

Record Control Software

Help

Software Version 1.3

PWA-RCT1

Overview

PWA-RCT1 is software for recording video using storage servers (PWS-4400, PWS-4500, or BPU4800) making up a 4K Live system.


- Recording and playback controls are available for each storage server input/output port.
- Displays a list of recorded video, which can be played back on any port.
- Recorded video can be archived to a USB HDD or network drive. When recording, archiving of video starts automatically to the archive destination specified beforehand.
- Video on the archive destination can be imported (retrieved) onto a storage server.

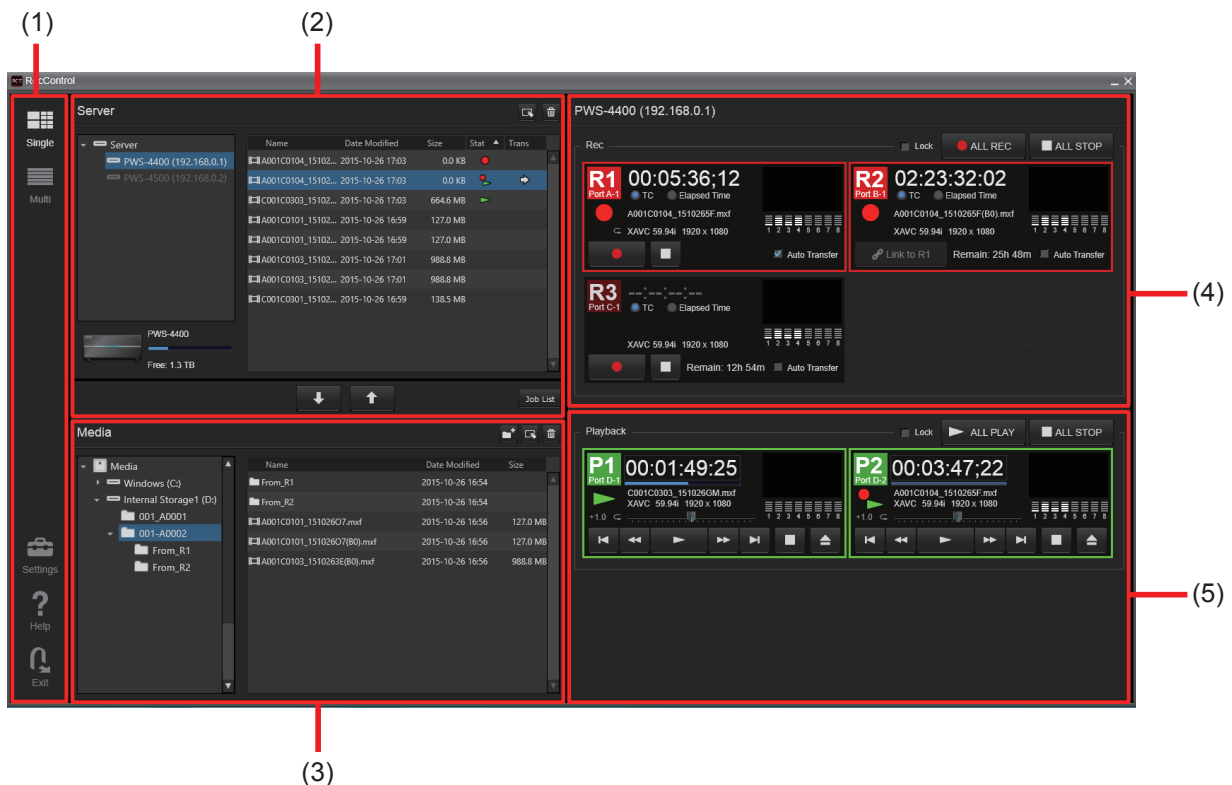
Operation Screens

This section describes the names and functions of the software screens.

- Home screen (single server mode)
- Home screen (multi server mode)
- Settings screen
- Server settings dialog
- Port settings dialog

Home Screen (Single Server Mode)

The Home screen (single server mode) is displayed by clicking  (Single) in the global menu. You can control playback and recording of each port on a connected server on this screen.



Common operations

Tree area (left side of Server/Media area)


- Multiple selections are not supported.





List area (right side of Server/Media area)

- Select multiple files using the Shift key or Ctrl key.
- You can select all files using the Ctrl+A key.

(1) Global menu

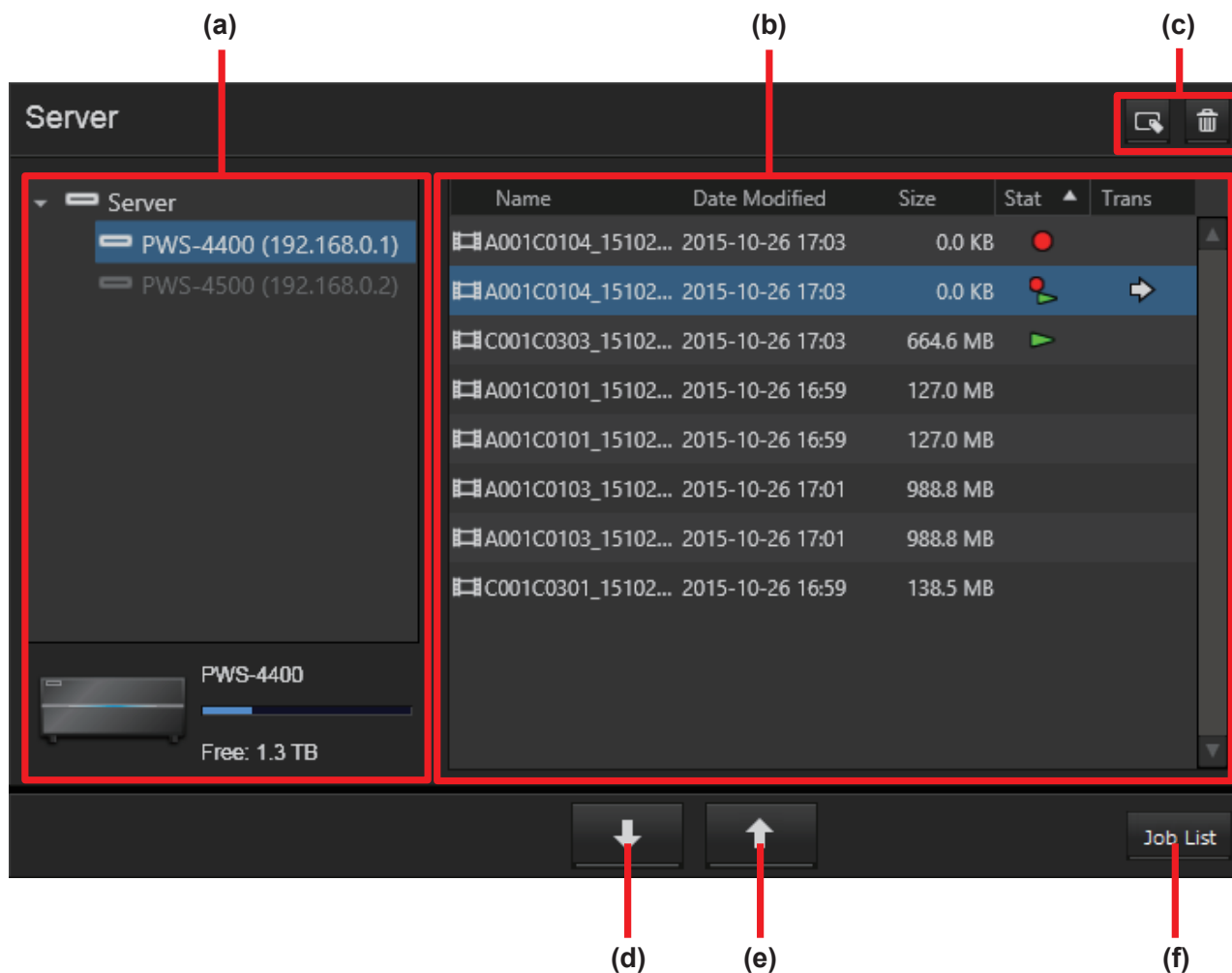
Click the icons to move between screens.

