Grass Valley

EDIUS

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EDIUS 11 Broadcast Topic Library

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Manual Explanation

- If there are any variations between the explanation in this manual and the actual application method, priority is given to the actual application method.
- The images and illustrations used in this manual are prototypes and they may be different from the screens of the actual product.
- This manual is written for people who have a basic knowledge of how to use a computer. If there are no special instructions, perform the same operation as a normal computer operation.
- In this manual, EDIUS Broadcast, EDIUS Workgroup, EDIUS Pro, and EDIUS series are referred to as “EDIUS”.
- In this manual, Microsoft® Windows® operating system products are referred to as follows.
  - Microsoft® Windows® 10 operating system: Windows 10
  - Microsoft® Windows® 11 operating system: Windows 11
- The signs and definitions in this manual are as follows.

Signs	Definitions
	This sign indicates the important point of the operation.
Alternative	This sign indicates an alternative method for the same operation that differs from the one in the procedure.
Note	This sign indicates cautions and restrictions on the operation.

DANGER

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In rare cases, flashing lights or stimulation from the bright light of a computer display or TV monitor may trigger temporary epileptic seizures or loss of consciousness. It is believed that even individuals whom have never experienced such symptoms may be susceptible. If you or close relatives have experienced any of these symptoms, consult a doctor before using this product.

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Chapter 1

EDIUS

This chapter explains the outline of EDIUS and function and screen structure of each product.

EDIUS

EDIUS 11 Broadcast

EDIUS 11 Broadcast is nonlinear video editing software for broadcasting usage that provides high-speed real time editing and smooth operability and realizes interactive workflows with various other systems. Handling native data of recorded sources without conversion dramatically improves the productivity at news broadcasting or live events where immediacy is necessary. In addition, it has full range of nonlinear basic functions such as multi-format mixed editing, multicam editing, proxy editing, composition, effects, and titles, to enable free expression of the editor image. The seamless interaction with servers and storage products of Grass Valley also enables construction of a large-scale broadcasting system. Import and export of Dolby Digital Professional and Dolby Digital Plus format files are also made possible.

Operating Environment/Specifications

To use EDIUS, the following environment and specifications are required.

Operating Environment

OS

- Windows 10 64-bit (Version 22H2 or later)
- Windows 11 (latest version)

- See “Memory” for physical memory limits of each OS.
  “Memory” (▶ page 25)

CPU

- Intel 5th or later generation CPU, or equivalent AMD CPU

Memory

- 8 GB or more (For 4K/8K editing, 32 GB or more is recommended)
  The minimum system requirement of PC memory capacity differs depending on the project.

Project format		PC memory capacity		Video memory capacity	
Resolution	Video quantization bitrate	Minimum	Recommended	Minimum	Recommended
HD	8-bit	8 GB	16 GB	512 MB	1 GB
	10-bit	8 GB	16 GB	1 GB	2 GB
4K or higher	8-bit	16 GB	32 GB or more	2 GB	2 GB or more
	10-bit	16 GB	32 GB or more	2 GB	2 GB or more

Other Specifications

Graphics

- A GPU conforming to Direct3D feature level 11_1 or later is recommended

- For 4K editing, 2 GB or more video memory is required.
- See “Memory” for minimum and recommended system requirements of video memory for each project.
  “Memory” (▶ page 25)

Storage

- To install EDIUS, at least 6 GB of free space is required
- An SSD or a drive with SATA/7200 rpm or higher is recommended for video editing

Optical Drive

- To create Blu-ray or DVD discs, compatible drives are required

- Optional license is required for Blu-ray or DVD authoring.

Sound Card

- A sound device that is compliant with WDM is required

Display

- HiDPI display is supported

Internet Environment

- Internet environment is required for installation, update, license activation, user registration, and support

Support

- For details on support, see “Grass Valley Product Support”.
  “Grass Valley Product Support” (▶ page 499)

Note

- Operation is not guaranteed for all environment that meet the operating environment and specifications described in this section.
- Visit our website for the latest operating environment/specifications.
  “Our Website” (▶ page 499)

Comparison Table for Functions of Each EDIUS 11 Product

✓: Supported
—: Not supported
Optional: Can be supported by using options.

■ Input

Function	EDIUS 11 Broadcast	EDIUS 11 Workgroup	EDIUS 11 Pro
Import from ordinary cameras, including video cameras and digital single-lens cameras	✓	✓	✓
Import from cameras that support 4K and 2.5K	✓	✓	✓
Import of professional camera formats (MXF)	✓	✓	✓
Cinema RAW source browser and decoding supported	✓	✓	✓
Cinema RAW Light source browser and decoding supported	✓	✓	✓
Sony RAW/Sony X-OCN source browser and decoding supported	✓	✓	✓
H.265/HEVC decoding	✓	✓	✓
H.265/HEVC high-speed decoding	✓	✓	✓
Canon XF-HEVC (H.265) decoding	✓	✓	✓
Import of still images, including photographs and illustrations	✓	✓	✓
Import of consecutive still image files	✓	✓	✓
Import of audio materials	✓	✓	✓
Import of Final Cut Pro XML	✓	✓	✓
Capture	✓	✓	✓
Source browser	✓	✓	✓
Avid DNxHD/DNxHR MOV supported	✓	✓	✓
Import of Dolby Digital (AC-3)	✓	✓	✓
Import of Dolby Digital Professional (AC-3)	✓	—	—
Import of Dolby Digital Plus (E-AC-3)	✓	—	—

■ Settings

Function	EDIUS 11 Broadcast	EDIUS 11 Workgroup	EDIUS 11 Pro
8K supported	✓	✓	✓
4K, 10-bit supported	✓	✓	✓
High-definition supported	✓	✓	✓
1080/60p supported	✓	✓	✓
Color space selection using project settings	✓	✓	✓
Editing function for color space preset	✓	✓	✓
Selection of rendering format of the timeline	✓	✓	✓
TC preset	✓	✓	✓
User profiles	✓	✓	✓
FTP uploading and downloading	✓	✓	—
Amazon S3 source downloading	Optional	Optional	Optional
Timecode display for 60p/50p	✓	✓	✓

■ Editing

Function	EDIUS 11 Broadcast	EDIUS 11 Workgroup	EDIUS 11 Pro
HDR editing	✓	✓	✓
Real-time mixed editing of multiple formats	✓	✓	✓
Intel Quick Sync Video hardware decoding	✓	✓	✓
Refined user interface	✓	✓	✓
Multicam editing	✓	✓	✓
Various editing modes	✓	✓	✓

Function	EDIUS 11 Broadcast	EDIUS 11 Workgroup	EDIUS 11 Pro
Proxy editing	✓	✓	✓
Preroll editing	✓	✓	✓
Title Insertion Mode	✓	✓	—
Editing while recording capture	✓	✓	—
Multiple sequences in projects	✓	✓	✓
Nested sequences	✓	✓	✓
Draft previews	✓	✓	✓
Frame skip playback	✓	✓	✓
Playback image quality settings for RED files	✓	✓	✓
Full-screen previews	✓	✓	✓
Preview window rotation	✓	✓	✓
Zebra preview	✓	✓	✓
Monitor control	✓	✓	—
Time remapping	✓	✓	✓
High-quality slow-motion	✓	✓	✓
High-quality slow-motion advanced matching mode	✓	✓	✓
Vector scopes and waveforms	✓	✓	✓
Videoscopes	✓	✓	✓
Primary color correction	✓	✓	✓
Marker function	✓	✓	✓
Closed Caption view (CEA-708/CEA-608)	✓	✓	✓

■ Audio

Function	EDIUS 11 Broadcast	EDIUS 11 Workgroup	EDIUS 11 Pro
Audio monitoring mode	✓	✓	—
Loudness meter	✓	✓	—
Audio mixer	✓	✓	✓
Audio channel mapping	✓	✓	✓
Audio bitstream pass-through	✓	✓	—
Normalization	✓	✓	✓
Audio waveform (speech waveform display) generation	✓	✓	✓
Voiceovers	✓	✓	✓

■ Effects

Function	EDIUS 11 Broadcast	EDIUS 11 Workgroup	EDIUS 11 Pro
Video filters	✓	✓	✓
Transitions	✓	✓	✓
Audio effects	✓	✓	✓
Quick Titler	✓	✓	✓
Alpha channels	✓	✓	✓
Mask filters	✓	✓	✓
Track matte keyer	✓	✓	✓
Combined filters	✓	✓	✓
VST plug-in bridge	✓	✓	✓
GPUfx	✓	✓	✓
Chromakey and luminancekey	✓	✓	✓
Compositing (addition, multiplication, etc.)	✓	✓	✓
Shake stabilizer (blur correction)	✓	✓	✓
Gaussian blurring	✓	✓	✓
Effect customization	✓	✓	✓

■ Output

Function	EDIUS 11 Broadcast	EDIUS 11 Workgroup	EDIUS 11 Pro
Output of QuickTime, ProRes 422 HQ, ProRes 4444 Alpha, ProRes 422 LT, ProRes 422 Proxy, and other ProRes formats	✓	✓	✓
High-speed, high-resolution output of XAVC formats including 4K	✓	✓	✓
XAVC/MP4 clip exporting with HDR metadata	✓	✓	✓
Advanced MXF file exporting	✓	✓	—
Blu-ray/DVD output (authoring)	Optional	Optional	Optional
High-speed encoding of Blu-ray/H.264 using Intel Quick Sync Video	✓	✓	✓
High-speed encoding of H.265/HEVC (MP4) using Intel Quick Sync Video	✓	✓	✓
Output of AAF/EDL files of timelines, and output of files in various codec formats	✓	✓	✓
Batch exporting	✓	✓	✓
Downconvert output of 8K/4K timeline from the hardware I/O board	✓	✓	—
Export of Dolby Digital (AC-3)	—	✓	✓
Export of Dolby Digital Professional (AC-3)	✓	—	—
Export of Dolby Digital Plus (E-AC-3)	✓	—	—

■ Other features

Function	EDIUS 11 Broadcast	EDIUS 11 Workgroup	EDIUS 11 Pro
Mync (source management tool)	✓	✓	✓
Quick start up	✓	✓	✓
EDIUS OFX Bridge	✓	✓	✓
eID	—	✓	✓
Simultaneous installation of EDIUS 11 and EDIUS X	—	—	—
Offline editing	✓	✓	—
Support for third-party plug-in	✓	✓	✓
64-bit native OS support	✓	✓	✓
Automatic update notification function	—	—	✓
NDI output support	✓	✓	—
K2 connection (FTP)	Optional	Optional	—

■ Supported devices

Function	EDIUS 11 Broadcast	EDIUS 11 Workgroup	EDIUS 11 Pro
STORM 3G	✓	✓	✓
STORM Pro	✓	✓	✓
Third-party I/O hardware support	✓	✓	✓

- For the supported hardware, visit our website.
  “Our Website” (▶ page 499)
- For the supported plug-in, visit our website.
  “Our Website” (▶ page 499)

Grass Valley HQX Codec

With EDIUS, you can import 4K and 60p videos in their native formats and edit them by frame units. However, editing operations of such large video data put heavy load on the PC, which may prevent not only smooth editing operations but even normal playback operations, depending on the PC specifications. In such cases, convert the data into an intermediate codec to be suitable for editing and to improve work efficiency.

Grass Valley HQX Codec is an intermediate codec that enables the maximum editing performance of EDIUS. It supports 8K/60p/10-bit at the maximum, and any source can be converted into this codec with the master format retained. Since this codec can be used on both Windows and Macintosh, and supports alpha, it can be utilized for flexible editing in color grading and composition.

The potentiality of the Grass Valley HQX Codec is not limited to editing operations, but it can intermediate between any workflow.

■ Supported Format

Frame size	24x24 to 8192x4320 (pixels)
Frame rate	60 fps maximum
Depth	8-bit/10-bit
Alpha channel	Supported
Wrapper	QuickTime/AVI/MXF
OS	Windows/Macintosh

While conversion into intermediate codec generally deteriorates the video image quality and is avoided in many cases where quality is important, the Grass Valley HQX Codec can reduce the deterioration to the minimum level and keeps good quality of the master image. Due to its 4:2:2 color space, VBR that maintains the balance of the quality for the data size even after the compression rate has been changed to fit the flame images, and its durability for deterioration even after repetitive conversion, it maintains the quality that is high enough for live events and broadcasting.

■ Specifications

Color space	4:2:2
Bitrate	VBR (7680 MB/s maximum)
Frame compression	Intra-frame compression

Note

- Since the Grass Valley HQX Codec uses VBR where the bitrate varies according to the image and thus the data size may increase depending on the video to be converted, use high-speed, high-capacity storage as much as possible.

Screen Configuration

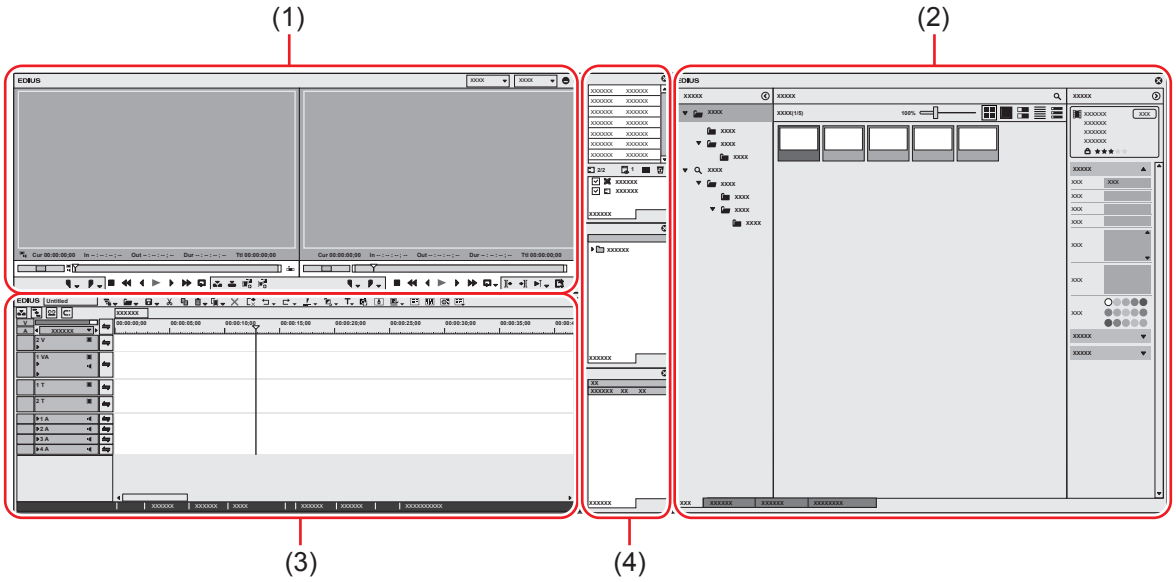
This section explains the overall EDIUS screen configuration as well as each of the windows and tab windows.

EDIUS Screen Configuration

EDIUS consists of various windows, and you use multiple windows for basic operation to edit video. You can easily edit video in dual monitor, as each window can be placed without overlapping with each other.

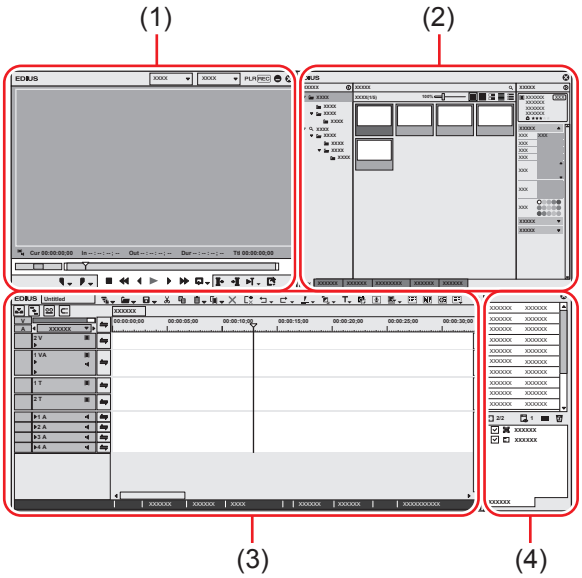
Each window can be resized by dragging its side line or the corner edge. As the windows snap to each other, you can place windows aligned by side line or corner edge. The window layout can also be saved.

Layout in Dual Monitor



(1)	**Preview window**	This window is used to check video. Player appears on the left, and Recorder on the right.
(2)	**Bin window/source browser window/[Mync] window/[Job] window**	Click the tabs to switch the display between the bin window, source browser window, and tab window. **Bin window** This window is used to manage clips imported to EDIUS. **Source browser window** This window is used to check source files in external devices such as AVCHD video cameras or professional-use video cameras to which file-based video or audio are recorded. **[Mync] window** This window displays the content of the [Management] tab of Mync. **[Job] window** This window displays the content of GV Job Monitor.
(3)	**Timeline window**	This window is used to place the clips on the track or apply effects.
(4)	**Palette window**	There are 3 types of palettes: [Information] palette, [Effect] palette, and [Marker] palette.

Layout in Single Monitor



(1)	**Preview window**
(2)	**Bin window/[Effect] palette/[Marker] palette/source browser window/[Mync] window/[Job] window**
(3)	**Timeline window**
(4)	**[Information] palette**

- When multiple windows are placed in alignment, all the snapped windows can be resized at one time by resizing one of them. Resize operation with [Shift] on the keyboard held down resizes only the selected window. However, this function may be unable depending on the setting of Windows.

Preview Window

You can switch the preview window between the single mode and dual mode.

Click [View] on the menu bar, and click [Single Mode] or [Dual Mode] to switch the preview window display between single mode and dual mode.

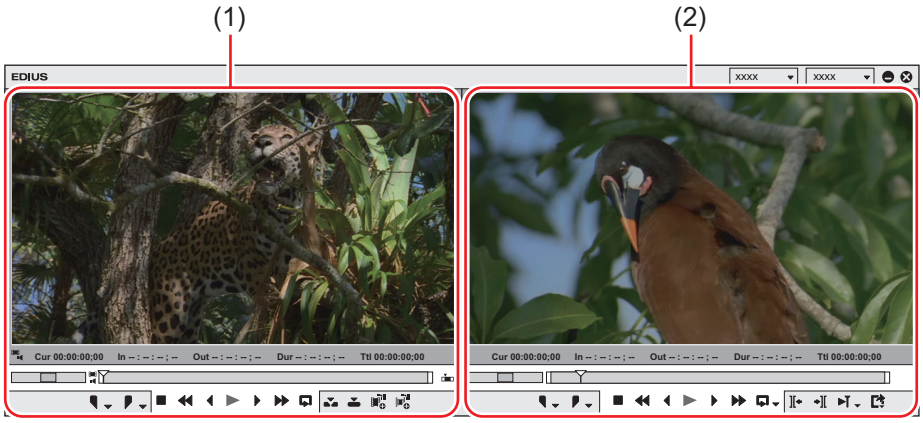
"Menu Bar" (▶ page 33)

Note

- Even if a video card that supports 8K format is installed, the preview cannot show images of the video being edited in 8K with the resolution of the native file maintained.

Dual Mode

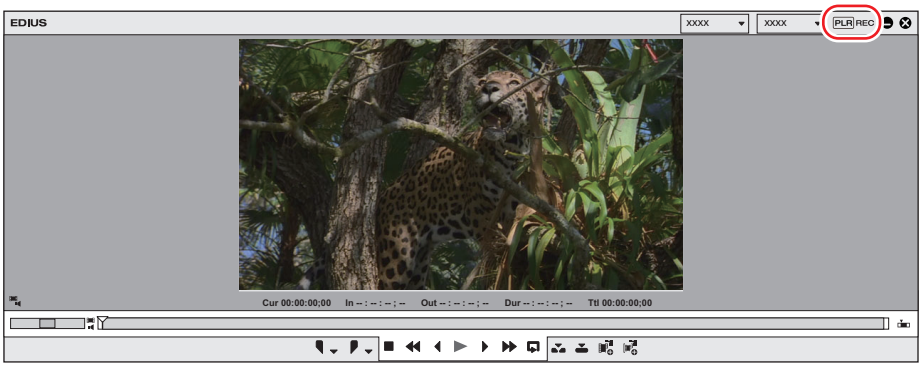
Player appears on the left, and Recorder on the right in the dual mode.

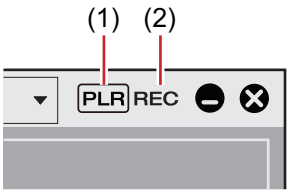


(1)	**Player**	This window is used to check clips. You can view clips in the bin window and sources being captured, and set In and Out points on this window.
(2)	**Recorder**	This window is used to check the timeline. You can view video on which effects are applied and composite video in real time.

Single Mode

Display either one of the Player or Recorder on the preview window and use them by switching the display.





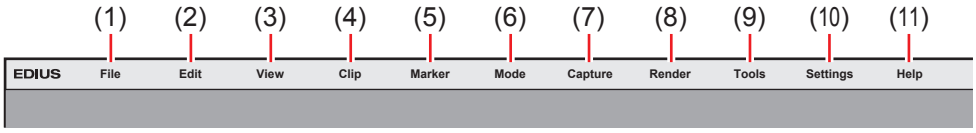
(1)	**[Change to Player]**	Display the Player.
(2)	**[Change to Recorder]**	Display the Recorder.

Alternative

- Switching to the Player/Recorder: **[Tab]**

Menu Bar

You can execute most of the operations from the menu bar. Click and select an item.

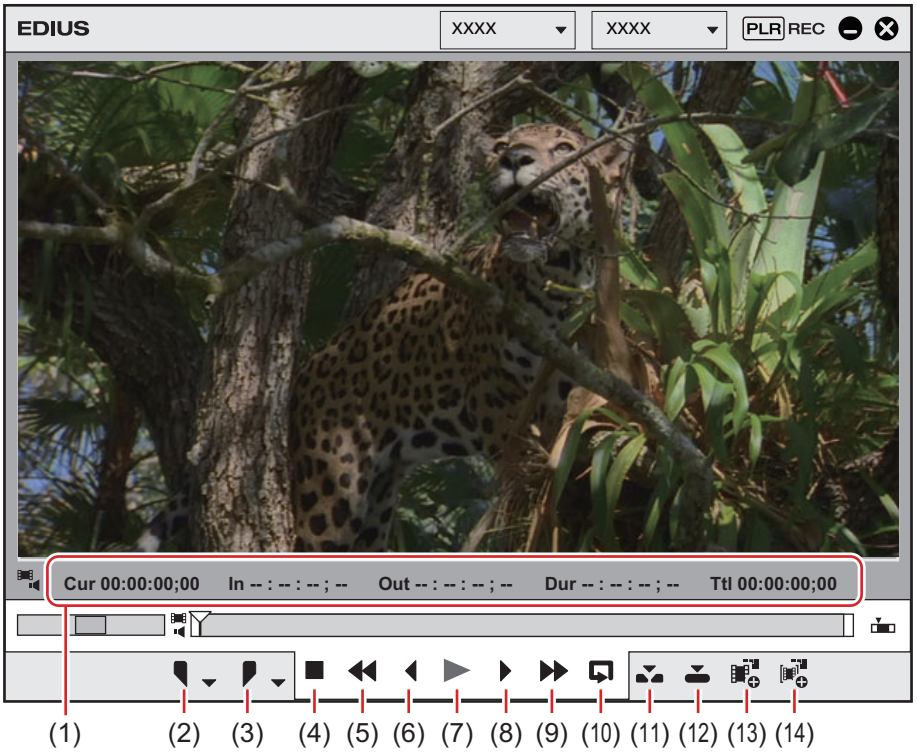


(1)	**[File]**	Use it to create or save projects, manage projects or clips, output edited video, and exit EDIUS.
(2)	**[Edit]**	Use it to add cut points, delete clips, and execute editing functions such as undoing, redoing, etc.
(3)	**[View]**	Use it for display settings such as show/hide of windows and functions, managing window layouts, switching dual/single modes, and full screen previewing.
(4)	**[Clip]**	Use it for clip operations such as creating new clips, linking or hiding clips, starting up layouter, configuring [Time Effect] settings, etc.
(5)	**[Marker]**	Use it for settings of markers such as adding/deleting markers or importing/exporting marker lists.
(6)	**[Mode]**	Use it to set editing mode such as trim mode and multicam mode.
(7)	**[Capture]**	Use it to start up the [Capture] dialog box or [Voice Over] dialog box, to select devices, etc.
(8)	**[Render]**	Use it to render the clip being edited in various methods.
(9)	**[Tools]**	Use it to start up tools such as Disc Burner, GV Job Monitor, etc. • Optional license is required for Blu-ray or DVD authoring.
(10)	**[Settings]**	Use it to open setting menus such as [System Settings] where you can set project presets and hardware device presets, [On Screen Display] where you can set timecode display, [User Settings] where you can set [Keyboard Shortcut], etc.
(11)	**[Help]**	Use it to display online FAQ or perform user registration.

- Click [Help] on the menu bar, and click [User Registration] to perform user registration after installation.
- Click [Help] on the menu bar, and click [Serial number registration] to register the serial number. After registering the serial number, restart EDIUS to enable the functions.
- Perform the following to display the online manual:
  - Click [Help] on the menu bar, and click [Help].
  - Online manual display: **[F1]**
- Click [Help] on the menu bar, and click [Version Info] to refer to the version information.

Player

This window is used to play back or edit a source clip.

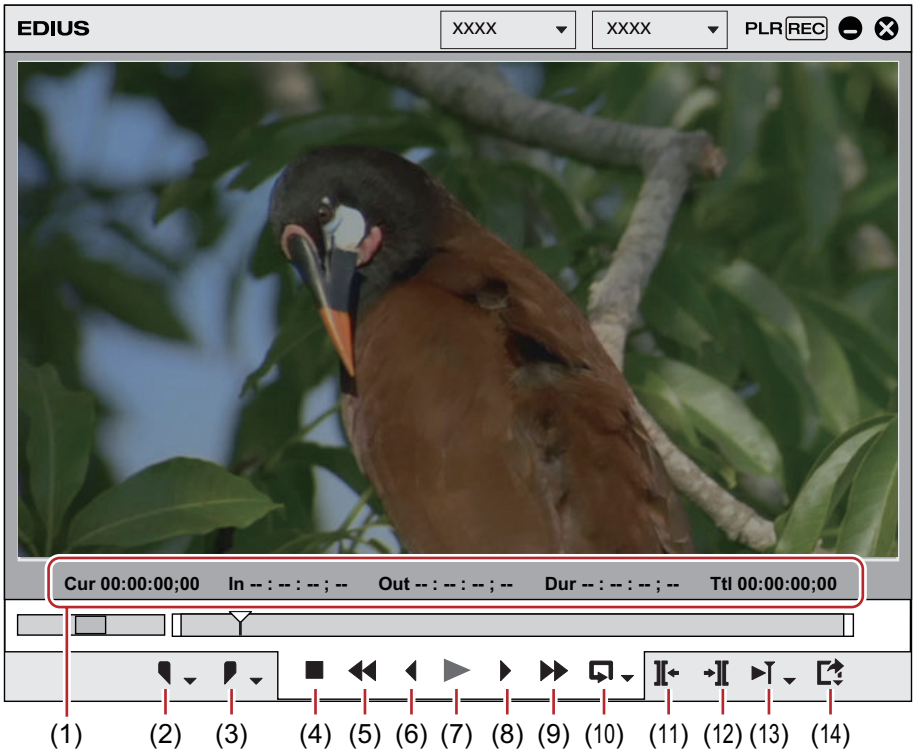


(1)	**Timecode area**	Display the playback position, In point, Out point, duration and the total length of the source data. If the setting is defined incorrectly, such as the setting that Out point is set before In point, the timecode turns red. The value can be changed by clicking the timecode. Copy and paste are also available by right-clicking the timecode.
(2)	**[Set In Point]**	Set the In (start) point of the source. **[I]**
(3)	**[Set Out Point]**	Set the Out (end) point of the source. **[O]**
(4)	**[Stop]**	Stop playback. **[K], [Shift] + [↓]**
(5)	**[Review]**	Fast rewind playback. Each click switches the playback speed in the reverse direction between 4 times and 12 times. **[J]**
(6)	**[Previous Frame]**	Each click rewinds one frame at a time in the reverse direction. Keeping this button clicked plays back the source at the normal speed in the reverse direction. **[←]**
(7)	**[Play]**	Play back the source in the forward direction. Clicking this during playback pauses playback. Clicking it again resumes playback. **[Enter], [Space]**
(8)	**[Next Frame]**	Each click forwards one frame at a time in the forward direction. Keeping this button clicked plays back the source at the normal speed in the forward direction. **[→]**
(9)	**[Fast Forward]**	Fast forward playback. Each click switches the playback speed in the forward direction between 4 times and 12 times. **[L]**
(10)	**[Loop]**	Repeatedly play back between In and Out points. **[Ctrl] + [Space]**

(11)	**[Insert to Timeline]**	Insert and place a clip at the position of the timeline cursor. **[[]** **“Insert/Overwrite Mode” (▶ page 215)**
(12)	**[Overwrite to Timeline]**	Overwrite and place a clip at the position of the timeline cursor. **[]]** **“Insert/Overwrite Mode” (▶ page 215)**
(13)	**[Add Clip on Player to Bin]**	Register the clip displayed on the Player to the bin. **[Shift] + [Ctrl] + [B]**
(14)	**[Add Subclip to Bin]**	Copy the range between In and Out points set on a clip as a subclip and register it to the bin. A subclip refers to the same source as that of the original clip (master clip).

Recorder

This window is used to play back the timeline or edit a clip.

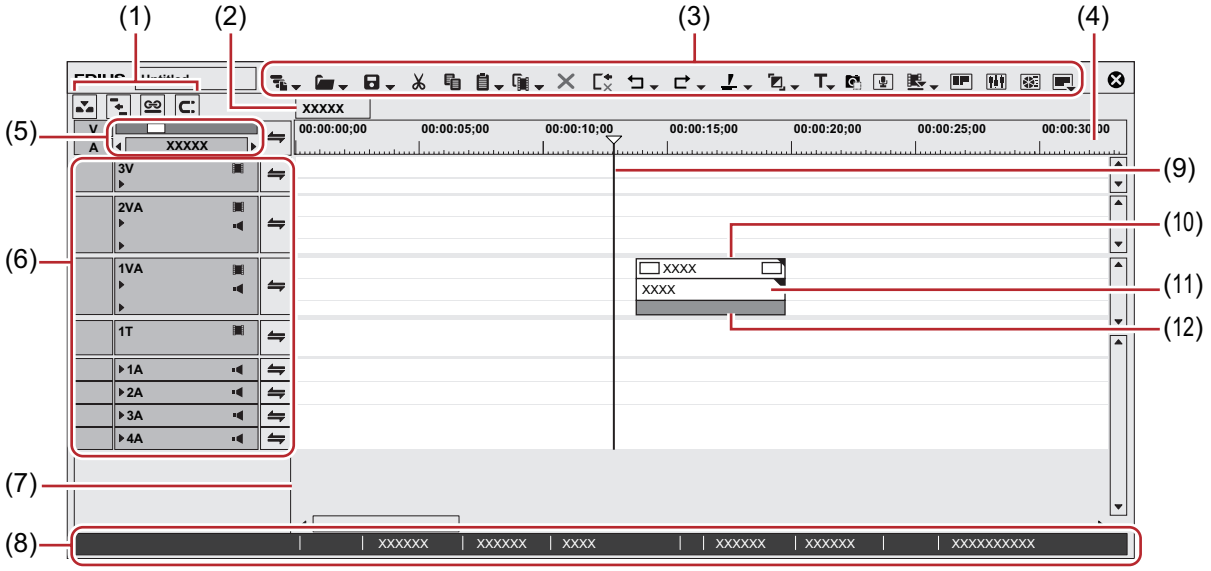


(1)	**Timecode area**	Display the current playback position, In point, Out point, duration, and the total length of the source data in timecode. If the setting is defined incorrectly, such as the setting that Out point is set before In point, the timecode turns red. The value can be changed by clicking the timecode. Copy and paste are also available by right-clicking the timecode.
(2)	**[Set In]**	Set the In point to any position on the timeline. **[I]**
(3)	**[Set Out]**	Set the Out point to any position on the timeline. **[O]**
(4)	**[Stop]**	Stop playing back the timeline. **[K], [Shift] + [↓]**
(5)	**[Review]**	Rewind the timeline. Each click switches the playback speed in the reverse direction between 4 times and 12 times. **[J]**
(6)	**[Previous Frame]**	Each click rewinds the timeline one frame at a time in the reverse direction. Keeping this button clicked plays back the source at the normal speed in the reverse direction. **[←]**
(7)	**[Play]**	Play back the timeline in the forward direction. Clicking this during playback pauses playback. Clicking it again resumes playback. **[Enter], [Space]**
(8)	**[Next Frame]**	Each click advances the timeline one frame at a time in the forward direction. Keeping this button clicked plays back the source at the normal speed in the forward direction. **[→]**

(9)	**[Fast Forward]**	Fast forward the timeline. Each click switches the playback speed in the forward direction between 4 times and 12 times. **[L]**
(10)	**[Loop]**	Repeat playback between In and Out points of the timeline. Loop playback of the entire timeline can also be performed. **[Ctrl] + [Space]**
(11)	**[Previous Edit Point]**	Move the timeline cursor to the edit point (e.g. the border of clip, In and Out points of the timeline) at the left side of the timeline cursor position. **[A], [Ctrl] + [←]**
(12)	**[Next Edit Point]**	Move the timeline cursor to the edit point at the right side of the timeline cursor position. **[S], [Ctrl] + [→]**
(13)	**[Play the Current Area]**	Play back the area before and after the timeline cursor.
(14)	**[Export]**	Display output (export) related menus.

Timeline Window

This window is used to place the clips on the track or apply effects.
Clips are placed from left to right of the timeline in time series.

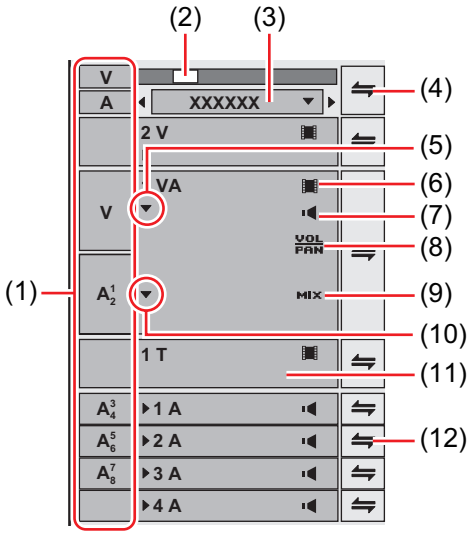


(1)	**Mode bar**	These buttons are used to switch the editing modes. The button types and sort order can be customized. **“Switching the Editing Mode” (▶ page 215)** **“Operation Button Settings” (▶ page 146)**
(2)	**Sequence tab**	Tab for using clips on the timeline as a set
(3)	**Operation buttons**	These buttons are used for editing operations. The button types and sort order can be customized. **“Operation Button Settings” (▶ page 146)**
(4)	**Time scale**	Indicate the scale for the time on the timeline.
(5)	**Time scale settings**	Change the display unit for time scale. **“Time Scale Settings” (▶ page 212)**
(6)	**Track header**	Configure various settings including muting and locking each track, mapping channels, synchronizing channels. It can be used to add and delete tracks. **“Track Header” (▶ page 207)**
(7)	**Timeline**	Place clips in this area. It can also be used to add and delete tracks. **“Placing Clips” (▶ page 220)** **“Track Operations” (▶ page 210)**
(8)	**Status bar**	Display the number of imported files when a project is opened/number of all files, the number of offline clips, clip playback status, editing mode, and background job status, etc. Move the cursor over the mode bar or timeline operation buttons to display the button names on lower left. Double-click the GV Job Monitor icon to display GV Job Monitor ([Job] window). The icon color turns to purple while a file is being exported or a batch export rendering job is being processed. **“GV Job Monitor Icon Indication” (▶ page 330)**

(9)	**Timeline cursor**	Indicate the playback position or edit position of the timeline. ● If the following conditions are met, a dotted line indicating the range of the Out point side appears on the right of the timeline cursor. − In [User Settings] → [Application] → [Timeline], the item [Include the Preview Frame in the Out Marker] has been checked − The unit of time scale display has been set to be 5 frames or less
(10)	**Video part**	Indicate the presence of video in the clip.
(11)	**Audio part**	Indicate the presence of audio in the clip. Expand it to display a rubber band to adjust the volume or pan. **"Adjusting the Volume and Pan of a Clip" (▶ page 411)**
(12)	**Mixer area**	Configure keying and other settings.

Time Scale Settings/Track Header

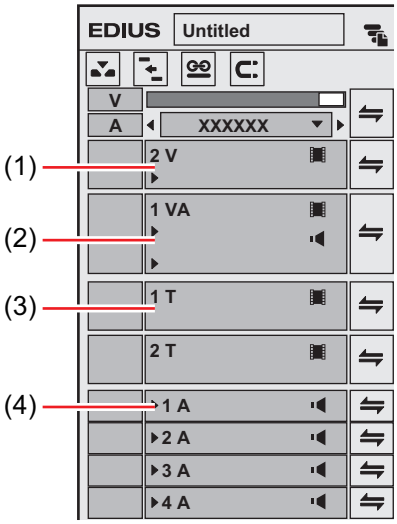
Time scale settings and track settings of timeline are performed in this area.



(1)	**Track patch**	When a clip is displayed on the Player, the audio channels held by the clip (source channels) are displayed on the track patch. **"Connecting/Disconnecting the Source Channel" (▶ page 220)**
(2)	**Time scale slider**	Change the display unit by dragging the slider. Move the slider to the left to reduce the display unit, or to the right to increase it.
(3)	**Time scale settings**	Change the display unit for time scale. Click the center area to toggle the specified display unit and [Fit]. ● Setting [Fit] adjusts the display unit automatically and displays all the clips on the timeline.
(4)	**Batch lock panel**	Click this to set sync-lock for all tracks on/off. **"Sync-lock (Synchronization)" (▶ page 215)**
(5)	**Audio expand button**	Click this button to display the rubber band for the audio. **[Alt] + [S]** **"Adjusting the Volume and Pan of a Clip" (▶ page 411)**
(6)	**[Video Mute]**	When mute is set, the video part of the track is not played back. The video part and mixer area of the clip on a muted track is displayed in gray. **[Shift] + [W]**
(7)	**[Audio Mute]**	When mute is set, the audio part of that track is muted. The audio part and volume/pan part of the clip on a muted track is displayed in gray. **[Shift] + [S]**
(8)	**[Volume/Pan]**	Switch between the volume adjustment mode and the pan adjustment mode. **"Adjusting the Volume and Pan of a Clip" (▶ page 411)**
(9)	**[Mixer]**	Switch the transparency adjustment mode on/off. **"Transparency" (▶ page 369)**
(10)	**Mixer expand button**	Click this button to display the rubber band for the transparency. **"Transparency" (▶ page 369)**
(11)	**Track panel**	Click this to switch the select/deselect setting for the track.
(12)	**Lock panel**	Click this to set sync-lock on/off for a specified track. **"Sync-lock (Synchronization)" (▶ page 215)** Right-click on the lock panel, and click [Track Lock] to lock the track.

Track Type

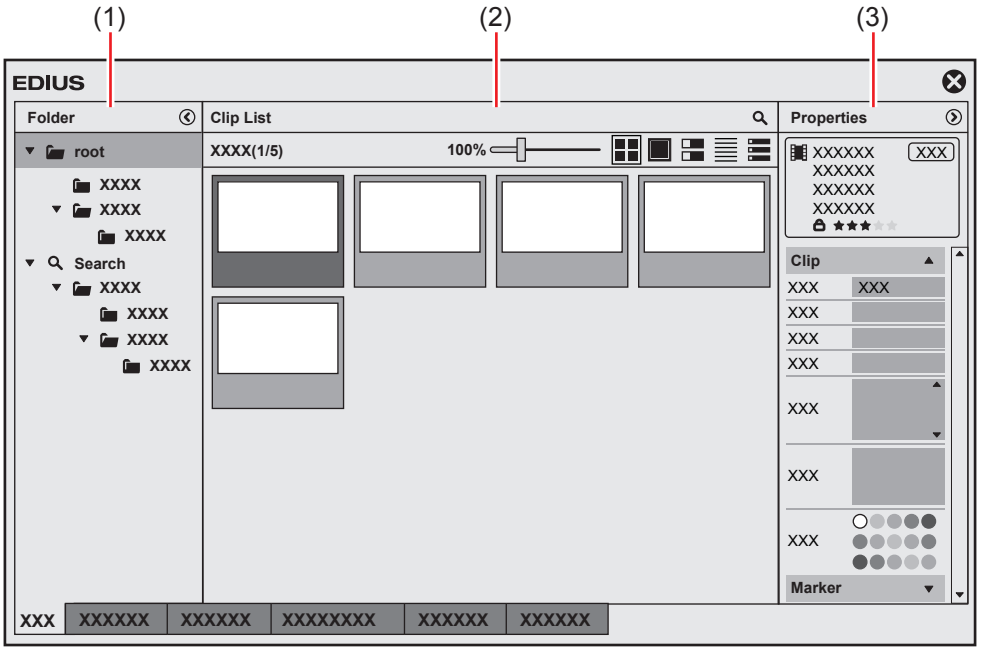
For details on adding, deleting, or moving tracks, see “Tracks”.
“Tracks” (▶ page 207)



(1)	**V track**	Place video, still image, or title clips on this image-only track. If a video clip with audio is placed, the audio part will be cut.
(2)	**VA track**	Video and audio are kept together on this track. Place video, audio, still image, and title clips.
(3)	**T track**	This track is for title clips. Place video, still image, and title clips. Create and place a title clip on this track to overlay the title on the video. **“Title” (▶ page 385)**
(4)	**A track**	Place audio clips on this audio-only track. If a video clip with audio is placed, the video part will be cut. **“Audio” (▶ page 410)**

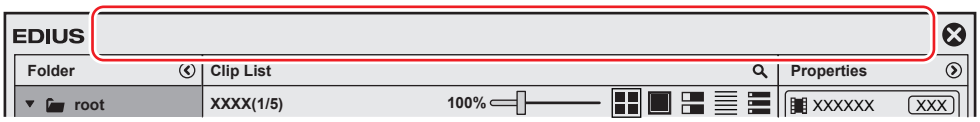
Bin Window

This window is used to manage clips imported to or captured with EDIUS.
You can switch the show/hide setting for the folder view. You can switch the display method such as thumbnail, detailed information, and other information for the clip view.
Clip information can be viewed or modified.
“Managing Clips” (▶ page 200)



(1)	**Folder view**	Structurize folders and organize clips. Folders can be created in the [root] folder in a hierarchical structure. **“Operations in the Folder View” (▶ page 202)**
(2)	**Clip view**	Display clips in the folder as a list. Perform operations in the bin, such as registering or copying sources. By setting search conditions, clips registered to the bin can be searched. **“Operations in the Clip View” (▶ page 200)** **“Searching for Clips Registered to the Bin” (▶ page 204)**
(3)	**Properties view**	Display the clip properties in a list.

