User's Manual

ColorNavigator™ Elements

Photo Color Matching Software

Important

Please read this User's Manual carefully to familiarize yourself with safe and effective usage.

- **The latest software and User's Manual are available for download from our web site:**
  http://www.eizo.com

EIZO®

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Chapter 1 Introduction

1-1. About ColorNavigator Elements

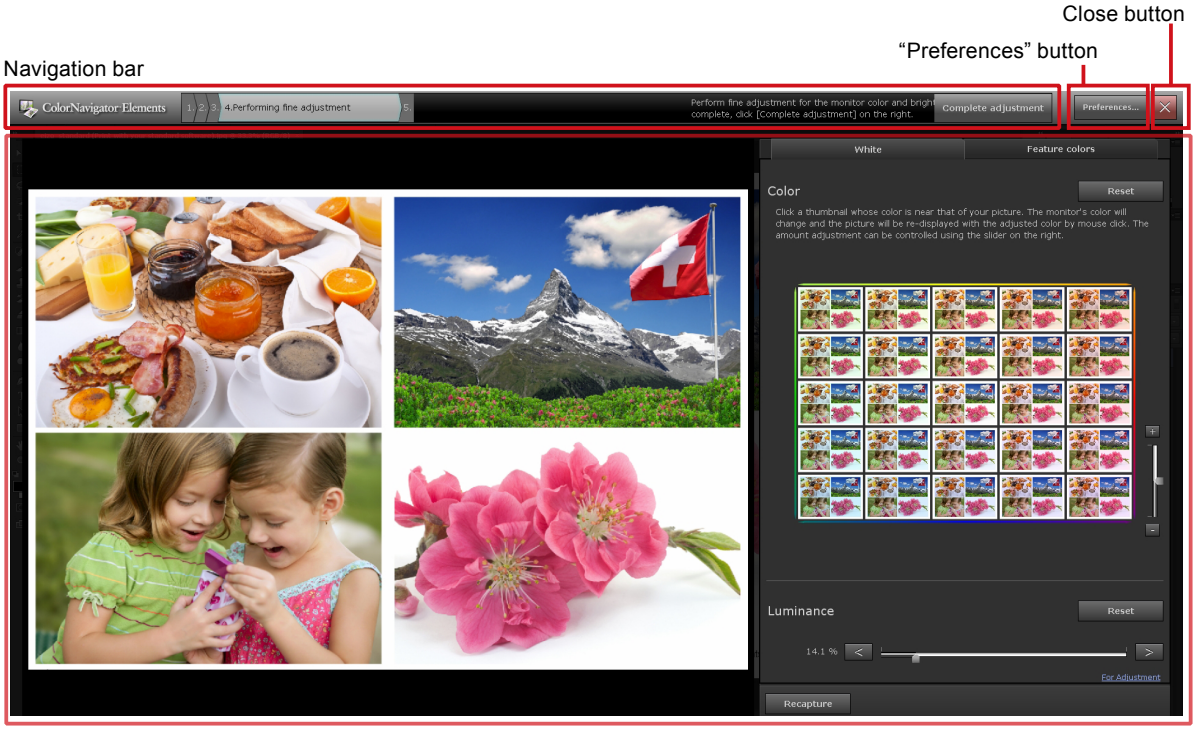
ColorNavigator Elements is monitor adjustment software for the ColorEdge CS/CX series monitors. The color of the monitor can be adjusted easily while comparing it with a printed picture.

1-2. Features

- Monitor adjustment functions
  - The color and luminance of the monitor can be adjusted while comparing a picture displayed on the monitor with a printed picture.
  - Feature colors such as skin tone and sky tone can be adjusted individually so that a color displayed on the monitor is close enough to that of a printed picture.
  - You can save three adjustment profiles, which you can easily call up to change the monitor settings as desired by clicking “1” to “3.”
- SelfCorrection setting function
  - The monitor can be adjusted periodically using the SelfCorrection function.

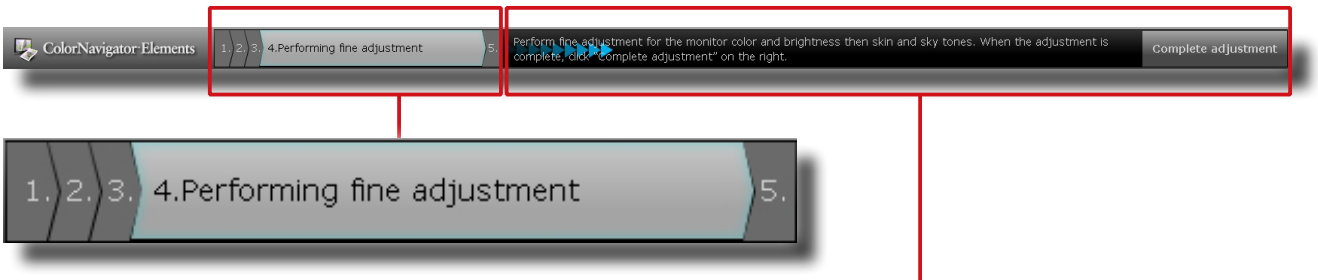
1-3. Screen Configuration

When ColorNavigator Elements is started, the software is displayed in full screen mode.



Navigation bar		Displays the progress of the software and operations to be performed in the operation area.
Preferences...	“Preferences” button	Displays the “Preferences” dialog box.
	Close button	Exits the software.
Operation area		Displays messages from the software and images for monitor fine adjustment. When a blue hyperlink appears, click it to open the Website of the reference information (Internet access is required).