-  (Single): Displays the Home screen (single server mode) (this screen).

-  (Multi): Displays the Home screen (multi server mode).
-  (Settings): Displays the Settings screen.
-  (Help): Displays the Help and version information.
-  (Exit): Exits the software.

(2) Server area

Displays a list of registered servers and the files on the selected server.



(a) Tree area

Displays the servers. It can display multiple servers.

Clicking a server connects to that server. Information for the clicked server (storage type, storage usage, available capacity) is displayed under the tree.

Clicking a connected server refreshes the server display with the latest status.

You can disconnect a server by right-clicking a connected server and selecting [Disconnect] from the context menu.

(b) List area

The following items are displayed in the file list.

- Name: File name



- Date Modified: Date and time when the file was last modified
- Size: File size
- Stat: Displays recording or playback status (recording/chasing playback/playback/chasing playback stop/playback stop) using icons.
- Trans: Displays the archive status (archiving, pending archive, archive error, archive stopped) and retrieve status (retrieving, retrieve error, retrieve stopped) using icons.

You can select the following items by right-clicking a file in the list and selecting from the context menu.

- Delete: Deletes the selected files.
- Rename: Renames the selected file.
- Play: Loads the selected file into the playback port. Select the playback port number in the sub-menu.
- Select All: Selects all the files in the list.
- Refresh: Refreshes the list with the latest status. If the status is refreshed after starting to record, the file name of the recording is displayed. The same operation is available using the F5 key on the keyboard.
- Stop Transfer: Stops file archive or retrieve. This option is available when right-clicking a file being archived or retrieved.

(c) Toolbar

Contains the following tool buttons.

-  (Rename): Renames the selected file. Folders cannot be renamed.
-  (Delete): Deletes the selected files.

(d) Archive button

Archives the selected files to the archive destinations displayed in the Media area.

(e) Retrieve button

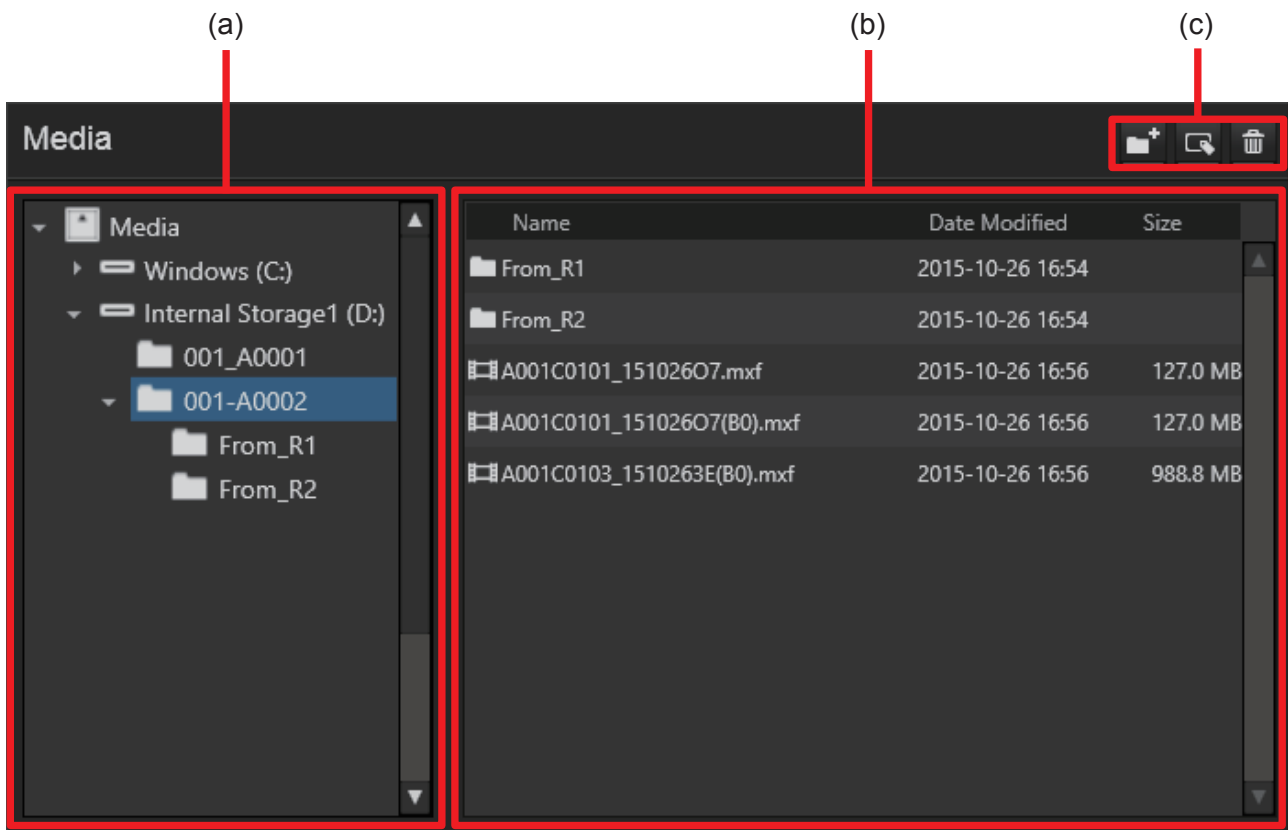
Retrieves the files selected in the media list to the server displayed in the Server area.