- The upper and lower parts of the bin window are extended, by every double-click on a position of the title bar (without any button) in the bin window.

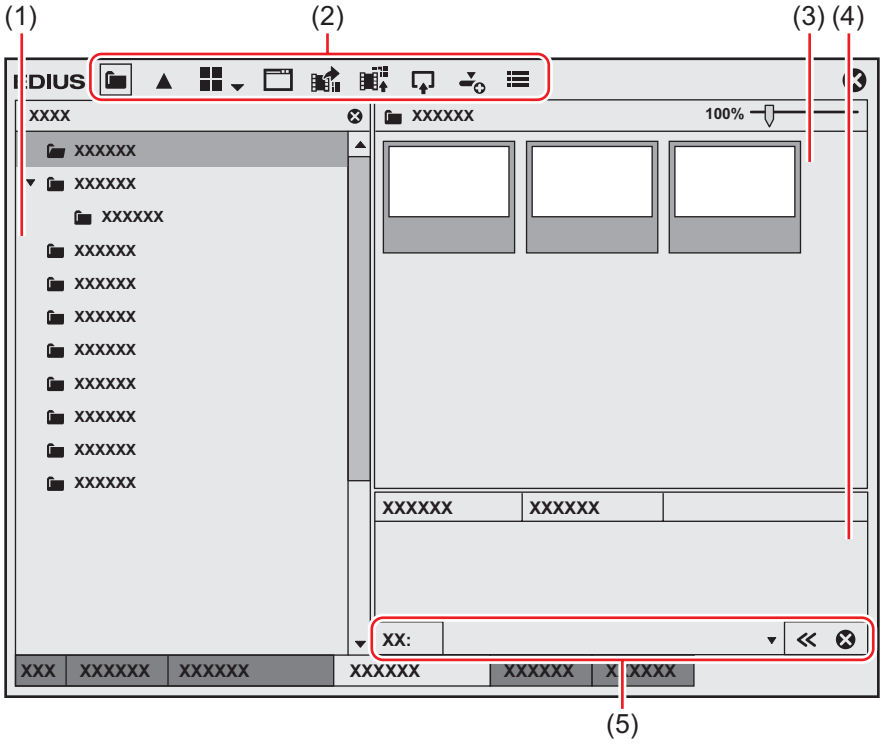


Source Browser Window

This window is used to check source files in external devices such as AVCHD video cameras or professional-use video cameras to which file-based video or audio are recorded.

You can switch the show/hide setting for the folder view. You can switch the display method such as thumbnail, detailed information, and other information for the clip view.

Display of the list, transfer to the bin, and search for the sources in external devices are available.



(1)	**Folder view**	Display devices and drives connected to the PC in a tree. When the media is inserted into the device or drive, the media name is displayed in the tree. Click the media name to display the stored files in the clip view. To browse the local disk, you can register the folder to display in the folder view through System Settings in advance. **“[Importer/Exporter]” (▶ page 106)**
(2)	**Operation buttons**	Perform various operations. The button types and operations differ from device to device. **“Source Browser” (▶ page 166)**
(3)	**Clip view**	Displays a list of source files in the external devices.
(4)	**Metadata view**	Display a list of source file metadata.
(5)	**Simple search bar**	Press [F3] on the keyboard to display this bar. Search source files in the external devices.

- The upper and lower parts of the source browser window are extended, by every double-click on a position of the title bar (without any button) in the source browser window.

Tab Windows

There are five types of tab windows: [Information] palette, [Effect] palette, [Marker] palette, [Mync] window, and [Job] window.

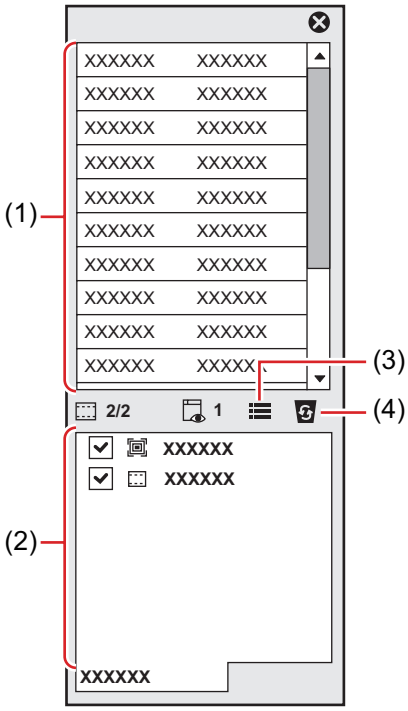
- Follow the steps below to show/hide all the tab windows at one time.
  - Click [View] on the menu bar, and click [Window] → [Show All] ([Hide All]).
  - Displaying all: **[H]**
- You can combine all the tab windows into one window. Also, tab windows can be combined with the bin window or the source browser window.
  "Combining Tab Windows with Bin Window/Source Browser Window" (▶ page 144)
- Every double-click on the title bar (the area without any button) of a tab window expands and contracts the tab window vertically.

[Information] Palette

You can view the information on clips placed on the timeline or adjust the applied effects.

- Display the information of the clip placed on the timeline.
- Display information on the set effects and set whether to apply effects or the order.
- Adjust the set effects.
- Configure the video layout if a clip has a video part.

"Showing/Hiding [Information] Palette" (▶ page 375)



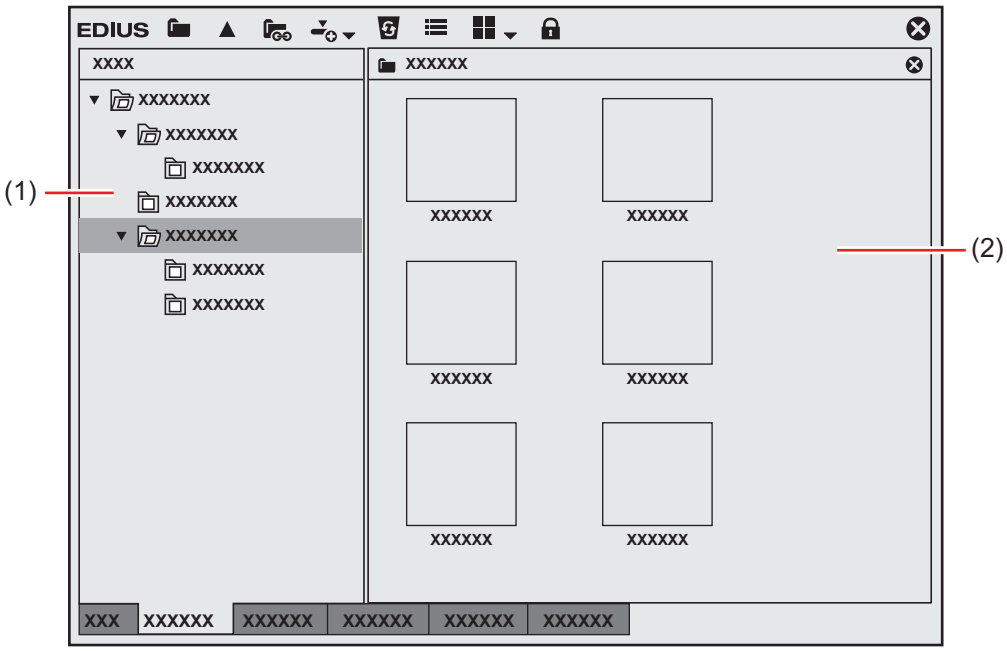
(1)	**Information area**	Display information such as the file name, duration, and color space. The displayed contents differ depending on the object selected on the timeline.
(2)	**Effect list**	Display applied effects in a list. Also register the set effects as a preset. **"Registering Effects to [Effect] Palette" (▶ page 381)** • For a clip with video part, [Layouter] is always displayed.
(3)	**[Open Setup Dialog]**	Display a settings dialog box to adjust each effect or the [Layouter] dialog box.
(4)	**[Delete]**	Delete the effect. [Layouter] items cannot be deleted.

[Effect] Palette

Effects are used to adjust the brightness and color of images, add special effects, and create composite videos.

- Video or audio effects to add to clips are registered.
- Register or delete customized effect.

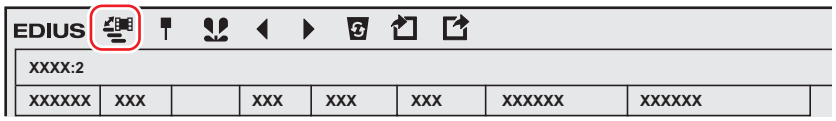
"Showing/Hiding [Effect] Palette" (▶ page 335)



(1)	**Folder view**	Display the effect folder in tree structure.
(2)	**Effect view**	Display the contents of effects in the selected folder. If an effect with animation is selected, the animation is displayed.

[Marker] Palette

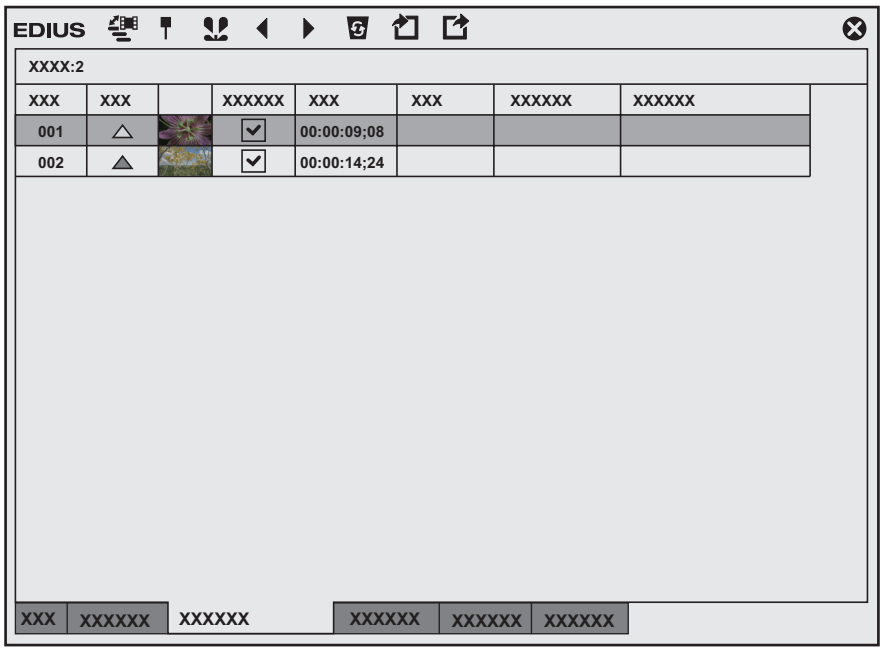
Manage the sequence markers appended to the timeline and clip markers appended to a clip. The [Sequence Marker] and [Clip Marker] lists can be switched by clicking the button.



■ [Sequence Marker] List

- Set and delete a sequence marker.
- Jump to a desired sequence marker or add comments.
- Import or export a sequence marker list.

“Displaying the [Sequence Marker] List” (▶ page 283)



■ [Clip Marker] List

- Set and delete a clip marker.
- Jump to a desired clip marker or add comments.
- Import or export a clip marker list.

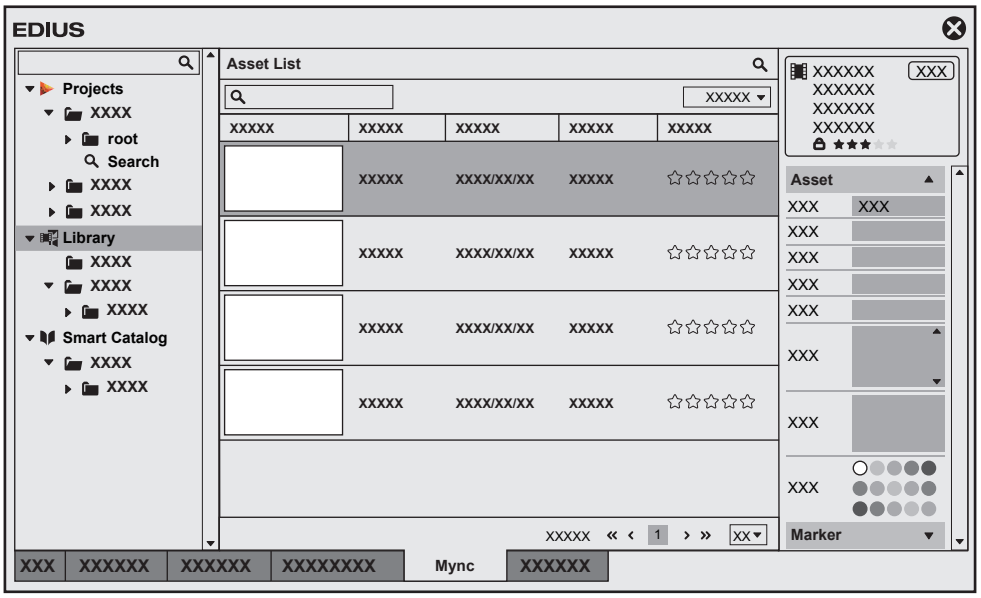
“Displaying the [Clip Marker] List” (▶ page 276)

[Mync] Window

The content of the [Management] tab of Mync is displayed as it is.
The contents in the [Mync] window and the [Management] tab of Mync are always synchronized.

- Clips in the [Mync] window can be registered to the bin of EDIUS or placed onto the timeline directly by dragging and dropping.

“Showing/Hiding the [Mync] Window” (▶ page 190)



Note

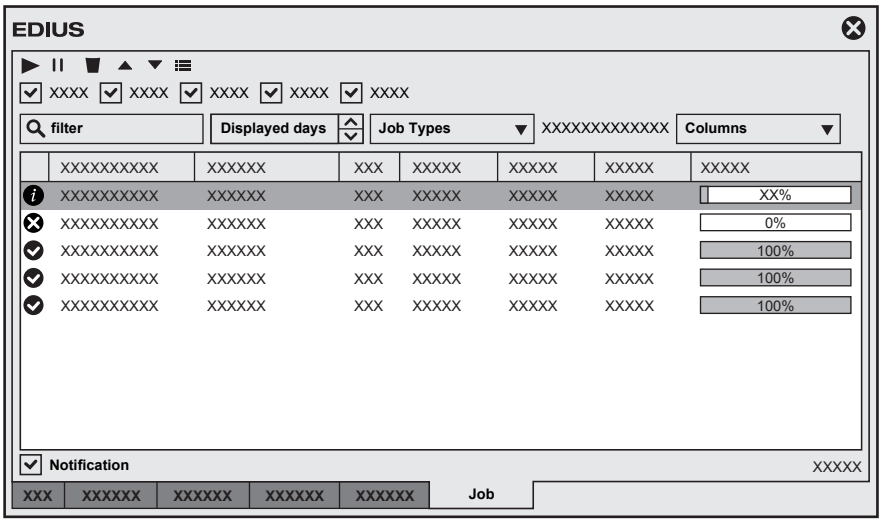
- Interaction with Mync is supported only for Mync that comes with EDIUS.

[Job] Window

The screen of GV Job Monitor is displayed.

- The progresses or statuses of rendering process such as file export or proxy creation are indicated.
- You can pause ongoing rendering processes, or you can cancel rendering jobs.

“Showing/Hiding the [Job] Window” (▶ page 330)



Entry of Values

Entering Values Using Keyboard and Mouse

This section explains the setting operation for the values in each settings dialog box.

Direct Input of Value

You can directly enter values with [0] to [9] on the keyboard.

1) Select the input field and enter the value on the keyboard.

- You can enter the value in the HHMMSSFF format (H = hour; M = minute; S = second; and F = frame). For example, enter “43S21F” or “4321” in only numerics for 43 seconds and 21 frames. Enter “10M” or “100000” for 10 minutes. If entering “3H2M1S0F”, the value will be “03:02:01:00”.

2) Press [Enter] on the keyboard.

Offset Input

You can enter variation values in the input field.

1) Select the input field and enter the variation value from the current set value.

2) Press [Enter] on the keyboard.

- Enter “−” before the value to decrease the set value.
- Enter “+” before the value to increase the set value.

- Offset input is only available for entering the timecode.

Setting with Arrow Keys

You can enter values with keys on the keyboard.

1) Select the input field and change the value with arrow keys on the keyboard (↑, ↓, ←, →).

2) Press [Enter] on the keyboard.

Entering with Mouse Wheel

The set values can be changed with the mouse wheel. The mouse wheel is in the center of the mouse.

1) Move the mouse cursor near the input field.

- The shape of the mouse cursor changes.

2) Click the value and rotate the mouse wheel.

Alternative

- Hold the right button of the mouse in the settings input field, and drag the mouse upward to increase the value. The value continues to increase while the mouse is dragged. The value increases accordingly, when the mouse is moved away from the initial drag position.
- In the same way, hold the right button of the mouse and drag downward to decrease the value.
- Hold the left button of the mouse and drag upward to increase the value by the movement of the mouse. In the same way, drag downward to reduce the value. In this case, the value does not change unless you move the mouse.

Chapter 2

Installation

This chapter explains installation/uninstallation of EDIUS, registration of eID, etc.

Installation/Activation

Note

- If you use EDIUS Broadcast, EDIUS Workgroup, or EDIUS Pro, Mync will be installed automatically when EDIUS is installed.
- To use a Grass Valley product such as EDIUS or Mync, the PC to which they are to be installed must be connected to the Internet. Note that you may not be able to operate them in an environment where Internet connection is not available.
- Confirm that the PC to be used satisfies the conditions of the operating environment for the product.
  "Operating Environment/Specifications" (▶ page 25)
- This section explains how to install on Windows 10.

Before Installation

Activation of the serial number and eID is required at the startup of a Grass Valley product such as EDIUS or Mync. At the first startup after installation, the activation screens for the serial number and eID will be displayed. The software starts up after successful activation.

Note

- Activation of eID is not necessary when you use EDIUS Broadcast.
- Before starting installation, close all other applications including resident software.
- Installation requires the account authorized for the administrator (such as PC administrator).
- Applications to be installed and setup files necessary for installation may differ depending on model.
  The setup file for EDIUS Broadcast differs from that for EDIUS Workgroup or EDIUS Pro. Prepare the single-purpose setup file to install EDIUS Broadcast.
- Make a backup of the customized settings such as keyboard shortcuts and then uninstall EDIUS before installing the latest version.
- If antivirus software (security software) is running, you may need to stop the software operation.

Creating eID

Create eID.

■ What is eID?

eID is an online ID function to link the license of Grass Valley products in possession to the user. The license will be more secure and the uniqueness of the license will be established by linking the serial number and eID at the time of first activation of the serial number.
Also, the information of the serial number in possession can be browsed or products can be downloaded on the membership website "eID Web" that can be logged in with eID.
"eID Web" (▶ page 51)

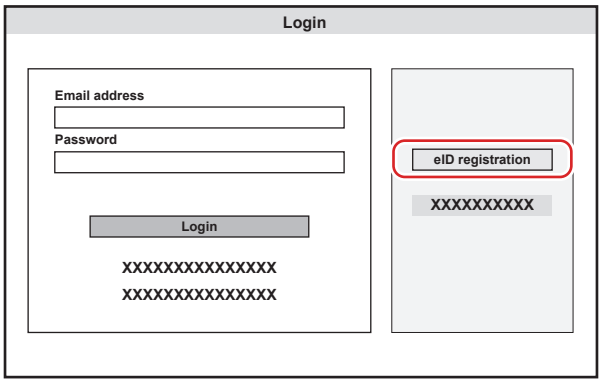
Note

- Use eID after fully understanding this manual and the precautions on the website.

1) Go to the [Login] page in eID Web.

- Access the following URL.
  https://ediusid1.grassvalley.com/

2) Click [eID registration].



- The [Enter e-mail address] screen appears.

3) Enter an e-mail address to register.

- Be sure to read the privacy policy and check [I have read the privacy policy and agree to its terms and conditions.].

Note

- Make sure to use an e-mail address and password to register different from the ones for other ID services. The e-mail address and password used in multiple services will have higher risk for unauthorized access.
- The e-mail address that has been registered in the past cannot be used.

4) Click [Send].

- When the screen indicating preliminary registration completion appears, close the window. Preliminary registration completion e-mail describing the procedure to permanently register is delivered to the registered e-mail address.

Note

- The registered e-mail address and password are sensitive information that should never be disclosed to others. In case they have leaked, immediately change your e-mail address and password. We are not liable for the leakage of the e-mail address and password not related to this system.
- Complete the permanent registration within the expiry date which is written in the preliminary registration completion e-mail. The information registered with preliminary registration is deleted if it is not completed within the expiry date.

5) Click the permanent registration URL described in the preliminary registration completion e-mail.

- The [Registration] screen appears.

6) Enter registration information such as [Password], [Date of birth], and [Country/Region of residence].

7) Click [Confirm].

- The [Confirm registration] screen appears.

8) Confirm the details to be registered, and click [Register].

- The [Registration completed] screen appears. Registration of eID is completed.

Installing EDIUS

Install EDIUS.

Note

- The database of an older version of Mync can be migrated to Mync 11. For details on data that can be migrated, see the manual of Mync.
- The database can be migrated even after the older version of Mync is uninstalled. Note that Mync 11 does not support storyboard. If storyboard has been used in the database, do not uninstall the older version of Mync.
- It is necessary to agree to the End User License Agreement displayed during the installation to use this software. If you do not agree to the license agreement of this software, click [Close] to cancel the installation.
- Be sure to read through terms and conditions by scrolling whole description.
- Check [Automatically send diagnostic and usage data to Grass Valley] to automatically send the data for a diagnosis result and usage conditions of the software to be installed to Grass Valley.
  The sent data is used for the purposes of improving the quality, reliability, and performance of the software.
- When installation does not succeed, please check with the website of the manufacturer of the antivirus software (security software) in your system or our website for the latest updates.
  "Our Website" (▶ page 499)

1) Uninstall the older version of EDIUS.

- If EDIUS 11 (including the trial version) is installed on a PC where EDIUS X has been installed, EDIUS X will be uninstalled.
- Do not deactivate the license when you uninstall EDIUS X or any older version of EDIUS. Restart your PC as necessary.

2) Double-click the setup file of EDIUS (exe format).

- If EDIUS X and an older version of Mync have been installed on the PC, you will be prompted to choose whether or not to uninstall the older version of Mync. Some functions supported by older versions of Mync are not available on Mync 11. For details, access the link on the screen.
- Follow the on-screen instructions for installation.

Activating EDIUS

Activation of the serial number is required at the first startup of EDIUS. EDIUS cannot be started if the serial number is not activated.

Note

- Either online or offline activation is required for activation of the serial number.

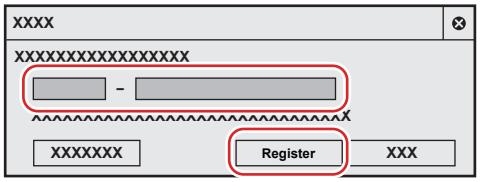
1) Double-click the EDIUS icon on the desktop.

- The entry screen for the serial number is displayed only when EDIUS is started for the first time.

Alternative

- If the EDIUS icon is not on the desktop, display the Windows start menu, and then click [Grass Valley] → [EDIUS 11].

2) Enter the serial number, and click [Register].



- If the serial number is correctly activated, a confirmation screen appears.

- Use the serial number given at the time of purchase.
- Enter a 6-digit character string in the left field and a 16-digit character string in the right field for the serial number.
- Please note that the serial number cannot be reissued. Keep the number securely.
- The serial number can also be registered with the following procedure.
  - Display the Windows start menu, click [Grass Valley] → [GV License Manager] to start up GV License Manager, and then click [Online activation].

3) Click [OK] on the confirmation screen.

- EDIUS will start up.

Note

- The screen to enter the serial number of the previous version of EDIUS may display during the installation of the upgrade version. If necessary, enter the serial number of EDIUS you have.

Uninstallation

Note

- Close all other applications including resident software before uninstallation.
- Uninstallation requires the account authorized for the administrator (such as PC administrator).
- This section explains how to uninstall on Windows 10.
  The operation may differ depending on the type or version of OS on your PC.

1) Display the Windows start menu, and click [Settings].

2) Click [Apps].

3) Select [EDIUS 11], click [Uninstall], and uninstall according to the on-screen instructions.

Note

- By uninstalling EDIUS, Mync that has come with EDIUS is uninstalled at the same time. Also, Mync can be uninstalled alone.
- Uninstalling EDIUS and Mync does not deactivate the license. If necessary, deactivate the license. For details, access the link on the screen.

eID Web

Various membership functions such as confirmation of serial number and acquiring of trial version can be used by logging in to eID Web.

[Login]

1) Go to the [Login] page in eID Web.

- Access the following URL.
  https://ediusid1.grassvalley.com/

2) Enter [Email address] and [Password], and click[Login].

- [My page top] is displayed after successful login, allowing to use the various membership website functions.
- Selecting an item on the sidebar on the left of the screen displays the respective menu.
  "[News]" (▶ page 51)
  "[License List]" (▶ page 51)
  "[EDIUS]" (▶ page 52)
  "[My account]" (▶ page 52)

- For [Email address] and [Password], enter the registered information for eID.
- If you have forgotten the e-mail address or the password, click [Forgot your email address?] or [Forgot your password?] and reset them following the on-screen instructions.

[News]

The latest information on the Grass Valley product will be displayed.

[License List]

In [License List], the serial number information on the Grass Valley product linked to eID can be confirmed.

[Product name - Version]	Displays the product name and version information.
[Serial number]	Displays the serial number.
[Initial activation date]	Displays the date the activation is first performed.
[Expiration]	Displays the validity date.
[Download]	Clicking the icon downloads the trial version of EDIUS that has been acquired from the eID Web. (As of October 2023)
[Note]	This is a free entry field. Enter text and click [Save] to save the entered content.

- The product linked to eID are as follows.
  - Mync 11
  - Mync (Mync Basic, Mync Standard)
  - EDIUS 11 (EDIUS 11 Broadcast, EDIUS 11 Workgroup, EDIUS 11 Pro)
  - EDIUS X (EDIUS X Workgroup, EDIUS X Pro)
  - EDIUS 9 (EDIUS Workgroup 9, EDIUS Pro 9)
  - EDIUS 8 (EDIUS Workgroup 8, EDIUS Pro 8)
  - EDIUS 7 (EDIUS Elite 7, EDIUS Pro 7)
  - EDIUS 6.5 (EDIUS Elite, EDIUS Pro 6.5)
  - EDIUS Neo 3.5
  - EDIUS Express
  - Optional licenses for above generations
- The trial version products of Grass Valley are also be linked to eID.

Note

- Information of each product and the linked serial numbers are locked as a unique license.

[EDIUS]

The trial version of EDIUS can be acquired.
Click the list button and select a desired product, and then click [Send]. A guidance e-mail describing the information such as the URL for download and serial number is delivered to the registered e-mail address.

Note

- The trial versions of EDIUS can be downloaded only once per one product.

[My account]

Various information registered in eID can be viewed and edited.

■ Editing registration information of eID

1) On the [My account] screen, click [Edit information].

2) Change the registration information, and click [Change].

- The password entry screen appears.

3) Enter the current password, and then click [Change].

- Registration change is completed. An e-mail for confirmation of change in the registration information will be delivered to the registered e-mail address.

[Log out]

1) Click [Log out] at the top of the screen.

- It will logout from eID Web.

User Registration

You can register a user after installation. Your system is required to connect to the network for user registrations.

User Registration

1) Start up EDIUS.

2) Click [Help] on the menu bar, and click [User Registration].

- Web browser starts up and a user registration page appears. Register a user according to the on-screen instructions.

Chapter 3

Startup/Project

This chapter explains the start up method of EDIUS and creation of project.

Startup

This section explains how to start up EDIUS and how to operate it at initial start-up.

How to Start up

The following explains how to start up EDIUS.

1) Double-click the EDIUS icon on the desktop.

- The [Start Project] dialog box appears.
  "[Start Project] Dialog Box" (▶ page 55)

Alternative

- On Windows 10, display the Windows start menu, and click [Grass Valley] → [EDIUS 11].

[Start Project] Dialog Box

Profile list	Manage the window layouts, user settings, etc., by profile to be used by switching. **"Editing Environment Management" (▶ page 130)**
[New Project]	Click this button to display the [Project Settings] (Simple Settings) dialog box, and create a new project file. **"Creating a New Project (Simple Settings)" (▶ page 57)**
[Open Project]	Click this button to display the [Open] dialog box to open an existing project file.
[Recent Project]	Displays the recently worked project files from the latest one. Double-click the file to open the project file. Every click switches the sorting order to be ascending or descending. Right-click the item name and click the items you want to display or hide. To delete the project history, select and right-click the file and click [Clear history] or [Clear All History]. No project name is displayed if no project file is saved.
[Open]	Open the project file.
[Close]	Exit EDIUS.

Initial Start-up

When you start up EDIUS for the first time after installation, register the serial number, specify a folder where the project files you use for editing are saved, and set up other items.

1) Perform steps 1) to 3) in "Activating EDIUS".

- **"Activating EDIUS" (▶ page 48)**
- When activation completes, the [Folder Settings] dialog box appears.

2) Click [Browse] to specify the folder where the project files are to be saved, and click [Select Folder].

- Set the destination to save the project files. The next time and later you create projects, they are saved in the specified folder.

- It is recommended that the project file saving destination is specified outside the drive where OS or system is installed.

3) Click [OK].

- The [Start Project] dialog box appears.
  "[Start Project] Dialog Box" (▶ page 55)

- You can change the save destination of the project folder in [User Settings] → [Application] → [Project].
  "[Project]" (▶ page 122)

Exit

This section explains how to exit EDIUS.

Exiting Project

Close the project file you edited, and return to the [Start Project] dialog box.

1) Click [File] on the menu bar, and click [Exit Project].

2) Click [Yes].

- Click [No] if you do not want to save the project. Click [Cancel] to cancel the operation.

Exiting EDIUS

The following explains how to exit EDIUS.

1) Click [File] on the menu bar, and click [Exit].

2) Click [Yes].

- Click [No] if you do not want to save the project. Click [Cancel] to cancel the operation.

Alternative

- Click [×] in the preview window.
- Exiting EDIUS: **[Alt] + [F4]**

Creating a Project

This section explains how to create a new project when or after EDIUS starts.

Preset

Use a preset to create a new project. There are two types of presets, project preset and project template.

- You can also specify an existing project to use it as a template.
  "Creating a New Project Using Existing Project as Template" (▶ page 58)

Project Preset

A project preset is a preset of project settings.
Select a project format according to the format of the output destination.

- Project presets with basic settings are registered by default. After starting EDIUS, you can also create project presets of your preference.
  "Creating a Project Preset" (▶ page 69)
  "Simple Creation of Project Presets" (▶ page 70)

Project Template

A project template is a preset that saves all information of another project as a template, which includes project settings, sources (video, audio, still image, and title files), effects, sequences, bin, etc.
A project template can be created by editing a project to be reused and saving it as a template.
"Saving as Project Template" (▶ page 73)

Note

- Sources can be reused only when they are saved in the project folder.
  If the sources are saved outside the project folder, they will become offline clips when the project template is to be edited on a different PC from the one the project template was created.

Creating a New Project (Simple Settings)

Create a new project when starting up EDIUS.
To create a new project, you can either select a project preset or project template, or open an existing project as a template.

Creating a New Project Using Project Preset/Project Template

When EDIUS has started up, select a project preset or project template to create a new project.

- To use a project template, the project template to be used must be prepared in the specified folder in advance.
  "Saving as Project Template" (▶ page 73)

1) Click [New Project] in the [Start Project] dialog box.

- The [Project Settings] (Simple Settings) dialog box appears.
  "[Project Settings] (Simple Settings) Dialog Box" (▶ page 58)

2) Enter a project name in [Project name] of [Project file].

3) Select [Use Preset/Template].

4) Select a project preset or project template.

- The project templates displayed in [Project template] of [Use Preset/Template] are the files stored in the save destination specified by [Application] in [System Settings] → [Template File Folder] in [Project Preset].
  "[Project Preset] Screen" (▶ page 69)

5) Click [OK].

- Click [Cancel] to return to the [Start Project] dialog box.

Creating a New Project Using Existing Project as Template

When EDIUS has started up, select an existing project as a template to create a new project.
In the same way as using a project template, all the information included in the specified project can be reused.
"Project Template" (▶ page 57)

1) Click [New Project] in the [Start Project] dialog box.

- The [Project Settings] (Simple Settings) dialog box appears.
  "[Project Settings] (Simple Settings) Dialog Box" (▶ page 58)

2) Enter a project name in [Project name] of [Project file].

3) Select [Use existing project as template].

4) Click [...], specify a project file, and click [OK].

5) Click [OK].

- Click [Cancel] to return to the [Start Project] dialog box.

[Project Settings] (Simple Settings) Dialog Box

[Project file]	**[Project name]** Click the input field to enter a project name. **[Folder]** Set the destination to save the project. To change the destination, click [...] and select a folder. Alternatively you can click the [...] list button and select a destination from the list of recent histories. A maximum of 10 histories are displayed. Check [Create folder with project name] to create a folder with the project name in the destination folder.
[Use Preset/Template]	**[Project Preset]** Display registered project presets in a list. Double-click the icon to open a new project file with the selected project preset setting. **[Project template]** Display project templates that can be used in a list. Double-click the icon to open a new project file using the selected project template. **"Creating a New Project Using Project Preset/Project Template" (▶ page 57)**
[Customize]	This can be used only when a project preset is selected in [Use Preset/Template]. Check this item to change the detailed project preset settings (rendering format, and the number of tracks and so on) and create a new project file. The settings of the existing project preset will not be changed. **"Creating a New Project (Detailed Settings)" (▶ page 58)** If you use the restricted user profile, the detailed settings of a project preset cannot be changed.
[Use existing project as template]	Use an existing project as a project template and open a new project file. **"Creating a New Project Using Existing Project as Template" (▶ page 58)**
[Description]	When [Use Preset/Template] is selected,the setting details of the project preset or project template are displayed. When [Use existing project as template] is selected, the setting details of the specified project are displayed.

Creating a New Project (Detailed Settings)

When starting up EDIUS, you can create projects with different settings from that set in detail as a project preset (rendering formats, track numbers, etc.)

Note

- This section describes how to customize project preset settings to create a project. This procedure does not change the original project preset. To create project presets or change project presets, perform through [Application] in [System Settings] → [Project Preset].
  "[Project Preset]" (▶ page 102)

1) Enter a project file name in [Project name] of [Project file] in the [Project Settings] (Simple Settings) dialog box.

- **"[Project Settings] (Simple Settings) Dialog Box" (▶ page 58)**

2) Select a project preset.

3) Check [Customize], and click [OK].

- The [Project Settings] (Detailed Settings) dialog box appears.
  "[Project Settings] (Detailed Settings) Dialog Box" (▶ page 59)

4) Configure a project, and click [OK].

- Click [Cancel] to return to the [Project Settings] (Simple Settings) dialog box.

[Project Settings] (Detailed Settings) Dialog Box

[Video Preset]	Display a list of commonly used video formats. From this list, select a video format that suits the export environment.
[Audio Preset]	Display a list of commonly used audio formats. From this list, select an audio format that suits the export environment.
▼ (Expand button)	Click this button for detailed settings.
[Advanced]	Click the expand button to customize detailed settings based on the format selected in [Video Preset] and [Audio Preset]. You cannot change the items displayed in gray. **[Frame Size]** Select a frame size from the list. Select [Custom] to enter a setting value in pixels. (Specify a multiple of 2. The maximum value is 8192 x 4320 pixels.) **[Aspect Ratio]** Select an aspect ratio from the list. **[Frame Rate]** Select a frame rate from the list. **[Field Order]** For interlace, a field order can be selected. **[Video Channels]** Select the channel to be exported (color channel/alpha channel) from the list. Select [YCbCr] to export only color channel. Select [YCbCr + Alpha] to export both color channel and alpha channel. **[Video Bit Depth]** Select a video quantization bitrate from the list. **[Pulldown Type]** This setting is only available for a frame rate of 24p or 23.98p. Select a convert format to convert a 23.98p video to a 59.94i or 59.94p video signal. [Pulldown(2-3-2-3)] enables a smooth playback, but is not appropriate for re-editing. Select this item for the final export. [Advanced pulldown(2-3-3-2)] does not provide a smooth playback. Select this item to create a temporary file to edit. **[Color Space]** Select the color space of the project. **[Sampling Rate]** Select an audio sampling rate from the list. **[Audio Channels]** Select the number of audio channels from the list. **[Audio Bit Depth]** Select an audio quantization bitrate from the list.

[Setup]	**[Render format]** Select the default codec to be used for rendering and file export during editing. RGB, UYVY, YUY2, RGBA and v210 are uncompressed AVI. For some codec, the rendering quality can be configured by clicking [Detail]. **“Detailed Settings for Codec” (▶ page 61)** **[Over scan size]** Enter the ratio when you use overscan. The value range is between “0” and “20”. If you do not use overscan, enter “0”. **[Audio reference level]** Set the audio reference level. If you switch the display of the [Audio Mixer] dialog box to a VU meter, a scale with the specified audio reference level at “0” is displayed. **[Resampling method]** Select a resampling method when transforming video with the layouter. **“Video Layout” (▶ page 253)** **[HDR/SDR gain]** Set the gain value to be applied when the color space of either HDR or SDR is converted to/from the other. In some conditions, the brightness of the reference white of HDR may differ from that of SDR. In this case, a video converted from HDR to SDR will appear brighter, and that converted from SDR to HDR will appear darker. Setting [HDR/SDR gain] will apply the gain value when the color space of either HDR or SDR is converted to/from the other, preventing the variation in brightness. Set the gain value to the conversion value for the display light. Select an item from [Disable], [0.00 dB], [3.00 dB], [6.00 dB], [6.15 dB], [9.00 dB] and [12.00 dB]. Select [6.15 dB] to comply with ITU-R BT.2408. You can also directly enter a value (unit: dB) within a range from “0.00” to “20.00”. • [6.15 dB] is set by default. • This setting is reflected in the [HDR/SDR Gain] setting in the [Primary Color Correction] dialog box. **“[Primary Color Correction] Dialog Box” (▶ page 349)** • For details on [HDR/SDR gain], the information will be released in the FAQ on our website. **“Our Website” (▶ page 499)** **[Tone mapping]** This setting is applied to conversion in which the dynamic range of the color space gets smaller, such as when a HDR source is used as SDR. Setting [Disable] will not apply the tone mapping. Areas with brightness that exceeds the luminance range of SDR will be replaced to 100% white. Setting [Soft Clip] will compress the high-luminance areas to show smooth gradation so that they will not be clipped easily. • [Soft Clip] is set by default. • This setting is reflected in the [Tone mapping] setting in the [Primary Color Correction] dialog box. **“[Primary Color Correction] Dialog Box” (▶ page 349)**
[Sequence setup (Default)]	Default settings for creating a sequence. **[TC preset]** Enter the start timecode of the timeline. **[TC mode]** When NTSC has been selected for the project setting, select either drop frame or non drop frame timecode display. **[Total length]** Set the length of the timeline by entering a number when the final total length is fixed. When the project exceeds this length, the color of the timeline section that is over the limit change. **[Show Markers]** Check [Sequence Marker]/[Clip Marker] to display the sequence markers or clip markers of timeline sequence clips which are placed on the timeline using the nest sequence function.
[Track (Default)]	Default settings of a number of tracks and a channel map for creating new projects or sequence. **[V Tracks]/[VA Tracks]/[T Tracks]/[A Tracks]** Set the number of tracks in which you place clips. You can add or delete any tracks after opening a project. **[Channel map]** In the [Audio Channel Map] dialog box, configure the audio output channel of each track. **“Configuring Audio Channel Map” (▶ page 63)**

“Entry of Values” (▶ page 44)

- Formats that can be exported with alpha channel retained when [Video Channels] is set to [YCbCr + Alpha] are as follows.
  - Grass Valley HQ AVI
  - Grass Valley HQ QuickTime
  - Grass Valley HQX AVI
  - Grass Valley HQX QuickTime
  - Uncompressed RGBA AVI

- ProRes 4444 MOV
- ProRes 4444 MXF

Note

- If a correct rendering format is not selected for the project settings, the item in [Render format] is displayed in red and the setting cannot be completed.
- In the following conditions, [Disable] is set by default for [HDR/SDR gain] and [Tone mapping].
  - When a project file created with Version 9.31 or older is imported
  - When a project template created with Version 9.31 or older is used to create a project file

Detailed Settings for Codec

You can configure the rendering quality for each codec in the [Project Settings] (Detailed Settings) dialog box.

"[Project Settings] (Detailed Settings) Dialog Box" (▶ page 59)

Grass Valley HQ AVI/Grass Valley HQX AVI/Grass Valley HQ MOV/Grass Valley HQX MOV/HQ MXF/HQX MXF

For the details of the items, see the [Settings - Grass Valley HQ]/[Settings - Grass Valley HQX] dialog box of [Preset Wizard], by clicking [Hardware] in [System Settings] → [Device Preset]. Click [Save as default] to save the current settings as defaults.

"[Settings - Grass Valley HQ]/[Settings - Grass Valley HQX] Dialog Box" (▶ page 138)

MPEG2 Program Stream

■ [Basic Settings] tab

[Segment Encode]	Check this item to export a clip of a raw source without re-encoding. Output speed is fast.
[Size]	Select an image quality.
[Quality/Speed]	Select quality from the list. The higher the quality, the more time it takes to be encoded.
[Bit Rate]	Select a bitrate type. [CBR] sets a fixed transfer rate, allocating a fixed number of bits during the encoding process. Select a bitrate from the [Average(bps)] list. You can also enter a value directly. [VBR] sets a variable transfer rate, altering the number of assigned bits according to the complexity of the movement or image quality. Compared with [CBR], the media volume can be used more efficiently, and this enables more consistent image quality overall. Select a bitrate from the [Average(bps)] and [Maximum(bps)] lists. You can also enter a value directly.

■ [Extended Settings] tab

[Field Order]	For interlace, a field order can be selected.
[Chroma Format]	Select a YUV pixel format from the list.
[Profile & Level]	Select a profile & level. If [Chroma Format] is [4:2:0] and [4:2:2], the profile will be set to Main Profile and 422Profile, respectively. The level for SD image quality will be Main Level, and the level for HD image quality will be High Level. The profile & level changes according to the format selected in [Chroma Format].
[GOP Structure]	For MPEG, a certain number of frames is considered as a group, and operations such as compression/enlargement and cut editing are performed on a GOP basis. A GOP comprises "I frame", "P frame" and "B frame". The I frame allows images to be reproduced independently, the P frame is for recording and reproducing only the differences with the preceding image, and the B frame reproduces images from the differences in the preceding and following images. Select I, P and B frame patterns of the GOP from the list. Normally, select [IBBP]. [I-Frame Only] is comprised of only I-pictures. Editing is made easier, but the amount of data increases in size.
[Picture count]	Set the number of frames included in a group.
[Closed GOP]	Check this item to complete information within each GOP. Although the amount of data increases, the video can be re-edited using software that supports GOP-based editing. Normally, leave this item unchecked.
[Emphasis]	Select an item from the list for high-frequency compensation that saves while emphasizing the high range. [None] is a setting without high-frequency compensation. [50/15 us] is an emphasis setting employed by some audio CDs, etc. [CCITT J.17] is a telecommunications standard recommended by CCITT.

