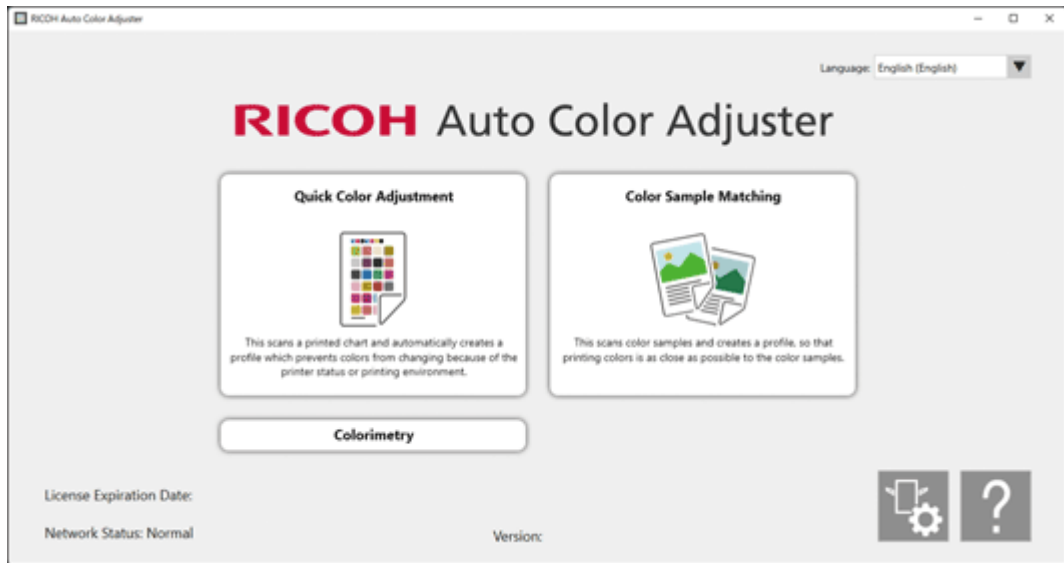
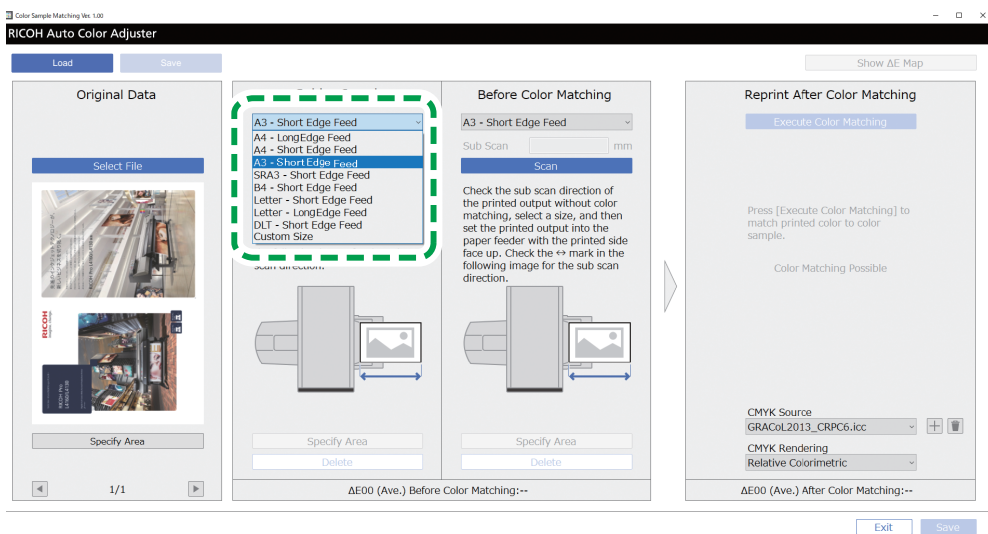The **[Color Sample Matching]** screen is displayed.

↓Note

- Operate the items displayed on the screen from left to right.

3. If you have the saved original data and the saved golden sample, load them.

   1. To load the saved original data and the saved golden sample for the specified area, select **[Load]**.

   2. In the Select Folder dialog, select the folder containing the saved original data and golden sample data.

   3. Click **[Select Folder]**.
      The specified area from the original file and the specified area from the golden sample are displayed in the Color Sample Matching dialog.

4. If you do not have a saved golden sample for the specified area, scan it.

   1. In the Original Data section, click **[Select File]**.

   2. In the Select Original Data dialog, select the file containing the original data.
      The image from the selected file is displayed in the Original Data section.

   3. In the Original Data section, click **[Specify Area]**.

   4. To change the orientation of the image, click **[90° CCW]** or **[90° CW]**.

   5. To specify the area, click a corner of the area to specify, and drag it diagonally.

M582IM0202

A blue rectangle indicates the specified area.

6. Click **[OK]**.
   The image of the area and orientation that is specified in Original Data is displayed.

7. Place the color sample with the side to scan facing up on the source tray of the machine. For details, see Placing an Original or Color Chart on the Paper Tray, p. 29.
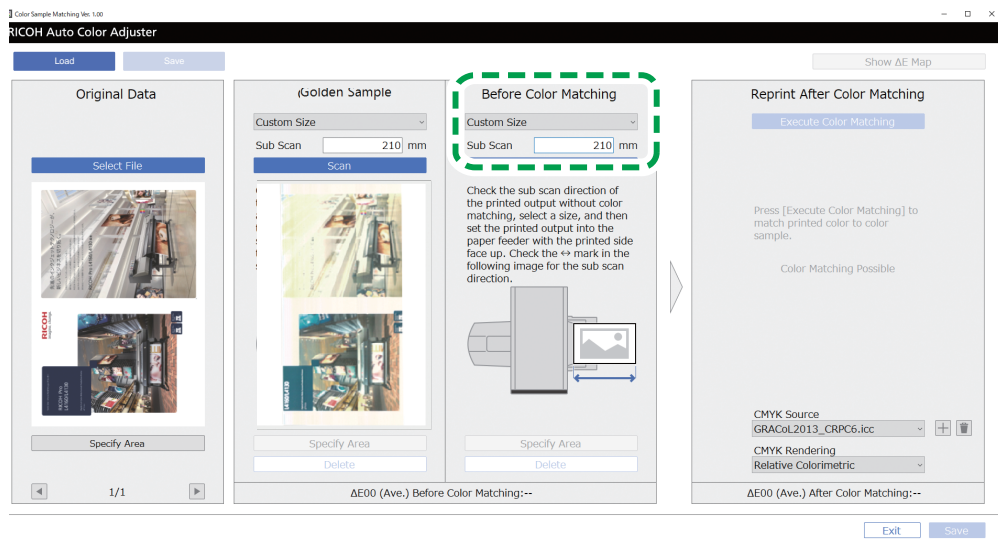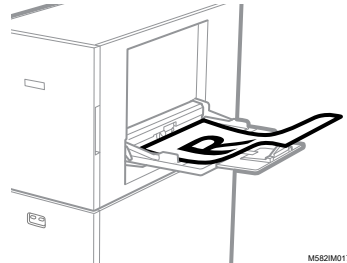

8. In the Golden Sample section, select the paper size of your printed color sample. If you select **[Custom Size]**, enter the paper length along the sub scan direction in **[Sub Scan]**.
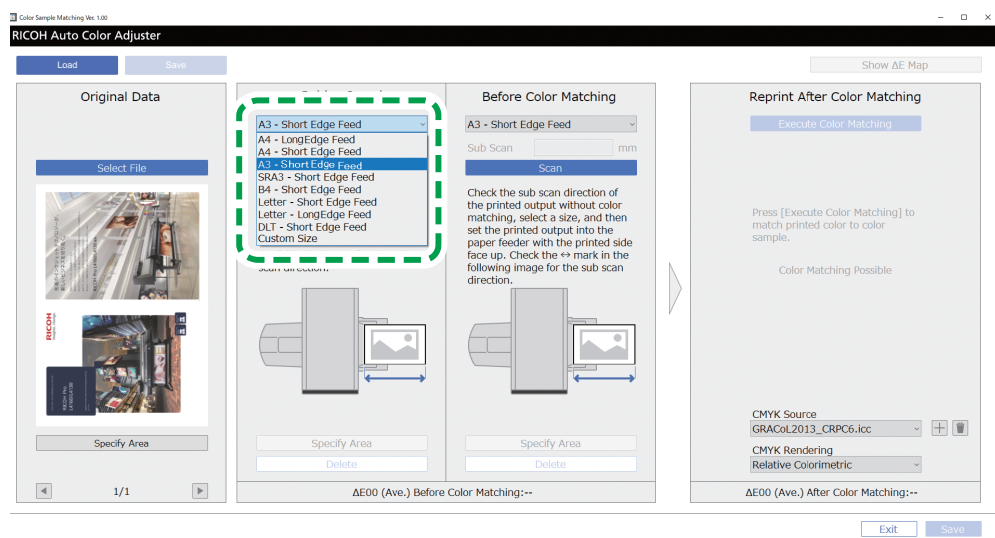
⭐ Important

- A paper jam might occur if you select a paper size that differs from the paper size of the golden sample you want to scan.