(f) Job List button

Displays the content of the current transfer job.

(3) Media area

Displays the destination drives for archiving files, and the files on the drives.



(a) Tree area

Displays the drives and network drives mounted on the PC in tree view. Clicking a drive displays the folders and files on the drive in the list area.

(b) List area

Displays a list of folders and files on a drive.

You can select the following items by right-clicking a file in the list and selecting from the context menu.




- Delete: Deletes the selected files. Folders cannot be deleted.
- Rename: Renames the selected file. Folders cannot be renamed.
- New Folder: Creates a new folder.
- Select All: Selects all the folders and files in the list.
- Refresh: Refreshes the list with the latest status. If the status is refreshed after starting an archive, the file name of the archived file is displayed. The same operation is available using the F5 key on the keyboard.

Note

Only items with folder paths with 247 characters or fewer are displayed in the tree area and list area. Folders with paths of 248 characters or longer are not displayed in the tree area and list area.

(c) Toolbar

Contains the following tool buttons.

-  (New Folder): Creates a new folder.
-  (Rename): Renames the selected file. Folders cannot be renamed.
-  (Delete): Deletes the selected files. Folders cannot be deleted.

(4) Recording panel

Controls the port for recording on the server selected in the Server area.

[Lock] checkbox

Place a check mark in the checkbox to lock the panel. Control using the panel is disabled while the panel is locked.

[ALL REC] button

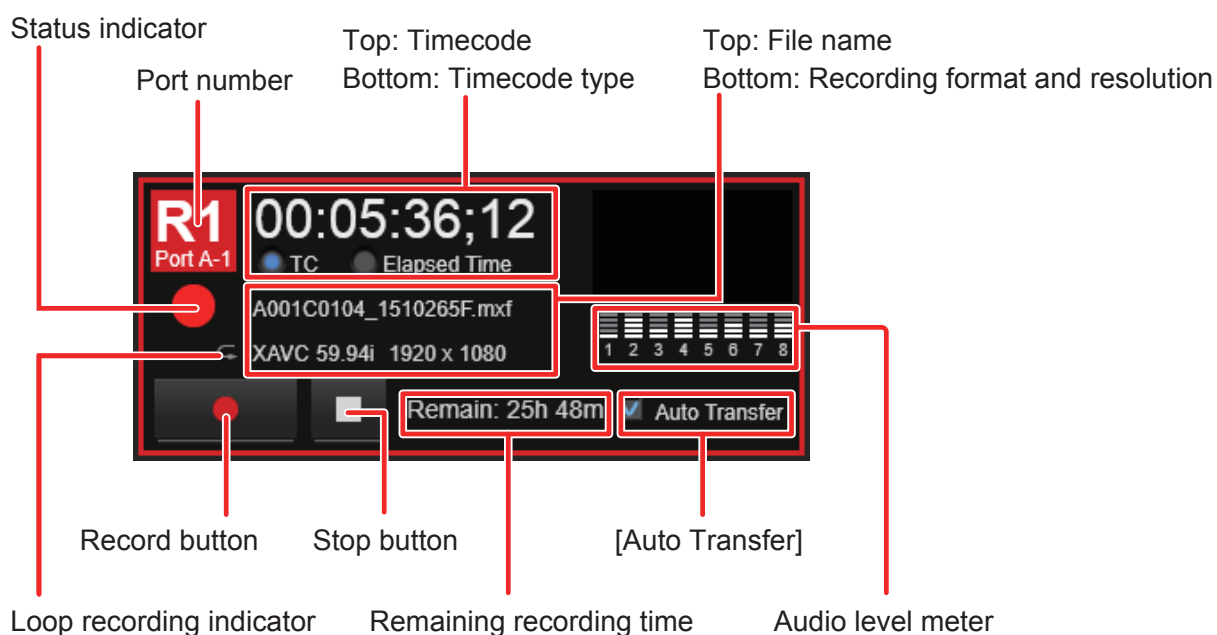
Starts recording on all the available recording ports.

[ALL STOP] button

Stops recording on all ports.

Recording port panel

Controls the recording on each of the available ports.



Display item	Description
Port number	Displays the port number (R1 to R8) according to the number of inputs.
Timecode	Displays the current timecode (hours, minutes, seconds, frames) during recording. All codes display "--" when not recording. The separator character between seconds and frames is a semicolon (;) when the port is set to DF or a colon (:) when set to NDF.
Timecode type	Selects the type of timecode. When [TC] is selected, the timecode of the video in the recording port is displayed. When [Elapsed Time] is selected, the elapsed video recording time is displayed.
Audio level meter	Displays the audio level for the input signal on the recording port.
File name	Displays the file name of the recording.
Recording format and resolution	Displays the video format, frame rate, and resolution of the recording port.

Display item	Description
Status indicator	Displays an icon while recording video. (Nothing is displayed when not recording.)
Loop recording indicator	Displays this indicator when [Loop Recording] is set on the server. Not displayed when not set.
Recording button	Starts video recording.
Stop button	Stops video recording.
Auto Transfer	Enables automatic archiving of recording port video. For details, see "Archiving."
Remaining recording time	Displays the remaining recording time for each recording port. The indicator is displayed in green when the remaining recording time is less than 30 minutes, and in red when less than 10 minutes.

(5) Playback panel

Controls the port for playback on the server selected in the Server area.

[Lock] checkbox

Place a check mark in the checkbox to lock the panel. Control using the panel is disabled while the panel is locked.