The configuration of the navigation bar is as follows:



Displays the overall progress.

Displays the operation details as well as the button to be clicked when the operations in the operation area are completed.

Chapter 2 Setup

Set up the operating environment according to the following procedures.

2-1. System Requirements

● Computer

Common

- Macintosh or Windows system that satisfies the Adobe AIR 3.0 or later system requirements.
- Resolution: recommended resolution of the monitor[*1]
- USB port: at least 1 free port is required[*2]

*1 See the User's Manual of the monitor regarding the recommended resolution of the monitor.

*2 An EIZO USB cable (MD-C93) is required to connect the monitor to the PC.

Macintosh

- Operating System (OS): OS X Mountain Lion (10.8), Mac OS X 10.7.5, 10.6.8
- Macintosh that satisfies the OS requirement
- Memory:
  - OS X Mountain Lion (10.8): 2 GB or more
  - Mac OS X 10.7.5: 2 GB or more
  - Mac OS X 10.6.8: 1 GB or more
- 16.7 million or more colors

Windows

- Operating System (OS):
  - Windows 8 (32 bit edition and 64 bit edition)
  - Windows 7 Service Pack 1 (32 bit edition and 64 bit edition)
  - Windows XP Service Pack 3 (32 bit edition)
- Memory:
  - Windows 8 (32 bit edition): 1 GB or more
  - Windows 8 (64 bit edition): 2 GB or more
  - Windows 7 (32 bit edition): 1 GB or more
  - Windows 7 (64 bit edition): 2 GB or more
  - Windows XP (32 bit edition): 512 MB or more
- Color: 24 bits or more

● Monitor

- EIZO ColorEdge CS/CX series monitors[*3]

*3 The portrait display position of the monitors cannot be used. Be sure to use the landscape display position.

Attention

- ColorNavigator Elements cannot be used with ColorNavigator.
- If your OS is Windows 8 or Windows 7 and Windows Display Calibration is enabled, please follow the steps below to disable this setting.

Windows 8

1. Right-click the mouse on the “Start” screen at a position where there are no tiles.
2. Click “All apps”.
3. Click “Control Panel” under “Windows System”.
4. Select “Color Management” - “Advanced”.

Note

- Search “Color Management” on the “Control Panel” home. The applet will be displayed.

5. Click “Change system defaults” and select the “Advanced” tab of the displayed dialog box.
6. Uncheck the “Use Windows display calibration” check box.

Windows 7

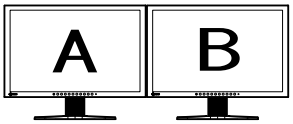
1. Click the Start button and select “Control Panel”.
2. Select “Color Management” - “Advanced”.

Note

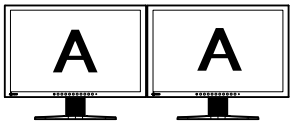
- Search “Color Management” on the “Control Panel” home. The applet will be displayed.

3. Click “Change system defaults” and select the “Advanced” tab of the displayed dialog box.
4. Uncheck the “Use Windows display calibration” check box.

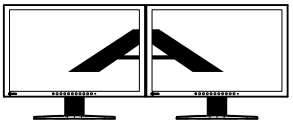
- A USB hub may be required if adjusting several monitors in a multiple monitor environment. Also, USB cables are required for monitor adjustment.
- When multiple monitors are connected, each monitor should display an independent screen. Displaying the same screen on each monitor or across multiple monitors prevents adjustment using the ColorNavigator Elements. For details of how to change the settings, refer to the User’s Manual of the graphics board.



Independent screen on each monitor (OK)



Same screen on each monitor (NG)



Screen spread across multiple monitors (NG)

2-2. Installing the Software

● Macintosh

To Install the software from the CD-ROM

1. Insert the “EIZO LCD Utility Disk” to the CD-ROM drive

The “EIZO LCD Utility Disk” icon appears on the desktop. Double-click the icon to open the window.

2. Double-click “ColorNavigator Elements” folder on the window

3. Double-click “ColorNavigator Elements.pkg” icon on the window

The ColorNavigator Elements installer starts up.

4. Install the software

Follow the instructions to install the software.

To download and install the software from our website

1. Double-click the downloaded file

The “ColorNavigator Elements” icon is displayed on the desktop. Double-click the icon to open the window.

Note

- The “ColorNavigator Elements” folder may open automatically depending on your system environment.

2. Double-click the “ColorNavigator Elements.pkg” icon on the window

The installer starts up.

3. Install the software

Follow the instructions to install the software.

● Windows

Attention

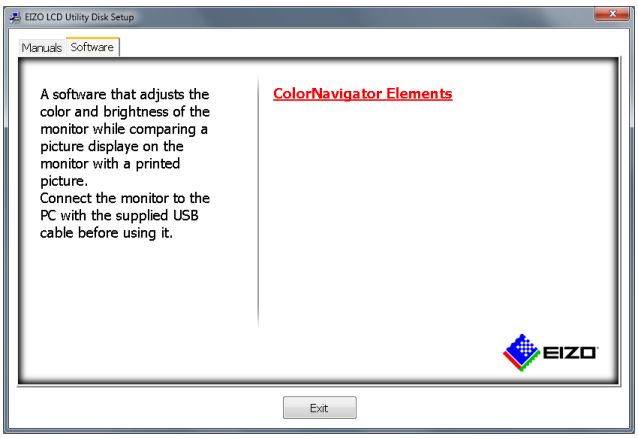
- A user account with the “Administrator” authority is required.
- Please consult your system administrator regarding your account.