9. In the Golden Sample section, select **[Scan]**.
   When the scanning is complete, the image matching the area selected in Original Data is displayed in Golden Sample.

10. To change the selected area of the image, click **[Specify Area]** in the Golden Sample section, and then select the area again. Use the same procedure as described in step 4, substeps from 4.4 through 4.6.

5. Place the printed document with the side to scan facing up on the machine.

6. In the Before Color Matching section, select the size of the printed original. If you select **[Custom Size]**, enter the paper length along the sub scan direction in **[Sub Scan]**.

> ⭐**Important**

- A paper jam might occur if you select a paper size that differs from the paper size of the original you want to scan.

7. In the Before Color Matching section, click **[Scan]**.
   When the scanning is complete, the image matching the area selected in Original Data is displayed in Before Color Matching.

8. To change the selected area of the image, click **[Specify Area]** in Before Color Matching, and then select the area again. Use the same procedure as described in step 4, substeps from 4.4 through 4.6.

9. Proceed to the process of creating a profile. For details, see Matching Colors and Creating a Profile, p. 69.

Troubleshooting (Color Sample Matching)

This section describes solutions when messages appear in **[Color Sample Matching]**. It also describes the procedure for improving the quality of color reproducibility.

> 🔽**Note**

- See below when a paper jam or other problem occurs on the machine, or when starting up an application fails.

  - When the Machine Cannot Be Operated, p. 107
  - When Messages Appear (Common to All Functions), p. 110
  - When a Paper Jam Occurs, p. 112

- If the Color Sample Matching screen does not appear, and no message is displayed when you click **[Color Sample Matching]** in the menu screen, close the menu screen, and restart Windows. If you still cannot display the Color Sample Matching screen, contact your service representative.

When a Message Is Displayed (Color Sample Matching)

Message	Cause	Solution and reference
CMYK Source Profile Setting Error	**[CMYK source]** in Reprint After Color Matching is not specified.	In **[CMYK source]** of Reprint After Color Matching, specify the profile that was specified in the print setting when the document data was printed. For details, see Matching Colors and Creating a Profile, p. 69.
Alignment Error	The image that is specified in Original Data cannot be used for color matching.	Color matching is not possible on some images such as an image that is a solid color or a design of line or rotation symmetry. Check that the specified image is supported. For details, see Supported Format of Document Data in Color Sample Matching, p. 62.
	The scanned document or color sample does	Scan a document or color sample that matches the image that is displayed in Original Data.

Message	Cause	Solution and reference
	not match the image that is displayed in Original Data.	
	The area or orientation of the image scanned in Golden Sample and Before Color Matching does not match the area or orientation that is specified in **[Specify Area]** of Original Data.	Specify the same image in **[Specify Area]** of Golden Sample and Before Color Matching as the image specified in Original Data, and then specify the same area and orientation as the original data. For details, see Specifying the Area and Orientation, p. 77.
Color Matching Error	One or more settings are specified incorrectly.	• Repeat the procedure from the beginning. • If Alignment Error occurs, solve the problem accordingly.
"Overwriting [###] is prohibited." [###] stands for a pre-installed file name.	You specified a file name that is the same as the name of a pre-installed file in **[CMYK Source]** of Reprint After Color Matching.	The pre-installed files cannot be overwritten. Specify a different file name.
"Deleting [###] is prohibited." [###] stands for a pre-installed file name.	You tried to delete a pre-installed file in **[CMYK Source]** of Reprint After Color Matching.	The pre-installed files cannot be deleted.
File Selection Error "Failed to open [###]. Either the color space is not supported or the file has been corrupted." [###] stands for a file name.	A file whose color space is not CMYK is specified in **[CMYK Source]** of Reprint After Color Matching, or the specified file is corrupted.	• Check that you can open the file in the application for your DFE or another application. • Specify another file in **[CMYK Source]** of Reprint After Color Matching, and then check that the file works properly. • Specify a file whose color space is CMYK. To view the color space information of a profile, use an application that can display the profile information. You can read the profile information and confirm the **[Color Space]** information in "ICC Profile Inspector" that is provided by ICC (International Color Consortium), for example. The application is free for use and available for download at ICC Profile Inspector (https://www.color.org/profileinspector.xalter).
File Selection Error	A file that cannot be used is specified in	• Check that the file is of a type that is supported in Color Sample Matching.

Message	Cause	Solution and reference
"Failed to open [###]. Either the file format is not supported or the file has been corrupted." [###] stands for a file name.	Original Data, or the file is corrupted.	For details, see Supported Format of Document Data in Color Sample Matching, p. 62. • Check that you can open the file in another application. • Specify another file in Original Data, and then check that the file works properly.
Character Type Error	A non-single byte alphanumeric letter in the file name is entered when saving the profile.	Use single-byte alphanumeric letters only when changing the file name.
Reached Upper Limit	A color sample or document whose number of pages exceeds 15 is scanned.	The maximum number of pages in a color sample or document that can be scanned is 15. To delete the images that are already scanned, switch to the image to delete in Original Data, and then click **[Delete]** in Golden Sample or Before Color Matching.
Raster Image Process Error	GPL Ghostscript might not be installed correctly, or the environmental variables in GPL Ghostscript are specified incorrectly.	• Check the settings for the environmental variables. • Reinstall GPL Ghostscript. For details, see *RICOH Auto Color Adjuster: Installation Guide*. If the error persists, contact your service representative.

Note

- If any other message is displayed, follow the instructions in the message.

Improving the Quality of Color Reproducibility

This section describes the procedure to improve the quality of color reproducibility by performing the color matching process twice when a large deviation in color is detected even after a color matching process is performed and the profile is created.

Important

- The quality of reproducibility in color might not improve even after performing this procedure.

To improve the quality of color reproducibility:

1. To save the profile, select **[Save]** on the lower-right side of the Color Sample Matching dialog.
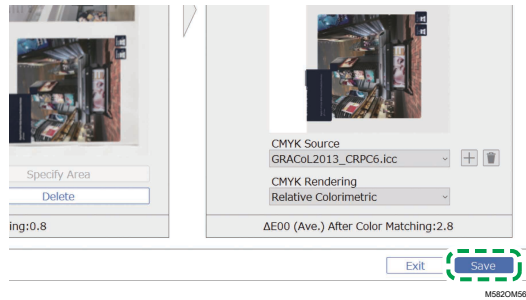
M582OM5680

⬇Note

- The format of the file name assigned to a profile is *Match_yyyymmddhhmm.icc*. Change it as required.

2. Print a document using the profile that you saved. For details, see Using the Profile to Print a Document with Fiery, p. 73 and Using the Profile to Print a Document with TotalFlow Print Server, p. 74.

3. In the Before Color Matching section, click **[Delete]**.

4. Place the printed document with the printed side facing up on the machine.

5. Specify the size of the printed original in Before Color Matching.

   ⬇Note

   - If you specified **[Custom Size]**, enter the paper length along the sub scan direction in **[Sub Scan]**.

   - A paper jam might occur if you select a paper size that differs from the paper size of the original you want to scan.

6. Click **[Scan]** in Before Color Matching.
   Scanning starts. Wait for scanning to finish. When the scan is complete, the scanned image appears in Before Color Matching.

7. Specify the profile that was used in step 2, p. 70 in **[CMYK Source]** of Reprint After Color Matching. For details, see Matching Colors and Creating a Profile, p. 69.

   ⬇Note

   - To add a profile, click the **[Add]** button (⊞), and then specify the profile to add.

8. Click **[Execute Color Matching]**, and check the color deviation again.

4

5. Management Console

- Operation Workflow of Management Console
- Checking the Color Adjustment Result in Management Console
- Troubleshooting (Management Console)

Performs quick certification on the color adjustment result of the printer according to various certification standards. You can manage the records of changes in the certification result over time for individual printers.

You can also print a report file, and then use it to manage the print quality of each printer.

Operation Workflow of Management Console

1. Print the test chart to use for color verification in **[Quick Color Adjustment]** on the printer to obtain the color verification data.

M582IM0203
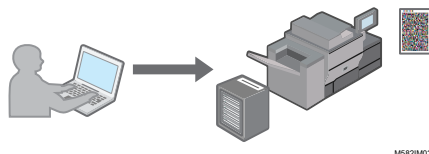
2. Scan the color chart for color verification in **[Quick Color Adjustment]** on the machine.

M582IM0204

The color verification data is saved on the computer that is connected to the machine via USB cables.

3. Display **[Management Console]** on the computer, and then check the change over time.

⬇ Note

- You can use the data to manage the state of color on each printer or print a report file in CSV format.

- Obtain the color verification data in the following cases according to its purpose.