[ALL PLAY] button

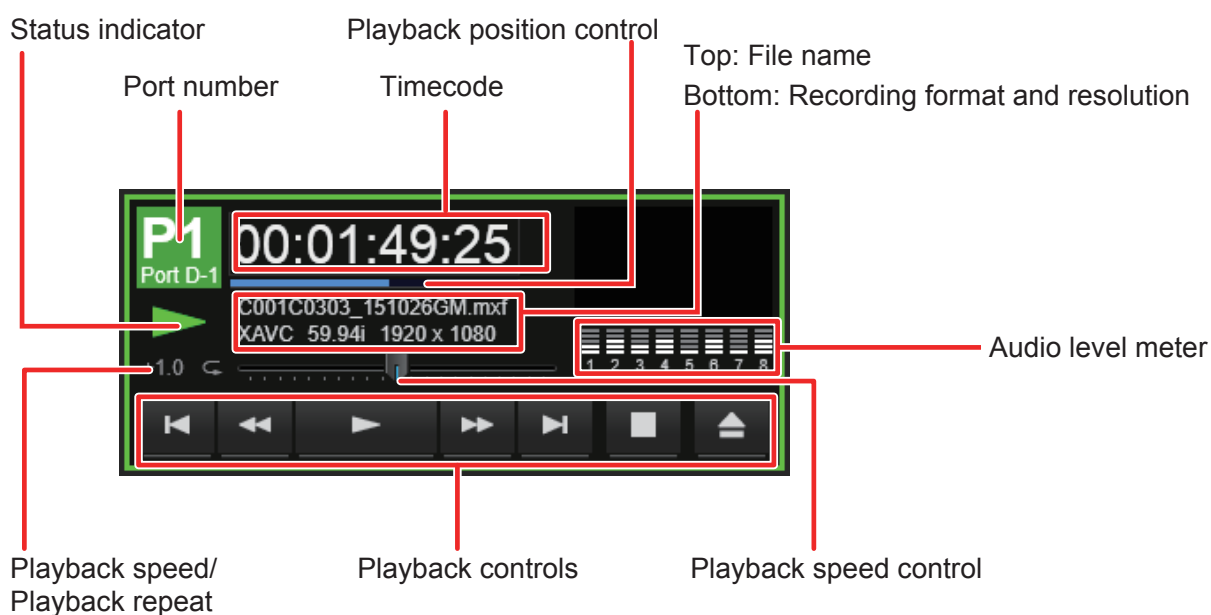
Starts playback on all the available playback ports.

[ALL STOP] button

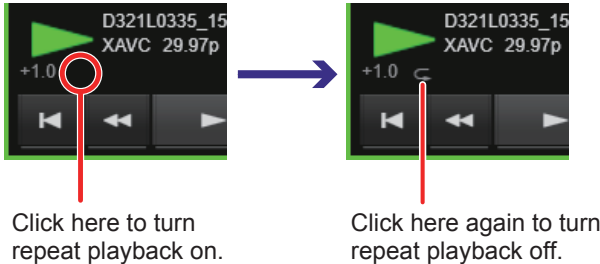
Stops playback on all ports.

Playback port panel


Controls the playback on each of the available ports.

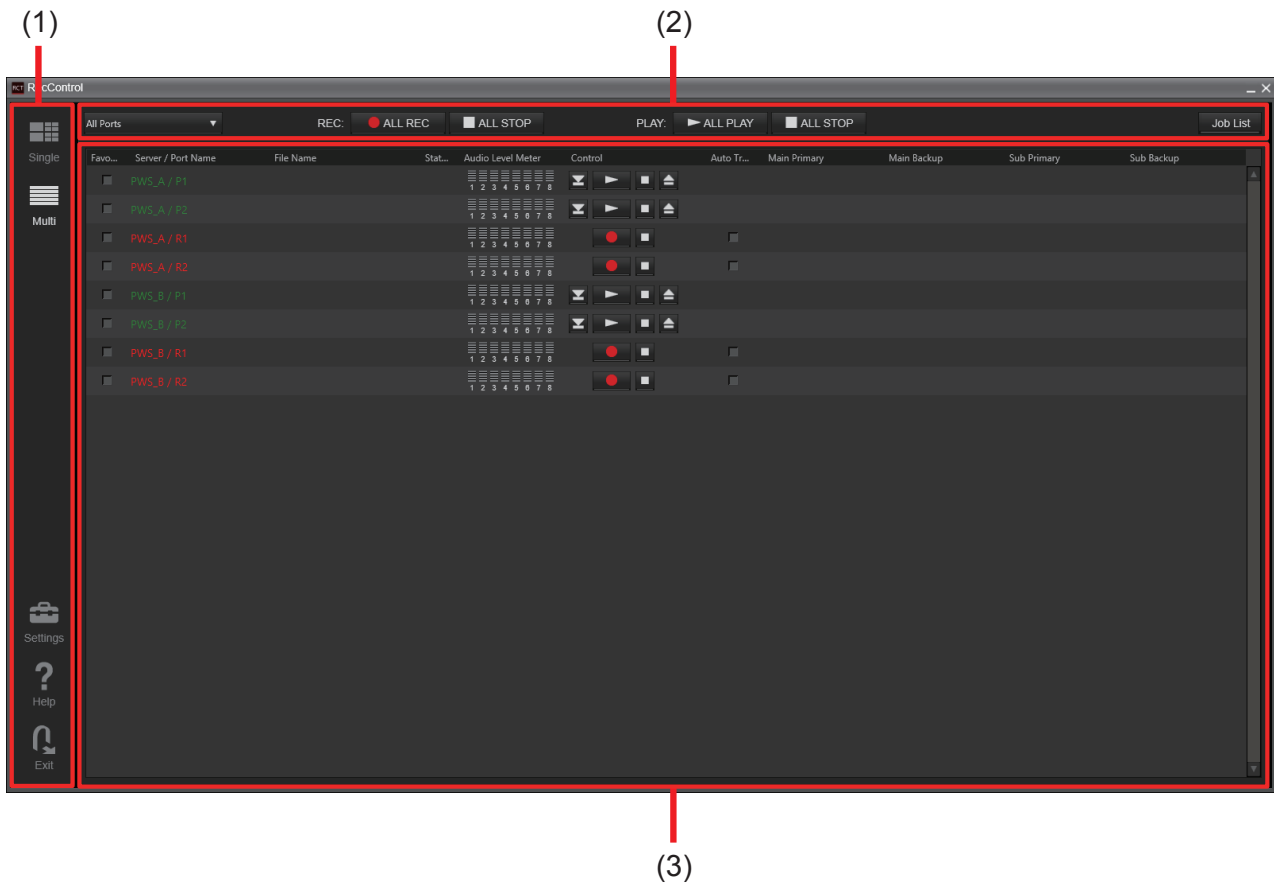


Display item	Description
Port number	Displays the port number (P1 to P6) according to the number of inputs.