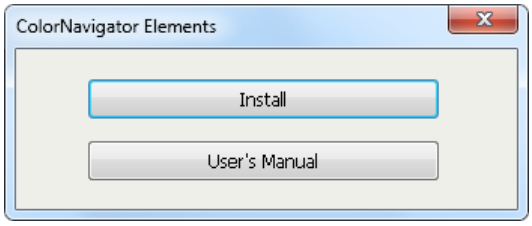
To install the software from the CD-ROM

1. Insert the “EIZO LCD Utility Disk” to the CD-ROM drive

The menu opens. Click the “Software” tab.

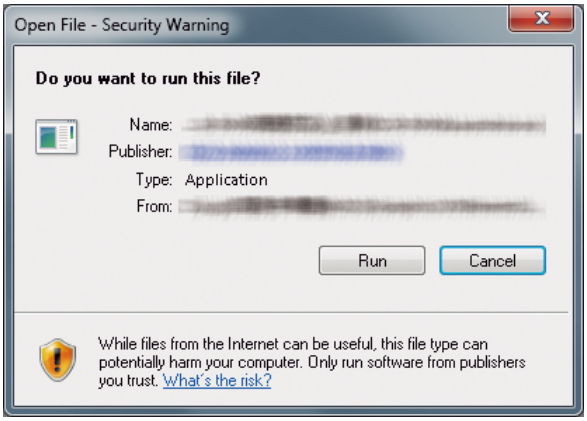
Click “ColorNavigator Elements” - “Install” on the start menu. The ColorNavigator Elements installer starts up.





Note

- Double-click the “Launcher.exe” icon if the menu does not open automatically.
- If your OS is Windows 8 or Windows 7, the “Security Warning” dialog box may appear when you double-click “Launcher.exe”. Click “Run” to open the menu.



2. Install the software

Follow the instructions to install the software.

To download and install the software from our website

1. After unzipping the downloaded file, click “setup.exe”

The installer starts up.

2. Install the software

Follow the instructions to install the software.

2-3. Uninstalling the Software

● Macintosh

1. Delete the “ColorNavigator Elements” icon in the “Application” folder

The software uninstallation process is completed.

Attention

- Before reinstalling the software, execute “Empty Trash” for the system.

● Windows 8

Attention

- A user account with the “Administrator” authority is required.
- Please consult your system administrator regarding your account.

1. Right-click the mouse on the “Start” screen at a position where there are no tiles.

2. Click “All apps”.

3. Click “Control Panel” under “Windows System”.

4. Select “Uninstall a program”, and click it

5. Select “ColorNavigator Elements” from the list and click “Uninstall”

● Windows 7

Attention

- A user account with the “Administrator” authority is required.
- Please consult your system administrator regarding your account.

1. Click the Start button and select “Control Panel”.

2. Select “Uninstall a program” from “Control Panel”, and click it

3. Select “ColorNavigator Elements” from the list and click “Uninstall”

● Windows XP

Attention

- A user account with the “Administrator” authority is required.
- Please consult your system administrator regarding your account.

1. Click the “Start” and select “Control Panel”.

2. Select “Add and remove programs” from “Control Panel”, and double-click “Add and remove programs”

3. Select “ColorNavigator Elements” from the list and click “Remove”

Chapter 3 Adjusting the Monitor

This section describes adjustment procedures when one monitor is connected to a PC.

3-1. Operation Flow

The main operation flow of ColorNavigator Elements is as follows:

1. Prepare for adjustment

Set up the environment for monitor adjustment (see “3-2. Preparing for Adjustment” (page 13)).

2. Start up ColorNavigator Elements

Start up ColorNavigator Elements (see “1. Start up ColorNavigator Elements” (page 14)).

3. Set up the monitor

1. Select a monitor. (If multiple supported monitors are connected.)

   Select a monitor for adjustment (see “2. If multiple supported monitors are connected, select a monitor for adjustment.” (page 15)).
2. Selecting an adjustment number

   Select the location (adjustment number) to save the adjustment results.
3. Select a function.

   When selecting an adjustment number that has not been assigned, perform basic setup for the monitor. When you select an adjustment number that has already been assigned, select either “Set up,” “Printing,” or “Adjustment.” (see “3. Select a function” (page 16)).
4. Set up the monitor.

   Set up the white and color gamut of the monitor (see “4. Perform basic setup” (page 17)).

4. Print the picture you want to color match

see “5. Print out a picture” (page 17)

5. Take screen capture of the picture

Take screen capture of the picture by the ColorNavigator Elements (see “6. Capture a picture” (page 19)).

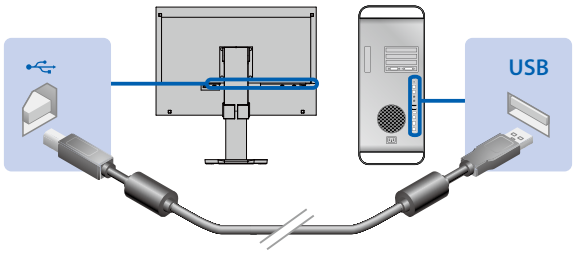
6. Adjust the monitor to match the color of the printed picture

Perform fine adjustment of the monitor (see “7. Adjust the monitor” (page 20)). When the fine adjustment is completed, the setting is saved on the monitor. After that, save the SelfCorrection settings to the monitor (see “8. Set SelfCorrection” (page 23)).

The process is completed.

