SONY STEREO IMAGE PROCESSOR SOFTWARE MPES-3D01

USER'S GUIDE English 1st Edition (Revised 1) Software Version 1.1

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Introduction

Chapter

7

Features

MPES-3D01 is a stereoscopic image processor software application designed specifically for use with the Multi Image Processor MPE-200.

The MPES-3D01 package comprises the following two software programs.

SIP software

Stereoscopic image processing software to be installed on the MPE-200 unit. This software allows you to correct alignment and color errors produced when capturing 3D images with two cameras, and provides a variety of monitoring methods for captured 3D images such as side-by-side viewing.

• SIP GUI software Software to be installed on a computer that allows you to control stereoscopic image processing operations on the MPE-200 unit from the connected computer.

This manual explains how to install and use the MPES-3D01 software.

Besides this manual, please refer also to the MPE-200 OPERATION MANUAL (supplied with the MPE-200).

Supported Stereo Camera Rigs

This software supports the following two types of stereo camera rigs.

• Half mirror type

Used mainly for close-up shooting. Allows easy adjustment of parallactic angle and toe-in angle and is therefore suitable for fine-tuning the appearance of the 3D image.

Left Camera



Right Camera

Тір

In some installations, the left and right camera positions may be reversed.

· Side-by-side type

Suitable for distant-view shooting. In close-up shooting, the parallactic angle with this type of camera rig will be large, but in distant-view shooting, the angle is smaller and setup therefore is easier. Because the cameras can be fastened more securely, resulting in a stable installation, this type of rig is often used as center camera for relay broadcasting.



System Configuration Examples (Concept Diagram)

The SIP GUI software can control the stereoscopic image processing functions of the MPE-200 for up to three camera pairs (stereo cameras).



Names and Functions of Parts

The pictures used in this guide may be different from the ones actually displayed and are subject to change without notice.

Sustam Car	nora Alignment Color C	Corraction	WFM Lower This	rd Waveform	Su Su	b Monitor B 50% Mix	Zoc
		Soffection		J	Monitoring	Convergence	
System Mode	Gen. Lock	Ref Video		3D Mouse Detected Device			
59.94Hz Interlace				Assignment			
	Mode		T				
INPUT 1 : Left Camera INPUT 2 : Right Camera							
INPUT 3 : n/a INPUT 4 : n/a	Camera Type	Manual	•				
OUTPUT 1 : Left Camera	Sensor Size (mm)	4.00					
OUTPUT 2 : Right Camera OUTPUT 3 : Stereo Monitor	Zoom Position 1 (mm)	5.8					
OUTPUT 4 : Waveform Monitor	Zoom Position 2 (mm)	81.2					

1 File (in setup mode)

Click here to open the [File] menu. The [File] menu has the following commands.

New Setup: Serves for creating a new setup.

(see page 69)

- **Reset to Default Values:** This has the same effect as clicking all [Reset] buttons on the various tabs. Settings that have been locked will also be reset, except for certain settings.
- Save Setup Data: Save the current settings as a setup file. (see page 70)
- Manage Setup Files: Perform operations such as changing the system mode (*see page 28*) and deleting setup files (*see page 71*).
- **Configure Shot Box:** Register or delete snapshot information in the Shot Box. (*see page 83*)
- **Restart this Processor:** Restart the selected MPE-200 unit. (*see page 24*)
- **Shutdown the System:** Quit the SIP GUI software, and turn power to all connected MPE-200 units off. (*see page 23*)
- Exit: Quit the SIP GUI software. (see page 23)

2 Connect

Click here to open the [Connect] menu.

The [Connect] menu has the following commands.

- **Connect to Processors:** Connect to the MPE-200 unit. *(see page 26)*
- **Disconnect this processor:** Disconnect the selected MPE-200 unit (in setup mode). (*see page 28*)
- Assign Processors: Assign a camera pair number to the MPE-200 unit. (see page 26)

3 Help

Click here to open the [Help] menu.

The [Help] menu has the following commands.

- **About this software:** Display version information for the SIP GUI software and the connected MPE-200 unit.
- **Show System Message:** Display system messages for the SIP GUI software and the connected MPE-200 unit. When "System Message" appears on the waveform monitoring display, you can confirm the message with this command. The "System Message" display is grayed out after you confirm the message, and disappears after the problem is resolved.

4 Setup

Click here to switch to setup mode. A tabbed screen for making various settings appears. (see page 25)

5 Shot Box

Click here to switch to shot box mode. The screen for controlling the shot box appears. (*see page 84*)

6 Camera Pair 1 - 3

Click the number of the target camera pair for making settings and controlling operation. The button color indicates the connection status to the SIP GUI software.

- 1 : Connected and selected.
- : Connected but not selected.
- : Not connected.

For information on the correlation of camera pair numbers and MPE-200 unit, see the section "Assigning an MPE-200 Unit" (page 26).

7 Tab (in setup mode)

Serves for making various settings.

- **[System] tab:** Serves for making gen lock (synchronization) signal and camera preset settings and for viewing system mode information. (*see page* 28)
- [Camera Alignment] tab: Serves for providing correction for left/right camera alignment, roll shift, zoom shift, and other alignment errors, using digital signal processing technology. (see page 37)
- [Color Correction] tab: Serves for ensuring color matching between left and right camera. (*see page 47*)
- [Waveform Monitoring] tab: Serves to make settings for the waveform monitoring display function. (see page 53)
- **[Stereo Monitoring] tab:** Serves to make settings for the function that enables stereo image alignment on the waveform monitoring display. (*see page 60*)
- **[Convergence] tab:** Allows tuning the appearance of the 3D image. (*see page 72*)

8 WFM Lower Third

Sets the lower area of the waveform monitoring display to waveform display or depth information display. (*see page 56*)

9 Main Monitor / Lock

Sets the output format for the main monitor*. To lock this settings, place a check mark next to [Lock]. (see page 31)

* Stereo monitoring display connected to OUT 3 connector of MPE-200 unit.

Sub Monitor A/B / Zoom

Sets the output format for sub monitor A or sub monitor B*. To zoom the display, place a check mark next to [Zoom]. (see page 32)

10 | Names and Functions of Parts

* Virtual monitor on waveform monitoring display connected to OUT 4 connector of MPE-200 unit.

Chapter

Installing the SIP GUI Software on the Computer

Install the latest version of Java on the computer to be used, and then install the SIP GUI software as follows.

SIP GUI Software Operation Environment

To use SIP GUI software, a computer meeting the following requirements is necessary.

Operating system (OS):

Windows Vista, 32 bits, English Version, Service Pack 2 Windows 7, English Version For details on other supported operating systems, please contact a Sony service representative or dealer. Java: Version 6 Update 20 CPU: 1.6 GHz or higher RAM: 2 GB or more Graphics chip: Intel or NVIDIA HDD available space: 500 MB or more Monitor resolution: 1280×800 pixels or 1280×1024 pixels

Installing Java

Before using the SIP GUI software, the latest version of Java must be installed on the computer to be used.

- 1 Use your web browser to access "http://java.com./en/" and download the latest version of Java.
- **2** Follow the instructions on the web site to install the downloaded Java on your computer.

Note

If there were no particular instructions when you obtained the SIP GUI software, install the latest version of Java.

Installing the SIP GUI Software

To install the SIP GUI software, log into your computer using an account with Administrator privileges.

Тір

If an older version of the SIP GUI software is installed on your computer, uninstall the SIP GUI software before installing the current version of the software.

For information on uninstallation, see "Uninstalling the Software" (page 15).

Obtain the installation package "MPES-3D01_****_install_package.zip."

The file name will vary depending on the software version.

- **2** Unzip the ZIP file and copy the "SIP-GUI-****-setup.exe" file located in the "GUI" folder onto the desktop of your computer.
- **3** Double-click "SIP-GUI-***-setup.exe" to start the installation.



A security warning message appears.

4 Click [Run].



The installation preparation dialog box appears.



The following screen appears.

5 Click [Next].



The License Agreement screen appears.

6 Check the content of the agreement. If acceptable, click "I accept the terms in the license agreement."

😥 Stereo Image Processor Software - InstallShield Wizard
License Agreement Please read the following license agreement carefully.
IMPORTANT - READ BEFORE INSTALLING
"STEREO IMAGE PROCESSOR SOFTWARE MPES-3D01" ("SOFTWARE") INTO YOUR PERSONAL COMPUTER
END-USER LICENSE AGREEMENT FOR THE SOFTWARE
THE FOLLOWING END-USER LICENSE AGREEMENT IS A LEGAL AGREEMENT BETWEEN YOU AND SONY CORPORATION ("SONY"). USE OF THE SOFTWARE IS GOVERNED BY THIS
I go not accept the terms in the license agreement Print I go not accept the terms in the license agreement
InstallShield < Back Next > Cancel

The following screen appears.

7 Specify the folder where the SIP GUI software should be installed, and click [Next].

To change the displayed folder, click [Change] and select a folder. The default folder is "C:\Program Files\Sony\SIP."

😸 Stereo I	image Processor Software - InstallShield Wizard
Destinati Click Nex	ion Folder xt to install to this folder, or dick Change to install to a different folder.
	Install Stereo Image Processor Software to: C:¥Program Files¥Sony¥SIP¥Change
InstallShield -	< Back Next > Cancel

The following screen appears.

8 To proceed with the installation, click [Install].



The User Account Control confirmation screen of your operating system appears.

9 Click [Allow].

The software installation starts.



When the installation is complete, the following screen appears.

10Click [Finish] to close the installer.



Verify that the "Stereo Image Processor" icon is shown on the desktop.

Uninstalling the Software

As with other applications, the SIP GUI software can also be uninstalled by using "Programs and Features" in the Control Panel. Select "Stereo Image Processor Software," and then select [Uninstall/Change]. Follow the on-screen instructions to uninstall the software.

Preparations for the MPE-200 Unit

Connect the RS-232C port on the rear side of the MPE-200 unit to the serial port of the computer, using an RS-232C cable. Then use the terminal software of the computer to make the required settings for the MPE-200 unit.