Display item	Description
Timecode	Displays the current timecode (hours, minutes, seconds, frames) in a file during playback. All codes display "--" when a file is not loaded in the port. The separator character between seconds and frames is a semicolon (;) when the loaded file is DF or a colon (:) when NDF. You can click the timecode and enter a value to jump to the specified playback position. For details, see "Playback."
Playback position control	Displays the current video playback position. You can jump to any position by clicking the bar.
Audio level meter	Displays the audio level for the video output signal during playback.
File name	Displays the file name of the loaded file.
Recording format and resolution	Displays the recording format, frame rate, and resolution of the loaded video.
Status indicator	Displays the playback status icon during video playback. When playback is stopped, an icon indicating the playback stop state is displayed.
Playback speed	Displays the playback speed during fast forward and fast reverse.
Playback speed control	Varies the video playback speed in the forward and reverse directions up to 100 times normal speed by dragging the knob left and right. The playback speed varies according to the position of the knob. The forward or reverse playback state is maintained after releasing the mouse button.
Repeat playback indicator	Clicking the indicator changes the Continuous Mode setting on the server to "Single File Repeat." The file plays repeatedly in this state. This icon is not displayed when repeat playback is off. To turn repeat playback on, click the location shown in the figure below. 
Playback control buttons	Controls playback of the recorded video. For details, see "Playback."

Home Screen (Multi Server Mode)

The Home screen (multi server mode) is displayed by clicking  (Multi) in the global menu. You can display all ports on a connected server, and control playback and recording on this screen.



(1) Global menu

-  (Single): Displays the Home screen (single server mode).
-  (Multi): Displays the Home screen (multi server mode).
-  (Settings): Displays the Settings screen.
-  (Help): Displays the Help and version information.
-  (Exit): Exits the software.

(2) Toolbar



Displays buttons and listboxes for controlling the ports displayed in the list area.

Filter listbox



Filters the ports displayed in the ports list.

All ports are displayed in the ports list by default. You can filter the ports displayed using the options in the listbox (all recording ports, all playback ports, all [Favorite] ports, all [Favorite] recording ports, all [Favorite] playback ports).

[REC]

-  : Starts recording on all recording ports displayed in the list area.
-  : Stops recording on all recording ports displayed in the list area.

[PLAY]

- : Starts playback on all playback ports displayed in the list area.
- : Stops playback on all playback ports displayed in the list area.

[Job List] button


Displays the content of the current transfer job.

(3) Ports list

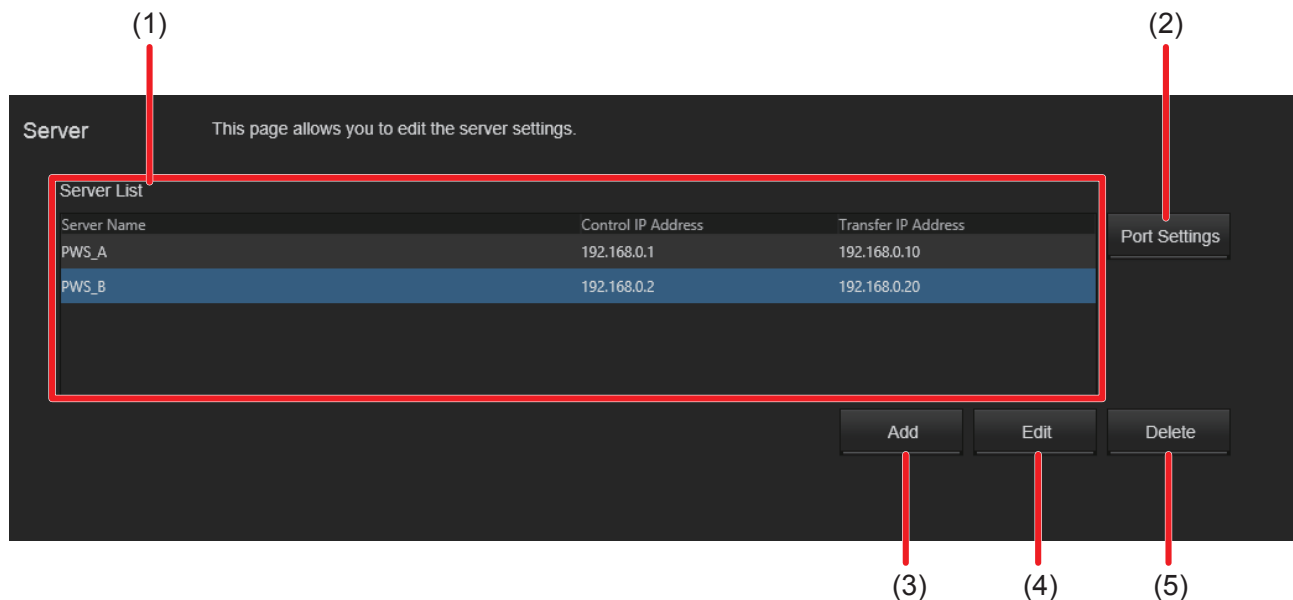
Displays a list of the ports on a connected server. The following operations are available for displayed ports.

- You can filter the display to show only those ports with a check mark placed in [Favorite] using the filter listbox. The [Favorite] status is retained until the server or port configuration is changed.
- You can control recording and playback of each of the displayed ports individually.
- When a check mark is placed in [Auto Transfer], automatic transfer of recording port video is enabled. For details, see "Archiving".

Settings Screen

The Settings screen is displayed by clicking  in the global menu. Use this screen to register, edit, and delete servers, and to set ports.

The Settings screen is made up of the following sections.



(1) Server List

Displays a list of the registered servers.

No servers are registered the first time you launch the software. You must click the [Add] button to add a server. Up to four servers can be registered.

Clicking a server allows you to modify the registered details or delete the server from the list.

(2) [Port Settings] button

Displays the Port Settings dialog. You can configure ports for the server selected in Server List.

(3) [Add] button

Displays the Server Setting dialog. Use this to add a server to this software.

(4) [Edit] button

Displays the Server Setting dialog. You can register the details for the server selected in Server List.