3-2. Preparing for Adjustment

1. Connect the USB upstream port of the monitor and the USB downstream port of the PC with a USB cable



Attention

- The signal cable needs to be connected to display a screen on the monitor. Refer to the Setup Guide of the monitor in use for details.
- When the monitor is equipped with multiple USB upstream ports, use the port that is associated with the input signal to be displayed. For details, see the User's Manual of the monitor.

2. Turn on both the monitor and PC before starting up the software

The monitor display is not stabilized immediately after the monitor power is turned on, and adjustment cannot be performed correctly. Therefore, you need to turn on the monitor and wait for a while until the monitor display is stabilized. This is called warming-up. The warming-up time varies depending on the monitor being used. For details on the warming-up time, see the User's Manual of the monitor.

Attention

- Before performing SelfCorrection, 60 minutes or more are required to stabilize the monitor.

3-3. Adjustment Procedure

1. Start up ColorNavigator Elements

Attention

- Do not disconnect the USB cables of the monitor while running the software. Doing so may result in a system freeze or software malfunction.

Macintosh

1. Double-click the “ColorNavigator Elements” icon in the “Application” folder.
   The “ColorNavigator Elements” icon appears in the Dock and then the software starts up.

Windows 8

1. Click the tile displayed as “ColorNavigator Elements” in the Start Screen.
   After the screen is switched to the desktop, the “ColorNavigator Elements” icon appears on the Task bar, and the software starts up.

Windows 7 / Windows XP

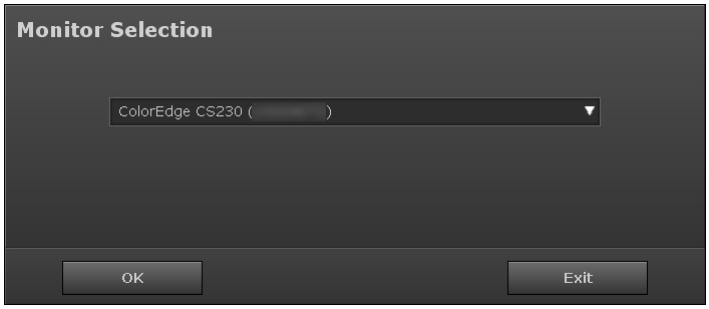
1. Click “Start” - “All Programs” - “EIZO” - “ColorNavigator Elements” - “ColorNavigator Elements” (or double-click the “ColorNavigator Elements” shortcut icon on the desktop).
   The “ColorNavigator Elements” icon appears on the Task bar and then the software starts up.

When ColorNavigator Elements is started, the Start Screen is displayed.

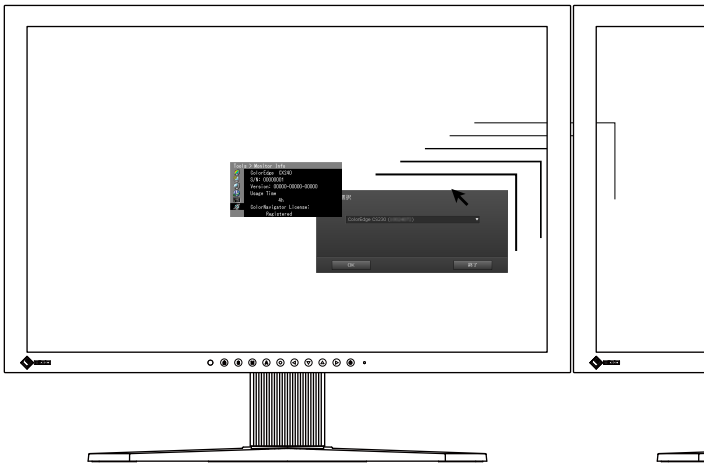
Click “Start”.

2. If multiple supported monitors are connected, select a monitor for adjustment.

A monitor selection window is displayed.



1. Select the monitor for adjustment from the pull-down menu.
   The monitor information window (OSD) is displayed on the selected monitor.
2. Drag and drop the monitor selection window to the monitor for adjustment.



Click “OK” to open the function selection window.

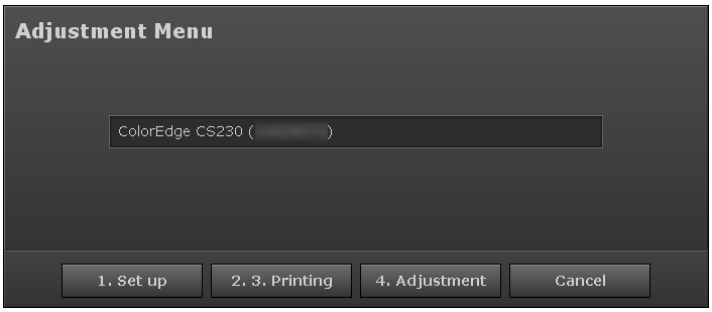
Attention

- The screen layout (arrangement of buttons) may differ according to the OS. This User’s Manual adopts the Windows format. (See “3. Select a function” (page 16) for an example.)

Windows

Macintosh

3. Select a function



- When you select an adjustment number that has not been assigned, click “Set up” and proceed with “4. Perform basic setup” (page 17).
- When you choose an assigned adjustment number, you can select “2.3. Printing” or “4. Adjustment.”
  - When “2. 3. Printing” is clicked, proceed to “5. Print out a picture” (page 17).
  - When “4. Adjustment” is clicked, proceed to “7. Adjust the monitor” (page 20).

Note

- When you select an adjustment number that has been assigned, the previously set adjustment profile is displayed on the monitor.
- You can edit the name of adjustment numbers that have already been assigned.
  - Start editing by clicking “Edit.” You can enter up to 64 characters.