Usage environment RS-232C parameters:

no-2020 paralileters.

Serial port settingRate38Data word length8Parity bitNStop bits1Flow controlN

38,400 baud 8 bit No 1 bit No

Terminal settings:

VT100 type, 80 character \times 24 lines or more

Establishing communication:

Confirm that "[syscon]\$" appears on the terminal software. Press the Esc key on the keyboard, and then press the Shift + C within 1 second. Next, press the Enter key a few times. "localhost login:" will appear and communication will start.

Logging in

To make settings, log in to the MPE-200 unit as a maintenance user account.

Maintenance user account information:

username: setup password: sjx-311

After login is completed, the management software starts up automatically and a console screen appears.

Тір

Regarding the following three items on the initial screen:

- Application uninstall
- Factory Setting
- Platform update (may appear as "Management Utility update" depending on the software environment of the MPE-200 unit)
- These cannot be used when installing the MPES-3D01 software.
- For details on these functions, please contact a Sony service representative or dealer.

Setting the Time Zone

Set the time zone as follows. This example shows how to set the time for Japan. The factory default setting is JST (Japan Standard Time). 1 On the initial screen, select "1." tzselect starts up. **2** Select "5) Asia" from the region selection. **3** Select "19) Japan" from the country selection. The following information is displayed. Japan Therefore TZ='Asia/Tokyo' will be used. Local time is now: Mon Oct 5 09: 06: 49 JST 2009. Universal Time is now: Mon Oct 5 00: 06: 49 UTC 2009. Is the above information OK? 1) Yes 2) No **4** Verify that the setting is correct, and select "1) Yes ."

When the setting is complete, the initial screen returns again.

Setting the Clock

The internal clock of the MPE-200 is set at the factory, but the setting can be changed as follows if required.

1 On the initial screen, select "2."

The current date and time are shown as follows.

```
Clock adjust

2010-10-05 08: 57: 08

==>_
```

2 Enter the date and time using the same format as above.

A confirmation message appears.

3 Enter "y" and press the Enter key.

Тір

If you press the Enter key without any input, the following screen appears. To redo the input, enter "n."

```
Clock adjust

2010-10-05 08: 57: 08

==>

Cancel([y]es/[n]o)?_
```

When the setting is complete, the initial screen returns again.

Making Network Settings

Make network settings as follows.

"eth0" refers to the NETWORK-1 connector on the rear of the MPE-200 unit. "eth1" refers to the NETWORK-2 connector on the rear of the MPE-200 unit. To configure a network with the computer on which the SIP GUI software is installed, either connector can be used.

The unit is shipped with preliminary settings for IP address and subnet mask. Change these settings as required for your network environment.

- On the initial screen, select "3."
- **2** Make network device settings as follows.

Example: Setting eth0 to "192.168.1.100".

①Select "eth0."

Use the arrow keys to move the cursor to "eth0" and press the Enter key. ②Make "eth0" settings.

Enter the fixed IP address in the "Static IP" field, and enter the subnet mask in the "Netmask" field.

++ Network Configuration ++			
Name	eth0		
Device	eth0		
Use DHCP	[]		
Static IP	192.168.1.100		
Netmask	255.255.255.0		
Default gateway IP			
++	++		
0k	Cancel		
++	++		
+	+		

Make other settings as required.

Tip

The factory default settings are as follows. Static IP: 192.168.0.2 Netmask: 255.255.255.0 ③Use the arrow keys to move the cursor to "OK" and press the Enter key.

When the setting is complete, the initial screen returns again.

3 Reboot the MPE-200 unit. (see page 20)

Installing the SIP Software on the MPE-200 Unit

Copy the SIP software installation package to a USB memory for installation on the MPE-200 unit.

The SIP software will start and stop automatically along with startup and shutdown of the MPE-200 unit.

Тір

The installation package consists of the following files and folders, which are created when unzipping MPES-3D01_****_install_package.zip: Depending on the software version, file names and number of files may be different.

- MPES-3D01-***.ppc64.rpm
- libpng-***-**.ppc64.rpm
- bzip2-libs-***-**.ppc64.rpm
- libicu-***-**.ppc64.rpm
- boost-***-**.ppc64.rpm
- repodata (folder)
- GUI (folder)

Note

If multiple USB memory media are connected to the MPE-200 unit, the installation will not be carried out correctly. If another USB memory is connected to the MPE-200 unit, disconnect it.

- **1** Unzip the installation package and copy all files and folders to the root directory (topmost folder) of a USB memory media. Then connect the media to the MPE-200 unit.
- **2** On the initial screen, select "5."
- **3** Select "1.MPES-3D01 "Sony Stereo Image Processor software" ****."

A confirmation message appears.

Are you sure([y]es/[n]o)?_

- 4 Enter "y" and press the Enter key.
- **5** Enter the installation key that is provided with the installation package you obtained, and press the Enter key.

Input the installation key code: _

The installation key consists of 16 alphanumeric characters. A confirmation message appears.

6 Enter "y" and press the Enter key.

The installation starts. When the installation is complete, the initial screen returns again.

7 Disconnect the USB memory media.

Completing the Setup Procedure

1 On the initial screen, select "q."

The Quit screen appears.

- **2** On the Quit screen, select "r."
 - r: Quit and Reboot

The settings are confirmed and the MPE-200 unit reboots.

Chapter **B**

SIP GUI Software Startup and Shutdown

Startup

Start the SIP GUI software by double-clicking the Stereo Image Processor icon on the desktop. The "Stereo Image Processor" window appears.

Stereo Image Processor			_ 🗆 ×
File Connect Help			
Satura Shat Boy	Camera Pair		Lock Sub Monitor A Zoom
			V Sub Monitor B V Zoom
System Came	era Alignment Color Correction	Waveform Monitoring Stere	o Monitoring Convergence
		Detected Device	None
Single Channel Mode		T	
INPUT 1 : Left Carnera			
INPUT 2 : Right Carnera INPUT 3 : n/a		-	
INPUT 4 : n/a	Camera Type		
OUTPUT 1 : Left Camera OUTPUT 2 : Right Camera	Zeom Position 1 (mm)		
OUTPUT 4 : Waveform Monitor	Zoom Position 2 (mm)		

Immediately after startup, the MPE-200 unit is not yet connected, therefore the setting fields are still blank.

Next, connect to the MPE-200 unit. Proceed to "*Connecting to the MPE-200 Unit*" (*page 26*).

Notes

- It is not possible to start several instances of this software simultaneously.
- Configure the network settings on your computer before starting this software.



When you start up the SIP GUI software, your computer's built-in firewall may display an alert dialog box that allows you to select whether Java will block incoming network connections to the computer. In such cases, select [Unblock]. This alert will not appear at future startups.

9	Windows Firew	all has blocked some features of this progran		
Window unblock risks of	is Firewall has blocked th this program, it will be u unblocking a program?	is program from accepting incoming network connections. If you nblocked on all public networks that you connect to. What are the		
(1)	Name:	Java(TM) Platform SE binary		
Ē	Publisher:	Sun Microsystems, Inc.		
	Pat <u>h</u> :	C:\program files\java\jre6\bin\javaw.exe		
	Network location:	Public network		
		What are network locations?		

Shutdown

Quitting the SIP GUI Software

To quit the SIP GUI software, you can use one of the following methods.

- Access the [File] menu and select [Exit].
- Click the [x] button in the right of corner on the title bar of the "Stereo Image Processor" window.

System Shutdown

By accessing the [File] menu and selecting "Shutdown the System," you can quit the SIP GUI software and turn off power to all connected MPE-200 units.

Note

Unless forced shutdown is necessary, do not use the power button on the front panel of the MPE-200 unit to shut down the system.

Restarting a MPE-200 Unit

To restart the MPE-200 unit when the video format or other system mode settings were changed, proceed as follows. The SIP GUI software and MPE-200 unit must be connected to perform this operation.

For information on connecting the MPE-200 unit, see "Connecting to the MPE-200 Unit" (page 26).

1 Click [Setup] and click the camera pair number for the MPE-200 unit that you want to restart.



2 Access the [File] menu and select [Restart this Processor].

The MPE-200 unit is restarted.

Basic Setup

Chapter

4

Overview

This chapter describes how to make the following settings, which are required for correcting the stereoscopic image output from the camera pair or monitoring a waveform.

- Basic setup (page 26)
- Camera alignment correction (*page 37*)
- Left/right camera color matching (page 47)
- Selecting output signal format for waveform monitoring display (page 51)
- Configuring the stereo image alignment function (page 60)

To make a setting, first click [Setup] to switch to setup mode.

Stereo Image Pro	cessor				
File Connect	Help				
Setup	Shot Box	Camera Pair	2	3	
System		Camera Alignment		Cold	or C

Basic Setup

This section explains how to make the necessary settings for controlling stereoscopic image processing with the MPE-200 unit.

Assigning an MPE-200 Unit

Assign the MPE-200 unit to a camera pair number as follows.

Access the [Connect] menu and select [Assign Processors].

The "Assign Processors" dialog box appears.

2 Enter the IP address of the camera pair you want to assign in the [IP Address] field, and click [OK].

Assign Processors			
Camera Pair IP Address			
	192.168.1.100		
	192.168.1.101		
	OK Close		

The MPE-200 unit is assigned to the camera pair number.

Note

Do not assign the same IP address to multiple camera pairs. Otherwise system operation will become unstable.

Connecting to the MPE-200 Unit

First specify the MPE-200 unit to connect to, as described in "Assigning an MPE-200 Unit" (page 26).

1 Turn power to the MPE-200 unit on.

Verify that video is output by the MPE-200 unit.

2 Access the [Connect] menu and select [Connect to Processors].

The "Connect to Processors" dialog box appears.

3 Click [Connect].



When the connection has been successfully established, the following message appears on the [Console].

4 Click [Close].



Information about the MPE-200 unit appears on the SIP GUI software, and control from this software is enabled.

Note

Disable the sleep mode function of your computer's operating system. If the function is enabled and the computer enters sleep mode during operations, communication with the MPE-200 units will be disconnected.