[Protection]	The “protection_bit” indicates whether redundancy is added to an audio bit stream in order to make error detection and correction possible. Check this item to change it to “1”, indicating that redundancy is being added. Uncheck this item to change it to “0”, indicating that redundancy is not being added.
[Original Flag]	Check this item to change the “original_copy” bit to “1”, indicating the original copy. If it is unchecked, it becomes “0”, indicating a duplication.
[Copyright Flag]	Check this item to change the “copyright” bit to “1”, indicating that the copyright is protected. If it is unchecked, it becomes “0”, indicating there is no copyright.

MPEG2 for XDCAM HD422/MPEG2 for XDCAM HD LP/MPEG2 for XDCAM HD SP/MPEG2 for XDCAM HD HQ

Items that can be configured are the same as [MPEG2 Program Stream].
“MPEG2 Program Stream” (▶ page 61)

MPEG2 MXF

[Segment Encode]	Check this item to export a clip of a raw source without re-encoding. This increases the output speed.
[Bit Rate]	Select a bitrate type. [CBR] sets a fixed transfer rate, allocating a fixed number of bits during the encoding process. Select a bitrate from the [Average] list. You can also enter a value directly. [VBR] sets a variable transfer rate, altering the number of assigned bits according to the complexity of the movement or image quality. Compared with [CBR], the media volume can be used more efficiently, and this enables more consistent image quality overall. Select a bitrate from the [Average] and [Max] lists. You can also enter a value directly.
[Quality/Speed]	Select quality from the list. The higher the quality, the more time it takes to be encoded.
[Field Order]	For interlace, a field order can be selected.
[GOP Structure]	For MPEG, a certain number of frames is considered as a group, and operations such as compression/enlargement and cut editing are performed on a GOP basis. A GOP comprises “I frame”, “P frame” and “B frame”; the I frame allows images to be reproduced independently, the P frame is for recording and reproducing only the differences with the preceding image, and the B frame reproduces images from the differences in the preceding and following images. Select I, P and B frame patterns of the GOP from the list. Normally, select [IBBP]. [I-Frame Only] is comprised of only I-pictures. Editing is made easier, but the amount of data increases in size.
[Picture count]	Set the number of frames included in a group.
[Closed GOP]	Check this item to complete information within each GOP. Although the amount of data increases, the video can be re-edited using software that supports GOP-based editing. Normally, leave this item unchecked.
[Chroma Format]	Select a YUV pixel format from the list.
[Profile/Level]	Select a profile & level. If [Chroma Format] is [4:2:0] and [4:2:2], the profile will be set to Main Profile and 422Profile, respectively. The level for SD image quality will be Main Level, and the level for HD image quality will be High Level. The profile & level changes according to the format selected in [Chroma Format].

AVCUltra MXF

[Format]	Select a format from the list.

DNxHR MXF/DNxHR MOV

[Format]	Select a format from the list.
[VBR]	Check this item to change the bitrate to be assigned in accordance with the complexity of the movement or image quality.

ProRes MXF

[Format]	Select a format from the list.

ProRes MOV

[ProRes CODEC settings]	Select a format from the list.

XAVC MXF

[Format]	Select a format from the list.
[Quality/Speed]	Select quality from the list. The higher the quality, the more time it takes to be encoded.
[ClosedGOP]	Check this item to complete information within each GOP. Although the amount of data increases, the video can be re-edited using software that supports GOP-based editing.
[Segment Encode]	Check this item to export a clip of a raw source without re-encoding. This increases the output speed.

JPEG2000 MXF/D10 MXF

[Bit Rate]	Select a bitrate from the list.

HDV

[Segment Encode]	Check this item to export a clip of a raw source without re-encoding. Output speed is fast. If the frame rate of the export format is 23.98p, segment encode is not available. **[Quality/Speed]** Select the quality of the part to be re-encoded from the list. The higher the quality, the more time it takes to be encoded.

DV AVI

Check [Use MSDV codec] to export the content to an MSDV codec AVI.

Other Codecs

The following codecs can also be selected.
[Detail] will not be available.

- AVCIntra MXF
- DVCPROHD MXF
- DVCPRO25 MXF
- DVCPRO50 MXF
- DV MXF
- Uncompressed RGB AVI
- Uncompressed RGBA AVI
- Uncompressed UYVY AVI
- Uncompressed YUY2 AVI
- Uncompressed v210 AVI
- Grass Valley Lossless AVI
- DVCPRO50 AVI

Configuring Audio Channel Map

Select the final output channel for the output from the track.

1) Click [Channel map] in the [Project Settings] (Detailed Settings) dialog box.

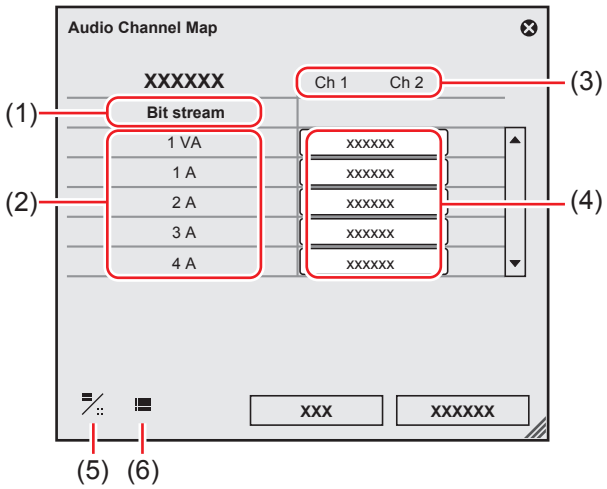
- **"[Project Settings] (Detailed Settings) Dialog Box" (▶ page 59)**
- The [Audio Channel Map] dialog box appears.
  "[Audio Channel Map] Dialog Box" (▶ page 64)

2) Click the point where the track and the channel to output intersect to configure the audio channel map.

- Every click switches between [Stereo], [Mono], and [No Output folder].

- For stereo output, use a combination of an odd number channel and an even number channel and set this option to [Stereo]. If you output in monaural, select [Mono], and if you do not output anything, select [No Output folder]. If the setting is invalid, "-" is displayed.

[Audio Channel Map] Dialog Box



(1)	**[Bit stream]**	Set the pass-through for audio.
(2)	**Tracks**	The number or type of track to be displayed differs depending on the [Track (Default)] settings in the project settings.
(3)	**Output channels**	The number of channels to be displayed differs depending on the [Audio Preset] or [Audio Channels] settings in the project settings.
(4)	**Audio channel map settings**	Select the output channel for the output from the track. Every click switches between [Stereo], [Mono], and [No Output folder].
(5)	**[Change Display Style]**	Click this item to switch the display view of the [Audio Channel Map] dialog box.
(6)	**[Preset]**	Register the settings as a preset. **"Creating Audio Channel Map Preset" (▶ page 64)**

- Use the track header to place an audio channel of the source clip to a desired track.
  "Connecting/Disconnecting the Source Channel" (▶ page 220)

Creating Audio Channel Map Preset

You can register frequently used audio channel map settings as presets.

1) Configure the audio channel map in the [Audio Channel Map] dialog box.

- **"[Audio Channel Map] Dialog Box" (▶ page 64)**

2) Click [Preset], and click [Save].

3) Enter a preset name, and click [OK].

- You can overwrite an existing audio channel map preset with the current settings. In step **2)**, click [Preset], and click [Update] → [Preset Name]. Confirm the preset name, and click [OK].
- To display a list of the audio channel map presets, click [Preset] in the [Audio Channel Map] dialog box, and click [Properties].

Switching Audio Channel Map Presets

Switch the audio channel map presets to use.

1) Click [Preset] in the [Audio Channel Map] dialog box, and click [Load].

- **"[Audio Channel Map] Dialog Box" (▶ page 64)**
- A list of the audio channel map presets is displayed.

2) Select a preset, and click [OK].

Deleting Audio Channel Map Preset

You can delete audio channel map presets you created.

1) Click [Preset] in the [Audio Channel Map] dialog box, and click [Properties].

- **"[Audio Channel Map] Dialog Box" (▶ page 64)**
- A list of the audio channel map presets is displayed.

2) Select a preset, and click [Delete].

3) Click [Yes].

Importing Audio Channel Map Preset (Import)

Import an audio channel map preset.

1) Click [Preset] in the [Audio Channel Map] dialog box, and click [Properties].

- **"[Audio Channel Map] Dialog Box" (▶ page 64)**
- A list of the audio channel map presets is displayed.

2) Click [Import].

3) Select a file, and click [Open].

Exporting Audio Channel Map Preset (Export)

Export an audio channel map preset you created.

1) Click [Preset] in the [Audio Channel Map] dialog box, and click [Properties].

- **"[Audio Channel Map] Dialog Box" (▶ page 64)**
- A list of the audio channel map presets is displayed.

2) Select a preset, and click [Export].

- The [Save As] dialog box appears.

3) Set a file name and save destination, and click [Save].

Creating a New Project after Start-up

You can create a new project after starting up EDIUS.

1) Click the [Create New Sequence] list button on the timeline.

2) Click [New Project].

- If you create a new project during the editing operation, a confirmation dialog box appears to ask if you want to save the current project file.
- The [Project Settings] (Simple Settings) dialog box appears.
  "[Project Settings] (Simple Settings) Dialog Box" (▶ page 58)

Alternative

- Click [File] on the menu bar, and click [New] → [Project].

- Creating a new project after start-up: **[Ctrl] + [N]**

- When a new project is created, the clips in the bin are initialized (all deleted).

3) Enter a project name in [Project name] of [Project file].

4) Select a project preset or project template, and click [OK].

- Check [Customize] to change the detailed project preset settings (rendering format and the number of tracks and so on) and create a new project.
  "[Project Settings] (Detailed Settings) Dialog Box" (▶ page 59)
- You can also specify an existing project to use it as a template.
  "Creating a New Project Using Existing Project as Template" (▶ page 58)

Changing the Project Setting

This section explains how to change the project settings during the editing operation.

Changing the Project Setting (Simple Settings)

You can change project settings while editing by switching project presets.

- To create a new project preset or change the existing project preset settings, use [Application] in [System Settings] → [Project Preset].
  "Project Preset/Project Template" (▶ page 69)

1) Click the [Save Project] list button on the timeline.

2) Click [Project Settings].

Alternative

- Click [Settings] on the menu bar, and click [Project Settings].

3) Select a project preset, and click [OK].

Changing the Project Setting (Detailed Settings)

Change the project settings by modifying the detailed settings of an existing project preset.

Note

- The settings of the original preset will not be changed if you change the project settings of a project you are currently editing.
  To create a new project preset or change the existing project preset settings, use [Application] in [System Settings] → [Project Preset].
  "Project Preset/Project Template" (▶ page 69)
- When changing the settings for [TC preset], [TC mode], [Total length], and [Channel map] in the project settings while editing a project, the change is not reflected in the created sequence. Change the settings of the created sequence in the [Sequence settings] dialog box for each sequence.
  "Sequence Settings" (▶ page 68)

1) Click the [Save Project] list button on the timeline.

2) Click [Project Settings].

Alternative

- Click [Settings] on the menu bar, and click [Project Settings].

3) Select a project preset, and click [Change current setting].

- The [Project Settings] (Detailed Settings) dialog box appears.
  "[Project Settings] (Detailed Settings) Dialog Box" (▶ page 59)

4) Change the settings, and click [OK].

Sequence Settings

You can change the settings of the sequence settings in the [Sequence settings] dialog box.

1) Click the [Save Project] list button on the timeline.

2) Click [Sequence settings].

- The [Sequence settings] dialog box appears.
  "[Sequence settings] Dialog Box" (▶ page 68)

Alternative

- Click [Settings] on the menu bar, and click [Sequence settings].
- Right-click the sequence tab, and click [Sequence Settings].
- Right-click a sequence clip in the bin, and click [Sequence Settings].

3) Change the settings, and click [OK].

[Sequence settings] Dialog Box

[Sequence name]	Enter the name of the sequence.
[TC preset]	Set the start timecode of the timeline.
[TC mode]	When NTSC has been selected for the project setting, select either drop frame or non drop frame timecode display.
[Total length]	Set the total length of the timeline of sequence by directly entering the value. When the timeline exceeds this length, the color of the timeline section over the limit changes.
[Show Markers]	**[Sequence Marker]/[Clip Marker]** Check the item to display the sequence markers or clip markers of timeline sequence clips which are placed on the timeline using the nest sequence function.
[Preserve Ancillary data]	Check this item to set the sequence to hold ancillary data.
[Channel map]	Set audio output channel for each track. **"Configuring Audio Channel Map" (▶ page 63)**

"Entry of Values" (▶ page 44)

Project Preset/Project Template

Creating a Project Preset

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Application] tree, and click [Project Preset].

- The [Project Preset] screen appears.
  "[Project Preset] Screen" (▶ page 69)

3) Click [New Preset].

- The [Project Settings] dialog box (for creating new project presets) appears.
  "[Project Settings] Dialog Box (for creating new project presets)" (▶ page 69)

Note

- Clicking the [Default Icon Folder] checkbox in the [Select Icon] dialog box does not uncheck the item while default icon folder is displayed. The display returns to the default icon folder display by clicking [...] and checking the item while a different folder is displayed.

4) Set each item and click [OK].

- The newly created preset is displayed as an icon in [Presets List].

[Project Preset] Screen

[Presets List]	Display registered project presets and project templates in a list. The list can be resorted by dragging the icon. Project presets and project templates registered by default cannot be re-sorted.
[Description]	Display the setting details of the project preset or project template selected in [Presets List].
[Preset Wizard]	Start up the [Create Project Presets] wizard so that new project presets can be easily created. **"Simple Creation of Project Presets" (▶ page 70)**
[New Preset]	Create new project presets.
[Copy]	Duplicate the selected project preset.
[Modify]	Change the settings of the selected project preset. Click this item to display the [Project Settings] dialog box (for creating new project presets). **"[Project Settings] Dialog Box (for creating new project presets)" (▶ page 69)**
[Delete]	Delete the selected project preset or project template.
[Template File]	Set the default value when saving project templates. **"[Save As Template] Dialog Box" (▶ page 74)** **[Template File Folder]** Set the destination to save the project template. Click [Browse], and specify a folder. **[Template Name]** Enter the name of the project template.

[Project Settings] Dialog Box (for creating new project presets)

[Folder]	Set the destination to save a project preset. To change the save destination, click [...], and specify a folder.
[Name]	Enter the name of the project preset.
[Select Icon]	Displays the [Select Icon] dialog box to select the preset icons. To use any image you like, click [...] in the [Select Icon] dialog box, and select a file.
[Preset]	Click this item to call up existing project presets.

Setting items other than the above are the same as those for the project presets (Detailed Settings).
"[Project Settings] (Detailed Settings) Dialog Box" (▶ page 59)

Simple Creation of Project Presets

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Application] tree, and click [Project Preset].

3) Click [Preset Wizard].

4) Check more than one item for each of [Size], [Frame Rate], [Bit],and [Audio Channels], and then click [Next].

- Configure the video size, frame rate, video quantization, and audio channel for the project format to create with EDIUS. Multiple checkboxes can be selected for each item.
- Checking [Set Over Scan Size to 0%.] will set [Over scan size] of the project preset to [0%].

- Set a video quantization bitrate to 10-bit to edit with 10-bit precision retained. However, it may result in 8-bit precision depending on the effects you use. The formats that can be imported with 10-bit are Grass Valley, HQX AVI, uncompressed AVI, AVC-Intra, QuickTime, Grass Valley HQX MOV, and XAVC. The formats that can be exported with 10-bit are Grass Valley HQX AVI, AVC-Intra, and uncompressed (v210) AVI, and MP4.

5) Check the details.

- A list of formats corresponding to the setting configured in step **4)** is displayed.
- A preset of the checked formats will be created, uncheck the formats you do not use.

- You can click [Back] to redo the settings.

6) Click [Completed].

- The newly created preset is displayed as an icon in [Presets List].

Deleting Project Presets/Project Templates

Delete project presets or project templates.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Application] tree, and click [Project Preset].

3) Select the project preset or project template to be deleted in [Presets List], and click [Delete].

Alternative

- Right-click a project preset or project template in the project preset list, and click [Delete].

4) Click [Yes].

Note

- Project presets registered by default cannot be deleted.

Copying Project Presets

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Application] tree, and click [Project Preset].

3) Select the project preset to be copied in [Presets List], and click [Copy].

Alternative

- Right-click a project preset in [Presets List], and click [Copy].

Note

- Project templates cannot be copied.

Changing Project Presets

Change project preset settings.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Application] tree, and click [Project Preset].

3) Select the project preset to be changed in [Presets List], and click [Modify].

- The [Project Settings] dialog box (for creating new project presets) appears.
  "[Project Settings] Dialog Box (for creating new project presets)" (▶ page 69)

Alternative

- Right-click a project preset in [Presets List], and click [Modify].

4) Set each item and click [OK].

- Even when you change the project preset used in the project being edited, the settings of the project being edited are not changed. To reflect the changes, switch the setting to the project preset changed.
  "Changing the Project Setting (Simple Settings)" (▶ page 67)

Note

- Project presets registered by default cannot be changed.
- The setting details of project templates cannot be changed.

Importing Project Presets (Import)

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Application] tree, and click [Project Preset].

3) Right-click [Presets List], and click [Import].

4) Select a project preset, and click [Open].

Note

- Project templates cannot be imported.

Exporting Project Presets (Export)

1) **Click [Settings] on the menu bar, and click [System Settings].**

2) **Click the [Application] tree, and click [Project Preset].**

3) **Select and right-click a preset in [Presets List], and click [Export] → [All] or [Selected preset].**

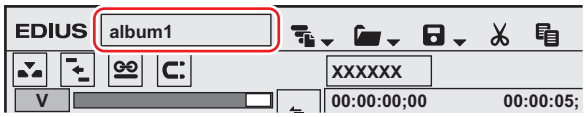
4) **Specify a save destination, and click [Save].**

Note

- Project templates cannot be exported.

Saving a Project

A project file is saved as an ezp file. The file name of the project currently being edited is displayed in the timeline operation area.



The following explains how to save project files and about auto save/backup files.

Note

- After saving the project file, do not move or delete the source that is used for reference in the project. However, if the source is in the folder where the project file is created, the folder as a whole can be moved.

Overwrite Saving

You can save the project with the project name entered when creating the project.

1) Click [Save Project] on the timeline.

Alternative

- Click the [Save Project] list button, and click [Save Project].
- Click [File] on the menu bar, and click [Save Project].
- Overwrite saving a project: **[Ctrl] + [S]**

Saving in Another Name

You can save the current project file (the one being edited) with another name.

1) Click the [Save Project] list button on the timeline.

2) Click [Save As].

3) In the [Save As] dialog box, specify a file name and save destination, and click [Save].

Alternative

- Click [Save Project] with [Shift] on the keyboard held down.
- Click [File] on the menu bar, and click [Save As].
- Saving a project in another name: **[Shift] + [Ctrl] + [S]**

Saving as Project Template

A project template is saved as an ezpt file.

1) Edit a project.

2) Click [File] on the menu bar, and click [Save As Template].

- The [Save As Template] dialog box appears.
  "[Save As Template] Dialog Box" (▶ page 74)

Alternative

- Click the [Save Project] list button on the timeline, and click [Save As Template].

3) Set each item, and click [OK].

[Save As Template] Dialog Box

[Template Folder]	Set the destination to save a project template. To change the save destination, click [...], and specify a folder.
[Template Name]	To change the name, click the input field to enter a project template name.

- By default, the save destination of project templates is set to the “Project Templates” folder on the same level as the project folder.
- You can change the default setting of [Template Folder] and [Template Name] using [Application] in [System Settings] → [Template File] in [Project Preset].
  “[Project Preset] Screen” (▶ page 69)

Auto Save/Backup

If the auto save function is enabled, an auto save file is created at a specified interval.

A backup file is created when a project file is saved if the backup function is configured. This file is used as a backup when the project file is corrupted or the system failed during the editing operation.

You can configure auto save/backup settings from [User Settings] → [Application] → [Project].

“[Project]” (▶ page 122)

By default, an auto save/backup file is automatically saved, with a “Project name-Year, Month, Day-Hour, Minute, Second .ezp” file name, in the project folder where the corresponding project file is saved.

- Destination of an auto save file → “Project folder”/“Project”/“AutoSave”
- Destination of a backup file → “Project folder”/“Project”/“Backup”

Note

- Copy (transfer) the auto save/back up file to the folder where the project file is originally saved and import the file, to recover the project from the auto save/back up file.
- Auto save/back up files are in the attributes of read-only and cannot be overwritten. Change the attributes of the file from Windows Explorer in advance, or save as the different file.
  “Restarting a Project (After Startup)” (▶ page 75)
  “Saving in Another Name” (▶ page 73)

Importing/Exporting a Project

This section explains how to import project files edited with EDIUS, how to consolidate a project, and how to export to an AAF or EDL file.

Restarting a Project (At Startup)

Select a project to import when EDIUS starts up.

1) Double-click a project file from [Recent Project] in the [Start Project] dialog box.

- In [Recent Project], previously worked project files from the latest are displayed.

Alternative

- Click [Open Project], specify a file and click [Open].
- Select a project file from the [Recent Project] list, and click [Open].

- If you open a project file that is currently open for editing from another PC, the project file opens as a read-only file.
- When you open a project with a large number of clips, “the number of imported files/number of all files” is displayed.

Note

- For projects created with EDIUS Version 10 or older, the data in the [Search results] folder cannot be taken over.

Restarting a Project (After Startup)

You can open a new project file after EDIUS starts up.

1) Click [Open Project] on the timeline.

- A confirmation dialog box appears to ask if you want to save the current project file.

2) Select a project file to import in the [Open Project] dialog box, and click [Open].

Alternative

- Click the [Open Project] list button, and select a file from the list of recent files.
- Click [File] on the menu bar, and select a file from [Recent Project] → the recent files.
- Click [File] on the menu bar, and click [Open Project] to select a project.
- Opening project file after start-up: **[Ctrl] + [O]**

- If you edit a project file using multiple PCs over the network, while one PC can open and edit the project file, other PCs can open the same project file as a read-only file.

Importing Sequence (Sequence Import)

You can import the sequence created in other project.

1) Click the [Open Project] list button on the timeline.

2) Click [Import Sequence].

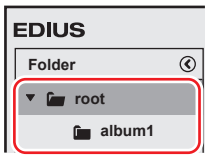
- The [Import Sequence] dialog box appears.
  “[Import Sequence] Dialog Box” (▶ page 76)

Alternative

- Click [File] on the menu bar, and click [Import Sequence].

3) Set each item and click [OK].

[Import Sequence] Dialog Box

[Import Project]	Select a recent file from the list. Click [Browse] to select a file using the [Open] dialog box. When you select a project file, detailed information including the project names and updated date. The information is displayed in red when the frame size or the aspect ratio differs.
[Import Bin]	Check this item to merge the bin contents. To [Folder name], enter a folder name to manage the imported bin clips. The folder will be created under the [root] folder in the bin. When imported with the folder name “album1”, the following be displayed.  Uncheck this item to import only the sequence.
[Copy Files]	**[Copy clips in project folder]** Copy the files in the source project folder. **[Copy rendered files]** Copy the rendered files. **[Folder name]** Enter a folder name to manage the copied files. The folder is created under the project folder.

Note

- You cannot copy files if the project folder is same as the source.
- If the frame rates are different, the merge process fails.
- If you merge projects with different project settings, the original project and video may be changed due to the differences of the frame size, aspect ratio, and overscan size. In addition, the rendered files cannot be copied.

Consolidating Project (Consolidate Project)

You can remove unnecessary clips from the project folder, and extract a portion to use.

1) Click the [Save Project] list button on the timeline.

2) Click [Consolidate Project].

- The [Consolidate Project] dialog box appears.
  “[Consolidate Project] Dialog Box” (▶ page 77)

Alternative

- Click [File] on the menu bar, and click [Consolidate Project].

3) Set each item and click [OK].

- When you delete unnecessary files, a confirmation message is displayed, and click [Yes].

- When a message indicating there is not enough disc space for consolidating is displayed, change the destination.

[Consolidate Project] Dialog Box

[Project File Location]	**[Current Project Location]** Overwrite and save the current project. **[Save Project to Folder]** Specify a folder to save the project. **[Drive Space]/[Required Space]** Display the available disc space of the selected drive and the whole file size to be created (copied) by consolidating. They are displayed in red when the required space is larger than the available disc space.
[Settings]	Select the operation to be performed at execution of consolidation, and select [Trim margin] or options as required. Select execution options from the following. **[Cleanup]** Select this item to delete unnecessary files in the project. Release clips that are registered to the bin but not used in the timeline, and delete them from the storage. **[Backup]** Select this item to create a backup of the portion used in the project. You need to specify a trim margin. Only the clip portion used in the timeline is saved as a separate file, and all the clips used in the project is copied to the project folder. However, if the clip used in the timeline is registered, the entire file is copied. **[Backup(no trimming)]** Select this item to back up the entire project. Copy all the clips used in the project to the project folder. **[Backup Cleanup]** Perform an operation of both [Cleanup] and [Backup] together. You need to specify a trim margin. **[Backup Cleanup(no trimming)]** Perform an operation of both [Cleanup] and [Backup(no trimming)] together. **[Custom]** Configure the consolidation settings manually. • [Remove unused clips in Timeline] Release the clips not used in the timeline from the bin. • [Leave only areas used in Timeline] Save the areas used in the timeline as another file, and then switch the file in the timeline with the new file. You need to specify a trim margin. The new files are saved in the created folder in the project folder. • [Copy used files to Project Folder] Copy all the clips used in the project to the project folder. • [Delete unused files in Project] Delete the unnecessary files from the project folder when consolidating. You can set this option only when any of the other optional items is selected.
[Proxy clip]	If any proxy clip is used, select the data type to be consolidated from the list.
[Output log]	Check this item to export a log file containing the result of consolidation. Click [Browse] to specify a destination and a file name.

- If you select a back up option and if there is any clip that cannot be copied, a confirmation message is displayed to ask if you want to continue the process before consolidation.
- If you select a cut option and if there is any clip that cannot be copied, a confirmation message is displayed to ask if you want to continue the process before consolidation.

Note

- Even if an option to delete unnecessary files is selected, some files may not be deleted due to the access right to the folder or file. In that case, no message appears. Check the user authorization when logging in.
- If an option to delete unnecessary files is selected, the deleted files cannot be restored after consolidation.
- The name of the copied file is changed.

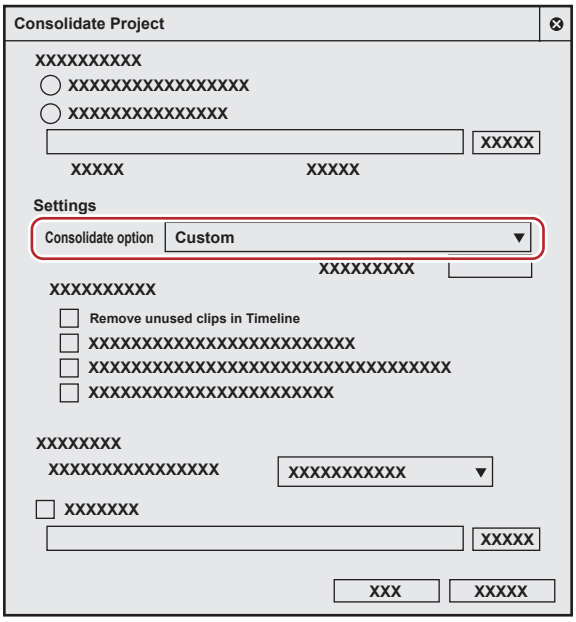
Deleting Clips Not Used in Project from Bin

1) Click the [Save Project] list button on the timeline.

2) Click [Consolidate Project].

- The [Consolidate Project] dialog box appears.

3) Select [Custom] from the [Consolidate option] list of [Settings].



4) Check [Remove unused clips in Timeline].

5) Click [OK].

- When a message is displayed indicating there is not enough disk space to execute consolidation, change the save destination.

Exporting AAF Files (AAF Export)

You can export a project file that you edited with EDIUS as an AAF file.

Note

- Only active sequences will be exported.
- The following information will not be exported.
  - Tracks with no clip
  - Audio tracks with no channel map setting
  - Title track
  - Tracks with mute setting
  - All effects (As for the pan and volume settings, source files that reflect their settings will be exported.)
- Transition/cross fade sections will be exported as clips.
- You cannot add an In point side margin to a clip that is positioned at the top of the timeline.
- You cannot specify network drives as export destination. However, you can mount network drives to use as export destination.
- When you select an exporter which does not support the export of the timecode, the file is not exported properly.
- Clips that are grouped, share a same clip name, and reference the same source are exported as a grouped clips.

1) Click the [Save Project] list button on the timeline.

2) Click [Export Project] → [AAF].

- The [Project Exporter (AAF)] dialog box appears.
  "[Project Exporter (AAF)] Dialog Box" (▶ page 79)

Alternative

- Click [File] on the menu bar, and click [Export Project] → [AAF].

3) In the [Project Exporter (AAF)] dialog box, specify a file name and save destination.

4) Select a preset, and click [Save].

- The export of the AAF file is started.
- If you want to check the preset settings or change export settings, click [Detail].
  The [AAF Export Detail Settings] dialog box appears.
  "[AAF Export Detail Settings] Dialog Box" (▶ page 79)

- You can use the Render Service to export an AAF file in the background.
  "AAF Format" (▶ page 454)

[Project Exporter (AAF)] Dialog Box

[Preset]	**[Type : 1] Pro Tools preset**[*1] The information of the video and audio clips is written in an AAF file. The source that the video clip is referring to is exported as QuickTime (H.264) in the NTSC format. The source that the audio clip is referring to is exported as an AIFF file. Select type 1 when you import the AAF file with audio editing software. **[Type : 2] After Effects preset**[*1] The video clip information is written in an AAF file, and the source that the video clip is referring to is not copied or exported. The audio information of the audio corresponding to the range that is exported to an AAF file is exported as an AIFF file, and the information is written in an AAF file as a single clip. Select type 2 when you import the AAF file with composition software. **[Type : 3] Other NLE preset** The information of the video and audio clips is written in an AAF file by frame unit. The source that the clips are referring to is not copied or exported. **[Type : 4] DaVinci Resolve preset**[*1] The information of the video and audio clips is written in an AAF file. The source that the clips are referring to is exported in the QuickTime (Grass Valley HQX) format. **[Type : 5] Media Composer preset**[*1] The information of the video and audio clips is written in an AAF file. The source that the clips are referring to is exported in the MXF (DNxHD, 1080p/i, or 720p) format.
[Export between In and Out]	Check this item to export only between In and Out points of the timeline.
[Detail]	The [AAF Export Detail Settings] dialog box appears. **"[AAF Export Detail Settings] Dialog Box" (▶ page 79)**

*1 Visit our website for the latest information on supported formats.

Note

- If you export a project using [Type : 1] in [Preset], you must import the video manually depending on the version of Pro Tools.
- If you use Pro Tools 7.3 or older version to import the file exported using [Type : 1] in [Preset], you must change [File path] to [RFC1738] in the [AAF Export Detail Settings] dialog box.
  "[AAF Export Detail Settings] Dialog Box" (▶ page 79)

[AAF Export Detail Settings] Dialog Box

[Legacy]	Check this item to export in the older format of AAF.
[Separate video and audio]	Check this item to export with audio and video separated. Uncheck this item to export as a video source containing audio.
[File path]	Select [RFC1738], [RFC2396], or [Unicode] to specify the description method for the source file path to which the clip refers.

[Video Clip]	Specify how video clips will be handled. **[Output AAF]** Check this item to add video clip information to AAF files. **[Clips]** • [Copy clips] Copy (or export) the source used for the clips so that the copied source will be referenced. • [Compress and copy a clip] Handle the video clips of the timeline as one clip. The clip and file names of the first clip with the smallest track number will be used as the clip and file names of the exported files. • [Use original clips] Reference the original source directly without copying.
[Audio clip]	Specify how audio clips will be handled. **[Output AAF]** Check this item to add video clip information to AAF files. **[Clips]** • [Copy clips] Copy (or export) the source used for the clips so that the copied source will be referenced. • [Compress and copy a clip] Handle the audio clips of the timeline as one clip. The clip and file names of the first clip with the smallest track number will be used as the clip and file names of the exported files. If both the VA and A tracks have audio, the first clip and file names of the A track will be used. • [Use original clips] Reference the original source directly without copying. • [Enable Pan setting] Check this item to export the stereo tracks as monaural tracks of individual channels. If unchecked, the stereo tracks will be downmixed and exported as monaural clips. For the channel map, if the track number is an odd number, 1ch (L side) of the track will be used, and if the track number is an even number, 2ch (R side) of the track will be used. The clip names will be “clip name + .L” for odd number tracks and “clip name + .R” for even number tracks.
[Copy option]	Specify how the source will be copied when you select [Copy clips] in [Video Clip] and/or [Audio clip]. **[Copy used clips]** Copy source files that are used by the clips on the timeline. **[Export the used area to a file]** Export only the ranges that are used by the clips on the timeline. In this case, the setting of [Margin] is enabled to export the file adding the specified time margins at In/Out points. If you select [Copy clips] in [Audio clip], the source will be downmixed and exported as a monaural clip. **[Output folder]** Select a source file export destination. If you select [Create a folder], a folder with the same name of the AAF file folder in the destination to which the AAF file is exported, and the source files will be exported to that folder. If you select [Same folder], the source files will be exported to the destination of the AAF file. **[Exporter]** • [Video] Select the exporter to export video files. • [Display timecode] Check this item to display the timeline timecode in the exported video. • [Audio] Select the exporter to export audio files. • [Export in 16bit] Check this item to convert the source to the 16-bit format audio, regardless of the project settings.
[Save preset]	Register the current settings as a new preset. Enter a preset name, and click [OK].
[Delete]	Delete the currently selected preset. Presets registered in advance cannot be deleted.
[OK]	Click this button to change the settings for the selected AAF export preset temporarily. Click [Save preset] and save the changed settings to register the preset, as the changes are not saved by this operation.
[Cancel]	Cancel the settings and return to the [Project Exporter (AAF)] dialog box.

Exporting EDL Files (EDL Export)

You can export a project file that you edited with EDIUS as an EDL file.

Items to Be Exported

■ Tracks

Export the following tracks. The clips placed on other tracks not mentioned below are not exported.

- 1 - 2VA (1 - 2V) tracks
- 1 - 4A tracks
- T tracks (All tracks)

■ Audio

Audio clips in 1 - 2VA track are not exported. Export channel range for 1 - 4A tracks is different depending on EDL type.

EDL types	Tracks
BVE5000	1 - 2A
BVE9100	1 - 4A
CMX340	1 - 2A
CMX3600	1 - 4A

1) Click the [Save Project] list button on the timeline.

2) Click [Export Project] → [EDL].

Alternative

- Click [File] on the menu bar, and click [Export Project] → [EDL].

3) In the [Project Exporter (EDL)] dialog box, specify a file name and save destination.

4) Click [Detailed Settings].

- The [EDL Exporter Detailed Settings] dialog box appears.
  "[EDL Exporter Detailed Settings] Dialog Box" (▶ page 81)

5) Set each item and click [OK].

6) Click [Save].

[EDL Exporter Detailed Settings] Dialog Box

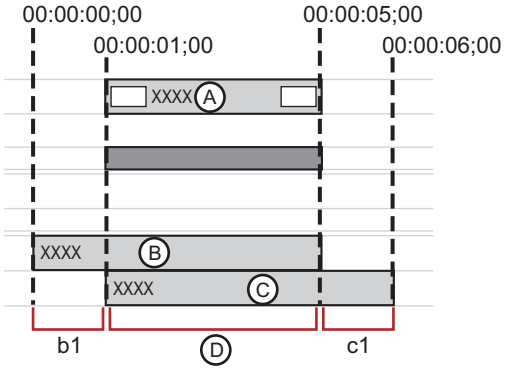
[EDL Type]	Select the EDL format to export.
[Export Format]	**[Mode1]** Comment lines are not added. **[Mode2]** Comment lines are added. Select this format when you cannot correctly import EDL files by third-party products.
[Handle empty clips as black clips]	Handle the empty spaces on timeline are as black clips. Check [Use longest clip as reference] to handle Out point at the end edge of the timeline as the end edge of the timeline; the empty spaces between them are handled as black clips.
[Link clips with sequential time codes]	Handle a series of multiple clips as one clip when their timecodes are sequential. However, they are not linked when transition is set between them.
[Export EDL for each track]	Export the project file for each track. The following characters are added to the end of each file name. • 1VA (1V) track video: "_V" • A track: "_A" • 2VA (2V) track video: "_INSERT" • T track: "_T" The audio of both 1VA, 2VA, and A tracks is output together to a "file name_A.edl" file. When 2VA (2V) track has a transition, it will be replaced with a center cut.
[Replace transitions with center cuts]	Replace all places with transitions or audio cross fade configured with the center cuts.

[No split information]	Release the grouping of video and audio, and handle the video clips and audio clips separately. Check this item when you cannot correctly import EDL files by third-party products. If you check this item, [Handle split clips separately] cannot be set. **“Splitting Clips to Handle Separately” (▶ page 82)**
[Handle split clips separately]	Divide the split part of the clip with split to eliminate the split. Note that when the speed of clips is changed, the split part is not fragmented. This item cannot be set if you check [No split information]. **“Splitting Clips to Handle Separately” (▶ page 82)**
[When in reverse play, reverse player In/Out timecodes]	Display the reverse playback in the direction from the Out point to In point. The reverse playback is normally displayed from the In point to Out point. This item is available when you set CMX type for EDL type.
[When in reverse play, move one frame in the In direction]	Add a frame to the Player In point at reverse playback. Check this item when you cannot correctly import EDL files by third-party products. It prevents the original timecode from slipping off 1 frame forward. Normally, 1 frame is added to Out point of the Player at reverse playback.
[Combine Insert Tracks]	Check this item to overwrite a 1VA (or 1V) track with images of a 2VA (or 2V) track and to export both tracks as a 1VA (or 1V) track together.
[Create Reel List]	Create the list of reel numbers.
[Add Reel No. to clip name in comment]	This item can be changed only when [Mode2] (output format to add comment lines) is selected in [Export Format]. Check this item to add a reel name to the clip name output to the comment lines.
[Master reel number]	Set the master reel number used in BVE9100. The value range is between “0” and “9999”.
[Block number]	Set the block number used in BVE5000 or BVE9100. The value range is between “0” and “999”.
[Adjusted Data Settings]	**[Master reel number]** When A/A roll (transition among the clips with the same reel number) exists, this reel number is to use the location in the replaced file. When the original clips have the same reel number, decrease the number one by one to avoid the number duplication. **[Block number]** Set the block number used in BVE5000 or BVE9100. The value range is between “0” and “999”. **[Preroll area]** Specify the margin added to In/Out points of the clips. **[Offset time code]** Enter the start timecode (optional). **[Regenerate setting]** Set the start timecode to the In point of the first clip. **[Jam sync setting]** Set the In/Out points of the clip to the In/Out points of the timeline.

Splitting Clips to Handle Separately

When clips placed on different tracks are grouped and the clips have a gap within 3 seconds between the clips, they are split when exporting the EDL file.

When the clips have split information, the export result of EDL files differs depending on the settings in the [EDL Exporter Detailed Settings] dialog box. Here explains an example when the clips placed in 3 different tracks are grouped.



■ If [No split information] is checked:

The grouping of the clips is released to handle each clip separately. They are fragmented in 3 periods of time (A, B, and C in the figure above).

1. **Information of A (00:00:01;00 - 00:00:05;00)**
2. **Information of B (00:00:00;00 - 00:00:05;00)**
3. **Information of C (00:00:01;00 - 00:00:06;00)**

■ If [No split information] is unchecked:

Gaps between the clips are split. Areas of b1 and c1 in the figure are split, and the information is fragmented into 1 period of time as range D.

1 **Information of D (00:00:01;00 - 00:00:05;00) (including the split information of b1 and c1)**

■ If [Handle split clips separately] is checked:

The gap between tracks is fragmented to eliminate the split. The information is fragmented in 3 periods of time (b1, c1, and D in the figure above).

1 **Information of b1 (00:00:00;00 - 00:00:01;00)**
2 **Information of c1 (00:00:05;00 - 00:00:06;00)**
3 **Information of D (00:00:01;00 - 00:00:05;00)**

Note

- The clips with the speed changed are not split or handled separately, because their grouping becomes released.

Importing AAF Files (AAF Import)

You can import an AAF file to edit with EDIUS.

Note

- If you import an AAF file to EDIUS, the condition below must be met:
  - The AAF file is output by frame unit
  - The source file and the AAF file are separate (an embedded AAF file is not supported)

1) Click the [Open Project] list button on the timeline.

2) Click [Import Project] → [AAF].

Alternative

- Click [File] on the menu bar, and click [Import Project] → [AAF].

3) Select an AAF file to import in the [Project Importer (AAF)] dialog box, and click [Open].

- Check [New sequence] to create a new sequence and import an AAF file. If this item is unchecked, the AAF file is imported to the blank track of the currently selected sequence. If there is no blank track, a new track will be created.
- For an audio clip with monaural settings, the audio channels are set as below and the clip will be imported as monaural.
  - A1: channel 1
  - A2: channel 2
  - A3: channel 3
  - A4: channel 4

  For an audio clip with monaural setting, the even number tracks on which the clip is placed are sorted to L, the odd number tracks to R.

Importing EDL Files (EDL Import)

You can import an EDL file (Edit Decision List) to perform online edit.

1) Click the [Open Project] list button on the timeline.

2) Click [Import Project] → [EDL].

Alternative

- Click [File] on the menu bar, and click [Import Project] → [EDL].

3) Select an EDL file to import in the [Project Importer (EDL)] dialog box.

4) Click [Detailed Settings].

- The [EDL Importer Detailed Settings] dialog box appears.
  "[EDL Importer Detailed Settings] Dialog Box" (▶ page 84)

- Check [New sequence] to create a sequence and import an EDL file.

5) Set each item and click [OK].

6) Click [Open].

- The EDL file is imported and the [Restore and transfer clip] selected dialog box is displayed. Restore the offline clip.
  "Restoring Offline Clips" (▶ page 90)

- For an audio clip with monaural settings, the audio channels are set as below and the clip will be imported as monaural.
  - A1: channel 1
  - A2: channel 2
  - A3: channel 3
  - A4: channel 4

  For an audio clip with monaural setting, the even number tracks on which the clip is placed are sorted to L, the odd number tracks to R.