  – To check the result of color verification: After performing color adjustment in **[Quick Color Adjustment]**

  – To check the color change over time on a printer: At regular intervals, or before executing the final printing for delivery

- You can use **[Management Console]** from a computer that is connected to the machine directly via USB cables, or from another computer that is connected to the machine over a network.

Checking the Color Adjustment Result in Management Console

You can check the change over time of the results of color adjustment and color verification in **[Quick Color Adjustment]**, and then manage the color status of printers.

How to Use the Management Console Screen

Enter the IP address and port number of the computer in the address bar of a web browser to display the **Management Console** screen.

For details, see Starting the Management Console in a Web Browser, p. 26.

M582OM5698
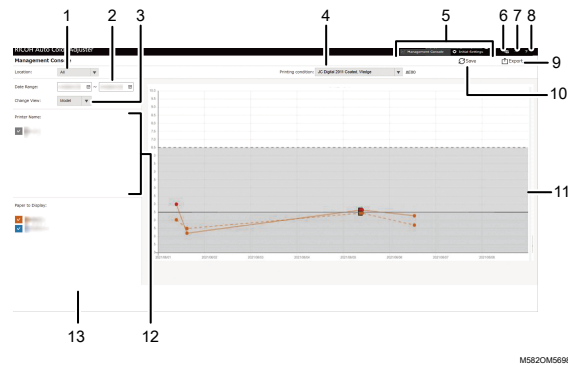
1. [Location:]

Select the location of the graph to display. A location points to a group of printers that are registered in Initial Settings. Select **[All]** to display all printers.

2. [Date Range:]

Specify the period to display a graph.

3. [Change View:]

Specify whether to display a graph for each printer model, or for each paper.

4. [Printing condition:]

Select a color chart to display in the graph from the following:

- **[JC Digital 2011 Coated, Wedge]**: For determining the color reproducibility in Japan Color 2011 Coated from the measurement results of Japan Color control strip (54 colors) and average of 4 measurements of the same colors.

- **[ISO12647-8 Coated V3 F51]**: For determining the color reproducibility in Fogra51 from the measurement results of Fogra Media Wedge V3 (72 colors) and average of 4 measurements of the same colors

- **[Verify GRACoL2013, Wedge]**: For determining the color reproducibility in GRACoL2013 from the measurement results of Digital Press control strip 2013 (84 colors) and average of 4 measurements of the same colors.

- **[Simple Gray Scale, Wedge 2013]**: Confirms the color reproducibility of Simple Grayscale based on the measurement results of Digital Press control strip 2013 (average of 84 colors × 4 sets).

- **[ISO12647-8:2021 Coated V3 F51]**: Confirms the color reproducibility of ISO 12647-8:2021 [VPC] based on the measurement results of Fogra Media Wedge (average of 72 colors × 4 sets).

5. [Management Console]/[Initial Settings]

Click here to switch between the **[Management Console]** and **[Initial Settings]** screens.

6. Display Language Select icon (⬛)

Click this to switch the display language. You can switch between English, Japanese, German, French, Spanish, Dutch, or Italian.

7. Software In-use icon (⬛)

Check for the software that is being used.

8. User Manual Display icon (⬛)

Click this to display the user manual.

9. [Export]

Click here to save a report file in CSV format.

10. [Save]

Click here to update the value after changing **[Date Range:]**.

11. Graph

The values that correspond to the settings specified in **[Location:]**, **[Change View:]**, **[Date Range:]**, and **[Printing condition:]** are displayed in a graph with the date as the horizontal axis. For details about the graph, see How to Read the Graph, p. 87.
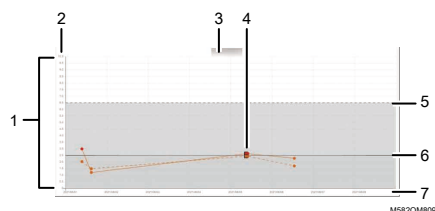
12. [Printer Name:]

Indicates the printer that is registered in the selected **[Location:]**. You can narrow down the graph to display by clearing the check box of the printer to hide its plot on the graph.

13. [Paper to Display:]

Displays **[Paper to Display:]** that is registered in **[Location:]** that you selected. You can narrow down the graph to display by clearing the checkbox of **[Paper to Display:]** to hide its plot points on the graph.

How to Read the Graph

The line graph is displayed in the **Management Console** screen.

M582OM8090

1. Line graph

A graph line is displayed for each printer or paper. The color of the line corresponds to the color of the **[Printer Name:]** or **[Paper to Display:]** checkbox.

A solid line indicates an average color deviation, and a dotted line indicates the maximum color deviation.

2. Color deviation (ΔE2000)

The vertical axis shows the value of color deviation.

3. Printer Name

4. Plot point ●

Place the mouse cursor on a plot to display the date and time the data was obtained and the color deviation.

A plot displayed in red represents a value that is outside the threshold, and ■ indicates a value that is obtained when you perform Post-judgement for the first time after registering the ICC profile in color adjustment.

5. Threshold value (maximum)

The horizontal dotted line represents the maximum threshold value that is specified in Initial Settings.

6. Threshold value (average)

The horizontal solid line represents the average threshold value that is specified in Initial Settings.

7. Date

The horizontal axis represents the date.

Checking the Change in Color over Time

On the **Management Console** screen, you can check the change in color over time. To check the most recent status of a printer, perform color verification of **[Quick Color Adjustment]**, and then open the **Management Console** screen.

For details about color verification, see .

To check the change in color over time:

1. Check the IP address and port number of the server.

   1. If the menu screen is not already displayed, click the **[RICOH]** icon ( ) on the desktop, to start it.

   2. Click the **[Machine Settings]** button ( ) on the menu screen.
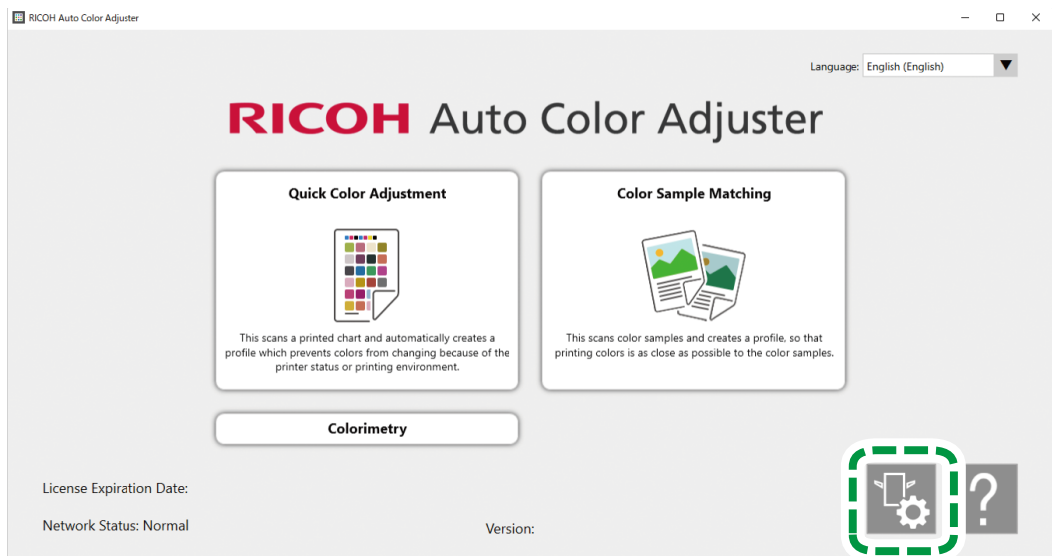
M582OM5958

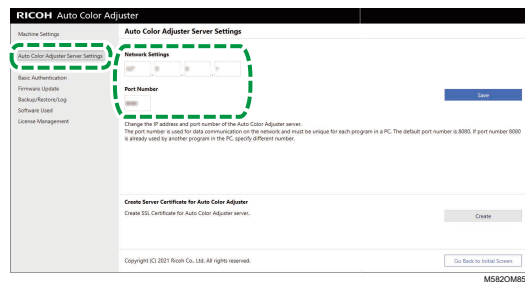3. Click **[Auto Color Adjuster Server Settings]**, and check the IP address and port number.

M582OM8570

⬇**Note**

- You can use **[Management Console]** from a computer on the network. In the address bar of the web browser, enter the IP address and port number of the computer that is connected to the machine via a USB cable. For information about the computer that can be used, see *RICOH Auto Color Adjuster: Installation Guide*.

- When you are operating more than one machine and using a client computer, consult the administrator for the IP address and port number of the server.

2. Start your web browser, and enter the IP address and port number in the address bar.
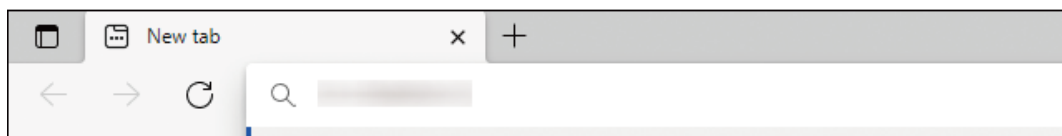
m582wm9560

⬇**Note**

- Enter the IP address and port number using the `https://(IP Address):port number` format. Do not omit the colon (:) or period (.). However, if the port number is 80, you can omit the colon (:) and the port number.