(5) [Delete] button

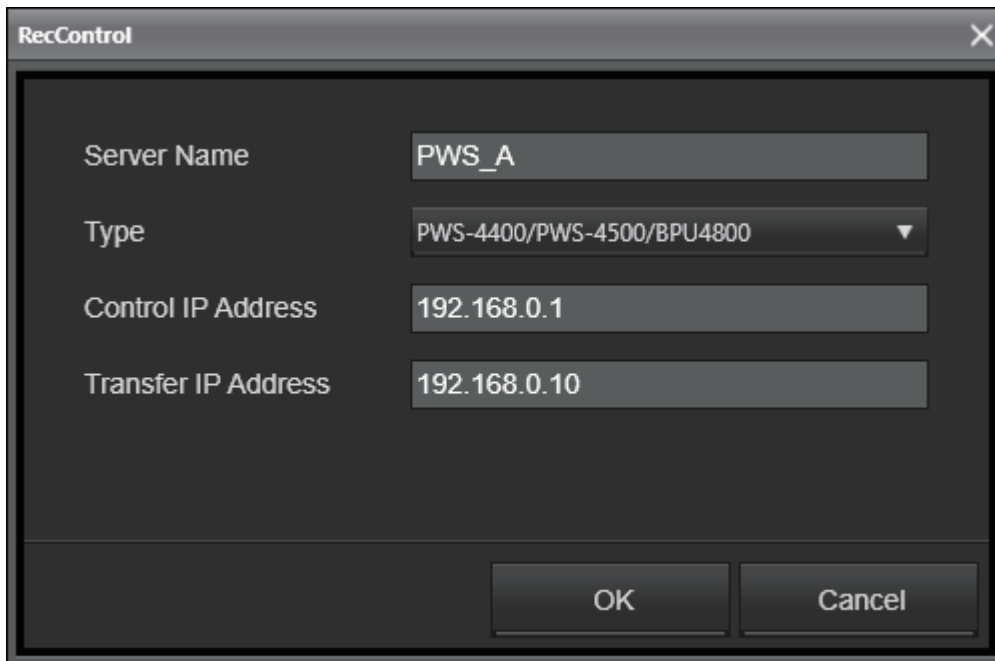
Deletes the server selected in Server List.

Notes

- Clicking the [Edit] button or [Delete] button while a server is connected will display a message alerting you that you cannot edit settings because the server is not disconnected. Editing or deleting a server is supported only when the server is disconnected. To disconnect a server, right-click the server in the Server tree, and select [Disconnect] from the context menu.
- Control IP Address and Transfer IP Address cannot be changed for a source server on which there currently are archive pending jobs, archive jobs, retrieve pending jobs, or retrieve jobs.

Server Settings Dialog

Registers a server.

The image shows a screenshot of a software dialog box titled "RecControl". The dialog has a dark gray background and a standard window border with a close button (X) in the top right corner. Inside the dialog, there are four labeled input fields arranged vertically: "Server Name" with the text "PWS_A", "Type" with a dropdown menu showing "PWS-4400/PWS-4500/BPU4800", "Control IP Address" with the text "192.168.0.1", and "Transfer IP Address" with the text "192.168.0.10". At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

Server Name

Enter the name of the server (up to 64 alphanumeric characters and symbols). The name specified here is displayed in Server List on the Settings screen.

Type

Displays the server model and type. This cannot be modified.

Control IP Address

Enter the IP address for recording panel and playback panel control. The IP address of the Ethernet port on the server is used as the control IP address.

Transfer IP Address

Enter the IP address for transfers.

Enter the IP address of the 10 GbE NIC if a 10 GbE NIC is installed on the server. Enter the same IP address as in [Control IP Address] if a 10GbE NIC is not installed.

Notes

- Up to four servers can be registered for recording/playback control. However, the transfer speed will drop if transferring files from multiple servers simultaneously. It is recommended that transfers be performed from one server only.
- If Network Port 1 or 2 (1GbE) only is used on a PWS-4400/4500 unit, the maximum number of file transfers is four. If a 10GbE Network connector is used, the maximum number of file transfers is eight. On the BPU4800, the maximum number of file transfers is three, regardless of the Network connector being used.
- If the server is a PWS-4500, archiving of ProRes format files (.mov file name extension) is supported, but use of the 10GbE Network connector is required. Archiving of ProRes format files is not supported if using only the Network Port 1 or 2 connector (1GbE).
- Files cannot be retrieved to the BPU4800.

Port Settings Dialog

You use this dialog to configure naming rules for files recorded by this software. You can also make settings related to automatic transfer of recorded files.

The screenshot shows the RecControl Port Settings Dialog. It has two main panels. The left panel, labeled (1), is titled 'Naming Rules' and contains a table with columns: Cam ID, Reel No., Camera Position, and Shot No. The right panel, labeled (2), is titled 'Auto Transfer' and contains a table with columns: Main Primary, Main Backup, Sub Primary, and Sub Backup. Both panels have a red box around them, and red lines connect the labels (1) and (2) to their respective sections. The dialog also has 'OK' and 'Cancel' buttons at the bottom right.

Cam ID	Reel No.	Camera Position	Shot No.
R1 A	001	C	0001
R2 B	001	C	0001
R3 C	001	C	0001
R4 D	001	C	0001
R5 E	001	C	0001
R6 F	001	C	0001
R7 G	001	C	0001
R8 H	001	C	0001

Main Primary	Main Backup	Sub Primary	Sub Backup
R1
R2
R3
R4
R5
R6
R7
R8

(1) Naming Rules

Specifies the naming rules for files when recording.

Select [F55] or [Custom] naming rules format.

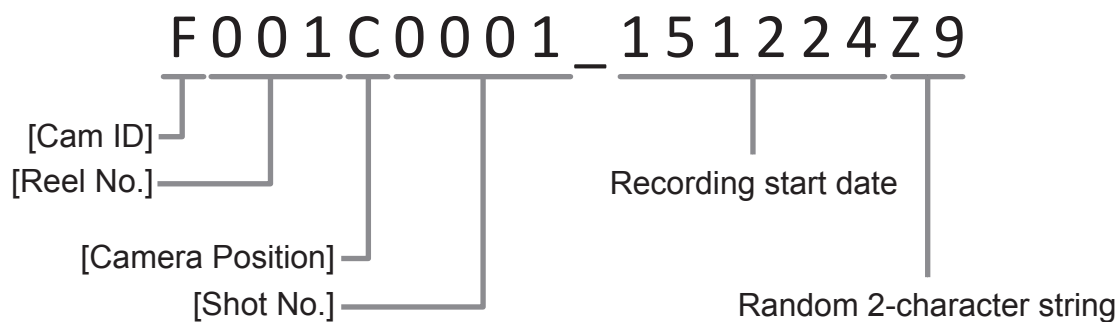
When [F55] is selected.

You can specify the following items for each port.