Note

- Information below cannot be imported from BVE5000/BVE9100.
  - EditMode Filed:ASMBL, ASSY1
  - EditType Filed: other than C, W, and D
  - GPI data line
  - Learn data line
- Information below cannot be imported from CMX340/CMX3600.
  - EditType Filed: other than C, W, and D

[EDL Importer Detailed Settings] Dialog Box

[EDL Type]	Select the EDL type to input.
[Import Format]	This setting is available when you select CMX type in [EDL Type]. Select the calculation method of Out point for the source file with a speed specified. **[Mode1]** Add (subtract) the value of source duration multiplied by the speed to the timecode at In point, and calculate the timecode at the Out point. Using the timecode at Player In point as reference, add for the + direction or subtract for the – direction. **[Mode2]** Use the timecode of Player Out point, not calculating Out point when Player In and Out points become the timecodes of source In and Out points.
[Handle black clips as empty clips]	When the reel name is BL/BLK/BLACK, handle the clip as a black clip, and handle the black clip as an empty clip.
[Overwrite clips that are stacked on top of each other in the timeline video track]/[Overwrite audio clips that are stacked on top of each other in the timeline audio track]	If importing a file without checking [New sequence] in the [Open] dialog box, the current clips are overwritten when the clips are stacked on the timeline of the 1VA (1V, 1A) track. If this item is unchecked, the clips are not overwritten, but the clips are placed on 2VA, 3VA (2V, 3V, 2A, 3A) tracks. If there is no 2VA, 3VA (2V, 3V, 2A, 3A) tracks, a new track is created.
[Match channels when the channels in a transition's "from" side and "to" side is different]	If the number of video or audio are determined to be different between the From side and To side, the number information of the video and audio on the To side is copied to the From side for alignment. This setting is available when you select CMX type in [EDL Type].
[Force reel name as clip name]	Uses the reel name as the clip name when importing.
[Export Error Log]	Export a file containing error information if an error occurs at import. [Export File Format] and [Export Type] can be set. If [All] is selected in [Export Type], the imported contents and error location are shown.

Importing Final Cut Pro XML Files (FCP XML Import)

You can import an XML file exported from Final Cut Pro to edit with EDIUS.

- Bin information loading of Final Cut Pro 7 project files is also supported.
  However, bin information loading is limited to clips and sequence clips. Clips in the “Color bar and tone” folder and “Matte” folder, and “Blackish” clips cannot be loaded.
- In Final Cut Pro 7, clips of “Digital color bar (100/0/100/0)” or “Digital color bar (100/0/75/)” in “Color bar signal details” are replaced with EDIUS color bar clips of [100/x/100/x Color Bar] or [100/x/75/x Color Bar]. Other color bars are replaced with [SMPTE Color Bar] of EDIUS.
- Color bar tone levels for Final Cut Pro 7 are supported.
- If clips with colors specified by “Color Matte” and “Plain” of Final Cut Pro 7 are used, they are replaced with color matte clips of EDIUS. However, alpha of “Color Matte” and “Plain” of Final Cut Pro 7 is not supported.

Note

- For the Final Cut Pro multi-clip, those selected in the multi-clip are placed to the EDIUS timeline.
- The following items cannot be restored in EDIUS.
  - Title (text) clip
  - Transition applied to the clip and a blank
  - All transitions other than dissolve (all transitions are replaced with dissolve)
  - Key frame
  - Video filter

  In addition, the same sequence clips may be imported as different sequence clips. The sequence clips are imported as the same sequence clips only if the sequence IDs are included and the internal tags are empty.

1) Click the [Open Project] list button in the timeline.

2) Click [Import Project] → [FCP XML].

Alternative

- Click [File] on the menu bar, and click [Import Project] → [FCP XML].

3) Select an XML file in the [Project Importer (FCP XML)] dialog box, and click [Open].

- The XML file is imported and the [Restore and transfer clip] selected dialog box is displayed. Restore the offline clip.
  “Restoring Offline Clips” (▶ page 90)

Importing P2 PLAYLIST (P2 PLAYLIST Import)

You can import a playlist edited in P2 mobile recorder (AJ-HPM100/AJ-HPM110/AJ-HPM200) to edit with EDIUS.

1) Click the [Open Project] list button on the timeline.

2) Click [Import Project] → [P2 PLAYLIST].

Alternative

- Click [File] on the menu bar, and click [Import Project] → [P2 PLAYLIST].

3) In the [Project Importer (P2 PLAYLIST)] dialog box, select an XML file in the “EDITLIST” folder, and click [Open].

- The clip will be placed on the timeline.

- If [New sequence] is checked, a new sequence is created to import an XML file. The start timecode is set with priority for the imported playlist.
  If this item is unchecked, the XML is imported to the currently selected sequence. The start timecode is set with priority for the selected sequence.
- If [FileCopy] is checked, the source files are copied to a folder specified by clicking [Browse], and the copied source files are referenced. If this item is unchecked, the original source will be referenced.
- The audio clips are placed to A track.

Importing XDCAM Files (XDCAM Import)

An edit list created by the XDCAM HD deck or software accompanied to XDCAM can be imported to and edited with EDIUS.

1) Click the [Open Project] list button on the timeline.

2) Click [Import Project] → [XDCAM].

Alternative

- Click [File] on the menu bar, and click [Import Project] → [XDCAM].

3) Select an SMI file in the [Project Importer (XDCAM)] dialog box, and click [Open].

- For an XDCAM disk, select an SMI file in the “Edit” folder.
- For a PDZ-1 extended clip list, select an SMI file in the “General” folder.
- If a PDZ-1 extended clip list (consists of a single disk) is written back to the disk, select an SMI file in “General” → “ExtClipList” folder.
- For PDW-U1 (SAM format), select an SMI file in “EDTR” → “EDITLIST name” folder.
- For a PDW-U1 (SAM format) extended clip list, select an SMI file in “General” → “ExtClipList” folder.

- If [New sequence] is checked, a new sequence is created to import an SMI file. If this item is unchecked, the SMI file is imported to the currently selected sequence. The start timecode is the timecode described in the XML file within the same folder where SMI file is saved.
- If [FileCopy] is checked, the source files are copied to a folder specified by clicking [Browse], and the copied source files are referenced. If this item is unchecked, the original source will be referenced.
- The audio clips are placed to A track.
- The settings to import an XDCAM file can be changed through [Importer/Exporter] in [System Settings] → [XDCAM].
  “XDCAM Importer Settings” (▶ page 112)

Note

- If a paired XML file does not exist in the same folder as the selected SMI file, the file cannot be imported correctly. This XML file contains the start timecode of the timeline and TC mode settings (drop/non drop).

Field Editing a Project

The “field editing function” can be used to ensure that projects move smoothly when, for example, checking out projects edited on a desktop PC and editing them in a limited manner on a laptop PC. When a project that has been checked out by field editing is opened, a message is displayed to prevent duplicate editing of the project.

Checking Out Projects (Check-out)

Collect the project and source clips referenced by the project in a specified folder on a removable USB storage media. Instead of the original source files, proxy files for limited editing also can be checked out.

- From [System Settings] → [Application] → [Proxy], you can set the size of proxy files to be created at the time of checkout.
  “[Proxy]” (▶ page 99)

1) Click [File] on the menu bar, and click [Field Editing] → [Check out].

- The [Check Out] dialog box appears.
  “[Check Out] Dialog Box” (▶ page 87)

2) Click [Browse], and specify the checkout destination.

3) Set each item and click [OK].

4) Click [Yes].

- When checkout is completed, the project is closed, and the [Start Project] dialog box appears. [Check out] is displayed in [Status] of checked out projects.

- You can check the detailed information of clips transferred by project checkout by the following operation. Right-click a clip on the timeline or in the bin, and click [Properties]. You can confirm the directory of the checkout source file and the clip type (proxy/high-resolution) at checkout by clicking the [Check out] tab.

[Check Out] Dialog Box

[Checked Out]	Click [Browse], and specify the collection point (e.g. removable USB storage media) of the project or source clips. Check [Create folder with project name] to create a folder with the project name in the destination folder. You can enter a comment in the [Comments] field. You can check the amount of free space at the checkout destination and the size of the project data for checking out and field editing at [Drive Space] and [Required Space]. The numerical value of [Required Space] differs according to the [Check Out Source Files] and [Check Out Target] setting.
[Check Out Source Files]	**[Proxy]** Check this item to collect the proxy at the checkout destination. The checked out project references the proxy. A proxy will be automatically generated if there is not proxy. **[HiRes]** Check this item to collect the original source files at the checkout destination. When copying only parts currently used on the timeline, set the margin.
[Check Out Target]	Select the clips to be collected at the checkout destination. When [Only timeline (Opened Sequence)] is selected, only the clips currently used on the timeline of the currently open sequence are collected. When [All] is selected, both the clips currently used on the timeline and the clips registered to the bin are collected.

Editing at the Checkout Destination

1) Start up EDIUS, and open the checked out project.

- The checked out project is displayed as [Checked out] at [Status] in the [Start Project] dialog box.

2) Edit and save the project.

- It is recommended to set automatically run partial transfer so that clips added in editing at the checkout destination are automatically transferred to the project folder. Auto-run of partial transfer can be set by [Source] in [User Settings] → [Partial Transfer]. Select [From Removable Media and Hard Drive] in [Target Clip], and check the required 2 items in [Auto Transfer].
  To execute auto-run of partial transfer, the clip must be displayed on the Player, the In and Out points must be set, and the clip must be imported to the timeline or bin by button operation.
  "Transferring Only Necessary Part" (▶ page 179)
- When only the proxy or source including the proxy has been checked out, the project automatically opens in the proxy mode.
  "Switching to the Proxy Mode" (▶ page 320)
- Project settings can be changed also in checked out projects.
- Additional checkouts are not possible at checkout destinations.
- When the proxy mode is canceled on a project from which only the proxy was checked out, a diagonal line is displayed on the clip on the timeline and the clip is displayed as a partial offline clip.

Note

- When only the proxy is checked out for editing, the frame display during trimming and the background during title clip editing appear as a checkered pattern.

Returning Checked Out Projects (Check-in)

1) Start up EDIUS, and open the checkout source project.

- The checkout source project is displayed as [Check out] at [Status] in the [Start Project] dialog box.
- The [Check Out Status] dialog box appears.

2) Click [Check in].

- The [Check In] dialog box appears.
  "[Check In] Dialog Box" (▶ page 88)

Alternative

- Open the checkout source project file, and click [Open as read-only] in the [Check Out Status] dialog box. Click [File] on the menu bar, and click [Field Editing] → [Check in].

3) Click [OK].

4) Click [Yes].

- The project opens with editing details reflected.

- The checkout source project cannot be renamed even if a project file with a different name has been checked in.
- The proxy that was used at the checkout destination is not copied when it is checked in.

5) Save a project.

[Check In] Dialog Box

[Project file]	Displays the project file to check in. By default, the checkout destination and project name set in the [Check Out] dialog box at the time of checkout are displayed. Any project file can be selected by clicking [Browse].
[Add/Update file]	Displays any files updated at the checkout source and files added or updated at the checkout destination from checkout onwards in a list. Select from the list how to process additional or updated files. When [Use Original] is selected from the [Processing] list, the files are linked to the source files at the checkout source. When [Copy to Project Folder] is selected, the source files at the checkout source are copied and linked to the project folder at the checkout source. File properties can be confirmed by clicking ⚙.

Canceling Checkout

You can discard checkout information.

1) Start up EDIUS, and open the checkout source project.

- The checkout source project is displayed as [Check out] at [Status] in the [Start Project] dialog box.
- The [Check Out Status] dialog box appears.

2) Click [Undo check out], and click [Yes].

- The project file opens.

Alternative

- Open the checkout source project file, and click [Open as read-only] in the [Check Out Status] dialog box. Click [File] on the menu bar, and click [Field Editing] → [Undo check out] → [Yes].

Note

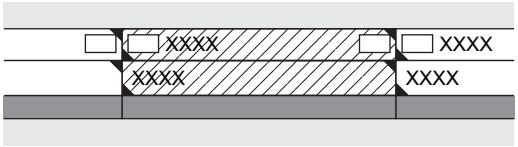
- When the checkout source project is not saved after checkout is canceled, the file is recognized as the one whose checkout has been canceled.

Restoring Offline Clips

Restoring the Source Link

If a source used in EDIUS is moved/deleted, the link between the source and EDIUS is lost, and the source cannot be referred from the clip. Clip that cannot refer to source will become an offline clip that video and audio are not displayed. The following section describes the method for supporting restoration of an offline clip.
If there are offline clips on the timeline, an icon to indicate the presence of offline clips and the number of the offline clips are displayed on the timeline status bar.

An offline clip on the timeline is displayed as below, and the video and audio are both muted during playback.



Restoring an Offline Clip

Select a restoration method for the offline clips.

1) Click the [Open Project] list button on the timeline.

2) Click [Restore Offline Clip].

- The [Restore and transfer clip] selected dialog box appears.
  "[Restore and transfer clip] Selected Dialog Box" (▶ page 90)

Alternative

- Click [File] on the menu bar, and click [Restore Offline Clip].

Note

- Registered clips that are reference AVI files will be marked as offline clips if any part of the source is moved. In such cases, the offline clips cannot be restored.
  The reference AVI is a file containing only the audio data entity and destination information, developed by Grass Valley with its own extension within a range of the specification. It is different from regular AVI files.
- Files can be captured or restored only when matching the following conditions:
  - Video information exists.
  - The reel name is set.
  - Source file extensions are *.avi, *.m2t, *.mov, or *.mxf.

[Restore and transfer clip] Selected Dialog Box

[Find from captured files]	Search the source by reel number (Ubit) and timecode (between In and Out points) in already captured files. **"Searching File by Reel Number to Restore" (▶ page 92)**
[Open the clip restoration dialog]	The [Restore and transfer clip] dialog box appears. Restore the offline clips by reestablishing a link to the disconnected source, by retransfer the source that cannot reference a part of the clip, or by replacing a camera proxy file with a high-resolution source. **"Re-link and Restoration" (▶ page 91)**
[Close]	Click [Close], and click [Yes] to display the operation screen without restoring the offline clip.

Re-link and Restoration

You can search for the source from the storage to re-link.

1) Click [Open the clip restoration dialog] in the [Restore and transfer clip] selected dialog box.

- The [Restore and Transfer Clips] dialog box appears.
  "[Restore and Transfer Clips] Dialog Box" (▶ page 91)

Alternative

- To restore the clips on the timeline, double-click the offline clip icon on the status bar. In this case, only the offline clips on the timeline are displayed in the clip list in the [Restore and Transfer Clips] dialog box.

2) Select the target range of the clip from the [Range] list.

3) Select a clip (or clips) from [Clip list], and select either [Relink (select file)] or [Relink (select folder)] from the [Restoration Method] list.

4) Select the source from the [Open] dialog box, and click [Open].

- Selecting a file to be re-linked in the [Open] dialog box will show the check result of consistency with the original file.
  Checking [link only files that perfectly match] will re-link only files that have exactly the same information as the original files.
- Clips with different frame rates can also be re-linked.
- If [Relink (select folder)] is clicked in step **3)**, select a folder in the [Browse For Folder] dialog box and click [OK].

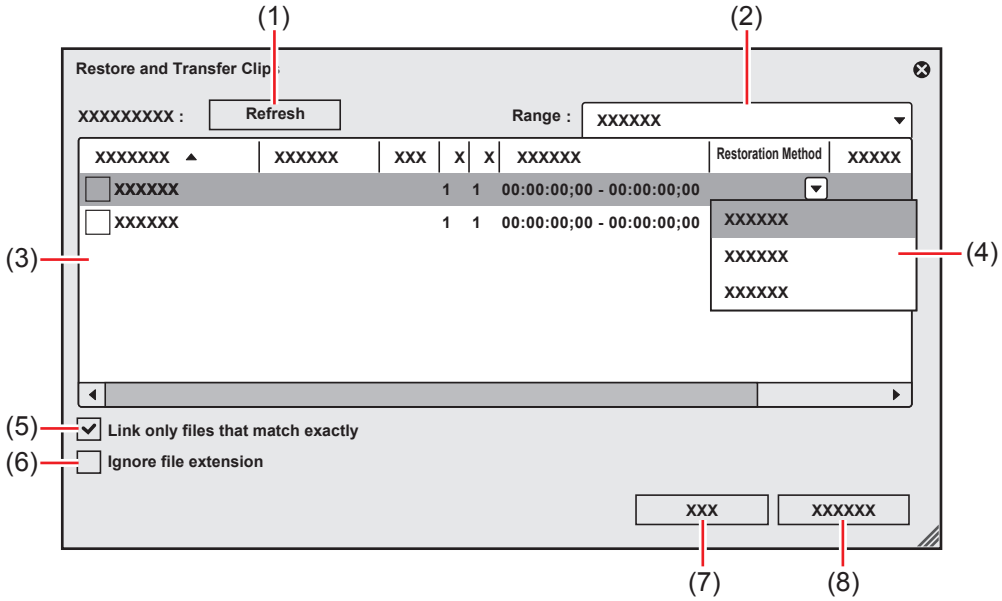
5) Click [OK].

6) Click [Close] in the [Restore and transfer clip] selected dialog box.

Alternative

- Double-click a offline clip on the timeline or in the bin window, and perform operations after step **3)**.

[Restore and Transfer Clips] Dialog Box



(1)	**[Refresh]**	Restore clips to which the restoration method is set.
(2)	**[Range]**	Select the target range of the clips from the list.
(3)	**Clip list**	**: Offline clips** Clips whose links to the source are disconnected. **: Clips with restored links** Clips whose links to the source are restored.

(4)	**[Restoration Method]**	**[Relink (select file)]** The [Open] dialog box appears. Select the source to re-link. **[Relink (select folder)]** The [Browse For Folder] dialog box appears. Search the source with the same name in the specified folder to re-link. **[Undo transfer]** Re-link the original source prior to the transition to the project folder. **[Do nothing]** Offline clips are not re-linked or captured.
(5)	**[Link only files that match exactly]**	Check this item to specify only the files with exactly the same information in the original file to be re-linked.
(6)	**[Ignore file extension]**	Check this item to include files with different extensions for re-link.
(7)	**[OK]**	Restore the offline clips with the specified settings.
(8)	**[Cancel]**	Close the dialog box without restoring the offline clips.

- You can change the default setting of [Restoration Method].
  "[Restore Offline Clip]" (▶ page 127)

Searching File by Reel Number to Restore

Search the source by reel number (Ubit) and timecode (between In and Out points) in already captured files.

1) Click [Find from captured files] in the [Restore and transfer clip] selected dialog box.

- The [Restore Offline Clip] dialog box appears.
- Search a file in a folder where the project is saved. If you cannot find the file, click [Select Folder] and select a folder where the captured files are stored, and click [OK].

2) Click [Restore All].

- To restore selected files only, select a clip from [Find clip list] and click [Restore].

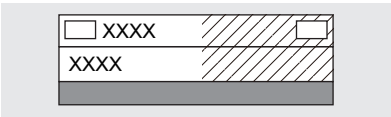
Restoring Clip That Cannot Reference Part of a Clip

A clip will become a partial offline clip under the following conditions: when a portion that forms a clip containing a proxy cannot be referenced, when the proxy created with EDIUS cannot be referenced, or when a portion of the partially transferred clip cannot be referenced.

In EDIUS, you can proceed with "Proxy originated editing" in which you use a proxy source when editing, and replace it with a high-resolution source before final exporting. A proxy clip used in this proxy originated editing (a proxy clip with reference information in high-resolution) is a "temporary editing clip". A temporary editing clip can be easily replaced with a high-resolution clip using the source browser.

Example:

Partial offline clip in the timeline



If there are partial offline clips or temporary editing clips on the timeline, icons and the total number of the offline clips, partial offline clips, and temporary editing clips (or untransferred clips) are displayed on the timeline status bar.

For P2, if a source file that only has a proxy (XML) is imported from the source browser, it will be recognized as an untransferred clip.

Note

- If offline clips, partial offline clips, and temporary editing clips exist on the timeline when exporting the project to a file or when consolidating or checking out the project, a message is displayed. Restore the offline clips, partial offline clips, or temporary editing clips. Otherwise, they will be exported as offline clips.

Restoring Partial Offline Clips

Restore the partial offline clips by retransfer the missing source or recreating the proxy. If needed, connect the device where the original source is stored.

"Restoring an Offline Clip" (▶ page 90)

1) Click the [Open Project] list button on the timeline.

2) Click [Restore Offline Clip].

Alternative

- Click [File] on the menu bar, and click [Restore Offline Clip].

3) Click [Open the clip restoration dialog] in the [Restore and transfer clip] selected dialog box.

- The [Restore and Transfer Clips] dialog box appears.
  "[Restore and Transfer Clips] Dialog Box" (▶ page 93)

Alternative

- To restore the clips on the timeline only, double-click the offline clip icon on the status bar.

4) Select the target range of the clip from the [Range] list.

5) Select a clip (or clips) from [Clip list], and select a restoration method from the [Restoration Method].

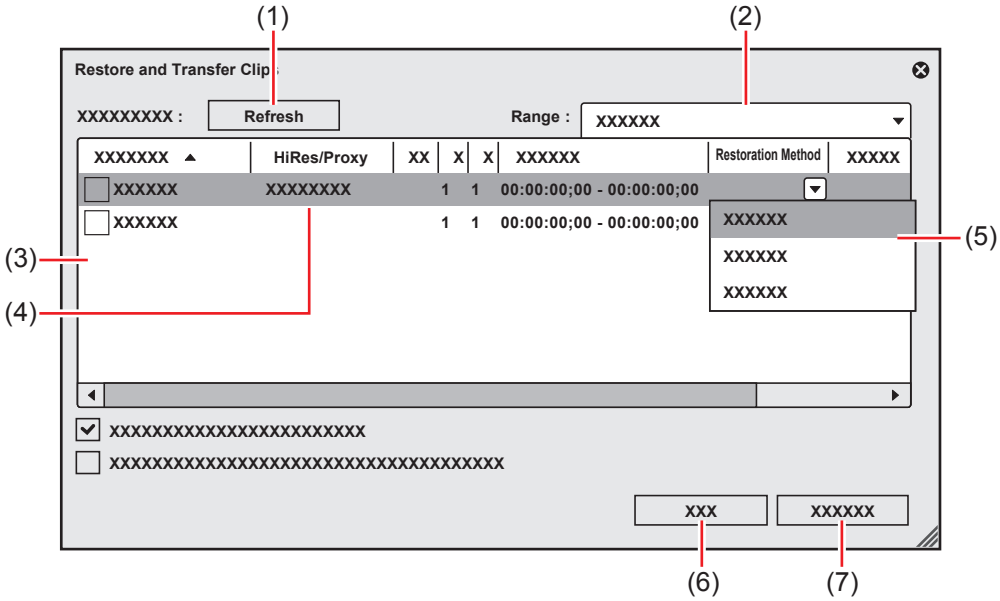
6) Click [OK].

- The process is executed with the restoration method selected in [Restoration Method].

7) Click [Close] in the [Restore and transfer clip] selected dialog box.

[Restore and Transfer Clips] Dialog Box

* The screen shown is an example The displayed restoration method varies according to the type of offline clips.



(1)	**[Refresh]**	Click this button to refresh the clip list. Restore clips to which the restoration method is set.
(2)	**[Range]**	Select the target range of the clips from the list.

(3)	Clip list	**: Offline clip/Partial offline clip** Clips whose links to the source are disconnected. **: Temporary editing clip** Camera proxy clips that have not been replaced by high-resolution clips. **: Untransferred clip** Clips where high-resolution/proxy streams exist on a camera (or card) and which have not been transferred to a local terminal. **: Clips with restored links** Clips whose links to the source are restored.
(4)	[HiRes/Proxy]	Display the type (high-resolution or proxy) of the offline clips, partial offline clips, and temporary editing clips.
(5)	[Restoration Method]	**[Transfer the Missing Area]** Retransfer the missing portion from the device where the source file prior to the partial transfer is stored. **[Undo transfer]** Re-link to the source files prior to the partial transfer. **[Create Proxy]** Recreate the proxy from high-resolution. **[Delete proxy]** Delete the proxy information of the clip. **[Relink (select file)]** The [Open] dialog box appears. Select the source to re-link. **[Relink (select folder)]** The [Browse For Folder] dialog box appears. Search the source with the same name in the specified folder to re-link. **[Transfer All]** Transfer the whole high-resolution clip, regardless of the used range on the timeline. **[Transfer Only Used Area]** Transfer the untransferred high-resolution clip to the used range on the timeline. **[Do nothing]** The offline clips, partial offline clips, and temporary editing clips are not restored.
(6)	[OK]	Restore the partial offline clips or temporary editing clips with the specified settings.
(7)	[Cancel]	Close the dialog box without restoring the partial offline clips or temporary editing clips.

- If [Transfer the Missing Area], [Transfer All], or [Transfer Only Used Area] has been selected as the restoration method, the process is registered to the background job. Until the job is completed, the target clips remain partial offline clips or temporary editing clips.
- If [Create Proxy] has been selected as the restoration method, the proxy creation rendering job is registered to the Render Service. The proxy remains offline until the job is completed.
- If you double-click the icon on the timeline status bar to display the [Restore and Transfer Clips] dialog box, only the offline clips, partial offline clips, and temporary editing clips or untransferred clips on the timeline are displayed in [Clip list].
- You can change the default setting of [Restoration Method].
  "[Restore Offline Clip]" (▶ page 127)

Restoring Temporary Editing Clips

A temporary editing clip can be easily replaced with a high-resolution clip using the source browser.

1) Import the media recording a high-resolution clip in the source browser.

- **"Source Browser" (▶ page 166)**

2) A message [Hi-res clips that match the proxy-only clips were found. Do you wish to replace them?] appears, then click [Yes].

- A temporary editing clip is replaced with a high-resolution clip automatically.

Alternative

- To restore the clips on the timeline only, double-click the offline clip icon on the status bar.
  "[Restore and Transfer Clips] Dialog Box" (▶ page 93)

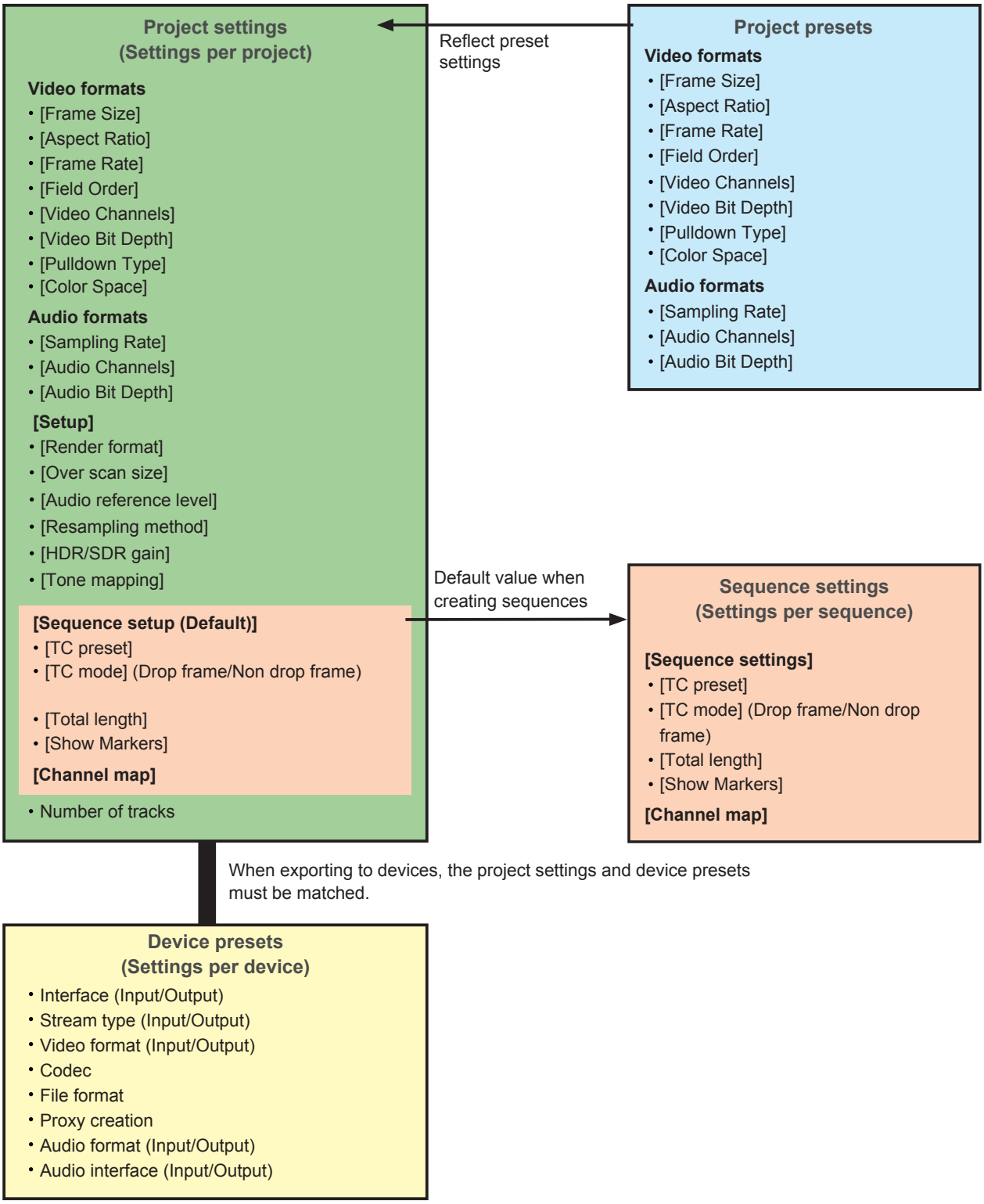
Chapter 4
Setting

This chapter explains how to change editing operation and screen display settings, register the editing environment, and register external devices used for capturing, as well as other operations.

List of Setting Descriptions

Relationship between Project Settings/Sequence Settings/Device Preset

The following diagram illustrates the settings available in each setting and their descriptions:



[System Settings]

System settings allow you to manage project presets and profiles, set input/output hardware, set input of sources and input/output of project files, and other operations.
If you use the restricted user profile, the system settings cannot be changed.
"Restricted user profile" (▶ page 133)
The following explains the items that can be set in the system settings.
The settings can be changed even during editing.

[Application]

Set EDIUS operations.

[Color Space]

Set show/hide or sorting order of color space, etc. used on EDIUS.
[Color Space] setting is reflected in the following contents.

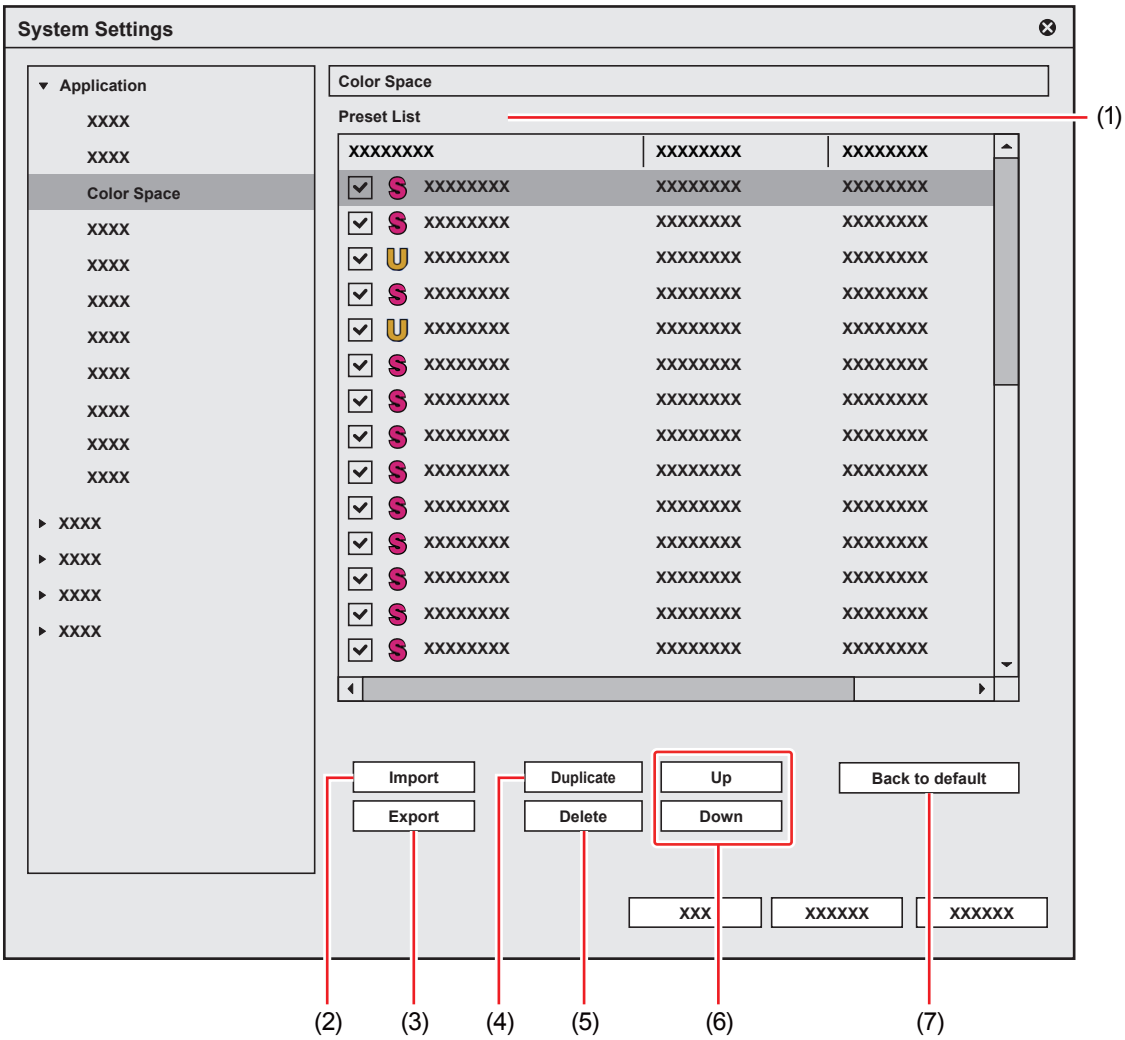
- [Primary Color Correction] dialog box
  "[Primary Color Correction] Dialog Box" (▶ page 349)
- [Clip Properties] dialog box for clips in bin/source browser
- Display items in clip view of bin

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Application] tree, and click [Color Space].

- The [Color Space] screen appears.

3) Set each item.



(1)	**[Preset List]**	Display color space presets in a list. • Right-clicking on an item line enables to set items displayed in [Preset List]. • Pointing the mouse cursor on a preset displays the information on the preset on the tooltip. **[Use]** Switch the show/hide setting of presets. **[Name]** The names and types of presets are displayed. There are the following two types of presets. S: Indicated for system preset color spaces preinstalled on EDIUS. Editing is only allowed for preset names, and the presets cannot be deleted. U: Indicated for user preset color spaces added by the user. • Setting a preset shows that allows editing of the preset name. A system preset color space name that has been edited has "*" in the end of the preset name. • To restore its original name, click on , leave the text entry field blank, and press [Enter] on the keyboard. **[Gamma]**[*1] Display the preset gamma. **[Gamut]**[*1] Display the preset gamut. **[Matrix]**[*1] Display the preset matrix. **[Default Range]**[*1] Display the preset range.
(2)	**[Import]**	Import the setting file (XML format) of [Preset List].
(3)	**[Export]**	Export [Preset List] to a setting file (XML format).
(4)	**[Duplicate]**	Copy a preset. • Select a preset to copy, and click [Duplicate]. A new user preset color space is created with the name "Copy - Original preset name".

(5)	**[Delete]**	Delete a preset. • Select a preset to delete, and click [Delete]. • System preset color spaces cannot be deleted.
(6)	**[Up]/[Down]**	Sort the presets. • Selecting a preset from [Preset List] and clicking [Up] or [Down] moves up or down the selected preset. • Dragging and dropping a preset to move to a destination can also change the sort order.
(7)	**[Back to default]**	Restore the default setting.

*1 The setting of a user preset color space can be changed by clicking ▼.
For [Matrix] and [Default Range], when an item except for [Default] is selected, "*" appears in the end of the setting value.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Proxy]

You can select the size of the proxy file that is created when proxy is edited.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Application] tree, and click [Proxy].

- The [Proxy] screen appears.

3) Set each item.

[Proxy Size]	Proxy size can be selected from three types: [Large], [Medium], and [Small]. **[Large]** The proxy size is 1920x1080. **[Medium]** The proxy size is 960x540. **[Small]** The proxy size is 480x270.

- The default proxy size is [Medium].
- Proxy files created in Version 8.22 or older will be loaded as [Small].

Note

- Proxy file can be created only once. It cannot be re-created with different setting.
- If the setting has been changed while creating the proxy file, the changed setting will be applied at the time, and the creation of the file will be continued.

[Audio Monitoring Mode]

Set audio output default value for monitoring on the Player or Recorder.
"Audio Monitoring" (▶ page 426)

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Application] tree, and click [Audio Monitoring Mode].

3) Set each item.

[Player]	**[Default]** Set the default value of the audio monitoring mode for the Player when the project starts. When [Off] is selected, the project starts without setting the audio monitoring mode. **[ChannelMap - Monaural]** Specify the default value by channel map when [Custom] is selected in [Audio Monitoring Mode] and monaural clip is played back. To change the clip to be played back on the Player to stereo, right-click on the track patch of the source channel and click [Audio Source Channel (Stereo)]*. **[ChannelMap - Stereo]** Specify the default value by channel map when [Custom] is selected in [Audio Monitoring Mode] and stereo clip is played back. To change the clip to be played back on the Player to monaural, right-click on the track patch of the source channel and click [Audio Source Channel (Stereo)]*.
[Recorder]	**[Default]** Set the default value of the audio monitoring mode for the Recorder when the project starts. When [Off] is selected, the project starts without setting the audio monitoring mode. **[Channel map]** Specify the default value by channel map when [Custom] is selected in [Audio Monitoring Mode].

* When [Audio Source Channel (Stereo)] is set, a check mark appears on the menu item.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Playback]

Set playback operations.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Application] tree, and click [Playback].

3) Set each item.

[Stop Playback at Frame Drop]	Stop the playback when playback processing cannot keep up with the playback speed.
[Playback Buffer Size]	Specify the size of the buffer used for realtime playback.
[Buffered Frames Before Playback]	Set the number of frames buffered when starting playback. When playback stops because it cannot keep up with the speed just after playback is started, the situation may be improved by increasing the number of frames.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Capture]

Set EDIUS capture operations, processing at automatic detection of events, and other operations.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Application] tree, and click [Capture].

3) Set each item.

[Margin]	Set the length of the margin added at In and Out points at capture operation.
[Confirm Reel Name Setting after Setting Device Preset]	After a device preset is selected in the [Select Input Device] dialog box at a capture operation, the dialog box for setting the reel name appears.
[Confirm File Name at Capture]	Check and set the file name at a capture operation. If you select [Before Capture], you can set the destination and file name before performing capture. If you select [After Capture], you can set the destination and file name after capture is finished.
[Load to Player after Capture]	Play back the file created after capture automatically.
[Correct Audio Errors Automatically]	Correct audio errors automatically at a capture operation.

[Automatic Detection of Capture Events]	Select the conditions for automatically inserting cuts in files at capture operation. Cut insertion conditions are as follows: • [At Timecode Break] • [When Aspect Ratio Changes] • [When Sampling Rate Changes] • [When the recorded Time Date Changes] **[When an Event is Detected]** Select how cut positions are processed. If you select [Divide Files], files are divided at the cut position. If you check [Group Divided Files as Sequence], multiple divided files are registered to the bin as a single sequence clip. If you select [Add Marker], a clip marker is set at the cut position.

- Set voice over margins at [Margin] under [Capture].

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Render]

Set the reference of rendering options or the timing to delete rendering files.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Application] tree, and click [Render].

3) Set each item.

[Render Options]	Set the conditions of a rendering option (load area). For example, if you check [Filters] and a rendering option is set, when a filter is applied to a clip placed on the timeline, the area of that clip changes color to orange. By unchecking [Filters], the area will not change color to orange. By default, all items below are checked. **"Color Coding of Time Scale" (▶ page 296)** **[Filters]** Select video filters as the rendering target. **[Transition/CrossFades]** Select transitions and title mixers as the rendering target. **[Key/Transparency]** Select key effect and transparency (when changed from the default) as the rendering target. **[Speed Change]** Select clips that feature any speed adjustments from the default value of 100% as the rendering target. **[Contents that are not in the Project Format]** Select clips matching any of the following formats as the rendering target: • Frame size different from that in the project • Aspect ratio different from that in the project • Frame rate different from that in the project • Field order different from that in the project • Compression format different from format handled by codec specified in the project settings • Clip including alpha information
[Render Decisions]	A loaded area is determined when the buffer becomes less than the set value in [Buffer Left: Fewer than] while playback. **[Buffer Left: Fewer than]** Set the left of buffer value to be referenced for rendering decisions.
[Delete Invalid Rendered Files]	Select the timing to delete rendering files.

- **"Rendering Overload Areas of the Entire Sequence" (▶ page 297)**
- **"Rendering Overload Areas between In and Out Points" (▶ page 298)**

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Profile]

Register editing environments as profiles and manage these profiles.
"Editing Environment Management" (▶ page 130)

[Project Preset]

Create new project presets and manage project presets or project templates.
"Project Preset/Project Template" (▶ page 69)

[Loudness Meter]

You can register reference to be used at the loudness measurement as a preset.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Application] tree, and click [Loudness Meter].

- The [Loudness Meter] screen appears.
  "[Loudness Meter] Screen" (▶ page 103)

3) Select a loudness meter in the preset list and set each item.