3. Enter the user name and password.

↓Note

- The default user name and password are as follows:

  – User name: aca-user

  – Password: user

The **[Management Console]** screen is displayed, and you can view the graph that reflects the following settings:

- **[Location:] [All]**
- **[Printing condition:]** The chart specified in Initial Settings
- **[Date Range:]** seven days ago to today
- **[Change View:] [Model]**

4. Specify the period to view the graph in **[Date Range:]**, and then click **[Save]**.

M582OM5699

5. Change the settings in **[Location:]**, **[Printing condition:]**, and **[Change View:]**.

M582OM5703
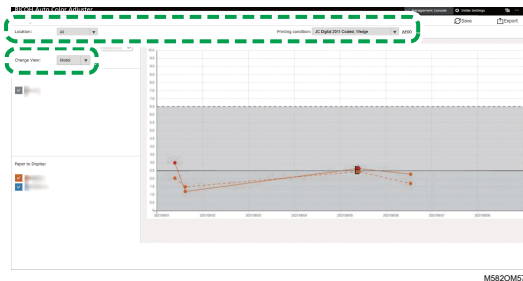
1. In the **[Location:]** field, specify the location in which the printer to check is located.

2. In the **[Printing condition:]** field, specify the target condition (standard) against which to compare the colors.

3. In the **[Change View:]** field, specify whether to display a graph for each printer model, or for each paper.

6. To narrow down the printer or paper to display on the graph, clear the checkboxes of the items to hide.

M582OM5706
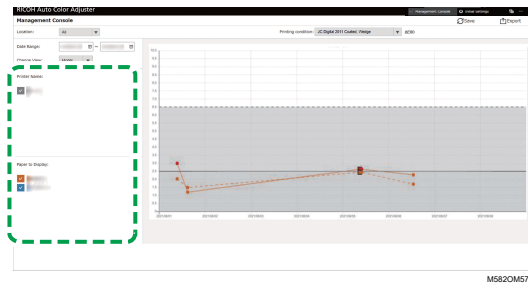
7. Check the graph. For details about reading the graph, see How to Read the Graph, p. 87.

8. To save a report file, click **[Export]**. For details about the items saved in the report, see Report Containing Graph Data, p. 91.
The values of each item for the displayed period are saved in CSV format.

9. Close the web browser.

Report Containing Graph Data

You can export a report based on the line graph displayed on the **Management Console** screen. The report file is exported as a CSV file.

Items Included in the Report File

Item in report file	Description
IP Address	IP Address
Server Name	DFE name
Machine Name	Printer name
Location	Category
Paper Type	Paper type
Paper Name	Paper name
ICC Profile Name	ICC profile name
Printing Condition	Chart name
Max Threshold [1, 2] Ave Threshold [1, 2] 95 Percentile [without boundary patches] Threshold [2, 5] Ave [without boundary patches] Threshold [2, 5] K gray average wΔL Threshold [4] K gray maximum wΔL Threshold [4] CMY gray average wΔL Threshold [4] CMY gray maximum wΔL Threshold [4]	Standards for Various Charts

5

Item in report file	Description
CMY gray average wΔCh Threshold [4] CMY gray maximum wΔCh Threshold [4] CMY gray DeltaCh AVE Threshold [5] CMY gray DeltaCh MAX Threshold [5] Paper White DELTA Threshold [5]	
Date Time	Date and time (year, month, day, hour, minute, and second) of the measurement
DELTA	Value of individual color deviation
DELTA AVE [1, 3]	Average delta E
DELTA AVE [without boundary patches] [2, 5]	Average delta E excluding boundary patches
95 Percentile [without boundary patches] [2, 5]	Delta E of 95th percentile patches excluding boundary patches
CMY gray average wΔL [4]	Average weighted delta L of CMY gray
CMY gray maximum wΔL [4]	Maximum weighted delta L of CMY gray
K gray average wΔL [4]	Average weighted delta L of K gray
K gray maximum wΔL [4]	Maximum weighted delta L of K gray
CMY gray average wΔCh [4]	Average weighted delta Ch of CMY gray
CMY gray maximum wΔCh [4]	Maximum weighted delta Ch of CMY gray
CMY gray DeltaCh AVE [5]	Average delta Ch of composite gray
CMY gray DeltaCh MAX [5]	Maximum delta Ch of composite gray
Paper White DELTA [5]	Delta E of paper whiteness

[1] When using the **[Japan Color Digital 2011 Coated, Wedge]** chart

[2] When using the **[ISO12647-8 Coated V3 F51]** chart

[3] When using the **[Verify GRACoL2013, Wedge]** chart

[4] When using the **[Simple Gray Scale, Wedge 2013]** chart

[5] When using the **[ISO12647-8:2021 Coated V3 F51]** chart

Troubleshooting (Management Console)

This section describes how to solve a problem when **[Management Console]** cannot be operated properly.

Status	Cause	Solution and reference
The 404 error occurs, and the **Management Console** screen does not appear when you enter the IP address in a web browser.	The IP address and/or port number that you entered is incorrect.	Enter the correct IP address and port number. Make sure to enter a colon (:) between the IP address and port number. You can check the IP address and port number in **[Auto Color Adjuster Server Settings]** under **[Machine Settings]** that is displayed when you click the **[Machine Settings]** button (📇) on the menu screen. When using a client computer, consult your administrator for the correct IP address and port number.
	Old data remains in the cache of the web browser.	On the **Management Console** screen, press the **F5** key while pressing the **Shift** key. The cache of the web browser is cleared, and the page is reloaded.
	When you are operating more than one machine, you cannot access the server from a client computer.	• Check that the computer is connected to the network. • Restart Windows on the computer and server. ⬇ Note • If the error persists, contact your service representative.
The 404 error occurs, and the **Management Console** screen does not appear when you click **[Management Console]** on the Initial Settings screen.	Old data remains in the cache of the web browser, or the service on the server is malfunctioning.	• On the **Management Console** screen, press the **F5** key while pressing the **Shift** key. The cache of the web browser is cleared, and the page is reloaded. • Restart Windows. When you are using a client computer, restart Windows on the server also. ⬇ Note • If the error persists, contact your service representative.
The **Management Console** screen is not displayed completely, and no operation is possible.	Old data remains in the cache of the web browser, or a malfunction occurred in the database.	• On the **Management Console** screen, press the **F5** key while pressing the **Shift** key. The cache of the web browser is cleared, and the page is reloaded. • Restart Windows. When you are using a client computer, restart Windows on the server also. ⬇ Note • If the error persists, contact your service representative.
A graph is not displayed in the **Management Console** screen.	An incorrect chart was specified.	Check that the correct color chart is printed. Use the following procedure to check the correct number of the color chart:

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Status	Cause	Solution and reference
		1. On the Initial Settings screen, specify a combination of **[Machine Name]** and **[Paper Name]**, and then click **[Details]**. 2. Check Verification Wedge ID. For details, see *RICOH Auto Color Adjuster: Installation Guide*.
	Old data remains in the cache of the web browser.	On the **Management Console** screen, press the **F5** key while pressing the **Shift** key. The cache of the web browser is cleared, and the page is reloaded.
	There is an inconsistency in the specified data.	• Check that the following folder is not shared: `C:\RicohAutoColorAdjuster\DB` • Restart Windows. When you are using a client computer, restart Windows on the server also. 🡇 Note • If the error persists, contact your service representative.

6. Colorimetry

- Operation Workflow of Colorimetry
- Using the Colorimetry Function
- Troubleshooting (Colorimetry)

The machine measures the colors on a printed test chart at a regular interval. You can save the measurement results in a file and manage them using a color management or other similar application.

Operation Workflow of Colorimetry

Print the chart for colorimetry on the printer to be adjusted for colors, and scan the chart on the machine to measure its colors. Save the measurement result in IT8 or CGATS TXT format. Load this file in a color management app or other application, and use it to manage the color quality of a printer.

Note

- You can select a chart from the list of charts for colorimetry that are commonly used, but you can also specify the paper size and color boxes to create a new chart for colorimetry.
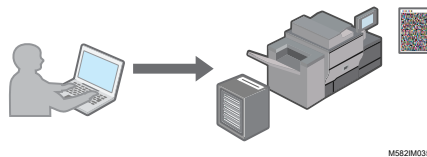
1. Start **[Colorimetry]** and register a chart for colorimetry.

M582IM7350

Note

- You can also select one of the charts for colorimetry that are already registered.