Tips

- If unsuccessful, the connection process to the MPE-200 unit will time out after a certain period.
- If connection to all assigned MPE-200 units failed, the x icon appears on this dialog box. If there was at least one MPE-200 unit to which connection failed, the M icon appears. Even if the M icon is shown, operation of other MPE-200 units for which the connection was successful is possible.

To disconnect a MPE-200 unit

1 Access the [Connect] menu and select [Disconnect this Processor].

The "Disconnect this Processor" dialog box appears.

2 Click [Disconnect].

Disconnect this Processor		×
Console:		
	Disconnect	Close

The connection to the MPE-200 unit is disconnected.

3 Click [Close].

Changing the System Mode

The system mode can be changed by modifying the setup file used at startup. The change will become effective when the MPE-200 unit is restarted.

Tip

You can display information about the current system mode by selecting [System Mode] under the [System] tab.



- **1** Click the camera pair number.
- **2** Access the [File] menu and select [Manage Setup Files].

The "Manage Setup Files" dialog box appears.

3 Select the setup file to use at startup and click "Set to Start Up."



Тір

The file that will be used at startup is displayed with the indication "(start up)" after its name.

4 Access the [File] menu and select [Restart this Processor].

The MPE-200 unit is restarted.

- **5** Verify that video is being output from the MPE-200 unit.
- **6** Reconnect the MPE-200 unit. (*see page 26*)

Setting the Monitor Output Format

This section describes how to set the output format for the main monitor* and sub monitor A/B** connected to the MPE-200 unit.

* Stereo monitoring display connected to OUT 3 connector of MPE-200 unit.

**Virtual monitor on waveform monitoring display connected to OUT 4 connector of MPE-200 unit.





- Click the camera pair number.
- **2** In the [Main Monitor] window at the top right of the screen, select the image signal output format for the main monitor.

The following settings are available.

- **Side by Side:** The left half of the screen is made up by the L image signal, and the right half by the R image signal. Both L and R are compressed to 1/2 size in the horizontal direction.
- **Above Below:** The top half of the screen is made up by the L image signal, and the bottom half by the R image signal. Both L and R are compressed to 1/2 size in the vertical direction.
- **Left Only:** Only the L image signal is output.
- **Right Only:** Only the R image signal is output.
- **Anaglyph:** Old-style output which gives a stereoscopic image when using glasses with red and blue filters.
- **50% Mix:** L and R image signals are mixed at 50% each.
- **Difference:** Parts where the L and R image signals match are represented in gray, and non-matching parts are output with the original color and luminance.
- **Difference Y:** Compares the luminance of the L and R image signals. Parts where the brightness signal matches are shown in gray. Parts where the brightness is different are shown in black and white, according to the degree of difference.
- **Checkerboard:** L and R image signals are output alternately in a checkerboard pattern.
- **Split Screen:** The output is switched partway, so that the left half of the screen is made up by the L image signal, and the right half by the R image signal.

Default setting: Side by Side

3 To lock the settings, place a check mark next to [Lock].

Setting the sub monitor A/B output format

The same format is used both for sub monitor A and sub monitor B.



- **1** Click the camera pair number.
- **2** In the [Sub Monitor A] window or the [Sub Monitor B] window at the top right of the screen, select the image signal output format for the sub monitor.

The following settings are available.

Anaglyph: Old-style output which gives a stereoscopic image when using glasses with red and blue filters.

- **50% Mix:** L and R image signals are mixed at 50% each.
- **Difference:** Parts where the L and R image signals match are represented in gray, and non-matching parts are output with the original color and luminance.
- **Difference Y:** Compares the luminance of the L and R image signals. Parts where the brightness signal matches are shown in gray. Parts where the brightness is different are shown in black and white, according to the degree of difference.
- **Checkerboard:** L and R image signals are output alternately in a checkerboard pattern.
- **Split Screen:** The output is switched partway, so that the left half of the screen is made up by the L image signal, and the right half by the R image signal.
- Default settings: Sub Monitor A: Anaglyph Sub Monitor B: 50% Mix
- **3** To display the image at the same zoom ratio as the left/right camera zoom selected for the waveform monitoring display, place a check mark next to [Zoom].

Setting Camera Preset Information



- **1** Click the camera pair number.
- **2** Display the [System] tab.
- **3** Set the following items under [Preset Focal Length].

Setting item	Setting range	Default setting	Description
Camera Type	Manual, Generic 1/2 inch, Generic 2/3 inch	Manual	Selects the sensor size.
Sensor Size (mm)	0.01 mm - 9.99 mm	4.00 mm	When [Camera Type] set to [Manual], the sensor size can be input here. The setting is fixed to "4.00" when [Camera Type] is set to [Generic 1/2 inch], and to "5.40" when [Camera Type] is set to [Generic 2/3 inch].
Zoom Position 1 (mm)	0.1 mm - 500.0 mm	5.8 mm	Enter the zoom position.
Zoom Position 2 (mm)	0.1 mm - 500.0 mm	81.2 mm	Enter the zoom position.

When an item is changed, the settings are stored and become effective immediately.

Тір

The settings for [Zoom Position 1] and [Zoom Position 2] are used when [Position 1] or [Position 2] is clicked for [Focal Length] under the [Camera Alignment] and [Convergence] tab.

Selecting the Gen Lock Signal

Select a gen lock signal for controlling the timing of stereo image processing at the MPE-200 unit.

The gen lock setting will become effective when the MPE-200 unit is restarted.



- 1 Click the camera pair number.
- **2** Display the [System] tab.
- **3** In the [Signal Source] drop-down box under [Gen. Lock], select the video input signal to which the MPE-200 should be synchronized.

Ref. Video: Synchronize the video signal that is input from the REF IN connector on the rear of the MPE-200 unit.

For information on the reference signals that can be input in each system mode, see page 67.

HD SDI (Input 1): Synchronize the video signal that is input from the IN 1 connector on the rear of the MPE-200 unit.

Default setting: HD SDI (Input 1)

4 Access the [File] menu and select [Save Setup Data] to store the setting.

For information on the setting procedure, see "Saving the Current Settings as a Setup File" (page 70).

5 Access the [File] menu and select [Restart this Processor].

The MPE-200 unit is restarted.

- **6** Verify that video is being output from the MPE-200 unit.
- **7** Reconnect the MPE-200 unit. (see page 26)

Notes

- Make sure that the signal selected in [Signal Source] is input during use. If the signal source is temporarily disrupted or changed, be sure to establish the Gen. Lock phase by selecting [Restart this Processor] from the [File] menu again, and restarting the MPE-200 unit.
- When reference signals other than those that are supported (see page 67) are • input, an error message may not appear, even if you enable system message display for the MPE-200 unit with the [Show System Message] setting (see page 9).

Selecting the Video Signal Processing Pattern of the MPE-200 Unit

You can select how the MPE-200 should process the video signals supplied to the IN connectors on the MPE-200 unit.



- 1 Click the camera pair number.
- 2 Display the [System] tab.
- **3** Use the [Mode] item of the [Input Selector] to select the video signal processing pattern to be used by MPE-200 unit.

Default: The L and R camera signals input to the IN 1 and IN 2 connectors are processed separately.

Clone: The camera signal input to the IN 1 connector is used for both L and R.

Side by Side: The side by side type video signal input to the IN 1 connector is separated into L and R.

Default setting: Default

The selection is reflected immediately on all video outputs.

Checking a 3D Mouse

When a functional 3D mouse is connected, you can check its type and available functions as follows.

For information on 3D mouse types that can be used with the SIP GUI software, please contact a Sony service representative or dealer.



- **1** Click the camera pair number.
- **2** Display the [System] tab.
- **3** Check [3D Mouse] under [Detected Device] to see whether a 3D mouse has been detected.

If a 3D mouse has been detected, its name will be displayed. If no 3D mouse has been detected, the indication "None" will be shown.

When a 3D mouse supported by the SPI GUI software has been detected, functions that can be used will be listed under [Assignment].

Note

Connect the 3D mouse before starting the SIP GUI software.
Camera Alignment Correction

You can provide correction for left/right camera optical axis shift, alignment, roll shift, and other alignment errors, using digital signal processing technology. You can also select the image flip method to use for images shot with a half mirror type camera rig.

To assess these settings, click the [Camera Alignment] tab.

Basic Operations Under the [Camera Alignment] Tab

Correction settings can be made for the left and right camera separately. The preview area allows you to check the effect of settings.



Chapter 4 Basic Setup

Using the view area



1 Focal Length

Read the focal length from the zoom ring of the camera in use and set this value. When you click [Position 1] or [Position 2], the focal length specified with [Zoom Position 1] and [Zoom Position 2] under the [System] tab is set in the input field.

To enter a focal length other than the preset values, enter a numeric value in the range from 0.1 mm to 500.0 mm.

Tip

If the [Toe-In Angle] setting of [Convergence] in the [Convergence] tab, or any one of the [Translate X], [Translate Y], [Tilt], or [Toe-In] settings in the [Camera Alignment] tab are set to a value other than the default value of 0, the value configured here will have an effect on the output results.

2 Zoom Link

Using the focal length information obtained from the camera, the camera alignment can be corrected automatically according to the zoom setting.

Tips

- When a check mark is placed next to [Zoom Link], the numeric value input for **①** [Focal Length] has no effect. When the [Zoom Link] check mark is removed, the most recently obtained focal length value will be entered as [Focal Length].
- Placing a check mark next to [Auto Offset] or [Auto Scale] in the [Convergence] tab will also activate a check mark next to [Zoom Link]. When the [Zoom Link] check mark is removed, the [Auto Offset] and [Auto Scale] check marks will also be removed automatically.
- For information on lenses and cameras supporting the Zoom Link function, please contact a Sony service representative or dealer.

3 Auto Size

When performing camera alignment, it may happen that a section without image (blanking section) becomes visible. This function provides enlargement so that the blanking section will not be shown.

Size correction will be performed automatically, and the correction ratio can be viewed in the value box.