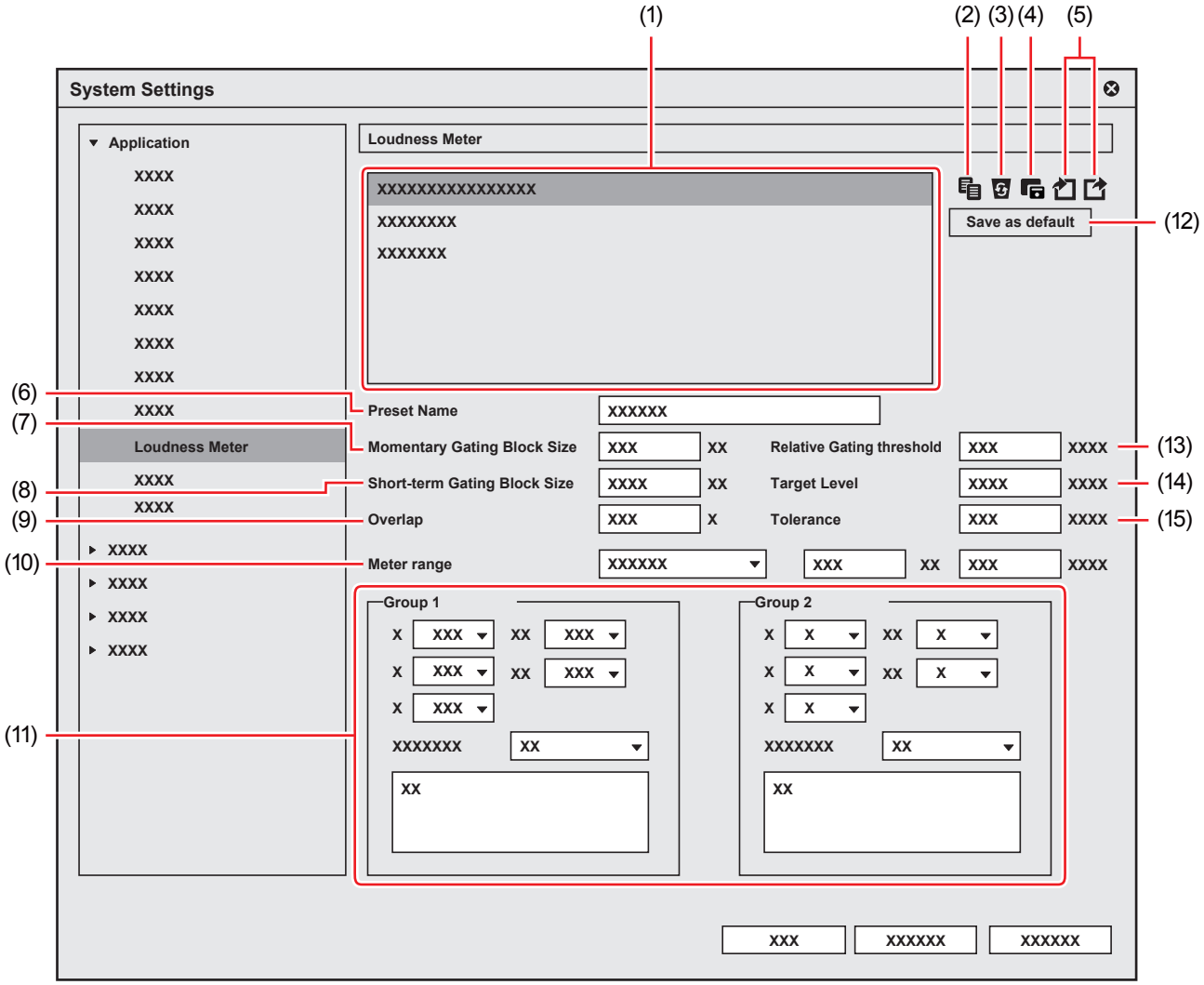
- Click [Add] to create a new preset for the loudness meter.

4) Click [Register].

5) Click [OK].

- You can continue to set other items by clicking [Apply].

[Loudness Meter] Screen



(1)	**Preset list**	A list of presets is displayed. A "*" mark will be displayed in front of the name of the preset that is set as default, which will be used as the reference for loudness measurement and normalization.
(2)	**[Add]**	Add a preset.
(3)	**[Delete]**	Delete a preset.
(4)	**[Register]**	Register the preset as configured.
(5)	**[Import]/[Export]**	Import/export the setting file for the loudness meter.
(6)	**[Preset Name]**	Enter the name of the preset.
(7)	**[Momentary Gating Block Size]**	Enter the measurement time for the momentary value.
(8)	**[Short-term Gating Block Size]**	Enter the measurement time for the short-term value.
(9)	**[Overlap]**	Enter the overlap value.
(10)	**[Meter range]**	Set the meter range.
(11)	**[Group 1]/[Group 2]**	Set the output channel assignments for L/R/C/LS/RS channels. Both [Group 1] and [Group 2] can be set so that measurement is performed on two lines simultaneously. **[Downmix]** Select the downmix calculation formula from the list.
(12)	**[Save as default]**	Select a preset in the preset list and click [Save as default] to set the selected preset as default.
(13)	**[Relative Gating threshold]**	Enter the relative gating block level.
(14)	**[Target Level]**	Enter the target level.
(15)	**[Tolerance]**	Set the value for the allowable tolerance.

- **"Audio Measurement" (▶ page 420)**
- **"[Normalize Loudness] setting" (▶ page 436)**

[Source Browser]

Set the transfer destination used when importing a file from the source browser.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Application] tree, and click [Source Browser].

3) Set each item.

[File transfer folder]	Specify the transfer destination of the file. If [Custom folder] is selected, click [Browse] and specify a transfer destination.
[Create folder with date]	Check this item to create the date folder in the folder set in [File transfer folder].
[File transfer folder path]	Display the path of the transfer destination. “%MediaType%” is the name of the source media to be transferred by the source browser.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[File export]

Make a setting to delete the last frame when exporting a file in 720/60p or 720/50p so that the number of the frames will be even. This setting is applied to export and batch export operations.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Application] tree, and click [File export].

3) Set each item.

[Round off to even frame when exporting 60p/50p.]	Check this item to delete the last frame when exporting a file in 60p/50p so that the number of the frames will be even.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[SNFS QoS]

Restrict the SNFS bandwidth when loading files from the K2 Media server. This function allows to easily load a file without affecting the other operations.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Application] tree, and click [SNFS QoS].

3) Set each item.

[Enable QoS.]	Check this item to restrict the SNFS bandwidth.
Drive list	The list of SNFS drives appears.
[Add]	Click this item to display the [QoS] dialog box, then add an SNFS drive. **“[QoS] Dialog Box” (▶ page 105)**
[Del]	Delete an SNFS drive from the drive list.
[Modify]	Change the SNFS drive settings.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[QoS] Dialog Box

[Drive]	Select a drive to restrict the bandwidth.
[Bit Rate]	Set the upper limit of the bandwidth.

[Hardware]

You can register external devices used for capturing, or set external devices that are used for preview during editing.
"Setting an External Device" (▶ page 135)

[Monitor Control]

It links the color mode of the monitor connected with the PC where EDIUS is installed to the setting of [Color Space] in [Project Settings].

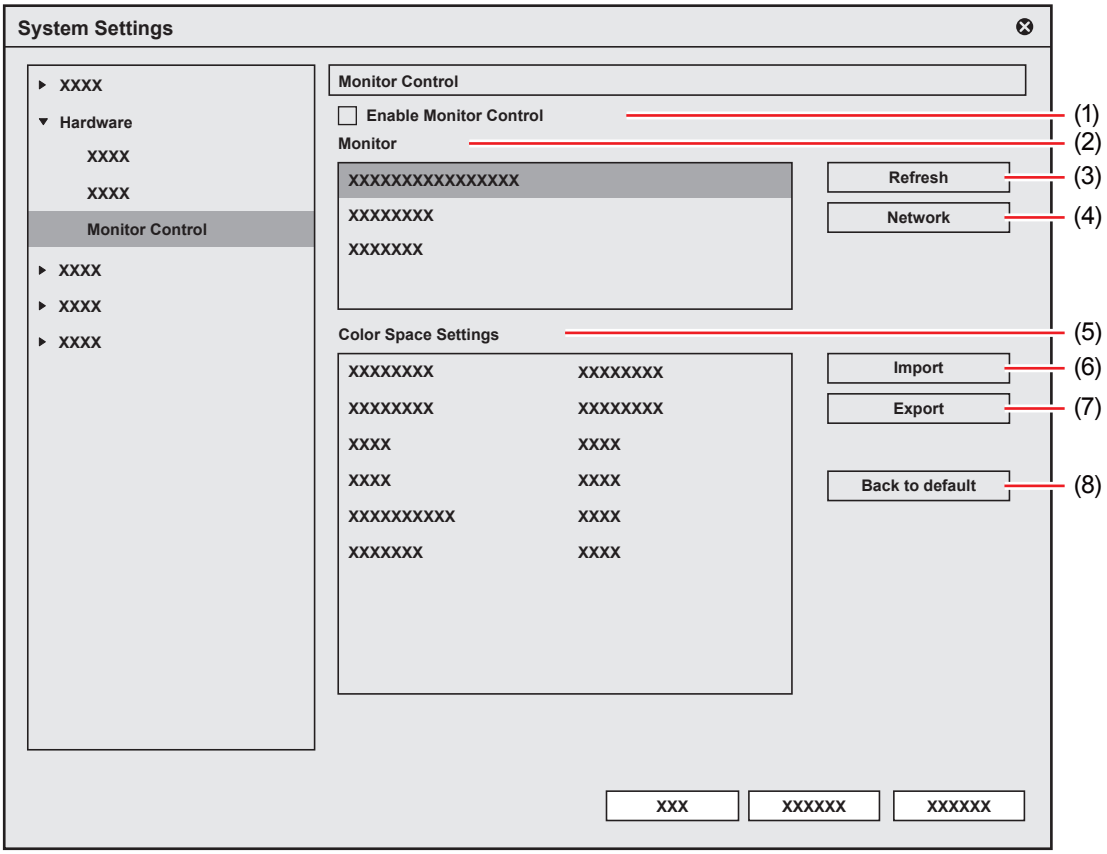
- If multiple monitors are connected, all the monitors are controlled collectively.
- The monitors that support monitor control can be confirmed in [Monitor] in the [Monitor Control] screen.
- Monitors that satisfy the following conditions can be controlled.
  - Those connected to the PC via USB or LAN.
  - Those compatible with monitor control.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Hardware] tree, and click [Monitor Control].

- The [Monitor Control] screen appears.

3) Set each item.



(1)	**[Enable Monitor Control]**	Check this item to enable monitor control.
(2)	**[Monitor]**	Display supported monitors in a list. Connected monitors are displayed in white characters, and monitors that are not connected are displayed in gray characters.

(3)	**[Refresh]**	Update the information of monitors connected.
(4)	**[Network]**	Click this item to display the [Network] dialog box to add a monitor to connect. **"[Network] Dialog Box" (▶ page 106)**
(5)	**[Color Space Settings]**	Set monitor operation to link with the settings in [Color Space] of [Project Settings]. [Color Space] settings are displayed on the left, and the color modes of the monitor are displayed on the right. Select a monitor to make settings in [Monitor], and select the color mode of the monitor for each [Color Space] in [Color Space Settings]. The color mode of the monitor can be changed by clicking ▼ on the right of an item. • If [Not Control] is selected for the color mode of the monitor, the monitor operation is not linked to the setting of [Color Space].
(6)	**[Import]**	Import the setting file (XML format) of [Color Space Settings].
(7)	**[Export]**	Export [Color Space Settings] of the monitor selected in [Monitor] to a setting file (XML format).
(8)	**[Back to default]**	Restore the the settings for [Color Space Settings] of the monitor selected in [Monitor] to the default.

[Network] Dialog Box

[Server List]	Display a list of addresses of monitors to output.
[Add]	Click this item to display the [Monitor setting] dialog box to add a monitor to connect. **"[Monitor setting] Dialog Box" (▶ page 106)**
[Delete]	Delete monitors from [Server List].
[Modify]	Change the monitor settings.
[Move Up]/[Move Down]	Sort the monitors. • Selecting a monitor from [Server List] and clicking [Move Up] or [Move Down] will move up or down the selected monitor.
[Settings]	Display the settings of the monitor selected in [Server List].

■ [Monitor setting] Dialog Box

[Name]	Enter the name set for the monitor.
[Address]	Enter the IP address or server name of the monitor.
[Connection Test]	Click to start a connection test.

[Importer/Exporter]

Make the settings for import and export.

[AVCHD]

Set faster seeking of AVCHD files.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [AVCHD].

3) Set each item.

[Use Accel. Seek]	Set faster seeking of AVCHD files. To speed up seeking, check this item first, and then check the following items if necessary. **[Create Seek Information in Background]** Collect the time stamp information of AVCHD files at idling to speed up the seek. **[Save Seek Information to File]** Save the seek information as a reusable file.
[Get timecode from Picture Timing SEI]	Check this item to acquire the timecode information from Picture Timing SEI.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Still Image]

Make the settings for exporting still images.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [Still Image].

3) Set each item.

[Capture Field]	Though highest quality images are [Frame], rapid-moving images sometimes are blurred into vertical comb-like stripes. If this happens, select [Upper Field] or [Lower Field]. To output in a display method set in the pause field, select [Follow pause field setting]. **"Switching the Screen Display when Stopping Playback" (▶ page 152)**
[Filtering]	Compensate for deteriorated image quality when [Upper Field] or [Lower Field] is selected at [Capture Field]. [Motion Only] is suitable for partially blurred images, and [Full Screen] is suitable for completely blurred images.
[Adjust Aspect]	The aspect ratio differs for moving images handled in editing and still images handled on the PC. Check this item to adjust the aspect ratio when displaying on a PC screen.
[File Type]	Set the default file format for saving still images.

- **"Exporting Still Image Clips from the Timeline" (▶ page 301)**
- **"Still Image Format" (▶ page 445)**

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[GXF]

Set the connections of FTP servers when outputting in the GXF format.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [GXF].

3) Set each item.

[Server List]	Display a list of addresses of FTP servers set as export destinations.
[Add]	Click this item to display the [FTP setting] dialog box for adding connection servers. **"[FTP setting] Dialog Box" (▶ page 107)**
[Delete]	Delete servers from [Server List].
[Modify]	Change the server settings.
[Move Up]/[Move Down]	Sort the servers. Select a server from [Server List] and move the selected server one place up or down with each click of [Move Up] or [Move Down].
[Settings]	Display the settings of the connection selected in [Server List].

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[FTP setting] Dialog Box

[Name]	Enter the name set for the server.
[Address]	Enter the IP address or server name of the FTP server.
[PortNo]	Enter the port number. The default port number is 21.
[Directory]	Enter the directory name of the export destination.
[Username]/[Password]	Enter the user name and password required when making the connection.
[Connection Test]	Click this item to test the connection to the FTP server using the currently entered user name and password.

[RED]

GPU Settings

By utilizing GPU, you can decode RED source data in high-speed.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [RED] → [GPU].

3) Set each item.

[GPU Mode]	Selects the GPU process method.
GPU list	Shows available GPU when [OpenCL] or [CUDA] is selected for [GPU Mode]. Check GPU to be used.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

RED Browser Settings

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [RED] → [Browser].

3) Set each item.

[Source Folders]	This is the list of references that is displayed in the source browser folder view. RED sources can be handled as clips in the source browser if copied to the storage with the folder structure in the device held intact. Click [Add] to set the reference folder. To delete a reference folder that has been set, select the folder and click [Delete].

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[K2 (FTP)]

K2 (FTP) FTP Server Settings

Set up FTP server connections before importing sources on the K2 Media server.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [K2 (FTP)] → [FTP Server].

3) Set each item.

[Server List]	This is the list of K2 Media servers that is displayed in the source browser folder view.
[Add]	Click this item to display the [FTP setting] dialog box for adding connection servers. **"[FTP setting] Dialog Box" (▶ page 109)**
[Delete]	Delete servers from [Server List].
[Modify]	Change the server settings.
[Move Up]/[Move Down]	Sort the list. Select a server from [Server List] and move the selected server one place up or down with each click of [Move Up] or [Move Down].

[Setting]	Display the settings of the connection selected in [Server List].

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[FTP setting] Dialog Box

[Name]	Enter the name of the server to display in the folder view.
[Address]	Enter the address of the server.
[Folder]	The address of the bin is entered. Normally, there is no need to change the frame rate.
[Username]/[Password]	Enter the user name and password required when making the connection.
[Connection Test]	Click this item to test the connection to the FTP server using the currently entered user name and password.

K2 (FTP) Browser Settings

Set items that are allowed when connecting to the K2 Media server.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [K2 (FTP)] → [Browser].

3) Set each item.

[Multi Connection/Multi Conversion]	**[Max Number of Connections]** Set the maximum number of clips to be downloaded simultaneously from the K2 Media server. When [Allow Multiple Connections to the Same Server.] is checked, the same server can be connected to simultaneously. **[Max Number of Conversions]** Set the maximum number of clips to be converted simultaneously.
[Allows Users to Rename/Delete Clips.]	Check this item to enable changes to and deletion of clips in the server.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[MPEG]

Set faster seeking of MPEG files.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [MPEG].

3) Set each item.

[Use Accel. Seek]	Set faster seeking of MPEG files. To speed up seeking, check this item first, and then check the following items if necessary. **[Create Seek Information in Background]** Collect the time stamp information of MPEG files at idling to speed up the seek. **[Save Seek Information to File]** Save the seek information as a reusable file.
[A/V Synchronization Using PTS]	Check this item to use the PTS (time stamp information) for synchronization of audio and video.
[Get Timecode from GOP Header]	Some MPEG files may have timecode information in their header. Check this item to use timecode information.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[MXF]

MXF FTP Server Settings

Set the connections of FTP servers when outputting in the MXF format.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [MXF] → [FTP Server].

3) Set each item.

- The [FTP Server] setting items for MXF are the same as for GXF.
  "[GXF]" (▶ page 107)

4) Click [OK].

- You can continue to set other items by clicking [Apply].

MXF Decoder Settings

You can set the layer and downsample coefficient to be decoded when importing MXF files in the JPEG2000 format.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [MXF] → [Decoder].

3) Set each item.

[Quality]	Specify a layer to decode. **[High]** Decode all layers. **[Middle]** Decode half of the layers. **[Low]** Decode single layer.
[Downsampling Ratio]	Specify a downsample (scaling) coefficient at decoding.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[P2]

P2 Browser Settings

Set the reference folder when source files in P2 devices are imported from the source browser window.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [P2] → [Browser].

3) Set each item.

[Source Folders]	This is the list of references that is displayed in the source browser folder view. P2 sources can be handled as clips in the source browser if copied to the storage with the folder structure in the device held intact. Click [Add] to set the reference folder. To delete a reference folder that has been set, select the folder and click [Delete].

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Removable Media]

Set the reference folder when source files in removable media are imported from the source browser window.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [Removable Media].

3) Set each item.

[Source Folders]	This is the list of references that is displayed in the source browser folder view. Source files can be handled as clips in the source browser if copied to the local disk (storage) with the folder structure in the media held intact. Click [Add] to set the reference folder. To delete a reference folder that has been set, select the folder and click [Delete].

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[XDCAM EX]

Set the reference folder when source files in XDCAM EX devices are imported from the source browser window.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [XDCAM EX].

3) Set each item.

[Source Folders]	This is the list of references that is displayed in the source browser folder view. Source files can be handled as clips in the source browser if copied to the local disk (storage) with the folder structure in the device held intact. Click [Add] to set the reference folder. To delete a reference folder that has been set, select the folder and click [Delete].

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[XDCAM]

XDCAM Connection Settings

Set up FTP server connections before downloading and importing XDCAM sources from the server.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [XDCAM] → [FTP Server].

3) Set each item.

[Server List]	This is the list of XDCAM servers that is displayed in the source browser folder view.
[Add]	Click this item to display the [FTP setting] dialog box for adding connection servers. **"[FTP setting] Dialog Box" (▶ page 112)**
[Delete]	Delete servers from [Server List].

[Modify]	Change the server settings.
[Move Up]/[Move Down]	Sort the list. Select a server from [Server List] and move the selected server one place up or down with each click of [Move Up] or [Move Down].
[Settings]	Display the settings of the connection selected in [Server List].

4) Click [OK].

- You can continue to set other items by clicking [Apply].

■ [FTP setting] Dialog Box

[Name]	Enter the name of the server to display in the folder view.
[Address]	Enter the IP address or server name of the FTP server.
[Username]/[Password]	Enter the user name and password required when making the connection.
[Directory]	Select a directory type from the list.
[Connection Test]	Click this item to test the connection to the FTP server using the currently entered user name and password.

- If connection fails by the connection test, try restarting the XDCAM device and PC after completing the FTP server connection setup.

XDCAM Importer Settings

Set whether to use high-resolution audio to edit proxy.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [XDCAM] → [Importer].

3) Set each item.

[When proxy is edited, high-resolution audio is used if available.(VFAM drive only)]	For data on VFAM drive, use high-resolution audio data to edit proxy.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

XDCAM Browser Settings

Set the clip type, clip name and other settings when clips are imported before importing XDCAM sources.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [XDCAM] → [Browser].

3) Set each item.

[Download]	Select the data (proxy/high-resolution) to be downloaded from the source browser. **“Importing from XDCAM Devices” (▶ page 173)** **“Importing XDCAM Sources from a Server” (▶ page 174)** **“Downloading XDCAM Sources and Simultaneously Placing Them on the Timeline” (▶ page 174)** **[When Transfer to Bin]** Select the data to be downloaded when transferring to the bin. Select [All] to download both high-resolution and proxy. **[When Add to Timeline]** Select the data to be downloaded when placing clips on the timeline. Select [All] to download both high-resolution and proxy.

[Source Folders]	This is the list of references that is displayed in the source browser folder view. XDCAM sources can be handled as clips in the source browser if copied to the storage with the folder structure in the device held intact. Click [Add] to set the reference folder. To delete a reference folder that has been set, select the folder and click [Delete].
[Thumbnail]	Set whether to display thumbnails in the clip list in the source browser. **[Show Thumbnails when Connecting to FTP]** Display thumbnails when making a connection to the FTP server. **[Show Thumbnails when Connecting to XDCAM Drive]** Display thumbnails when making a connection to the XDCAM device.
[Register Name]	Select the name to register to the bin from [Clip Title] or [Clip Name].

- Even when [Thumbnail] is unchecked, thumbnails are sometimes displayed for clips, etc. that have been displayed as thumbnails even once.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[XF]

Set the reference folder when source files in XF devices are imported from the source browser window.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [XF].

3) Set each item.

[Source Folders]	This is the list of references that is displayed in the source browser folder view. XF sources can be handled as clips in the source browser if copied to the storage with the folder structure in the device held intact. Click [Add] to set the reference folder. To delete a reference folder that has been set, select the folder and click [Delete].

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Datacam]

Set the reference folder when source files in Datacam devices are imported from the source browser window.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [Datacam].

3) Set each item.

[Source Folders]	This is the list of references that is displayed in the source browser folder view. Datacam sources can be handled as clips in the source browser if copied to the storage with the folder structure in the device held intact. Click [Add] to set the reference folder. To delete a reference folder that has been set, select the folder and click [Delete].

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Dolby Digital]

Make the settings for importing Dolby Digital files.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [Dolby Digital].

3) Set each item.

[Dynamic Range Compression Mode]	Set the operation mode of the dynamic range when Dolby Digital Professional and Dolby Digital Plus are imported.
[Dynamic Range Control]	Set whether or not to control the dynamic range when Dolby Digital Professional and Dolby Digital Plus files are imported.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Title Browser]

Set the browser to be used for system integration with a third party telopper product.

[Cinema RAW]

GPU Settings

By utilizing GPU, you can decode the data in Cinema RAW or Cinema RAW Light format with high-speed.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [Cinema RAW] → [GPU].

- Available GPU appears.

3) Check GPU to be used.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

Cinema RAW Browser Settings

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [Cinema RAW] → [Browser].

3) Set each item.

[Source Folders]	This is the list of references that is displayed in the source browser folder view. Cinema RAW and Cinema RAW Light sources can be handled as clips in the source browser if copied to the storage with the folder structure in the device held intact. Click [Add] to set the reference folder. To delete a reference folder that has been set, select the folder and click [Delete].

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[HEVC]

By utilizing hardware supporting the Quick Sync Video, you can decode the data with the video compression standards HEVC (H.265) with high-speed.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [HEVC].

3) Set each item.

[Use Hardware decoder]	Check this item to use hardware decoding of Quick Sync Video.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Sony RAW]

GPU Settings

By utilizing GPU, you can decode the data in Sony RAW format with high-speed.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [Sony RAW] → [GPU].

- Available GPU appears.

3) Check GPU to be used.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

Sony RAW Browser Settings

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [Sony RAW] → [Browser].

3) Set each item.

[Source Folders]	This is the list of references that is displayed in the source browser folder view. Sony RAW sources can be handled as clips in the source browser if copied to the storage with the folder structure in the device held intact. Click [Add] to set the reference folder. To delete a reference folder that has been set, select the folder and click [Delete].

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[ProRes RAW]

GPU Settings

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [ProRes RAW] → [GPU].

- Available GPU appears.

3) Check GPU to be used.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

Note

- To decode ProRes RAW data, a compatible GPU is required.
- When ProRes RAW data is imported, its color space will be converted to that of HLG.

[Amazon S3]

Set up the connection with your Amazon S3 account before downloading and importing sources from Amazon S3.

- An optional license is required to use Amazon S3.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Importer/Exporter] tree, and click [Amazon S3].

3) Set each item.

[Amazon S3 account]	This is the list of Amazon S3 accounts that is displayed in the folder view of the source browser.
[Add]	Click this item to display the [Amazon S3 account] dialog box, in which you can add an account to connect to. **"[Amazon S3 account] Dialog Box" (▶ page 116)**
[Modify]	Change the settings of the accounts in the [Amazon S3 account] list.
[Delete]	Delete accounts from the [Amazon S3 account] list.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

■ [Amazon S3 account] Dialog Box

[Name]	Enter the name of the account to display in the folder view.
[Access key]	Enter the access key of the account.
[Secret key]	Enter the secret key of the account.
[Use HTTPS]	Use HTTPS encrypted communication.
[Advanced]	Configure settings of expansion items in accordance with the settings of Amazon S3 to connect to.

- After configuring each of the items, click [OK] to test the connection to Amazon S3 with the settings configured.

[Effects]

Set up effect plug-ins.

[GPUfx]

Make settings for GPUfx.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Effects] tree, and click [GPUfx].

3) Set each item.

[Multisample]	Set antialiasing (processing to make jaggies less conspicuous) when GPUfx is applied. **[Multisample Type]** Select an available multisample type. **[Quality Level]** Set the quality level of the type selected at [Multisample Type]. Selectable items differ according to the type of GPU.
[Render Quality]	Set the image quality at editing of parts where GPUfx is applied. When [Full Quality] is selected, GPU is used and displayed at its maximum. When [Draft Quality] is selected, the load at editing can be reduced though this results in lower quality.
[GPU]	Select the graphic card to use in [Graphics Card].
GPU performance	Displays the GPU of your PC. **"GPUfx Transition Operating Environment" (▶ page 117)**

Note

- GPUfx cannot be used if video memory on your PC is smaller than 256 MB. The [GPU] folder also will not be displayed on the [Effect] palette.
- Editing is possible at HD size even in environments where only the SD size can be used. In this case, GPUfx transition becomes offline display.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

GPUfx Transition Operating Environment

To use GPUfx transition, the following conditions are required:

- Display capability of 1024x768 pixels 32-bit or higher
- Direct3D 9.0c or later
- PixelShader3.0 or higher
- For details on the capacity of video memory, refer to "Memory".
  "Memory" (▶ page 25)

[VST Plug-in Bridge]

In EDIUS, as well as plug-ins by third parties that support EDIUS, other plug-ins that support VST can be added using the VST plug-in bridge function.

Note

- Not all VST plug-in operations are guaranteed.
- Only 64-bit VST plug-ins are supported. If EDIUS has been upgraded from an older version, add a 64-bit VST plug-in.

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Effects] tree, and click [VST Plug-in Bridge].

3) Set each item.

[Add]	Specify the folder containing the VST plug-in to add to [Add VST Plug-ins]. Restart EDIUS after registering the folder.
[Delete]	Delete folders from [Add VST Plug-ins].

4) Click [OK].

- You can continue to set other items by clicking [Apply].

VST Plug-in Registration

Save the DLL file of the VST plug-in in any folder on your PC.

1) Click [Add] at [VST Plug-in Bridge].

2) In the [Browse For Folder] dialog box, select the folder containing the VST plug-in and click [OK].

- The folder is registered, and is displayed at [Add VST Plug-ins].

3) Click [OK], and restart EDIUS.

- The VST folder is registered to [AudioFilters] on the [Effect] palette.
  You can select VST plug-ins from the VST folder.
- When new DLL files for VST plug-ins have been added to the folder registered in step **2)**, you do not need to register the folder again.
- To delete a registered folder, select a folder to be deleted in step **1)**, and click [Delete].

Alternative

- Directly copy the DLL file of VST to the folder of “EDIUS 11” → “PlugIn” → “VST” on the storage where EDIUS has been installed.
  Normally, the “EDIUS 11” folder is located in “C drive” → “Program Files” → “Grass Valley”.

[Color Correction]

[Primary Color Correction]

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Effects] tree, and click [Color Correction] → [Primary Color Correction].

3) Set each item.

[GPU]	Available GPU appears. Check GPU to be used.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Input Controller]

[Fader]/[Jog Device]

Assign ports to use the option fader controller and jog controller.
The following products are also supported in addition to the option products:

- Behringer fader controller “BCF2000”
- HDWS/REXCEED series option “MKB-88 for EDIUS”

- Assign keys to controller buttons in the user settings.
  "[Input Controller]" (▶ page 128)

1) Click [Settings] on the menu bar, and click [System Settings].

2) Click the [Input Controller] tree, and click [Fader] or [Jog Device].

3) Set each item.

[Device]	Select the controller to use.
[Port]	Select the port to assign to the controller. After selecting a port, click [Reconnect].

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[User Settings]

Change how clips are handled on the timeline, or change the user editing environment, for example, by customizing screens or buttons.
Both restricted users and administrator users can change and save settings in profiles from any user profile.
The following explains the items that can be set in the user settings.
The settings can be changed even during editing.

[Application]

Set EDIUS operations.

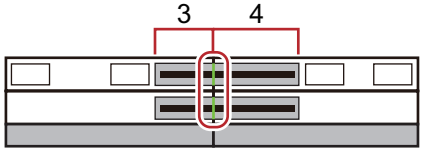
[Timeline]

Set operation or display on timeline.

1) Click [Settings] on the menu bar, and click [User Settings].

2) Click the [Application] tree, and click [Timeline].

3) Set each item.

[Extend Clips when Applying Transition/Cross Fade]	When a clip transition/audio cross fade has been set to the clip on the timeline, right and left clips extend and overlap with each other. The total length remains unchanged. **"Extend/Fix mode" (▶ page 217)**
[Insert Default Crossfade in Transition]	When a transition has been set to a video clip on a VA track, the default audio cross fade of the same length is simultaneously added to the audio clip at the same position. **"Changing Default Effects" (▶ page 364)**
[Insert Default Transition in Crossfade]	When a cross fade has been set to an audio clip on a VA track, the default transition of the same length is simultaneously added to the video clip at the same position. **"Changing Default Effects" (▶ page 364)**
[Set the Cut Point of Transition/Cross Fade to Front when at Middle of a Frame]	Set the cut points of clip transitions or audio cross fades to forward. For example, when the transition for 7 frames has been set, the cut points are set between the third and fourth frames. 
[Hold the Next Clip when Trimming a Clip (except at ripple trim)]	Disable extension of clips across the edge of the clips on the left and right when trimming a clip with ripple mode off.
[Show Tool Tip During the Trim]	Display timecode information on the tooltip while dragging to trim the cut point of clips.
[Reset Pan Settings when Audio Clips are Moved to Other Tracks]	When an audio clip has been moved or copied to another track, the pan setting is reset aligned with the destination track. For example, when a clip on the 1A track has been moved to the 2A track, the pan that was set on the 1A track is reset on the 2A track with the L and R sides inverted.
[Select the Left Clip when Cutting a Clip]	Set which one of the previous and next clips will be selected when clip cutting has been performed.
[Include the Preview Frame in the Out Marker]	When an Out point is set on a clip or timeline, the frame displayed in the preview window is to be included in the range of In and Out points. If the unit of time scale display is set to be 5 frames or less, a dotted line indicating the range of the Out point side appears on the right of the timeline cursor.
[Snap Event]	Enable the snap function. Check the event to be used as the snap point. When [Snap to Events Inside the Selected Area] is checked, all edit points of the clip in the selection area are snapped to.
[Default]	Change the default setting for the editing mode when creating a new project file. **"Switching Mode when Placing/Moving Clips" (▶ page 215)**
[Waveform]	Set the display method for the waveform of the timeline to either [Log (dB)] or [Linear (%)].
[Clip Timecode]	Display the checked timecode on the clip.
[Clip Thumbnail]	Display the thumbnails of In/Out points at the clip edge on the timeline. Select [All] to display thumbnails in succession. To hide thumbnails, uncheck this item. **[Alt] + [H]**

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Match Frame]

Set the search direction or track.

1) Click [Settings] on the menu bar, and click [User Settings].

2) Click the [Application] tree, and click [Match Frame].

3) Set each item.

[Search Direction]	Select the direction for searching clips when [Match Frame (Player to Recorder)] is clicked. On the end of the search, it restarts the search from the beginning.
[Target Tracks]	Specify the track to be searched. Each track can be specified by selecting [Choose Tracks] or [Selected Tracks].
[Transition]	When you execute a match frame at the point where a transition is set, set whether to use a front side clip or back side clip.

- **"Match Frame" (▶ page 294)**

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Background Job]

Set background processing during playback.

1) Click [Settings] on the menu bar, and click [User Settings].

2) Click the [Application] tree, and click [Background Job].

3) Set each item.

[Default Settings for Background Job]	**[Pause Background Jobs During Playback]** Check this item to pause the execution of the job when the Player or timeline is played back during execution of a background job.

Note

- Copying is paused depending on settings even if multiple drives are connected and the drive that is copying is different from the drive that is playing back.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Proxy Mode]

Set operations in the proxy mode.

1) Click [Settings] on the menu bar, and click [User Settings].

2) Click the [Application] tree, and click [Proxy Mode].

3) Set each item.

[Proxy Mode]	**[When there is No Proxy, Use HiRes]** Check this item to use high-resolution when there are no proxies in the clip. **[Automatically Generate Proxy]** Check this item to register the rendering job for proxy creation to the Render Service and create a proxy automatically in the background if no proxy is found when the proxy mode is set.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

Note

- When both [When there is No Proxy, Use HiRes] and [Automatically Generate Proxy] are unchecked, operation is as follows:
  - When the proxy mode is set, clips without a proxy become offline clips.
  - When a project file that has been checked out only with its proxies using the field editing function of project is opened on a PC that does not have EDIUS license, all clips become offline clips.

[Project]

Set project file save destinations, backup/auto save, and other settings.

1) Click [Settings] on the menu bar, and click [User Settings].

2) Click the [Application] tree, and click [Project].

3) Set each item.

[Project File]	**[Project File Folder]** Change the folder currently selected as the save destination for project files. Select the folder from the [Browse For Folder] dialog box displayed by clicking [Browse]. **[File Name]** Change the default project file name that is given when a new project is created. To rename the file, enter a new name in the text box.
[Recent Project]	**[Show the MRU List]** Display the list of history files from the [Recent Project] list in the [Start Project] dialog box, or by clicking the [Open Project] list button, or by clicking [File] on the menu bar → [Recent Project]. Set the number of history files to display by [Number of Files].
[Backup]	**[Destination]** Check this item to automatically create a backup file. When [Project Folder] is checked, a backup file is saved in “Project” → “Backup” in the project folder. When [Select a Folder] is checked and [Browse] is clicked, another save destination can also be specified. In this case, the backup file will be saved in “specified save destination” → “project name” → “Backup”. **[Number of Files]** Set the maximum number of backup files that are created.
[Auto Save]	**[Destination]** Check this item to automatically save project files. Check [Project Folder] to save an auto save file in “Project” → “AutoSave” in the project folder. When [Select a Folder] is checked and [Browse] is clicked, another save destination can also be specified. In this case, the backup file will be saved in “specified save destination” → “project name” → “AutoSave”. **[Number of Files]** Set the maximum number of auto save files that are created. **[Interval]** Specify the time interval for executing auto-save. **[Delete All Auto Save Files when the Project File is Saved.]** Check this item to delete the auto save file after the project file is saved.
[Rendered File]	**[Destination]** Set the save destination of files such as temporary files which are created during rendering processes. If [Project Folder] is selected, files are saved in the project folder → “project name” → “rendered”. You can also select [Select a Folder] and click [Browse], to specify another save destination. In this case, files will be saved in the “specified save destination” → “project name” → “rendered”.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Other]

Set how to display the history file or set existing titlers.

1) Click [Settings] on the menu bar, and click [User Settings].

2) Click the [Application] tree, and click [Other].

3) Set each item.

[Recent clip]	**[Show the Recently Used List]** Click [File] on the menu bar → [Recent clip] to display the list of history clips. Set the number of history clips to display by [Number of Files]. **[Show Thumbnail in the MRU List]** Click [File] on the menu bar → [Recent clip] to display thumbnails. To display thumbnails, select the size from [Large] or [Small].
[Save Window Positions]	Restore the last closed window and tab window positions at the next start-up.
[Show Tooltip]	Displays the tooltip when the mouse cursor is moved over effect names.
[Create Waveform cache when registering clip]	Check this item to create waveform cache (waveform representation of audio) when registering a clip.
[Create waveform cache files in Project folder (for files in removable or network drives)]	Check this item to copy wave form cache (waveform representation of audio) on the removable drive or network drive to the project folder.
[Set anchor setting to ON when adding a new sequence marker.]	Check this item to enable the anchor setting when adding sequence markers. **"Sync-Lock Setting of Sequence Marker" (▶ page 285)**
[Show separate render progress dialog]	Check this item to prioritize file output and rendering jobs. When a file output job starts, the progress dialog box appears, and other operations including editing will be disabled.
[Player Format]	Select the format ([Source Format]/[Timeline Format]) for the Player to be used in file playback. On HD video monitors, SD signals may not be displayed.
[Default Titler]	Select the titler (software for creating titles) that is started up when [Create Title] on the timeline is clicked.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Preview]

Set up display of the preview window.

[Playback]

Set the preliminary operation time during playback or playback operation.

1) Click [Settings] on the menu bar, and click [User Settings].

2) Click the [Preview] tree, and click [Playback].

3) Set each item.

[Preroll]	Set preliminary operation (preroll), for example, when playing back near the timeline cursor or when starting recording on a voice recorder. **"Playing Back the Area around the Timeline Cursor" (▶ page 293)** **"Addition of Speech with Voice Over" (▶ page 424)**

[Continue Playback when Editing]/ [Continue Playback when Adding to the Timeline from Player]/[Continue Playback when Trimming Clip]	Continue playback even when each editing operation is executed during timeline playback.
[Show Correct Frame when Scrubbing]	Display the image of the specified frame at all times even while scrubbing (dragging the timeline cursor with the mouse). When this item is unchecked, some of the frame images are displayed skipped. This setting is effective when scrubbing MPEG files or Windows Media Video files.
[Combine Filter Layers and Track Layers (for effect settings)]	Check this item to display composite clips with effects when previewing in the effect setting dialog box. For example, if this item is checked, the composite image of 1V and 2V video will be displayed when you place clips in the 1V and 2V tracks and open the setting dialog box for the video filter that is applied to the 1V track. If this item is unchecked, only the image of the 1V track is displayed. **"Setting Effects" (▶ page 340)**
[Output Timecode]	Select the timecode that is output when exporting a file.
[Source Timecode Priority]	When the source timecode is output or displayed, set the track to display the timecode for from the tracks that have clips with timecode information placed on them, including T tracks. **[Upper Track]** **[Lower Track]**
[Source audio pass through and ancillary data priority]	When exporting audio bitstream or ancillary data (except for closed caption), set a track to export among the tracks on which clips with those information have been placed (including T track).

Note

- Even when [Lower Track] is selected in [Source Timecode Priority], the source timecode of the lower track is not displayed if the transparency of the upper track is not set (i.e. transparency is 100%).

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Monitor]

Make settings for monitor display, such as contents of the full screen view.

1) Click [Settings] on the menu bar, and click [User Settings].

2) Click the [Preview] tree, and click [Monitor].

3) Set each item.

- Once the display content of each monitor is set, no further setting is needed from the next time.

[No.]	Enter the monitor number. Monitor numbers from "2" onwards are external monitors.
[Full Screen Preview Contents]	Displays content of the full screen view. Click the list to display a menu and change display content for each monitor. **[No full screen preview]** Disable the full screen view. **[Player/Multicam Source]** Display the Player screen in full screen view. In the multicam mode, the videos of each track with camera assigned are displayed in full screen view. **[Recorder/Selected Camera]** Display the Recorder screen in full screen view. In the multicam mode, the video of the selected camera is displayed in full screen view. **[Auto]** Display the same screen as video output in full screen view.
[Enable NDI Output]	Check this item to enable/disable NDI output from the menu bar → [View] → [NDI Output].
[Monitor Check]	Click this item to display the monitor number on the respective monitor.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[On Screen Display]

Set display of the timecode and level meter on the status area.

1) Click [Settings] on the menu bar, and click [User Settings].

2) Click the [Preview] tree, and click [On Screen Display].

3) Set each item.

[Show Normal Edit]/[Show Trim]/ [Show Export]	Check the timecodes or information to display at each operation.
[View]	**[Position]** Click the display position inside the monitor on the status bar to select the position. **[Size]** Select the font size of the status bar. **[Background]** Check this item to display the background on the status bar display area.
[Select Source Information]	For captured clips, display information such as recording date. Select the information to display from the list.
[Show Level Meter]	Switch the show/hide setting for the level meter. Click [Back to default] to return to the default settings. **[Color and Threshold]** Set the color and threshold value of the level meter. Click a color sample to open the [Color Select] dialog box. **[Invert Meter at Peak]** Select whether to invert the level meter when it peaks.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

- The source timecodes of muted tracks are not displayed.

[Pre-Roll Editing]

Set preroll and postroll when editing preroll.

1) Click [Settings] on the menu bar, and click [User Settings].

- The [User Settings] dialog box appears.

2) Click the [Preview] tree, and click [Pre-Roll Editing].

3) Set each item.

[Preroll Time]	Set the preliminary operation time (preroll) when editing preroll.
[Postroll]	Set the preliminary operation time (postroll) when editing preroll.

- **"Previewing Cut Switch Points (Preroll Edit (Preview))" (▶ page 226)**
- **"Placing Clips while Checking Cut Switch Points (Preroll Edit (Rec))" (▶ page 227)**

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Overlay]

Set the screen refresh rate, zebra preview (warning indication for brightness level) and display of the safe area.

1) Click [Settings] on the menu bar, and click [User Settings].

2) Click the [Preview] tree, and click [Overlay].

3) Set each item.

[Update Frequency]	Set the refresh rate for the video preview screen. When displaying interlaced images, movement of subjects may be smoothed and accidents (such as reversed field orders) can then be checked visually by refreshing the screen at the field rate (twice as fast as the frame rate). (There is no difference between both settings when displaying progressive images.) **[Field]** For example, in the case of 29.97 fps frame rate, the screen is refreshed 59.94 times per second. **[Frame]** For example, in the case of 29.97 fps frame rate, the screen is refreshed 29.97 times per second.
[Zebra Preview]	A striped pattern is displayed at relevant parts of the screen when the brightness level set at this item is exceeded. **[Over]** Set the upper limit of the brightness level. Select [Color] of the stripe pattern that is displayed when the upper limit of the brightness level is exceeded. **[Under]** Set the lower limit of the brightness level. Select [Color] of the stripe pattern that is displayed when the lower limit of the brightness level is exceeded or brightness falls to 0 IRE or below.
[Show Safe Area]	Display the safe area on the Player and Recorder. Switch the show/hide setting for [Action Safe] and [Title Safe]. The action safe area can be set as desired. **[Guide Lines for 16:9 Monitor]** Select the guideline to display when the frame aspect ratio of the video is 16:9. When [Darken the Outside] is checked, the outside of the guideline is displayed darker.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Source]

Set operations when capturing sources.