2. Print the chart for colorimetry on the printer that you will measure.
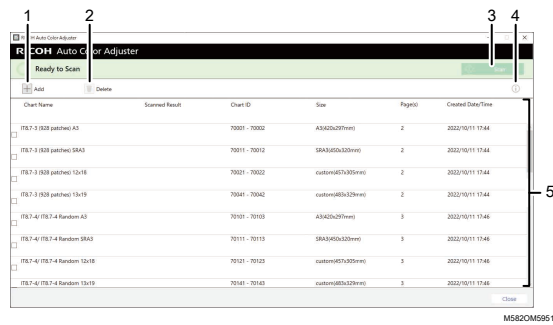

M582IM0351

3. In **[Colorimetry]**, specify the measurement conditions, the save location of the measurement result, and other settings.

4. On the machine, scan the chart for colorimetry that is printed.

M582IM0187
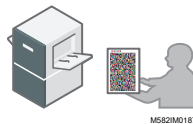
5. Manage the measurement results on your computer.

Screen Configuration of the Colorimetry Screen

Click **[Colorimetry]** on your computer to display the **Colorimetry** screen. On the screen, you can register, manage, or scan the chart for colorimetry.
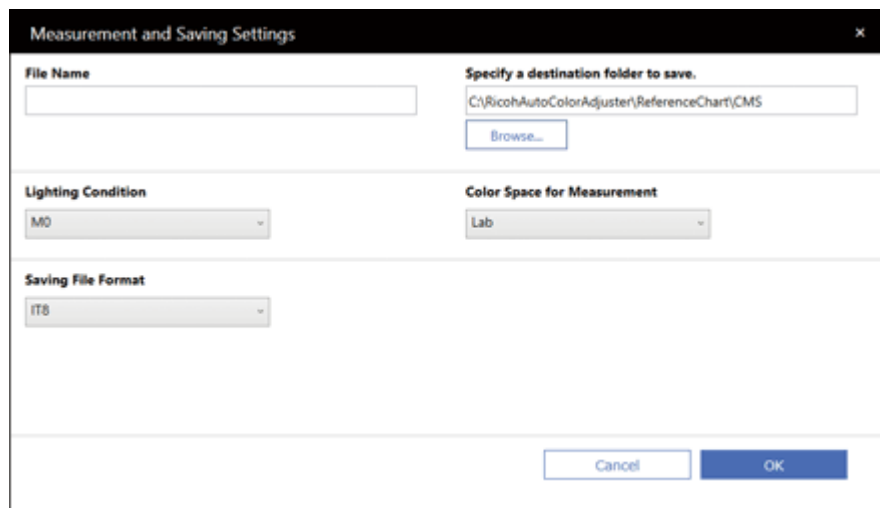
95

M582OM5951

1. [Add]

Register a chart for colorimetry.

2. [Delete]

Deletes the selected chart for colorimetry.

3. [Scan]

Displays the Measurement and Saving Settings screen. In the screen, specify the measurement conditions, save location of the measurement result, and other settings, and click **[OK]** to scan the chart for colorimetry on the machine.

m5820m0852

- In the **[File Name]** field, enter the name under which to save the measurement result.

   Note

   – You cannot specify the name when more than one chart for colorimetry is specified.

   – Names of *(chart name)+(mmdd)* are assigned to the files automatically.

- Click **[Browse...]**, and specify the destination folder to save the files.

- Select the **[Lighting Condition]** from **[M0]**(A), **[M1]**(D50), and **[M2]**(A+UV cut).

- In the **[Color Space for Measurement]** field, select the color space for measurement from **[Lab]**, **[LCh]**, **[XYZ]**, **[Spectroscopy]**, **[Density (Status T)]**, and **[Density (Status E)]**.

- In the **[Saving File Format]** field, select the file format in which to save the measurement result from **[IT8]** (*.it8) and **[CGATS.txt]** (*.txt).

4. Preview (ⓘ)

Displays the preview of the selected chart.

5. List of Charts for Colorimetry

Displays the list of charts for colorimetry.

Using the Colorimetry Function

Types of Charts for Colorimetry

In the **[Colorimetry]** section, use the charts with various paper sizes and various color boxes to measure the colors generated by the printer.

On the list of charts for colorimetry, IT8.7-3, IT8.7-4/ IT8.7-4 Random, IT8.7-5/ TC1617, ECI2002/ ECI 2002 Random, Idealliance Control Strip 2009, Idealliance Control Wedge 2014, and other charts for colorimetry are registered. Use one of the charts on the list when measuring the target color in the standard with which you want to comply.

When using a color chart with a customized color scheme, create the color chart information file, a text file that specifies the paper size and color boxes on the chart, and register it on the list.

The following information is included in the printed chart.

M582IM0183
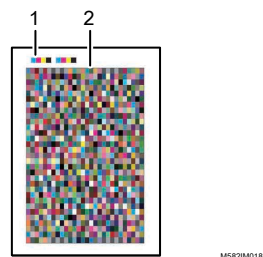
1. Color code

Shows the chart number of the chart for colorimetry. The machine identifies the chart number when you scan a test chart on the machine.

2. Color chart

Group of color boxes used for colorimetry.

Registering a New Chart for Colorimetry

To register a new chart for colorimetry, create a chart information file and register it.

⭐Important

- You do not need to register the chart for colorimetry when using a chart that is already registered.

    1. Create a chart information file in plain text format (TXT) using a text editor application such as Notepad in Windows.
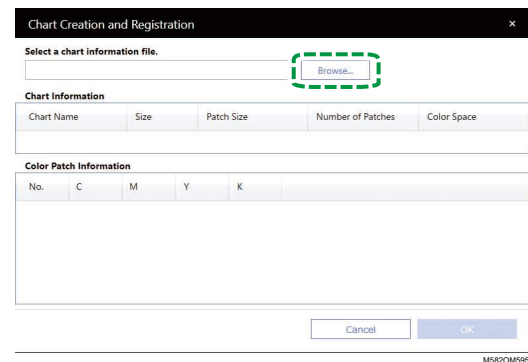
⬇Note

- Specifying the file name and save location is optional.

- For details about the information to be included in the chart information file, see Chart Information File, p. 98.

2. Click **[Colorimetry]** on your computer.

M582OM5952

3. Click **[Add]**.

M582OM5953
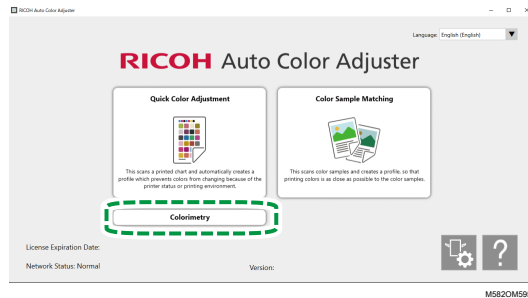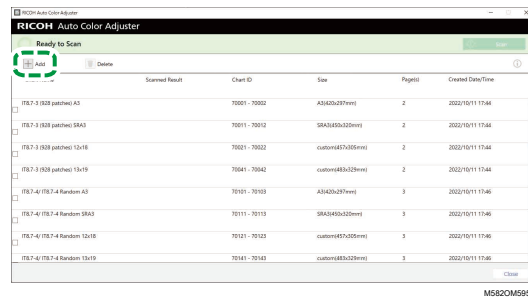
4. Click **[Browse...]** and select a Chart Information File.

M582OM5954

5. Click **OK** → **OK**.

6. When finished creating the chart for colorimetry, click **[OK]**.
   A PDF file for printing and other files are created, and the chart for colorimetry is added to the list.

Chart Information File

Enter the following setting items and setting values in the chart information file.

📥**Note**

- You can create a custom chart based on the sample chart information files available under `C:\RicohAutoColorAdjuster\ReferenceChart\CMS\SampleChartInfoFiles`

Category	Setting Item	Setting Value
Chart Information	CHART_NAME	Specifies the chart name enclosed by double quotation marks (") as described below: • Encoding: UTF-8 • Prohibited characters: /:*?<>\\\| • Number of characters: Up to 259 characters including the file path string for the destination folder and four-letter extension Example: "Measure Sample1"
	SHEET_WIDTH SHEET_HEIGHT	Specifies the width and length (along the sub-scan direction) of the paper: • Width: From 21000 through 33000 (210–330 mm, 8.2–13 inches) • Length: From 21000 through 48700 (210–487 mm, 8.2–19.2 inches) Example: Width 29700 (297 mm, 11.7 inches), Length 42000 (420 mm, 16.5 inches)
	PATCH_WIDTH PATCH_HEIGHT	Specifies the horizontal and vertical lengths of a color box: • Unit: 100 (1 mm, 0.04 inches) • Minimum: 600 (7 mm, 0.28 inches) • Maximum: 1500 (15 mm, 0.6 inches) Example: 700 for both the horizontal and vertical lengths
Color box information	NUMBER_OF_PATCHES	Specifies the total number of color boxes on the color chart Example: 200
	COLOR FORMAT	Fixed at CMYK Enter all lines to END_DATA_FORMAT as shown in the example.
	BEGIN_DATA END_DATA	Specifies the device value in the color space defining the color of the box Enter the CMYK values of the number of color boxes specified in NUMBER_OF_PATCHES between the BEGIN_DATA and END_DATA lines. Example: 1 70 40 10 0–200 10 100 30 0 (values for 4–199 are omitted)

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Example of Chart Information File

CHART_NAME "Measure Sample1"

SHEET_WIDTH 29700

SHEET_HEIGHT 42000

PATCH_WIDTH 700

PATCH_HEIGHT 700

NUMBER_OF_PATCHES 200

COLOR FORMAT CMYK

BEGIN_DATA_FORMAT

SAMPLE_ID CMYK_C CMYK_M CMYK_Y CMYK_K

END_DATA_FORMAT

BEGIN_DATA

1 70 40 10 0

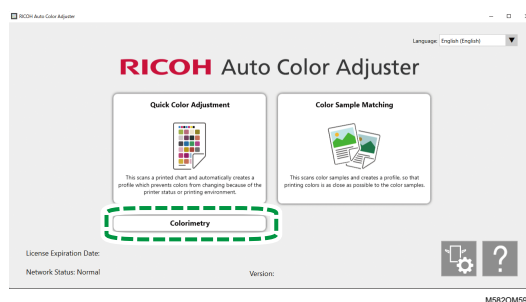2 100 20 10 10

3 80 80 100 10

...