When the parameters for the left (right) camera are changed, the image from the other camera may also be affected.

4 Manual Size

Allows manual size correction.

When you have selected this option, enter a ratio between 0.010 and 5.000. Default setting: 1.000

5 View area

There are three angles provided by the camera model: Top View, Side View, and Rear View. (The indication from left is Top View, Side View, Rear View.) The view area makes it possible to check how the various parameter setting values affect the respective camera model. If you place a check mark next to [Zoom Link], the affect is not reflected. The degree of change is about three times the actual setting.

Locking the correction setting

By placing a check mark next to [Lock], you can lock the current correction value.

Locking is possible for the left and right camera separately.

Left camera locked

Right camera locked



Тір

The locking feature allows you to protect certain settings from being changed inadvertently. Information about whether a setting is locked is not stored in the setup file.

Even when locked, executing [Reset to Default Values] will return settings to their default value, except for certain settings.

Returning the correction setting to the default

Clicking the [Reset] button for the left or right camera will return the correction setting to the default value.



Selecting the Flip Setting for a Mirror Rig

When using a half mirror type camera rig, the appropriate setting can be selected here to reverse the mirrored image.

Select the [Image Flip] setting for the left and right camera. Available choices are listed below.

Image Flip	Normal	V
Planar Shift V		

Normal: No image reversal.

Vertical Flip: The image is reversed in the vertical direction (top to bottom).Horizontal Flip: The image is reversed in the horizontal direction (side to side).

Flip Both V&H: The image is reversed both in the vertical and horizontal direction.

Default setting: Normal

Correcting Optical Axis Shift

Optical axis shift for the left and right camera can be corrected as follows.



To make the correction setting, use the [Optical Axis Adjustment] field for the left and right camera. You can either move the slider sideways or enter a numeric value.

Optical Axis Adjustr	ment				
Planar Shift H		Planar Shift V			
	0.00 🗘	II	0.00 ≑	Assist	

Setting item	Setting range	Default setting	Description
Planar Shift H	–99.99 pixels to +99.99 pixels	0.00 pixels	Enter the value for horizontal planar shift.
Planar Shift V	–99.99 lines [*] to +99.99 lines [*]	0.00 lines [*]	Enter the value for vertical planar shift.

* Number of lines in frame

Search for the point (optical axis) where the image does not shift when the display range is extended from the wide end to the zoom end. To enable optical axis searching, determine distinctive points (feature points) within the image, and register their positions in pairs for wide display and zoom display.

- 1 Click [Reset] for the camera you want to adjust to reset its [Optical Axis Adjustment] parameters.
- 2 Click [Assist] under [Optical Axis Adjustment] for the camera you want to adjust.



The "Optical Axis Adjustment Assist" dialog box appears. In the "Optical Axis Adjustment Assist" dialog box, register mark points for [Zoom Size A] and [Zoom Size B] and specify two to four pairs for calculating the optical axis position.

3 Click a Mark Points button for Size A to activate it.



4 Operate the camera and select the Zoom configuration.

Adjust camera zoom to obtain at least two points that provide good zooming and can be marked.

This Zoom condition is defined as Size A.

5 Enter numeric values for [Size] in [Zoom Area] to adjust the size so that the markers are visible.

Setting item	Setting range	Default setting	Description
Size	1 to 100	25	Adjust the size of the zoom area. Use this setting for small images, for example.

Тір

For increased marking precision, a [Size] value of around 10 is recommended.

Note

After starting to specify markers for Size A, do not change the [Size] setting. If the [Size] value is changed during the process, calculation will not be performed correctly.

6 Drag the crosshair cursor (dotted lines) or enter numeric values for [H] and [V] to specify the mark points.

Setting item	Setting range	Default setting	Description
Н	-234 to +234	0	Enter the position value
	-156 to +156*		on the nonzontal axis.
V	-129 to +129	0	Enter the position value
	-86 to +86 [*]		on the vertical axis.

* This setting range is not supported in the current version of this software.

7 Click [Mark].

The mark point is registered.

When a mark point has been registered, a cross-shaped marker is shown in the waveform area of the waveform monitoring display.

Activation of the Mark Points buttons moves to the next button.

Waveform area display example

Size A mark points



8 Repeat steps 6 to 7 to register mark points 2 to 4.

Next, make the [Zoom Size B] setting.



10Operate the camera and select the Wide configuration.

Adjust the camera to obtain at least two points that provide a wide angle and can be marked.

This Wide condition is defined as Size B.

11 Enter numeric values for [Size] in [Zoom Area] to adjust the size so that the markers are visible.

Tip

For increased marking precision, a [Size] value of around 7 is recommended.

Note

After starting to specify markers for Size B, do not change the [Size] setting. If the [Size] value is changed during the process, calculation will not be performed correctly.

- **12**Drag the crosshair cursor (dotted lines) or enter numeric values for [H] and [V] to specify the mark points.
- 13Click [Mark].

Waveform area display example

Size B mark points



The mark point configured for Size A is also displayed as a reference.

14 Repeat steps **12** to **13** to register two to four mark points.

15 Verify that there are two to four pairs for [Zoom Size A] and [Zoom Size B].

16Click [Calculate].

The optical axis position is calculated.

Tips

- Each feature point must be registered to the same Point number under Size A and Size B.
- When two or more mark point pairs have been set, the [Calculate] button becomes available.
- To clear mark point information, click the button with the respective number so that the button is active, and then click [Clear].
- To clear all mark point information for [Zoom Size A] and [Zoom Size B], click [All Clear].
- While the "Optical Axis Adjustment Assist" dialog box is shown, the following conditions are established temporarily.
 - Waveform Area region display is off.
 - Parameters under the [Camera Alignment] tab and [Convergence] tab which may affect [Optical Axis Adjustment] are taken as being set to the default values.
- After start marking for Size B, the mark points registered for Size A never follow distinctive points.

17 Click [Apply].

The adjustment values are reflected in [Planar Shift H] and [Planar Shift V] of [Optical Axis Adjustment].



Values are reflected here.

To redo the adjustment, click [All Clear] and repeat steps 3 to 17.

18 When the adjustment is complete, click [Close].

The "Optical Axis Adjustment Assist" dialog box closes.

Тір

When the dialog box closes, all mark point data are cleared.

Correcting Position Shift

Position shift for the left and right camera can be corrected as follows.



To make the correction setting, use the [Camera Position Adjustment] field for the left and right camera. You can either move the slider sideways or enter a numeric value.

Camera Position Adjustment						
Translate X	Translate Y	Translate Z				
	0.000 🗢 👘 🚺	0.000 🗢 👘 🚺	0.000 🗘			

Setting item	Setting range	Default setting	Description
Translate X	-9.999 to +9.999	0.000	Enter the value for X axis correction.
Translate Y	-9.999 to +9.999	0.000	Enter the value for Y axis correction.
Translate Z	-9.999 to +9.999	0.000	Enter the value for Z axis correction.

Тір

Moving [Translate Z] in the negative direction enlarges the image, but at a certain point, the image will become black.

Correcting Roll Shift

Toe-in angle shift and roll shift for the left and right camera can be corrected as follows.



To make the correction setting, use the [Camera Rotation Adjustment] field for the left and right camera. You can either move the slider sideways or enter a numeric value.

Camera Rotation Adjustn	nent		
Toe-In 0.000	Tilt	Roll	0.000 🗢

Setting item	Setting range	Default setting	Description
Toe-In	–9.999 degrees to +9.999 degrees	0.000 degrees	Enter the value for toe-in angle correction.
Tilt	–9.999 degrees to +9.999 degrees	0.000 degrees	Enter the value for tilt correction.
Roll	–9.999 degrees to +9.999 degrees	0.000 degrees	Enter the value for roll correction.

Keystone Correction

You can provide correction for a 3D image that has keystone distortion. To make the setting, use the [Keystone Adjustment] field for the left and right camera. You can either move the slider sideways or enter a numeric value.

Keystone Adjustment			
Keystone H	Keystone V		
0.00 🗘		0.00 ≑	

Setting item	Setting range	Default setting	Description
Keystone H	-20.00 degrees to +20.00 degrees	0.00 degrees	Enter the value for horizontal keystone correction.
Keystone V	-20.00 degrees to +20.00 degrees	0.00 degrees	Enter the value for vertical keystone correction.

Color Matching for Left and Right Camera

You can adjust the white balance, black balance, and gamma curve values to achieve color matching for the image from the left and right camera. For images shot with a half mirror type camera rig, the signal level can also be adjusted to correct the attenuation caused by the half mirror.

The settings for color matching are located under the [Color Correction] tab.

Basic Operations Under the [Color Correction] Tab

Correction settings can be made for the left and right camera separately.



Enabling the color correction function

Placing a check mark next to [CCR] enables the color correction function, allowing you to adjust the white balance, black balance, gamma, and knee values.

The enable/disable setting is made separately for the left and right camera.

Enable function for left camera

Enable function for right camera

Left Camera	CR Lock	Right Camera	R Lock
White Color Adjustment		White Color Adjustment	
Red	Green	Red	Green

Locking the correction settings

By placing a check mark next to [Lock], you can lock the current correction values.

Locking is possible for the left and right camera separately.

Left camera locked Right camera locked Left Camera CCR Lock White Color Adjustment Red Green Right Camera CCR Green

Тір

The [Lock] function is only intended to prevent accidental changing of configured settings. Information regarding whether this function is enabled is not saved to setup files. When you execute [Reset to Default Values], the settings will return to default values regardless of whether the lock function is enabled.

Returning the correction settings to the default

You can either return a specific correction setting or all correction settings to the default values.

Returning a specific correction setting to the default

Click [Reset] in the respective setting panel. Screen example: White Color Adjustment

White Color Adjustment			
Red	Green	Blue	
100.0 🜩	100.0 🜩	100.0	÷
Master			
100.0 ≑		Res	et

Returning all correction settings to the default

Click [Reset] in the top right of the camera operation area for the left and right camera.



Adjusting the White Balance

You can control the white balance for the left and right camera by adjusting the Red/Green/Blue/Master values.