[Duration]

Set the duration when still image clips or title clips, for example, are placed on the timeline.
This setting will be applied to color bar clips, color matte clips, and adjustment clips.

1) Click [Settings] on the menu bar, and click [User Settings].

2) Click the [Source] tree, and click [Duration].

3) Set each item.

[Still Image]	Set the default duration when still image clips are placed on the V/VA track. **[Add between In/Out]** Check this item to place color bars, color mattes and title clips for focus tracks (other than title tracks) between In and Out points on the timeline. Note, however, that this setting is not applied when those are placed by dragging and dropping.
[Title]	Set the default duration when title clips are placed on the T track. **[Automatically Add Title Mixer]** Check this item to add the default title mixer automatically when the title is inserted into the track. **[Add between In/Out]** Check this item to place color bars, color mattes and title clips for focus tracks (title tracks only) between In and Out points on the timeline. Note, however, that this setting is not applied when those are placed by dragging and dropping.

[V-mute]	Set the default duration for V-mute. The V-mute function eliminates audio in individual frame units, and is ideal for deleting small audio noise.
[Rubber Band Point]	Set how many frames inside the original two rubber band points the additional rubber band points will be added when the mouse is dragged between two rubber band points with [Alt] on the keyboard held down.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Automatic Correction]

Set whether to adjust the frame rate when importing sources.

1) Click [Settings] on the menu bar, and click [User Settings].

2) Click the [Source] tree, and click [Automatic Correction].

3) Set each item.

[Adjust Frame Rate when Loading Clip]	Automatically adjust the frame rate of clips when importing the clips to bin (or timeline). Playback no longer requires frame rate conversion, reducing the load on playback operation. The frame rate is adjusted only when the project settings and the clip have the following pairing: • 29.97 : 30.00 • 59.94 : 60.00 • 23.976 : 24.00
[Color Range for RGB Clip]/[Color Range for YCbCr Clip]	Select which kind of color expression range is assumed for RGB color space sources and YCbCr color space sources. When [Super White] is selected, RGB values (16, 16, 16) and RGB values (235, 235, 235) are handled as sources corresponding to 0 IRE black and 100 IRE white, respectively. When [White] is selected, RGB values (0, 0, 0) and RGB values (255, 255, 255) are handled as sources corresponding to 0 IRE black and 100 IRE white, respectively.
[Normalize]	Set the sampling time used for calculating normalized values.
[Subclip]	Set the margins to add when creating subclips.

- The frame rate of the clips can be changed in the [Clip Properties] dialog box for those clips.
  "Editing Properties" (▶ page 197)
- The default color expression range set at [Color Range for RGB Clip] or [Color Range for YCbCr Clip] can be changed according to the source.
  "Editing Properties" (▶ page 197)

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Restore Offline Clip]

Set restoration of offline clips.

1) Click [Settings] on the menu bar, and click [User Settings].

2) Click the [Source] tree, and click [Restore Offline Clip].

3) Set each item.

[Restore Default]	Set the default displayed restoration method for [Restoration Method] in the [Restore and Transfer Clips] dialog box when opening project files and importing EDL. **[Can be Transferred :]** Select from [Transfer All], [Transfer Only Used Area], or [Do nothing]. **"Restoring Offline Clips" (▶ page 90)**

4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Partial Transfer]

Set partial transfer.

"Automatic Partial Transfer at Addition to the Timeline/Registration to the Bin" (▶ page 179)

[Input Controller]

Fader/Jog Controller

Assign keys to controller buttons when using the option fader controller and jog controller.

Note

- When you set Behringer BCF2000 for this first, a message will appear to notify you that the preset must be installed. Select the preset No. to be installed from the [Preset No.] list, and click [Next]. Click [Start] to start the installation.
  This operation is needed only once and need not be performed from the next time onwards.

1) Click [Settings] on the menu bar, and click [User Settings].

2) Click the [Input Controller] tree, and click the fader controller or jog controller to be used.

3) Set each item.

Example:

For [MKB-88 for EDIUS]

Controller display	**[Control] tab** Displays an overview of the controller. Buttons assigned an operation are displayed in yellow. If you click a button to assign an operation to, the [Select Operation] dialog box appears. **[List] tab** Displays the buttons, assigned operations, and repeat enable/disable setting in a list. Click the list and [Assign] to open the [Select Operation] dialog box. Click [Not Assign] to cancel operation assignments. **"[Select Operation] Dialog Box" (▶ page 128)**
[Import]/[Export]	Import and export controller settings.
[Back to default]	Return settings to their defaults.

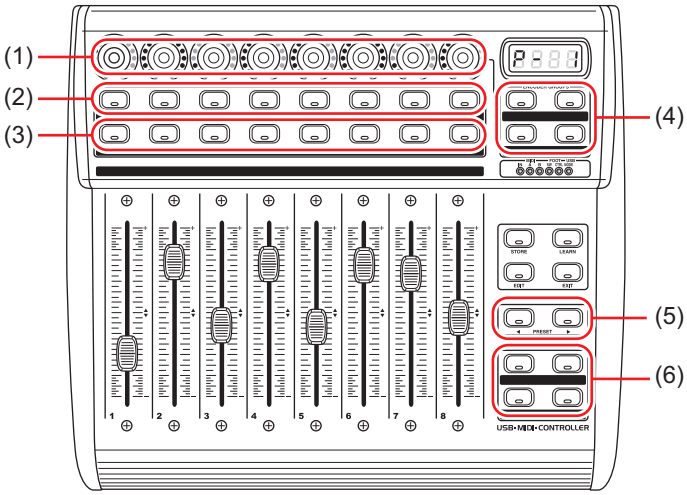
4) Click [OK].

- You can continue to set other items by clicking [Apply].

[Select Operation] Dialog Box

[Category]	Select operation categories from the list to narrow down the items.
[Filter]	Enter a keyword to narrow down the items.
Operation list	Displays operations available for assignment. You can also assign operations by dragging operations and dropping onto the buttons in the [Control] tab or the list in the [List] tab.
[Use Key Repeat]	Check this item to repeatedly perform an operation when a key is held down.
[Find Short Cut]	Click this item and press any key on the keyboard to select the shortcut operation assigned to the key.

How to Use the Behringer BCF2000



(1)	**Encoder knobs**	Encoder knobs can be used as buttons. Select the operation that is performed when a button is pressed by the encode selection buttons. No functions are assigned to the rotation direction of the encoder knobs.
(2)	**Upper buttons**	These buttons function as the SELECT button for selecting the learning mode.
(3)	**Lower buttons**	These buttons are used for emulating touch operations. The touch sensor part for the fader is emulated. Press a button to set a break state, and release the button to set a release state.
(4)	**Encode selection buttons**	Upper left: SELECT Upper right: AUX Lower left: SOLO Lower right: MUTE
(5)	**Preset selection buttons**	Select a preset No. To use this function from EDIUS, presets must be installed.
(6)	**Function buttons**	These buttons can be customized with key assignments.

Editing Environment Management

Switching an Editing Environment with Profile

You can register editing environment including window layout and user settings as a profiles, and switch them for use.

Registering Profiles

If you register profiles in advance, you can switch the following settings for each individual profile:

- Window layout
- User settings*
- The state of the following checkboxes in the [Open] dialog box that is displayed when clips are imported to the bin
  - [Transfer to Project folder]
  - [Detect captions file]
- Default effect and default duration settings of transitions, audio cross fades and title mixers
- States of the [Import Bin]/[Copy clips in project folder]/[Copy rendered files] checkboxes in the [Import Sequence] dialog box
- Settings in the [Layouter] dialog box that is used for adjusting the position of title clips
- Customized [Effect] palettes

* Settings made at [Number of Files] of [Recent Project] in [Project] are not included in profiles.

Note, however, that the following settings and information are not included in profiles:

- Project presets
- Exporter preset

1) Click [Settings] on the menu bar, and click [System Settings].

Note

- If you use the restricted user profile, the system settings cannot be changed.
  "Restricted user profile" (▶ page 133)

2) Click the [Application] tree, and click [Profile].

- The [Profile] screen appears.
  "[Profile] Screen" (▶ page 130)

3) Click [New Profile].

- The [Profile] dialog box appears.
  "[Profile] Dialog Box" (▶ page 131)

- Profiles can also be set as read-only or for restricted user in the [Start Project] dialog box. To do this, select and right-click the profile in the [Start Project] dialog box, and click [Read only] or [Restricted User].
  "[Start Project] Dialog Box" (▶ page 55)

Note

- Items cannot be unchecked while the default icon folder is displayed even by clicking the [Default Icon Folder] checkbox in the [Select Icon] dialog box. The display returns to the default icon folder display by clicking [...] and checking while a different folder is displayed.

4) Set each item.

5) Click [OK].

- The profiles you created are displayed in the [Profile] screen.

[Profile] Screen

Profile list	Display a list of currently registered profiles. The list can be resorted by dragging the icons.
[New Profile]	Register a new profile.

[Copy]	Duplicate the selected profile. **"Duplicating Profiles" (▶ page 131)**
[Modify]	Rename selected profiles or change their icons. **"Changing Profiles" (▶ page 131)**
[Delete]	Delete the selected profile. **"Deleting Profiles" (▶ page 131)**
[Profile]	Select the profiles to display in the profile list.
[Shared Server]	Select the folder in which the shared profile is stored. **"Using Shared Profiles on Local Terminals" (▶ page 134)**

[Profile] Dialog Box

[Name]	Enter the name of the profile.
[Change Icon]	Click this item to display the [Select Icon] dialog box and select the profile icons. To use any image you like, click [...] in the [Select Icon] dialog box, and select a file.
[Read only]	This is a read-only profile. The settings of profiles that are changed while they are still in use are not overwritten. Also, read-only profiles cannot be renamed, and their icons cannot be changed or deleted. The icon is displayed at the top right of read-only profiles. **"Profile Types" (▶ page 133)**
[Restricted User]	This is a restricted user profile. The system settings cannot be changed while the restricted user profile is in use. The icon is displayed at the top right of restricted user profiles. **"Profile Types" (▶ page 133)**

Changing Profiles

You can rename registered profiles or change their icons.

1) Select a profile in the profile list, and click [Modify].

- **"[Profile] Screen" (▶ page 130)**

Alternative

- Right-click a profile in the profile list, and click [Modify].

2) Change the settings, and click [OK].

Duplicating Profiles

Duplicate registered profiles.

1) Select a profile in the profile list, and click [Copy].

- **"[Profile] Screen" (▶ page 130)**
- The duplicated profile appears in the profile list.

Alternative

- Right-click a profile in the profile list, and click [Copy].

Deleting Profiles

Delete registered profiles.

1) Select a profile in the profile list, and click [Delete].

- **"[Profile] Screen" (▶ page 130)**

Alternative

- Right-click a profile in the profile list, and click [Delete].

2) Click [Yes].

Note

- You cannot delete the profile currently in use (current setting).

Switching Profiles

Switch the profile while editing a project, and continue editing as you are.

1) Click [Settings] on the menu bar, and click [Change Profile].

- The [Change Profile] dialog box appears.

2) Select a profile and click [OK].

- The profile currently in use is displayed at [Current profile].

Note

- Operations such as registering new profiles and changing profiles are not available in the [Change Profile] dialog box.

Importing Profiles (Import)

Import profiles.

Note

- Some profile settings are not reflected when profiles created by an old version of EDIUS are imported.

1) Right-click a profile in the profile list, and click [Import].

- **"[Profile] Screen" (▶ page 130)**

2) Select a file, and click [Open].

- The imported profile is displayed in the profile list.

Exporting Profiles (Export)

Export profiles.

1) Right-click a profile in the profile list, and click [Export] → [Selected profile].

- **"[Profile] Screen" (▶ page 130)**
- Click [All] to export all registered profiles.

2) Select a save destination and click [Save].

Managing Editing Environments on the Server

Manage profiles on the server when using EDIUS on multiple terminals. The profile managed on the server (i.e. shared profile) is shared between and used by each of the terminals.

Creating a Shared Profile

To share a profile on multiple terminals, install EDIUS on the management server or PC, and create a shared profile using the profile management tool.

Note

- First, install EDIUS on the server or PC where the shared profile is to be managed.
- While the profile management tool is in use, EDIUS on all terminals that are referencing the profile management server must be ended.

1) Double-click ConfigProfile.exe in the "EDIUS 11" folder on the storage where EDIUS has been installed.

- Normally, the "EDIUS 11" folder is located in "C drive" → "Program Files" → "Grass Valley".
- The profile management tool will start up.

2) Click [...] to specify the destination to save the shared profile to, and click [OK].

3) Click [Config], and click [OK].

- The [Change Profile] dialog box appears.
- New profiles can be registered, changed, deleted, duplicated, imported, and exported in the same way as system settings.
  "Switching an Editing Environment with Profile" (▶ page 130)

4) Create the shared profile, and click [Close].

5) Click [Close].

- To use the shared profile on each terminal, the references and other information of the shared profile must be set in the system settings on each terminal.
  "Using Shared Profiles on Local Terminals" (▶ page 134)

Profile Types

■ Local profile

This is the profile created on each local terminal. The settings of profiles that are changed while they are in use are overwritten.

■ Read-only profile

This is a read-only profile. The settings of profiles that are changed while they are still in use are not overwritten.
Also, read-only profiles cannot be renamed, and their icons cannot be changed or deleted.

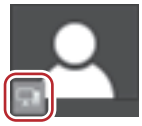
■ Restricted user profile

This is a restricted user profile. The system settings cannot be changed while the restricted user profile is in use.

■ Shared profile

This is the profile created using the profile management tool. The settings of profiles that are changed while they are in use are overwritten as long the profile is not changed to read-only.
Also, shared profiles cannot be renamed, and their icons cannot be changed or deleted on local terminals.

■ Shared profile in offline state



This is the shared profile in an offline state. This is displayed when a connection cannot be made to the reference server from the local terminal that was using the shared profile.

- When a shared profile is in use, profile settings sometimes cannot be saved to the server if the connection to the reference server is broken off midway or when another terminal is executing save processing on the same shared profile. When the connection to the server is recovered when EDIUS is next started up, if the shared profile with the same name is still in the server, a message will appear to confirm whether the profile settings, which could not be saved in the last session, should be written back to the server at the current session.

Using Shared Profiles on Local Terminals

Enable use of the shared profile on each terminal.

1) Click [Settings] on the menu bar, and click [System Settings].

Note

- If you use the restricted user profile, the system settings cannot be changed. To change system settings, the profile must be switched. **"Switching Profiles" (▶ page 132)**

2) Click the [Application] tree, and click [Profile].

3) Select [Shared Server] or [Local and Shared Server] in [Profile].

- If you select [Shared Server], only the shared profile can be used. New profiles on local terminals cannot be registered, changed, deleted, duplicated, and imported.
- If you select [Local and Shared Server], both local profiles and the shared profile can be used.
- If you select [Local], only local profiles can be used.

4) Click [...] at [Shared Server Folder] to specify the destination to reference the shared profile, and click [OK].

- Specify where to save the shared profile that you created using the profile management tool.

5) Click [Sync], and click [OK].

- The shared profile is displayed on the [Profile] screen synchronized with the profiles at the network references.

Setting an External Device

Using a Device

It is necessary to set up editing environment before you start editing if you make EDIUS interact with other devices, in such a way as capturing from a video camera or output using video input/output hardware.

- Hardware by other manufacturers are supported. For camera and hardware products that the operation have been confirmed, visit our website.
  "Our Website" (▶ page 499)

Capturing using a Camera

To set up the environment to use EDIUS with other devices such as when capturing from a camera, the devices to be used with EDIUS must be registered.

Capture and Monitor Output Using a Hardware

You can use video input/output hardware to perform capturing and monitor output. With EDIUS, it is possible to output the video being edited to a monitor in full frame and full resolution in real time, which enables to adjust the color or timing for cut while comfortably previewing the video.

For the method of hardware installation or connection to a monitor, see the instruction manual attached to the device.

Also, some hardware may require setting by EDIUS and and application supplied with the product to be recognized by EDIUS. For details, visit our website or see the instruction manual attached to the product.

"Our Website" (▶ page 499)

Supported Hardware

- STORM 3G
- STORM Pro
- Hardware products by other manufacturers (visit our website for the operation confirmed hardware products.)
  "Our Website" (▶ page 499)

Note

- Supported hardware or available functions differs depending on used EDIUS. For details, visit our website.

Registering Device Presets

The connection information for an external device used for capturing or exporting (camera, deck, web camera, microphone, video input/output hardware, etc.) is registered and managed as a preset in the device presets. Capturing or exporting operation can be performed smoothly by loading the registered device preset.

Before registering device presets, connect the external device (e.g. camera) used for input/output to your PC, and turn it on.

"Connecting to External Devices" (▶ page 160)

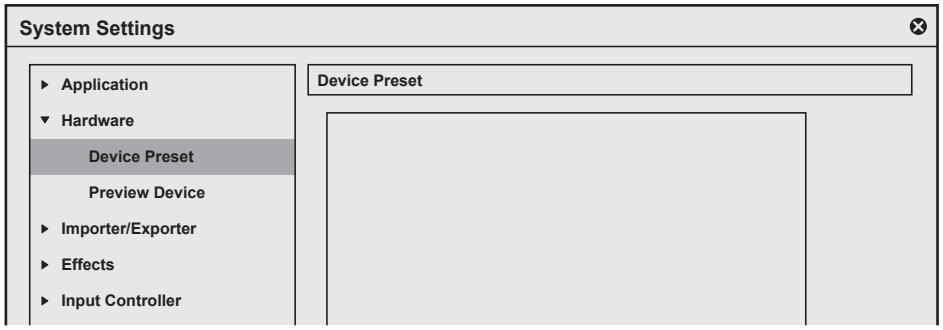
- It is not necessary to register external devices in which file-based video or audio are recorded (e.g. AVCHD video camera, professional-use video camera, removable media such as SD memory card, XDCAM EX device) as device presets.

1) Click [Settings] on the menu bar, and click [System Settings].

Note

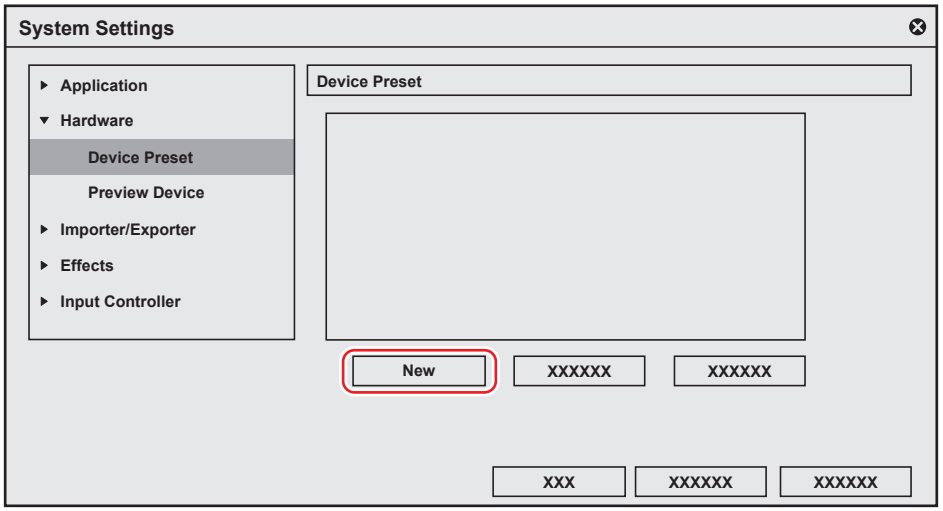
- If you use the restricted user profile, the system settings cannot be changed.
  "Restricted user profile" (▶ page 133)

2) Click the [Hardware] tree, and click [Device Preset].



- The [Device Preset] screen appears.
  "[Device Preset] Screen" (▶ page 137)

3) Click [New].

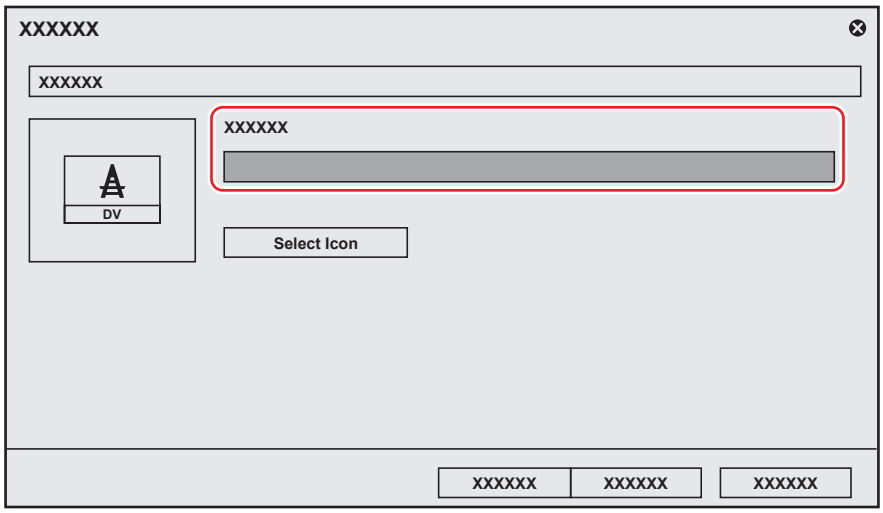


- [Preset Wizard] will start up.

Alternative

- Right-click a blank area in the device preset list, and click [New].

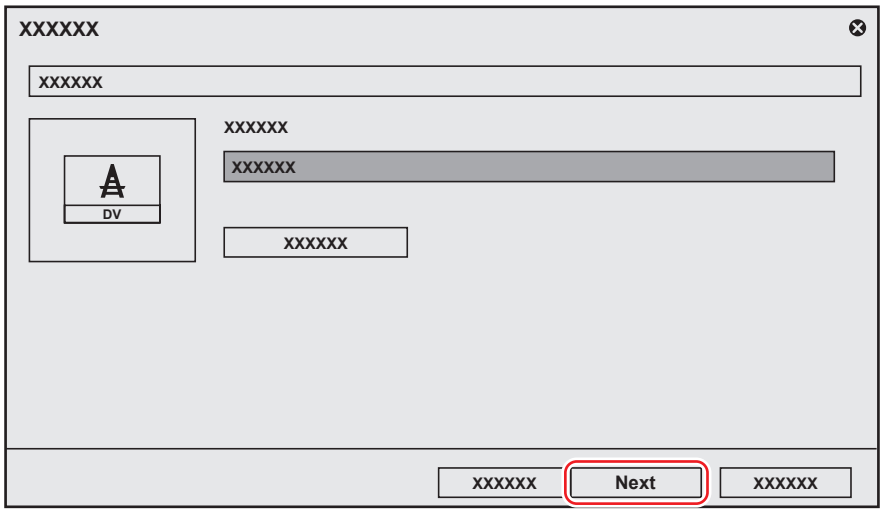
4) Enter the name of the device preset.



5) Click [Select Icon], select the icon image, and click [OK].

- To use any image you like, click [...] and select a file.

6) Click [Next].



- The [Input H/W, Format Settings] screen appears.
  "[Input H/W, Format Settings] Screen" (▶ page 137)

7) Set each item and click [Next].

8) Confirm the details, and click [Completed].

- The icon of the newly created preset is displayed in the device preset list.

[Device Preset] Screen

Device preset list	Displays a list of device presets. The list can be resorted by dragging the icons. The list is not displayed when there are no device presets registered.
[New]	Create new device presets.
[Modify]	Change the settings of the selected device preset. **"Changing Device Presets" (▶ page 140)**
[Delete]	Delete the selected device preset. **"Deleting Device Presets" (▶ page 141)**

[Input H/W, Format Settings] Screen

This section explains settings when video is input from a DirectShow capture device.
For more information on settings when using Grass Valley products for input, see the user manual included with the product.

[Interface]	Click this item to select the interface to use for input. To input from a DirectShow base video capture device or audio capture device, select [DirectShow Capture]. When the interface to use for input is selected from the list, the content of each of the items such as [Stream] switches to match the selected interface. To disable use of an interface for input, select [Not Select].
[Stream]	When [DirectShow Capture] is selected at [Interface], select your device. The displayed device name varies depending on your product. You can make device settings by clicking [Settings]. When your device is a video capture device, you must set the associated audio capture device. **"[Settings - Device Setting] Dialog Box (DirectShow Capture)" (▶ page 138)**
[Video Format]	Select the video format for the source to capture.
[Codec]	Select the codec to use for capture depending on the video format. You can make codec settings by clicking [Settings]. **"[Settings - Grass Valley HQ]/[Settings - Grass Valley HQX] Dialog Box" (▶ page 138)** **"[Settings - MPEG2 Custom] Dialog Box" (▶ page 138)** **"[Settings - XDCAM HD422 Compatible] Dialog Box" (▶ page 139)** **"[Settings - XDCAM EX Compatible] / [Settings - XDCAM HD Compatible] Dialog Box" (▶ page 139)** **"[Settings - MPEG IMX] Dialog Box" (▶ page 139)**
[File Format]	Select the file format of the captured clip depending on the video format.
[Proxy File]	Select a file (only high-resolution/high-resolution and proxy) to be created when capturing.
[Audio Format]	Select the audio format of the source to capture depending on the video format.

[Audio Input]	Select the audio input interface depending on the video format.
[Convert 16Bit/2ch]	Select whether to import audio by 16-bit/2ch depending on the video formats.

* Selectable items differ according to the setting.

■ [Settings - Device Setting] Dialog Box (DirectShow Capture)

[Video Device]	Displays the video capture devices connected to the system. Click [Video Setting] to display detailed settings depending on your video capture device. For more information on settings, see the manual for your device.
[Audio Device]	Displays the audio capture device connected to the system. Select the audio capture device corresponding to the video capture device from the list. To cancel this setting, select [Not assigned].
[Set video frame rate from audio sampling rate.]	Check this item to calculate the frame rate from the number of samples and duration time of the audio. Uncheck this item to calculate the frame rate from the frame rate provided by the video capture device, and convert the audio sampling rate to match the frame rate.

■ [Settings - Grass Valley HQ]/[Settings - Grass Valley HQX] Dialog Box

Codec settings	**[Online(SuperFine)]** This item can be selected for a Grass Valley HQX codec. This setting provides the highest image quality, though the file size increases. Select this when importing at high image quality is needed. This item cannot be selected for a Grass Valley HQ codec. **[Online(Fine)]** This setting provides high image quality, though the file size increases. Select this when importing at high image quality is needed. **[Online(Standard)]** Normally, you can get sufficient image quality at this setting. **[Offline]** Select this item to encode at a lower bitrate. **[Custom]** [Q] and [Max size] can be adjusted. [Q] adjusts image quality. Set within the range 4 to 19 (0 to 18 in the case of a Grass Valley HQX).Setting a smaller value results in higher image quality. [Max size] sets the maximum bitrate. You can set to limit the file size that increases inadvertently as a result of excessive noise in the video. Setting value “100” % means the same bitrate before codec compression. For example, 100% for 1440x1080 59.94i is a bitrate of approximately 750 Mbps. To set the upper limit to 200 Mbps, set “27” % as the maximum size.

Note

- The [Settings - Grass Valley HQ]/[Settings - Grass Valley HQX] dialog box shows the settings when importing video by Grass Valley HQ/Grass Valley HQX capture. These are not the settings for Grass Valley HQ/Grass Valley HQX file export or for rendering when Grass Valley HQ/Grass Valley HQX is selected in the project settings.
  “Capturing and Importing Sources” (▶ page 160)

■ [Settings - MPEG2 Custom] Dialog Box

[Bit Rate]	Select a bitrate type. [CBR] sets a fixed transfer rate, allocating a fixed number of bits during the encoding process. Select a bitrate from the [Average] list. You can also enter a value directly. [VBR] sets a variable transfer rate, altering the number of assigned bits according to the complexity of the movement or image quality. Compared with [CBR], the media volume can be used more efficiently, and this enables more consistent image quality overall. Select a bitrate from the [Average] and [Max] lists. You can also enter a value directly.
[Quality/Speed]	Select quality from the list.
[GOP Structure]	For MPEG, a certain number of frames is considered as a group, and operations such as compression/enlargement and cut editing are performed on a GOP basis. A GOP comprises “I frame”, “P frame” and “B frame”. The I frame allows images to be reproduced independently, the P frame is for recording and reproducing only the differences with the preceding image, and the B frame reproduces images from the differences in the preceding and following images. Select I, P and B frame patterns of the GOP from the list. Normally, select [IBBP]. [I-Frame Only] is comprised of only I-pictures. Editing is made easier, but the amount of data increases in size.
[Picture count]	Set the number of frames included in a group.

[Closed GOP]	Check this item to complete information within each GOP. Although the amount of data increases, the video can be re-edited using software that supports GOP-based editing. Normally, leave this item unchecked.
[Chroma Format]	Select a YUV pixel format from the list.
[Profile/Level]	Select a profile & level. If [Chroma Format] is [4:2:0] and [4:2:2], the profile will be set to Main Profile and 422Profile, respectively. The level for SD image quality will be Main Level, and the level for HD image quality will be High Level. The profile & level changes according to the format selected in [Chroma Format].
[VBV Buffer Size]	Select the setting method for the VBV buffer upper limit value. When [Default] is selected, the VBV buffer upper limit value is set using current settings.

■ [Settings - XDCAM HD422 Compatible] Dialog Box

[Quality/Speed]	Select quality from the list.
[Closed GOP]	Check this item to complete information within each GOP. Although the amount of data increases, the video can be re-edited using software that supports GOP-based editing. Normally, leave this item unchecked.

■ [Settings - XDCAM EX Compatible] / [Settings - XDCAM HD Compatible] Dialog Box

[Bit Rate]	Select a bitrate from the list.
[Quality/Speed]	Select quality from the list.
[Closed GOP]	Check this item to complete information within each GOP. Although the amount of data increases, the video can be re-edited using software that supports GOP-based editing. Normally, leave this item unchecked.

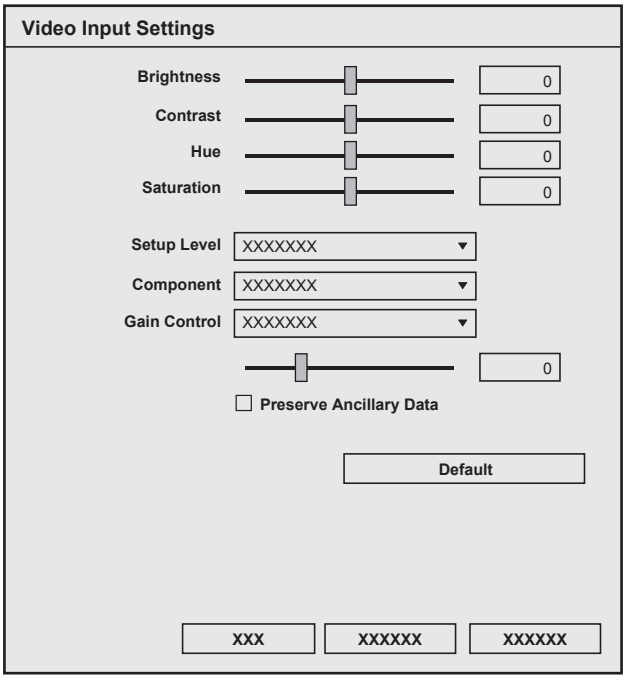
■ [Settings - MPEG IMX] Dialog Box

[Bit Rate]	Select a bitrate from the list.

Detailed Setting of Device Preset

[Video Input Settings] (STORM 3G)

This is the setting for the input signal adjustment used for capturing.
The setting is available only for the component, S-video, or composite input.

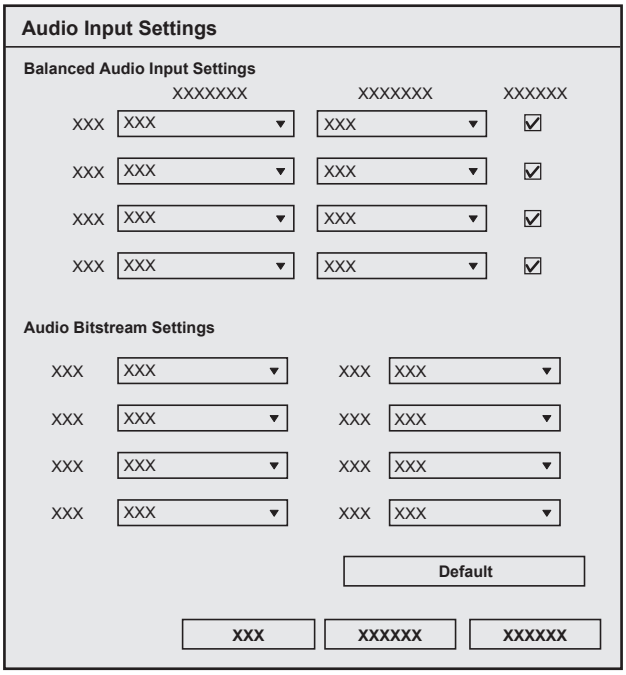


[Brightness]	Adjusts the brightness of video. It will become darker when the value is smaller, and brighter when the value is larger.

[Contrast]	Adjusts the contrast of image. The contrast will be weaker when the value is smaller, and stronger when the value is larger.
[Hue]	Adjusts the hue of video. Red will be stronger when the value is smaller, and green will be stronger when the value is larger. • This cannot be set for component input.
[Saturation]	Adjusts the deepness of the color. The color becomes lighter when the value is smaller, and deeper when the value is larger. The image will become grayscale when set to 0 (minimum value).
[Setup Level]	Sets the setup level (black level) for NTSC.
[Component]	Selects the component level for NTSC.
[Gain Control]	Sets the video luminance. [Manual] will set the luminance manually. [Automatic] will set the luminance to optimum automatically.
[Preserve Ancillary Data]	Check this to append ancillary data such as closed caption during capturing.
[Default]	Restores to the default setting.

[Audio Input Settings] (STORM 3G/STORM Pro)

This is the setting for the input device used for capturing.



[Balanced Audio Input Settings]	**[Input Headroom[dB]]** Sets the headroom from the reference input level from [20], [18], [16], or [12]. **[Input Level[dBm]]** Sets the reference input level from [+4], [0], [-3], [-6], or [-20]. **[600 ohm Termination]** Check this option to enable 600 Ω terminator of the balanced audio input terminal. This can be set for each channel individually.
[Audio Bitstream Settings]	Sets the handling of the digital audio signal for SDI embedded audio input. It will be saved as linear PCM data and handled as normal audio signal during editing when [LPCM] is selected. It will be saved as AC-3 audio bitstream when [AC-3] is selected. It will be saved as Dolby-E audio stream when [Dolby-E] is selected.
[Default]	Restores to the default setting.

Changing Device Presets

Change the settings of a registered device preset.

1) Select a preset in the device preset list, and click [Modify].

- **"[Device Preset] Screen" (▶ page 137)**

- [Preset Wizard] will start up. Operations from here on are the same as step **4)** in “Registering Device Presets” onwards.
  “Registering Device Presets” (▶ page 135)

Alternative

- Right-click a preset in the device preset list, and click [Modify].

Deleting Device Presets

Delete a registered device preset.

1) Select a preset in the device preset list, and click [Delete].

- **“[Device Preset] Screen” (▶ page 137)**

Alternative

- Right-click a preset in the device preset list, and click [Delete].

2) Click [Yes].

Duplicating Device Presets

Duplicate a registered device preset.

1) Select and right-click a preset in the device preset list, and click [Copy].

- **“[Device Preset] Screen” (▶ page 137)**

Importing Device Presets (Import)

Import device presets.

1) Right-click a blank area in the device preset list, and click [Import].

- **“[Device Preset] Screen” (▶ page 137)**

2) Select a file, and click [Open].

- The imported preset is displayed in the device preset list.

Exporting Device Presets (Export)

Export device presets.

1) Select and right-click a preset in the device preset list, and click [Export].

- **“[Device Preset] Screen” (▶ page 137)**

2) Select a save destination and click [Save].

Assigning Device Presets to Input Presets

If you assign device presets as input presets in advance, an assigned device preset can simply be called up at capture.

1) Select and right-click a preset in the device preset list, and click [Assign Input Preset] → [Input Preset 1] - [Input Preset 8].

- **“[Device Preset] Screen” (▶ page 137)**

- The selected device preset is assigned as an input preset, and is displayed as an input preset when [Capture] on the menu bar is clicked.

- To cancel an assignment to an input preset, right-click a blank area in the [Device Preset] list, and click [Delete assignation] → preset name.

Setting External Device Used for Preview

Registers and manages hardware as preview device when editing while viewing an external monitor connected to the PC.
You can also control the color mode of the monitor connected with the PC via USB or LAN.
"[Monitor Control]" (▶ page 105)

- Setting other than for EDIUS may be required depending on the type of hardware. For details, visit our website.
  "Our Website" (▶ page 499)

Setting Preview Devices

Before setting preview devices, connect the external device (e.g. monitor) used for preview to the PC, and turn on the power.
For more information on settings when using a Grass Valley product as a preview device, see the user manual included with the product.

1) Click [Settings] on the menu bar, and click [System Settings].

Note

- If you use the restricted user profile, the system settings cannot be changed.
  "Restricted user profile" (▶ page 133)

2) Click the [Hardware] tree, and click [Preview Device].

3) Set each item.

Preview device list	Displays a list of preview devices. Click the preview device to use, and the device name will be prefixed with a check mark. You can also uncheck preview devices not in use. You can set the details of each device by clicking [Settings]. For more information on settings when using a Grass Valley product, see the user manual included with the product.
[Use Pulldown Format when Available]	Check this item to give priority to pulldown operation (2-3-2-3) regardless of the [Pulldown Type] setting in the current project settings. Try this setting when using a monitor that does not support 23.98p/29.97p/25p display.
[Display a warning message when the selected device does not support the current format]	When a preview device is not compatible with the video format in the current project settings, an alarm message will be displayed. When this item is unchecked, an alarm message will not be displayed.
[Release device when EDIUS is inactive]	Check this item to release the video hardware when EDIUS is not active. Even if [Release device when EDIUS is inactive] is enabled, the video hardware is not released while in the following statuses. • Playing back • Emulating VTR • Capturing
[Output conversion setting]	High resolution video such as 4K or 8K can be downconverted and output to external devices including a monitor. • The conversion status of output video is indicated on the status bar of the timeline. **"Checking Conversion Status of Output Video" (▶ page 143)** **[No conversion]** The output video is not converted. When a preview device is not compatible with the video format in the current project settings, video is not output. **[Convert to format supported by device]** The output video is converted to a format compatible with the preview device. Select this option when a preview device is not compatible with the video format in the current project settings. Although major general file formats have been supported, not all file formats can be converted. You can use [Output format restrictions] to restrict output formats according to the ability of the external device such as a monitor. Select an item from the [Output format restrictions] list.

Note

- When a preview device is not compatible with the video format in the current project settings, an alarm message will be displayed and detailed settings cannot be changed. In this case, make settings as follows.
  - Modify the project settings to match the preview device.
  - Use [Convert to format supported by device] in [Output conversion setting] to convert output video to a format compatible with the preview device.
- The conversion process of [Output conversion setting] applies heavy load to CPU. If real time playback becomes unavailable after [Convert to format supported by device] in [Output conversion setting] has been applied, select [No conversion].

4) Click [OK].

- You can continue to set other items by clicking [Apply].

Note

- Audio is output packed from the left in order starting from the smallest monitor number. When the number of output channels exceeds the number of channels that can be received by the monitor, the audio of the channels exceeding this limit is not output.

Checking Conversion Status of Output Video

The conversion status of output video can be checked with the icon indicated on the status bar of the timeline.

- Moving the mouse cursor onto the icon will show the tooltip indicating the preview device in use and output format.

■ When video is converted and output

■ When video is output without conversion

■ When video is not output from the hardware

The tooltip that appears when the mouse cursor is placed on the icon indicates the output format [None].

- While a video is being converted and output, the preview device in use and output format are indicated over the icon.

Placement Customization

Changing the Screen Layout

EDIUS standard layout can be customized for better usability. The preview window, the bin window, etc. can be resized, and tab windows can also be combined. It is also possible to register the customized layout.

Registering Layouts

Register operation screen layouts after they have been laid out according to your preference or size.
Before you start operation, place the window or tab window in the layout you want to register.

1) Click [View] on the menu bar, and click [Window Layout] → [Save current layout] → [New].

2) Enter a name, and click [OK].

- The current layout will be registered as default. Numbers from [01] to [10] are assigned in order of registration.

- 10 layouts can be saved. To register a new layout when 10 layouts are already registered, select the layout to be overwritten from among the registered layouts in step **2)**.

Renaming Layouts

You can rename registered layouts.

1) Click [View] on the menu bar, and click [Window Layout] → [Change Layout Name] → layout to change the name.

2) Enter a name, and click [OK].

Applying Layouts

Apply a registered layout to change the layout as you like.

1) Click [View] on the menu bar, and click [Window Layout] → [Apply Layout] → layout to apply.

- To change the layout easier, assign keyboard shortcuts to the registered layouts [01] to [10] to apply each of them.
  "Changing Keyboard Shortcut Assignments" (▶ page 157)
- Click [View] on the menu bar, and click [Window Layout] → [Normal] to restore the default layout.
- Returning to the default layout: **[Shift] + [Alt] + [L]**

Deleting Layouts

Delete registered layouts.

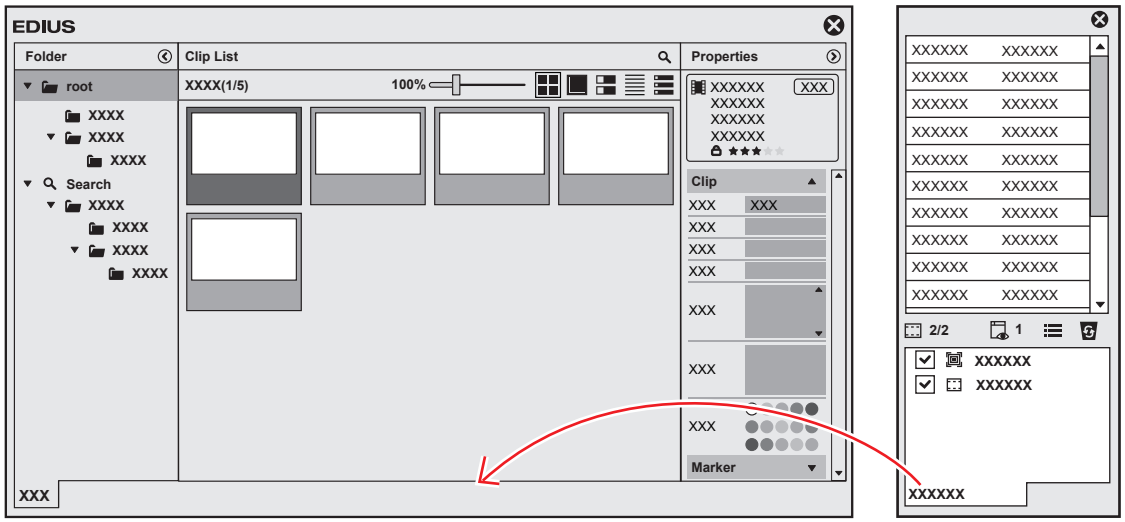
1) Click [View] on the menu bar, and click [Window Layout] → [Delete Layout] → layout to delete.