Item	Description
Cam ID	Specifies the ID (upper case letter between A and Z) assigned to the port.
Reel No.	Specifies an arbitrary 3-digit number in the range 000 to 999.
Camera Position	Specifies a letter indicating the camera position, as follows. C: Center L: Left R: Right
Shot No.	Specifies the start number for consecutive naming of files as an arbitrary 4-digit number in the range 0001 to 9999. The number increments automatically with each recording.

The actual file name given to recording files contains a character string formed by the above settings together with the recording start date and a random 2-character string.

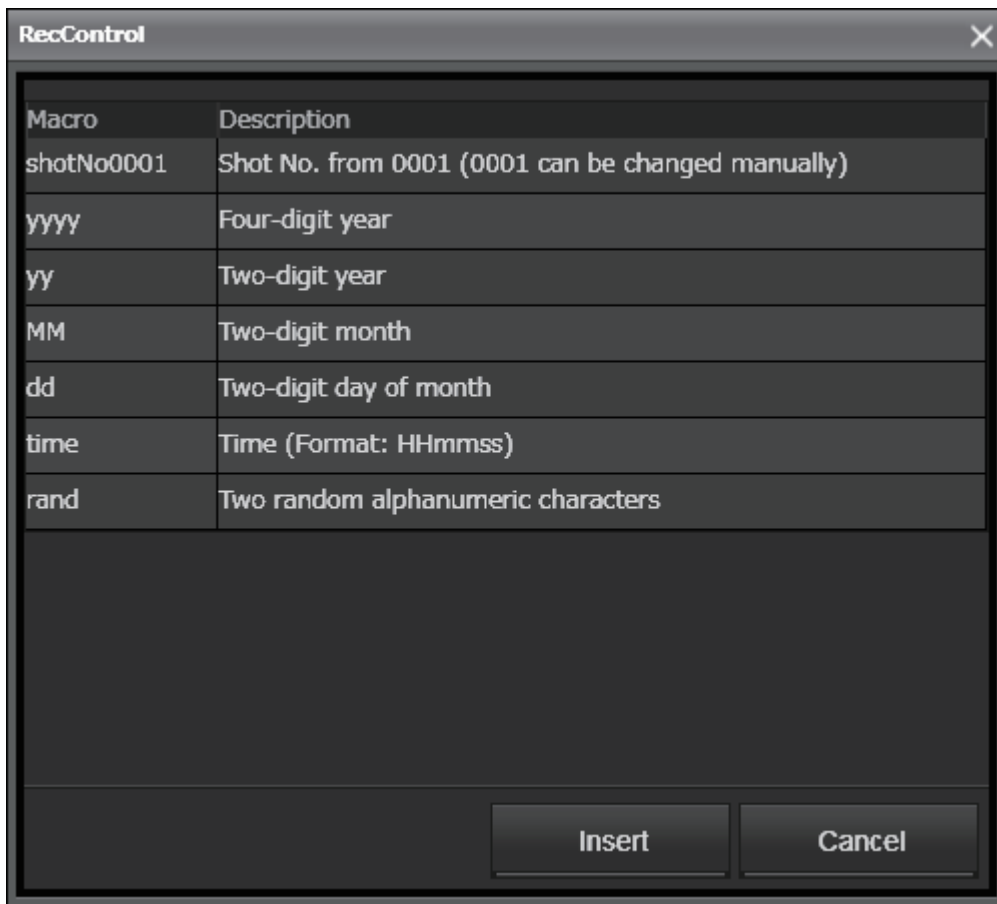
Example:



When [Custom] is selected.

Enter a naming rule for each port.

Click the [Macro] button to specify a macro for input. Click a macro in the [Macro] column of the displayed dialog and click the [Insert] button to insert the selected macro in the input field of the port settings dialog (specified macro name is enclosed in % characters).



(2) Auto Transfer

To start file archiving automatically when recording starts, click [...] and specify an archive destination in the dialog that appears or enter the archive destination folder path directly.

If simultaneous HD recording of 4K/QFHD input video and simultaneous normal speed HD recording in high frame rate recording mode are enabled on the server, specify archive destinations in both [Main Primary] (4K/QFHD and high frame rate video archive destination) and [Sub Primary] (HD video archive destination). Specify only [Main Primary] when simultaneous recording is not configured.

You can specify different archive destinations if both [Main Primary] and [Sub Primary] are specified. In this case, set [Main Backup] and [Sub Backup].

Operating Procedures

This section describes the operating procedures for each software function.

- Recording
- Playback
- Archiving
- Retrieving
- Checking the file transfer status


Recording

Starting recording on a port

Home screen (single server mode)


1. Select a server in the Server area.
2. In the recording panel, click the  button for the port used for recording.
Recording starts. A red frame is displayed around ports that are recording.

Home screen (multi server mode)

Click the  button to start recording on the recording ports displayed in the ports list.

Starting recording in gang mode


You can start recording video simultaneously on multiple ports that are grouped according to the gang mode setting.

In gang mode, the port with the lowest number is called the Parent port, and all other grouped ports are called Child ports. Clicking the  button to start recording on the recording port of the Parent port also starts recording on all the Child ports. You also stop recording on all ports by stopping recording on the recording port of the Parent port.

Starting recording on all ports

Click the [ALL REC] button. Ports that are already recording will continue to record without change.

Stopping recording

Click the  button for the port used for recording.

Clicking the [ALL STOP] button will stop recording on all ports.


Playback

Loading a file for playback


Home screen (single server mode)

1. Select a server in the Server area.
2. Click the file to play in the list area, and drag & drop the file onto the playback panel.
You can also right-click the file to play in the list area, select [Play] from the context menu, and select the port number from the sub-menu.

Home screen (multi server mode)

Click the  (Load) button on the recording ports displayed in the ports list, select a file in the displayed dialog, and click [OK].

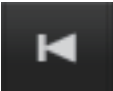
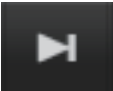
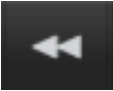
Tips


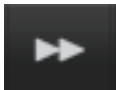
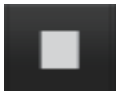
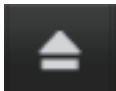
- Files can be loaded even if the file is currently recording or playing. You can drag & drop a recording file onto a playback port to start chasing playback. Clicking  (Jump to end of file) selects the shortest chasing playback.
- You can also load a file while recording by clicking the recording port and dragging it to a playback port.
- If a port currently has another file loaded when you attempt to load a file, the loaded file is first unloaded and is replaced by the file you drag & drop.
- If the same file is loaded in the same port, the file is reloaded and the playback position returns to the start.
- Files which have a different recording format or resolution than that set on the server cannot be loaded for playback using drag & drop.