To make the setting, use the [White Color Adjustment] field for the left and right camera. You can either move the slider sideways or enter a numeric value.

White Color Adjustment		
Red	Green	Blue
100.0 🜩	100.0 🜩	100.0 🜩
Master		
100.0 ≑		Reset

Setting item	Setting range	Default setting	Description
Red	0.0 to +200.0	+100.0	Enter the value for Red adjustment.
Green	0.0 to +200.0	+100.0	Enter the value for Green adjustment.
Blue	0.0 to +200.0	+100.0	Enter the value for Blue adjustment.
Master	0.0 to +200.0	+100.0	Enter the value for linked Red, Green, and Blue adjustment.

Adjusting the Black Balance

You can control the black balance for the left and right camera by adjusting the Red/Green/Blue/Master values.

To make the setting, use the [Black Color Adjustment] field for the left and right camera. You can either move the slider sideways or enter a numeric value.



Setting item	Setting range	Default setting	Description
Red	-100.0 to +100.0	0.0	Enter the value for Red adjustment.
Green	-100.0 to +100.0	0.0	Enter the value for Green adjustment.
Blue	-100.0 to +100.0	0.0	Enter the value for Blue adjustment.
Master	-100.0 to +100.0	0.0	Enter the value for linked Red, Green, and Blue adjustment.

Adjusting the Gamma Curve

You can control the gamma curve and the knee point of the gamma curve for the left and right camera by adjusting the Red/Green/Blue/Master values. The relationship between the gamma and the knee is as follows.



1 To make the gamma curve setting, use the [Gamma Adjustment] field for the left and right camera, or move the slider sideways or enter a numeric value.

Gamma Adjustment					
Red		Green		Blue	
	0.0 🜩		0.0 🜩		0.0 🜩
Master					
I	0.0 ≑				Reset

Setting item	Setting range	Default setting	Description
Red	-100.0 to +100.0	0.0	Enter the value for Red adjustment.
Green	-100.0 to +100.0	0.0	Enter the value for Green adjustment.
Blue	-100.0 to +100.0	0.0	Enter the value for Blue adjustment.
Master	-100.0 to +100.0	0.0	Enter the value for linked Red, Green, and Blue adjustment.

2 To make the knee point setting, use the [Knee Adjustment] field for the left and right camera, or move the slider sideways or enter a numeric value.

Knee Adjustment		
Red 50.0 🗘	Green 50.0	Blue
Master 50.0 🜩		Reset

Setting item	Setting range	Default setting	Description
Red	+20.0 to +75.0	+50.0	Enter the value for Red adjustment.
Green	+20.0 to +75.0	+50.0	Enter the value for Green adjustment.
Blue	+20.0 to +75.0	+50.0	Enter the value for Blue adjustment.
Master	+20.0 to +75.0	+50.0	Enter the value for linked Red, Green, and Blue adjustment.

Making Waveform Monitoring Display Function Settings

When performing camera alignment correction, HD-SDI output is sent to the waveform monitoring display for monitoring the waveform from the left and right camera.

Settings available here control the waveform monitoring display functions, such as the waveform type and video signal from the camera to display, zoom area, waveform width, etc.

The settings are located under the [Waveform Monitoring] tab.

Waveform display examples



1 Sub monitor A display

Shows the image using the output format selected with [Sub Monitor A]. (see page 32)

2 Sub monitor B display

Shows the image using the output format selected with [Sub Monitor B]. (see page 32)

3 Zoom area display

The red (for left camera) and cyan (for right camera) rectangular regions indicate which part of the image will be zoomed. (*see page 56*) These rectangular regions are referred to as "zoom display regions."

4 Waveform area display

The zoom display regions configured in ③ appear in zoom display, and the red (for left camera) and cyan (for right camera) cross-shaped regions indicate the width and position of the waveform displayed in ⑤. (*see page 57*) These cross-shaped regions are referred to as "waveform display regions."

6 Waveform display

This is shown when [Waveform] is selected for [WFM Lower Third]. Shows the waveform of the specified waveform area, obtained by scanning in the horizontal direction and vertical direction. Color components are shown as vectors.

The boxes \boxplus in the vectorscope indicate the amplitude and phase for 75% color bars.

Тір

The resolution of the waveform monitoring display is 480×270 . An antialiasing filter is applied to accommodate this resolution when displaying the HD-SDI signal. Therefore, if a sweep waveform or similar is used to measure frequency response characteristics, the displayed waveform will not be the same as the source waveform.

6 Depth information display

This is shown when [Depth] is selected for [WFM Lower Third]. Depth information for the 3D image shown in the Zoom Area is calculated from the horizontal shift of the L and R signal and displayed on a monochrome image. The monochrome image uses the L image signal. Available display formats are Depth Guide which shows overall depth information, Depth Warning which shows only the section exceeding a specified threshold, and Depth Statistics which shows depth information distribution as a histogram.

Notes

- The Depth Guide and Depth Warning image is delayed with regard to other images.
- Under some conditions, such as when the L and R image has many flat sections or repetitions of similar patterns, the displayed depth information may not be accurate.

7 Focal length value display

When [Zoom Link] is disabled, the value that appears in the [Focal Length] value box of the view area appears here. When [Zoom Link] is enabled, the real time focal length values obtained from the left and right cameras appear here. (*see page 38*)

Basic Operations Under the [Waveform Monitoring] Tab

To match the application requirements, monitoring settings for the left and right camera can be made either together or separately for each camera.



Displaying zoom display regions in the zoom area

Placing a check mark next to [Region] in [Zoom Area] under [Group] causes zoom display regions to appear in the zoom areas of the waveform monitoring display.

Group			
Zoom Area Size	V R	Region 🗸	Grid
	 		25 🜩

Displaying waveform display regions in the waveform area

Placing a check mark next to [Region] in [Waveform Area] under [Group] causes waveform display regions to appear in the waveform areas of the waveform monitoring display.

	Nesei		
Waveform Area Width X		🗸 Region	🗸 Grid
			100 🗘
Width Y			

Chapter 4 Basic Setup

Placing a check mark next to [Grid] in [Zoom Area] or [Waveform Area] under [Group] causes a grid to be shown on the waveform monitoring display.

Screen example: Zoom Area



Returning a setting to the default

You can return all settings to their default values at once or reset them by section.

Returning specific settings to the default

Click [Reset] in the respective setting panel. Screen example: Zoom Area



Returning all settings to the default

Click [Reset] at the top right of the [Waveform Monitoring] tab.

					- 🗆 ×
3		onitor Side by S Third Wavefor	Bide 🔻 Lock m 🔻	Sub Monitor A Anaglyph Sub Monitor B 50% Mix	Zoom Zoom
Color Correction	Waveform Monito	ring	Stereo Monitoring	Convergence	
Position Lines					Reset
Group			Right Camera		
Zoom Area Size	✓ Region	✓ Grid 25 🗘			
×		0 🗘	OffsetX		- 0 🗘
Y		0 🗘	Offset Y		- • ÷

Selecting the Waveform Type to be Displayed

The waveform type can be selected in the drop-down box under [Waveform].



The following waveform type settings are available.

Y Only: Display only the Y waveform.

Pb and Pr: Display the Pb waveform and Pr waveform.

Y, Pb and Pr: Display the Y waveform, Pb waveform, and Pr waveform.

G Only: Display only the G waveform.

R and **B**: Display the R waveform and B waveform.

R, G and B: Display the R waveform, G waveform, and B waveform.

Default setting: Y, Pb and Pr

Selecting the Camera for Which to Trace the Waveform

The camera whose waveform is to be displayed can be selected in the dropdown box under [Trace].

Displaying the waveform for both the left and right camera often is convenient. However, when adjusting the optical axis, displaying only the waveform of the camera which is being adjusted will facilitate adjustment.



Left and Right: Trace the waveform of the left and right camera. Left Only: Trace only the waveform of the left camera. Right Only: Trace only the waveform of the right camera.

Default setting: Left and Right

Displaying Waveform Position Lines

You can display position lines on the waveform for use in position measuring. To do this, place a check mark next to [Position Lines].

System	Camera Alignment	Color Correction	Wav
Waveform Y, Pb and Pr 🗸	Trace Left and Right 🔻	Position Lines	
Left Camera		Group	
Zoom Area		Zoom Area	

The minimum width of a position line is 1 pixel/0.5 lines in interlaced timebase.

Switching Between Waveform Display and Depth Information Display

The [WFM Lower Third] setting selects whether to display the waveform or depth information on the lower part of the waveform monitoring display.



Waveform: Display waveform. **Depth:** Display depth information.

Default setting: Waveform

Making Zoom Display Settings

The zoom area size and position can be adjusted under [Zoom Area].

Setting the zoom region size

To adjust the zoom region size, use the [Size] field under [Group]. You can either move the slider sideways or enter a numeric value.

Zoom Area	🗸 Region	🗸 Grid
Size		
		26
		20 🔻

Setting item	Setting range	Default setting	Description
Size	1% to 100%	25%	Enter the zoom area region size value.

Adjusting the zoom position

After making linked settings for the left/right camera zoom position under [Group], fine adjustment of zoom position for the left and right camera can be performed separately with [Left Camera] and [Right Camera].

1 Move the sliders for [X] and [Y] under [Group] sideways or enter numeric values to specify the zoom position.

x 	 0 🗘
Y	 0

Setting item	Setting range	Default setting	Description
х	-240 to +240	0	Enter the zoom position
	-160 to +160 [*]		
Y	-135 to +135	0	Enter the zoom position
	-90 to +90*		

* This setting range is not supported in the current version of this software.

2 Move the sliders for [Offset X] and [Offset Y] sideways or enter numeric values to fine-tune the zoom position for each [Left Camera] and [Right Camera].

Offset X	
Offeet V	 U 🗸
	 0 🗘

Setting item	Setting range	Default setting	Description	
Offset X	-240 to +240	0	Enter the offset on the X	
	-160 to +160*		setting.	
Offset Y	-135 to +135	0	Enter the offset on the Y	
	-90 to +90 [*]		setting.	