2) Click [Yes].

Combining Tab Windows with Bin Window/Source Browser Window

Combine the bin window, source browser window, and tab windows in whatever way so the display area on the screen is utilized more effectively.

1) Drag the tab of a tab window onto the tab of the bin window or source browser window.



- The independent tab window is combined with the bin window or source browser window, and is added as a tab. Click the tab to switch the display window.

Example:

When all the windows are combined

- You can freely combine the bin window, source browser window, and tab windows. For example, you can combine tab windows of your preference into one window, or you can combine the bin window and source browser window with all the tab windows into one window.
  "[Information] Palette" (▶ page 40)
  "[Effect] Palette" (▶ page 41)
  "[Marker] Palette" (▶ page 41)
  "[Mync] Window" (▶ page 42)
  "[Job] Window" (▶ page 43)
- To cancel a combination, drag the tab outside the frame.
- Size of each window can be changed freely by moving the mouse cursor to the edge of a window and dragging it when the mouse cursor changes the shape.

Screen Customization

Changing the Display of Operation Button

Add, delete and change the placement order of operation buttons that are displayed on screens.

Operation Button Settings

1) Click [Settings] on the menu bar, and click [User Settings].

2) Click the [User Interface] tree, and click [Button].

- The [Button] screen appears.
  "[Button] Screen" (▶ page 147)

3) Select the area to customize from the list.

4) From the [Current Buttons] list, select the button one position below the insert position.

5) Select a button to add from the [Available Buttons] list, and click [>>].

- The selected button is added to the [Current Buttons] list. When [Space] has been added, a space is added between the two buttons.
- To delete a button, select the button to delete from the [Current Buttons] list and click [<<]. When [Space] has been deleted, the space between the two buttons is deleted.
- To change the position of a button, select the button to move from the [Current Buttons] list and click [Up] or [Down]. Each click of these buttons moves the selected button one place up or down.

6) Click [OK].

- You can continue to set other items by clicking [Apply].

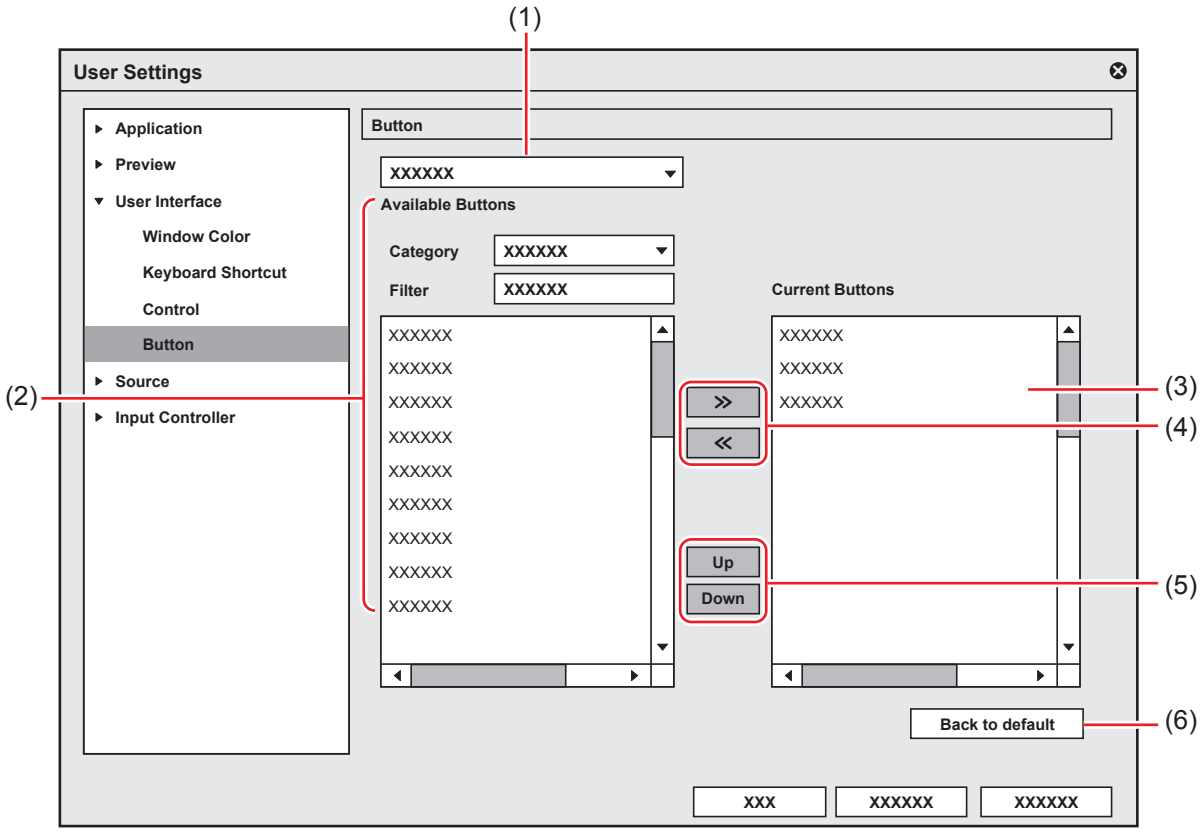
Alternative

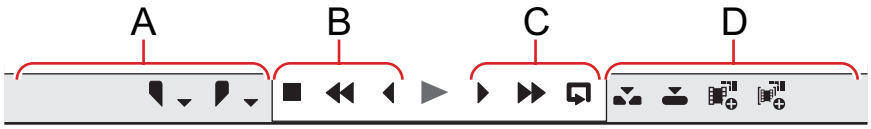
- To add a button, select the button one place under the insertion position in the [Current Buttons] list, and double-click the button to add from the [Available Buttons] list.
- To add a button, drag and drop the button to add from the [Available Buttons] list onto the [Current Buttons] list.
- To delete a button, double-click the button to delete from the [Current Buttons] list.
- To delete a button, drag and drop the button to delete from the [Current Buttons] list onto the [Available Buttons] list.
- To change the position of a button, drag and drop the button in the [Current Buttons] list.

Note

- If too many buttons are added to the center area of the Player and Recorder, only the buttons that can be shown within the area are displayed from the top of the list.

[Button] Screen



(1)	Area	 A: [Player - File (Left)] B: [Player - File (Center - Left)] C: [Player - File (Center - Right)] D: [Player - File (Right)] ● During file operations, area settings can be customized by [Player - File (Area)], and during deck operations, area settings can be customized by [Player - Deck (Area)], respectively. ● Areas A to D are the same for the Recorder, too. [Timeline]: Timeline window operation buttons [Effect]: [Effect] palette operation buttons [Source Browser]: Source browser window operation buttons [Mode Bar]: Mode bar operation buttons [Marker]: [Marker] palette operation buttons
(2)	**[Available Buttons]**	**[Category]** Select a category to narrow down [Available Buttons]. **[Filter]** Enter a keyword to narrow down [Available Buttons].
(3)	**[Current Buttons]**	Displays the buttons to display.
(4)	**[>>]/[<<]**	Add/delete buttons to be displayed.
(5)	**[Up]/[Down]**	Change the position of buttons.
(6)	**[Back to default]**	Return settings to their defaults.

Changing the Display of Preview Window

The following explains how to change the display of the preview window.

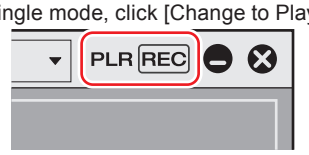
Switching Between Single Mode/Dual Mode

You can switch the preview window between the single mode or dual mode.

1) Click [View] on the menu bar, and click [Single Mode] or [Dual Mode].

- The display of the preview window switches to single or dual mode.
  "Preview Window" (▶ page 32)

- To switch between the Player and Recorder in the single mode, click [Change to Player] or [Change to Recorder].



- You can switch between the Player and Recorder by the following shortcut keys:
  - Switching to the Player: **[Ctrl] + [Alt] + [P]**
  - Switching to the Recorder: **[Ctrl] + [Alt] + [R]**
  - Switching to the Player/Recorder: **[Tab]**

Full Screen View of Preview Window

Video displayed in the preview window can be displayed in full screen view.

Assign in advance which video, such as Player or Recorder video, or video from a selected camera in the multicam mode, is to be displayed in full screen view on each monitor connected to your PC.

"[Monitor]" (▶ page 124)

Note

- The occurrence of combing (vertical comb-like stripes) is normal when interlaced images are previewed in full screen view.
  When previewing on a PC, the same quality as in hardware preview out cannot be assured. Since there is a difference between refresh rate of a PC monitor and the internal frame refresh rate of EDIUS, the same field may be displayed multiple times in the preview window and fields that should be displayed may not be displayed. Also, the same phenomenon may sometimes occur at a non-uniform display frequency depending on the performance of the CPU or GPU.

1) Click [View] on the menu bar, and click [Full Screen Preview] → monitor number.

- When [All] is clicked, all monitors that have been set to full screen view at [Preview] in [User Settings] → [Monitor] can be displayed as full screen view.
  "[Monitor]" (▶ page 124)

Alternative

- Double-click the preview window.

- Perform the following to cancel full screen view:
  - Click [View] on the menu bar, and click [Full Screen Preview] → monitor number.
  - Double-click the monitor set to full screen view.

Rotation Display of Preview Window

The preview window can be displayed rotated by 90 degrees.

1) Click [View] on the menu bar, and click [Rotate Preview] → [Right 90 Degrees] or [Left 90 Degrees].

- Click [View] on the menu bar, and click [Rotate Preview] → [Standard] to return the window to its original state.
- Rotation of the preview can be set to each individual sequence. To maintain rotation of the preview when a project is next opened, set rotation of the preview as desired to each sequence, and then save the project.
- When a new project or sequence is created, the orientation of the preview window will be standard (i.e. rotation off).

Showing/Hiding Preview Window

Switch the show/hide setting for the safe area, center, and zebra preview.

You can change the information display settings from [Preview] in [User Settings] → [Overlay].

"[Overlay]" (▶ page 125)

1) Click [View] on the menu bar, and click [Overlay] → an item to display.

- The selected information is displayed in the preview window.

Example:

Player

(1)	**Clip/device name (capturing)/reel name (capturing)**
(2)	**Safe area**
(3)	**Center**
(4)	**Zebra preview**
(5)	**Marker comment display**

Alternative

- Showing/hiding safe area: **[Ctrl] + [H]**
- Showing/hiding center: **[Shift] + [H]**

- When [Marker] is selected as a display item, the clip marker comment is displayed on the Player only when the slider is directly above the clip marker. Also, on the Recorder, the sequence marker list is displayed only when the timeline cursor is directly above the sequence marker. Note, however, that these are not displayed during playback.

Showing/Hiding Status Area

Switch the show/hide setting for the status area.

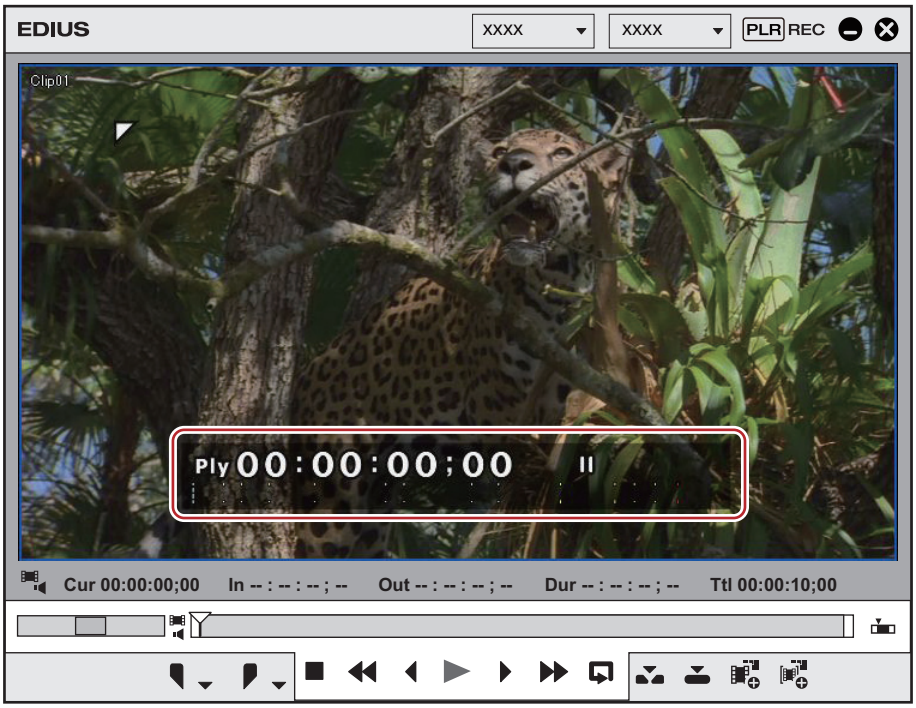
- You can change the settings of items displayed in the status area from [Preview] in [User Settings] → [On Screen Display].
  "[On Screen Display]" (▶ page 125)
  The source information can also be changed from [View] → [Source Information] on the menu bar.
  "Source Information Display" (▶ page 150)

1) Click [View] on the menu bar, and click [On Screen Display] → [Status].

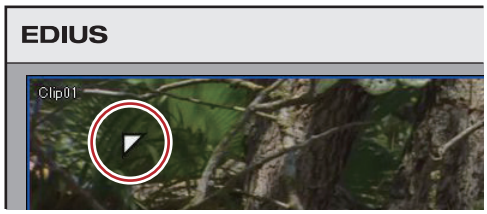
- Select whether to display the status area not only on the PC screen but also on the external monitor. Click [View] on the menu bar, and click [On Screen Display] → [PC Monitor/External Output] or [PC Monitor].

Example:

Player



- When the status bar is displayed, a white triangle indicating the start or end frame is also displayed at the upper left or upper right corner of the safe area.



Alternative

- Showing/hiding status area: **[Ctrl] + [G]**

Source Information Display

You can set information of sources to be displayed on the source timecode in the status area.
For captured clips, information such as recording date can be displayed.

- To display source timecode in the status area, go to [User Settings] → [Preview] → [On Screen Display], and check [Source Information] for [Show Normal Edit]/[Show Trim]/[Show Export].

1) Click [View] on the menu bar, and click [Source Information] → the item to display.

- The selected information are displayed on the source timecode in the status area.
- A check mark appears on the selected item.

- Selecting [Timecode/User Bit (Timecode)] enables simultaneous on-screen display of timeline timecode, source timecode, and user bit.
- The [Source Information] setting is linked with the setting of [User Settings] → [Preview] → [On Screen Display] → [Select Source Information].

Alternative

- Simultaneous on-screen display of timeline timecode, source timecode, and user bit: **[Ctrl] + [Alt] + [Enter]**

Showing/Hiding Closed Caption

Switch the show/hide setting for closed caption.
The settings of closed caption can be changed in the [Closed Caption Settings] dialog box.
"Setting Closed Caption Display" (▶ page 151)

1) Click [View] on the menu bar, and click [On Screen Display] → [Closed Caption] → [On/Off].

- When this menu item is checked, closed caption is displayed.
- Select whether to display on not just the PC screen but also the external monitor. Click [View] on the menu bar, and click [On Screen Display] → [PC Monitor/External Output] or [PC Monitor].

- Closed caption is displayed within the [Title Safe] area.
  "[Overlay]" (▶ page 125)
- Closed caption display supports MXF/CMF/GXF format files.
- Closed caption is only displayed during playback.
- Closed caption is only displayed when the settings including [Frame Size], [Frame Rate], and [Aspect Ratio] in the project settings match those of the source format.
- If [Closed Caption On/Off] is displayed on the Player or Recorder as an operation button, you can switch show/hide setting of closed caption simply by clicking the button.
  "Operation Button Settings" (▶ page 146)
- Import of closed caption files is supported.
  "Merging Closed Caption File and Registering" (▶ page 166)
- A sidecar file (closed caption file) can be exported besides an output file, or closed caption data can be embedded into the output file. The closed caption of a project alone can be exported as well.
  "Exporting Closed Caption" (▶ page 454)

Setting Closed Caption Display

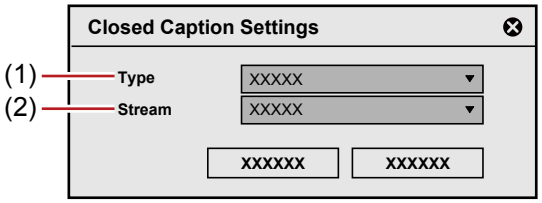
Set display of the closed caption.

1) Click [View] on the menu bar, and click [On Screen Display] → [Closed Caption] → [Settings].

- The [Closed Caption Settings] dialog box appears.
  "[Closed Caption Settings] dialog box" (▶ page 151)

2) Set each item and click [OK].

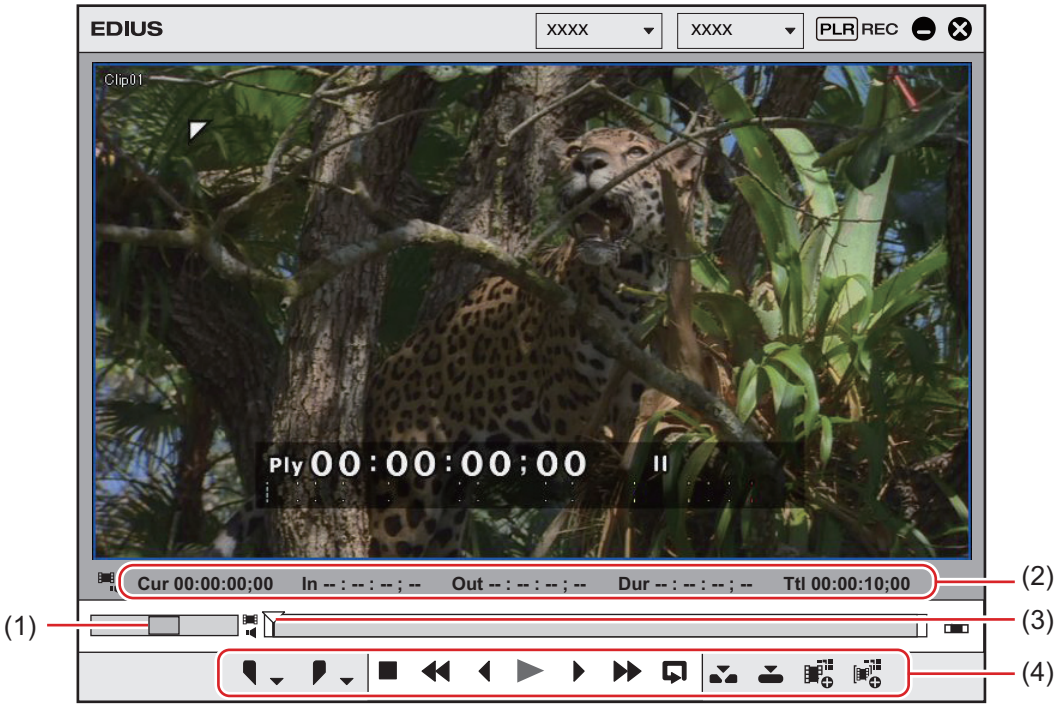
■ [Closed Caption Settings] dialog box



(1)	**[Type]**	Select the closed caption standard from [CEA-708] and [CEA-608].
(2)	**[Stream]**	Set the type of the closed caption. When [CEA-708] is selected for [Type], select an item from [Service 1] to [Service 6]. When [CEA-608] is selected for [Type], select [CC1] or [CC3].

Control Area Settings

You can set the display item or the size of the timecode/shuttle/slider/buttons.



(1)	Shuttle
(2)	Timecode
(3)	Slider
(4)	Button

1) Click [Settings] on the menu bar, and click [User Settings].

- The [User Settings] dialog box appears.

2) Click the [User Interface] tree, and click [Control].

3) Set each item.

[Show Timecode]	Check the timecode items to display in the preview window, and set their size.
[Shuttle/Slider]	Set the show/hide setting for the shuttle and slider in the preview window.
[Button]	Set the show/hide setting and the size of the operation buttons on the preview window.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

Switching the Screen Display when Stopping Playback

You can switch the display of the preview window to each field when playback is stopped.

1) Click [View] on the menu bar, and click [Pause Field] → display method.

Showing/Hiding Alpha Channel

Turn the video with alpha channel to gray scale and display in the preview window.

1) Click [View] on the menu bar, and click [Show Alpha Channel].

Changing the Display of Bin Window

The bin window consists of the folder view in which clips are stored, the clip view in which clips are displayed, and the properties view in which clip properties are displayed.

"Bin Window" (▶ page 38)

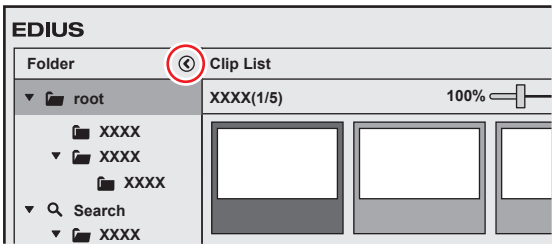
Showing/Hiding Folder View and Properties View

You can switch the show/hide setting for the folder view and properties view.

This section explains how to show and hide the folder view.

1) Click [<] in the folder view of the bin.

- The folder view is closed.



- Click [>] to open the folder view.

- To close the properties view, click [>]. Click [<] to open the properties view.

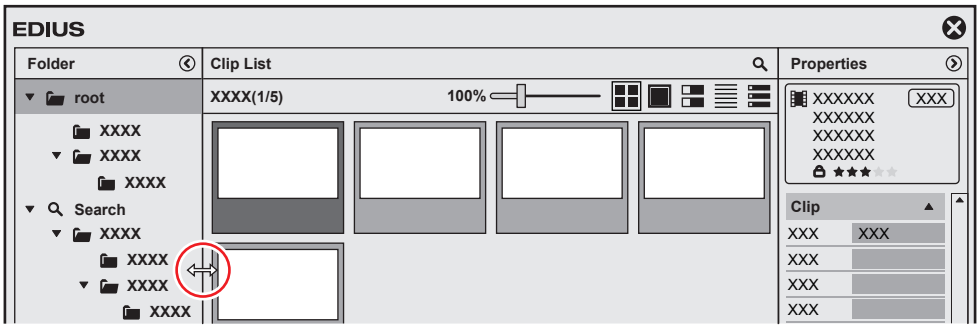
Resizing Folder View/Clip View/Properties View

You can resize the folder view/clip view/properties view.

1) Drag the border between the folder view and clip view, or the border between the clip view and the properties view of the bin window.

Example:

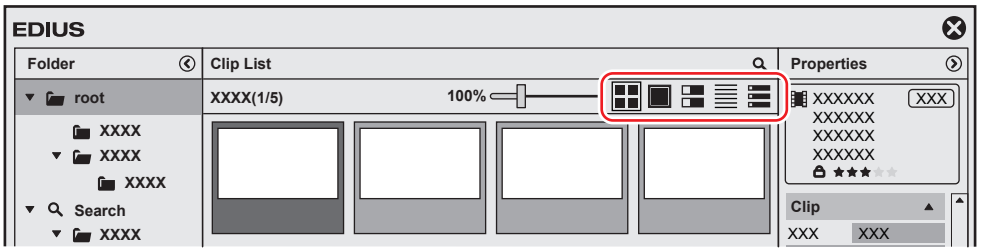
Border between folder view and clip view



Clip View Display

Switch the display of clips in the clip view.

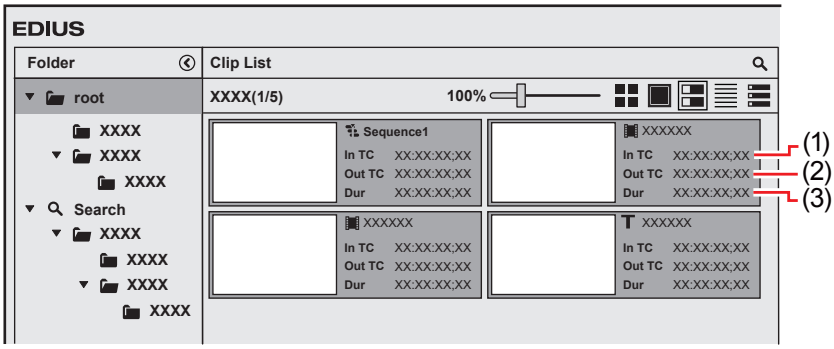
1) Click on a display mode button in the clip view of the bin.



- The types of display modes are as follows.
  - : **[Clip]**
  - : **[Thumbnail]**
  - : **[Tile]**
  - : **[Icon]**
  - : **[Detail]**

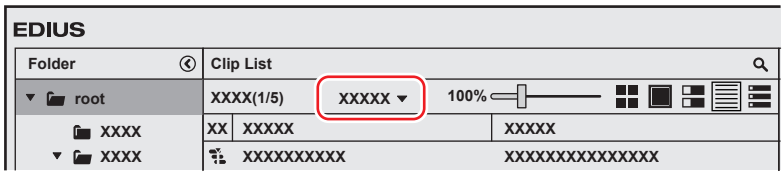
Example:

If [Tile] is selected



(1)	**[In TC]**	In point of the clip or In point on the source timecode
(2)	**[Out TC]**	Out point of the clip or Out point on the source timecode
(3)	**[Dur]**	Duration of the clip or total length of the source

- When the clip view display is set to [Detail] or [Icon], the following operations are possible:
  - Sorting items by dragging
  - Changing the item width by dragging its border
  - Changing display items by clicking the column setting button



Changing the Display of Source Browser Window

The source browser window consists of the folder view in which external devices are displayed, the clip view in which clips are displayed, and the metadata view in which clip metadata is displayed.

"Source Browser Window" (▶ page 39)

Showing/Hiding Folder View

You can switch the show/hide setting for the folder view.

1) Click [Folder] in the source browser.

- Each click switches the show/hide setting for the folder view.
  The folder view can also be set to hide by clicking [×].

Alternative

- Showing/hiding folder view: **[Ctrl] + [R]**

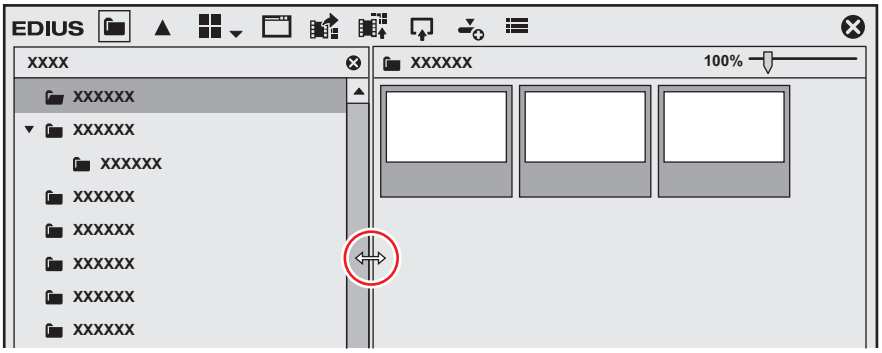
Resizing Folder View/Clip View/Metadata View

You can resize the folder view/clip view/metadata view.

1) Drag the border between the folder view and clip view of the source browser window, or the border between the clip view and the metadata view.

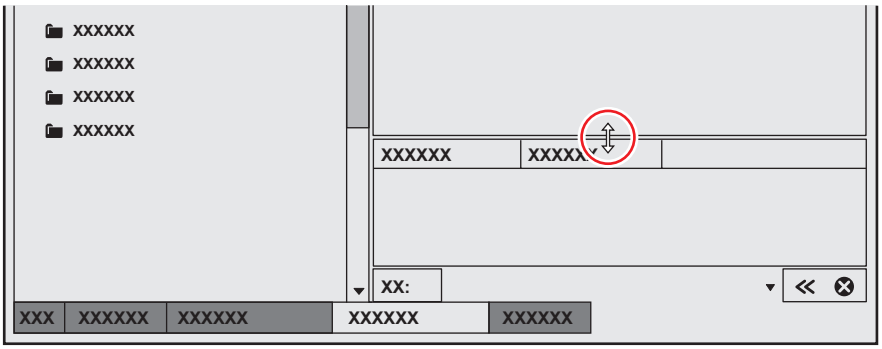
Example:

Border between folder view and clip view

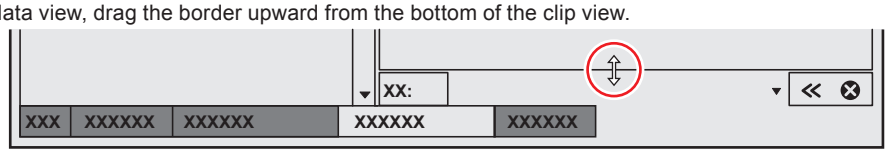


Example:

Border between clip view and metadata view



- The show/hide setting for the metadata view can be switched by the following operations.
  - To hide the metadata view, drag the border between the clip view and metadata view down to the bottom of the source browser window.
    To show the metadata view, drag the border upward from the bottom of the clip view.



  - Showing/hiding metadata view: **[Ctrl] + [M]**

Clip View Display

Switch the display of clips in the clip view.

1) Click [View] in the source browser.

- Each click changes the display.
  - **: [Clip]**
  - **: [Thumbnail]**
  - **: [Tile]**
  - **: [Detail]**
  - **: [Icon]**

Alternative

- Click the [View] list button to select the display method.
- Right-click a blank area of the clip view and select [View] → display method.

- The simple search bar is displayed at the bottom of the metadata view by pressing [F3] on the keyboard.
  "Searching by the Simple Search Bar" (▶ page 169)
- When the clip view display is set to [Detail] or [Icon], the following operations are possible:
  - Sorting items by dragging
  - Changing the item width by dragging its border
  - Changing display items by right-clicking

Changing the Color of Operation Screens

Change the color of operation screens in the windows or tab windows as you like.

1) Click [Settings] on the menu bar, and click [User Settings].

2) Click the [User Interface] tree, and click [Window Color].

3) Set each item.

[Window Color]	Specify RGB values to customize the screen color as you like. The specified color is displayed in the color sample.
[Back to default]	Return settings to their defaults.

4) Click [OK].

- You can continue to set other items by clicking [Apply].

Shortcut Keys

Shortcut Keys

This section explains operation methods using shortcut keys and how to change keyboard shortcut assignments.

About Shortcut Keys

You can perform operations more effectively using combinations of keys on the keyboard (keyboard shortcuts), or combinations of mouse and key operations (mouse shortcuts).

Keyboard Shortcuts

Example:

Playback and stop
Press [Enter] on the keyboard while the preview window or timeline is active. This plays back (or stops) video.

Example:

Deletion of gaps (deletion of spaces between clips)
Click on the clip immediately following the space on the timeline, and press [Backspace] on the keyboard.

Mouse Shortcuts

Example:

Joint move
Drag the clip with the mouse with [Shift] and [Alt] on the keyboard held down.

Example:

Saving projects under different names
With [Shift] on the keyboard held down, click [Save Project] with the mouse.

Changing Keyboard Shortcut Assignments

Change shortcut keys assigned to the keyboard.

1) Click [Settings] on the menu bar, and click [User Settings].

- The [User Settings] dialog box appears.

2) Click the [User Interface] tree, and click [Keyboard Shortcut].

3) Select the [Motion] items to change.

[Category]	Select categories to narrow down the search of shortcut operations.
[Filter]	Enter a keyword to narrow down the shortcut operations.
Operation list	Displays operations searched by narrowing down categories in a list.
[Import]	Import the contents of keyboard shortcut key assignments.
[Export]	Export the contents of keyboard shortcut key assignments.
[Assign]	Displays the keyboard to enable setting of key assignments.
[Not Assign]	Change assigned shortcut key settings to [Not Assign].
[Duplicate]	Copy shortcut keys assigned in [Motion]. [Assign] becomes [Not Assign].
[Delete]	When a shortcut has been duplicated by [Duplicate], one of the shortcuts with the same [Motion] can be deleted.
[Back to default]	Return key assignments to their default settings.

4) Click [Assign].

- The [Key Assign] dialog box appears.
- The [Key Assign] dialog box also appears by double-clicking the [Motion] item.

5) Press the key to assign on the keyboard, and click [Close].

- White keys indicate that they have no shortcuts assigned. If you click a key that has other operations assigned, a dialog box to confirm whether to change the current setting appears.
- The shortcuts you have entered are displayed at the [Assign] item.

6) Set each item and click [OK].

- You can continue to set other items by clicking [Apply].

- Some key combinations sometimes cannot be assigned.
- Customized shortcuts can be exported and imported into other environments installed with EDIUS.
- The extension of exported files is *.eap. Both *.dat and *.eap files can be imported.

Chapter 5

Importing Sources

This chapter explains how to import sources to EDIUS.

There are basically three ways to import sources, and each method differs according to where sources are imported from.

One method is to capture and import sources from DirectShow devices, such as web cameras and external devices stored with tape-based video recordings; others are to import files saved on your PC as sources, and to use the source browser to import sources from external devices stored with file-based video recordings.

Capturing

Points to Be Checked before Capturing Sources

The following explains the checks to perform before capturing sources and precautions when connecting to external devices.

Registering External Devices that Interact with Device Presets

For cameras, decks, and other external devices used for capturing, register their connection information, video format for import and other information as device presets.

"Registering Device Presets" (▶ page 135)

Capture Operation Settings

Before setting, connect the external devices to synchronize the input signal. The following cases may occur depending on the characteristics of the input devices and the recording state of the tape:

- Unnecessary files are generated by automatic division.
- Unnecessary files are created at start of capture.

Capture settings can be checked and changed by [Application] in [System Settings] → [Capture].

"[Capture]" (▶ page 100)

Connecting to External Devices

Before capture, connect your PC to a camera or other external device to import the source from.

Capturing and Importing Sources

This section explains how to capture and import sources from a DirectShow-based web camera, and how to capture analog sources.

Note

- For cameras, decks, and other external devices used for importing sources, it is necessary to register their connection information, video format for import and other information as device presets in advance.
  "Registering Device Presets" (▶ page 135)

1) Click [Capture] on the menu bar, and click [Select Input Device].

- The [Select Input Device] dialog box appears, and the list of device presets registered in system settings is displayed.

2) Select a device preset, and click [OK].

Alternative

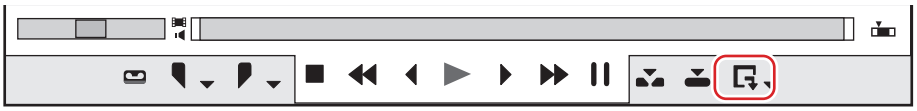
- Same operations as steps **1)** to **2)** are available using the following methods.
  - Click [Capture] on the menu bar, and click an input preset to display the device preset.
    The device preset needs to be assigned as an input preset in advance.
    "Assigning Device Presets to Input Presets" (▶ page 141)
  - Click the operation button for the input preset of the Player to display the device preset.
    The input preset assigned to an operation button needs to be displayed on the Player in advance.
    "Operation Button Settings" (▶ page 146)
  - Displaying the device preset assigned to the input preset 1: **[F2]**
  - Displaying the device preset assigned to the input preset 2: **[F3]**
  - Displaying the device preset assigned to the input preset 3: **[F4]**

3) Set the reel name, if necessary.

- To set a reel name, uncheck [UserBit is used as a Reel No.] and enter a reel name. You can also select previously entered reel names from the list.

4) Click [OK].

5) Click [Capture] on the Player.



- Capturing starts.
- To stop the capture midway, click [Stop].
- The clip is registered to the bin.

Alternative

- Press [F9] on the keyboard.
- Click the [Capture] list button on the Player, and click [Video and Audio].
- If you click the [Capture] list button on the Player and select [Video Only] or [Audio Only], only the video part or audio part will be captured.
- Click [Capture] on the menu bar, and click [Capture].
- Click [Capture] on the menu bar, and click [Video Capture] or [Audio Capture].

- Files can be automatically divided at capture.
  "[Capture]" (▶ page 100)
- During capture, you can add a marker with a comment to the source clip.
  "Setting Clip Markers at Capture" (▶ page 277)
- To change a reel name halfway through the process, for example, when swapping tapes, click [Capture] on the menu bar, and click [Reel No. Settings].
- While a source in AVI or MXF format is being captured, another EDIUS client on the same network can load the captured data and edit it while being recorded.

Importing from Device Not Possible to Deck Control

Analog sources recorded on video tape, etc. can be imported via Bay or A/D converter. It is also possible to import sources from the Web camera, microphone, etc., which is DirectShow-based.

Note

- When analog sources are imported from an analog device or device connected by the HDMI terminal, the device cannot be controlled from EDIUS.
- For external devices used for importing sources, it is necessary to register their connection information, video format for import and other information as device presets in advance.
  "Registering Device Presets" (▶ page 135)

1) Locate the start point of the capture part on the external input device.

- This operation is not required when capturing from a device such as Web camera or microphone.

2) Click [Capture] on the menu bar, and click [Select Input Device].

- The [Select Input Device] dialog box appears, and the list of the device presets registered in the system settings is displayed.

3) Select a device preset, and click [OK].

Alternative

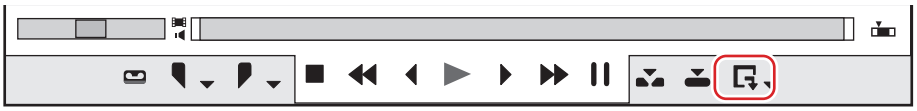
- Same operations as steps **2)** to **3)** are available using the following methods.
  - Click [Capture] on the menu bar, and click an input preset to display the device preset.
    The device preset needs to be assigned as an input preset in advance.
    "Assigning Device Presets to Input Presets" (▶ page 141)
  - Click the operation button for the input preset of the Player to display the device preset.
    The input preset assigned to an operation button needs to be displayed on the Player in advance.
    "Operation Button Settings" (▶ page 146)
  - Displaying the device preset assigned to the input preset 1: **[F2]**
  - Displaying the device preset assigned to the input preset 2: **[F3]**
  - Displaying the device preset assigned to the input preset 3: **[F4]**

4) Set the reel name, if necessary.

- To set a reel name, uncheck [UserBit is used as a Reel No.] and enter a reel name. You can also select previously entered reel names from the list.

5) Click [OK].

6) Click [Capture] on the Player.



- Capturing starts.
- Proceed to step **8)** when capturing from the device such as Web camera, microphone, etc.

Alternative

- Press [F9] on the keyboard.

7) Play back the external input devices.

8) After finishing capturing of necessary parts, click [Stop] in the [Capture] dialog box.

- When capturing is stopped, the captured clip is registered to the bin.

9) Stop the playback of external input devices.

Note

- The source settings, such as bitrate or frame size, vary depending on your device.

Importing File

Importing File

To import a file saved on your PC to EDIUS, they must first be registered to the bin as a clip. The following explains how to register files or file formats that can be imported to EDIUS to the bin.

Registerable File Formats

The following lists the file formats that can be imported to EDIUS:

- Operation is not guaranteed for all formats described in this section.

■ Video

Note

- Some codecs may not support partial transfer.
- Some video formats may not support partial transfer/trimming.

Format	File extension
3GPP	*.3gp, *.3g2, *.amc
AVCHD	*.m2ts, *.mts
AVI*1	*.avi
Blackmagic RAW	*.braw
Cinema RAW	*.xml
Cinema RAW Light	*.crm
DIF stream	*.dif, *.dv
DNxHD/DNxHR	*.mov
Flash Video	*.f4v
H.265/HEVC	*.mov, *.mp4
JPEG2000	*.mov
K2 (CMF)*3	*.cmf
K2 (GXF)	*.gxf
MPEG HDD MOVIE	*.mod, *.tod
MPEG Program Stream*2	*.mpg, *.mpeg, *.m2p, *.mp2, *.vob, *.vro
MPEG Transport Stream	*.m2t
MPEG Video Stream	*.mpv, *.m2v
MP4	*.mp4, *.m4v
MXF*1	*.mxf
Nikon N-RAW	*.nev
P2 (DV, DVCPRO, DVCPRO50, DVCPRO HD, AVC-Intra, AVC-LongG, AVC-Intra 4K/2K)	*.xml, *.mxf
PNG	*.mov
ProRes RAW	*.mov
QT Animation	*.mov
QuickTime Movie*1	*.mov
RED	*.R3D
SONY HVR-DR60/HVR-MRC1 Meta File	*.idx
Sony RAW	*.xml, *.mxf
Sony X-OCN	*.xml, *.mxf
TIFF	*.mov
Transport Stream (MPEG-2, H.264)	*.ts
Windows Media*1	*.wmv, *.asf
XAVC (XAVC Intra/XAVC Long GOP)	*.xml, *.mxf
XAVC S	*.xml, *.mp4
XDCAM (MPEG HD422, MPEG HD, MPEG IMX, DVCAM)	*.xml, *.mxf
XDCAM EX	*.mp4, *.avi, *.smi, *.xml
XF	*.cif, *.mxf

Format	File extension
XF-AVC	*.mxf

*1 The codec may not be supported depending on the video format.
*2 Use the source browser to import VOB files if they cannot be imported.
*3 This is supported using an option.

■ Audio

Format	File extension
AAC	*.aac, *.m4a
AIFF*1	*.aiff, *.aif
ALAC	*.m4a
Dolby Digital (AC-3)	*.ac3
Dolby Digital Plus (E-AC-3)	*.ec3
Dolby Digital Professional (AC-3)	*.ac3
Flac	*.flac
MPEG Audio Layer-3*2	*.mp3
MPEG Audio Stream	*.mpa, *.m2a
Ogg Vorbis Files	*.ogg
Opus	*.opus
Wave	*.wav
Windows Media Audio	*.wma

*1 AIFF/AIFC files are PCM only.
*2 Some VBR are not supported.

■ Still image

Import of still images with sequential numbers is supported.

Format	File extension
Cinema DNG	*.dng
DPX (SMPTE 268M-2003)	*.dpx
Flash Pix	*.fpx
GIF (CompuServeGIF)	*.gif
HEIF	*.heif, *.heic
ICO	*.ico, *.icon
JPEG	*.jpg, *.jpeg
JPEG File Interchange Format	*.jfif
Maya IFF*1	*.iff
Multi-PictureFormat	*.mpo
Photoshop	*.psd
PNG (Portable Network Graphics)	*.png
Quick Titler	*.etl, *.etl2
SGI	*.sgi, *.rgb
Targa	*.tga, *.targa, *.vda, *.icb, *.vst
TIFF	*.tif, *.tiff
Windows Bitmap	*.bmp, *.dib, *.rle
Windows Meta Files	*.wmf, *.emf
WMPhoto	*.wdp

*1 Z-depth is not supported.