Starting playback

Home screen (single server mode)

Control playback using the playback port panel control buttons.


Button	Description
	Jump to start of file
	Jump to end of file
	Fast reverse The playback speed switches to 2×, 4×, 8×, and 50× in that order with each click.

Button	Description
	Play
	Fast forward The playback speed switches to 2×, 4×, 8×, and 50× in that order with each click.
	Stop
	Unload file

Dragging the playback speed control knob left or right allows you to adjust the speed (up to 100 times normal speed) of video playback in the forward and reverse directions, according to the scale position of the control.

To start playback in gang mode

You can start video playback simultaneously on multiple ports that are grouped according to the gang mode setting.

In gang mode, the port with the lowest number is called the Parent port, and all other grouped ports are called Child ports. Clicking the  button to start playback on the playback port of the Parent port also starts playback on all the Child ports. You also stop playback on all ports by stopping playback on the playback port of the Parent port.

To specify the playback position

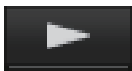


- Click the timecode in the playback panel, highlighting the timecode, and enter a value to jump to the entered timecode.
- Click the playback position control to jump to any playback position.


Tips

- Only numeric characters are valid when editing the timecode.
- To deselect the timecode area, press the Esc key on the keyboard.

Home screen (multi server mode)

Control playback using the playback port control buttons displayed in the ports list.

Button	Description
	Play
	Stop
	Unload file

Button	Description
	Load file

Archiving

About archive destination drives

You can specify a local drive on the PC as the archive destination drive. You can also specify external media or NAS as an archive destination, but with the following caveats.

- External media, such as an external HDD, must be connected to the PC beforehand. Do not eject or unmount the media while archiving.
- If using a network drive (NAS) for archiving, first map the network drive using Explorer.

Specifying and archiving files

Perform the following operation on the Home screen (single server mode).

1. Select a server to be the archive destination in the Server area.
2. Select an archive destination drive in the Media area.
3. Select a file to be archived in the Server area.

Multiple file selection is supported. A currently recording file can also be selected as a file to be archived.

4. Click the [Archive] button.

Notes

- Up to four servers can be registered for recording/playback control. However, the transfer speed will drop if transferring files from multiple servers simultaneously. It is recommended that transfers be performed from one server only.
- If Network Port 1 or 2 (1GbE) only is used on a PWS-4400/4500 unit, the maximum number of file transfers is four. If a 10GbE Network connector is used, the maximum number of file transfers is eight.
- If the server is a PWS-4500, archiving of ProRes format files (.mov file name extension) is supported, but use of the 10GbE Network connector is required. Archiving of ProRes format files is not supported if using only the Network Port 1 or 2 connector (1GbE).

Tip

You can also archive a file selected in the list in the Server area by copying it to the list area of the Media area using drag & drop.

Archiving using Auto Transfer

The auto transfer function automatically starts archiving of a file when recording starts. The auto transfer configuration items can be set beforehand by opening the Port Settings Dialog from the Settings Screen. Auto transfer can also be configured using the following procedure.

1. On the Home screen (single server mode), place a check mark in the [Auto Transfer] checkbox in the recording port panel.

On the Home screen (multi server mode), place a check mark in the [Auto Transfer] checkbox for the recording port in the ports list.

The dialog for setting the archive destination appears.

2. Click [...] and specify an archive destination in the dialog that appears, or enter a path for an archive destination folder directly.

If simultaneous HD recording of 4K/QFHD input video and simultaneous normal speed HD recording in high frame rate recording mode are enabled on the server, specify archive destinations in both [Main Primary] (4K/QFHD and high frame rate video archive destination) and [Sub Primary] (HD video archive destination). Specify only [Main Primary] when simultaneous recording is not configured.

You can specify different archive destinations if both [Main Primary] and [Sub Primary] are specified. In this case, set [Main Backup] and [Sub Backup].

3. Click [OK] to close the dialog.

Tips

- If [Auto Transfer] is enabled during recording, archiving of files starts from the beginning of the recording file.
- [Auto Transfer] cannot be disabled while auto transfer is in progress.
- Auto transfer cannot be performed, even if the [Auto Transfer] checkbox is selected, if an archive destination has not been configured.

Note

If the server is a PWS-4500, archiving of ProRes format files (.mov file name extension) is supported, but use of the 10GbE Network connector is required. Archiving of ProRes format files is not supported if using only the Network Port 1 or 2 connector (1GbE). Accordingly, be aware of the following points when setting auto transfer.

- If the recording format is set to ProRes on a server, [Auto Transfer] cannot be enabled for the recording port of that server.
- If the recording format is set to XAVC on a server, [Auto Transfer] can be enabled for the recording port of that server, but if the recording format is subsequently changed to ProRes, then [Auto Transfer] will be automatically disabled.

Retrieving

Perform the following operation on the Home screen (single server mode) to import (retrieve) files from media on an archive destination onto the server.

1. Select a retrieve destination drive in the Media area.
2. Select a retrieve destination server in the Server area.
3. Select the files you want to retrieve in the list in the Media area.
Multiple file selection is supported.
4. Click the [Retrieve] button.

Tip

You can also retrieve a file selected in the list in the Media area by copying it to the list area in the Server area using drag & drop.

Checking the file transfer status

Click the [Job List] button to display the Job List screen to view a list of the current file transfer status.

The following operations are available in the context menu displayed by right-clicking a job in the list on the Job List screen.

- [Refresh]: Refreshes the job to the latest status.
- [Stop Transfer]: Stops the job file transfer.
- [Re-transfer]: Restarts the file transfer after stoppage due to an error.

Tip

The contents of the job list are maintained while the software is running, but is cleared when the software exits.

Job list items

Item name	Display content
File Name	File name of file being transferred
From	Transfer source server name and IP address
To	Path of destination folder
Status	Job status
Progress	Transfer of recorded file: Job transfer state shown in progress bar and as a percentage. Transfer of file currently being recorded: Number of bytes transferred up to that point, updated every five seconds (progress bar is not displayed).
Create Time	Time and date of transfer job registration
Start Time	Transfer start time
End Time	Transfer end time
Error Message	Content of error when a transfer error occurs

Appendix

The appendix comprises the following topics.

- Notice to Users
- Trademarks

Notice to Users

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