* This setting range is not supported in the current version of this software.

Tip

The setting range for [X] and [Offset X] as well as for [Y] and [Offset Y] is determined by the fact that the video size of the Zoom Area is 480 pixels (horizontal) by 270 lines (vertical).

Specifying the Region and Position of the Displayed Waveform

Under [Waveform Area], you can specify the region and position of the displayed waveform.

Specifying the region of the displayed waveform

Move the sliders for [Width X] and [Width Y] under [Group] sideways or enter numeric values to specify the region (cross shape) of the displayed waveform. Higher figures mean that the waveform for a wider area is displayed. Consequently, with complex video such as natural images, the number of displayed waveform traces will increase.

Waveform Area	🗸 Region	🗸 Grid
		100 🗘
Width Y		4.00
		100 -

Setting item	Setting range	Default setting	Description
Width X	1 to 480	100	Enter the horizontal width of the vertical section in
	1 to 320 [*]		the cross-shaped waveform display region.
Width Y	1 to 270	100	Enter the vertical width of the horizontal section in
	1 to 180 [*]		the cross-shaped waveform display region.

* This setting range is not supported in the current version of this software.

Tip

The setting range for [Width X] and [Width Y] is determined by the fact that the video size of the waveform area is 480 pixels (horizontal) by 270 lines (vertical).

Specifying the center position of the displayed waveform

After making linked settings for the left/right camera waveform region center position under [Group], fine adjustment of the center position for the left and right camera can be performed separately with [Left Camera] and [Right Camera].

Screen example: Left camera waveform area



1 Under [Group], move the sliders for [X] and [Y] sideways or enter numeric values to specify the position of the waveform display.

U	
	 0 🜲
	·
-	 0

Setting item	Setting range	Default setting	Description
х	-240 to +240	0	Enter the X axis position.
	-160 to +160*		
Y	-135 to +135	0	Enter the Y axis position.
	-90 to +90 [*]		

* This setting range is not supported in the current version of this software.

2 Move the sliders for [Offset X] and [Offset Y] sideways or enter numeric values to fine-tune the position for each [Left Camera] and [Right Camera].

Offset X	
Offset Y	 • •
	 0 🗘

Setting item	Setting range	Default setting	Description
Offset X	-240 to +240	0	Enter the offset on the X
	-160 to +160 [*]		setting.
Offset Y	-135 to +135	0	Enter the offset on the Y
	-90 to +90 [*]		setting.

* This setting range is not supported in the current version of this software.

Тір

The setting range for [X] and [Offset X] as well as for [Y] and [Offset Y] is determined by the fact that the video size of the Zoom Area is 480 pixels (horizontal) by 270 lines (vertical).

Settings to Facilitate Stereo Image Alignment

Various settings are available to make stereo image alignment on the waveform monitoring display easier.

These settings are found under the [Stereo Monitoring] tab.

Тір

The availability of functions under the [Stereo Monitoring] tab depends on the [Main Monitor], [Sub Monitor A], [Sub Monitor B], and [WFM Lower Third] settings at the top right of the screen.

For details, see "Function Availability List" (page 66).

Basic Operations Under the [Stereo Monitoring] Tab



Returning a setting to the default

Clicking [Reset] in a setting panel returns the respective settings to their default values.

Screen example: Floating Window



Cropping the Image Edges

You can crop unneeded parts of one image at the edge, so that L and R images show the same content. The required cropping amount will differ, depending on the excess portion.



1 Under [Left] in the [Floating Window], place a check mark to specify the image from the left camera to crop.

Left Camera: Crop image of left camera at OUT 1 connector. **Stereo Monitor:** Crop image of left camera at OUT 3 connector.

2 Under [Left], move the sliders for [Left Edge] and [Edge Width] sideways or enter numeric values to specify the position and width of the left edge.

Setting item	Setting range	Default setting	Description
Left Edge	0.00 to 10.00	0.00	Enter the left edge position value for cropping.
Edge Width	0.00 to 2.00	0.20	Enter the processing value (softness) for the left edge after cropping.

3 Under [Right], place a check mark to specify the image from the right camera to crop.

Right Camera: Crop image of right camera at OUT 2 connector. **Stereo Monitor:** Crop image of right camera at OUT 3 connector.

4 Under [Right], use [Right Edge] and [Edge Width] for [Right] to crop the edges of the right camera image.

Setting item	Setting range	Default setting	Description
Right Edge	90.00 to 99.99	99.99	Enter the right edge position value for cropping.
Edge Width	0.00 to 2.00	0.20	Enter the processing value (softness) for the right edge after cropping.

Displaying the Grid for Measuring Shift

The [Disparity Grid] setting can be used to display a grid or ruler on the main monitor or sub monitor. This makes it easier to assess the amount of shift between the left and right camera image. The grid is shown using broken lines.

Showing a grid on the main monitor

Place a check mark next to [Grid] for [Main Monitor] and select the grid type and spacing.

Disparity Grid	
Main Monitor	✓ Grid
Туре	
🔵 Ruler 🌘	Full
Spacing	
	3.0 🜩

Setting item	Setting range	Default setting	Description
Туре	Ruler, Full	Ruler	Select the type of grid to display. When [Ruler] is selected, only a ruler-like scale is shown. Selecting [Full] causes vertical grid lines to be shown on the entire screen.
Spacing	0.5 to 10.00 (in 0.5 increments)	3.0	Move the slider or select a numeric value to specify the grid or ruler spacing.

Showing a grid on the sub monitor

Place a check mark next to [Grid] for [Sub Monitor A] or [Sub Monitor B] and select the grid type.

Screen example: Sub Monitor A



Setting item	Setting range	Default setting	Description
Туре	Ruler, Full	Ruler	Select the type of grid to display. When [Ruler] is selected, only a ruler-like scale is shown. Selecting [Full] causes the grid and ruler to be shown.

Тір

The grid spacing will be the same as set with the [Spacing] option for the [Main Monitor].

Adjusting the Depth Range for a 3D Image

When adjusting the camera positions, the [Depth Budget] setting can be used to set the maximum values for near-range and far-range parallactic angle, to control the depth range of the 3D image.

Relation between depth information display and [Depth Budget]

The Depth Guide indication on the waveform monitoring display shows the distribution of near range to far range, and the Depth Warning shows sections that exceed the range specified in Depth Statistics with color coding, using yellow to red (near range) and blue (far range). The [Depth Budget] enables you to set parallactic values suitable for the content to create, taking the horizontal screen size as 100 percent and specifying allowable settings for the near range and far range.



Select [Depth] for [WFM Lower Third].



The lower part of the waveform monitoring display shows depth information.

Next, use [Depth Budget] to set maximum values for near range and far range.

2 Select whether to use percent or pixels as display unit for Depth Statistics on the waveform monitoring display.



The value specified here is reflected in the Depth Statistics display on the waveform monitoring display.

3 Use [Near] to specify the maximum value for the near range, and [Far] to specify the maximum value for the far range in 0.25-percent increments.

Setting item	Setting range	Default setting	Description
Near	-10.00 to 0.00 (in 0.25 increments)	-3.00	Select the maximum value for the near range.
Far	0.00 to 10.00 (in 0.25 increments)	3.00	Select the maximum value for the far range.

Tip

Percent values are converted into pixels for display in the [Pixel] value fields.

Adjusting the Left and Right Camera Image Position (Split Screen)

With [Split Screen] you can shift the position where the left and right camera images are split, or flip one of the images.

Left camera image



Shifting the split position (Position) Position



Right camera image



Position + Offset



Offset

Flipping the left or right camera image



Adjusting the Checkerboard

Move the sliders under [Checkerboard] sideways or enter numeric values to specify the size and position of the checkerboard tiles.



Checkerboard	Reset
Tile	
Offset	32 🌩
	0.00 🗘

value to specify the offset position.

Setting item	Setting range	Default setting	Description
Tile	2 to 96	32	Enter the tile size value.
Offset	-20.00 to +20.00	0.00	Offset the right camera image. Enter the offset position value.

Function Availability List

The availability of functions under the [Stereo Monitoring] tab depends on the [Main Monitor], [Sub Monitor A], [Sub Monitor B], and [WFM Lower Third] settings at the top right of the screen.

Setting item at screen top right		Settings under [Stereo Monitoring] tab				
		Floating Window	Disparity Grid	Depth Budget	Split Screen	Checkerboard
Main Monitor	Side by Side	Yes	Yes			
	Above Below	Yes	Yes			
	Left Only	Yes				
	Right Only	Yes				
	Anaglyph		Yes			
	50% Mix		Yes			
	Difference		Yes			
	Difference Y		Yes			
	Checkerboard					Yes
	Split Screen				Yes	
Sub Monitor	Anaglyph		Yes			
А, В	50% Mix		Yes			
	Difference		Yes			
	Difference Y		Yes			
	Checkerboard					Yes
	Split Screen				Yes	
WFM Lower	Waveform					
Inird	Depth			Yes		

Yes: Available, Blank: Not available

Тір

The signal of the OUT 1, 2 connectors of the MPE-200 unit (HD-SDI video output) is available only for [Floating Window].

Setup Files

Chapter 5

What Is a Setup File?

A setup file is a file containing information about settings for the SIP GUI software. It is used during startup of the MPE-200 unit. You can have multiple setup files and use them as required in different situations.

The setup file stores information about settings made under the following tabs.

- System (only the [Signal Source] setting under [Gen. Lock])
- Camera Alignment
- Color Correction
- Waveform Monitoring
- Stereo Monitoring
- Convergence (Auto Offset, Auto Scale, Focal Length)

Tips

• The following setup files are provided by default. If [Ref. Video] is selected for [Signal Source] under [Gen Lock] in the [System] tab, input the reference signals indicated in the following table.