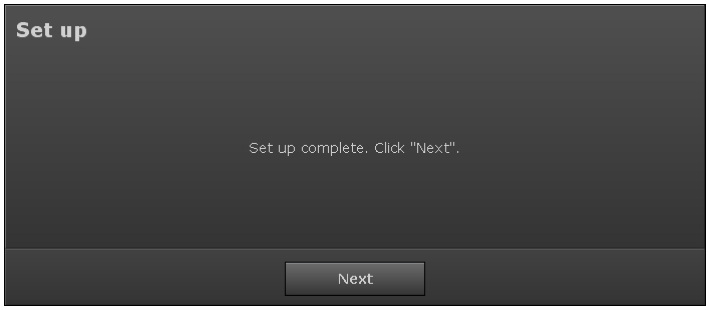
  - Quit editing by clicking “Done.”

- “Not adjusted” is displayed for adjustment numbers that have not been assigned. You cannot edit the name until the adjustment is completed.

4. Perform basic setup

The monitor display is set so that it is optimum for viewing pictures, based on the information of the monitor. A message appears first.

Click “OK” to start the setup.



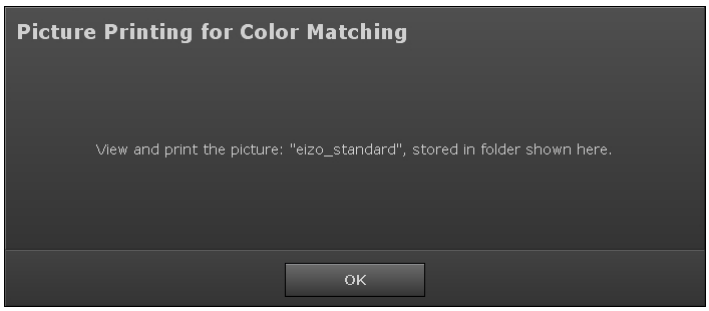
When the operation is completed, a message appears. Click “Next”.

5. Print out a picture

Print out a picture for color matching to prepare for the monitor color adjustment.

- To print out a picture supplied with ColorNavigator Elements and use it for the monitor adjustment, click “Print a picture supplied by EIZO.” to proceed to “When “Print a picture supplied by EIZO.” is clicked” (page 18).
- To print out your picture, click “Print a picture you took.” to proceed to “When “Print a picture you took.” is clicked” (page 18).

When “Print a picture supplied by EIZO.” is clicked



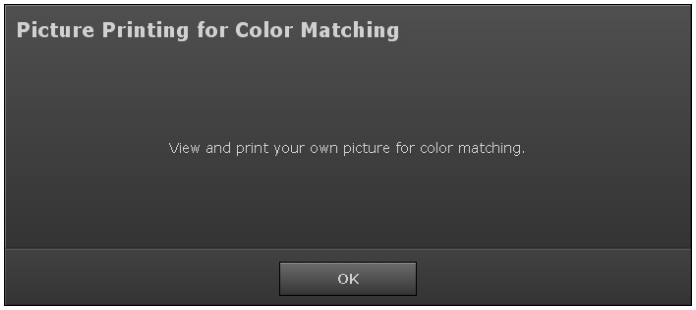
1. Click “OK”.

   The folder in which the picture is saved appears on the desktop. For ColorNavigator Elements, only the navigation bar is displayed.
2. Open the picture “eizo_standard” using your standard software for picture printing.
3. Print out the picture.

   Note

   • Use the following procedures to compare the printout and the monitor display and make fine adjustments to the monitor. For this purpose, the picture will be loaded to ColorNavigator Elements. Do not exit the software used for printing.
4. Proceed to “6. Capture a picture” (page 19).

When “Print a picture you took.” is clicked



1. Click “OK”.

   Only the navigation bar of ColorNavigator Elements is displayed.
2. Open the picture you took using your standard software for picture printing.
3. Print out the picture.

   Note

   • The picture will be captured to ColorNavigator Elements, so do not exit the software used for printing.
4. Proceed to “6. Capture a picture” (page 19).

6. Capture a picture

To adjust the color while comparing the printed picture with the picture displayed on the monitor, capture the picture to ColorNavigator Elements.

Note

- Please wait until the printed picture is dry to improve the color matching accuracy.

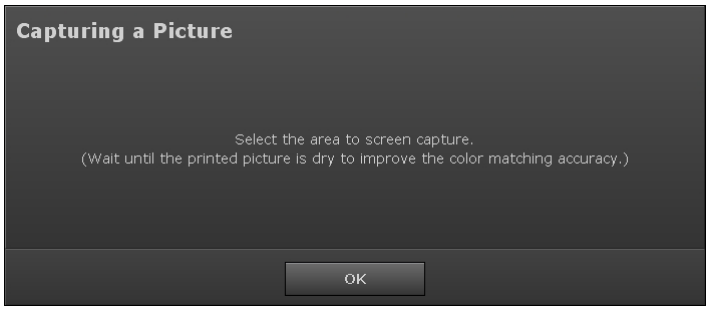
1. Open the picture printed in “5. Print out a picture” (page 17) using the software used for printing the picture again if you have closed it.

   Attention

   - If the picture is opened using other software, the monitor cannot be adjusted correctly. Be sure to open the picture with the software used for picture printing.
   - For correct monitor adjustment, set the software in the same way as for picture printing.