200 10 100 30 0

END_DATA

Confirming the Chart for Colorimetry

In the **[Colorimetry]** section, use the charts with various paper sizes and various color boxes to measure the colors generated by the printer.

To confirm the chart for colorimetry:

1. Click **[Colorimetry]** on your computer.

M582OM5952

2. Select the checkbox of the chart for colorimetry, and then click the **[Information]** button (🛈).

M582OM5955
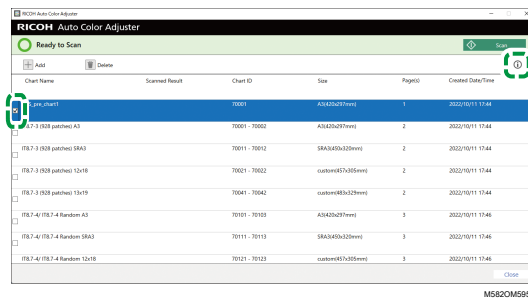
3. Confirm the chart for colorimetry.

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Performing Colorimetry

To perform colorimetry:

1. Click **[Colorimetry]** on your computer.

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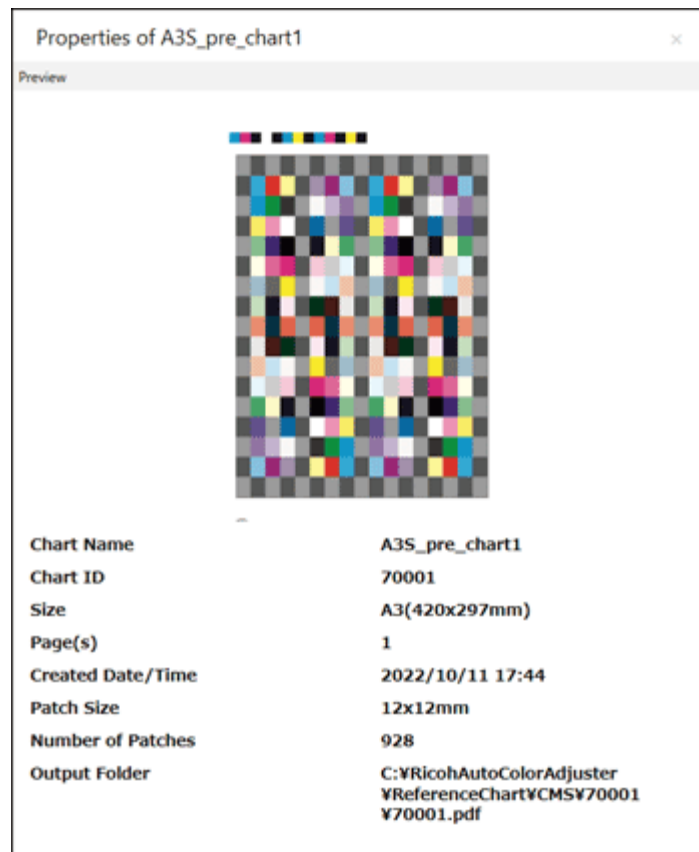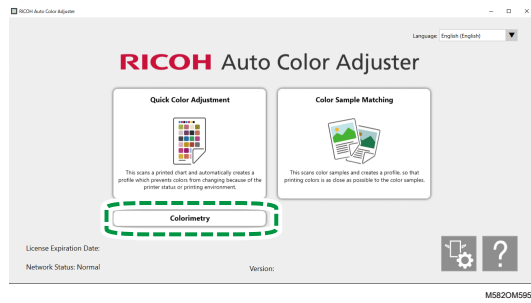2. Check the **[Chart ID]** of the chart to be used for colorimetry.

3. On the printer to be measured for the colors, print the PDF that is stored in the folder for each Chart ID under `C:\RicohAutoColorAdjuster\ReferenceChart\CMS`.

4. Place the chart for colorimetry with the side to scan facing up on the machine. For details, see Placing an Original or Color Chart on the Paper Tray, p. 29.
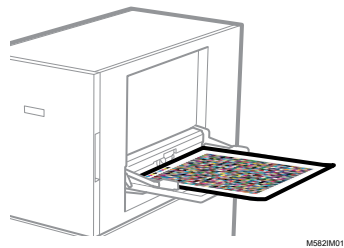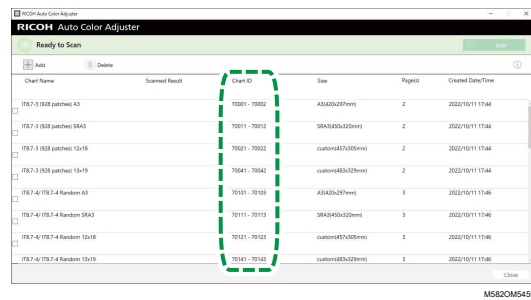
5. Select the checkbox of the chart for colorimetry, and then click **[Scan]**.
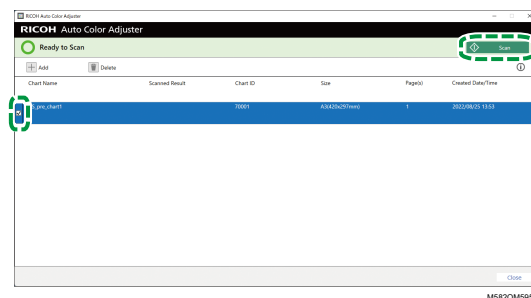
6. In the Measurement and Saving Settings dialog, specify the measurement conditions, save location of the measurement result, and other settings, and then click **[OK]**. For details, see Screen Configuration of the Colorimetry Screen, p. 95.

7. Click **[Start Scan]**.

m582om0660

The machine starts scanning the chart for colorimetry, and creates a file in the specified folder.

Troubleshooting (Colorimetry)

Close the menu screen, and then restart Windows if neither the **Colorimetry** screen nor any message is displayed when you click **[Colorimetry]** on the menu screen. If you still cannot display the **Colorimetry** screen after performing the operation, contact your service representative.
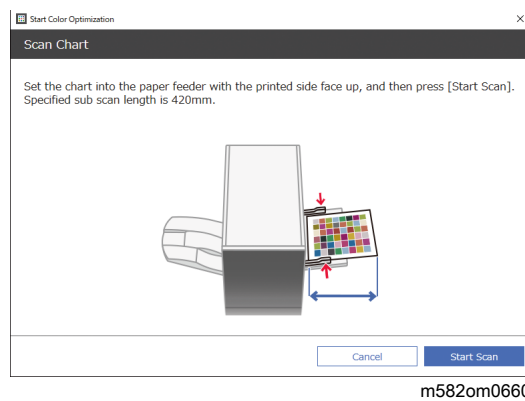
Note

- If a paper jam or another problem occurs on the machine, or if the application fails to start, see:

  - When the Machine Cannot Be Operated, p. 107
  - When Messages Appear (Common to All Functions), p. 110
  - When a Paper Jam Occurs, p. 112

When an Error Occurs in the Scanned Result

When an error is displayed in Scanned Result after scanning the color chart for colorimetry, check the error code, and operate as required.