File name	Format (resolution/ frequency/scan format)	Reference signal
default_1080PsF_23_98	1920 × 1080, 23.98 Hz, PsF	HD Tri Sync, 47.95 Hz
default_1080PsF_24	1920 × 1080, 24 Hz, PsF	HD Tri Sync, 48 Hz
default_1080PsF_25	1920 × 1080, 25 Hz, PsF	HD Tri Sync, 50 Hz / B.B, 50 Hz
default_1080PsF_29_97	1920 × 1080, 29.97 Hz, PsF	HD Tri Sync, 59.94 Hz / B.B, 59.94 Hz
default_1080i_50	1920 × 1080, 50 Hz, Interlaced	HD Tri Sync, 50 Hz / B.B, 50 Hz
default_1080i_59_94	1920 × 1080, 59.94 Hz, Interlaced	HD Tri Sync, 59.94 Hz / B.B, 59.94 Hz

• When you start the software, the name of the setup file used will appear as "- [File Name]" after "Stereo Image Processor" in the title bar. However, "- [non title]" will appear if a default setup file is used to start up the software.

"- [non title]" will also appear when creating new setups (regardless of whether [Save] or [Non Save] is used). (*see page 69*)

If an MPE-200 unit is not connected, the space for the file name will be blank.The setup file used at startup can be changed by accessing the [File] menu and selecting [Manage Setup Files].

For information on the setup file used at startup, see "Changing the System Mode" (page 28).

• Setup files for software versions 1.0 and 1.1 are not compatible with each other. Therefore, setup file names for version 1.0 will not appear in the lists of the "Save Setup Data" and "Manage Setup Files" dialog boxes.

Saving Setup Files

This section describes how to create a new setup and store the settings in a setup file.

Tips

- The most recently saved setup file will automatically be used at startup.
- The settings (Except Auto Offset and Auto Scale) under the [Convergence] tab can be saved by using the Snapshot function (*see page 78*). The [Focal Length] setting under the [Convergence] tab is saved both in the setup file and the Snapshot. The most recent setting has priority.

Creating a New Setup

When the MPE-200 unit starts up, it uses a setup file that has been specified for startup. To create a new setup, you must clear the currently established settings and then establish new settings to be saved in a setup file.

- Click the camera pair number for which you want to create a setup file.
- **2** Access the [File] menu and select [New Setup].

The "Save Setup Data" dialog box appears.

3 Click [Non Save].

Save Setup D	ata	×
111 (start u		
Enter Setup	Name	
111		
Save	Non Save	Close

The settings saved in the setup file are cleared, and the dialog box closes.

Tip

If you want to save the setup you are about to create before making settings, enter a name in the [Enter Setup Name] field, and then click [Save].

4 Make the required settings under the [System] tab, [Camera Alignment] tab, [Waveform Monitoring] tab, and [Color Correction] tab.

When all required settings have been established, proceed to "Saving the Current Settings as a Setup File" (page 70).

Saving the Current Settings as a Setup File

To save the current settings of the [System setup] tab, [Camera Alignment] tab, [Color Correction] tab, [Waveform Monitoring] tab, and [Stereo Monitoring] tab as a setup file, proceed as follows.

Access the [File] menu and select [Save Setup Data].

The "Save Setup Data" dialog box appears.

Тір

The [Enter Setup Name] field shows the same file name as shown in the title bar. Even if this file name is used and the old file will be overwritten, no overwrite warning message will be shown.

2 Enter a name of up to 20 alphanumeric for the setup file in the [Enter Setup Name] field, and then click [Save].



The setup file is saved.

Deleting Setup Files

To delete a saved setup file, proceed as follows.

- Click the camera pair number for which you want to delete a setup file.
- **2** Access the [File] menu and select [Manage Setup Files].

The "Manage Setup Files" dialog box appears.

3 Select the setup file to delete, and click [Delete].



The setup file is deleted.

Tips

- The default setup files cannot be deleted.
- If the setup file that was used at startup is deleted, one of the default setup files will be used instead of it.



Adjusting the 3D Image Appearance

The final appearance of the 3D image produced by the video signal from the left and right camera can be modified by digital signal processing. The adjustment results can be saved in a Snapshot and recalled later. 3D image appearance settings are made under the [Convergence] tab, which also allows saving and recalling settings.

Basic Operations Under the [Convergence] Tab



The view area provides a preview that allows you to check the effect of settings.
Using the view area



1 Focal Length

Read the focal length from the zoom ring on the lens of the camera in use and specify this value.

When you click [Position 1] or [Position 2], the focal length specified with [Zoom Position 1] and [Zoom Position 2] under the [System] tab is set in the input field.

To enter a focal length other than the preset values, enter a numeric value in the range from 0.1 mm to 500.0 mm.

Тір

If the [Toe-In Angle] setting of [Convergence] in the [Convergence] tab, or any one of the [Translate X], [Translate Y], [Tilt], or [Toe-In] settings in the [Camera Alignment] tab are set to a value other than the default value of 0, the value configured here will have an effect on the output results.

2 Zoom Link

Using the focal length information obtained from the camera, the camera alignment can be corrected automatically according to the zoom setting.

Tips

- When a check mark is placed next to [Zoom Link], the numeric value input for ① [Focal Length] has no effect. When the [Zoom Link] check mark is removed, the most recently obtained focal length value will be entered as [Focal Length].
- Placing a check mark next to [Auto Offset] or [Auto Scale] will also activate a check mark next to [Zoom Link]. When the [Zoom Link] check mark is removed, the [Auto Offset] and [Auto Scale] check marks will also be removed automatically.
- For information on lenses and cameras supporting the Zoom Link function, please contact a Sony service representative or dealer.

3 Auto Size

When performing camera alignment, it may happen that a section without image (blanking section) becomes visible. This function performs enlargement so that the blanking section will not be shown.

When the parameters for the left (right) camera are changed, the image from the other camera may also be affected.

Place a check mark in the box to enable automatic size correction.

When the check mark is removed, [Auto Size] enlargement is not carried out, and the size is controlled by the [Manual Size] value as entered under the [Camera Alignment] tab.

4 View area

There are three angles provided by the camera model: Top View, Side View, and Rear View. (The indication from left is Top View, Side View, Rear View.) The view area makes it possible to check how the various parameter setting values affect the respective camera model. If you place a check mark next to [Zoom Link], the affect is not reflected. The degree of change is about three times the actual setting.

Locking the settings

The current settings can be locked by placing a check mark next to [Lock] in the respective panel.

Screen example: Vertical Adjustment



Тір

The [Lock] function is only intended to prevent accidental changing of configured settings. Information regarding whether this function is enabled is not saved to Snapshots or setup files. Except for certain settings, setting values will return to default values when you execute [Reset to Default Values], regardless of whether the lock function is enabled.

Returning a setting to the default

Clicking [Reset] in a setting panel returns the respective settings to their default values.

Screen example: Horizontal Offset

Horizontal Offset			
Planar Shift H			
	 	0.0 🗘	Reset

Adjusting the Horizontal Offset

In the [Horizontal Offset] panel, move the [Planar Shift H] slider sideways or enter a numeric value to adjust the horizontal offset.

When a slider is moved or a numeric value is entered, the image from the left and right camera moves in the opposite direction on the horizontal plane, resulting in a change in perspective.

This makes it possible to specify an object in the image for which there is no left/right disparity. By placing a check mark next to [Auto Offset] before adjusting the offset, left/right disparity of the specified object will be prevented even when zooming.

Horizontal Offset		
Planar Shift H		
II	0.0 🜩 Reset	🗸 Auto Offset

Setting item	Setting range	Default setting	Description
Planar Shift H	–200.0 pixels to +200.0 pixels	0.0 pixels	Offsets left/right camera image on horizontal axis by same amount in opposite direction.

Tips

- [Auto Offset] and [Zoom Link] are linked. Placing a check mark next to [Auto Offset] will also activate a check mark next to [Zoom Link]. When the [Zoom Link] check mark is removed, the [Auto Offset] check mark will also be removed automatically.
- For information on lenses and cameras supporting the Auto Offset function, please contact a Sony service representative or dealer.

Note

If focal length information has not been received from the camera, perform adjustments with the check mark removed.

Adjusting 3D Image With Toe-in Angle

The [Toe-In Angle] setting under [Convergence] lets you adjust the appearance of a 3D image shot with a toe-in angle.

You can either move the slider sideways or enter a numeric value to adjust the toe-in angle between the cameras.

The images from the left and right camera are transformed along the toe-in angle axis by the same amount but in opposite directions.

Convergence			
Toe-In Angle			
	 	0.00 ≑	Reset

Setting item	Setting range	Default setting	Description
Toe-In Angle	-10.0 degrees to +10.0 degrees	0.0 degrees	Offsets left/right camera image on toe-in angle axis by same amount in opposite direction.

Note

When [Auto Size] is selected and the [Toe-In Angle] setting is large, the image will be excessively enlarged and the toe-in angle adjustment effect will not be very noticeable.

Correcting Zoom Shift

This setting corrects for left/right camera zoom ratio differences.



In the [Zoom Scale Adjustment] panel, move the sliders for the cameras sideways or enter a numeric value to correct zoom ratio differences. When a check mark is placed next to [Auto Scale], the focal length information from the camera is used to automatically adjust the size of the left and right camera image.

Notes

- If focal length information has not been received from the camera, perform adjustments with the check mark removed.
- Automatic correction will only have an effect when there is a difference in size between the left and right image, and this difference is reflected in the camera focal length. If there is not effect, perform adjustments with the check mark removed.

Zoom Scale Adjustment				
Left	Lock	Right	Lock	
	1.000 🜩 Reset		1.000 🜩 Reset	Auto Scale

Setting item	Setting range	Default setting	Description
Left	0.010× to +5.000×	1.000×	Corrects left camera shift.
Right	0.010× to +5.000×	1.000×	Corrects right camera shift.

Tips

- [Auto Scale] and [Zoom Link] are linked. Placing a check mark next to [Auto Scale] will also activate a check mark next to [Zoom Link]. When the [Zoom Link] check mark is removed, the [Auto Scale] check mark will also be removed automatically.
- For information on lenses and cameras supporting the Auto Scale function, please contact a Sony service representative or dealer.