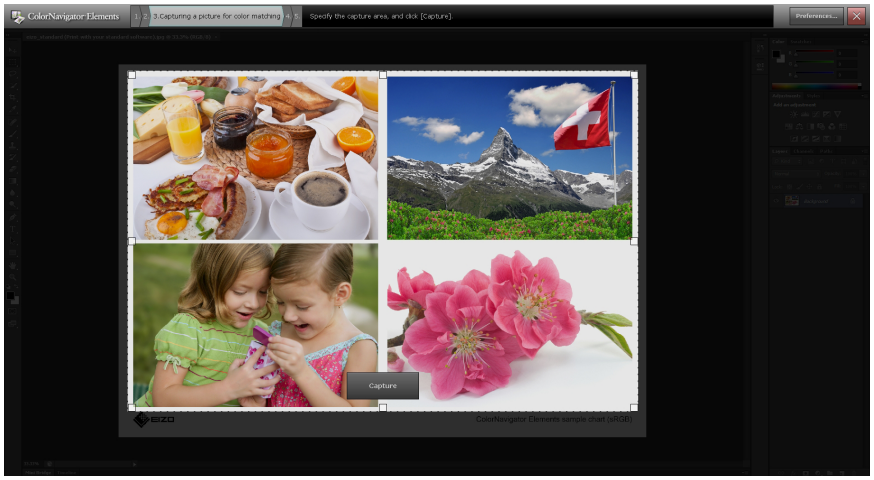
2. Click “Capture” on the right side of the navigation bar.

   A message appears.



3. Click “OK”.

   A box appears in the operation area for specifying the capture area of the picture.



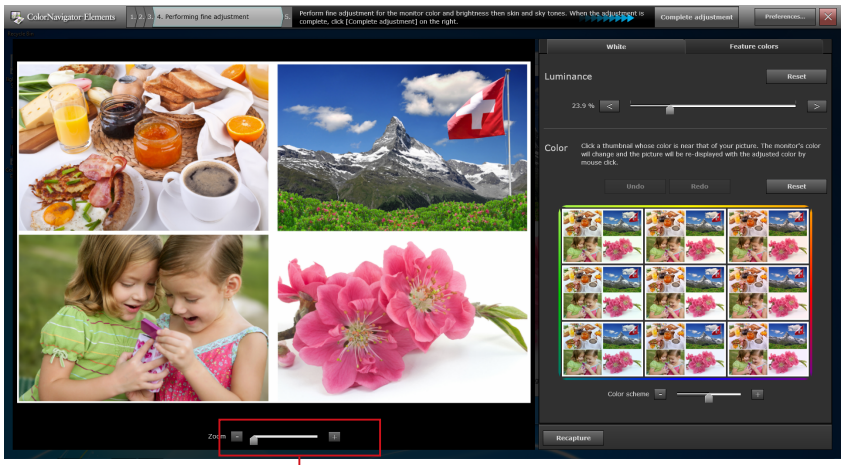
   The area within the dotted lines will be loaded to the software. Adjust the size of the box using the squares on the four corners.

4. Adjust the capture area of the picture using the mouse, and click “Capture”.

   The picture is loaded to the software, and the picture for adjustment is displayed in the operation area.

7. Adjust the monitor

Adjust the luminance and color of the monitor



Enlarges the picture. You can move the displayed section by dragging the sample picture.

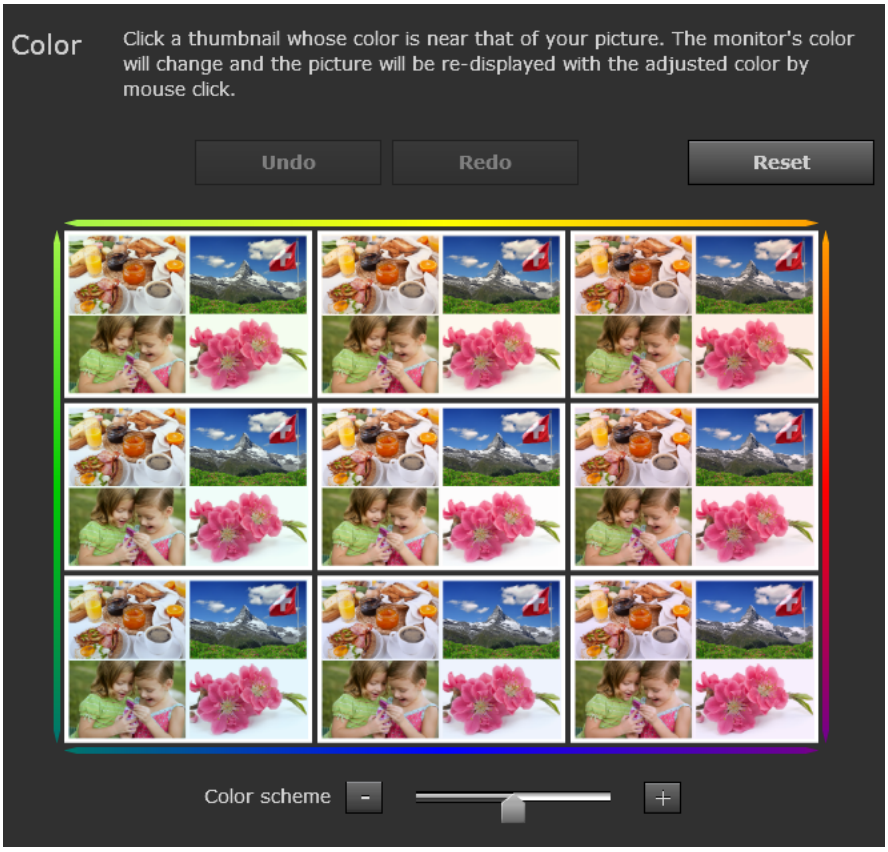
Click the “White” tab to make fine adjustments to the luminance and color of the monitor.