M582OM5957

Error Code	Cause	Solution and reference
02XX0002 04XX0003 04XX0009 04XX000A (XX represents a hexadecimal number between 00–ff)	A system error occurred.	Restart Windows.
02XX0004 (XX represents a hexadecimal number between 00–ff)	An unexpected problem occurred.	Contact your service representative. Collect the device log as required. For details, see Collecting Logs Automatically, p. 107 or Collecting Logs Manually, p. 108.
02010007	The destination folder is deleted.	Specify the correct folder in **[Specify a destination folder to save.]** under Measurement and Saving Settings.
02020008	A file of the specified name already exists in the destination folder.	• Move or delete the corresponding file from the folder specified in **[Specify a destination folder to save.]** under Measurement and Saving Settings. • Specify the correct file name in **[File Name]** under Measurement and Saving Settings. You cannot specify the name when more than 1 chart for colorimetry is specified. Names of *(chart name)+(mmdd)* are assigned to the files automatically.
0402000C	An error occurred on the machine.	Check the message and operate as required. For details, see When Messages Appear (Common to All Functions), p. 110. Restart the machine and Windows after the error is resolved on the machine.
0403000C	Failed to scan the chart.	Scan the chart again. If the error persists, reprint the chart in the center of the paper, and then scan the reprinted chart.
00010006	The measurement result file is not output after you scan a custom chart. This problem occurs because the ID of the scanned chart does not match the ID of the chart you select for scanning in the Colorimetry dialog.	Scan a chart whose chart ID matches the ID of the chart you select for scanning in the Colorimetry dialog.

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Error Code	Cause	Solution and reference
020F0007	After you select the destination folder for saving the measurement result file, the **[Specify a destination folder to save.]** field is blank again.	Select the destination folder again. If the error persists, contact your service representative.
0403000D	The scanned chart does not match the chart you select for scanning in the Colorimetry dialog.	In the Colorimetry dialog, select a chart that matches the chart placed on the paper tray.
Colorimetry Timeout Error Colorimetry File Creation Error	A paper jam or another problem occurred when scanning an original.	Solve the problem on the machine. • When the Machine Cannot Be Operated, p. 107 • When Messages Appear (Common to All Functions), p. 110 • When a Paper Jam Occurs, p. 112 If the error persists, contact your service representative.

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7. Troubleshooting

- When the Machine Cannot Be Operated
- When Messages Appear (Common to All Functions)
- When a Paper Jam Occurs

Use this chapter to identify and fix problems with the machine or the application.

When the Machine Cannot Be Operated

| Status	Cause	Solution and reference
The power of the machine cannot be turned on.	The power cable of the machine is not plugged into a wall outlet.	Plug the power cable into the wall outlet.
	An extension cord is used.	Do not use an extension cord. 🌐Region A (mainly Europe) Plug the power cable directly into a wall outlet that supplies electricity of 220–240 V, 1 A or higher at 50 or 60 Hz. 🌐Region B (mainly North America) Plug the power cable directly into a wall outlet that supplies electricity of 120–127 V, 1.2 A or higher at 60 Hz.
	The power cable is not plugged into the machine.	Make sure that the power cable that is supplied with the machine is securely plugged into the receptacle for the power cable on the machine.
	There is a problem with the wall outlet.	Plug the power cable into another wall outlet that you have checked for power by plugging in other electrical products. If the machine still does not start, contact your service representative.
The indicator is lit in red.	A problem is occurring on the machine.	Check the message that is displayed on the computer, and then solve the problem accordingly. For details, see When Messages Appear (Common to All Functions), p. 110.

Collecting Logs Automatically

This section describes the procedure to perform when you are requested to collect a log automatically, upon consulting your service representative, or other occasions.

⤵Note

- The log does not contain any data or personal information that can be used to identify a specific individual.

To collect logs automatically:

1. If the RICOH Auto Color Adjuster screen is not already displayed, click the **[RICOH]** icon () on the desktop, to start it.

2. Click the **[Machine Settings]** button ().
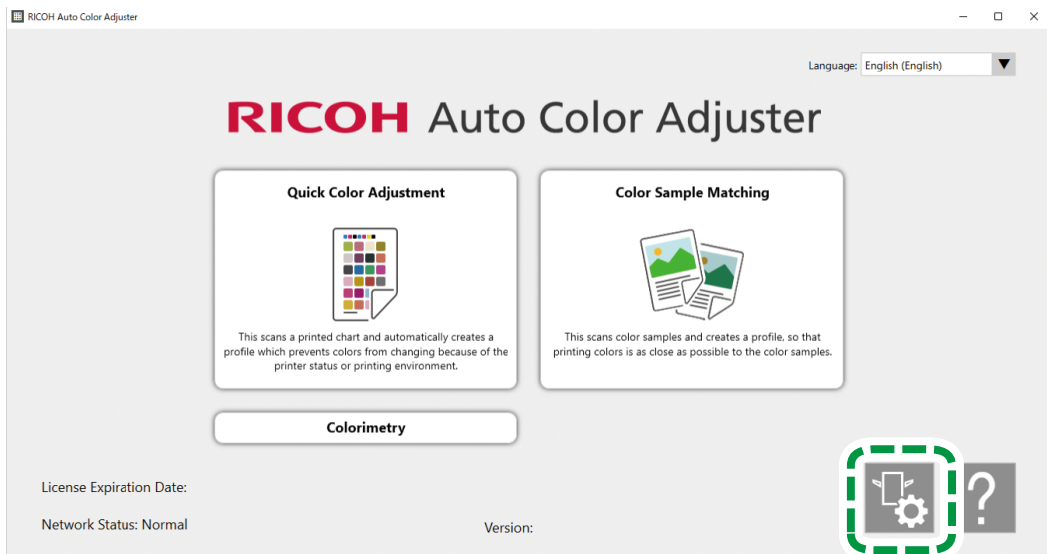
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3. Click **[Backup/Restore/Log]**.

M582OM5643
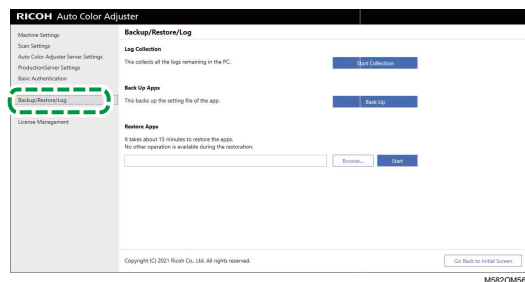
4. In the Log Collection section, click **[Start Collection]**.

5. Specify the file name and save location, and save the log.
The log is saved as a file in ZIP format.

6. Click **OK** → **Go Back to Initial Screen**.

Collecting Logs Manually

If you cannot reduce the color difference in **[Color Sample Matching]** any further and you are requested to send a log, send the log files from the server computer by e-mail.

Important

- Obtain the log immediately after the phenomenon occurs. The log that is required for analyzing the phenomenon cannot be obtained correctly if you restart RICOH Auto Color Adjuster or perform another operation after it occurs.

To collect logs manually:

1. Find the log files on the server computer. For details about the location where the logs are stored, see .

2. Send the log files by e-mail.

Log Files Location and Names

Folder path	File name format
C:\RicohAutoColorAdjuster\Apps\AppsUI\Sysdata\reference	*[yyyyMMddHHmmss]_a.csv* *[yyyyMMddHHmmss]_b.csv* *[yyyyMMddHHmmss]_L.csv*
C:\RicohAutoColorAdjuster\Apps\AppsUI\Sysdata\target	*[yyyyMMddHHmmss]_a.csv* *[yyyyMMddHHmmss]_b.csv* *[yyyyMMddHHmmss]_L.csv*
C:\RicohAutoColorAdjuster\Apps\AppsUI\tmp	*after_dE_map_[page number].tif* *before_dE_map_[page number].tif* *org_cmyk_[PDF file number]_[PDF page number].tif* *org_lab_[PDF file number]_[PDF page number].bin* *org_lab_[PDF file number]_[PDF page number].tif* *org_mask_[PDF file number]_[PDF page number].tif* *ref_[page number].bin* *ref_[page number].tif* *ref_mask_[page number].tif* *ref_registration_[page number].tif* *tgt_[page number].bin* *tgt_[page number].tif* *tgt_mask[page number].tif* *tgt_registration_[page number].tif*

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When Messages Appear (Common to All Functions)

This section describes how to solve the problem when the machine cannot be operated properly from a computer.

↓Note

- For fixing error messages specific to each function, see:

Message	Cause	Solution and reference
"Failed to start the application, please try again. Call service if this error message is displayed repeatedly."	Failed to initialize the variables for **[Color Sample Matching]**.	Create a backup of the RICOH Auto Color Adjuster settings, uninstall the software, and then install it again. For details, see *RICOH Auto Color Adjuster: Installation Guide*. If the error persists, contact your service representative.
"Failed to start the application. There is a network problem, please check."	The client computer failed to access the server, or a problem is occurring in an application on the server.	• Check that the computer is connected to the network. • Restart Windows on the computer and server. If the error persists, contact your service representative.
"An error has occurred in the following location.""Turn the main power off and back on, then restart the application.""If the error occurs again, please call service." SCXXX-XX	A malfunction that might require a repair occurred on the machine.	Turn off the power of the machine, and then turn it on again. For details, see Turning On the Machine, p. 21 and Turning Off the Machine, p. 22. If the error persists, contact your service representative with the message and SC number.
"An error has occurred in the following location.""Turn the main power off and back on, then restart the application.""If the error occurs again, please call service." SCXXX-XX	A malfunction that might require a repair occurred in the communication between the machine and the computer.	• Check that the machine and the computer are connected using two USB cables. • Turn off the power of the machine, and then turn it on again. For details, see Turning On the Machine, p. 21 and Turning Off the Machine, p. 22.