Fine-Adjusting the Height

If there has been a shift in camera height correction after making the [Camera Alignment] tab settings, a final correction is possible with this setting. If the rig was moved to a different position or if the left/right camera inter-axes distance or toe-in angle was changed, the settings under the [Camera Alignment] tab normally have to be changed. However, if pressed for time, the [Vertical Adjustment] panel provides a quick way to make an emergency adjustment.

You can either move the sliders sideways or enter numeric values. To perform the adjustment for both cameras together, use the [Combination] setting.

Vertical Adjustment					
Left	Lock 0.00 🜩 Reset	Combination	Lock 0.00 🜩 Reset	Right	Lock 0.00 🜩 Reset

Setting item	Setting range	Default setting	Description
Left	–100.0 lines [*] to +100.0 lines [*]	0.0 lines [*]	Adjusts left camera height.
Combination	–100.0 lines [*] to +100.0 lines [*]	0.0 lines*	Moves both the left and right camera and adjusts height.
Right	–100.0 lines [*] to +100.0 lines [*]	0.0 lines*	Adjusts right camera height.

* Number of lines in frame

Тір

As [Left] and [Right] values are saved with the snapshot function, they can be accurately recalled when a snapshot is recalled. When the [Left] and [Right] values are adjusted and balance is lost, the [Combination] value that is displayed should not be used as a reference.

Snapshots

Chapter

What Is a Snapshot?

A Snapshot is a function to save when the settings under the [Convergence] tab have been changed, for example for different camera angles. By saving convergence settings as a snapshot, you can easily return to a given condition later, as required.

Making Snapshot Settings

Adjustments made in the [Convergence] tab can be saved as a snapshot in a folder that you specify.

Creating the Snapshot Save Folder

A Snapshot is saved in a specific area of the MPE-200 unit's hard disk (called the root folder in this application). However, it is possible to create folders within this area for storing Snapshots. Snapshots for certain operations can be collected in dedicated folders, and a default folder can be specified for frequently used files.

- 1 Click the camera pair number for which you want to create a folder.
- **2** Display the [Convergence] tab and click [Manage Folders] in the [Snapshot] section.

System	Camera Alignment	Color Correction	Waveform Monitoring	Stereo Monitoring	Convergence
Snap Shot					
File name aaa					
Current Folder LIVE	Ма	nage Folders Save	Recall		
Horizontal Offset					
Planar Shift H					
—— ■ —	0.0 🗢 Reset				0.00 🗢 Reset

The "Manage Snapshot folders" dialog box appears.

3 Enter a name of up to 20 alphanumeric for the folder in the [Enter New Folder Name] field, and then click [Create New Folder].



The folder is created and added to the list.

4 To specify a folder as the default folder, select it and click [Set to Use].



The selected folder becomes the default folder, and the indication "(default)" appears after the folder name.

Tips

- Default folder selections are not stored. Select a default folder each time you start up the SIP GUI software.
- You can create up to 10 folders.
- **5** Click [Close] to close the dialog box.

Saving a Snapshot

You can save the result of adjusting the [Convergence] settings* in a Snapshot as follows.

* Information about whether settings are locked is not saved.

Tips

- One folder can contain up to 20 Snapshots.
- The [Focal Length] setting under the [Convergence] tab is saved both in the Snapshot and in the setup file. The most recent setting has priority.
- **1** After adjusting settings under the [Convergence] tab, click [Save] in the [Snapshot] section.



The "Save Snapshot" dialog box appears.

- **2** Use [Folder] to select the Snapshot save folder.
- **3** Enter a name of up to 20 alphanumeric for the Snapshot in the [Enter Snapshot Name] field and click [Save].

To overwrite an existing Snapshot, you can click its file name, so that it appears in [Enter Snapshot name] field.

Save Snapshot		×
Folder		
LIVE		▼
ааа		
bbb		
Enter Openabet nome:		
Enter Snapshot name:		
CCC		
	Save	Close

The Snapshot is saved.

Recalling a Snapshot

You can recall a snapshot in two ways. Select the method that is more convenient.

- Recall the Snapshot while making 3D image adjustments ([Convergence] tab).
- Recall the Snapshot while live production at an event (Shot Box).

The method using the [Convergence] tab is described below.

For information on the Shot Box method, see "Chapter 8 Shot Box" (page 84).

1 Display the [Convergence] tab and click [Recall] in the [Snapshot] section.



The "Recall Snapshot" dialog box appears.

2 Under [Folder], select the folder where the Snapshot has been saved.

When you select a folder, a list of Snapshots present in that folder appears.

3 Select the Snapshot from the list and click [Recall].



The selected Snapshot is recalled.



- If "(in memory)" is displayed for a Snapshot, the Snapshot is cached in memory and can be recalled quickly. Snapshots for which "(in memory)" is not displayed must be copied into memory first and therefore take longer to load.
- As [Left] and [Right] values are saved with the snapshot function, they can be accurately recalled when a snapshot is recalled. When the [Left] and [Right] values are adjusted and balance is lost, the [Combination] value that is displayed should not be used as a reference.
- Snapshot data will be recalled, even for setting values that have been locked.

Deleting a Snapshot

You can delete a saved Snapshot and Snapshot folder as follows.

Access the [File] menu and select [Configure Shot Box].

The "Configure Shot Box" dialog box appears.

2 From the [Snapshots] list, select the Snapshot you want to delete, and click [Delete].

By holding down the Shift key or Ctrl key, you can select multiple Snapshots.



A confirmation message appears.

3 Click [Yes].

The selected Snapshot is deleted.

Tips

- When you delete a Snapshot, the same Snapshot registered in the Shot Box is also deleted automatically.
- Using the same procedure as for Snapshots, you can also delete a Snapshot folder. However, it is not possible to select and delete multiple Snapshot folders. Deleting a Snapshot folder will also delete all Snapshots in the folder. If such a folder is selected as default folder, Root will become the new default folder.
- 4 Click [Close] to close the dialog box.



Shot Box

What Is the Shot Box?

The Shot Box function allows you to recall Snapshots during recording with a single click. Snapshots for each camera pair should be registered in the Shot Box beforehand.





Registering a Snapshot in the Shot Box

In the Shot Box for each camera pair, you can register and recall up to 20 Snapshots.

For information on recalling a Snapshot, see "Using the Shot Box" (page 88).

Registering a Snapshot in the Shot Box

- 1 Click [Setup] to switch to setup mode.
- **2** Click the camera pair number for which you want to register a Snapshot.
- **3** Access the [File] menu and select [Configure Shot Box].

The "Configure Shot Box" dialog box appears.

4 From the [Snapshots] list, select the Snapshot you want to register, and click [>>].

Clicking [Resume] displays previously saved configurations. Configurations are saved when you shut down the SIP GUI software, or when you click [Close] in the "Configure Shot Box" dialog box. (This process requires some time.) To cancel the process before it is finished, click [Cancel].



The selected Snapshot is added to the [Shot Box] list.

Tips

- The same Snapshot can be added multiple times.
- Up to 20 Snapshots can be registered.
- If you select multiple Snapshots and register them to the Shot Box at one time, it may require some time before the file names appear in the list.
- It is also possible to register a Snapshot for which "(in memory)" is not displayed in the Shot Box.
- **5** Click [Close] to close the dialog box.
- **6** Click [Shot Box] to switch to Shot Box mode.

The registered Snapshots are shown.

ereo Image Processor			_ 🗆 ×
ile Connett Help			
Setup Shot Box Camera Pi		Main Monttor Side by Side 🔻 Loc WFM Lower Third Waveform 👻	sk Sub Monitor A Anaglyzh 🔍 Zoom Sub Monitor B 50% Mix 🔍 Zoom
Camera Pair 1			
7 Brown Root H Offsall = 5.0 Convergence = 0.00 Focal Length = 5.0	8 aaa LVE H Offsele a a Convergence = 10 aa Foxal Length = 5.8	9 bbb LVE H Offsel = 5.0 Correspense = 0.00 Focal Length = 5.8	10 CCC LIVE H Offset 5 0 Convergence = 10.0 Focal Length = 81.2
Camera Par 2			
			•

Tips

- Snapshots are shown in the order of the [Shot Box] list in the "Configure Shot Box" dialog box.
- The list shows Snapshots that are currently registered in the Shot Box. Deleted Snapshots will not be shown.

To change the order, see the section "Changing the Snapshot order" (page 87).

Note

The registered content (file selection and sequence information) will be cleared when exiting the SIP GUI software. To call up the settings that were active when the SIP GUI software was last shut down, click [Resume] as described in step **4**.

You can change the order of the Snapshots in the Shot Box by using drag & drop.

Grasp this section with the mouse and drag it to the desired position.

ī

Stereo Image Processor			
File Connect Help			
Setup Shot Box 1	ir 2 3	Main Monitor Side by Side V WFM Lower Third Waveform V	Lock Sub Meniter A Anaglyph 🛛 Zoom Sub Meniter B 50% Mix 🔍 Zoom
Camera Pair 1			
7 Brawn Root H Offset= 5.0 Convergence = 0.00 Focal Length = 5.8	8 8 8 LVE 2 H Offsel = 0.0 Corwergence = 10.00 Focal Length = 5.8	H Offset=50 Convergence = 0.00 FocalLength = 5.0	10 CCC LIVE H Offset= 50 Convergence = 100 Focal Length = 81.2
Camera Pair 2			

Removing a Snapshot from the Shot Box

- 1 Click the camera pair number for which you want to remove a Snapshot.
- **2** Access the [File] menu and select [Configure Shot Box].

The "Configure Shot Box" dialog box appears.

3 Select the Snapshot to remove from the [Shot Box] list, and click [Remove].



The selected Snapshot is removed from the [Shot Box] list.

4 Click [Close] to close the dialog box.

Using the Shot Box

On the "Shot Box" screen, you can recall a Snapshot for a camera pair by clicking the Snapshot on the line for the camera pair.

For example, to recall a Snapshot for camera pair 1, click the Snapshot on the [Camera Pair 1] line.



Click here to recall the Snapshot.

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