1. First, adjust the luminance of the monitor using the < and > buttons and the slider.

Note

- For rough luminance adjustment, the slider is useful.
- For fine luminance adjustment, the < and > buttons are useful.

2. Adjust the color of the monitor.



Make a fine adjustment to the color of the monitor using the blocks shown above. Place the printed picture beside the monitor and adjust the color of the monitor by comparing the printed picture with the picture displayed on the monitor. During adjustment, use the frame color of the 3-by-3 thumbnail image for reference. When you click a thumbnail image, the display on the monitor changes to the same color as the selected thumbnail.

The color scheme can be adjusted using the slider shown on the right.

Minimum color scheme | Standard color scheme | Maximum color scheme

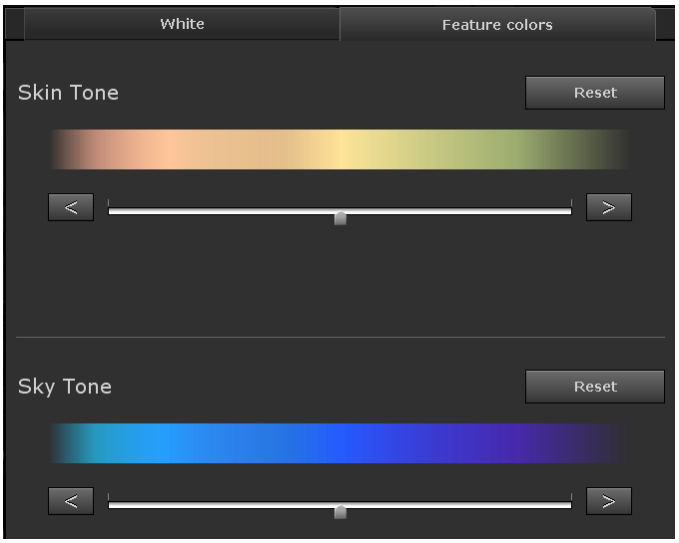
Note

- The center image shows the current color of the monitor.
- The scheme increases based on the center image. For example, the adjustment result displayed after the upper right image is selected can be canceled when the lower left image is selected.

To return to the state before adjustment, click “Reset”.

Fine adjustments to the feature colors

Click the “Feature colors” tab and make fine adjustments to the colors of the skin tone (yellow) and sky tone (blue) individually.



Attention

- The feature colors other than yellow and blue cannot be adjusted.
- The color saturation cannot be adjusted.

Note

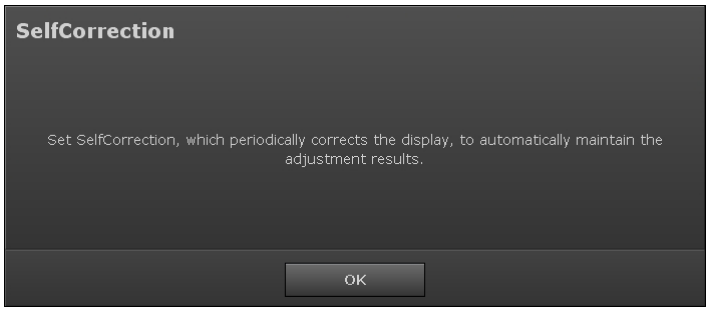
- For rough adjustment of the feature colors, the slider is useful.
- For fine adjustment of the feature colors, the < and > buttons are useful.

When the fine adjustments are completed, click “Complete adjustment” on the navigation bar.

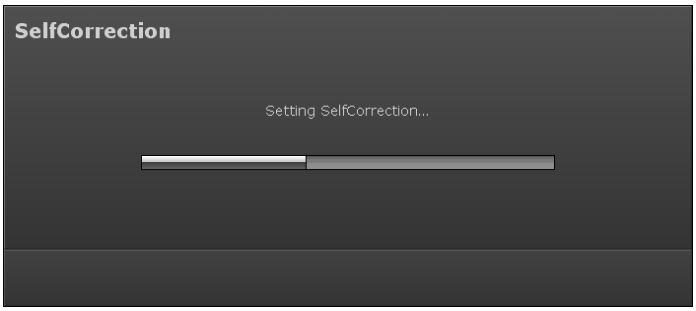
8. Set SelfCorrection

Note

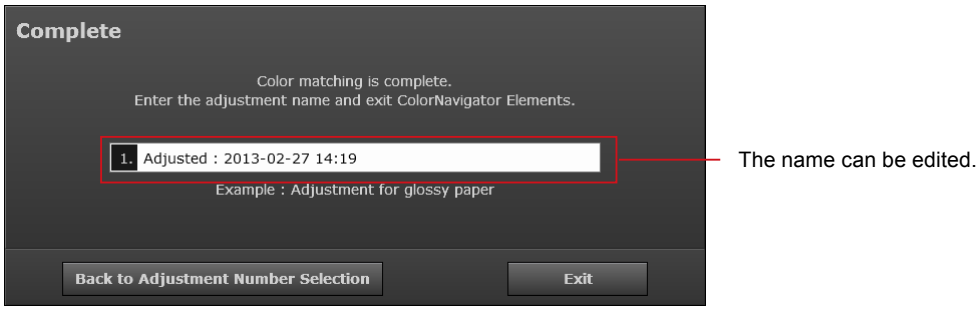
- To change the SelfCorrection execution time or disable SelfCorrection, open “Preferences…” and chenge the setting (see “4-1. Setting SelfCorrection” (page 24)).
- By default, SelfCorrection is set to execute after 200 hours (monitor usage time).