Message	Cause	Solution and reference
		If the error persists, contact your service representative with the message and SC number.
"Colorimeter has not been connected. Connect the colorimeter and then restart the application."	A problem occurred in the communication between the machine and the computer.	• Check that the machine and the computer are connected using two USB cables. • If the machine is turned off, turn it on. If the machine is turned on, turn it off and then on again. For details, see Turning On the Machine, p. 21 and Turning Off the Machine, p. 22. • Quit **[Quick Color Adjustment]**, **[Color Sample Matching]**, **[Colorimetry]**, and **[Machine Settings]** when those applications are running, and then start them again from the menu screen. If only the menu screen is displayed, start the RICOH Auto Color Adjuster again. • Restart Windows. When you are using a client computer, restart Windows on the server also.

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Message	Cause	Solution and reference
"Not secure"	The SSL certificate you are using when accessing the server online from the client computer is not installed on the server.	Add the SSL certificate to the server. For details, see *RICOH Auto Color Adjuster: Installation Guide*.
"The license has expired. Please update the license."	The license has expired.	• Contact your sales representative. When the server computer is connected to the Internet, the status of the license is updated automatically after the license is renewed. • The license information is displayed at the bottom of the menu screen. • To update the license information, click the **[Machine Settings]** button (![icon]), and go to **Machine Settings** → **License Management**.

When a Paper Jam Occurs

Open the front door of the machine and remove the paper if the following message is displayed on the screen: "Open the cover and remove original document/chart inside."

⚠ CAUTION

• **When replacing paper or removing jammed paper, make sure not to trap or injure your fingers.**

Precautions When Removing Jammed Paper

⚠ CAUTION

• **Some parts inside the machine might get damaged when you touch them. Do not touch the internal components of the machine when removing jammed paper. Doing so might cause the machine to malfunction.**

Note the following when opening the front door to remove jammed paper.

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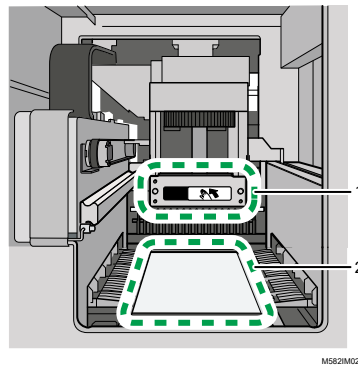
1   When pushing on the scan unit to remove jammed paper, touch the indicated part only.

2   Be careful not to touch the indicated part or stain or damage the part.

⬇Note

- Do not turn off the machine when removing paper.

- To remove paper, hold the left and right ends of hands, and pull on the paper evenly.

- Be careful not to rip the paper and leave small pieces of it inside the machine when removing jammed paper. If small pieces are left inside the machine, a paper jam or malfunction might occur.

- If the paper is torn, put pieces together like a jigsaw puzzle, and make sure that you have all pieces. If one or more pieces is missing, it might be left inside the machine. Consult your service representative.

- If the message persists even after removing the jammed paper, check that there is no other paper jammed inside the machine.

Removing Jammed Paper

Open the front door of the machine, and then follow the instruction described below to remove the jammed paper. The instructions are also printed inside the front door of the machine.
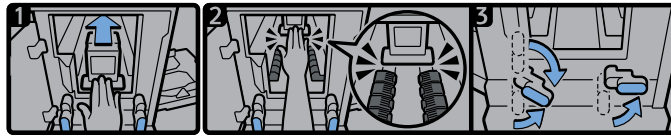
⬇Note

- The instructions for removing jammed paper are also printed inside the front door of the machine.

To remove jammed paper:

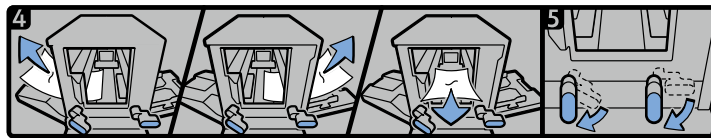1. Open the front door of the machine.

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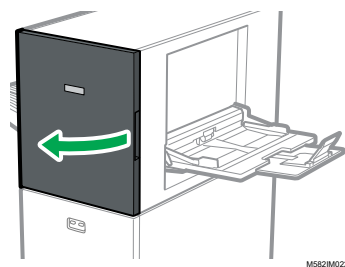
2. Push the scan unit to move it toward the back of the machine **(1)**.

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3. Move the scan unit toward the back so that it is behind the black paper transport member **(2)**.

4. Turn the right lever to the right from its lower position **(3)**.

5. Turn the left lever to the right from its upper or lower position **(3)**.

6. Check that both levers are set in the positions as shown in the diagram **(3)**.

7. Remove the paper from either the paper source side or the paper output side **(4)**.

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Note

- If you cannot pull out the paper in either direction, pull it out from inside the machine toward the front.

8. Turn the right lever downward **(5)**.

9. Turn the left lever downward **(5)**.

10. Close the front door.

If Paper Jams Occur Frequently

Check the paper condition. Also check how it is placed on the machine and that the paper size is correct.

Paper condition

Items to check	Solution if applicable
Is the paper wrinkled, bent, or curled?	• Do not use wrinkled, bent, or ripped paper. • When the paper is heavily curled, correct the curl before setting it on the machine. For details about paper size and thickness, see Available Paper Size and Thickness, p. 27.
Is the paper in the supported size or thickness?	Place paper of the size and thickness that can be used on the machine. For details about paper size and thickness, see Available Paper Size and Thickness, p. 27.

| Items to check	Solution if applicable
Does the paper contain a lot of moisture?	Use paper that is stored in a dry environment, and then perform printing again. Keep color samples you receive from customers in a plastic bag to keep moisture away from them.
Is the paper sticking together?	When placing more than one sheet of paper together, fan the sheets thoroughly every time before setting them on the paper tray. For details, see Placing an Original or Color Chart on the Paper Tray, p. 29.

Condition of the loaded paper

Items to check	Solution if applicable
Is there a gap between the paper and paper guide? Is the paper guide set too tight against the paper?	Adjust the paper guide to the paper size.
Is the paper tray used correctly?	• Place the machine in a location where the paper tray and paper are not in contact with the surrounding wall or other object. • Pull out the extension tray when you place paper that extends beyond the edge of the tray (longer than A4 size paper in portrait orientation).
Are too many sheets of paper placed on the paper tray?	Place paper on the paper tray so that it is not stacked above the upper limit indicator (▼ ▼) of the tray.

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Paper size

Items to check	Solution if applicable
When paper jams occur frequently in **[Quick Color Adjustment]**: Does the size of the color chart match the size specified in **[Scan Settings]**?	On the Scan Settings screen, check that the size specified in **[Quick Color Adjustment]** matches the size of the paper used to print the chart. If the sizes do not match, print the chart on paper of a matching size, or specify a size that matches the paper size in Scan Settings. For details, see *RICOH Auto Color Adjuster: Installation Guide*.
When paper jams occur frequently in **[Color Sample Matching]**: • Does the paper size of the color sample match the paper size specified in Golden Sample or the settings in **[Sub Scan]**? • Does the paper size of the printed original match the paper size specified in Before Color Matching or the settings in **[Sub Scan]**? • Are you using a small custom size paper (275 mm or 11.3 inches wide or narrower × 230 mm, 9.1 inches or shorter)?	• Specify the size of the color sample in Golden Sample correctly before scanning it. • Specify the size of the printed original in Before Color Matching correctly before scanning it. • Change the direction of the paper loaded on the machine, specify **[Sub Scan]** again, and then perform scanning. For details, see Preparing the Data for Color Sample Matching, p. 64.
When paper jams occur frequently in **[Colorimetry]**: Does the paper size of the printed chart match the **[Size]** of the chart for colorimetry that you specified?	Check that the **[Size]** of the chart for colorimetry that you specified matches the size of the paper specified for printing the chart. When the sizes do not match, change the paper, or specify the correct chart for colorimetry according to the size of the paper. For details, see Confirming the Chart for Colorimetry, p. 100.

Note

• Enter the paper length along the sub scan direction of the paper to place on the machine in **[Scan Settings]** and **[Sub Scan]**.
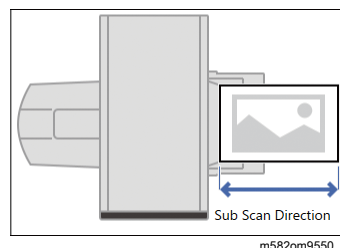
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When Paper Is Not Ejected Neatly

If the color chart or document that has been scanned is ejected curled or not neatly stacked, use the auxiliary tray that is provided with the machine. If you do not resolve this condition, it might result in a paper jam.

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