A message to start the SelfCorrection setting is displayed. Click “OK” to start the SelfCorrection setting.



When the SelfCorrection setting is completed, a message is displayed.



Clicking “Back to Adjustment Number Selection” displays the selected screen of the adjustment number (page 16).
Click “Exit” to quit ColorNavigator Elements.

The monitor adjustment is completed.

Chapter 4 Reference

4-1. Setting SelfCorrection

Enabling/disabling of SelfCorrection and execution timing can be changed.

Attention

- Before performing SelfCorrection, it is necessary to wait 60 minutes or more after the monitor power is turned on to stabilize the monitor.

Note

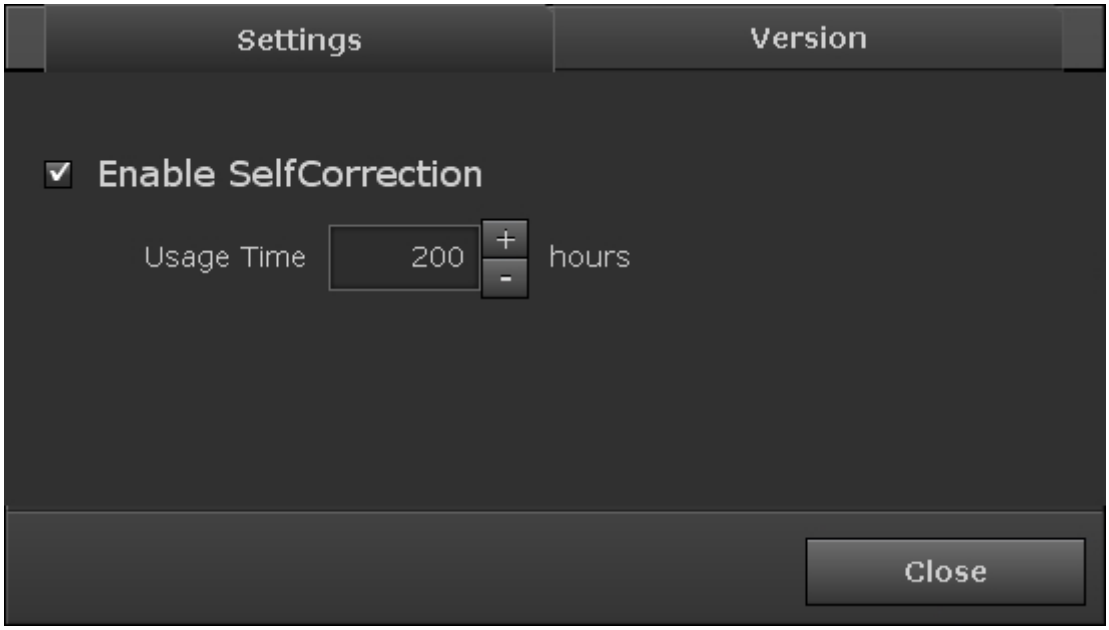
- For details on SelfCorrection, refer to the User's Manual of the monitor.

1. Click "Preferences"

The "Preferences" dialog box is displayed.

2. Select the "Settings" tab

The SelfCorrection setting window is displayed. Set enabling/disabling and usage time (intervals for execution) for SelfCorrection.



4-2. Displaying the Version Information

The version information is displayed.

1. Click “Preferences”

The “Preferences” dialog box is displayed.

2. Select the “Version” tab

The version information window appears.

Chapter 5 Troubleshooting

If a problem still remains after applying the suggested remedies, contact your local EIZO representative.

5-1. Performance of the Software

Problem	Possible cause and remedy
1. Software cannot be installed.	• Check whether the PC meets the requirements for operation described in “2-1. System Requirements” (page 6).
2. Monitor cannot be recognized / software cannot be started.	• Check whether the monitor meets the requirements for operation described in “2-1. System Requirements” (page 6). • Check whether the USB cables are connected properly. • If you use a ColorEdge CG series monitor, ColorNavigator Elements does not work. Use ColorNavigator instead.
3. The software cannot be reinstalled after being uninstalled.	• If you use Mac OS X, execute “Empty Trash” for the system, and reinstall the software.

5-2. Quality

Problem	Possible cause and remedy
1. The colors on the screen and picture do not match.	• Use white paper. Perform adjustment using two-ply pieces of paper so that color and light cannot be seen through the paper. • Adjust the luminance before adjusting the color. • Adjust the skin tone and sky tone as the final fine adjustment. • For lightening, use a fluorescent tube with high color rendering properties.
2. Periodic monitor adjustment	• Use SelfCorrection (see “4-1. Setting SelfCorrection” (page 24)).

Chapter 6 Glossary

Adobe RGB

This is a definition of the practical RGB color space proposed by Adobe Systems in 1998. The color reproduction range (color gamut) is broader than sRGB, and is highly adaptable to such fields as printing etc.

Gamma

Generally, the monitor luminance varies nonlinearly with the input signal level, which is called “Gamma Characteristic”. A small gamma value produces a low-contrast image, while a large gamma value produces a high-contrast image.

Resolution

A measurement that defines the clarity with which an image can be represented. It is defined by the number of pixels which can be displayed per line multiplied by the number of lines on the screen such as “1024 × 768”. The more number of pixels, the more information the image has.

sRGB (Standard RGB)

International standard for color reproduction and color space among peripheral devices (such as monitors, printers, digital cameras, scanners). As a form of simple color matching for the Internet, colors can be displayed using tones close to those of the transmission and reception devices.

Appendix

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