- Electronic Arts IFF files (*.iff) are not supported on EDIUS.

■ Caption

Format	File extension
Scenarist Closed Caption	*.scc
MacCaption	*.mcc

Registering a File to the Bin as a Clip

Select and register a source to the bin.

1) Double-click on a blank area in the clip view of the bin.

- The [Open] dialog box appears.

Alternative

- Adding clip: [Ctrl] + [O]
- Right-click a blank area in the clip view, and click [Add File].

2) Select a file and set the following items if necessary.

[Poster frame]	Enter the timecode, or move the slider to the left and right to set the poster frame of the clip.
[Show properties]	Check this item to display the [Clip Properties] dialog box and view clip properties. **"[Clip Properties] Dialog Box" (▶ page 198)**
[Transfer to Project folder]	Transfer the clip to the project folder.
[Sequence clip]	Import the still image clips with sequential numbers in a single operation, and register them to the bin. **"Registering Consecutive Still Images" (▶ page 165)**
[Detect captions file]	Use this option to detect a closed caption file that corresponds to the selected file, merge it, and then register to the bin. **"Merging Closed Caption File and Registering" (▶ page 166)**
[Name]	To rename a clip registration in the bin, enter the new name of the clip.
[Comment]	Enter a comment.
[Clip color]	Color the display of clips.

3) Click [Open].

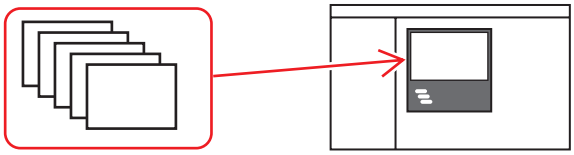
Alternative

- Click [File] on the menu bar, and click [Add Clip]. Select the source from the [Add Clip] dialog box, and click [Open] to display the source clip on the Player. Click [Add Clip on Player to Bin] on the Player.
- Open the folder containing the sources in Explorer, and drag and drop the source to register onto a folder in the clip view or folder view.
  "Registering Folders" (▶ page 166)

- You can also register sources displayed on the Player by dragging and dropping them onto the bin.
  "Registering Clips Displayed on the Player to the Bin" (▶ page 187)

Registering Consecutive Still Images

Import the still image clips with sequential numbers in a single operation, and register them to the bin.



1) Double-click on a blank area in the clip view of the bin.

- The [Open] dialog box appears.

Alternative

- Adding clips: **[Ctrl] + [O]**

2) Select the first of the consecutive files, check [Sequence clip], and click [Open].

- All of the consecutive still image files in the same folder are registered as a single sequence clip to the bin.
- As consecutive files are regarded as a single sequence clip, if a file is missing in the sequence, files with subsequent numbers will not be imported.

- You can divide a sequence clip registered to the bin into individual still image clips, or use it again as a sequence clip.
  "Canceling a Set Sequence" (▶ page 197)

"Joining Multiple Clips (Set as Sequence)" (▶ page 197)

Merging Closed Caption File and Registering

You can detect a closed caption file that corresponds to the selected file, merge it, and then register to the bin.

1) Double-click on a blank area in the clip view of the bin.

- The [Open] dialog box appears.

Alternative

- Adding clips: **[Ctrl] + [O]**

2) Select a file.

- Select a file with which a closed caption file is to be merged.
- Multiple files can be selected.

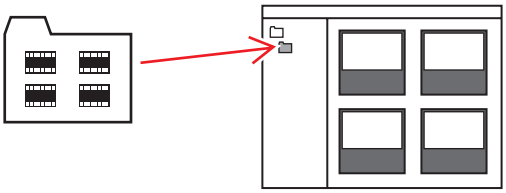
3) Check [Detect captions file], and click [Open].

- A closed caption file that corresponds to the selected file will be detected, and then registered to the bin as a single clip.

- A closed caption file to be merged must satisfy the following conditions.
  - A file with the same name as the selected clip except for the extension
  - A file that exists in the same folder as the selected clip
    Note that a closed caption file in a separate folder may be detected for some files.
- You can register a closed caption file alone to the bin by using the same procedure as when registering other files to the bin.

Registering Folders

Register a folder containing supported source formats with the folder structure held intact.



1) Open the explorer and display the folder to register to the bin.

2) Drag the folder and drop it onto a folder in the clip view or folder view of the bin.

Source Browser

To import files saved on external devices in which file-based video or audio are recorded (e.g. AVCHD video camera, professional-use video camera, removable media such as SD memory card, XDCAM EX device) to EDIUS, perform the operations with the source browser. On the source browser, the folder structure of media is recognized automatically and the stored files are displayed quickly. You can also register the displayed clips to the bin or transfer the files to a PC.

Also, files copied from devices to the storage on the PC with the folder structure held intact can be imported in the same way.

Note

- Sources cannot be imported from copy-protected discs.
- Supports only the BDMV format BD.

Formats Supported by Source Browser

The formats that can be viewed by the source browser are as follows:

The supported formats, codecs, and extensions depend on the files that can be imported.

- Operation is not guaranteed for all formats described in this section.

Device	Format/container	Codec	Source browser tree
AU-EVA1	MOV	H.264/AVC	[Removable Media]
AVCCAM	AVCHD	—	[Removable Media]
AVCHD Camera	AVCHD	—	[Removable Media]
Blu-ray*1	BDMV	—	[Removable Media]
Cinema RAW/Cinema RAW Light	RMF	Cinema RAW	[Cinema RAW]
	CRM	Cinema RAW Light	
Cine Alta	MXF	XAVC	[XDCAM]
		MPEG HD422	
CINEMA EOS	MOV	Motion JPEG	[Removable Media]
	AVCHD	—	
Datacam	MXF	DNxHD	[Datacam]
DSLR	MOV	H.264/AVC	[Removable Media]
	MP4	H.264/AVC	
	AVCHD	—	
GoPro	MP4	H.264/AVC	[Removable Media]
K2	GXF	AVC-Intra	[K2 (FTP)]
		AVC-Ultra	
		H.264/AVC	
		D10	
		DV	
		DVCPRO25	
		DVCPRO50	
		DVCPRO HD	
		MPEG-2	
		DNxHD	
		JPEG2000	
Mobile	SD-Video	—	[Removable Media]
NXCAM	AVCHD	—	[Removable Media]
P2	MXF	DVCPRO25	[P2]
		DVCPRO50	
		DVCPRO HD	
		AVC-Intra 50	
		AVC-Intra 100	
		AVC-Intra 200	
		AVC-LongG	
RED	R3D	RED	[RED]
Sony RAW/X-OCN	MXF	Sony RAW	[Sony RAW]
		Sony X-OCN	
XAVC	MXF	XAVC Intra	[XDCAM]
		XAVC Long GOP	
	MP4	XAVC S	
XDCAM	MXF	DVCAM	[XDCAM]
		MPEG IMX	
		MPEG HD	
		MPEG HD422	
XDCAM EX	MP4	XDCAM EX	[XDCAM EX]
X Series	MXF	XF-AVC	[XF]
		MPEG-2	

*1 Copy-protected files cannot be imported.

Showing/Hiding Source Browser Window

Switch the show/hide setting for the source browser window.

1) Click [View] on the menu bar, and click [Source Browser].

- When the show/hide setting for the source browser window is switched, the show/hide setting for the tabs of the bin window or tab windows combined with the source browser window is also switched. To switch the show/hide setting separately, release the association of the window or tab windows.
  "Combining Tab Windows with Bin Window/Source Browser Window" (▶ page 144)

Source Browser Clip Display

In the source browser, source files are displayed as clips. Three types of clips are displayed: video clips, audio clips and still image clips.

(1)	**Poster frame/thumbnail display**	Displays a representative image of clip or thumbnail.
(2)	**Clip name**	Displays the clip name.

Selecting Clips

Clips are selected in the source browser in the same way as in the bin.
"Selecting Clips" (▶ page 200)

Sorting Clips

You can sort clips in the clip view of the source browser.

1) Right-click on a blank area in the clip view, and click [Sort].

2) Click the item names to sort.

Alternative

- When the clip view display is set to [Detail] or [Icon], each click on an item switches between ascending and descending order.

Switching the Display Folder

Folders displayed are switched in the folder view of the source browser.

1) Select a folder to display in the folder view.

- If the folder view is closed, right-click a blank space of the clip view and click [Move], and click the move destination folder name or [Up one Folder].

Alternative

- Click [Move Up] in the source browser to switch the folder.

- Moving to a folder one place up: **[Backspace]**

Checking Clip Properties

You can view the details of clips in the source browser, such as the frame rate and start timecode.

- Duration, file size and other clip properties can be checked when the clip view is switched to the detailed clip view.
  "Clip View Display" (▶ page 155)

1) Select a clip in the clip view, and click [Properties] in the source browser.

- The [Clip Properties] dialog box appears.
  "[Clip Properties] Dialog Box" (▶ page 169)

Alternative

- Right-click a clip and click [Properties].
- Checking properties: **[Alt] + [Enter]**

2) Confirm the details, and click [OK].

[Clip Properties] Dialog Box

The displayed tab varies according to the type of clip.

[File] tab	Check type, data size, and other details of files.
[Video] tab	Check the start TC (timecode) and end TC, or image size, poster frame, aspect ratio, color space, color correspondence range, field order, codec, frame rate, and other information.
[Audio] tab	Check the start and end TCs, or re-acquire wave information (waveform representation of audio).
[Still image] tab	Check the format or image size, duration, aspect ratio, color space, and color correspondence range.
[Extended] tab	Check the expansion information of a file or clip. The details displayed differ depending on the clip type.
[Captions] tab	Check [Use Caption data] to use the caption information. If a closed caption file has been merged to the file, the saving destination of the currently referenced file can also be confirmed.

Searching by the Simple Search Bar

You can search for clips in a folder by using the simple search bar of the source browser. After the search ends, only clips that partially match the search text string among the clips in the folder are displayed in the clip view.

1) Select the search target folder in the folder view.

2) Press [F3] on the keyboard.

- The simple search bar is displayed.

[Find]	Enter the search text string. You can also select previous search text strings from the list.
[Condition]	Select the search condition from the list.
[Display find condition]	Switch the show/hide setting for the search conditions.
[Close find bar]	Close the simple search bar to display all clips in the folder.

3) Set the search conditions, and press [Enter] on the keyboard.

- Only clips that partially match the search text string among the clips in the folder are displayed in the clip view.

- Text is not case-sensitive when a search is executed by the simple search bar.
- A history of up to 20 of the last entered search text strings is saved to each profile.

Importing Source Browser File by Copying

To import files saved on external devices in which file-based video or audio are recorded (e.g. AVCHD video camera, professional-use video camera, removable media such as SD memory card, XDCAM EX device) to EDIUS, perform the operations with the source browser.
Sources imported from the source browser are registered to the current folder of the bin at the same time that they are transferred to the storage on the PC.

- You can set the transfer destination used when importing files by clicking [Application] in [System Settings] → [Source Browser].
  "[Source Browser]" (▶ page 104)

Points to Be Checked before Importing Sources

Source files can be imported easily from AVCHD video camera/removable media/XDCAM EX/P2/XDCAM/XF devices using the source browser.

Files can be checked immediately or transferred in the background by simply connecting a device or drive to your PC and inserting the storage media.

- **"Importing from Digital Camera" (▶ page 170)**
- **"Importing Sources from XDCAM EX Devices" (▶ page 171)**
- **"Importing P2 Sources" (▶ page 172)**
- **"Importing from XDCAM Devices" (▶ page 173)**
- **"XDCAM Importer Settings" (▶ page 112)**
- **"XDCAM Browser Settings" (▶ page 112)**
- **"Importing RED Sources" (▶ page 175)**
- **"Importing Cinema RAW or Cinema RAW Light Sources" (▶ page 175)**
- **"Importing Sony RAW Sources" (▶ page 176)**
- **"Importing XF Sources" (▶ page 176)**

When importing XDCAM sources or K2 sources via the FTP server, set the FTP server connection settings in the system settings in advance to import sources easily from the source browser.

- **"K2 (FTP) FTP Server Settings" (▶ page 108)**
- **"K2 (FTP) Browser Settings" (▶ page 109)**
- **"Importing K2 Sources from a Server" (▶ page 171)**
- **"XDCAM Connection Settings" (▶ page 111)**
- **"Importing XDCAM Sources from a Server" (▶ page 174)**
- **"Downloading XDCAM Sources and Simultaneously Placing Them on the Timeline" (▶ page 174)**

K2 sources copied to the storage on the PC can be converted to MXF files using the source browser.

- **"Converting and Importing K2 Sources on the PC" (▶ page 172)**

When sources have been copied to the storage with the folder structure held intact, they can be imported simply from the source browser if the reference folder is specified in the system settings in advance.

- **"[Removable Media]" (▶ page 111)**
- **"[XDCAM EX]" (▶ page 111)**
- **"[P2]" (▶ page 110)**
- **"XDCAM Browser Settings" (▶ page 112)**
- **"RED Browser Settings" (▶ page 108)**
- **"Cinema RAW Browser Settings" (▶ page 114)**
- **"Sony RAW Browser Settings" (▶ page 115)**
- **"[XF]" (▶ page 113)**

Importing from Digital Camera

Sources can be imported from an AVCHD video camera or removable media such as SD memory card, memory stick and BD. Sources are registered to the bin at the same time that they are transferred to the PC.

Connect an AVCHD video camera or removable media to the PC, and check that the power is turned on. For more information on connection methods, see the manual for your device.

Also, files copied from devices to the storage on the PC with the folder structure held intact can be imported in the same way.

- Supported formats are AVCHD, BD, SD-Video, Memory Stick Video, and DCF (still images saved in digital camera file format). Only the BDMV format is supported for BD.

Note

- Sources cannot be imported from copy-protected disks.

1) Click the [Removable Media] tree in the folder view of the source browser.

- The drive connected to your PC is recognized, and is displayed in the folder view tree.

2) Insert the storage media into the drive.

3) Click the media name.

- Information on the media is displayed in the clip view.
- Folders are sometimes categorized by type in the layer under the drive depending on the connected device.

- When files in the AVCHD video camera or removable media have been copied to the storage on the PC, right-click [Removable Media], and click [Open Folder] to specify the reference destination.
  References can be deleted from the tree display by right-clicking a folder and clicking [Delete] only when they have been added from the tree display in the source browser. Actual folders are not deleted.
- To update the information on media, right-click [Removable Media] and click [Refresh].

4) Select the file to import, and click [Add and Transfer to Bin] in the source browser.

- Data transfer to the PC is started in the background at the same time that the file is registered to the bin as a clip.
  "Checking the Progress of Background Jobs" (▶ page 177)

Alternative

- Right-click the file to import, and click [Add and Transfer to Bin].

Importing Sources from XDCAM EX Devices

Register sources to the bin at the same time that they are transferred to the PC from SxS memory card.
Connect the XDCAM EX device to the PC, and check that the power is turned on.
Also, files copied from SxS memory cards to the storage on the PC with the folder structure held intact can be imported in the same way.

- For sources recorded across multiple SxS memory card as a sequence clip, connect all sources to PC or import the folder in which the contents of the SxS memory cards are copied to the source browser, and register sources in the order from the first SxS memory card to the bin. Each clip is linked and registered as a sequence clip to the bin.

1) Click the [XDCAM EX] tree in the folder view of the source browser.

2) Click the drive.

- Information on the SxS memory card is displayed in the clip view.

- When files on the SxS memory card have been copied to the storage on the PC, right-click [XDCAM EX], and click [Open Folder] to specify the reference destination.
  References can be deleted from the tree display by right-clicking a folder and clicking [Delete] only when they have been added from the tree display in the source browser. Actual folders are not deleted.
- To update the information of the device, right-click [XDCAM EX] and click [Refresh].

3) Select the clip to import, and click [Add and Transfer to Bin] in the source browser.

- Data transfer to the PC are started in the background at the same time that the clip is registered to the bin.
  "Checking the Progress of Background Jobs" (▶ page 177)

Alternative

- Right-click the clip to import, and click [Add and Transfer to Bin].

- Take clips are registered to the current folder of the bin as a sequence clip.

Importing K2 Sources from a Server

Download GXF files on the K2 Media server via FTP, convert them to MXF files for import, and register them to the bin.

Note

- Set in advance items that are allowed when connecting to the FTP server or to the K2 Media server.
  "K2 (FTP) FTP Server Settings" (▶ page 108)
  "K2 (FTP) Browser Settings" (▶ page 109)

1) Click the [K2 (FTP)] tree in the folder view of the source browser, and click a connection destination.

- Information on the server is displayed in the clip view.

- To update the information of the server, right-click the connection destination, and click [Refresh].

2) Select and right-click the clip to import, and click [Add and Transfer to Bin].

- Data transfer to the storage and conversion will be started in the background at the same time that the clip is registered to the bin.
- During transfer and conversion of the clip, the letter [H] is displayed on the clip icon in the bin.
  "Checking the Progress of Background Jobs" (▶ page 177)
- The clip can be edited with EDIUS even during transfer and conversion.

- If [Allows Users to Rename/Delete Clips.] is checked in the K2 browser settings, the following operations can be performed in the clip view of the source browser.
  - Click a clip name and rename it.
  - Right-click a clip and click [Delete] to delete it.

Note

- When a clip is right-clicked in the clip view, and [Delete] is clicked to delete the clip, the file on the server is also deleted.

Converting and Importing K2 Sources on the PC

K2 sources copied to the storage on the PC can be converted to MXF files, and registered to the bin.

1) Click the [K2 (FTP)] tree in the folder view of the source browser.

2) Click [Convert file(s)] in the source browser.

Alternative

- In the folder view of the source browser, right-click [K2 (FTP)], and click [Convert file(s)].

3) Select a GXF file, and click [Open].

- Multiple GXF files can also be selected.
- Conversion to the MXF file is started in the background at the same time that the clip is registered to the bin.
  "Checking the Progress of Background Jobs" (▶ page 177)
- The clip can be edited with EDIUS even during conversion.

Importing P2 Sources

Register P2 sources to the bin at the same time that they are transferred to the PC.
Connect the P2 device to the PC, and check that the power is turned on.
P2 sources copied to the storage on the PC also can be imported in the same way. Copy sources with the folder structure in the device held intact.

Note

- The drivers provided with the P2 device must be installed in advance.

1) Click the [P2] tree in the folder view of the source browser.

2) Click the drive or reference folder.

- The P2 sources are displayed in the clip view.

- Reference folders can be temporarily added in the folder view of the source browser. Right-click [P2] and click [Open Folder].
- When references have been temporarily added in the source browser, they can be deleted by right-clicking a folder and clicking [Delete]. Actual folders are not deleted.
- To update the information of references, right-click [P2] and click [Refresh].

3) Select the clip to import, and click [Add and Transfer to Bin] in the source browser.

- Data transfer to the PC will be started in the background at the same time that the clip is registered to the bin.
  "Checking the Progress of Background Jobs" (▶ page 177)

Alternative

- Right-click the clip to import, and click [Add and Transfer to Bin].

- Clip names registered to the bin are "user clip name" when a user clip name has been set to the P2 clip, and "clip name" when a user clip name has not been set.
- When edited with EDIUS, P2 clips can be used in the same way as AVI clips. When edited from the storage, the realtime performance will be the same as that of AVI files of the same format. When edited directly from the P2 drive, the performance will be 2-stream realtime in the case of DV, and 1-stream realtime in the case of DVCPRO50. (The above performances are based on the measurement by Grass Valley. CPU performance varies depending on your system.)
- Partial transfer is available, where In and Out points are set to files on the P2 device and only required parts are transferred to the storage.
  "Transferring Only Necessary Part" (▶ page 179)

Importing from XDCAM Devices

Register XDCAM sources to the bin at the same time that they are transferred to the PC.
Before importing sources from an XDCAM device, connect the XDCAM device to the PC, and check that the power is turned on.
XDCAM sources copied to the storage on the PC and proxy clips recorded on USB memory also can be imported in the same way. When copying sources to the storage on the PC, copy sources with the folder structure in the device held intact.
Import settings can be checked and changed by [Importer/Exporter] in [System Settings] → [XDCAM] → [Browser].
"XDCAM Browser Settings" (▶ page 112)

- The SAM mode is supported.

Note

- The drivers provided with the XDCAM device must be installed in advance.

1) Click the [XDCAM] tree in the folder view of the source browser.

2) Click the drive or reference folder.

- The XDCAM sources are displayed in the clip view.

- Reference folders can be temporarily added in the folder view of the source browser. Right-click [XDCAM] and click [Open Folder].
- When references have been temporarily added in the source browser, they can be deleted by right-clicking a folder and clicking [Delete]. Actual folders are not deleted.
- To update the information of references, right-click [XDCAM] and click [Refresh]. If it takes time to display the thumbnail for a clip, press [Esc] on the keyboard to stop refreshing of the list.

3) Select the clip to import, and click [Add and Transfer to Bin] in the source browser.

- Data transfer to the PC is started in the background at the same time that the clip is registered to the bin.
  "Checking the Progress of Background Jobs" (▶ page 177)
- The clip can be edited with EDIUS even during transfer.

Alternative

- Right-click the clip to import, and click [Add and Transfer to Bin] → a clip type.

- Partial transfer is available, where In and Out points are set to files on the XDCAM device and only required parts are transferred to the storage. A message will appear if no connection has been made to the directory where the high-resolution data is saved when partial transfer is performed on the XDCAM clip. Insert the disk, and click [OK].
  "Transferring Only Necessary Part" (▶ page 179)

Importing XDCAM Sources from a Server

Import XDCAM sources via FTP, and register them to the bin.
Import settings can be checked and changed by [Importer/Exporter] in [System Settings] → [XDCAM] → [Browser].
"XDCAM Browser Settings" (▶ page 112)

Note

- Set up the FTP server connection in advance.
  "XDCAM Connection Settings" (▶ page 111)

1) Click the [XDCAM] tree in the folder view of the source browser.

2) Click the server.

- Information on the server is displayed in the clip view.

- To update the information of the server, right-click the connection destination, and click [Refresh].

3) Select the clip to import, and click [Add and Transfer to Bin] in the source browser.

- Data transfer to the PC starts in the background at the same time that the clip is registered to the bin.
  "Checking the Progress of Background Jobs" (▶ page 177)
- The clip can be edited with EDIUS even during transfer.

Alternative

- Right-click the clip to import, and click [Add and Transfer to Bin] → a clip type.

- Partial transfer is available, where In and Out points are set to XDCAM files on the server and only required parts are transferred to the storage. A message will appear if no connection has been made to the directory where the high-resolution data is saved when partial transfer is performed on the XDCAM clip. Set up the FTP connection, and click [OK].
  "Transferring Only Necessary Part" (▶ page 179)

Downloading XDCAM Sources and Simultaneously Placing Them on the Timeline

At the same time when XDCAM clips on the FTP server or clips on XDCAM devices are placed directly on the timeline without being registered to the bin, data transfer to the storage on the PC is started. The data (proxy/high-resolution) transferred at this time can be checked and changed by [System Settings] → [Importer/Exporter] → [XDCAM] → [Browser] → [Download].
"XDCAM Browser Settings" (▶ page 112)

Note

- Downloading XDCAM sources simultaneously with placement on the timeline is possible only by operating the buttons in the source browser or by right-clicking a clip and operating from the displayed menu.
  If clips are placed on the timeline by drag-and-drop operation, they are not transferred to the storage on the PC, and directly referenced to the proxy of the XDCAM devices.

1) Set the channel mapping for the tracks on which clips are placed.

- **"Setting Channel Mapping" (▶ page 220)**

2) Move the timeline cursor to the position to place the clip.

3) Click the [XDCAM] tree in the folder view of the source browser.

4) Click the drive or connection destination.

5) Select a clip, and click [Add to Timeline] in the source browser.

Alternative

- Right-click the clip to import, and click [Add to Timeline] → an item.

Importing RED Sources

Register RED sources to the bin at the same time that they are transferred to the PC.
Connect the RED device to the PC, and check that the power is turned on.
RED sources copied to the storage on the PC also can be imported in the same way. Copy sources with the folder structure in the device held intact.

Note

- The drivers provided with the RED device must be installed in advance.

1) Click the [RED] tree in the folder view of the source browser.

2) Click the drive or reference folder.

- The RED sources are displayed in the clip view.

- Reference folders can be temporarily added in the folder view of the source browser. Right-click [RED] and click [Open Folder].
- When references have been temporarily added in the source browser, they can be deleted by right-clicking a folder and clicking [Delete]. Actual folders are not deleted.
- To update the information of references, right-click [RED] and click [Refresh].

3) Select the clip to import, and click [Add and Transfer to Bin] in the source browser.

- Data transfer to the PC will be started in the background at the same time that the clip is registered to the bin.
  "Checking the Progress of Background Jobs" (▶ page 177)

Alternative

- Right-click the clip to import, and click [Add and Transfer to Bin].

Importing Cinema RAW or Cinema RAW Light Sources

You can register Cinema RAW or Cinema RAW Light sources to the bin at the same time that they are transferred to the PC.
This section explains the procedure to import a Cinema RAW source. Perform the same procedure to import a Cinema RAW Light source.
Connect the Cinema RAW device to the PC, and check that the power is turned on.
Cinema RAW sources copied to the storage on the PC also can be imported in the same way. Copy sources with the folder structure in the device held intact.

Note

- The drivers provided with the Cinema RAW device must be installed in advance.

1) Click the [Cinema RAW] tree in the folder view of the source browser.

2) Click the drive or reference folder.

- The Cinema RAW sources are displayed in the clip view.

- Reference folders can be temporarily added in the folder view of the source browser. Right-click [Cinema RAW] and click [Open Folder].
- When references have been temporarily added in the source browser, they can be deleted by right-clicking a folder and clicking [Delete]. Actual folders are not deleted.
- To update the information of references, right-click [Cinema RAW] and click [Refresh].

3) Select the clip to import, and click [Add and Transfer to Bin] in the source browser.

- Data transfer to the PC will be started in the background at the same time that the clip is registered to the bin.
  "Checking the Progress of Background Jobs" (▶ page 177)

Alternative

- Right-click the clip to import, and click [Add and Transfer to Bin].

Importing Sony RAW Sources

Register Sony RAW sources to the bin at the same time that they are transferred to the PC.
Connect the Sony RAW device to the PC, and check that the power is turned on.
Sony RAW sources copied to the storage on the PC also can be imported in the same way. Copy sources with the folder structure in the device held intact.

Note

- The drivers provided with the Sony RAW device must be installed in advance.

1) Click the [Sony RAW] tree in the folder view of the source browser.

2) Click the drive or reference folder.

- The Sony RAW sources are displayed in the clip view.

- Reference folders can be temporarily added in the folder view of the source browser. Right-click [Sony RAW] and click [Open Folder].
- When references have been temporarily added in the source browser, they can be deleted by right-clicking a folder and clicking [Delete]. Actual folders are not deleted.
- To update the information of references, right-click [Sony RAW] and click [Refresh].

3) Select the clip to import, and click [Add and Transfer to Bin] in the source browser.

- Data transfer to the PC will be started in the background at the same time that the clip is registered to the bin.
  "Checking the Progress of Background Jobs" (▶ page 177)

Alternative

- Right-click the clip to import, and click [Add and Transfer to Bin].

- Partial transfer is available, where In and Out points are set to files on the Sony RAW device and only required parts are transferred to the storage.
  "Transferring Only Necessary Part" (▶ page 179)

Importing XF Sources

Register XF sources to the bin at the same time that they are transferred to the PC.
Connect the XF device to the PC, and check that the power is turned on.
XF sources copied to the storage on the PC also can be imported in the same way. Copy sources with the folder structure in the device held intact.

Note

- The drivers provided with the XF device must be installed in advance.

1) Click the [XF] tree in the folder view of the source browser.

2) Click the drive or reference folder.

- The XF sources are displayed in the clip view.

- Reference folders can be temporarily added in the folder view of the source browser. Right-click [XF] and click [Open Folder].
- When references have been temporarily added in the source browser, they can be deleted from the tree display by right-clicking a folder, and clicking [Delete]. Actual folders are not deleted.
- To update the information of references, right-click [XF] and click [Refresh].

3) Select the clip or playlist to import, and click [Add and Transfer to Bin] in the source browser.

- Data transfer to the PC is started in the background at the same time that the clip or playlist is registered to the bin.
  "Checking the Progress of Background Jobs" (▶ page 177)

Alternative

- Right-click the clip or playlist to import, and click [Add and Transfer to Bin].

- Clips that have been recorded across multiple media are registered to the current folder on the bin as a sequence clip.
- Partial transfer is available, where In and Out points are set to files on the XF device and only required parts are transferred to the storage.
  "Transferring Only Necessary Part" (▶ page 179)

Checking the Progress of Background Jobs

The following explains how to check the progress of processing (background jobs) such as file transfer that is executed in the background and how to pause/restart processing.
The execution progress of background jobs can be checked on the status bar in the timeline window or the clip display.

Status Bar Display in Timeline Window

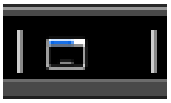
The status bar displays the number of background jobs and an icon indicating the current state of background jobs.

■ Executing

This is displayed when a background job is executing. The icon is also displayed when EDIUS is executing an automatic process job such as creation of seek information.

■ Standing by/suspended

This is displayed when there are no background jobs and when a background job has been canceled.



■ Paused

This is displayed when a background job is paused.

Transfer Status Detailed Display

In the [Background Job] dialog box, detailed transfer status can be checked, and the background jobs can be paused and deleted, for example.

1) Click [Show Background Job] in the source browser.

- The [Background Job] dialog box appears.
  "[Background Job] Dialog Box" (▶ page 178)

Alternative

- Click [View] on the menu bar, and click [Background Job].

Note

- The confirmation message for the background job process will appear if the sequence is imported or consolidated, or the project file is closed, for example, while there is still a background job that has not finished executing.
  Click [Show Unfinished Job Info] to display the [Background Job] dialog box. Click [Quit Unfinished Jobs] to delete all jobs.

[Background Job] Dialog Box

Job list	Displays jobs currently executing and waiting to be executed in a list. To cancel execution of a job, select the job and right-click, and click [Stop] or [Stop All]. To delete a job, select the job and right-click, and click [Delete]. To pause or resume execution of a job, select the job and right-click, and click [Pause] or [Restart].
[Pause Background Jobs During Playback]	Check this item to pause the execution of the job while the Player or timeline is being played back.
[Pause]/[Resume]	Pause or resume execution of all jobs by selecting and clicking the jobs.
[Close]	Close the [Background Job] dialog box. Closing the dialog box will not affect the executing state of the background jobs.

Directly Importing File with Source Browser

The following explains how to register sources on external devices that interact with the source browser directly to the bin or place them on the timeline without transferring them to your PC.

Directly Registering Sources to Bin from Various Devices

Directly register clips in various devices to the bin without transferring them to the storage on the PC.

Note

- XDCAM sources on the FTP server cannot be registered directly to the bin.

1) Select a clip in the source browser, and click [Add to Bin].

- For more information on referencing each device in the source browser, see the procedures for importing from respective devices in "Importing Source Browser File by Copying".
  "Importing from Digital Camera" (▶ page 170)
  "Importing Sources from XDCAM EX Devices" (▶ page 171)
  "Importing P2 Sources" (▶ page 172)
  "Importing from XDCAM Devices" (▶ page 173)
  "Importing XF Sources" (▶ page 176)

Alternative

- Right-click the clip to import, and click [Add to Bin].
- Drag and drop the clip to import onto the bin.

Note

- Clips become offline clips when the connection to the device is canceled.
  "Restoring Offline Clips" (▶ page 90)

Directly Placing Sources on Timeline from Various Devices

Directly place clips in various devices onto the timeline without transferring them to the storage on the PC.

- XDCAM sources on the FTP server can be downloaded at the same time that they are directly placed on the timeline.
  "Downloading XDCAM Sources and Simultaneously Placing Them on the Timeline" (▶ page 174)

1) Set the channel mapping for the tracks on which clips are placed.

- **"Setting Channel Mapping" (▶ page 220)**

2) Move the timeline cursor to the position to place the clip.

3) Select a clip in the source browser, and click [Add to Timeline].

- For more information on referencing each device in the source browser, see the procedures for importing from respective devices in "Importing Source Browser File by Copying".
  "Importing from Digital Camera" (▶ page 170)
  "Importing Sources from XDCAM EX Devices" (▶ page 171)
  "Importing P2 Sources" (▶ page 172)
  "Importing from XDCAM Devices" (▶ page 173)
  "Importing XF Sources" (▶ page 176)

Alternative

- Right-click the clip to import, and click [Add to Timeline].
- Drag and drop the clip to import onto the timeline.

Note

- Clips become offline clips when the connection to the device is canceled.
  "Restoring Offline Clips" (▶ page 90)

Transferring Only Necessary Part

You can copy only the necessary parts when Grass Valley HQ files or DV codec AVI files, for example, are imported to the storage on the PC.

Note

- Sources in removable media such as AVCHD video camera or digital camera and XDCAM EX sources cannot be partially copied and imported.

Automatic Partial Transfer at Addition to the Timeline/Registration to the Bin

After displaying a file in a device on the Player and setting the In and Out points, you can configure the setting to automatically copy the data between In and Out points to the storage when importing a file to the timeline or the bin.

"Registering Clips on the Player to the Bin" (▶ page 187)
"Registering between In and Out Points to the Bin As a Separate Clip (Subclip)" (▶ page 188)
"Setting In/Out Points and Placing Clips" (▶ page 225)

Note

- Sources that are incompatible with partial transfer are not transferred by this operation, and are added directly to the bin/timeline.

1) Click [Settings] on the menu bar, and click [User Settings].

2) Click the [Source] tree, and click [Partial Transfer].

3) Select [Target Clip], and check the required items in [Auto Transfer].

[Target Clip]	Select the source to be partially transferred. When [Only from Removable Media] is selected, only clips directly referencing files on the device are targeted for partial transfer. When [From Removable Media and Hard Drive] is selected, clips referencing files on the storage are also targeted for partial transfer, in addition to the clips directly referencing files on the device. When [Exclude Project Folder Drive] is unchecked, clips under the project folder are also targeted for partial transfer.
[Auto Transfer]	**[When Added to the Timeline from Player]** Check this item to execute partial transfer when the clip displayed on the Player has been placed on the timeline. **[When Added to the Bin from Player]** Checking this item executes partial transfer when the clip displayed on the Player has been added to the bin.
[Margin]	Set the margin to add.

4) Click [OK].

5) Display the file in the device on the Player, and set the In and Out points.

6) Operate the buttons to add the clip to the timeline/bin.

- Partial transfer is executed automatically according to the settings made above.
- Partially transferred files are saved in the “Transferred” folder under the project folder.

Note

- Partial transfer is not executed automatically when a source has been dragged and dropped from the Player onto the timeline or bin.
- When a source in BD is added to the timeline or bin, partial transfer sometimes is automatically executed with chapters taken as the In and Out points even if the In and Out points have not been set on the Player.

Transferring Only Necessary Parts

If there are clips that are directly referencing the files in a device, only parts currently in use can be batch-copied to the storage.

1) Click [File] on the menu bar, and click [Partial Transfer] → an item.

- Partial transfer is started in the background, and the transferred file is saved under the project folder.
- To cancel a partial transfer, select and right-click the job in the [Background Job] dialog box, and click [Stop] or [Stop All].
  “[Background Job] Dialog Box” (▶ page 178)

- In the case of sources that are incompatible with partial transfer, a message is displayed so that you can select whether to transfer the entire source.
- When a clip after partial transfer has become an offline clip, [Transfer the Missing Area] or [Undo transfer] can be selected from the [Restoration Method] list in the [Restore and Transfer Clips] dialog box.
- When a clip partially transferred with EDIUS 5 is in use, it can be returned to its original clip.
  Right-click the partially transferred clip, and click [Replace Partially Downloaded Clip with Original Clip]. When a clip directly referencing a file on a device has been partially transferred, the link destination is returned to the file on the device from the file after transfer.

Registering Asset Managed in Mync to the Bin as Clip

An asset managed in the library of Mync can be registered as a clip to a specified folder of the bin.
For more information on how to register a clip, see “Interaction with Mync”.

“Interaction with Mync” (▶ page 189)

Note

- Interaction with Mync is supported only for Mync that comes with EDIUS.

Playing Back Sources

Playing Back and Checking Source

Playback with Player Operation Buttons

You can play back or move sources in individual frame units using the operation buttons on the Player.

"Playing Back with Recorder Operation Buttons" (▶ page 290)
"Operation Button Settings" (▶ page 146)

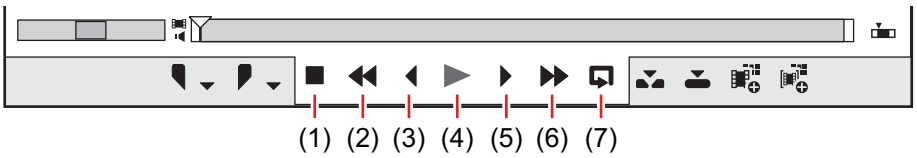
1) Click [Play] on the Player.

- Playback starts on the Player.

2) Click [Stop] on the Player.

- Playback stops.

Player Operation Buttons



(1)	**[Stop]**	Stop playback. **[K], [Shift] + [↓]**
(2)	**[Review]**	Rewind a source. Each click switches the playback speed in the reverse direction between 4 times and 12 times. **[J]**[*1]
(3)	**[Previous Frame]**	Each click rewinds one frame at a time in the reverse direction. Keeping this button clicked plays back the source at the normal speed in the reverse direction. **[←]**
(4)	**[Play]**	Play back the source in the forward direction. When this button is clicked during playback, playback pauses. Click again to restart playback. **[Enter], [Space]**
(5)	**[Next Frame]**	Each click forwards one frame at a time in the forward direction. Keeping this button clicked plays back the source at the normal speed in the forward direction. **[→]**
(6)	**[Fast Forward]**	Fast forward playback. Each click switches the fast forward playback speed between 4 times and 12 times. **[L]**[*2]
(7)	**[Loop]**	Repeatedly play back between In and Out points. If no In point is set, the source is repeatedly played back from the beginning, or if no Out point is set, the source is repeatedly played back to the end. If In and Out points have been set for audio, the source is played from the first In point to the last Out point, including the In and Out points for video. **[Ctrl] + [Space]**

*1 Each press of [J] on the keyboard switches the rewind speed in 6 levels between 2 to 32 times. Press [L] to slow down the rewind speed. Press this key with the source paused to play back at the same speed in the reverse direction.
*2 Each press of [L] on the keyboard switches the fast-forward speed in 6 levels between 2 to 32 times. Press [J] to slow down the fast-forward speed. Press it while pausing to play back at the same speed in the forward direction.

Playing Back with Shuttle/Slider

You can play back a source by dragging the shuttle or slider on the Player.

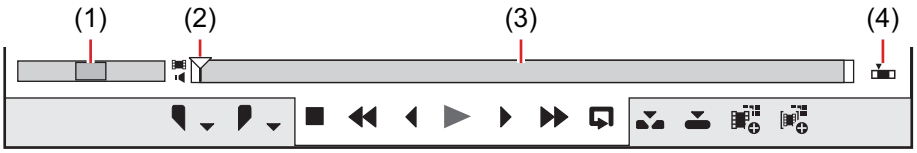
Note

- Sources that have not been captured cannot be played back by the slider.

1) Drag the shuttle/slider.

- A frame at the slider position is displayed on the Player.

Shuttle/Slider



(1)	**Shuttle**	Drag the shuttle to the left and right to play back in the reverse and forward directions, respectively. Release dragging to return the shuttle to the center and pause playback. The playback speed can be selected in 21 levels both in the forward and reverse directions, from 1/20 to 16 times.
(2)	**Slider**	Click any position on the position bar to move the slider and display the frame for that position. You can also drag the slider.
(3)	**Position bar**	Displays the timeline of the source displayed on the Player.
(4)	**[Switch Display Range]**	Switch the display range on the Player between In and Out points only or the entire source.

Alternative

- Shuttle (fast forward): **[Ctrl] + [L]**
  Each press of [Ctrl] + [L] on the keyboard switches the fast-forward speed in 12 levels from 1/16 to 32 times. Press [Ctrl] + [J] on the keyboard to slow down.
- Shuttle (rewind): **[Ctrl] + [J]**
  Each press of [Ctrl] + [J] on the keyboard switches the rewind speed in 12 levels from 1/16 to 32 times. Press [Ctrl] + [L] on the keyboard to slow down.

Playing Back with Mouse (Mouse Gesture)

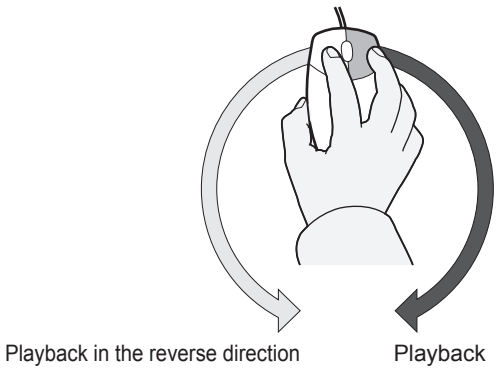
You can play back a source by moving the mouse on the Player.

Note

- Sources displayed in the deck mode cannot be played back with mouse operations.

1) Position the mouse cursor on the Player, and move the mouse as if to draw a circle, with the right mouse button clicked.

- Draw the circle clockwise to playback in the forward direction, and counterclockwise in the reverse direction. The playback speed changes in proportion to the speed of the mouse action.



Alternative

- Place the mouse cursor on the Player, and rotate the mouse wheel.

Displaying Clips on the Player

Display clips registered to the bin or clips displayed in the source browser on the Player.

Note

- Clips displayed in the source browser sometimes cannot be displayed on the Player depending on the external device or state of the clip.

Example:

To display a source in the source browser on the Player

1) Right-click on a clip in the clip view of the source browser, and click [Show in Player].

- A preview image will be displayed on the Player.

Alternative

- Select a clip, and click [Show in Player]. (Source browser only)
- Drag a clip, and drop it onto the Player screen.
- Double-click a clip.
- Select a clip, and press [Enter].

2) Click [Play] on the Player.

- **"Playback with Player Operation Buttons" (▶ page 182)**

Setting the In and Out Points on the Source

The following explains how to set In and Out points to sources.

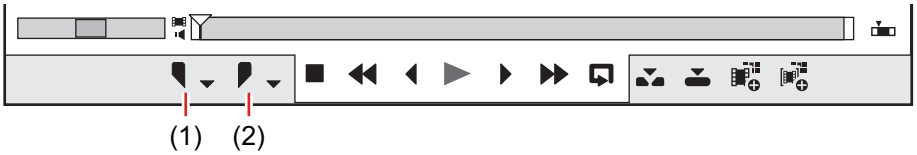
- The In/Out points set to assets on Mync can be used on EDIUS as they are.

Note

- Operations other than setting and deleting the In and Out points cannot be performed on sources that have not been captured.

Setting the In and Out Points

Specify the In (start) and Out (end) points of the source. If the In and Out parts are specified in advance, only the part between those points can be captured or placed on the timeline.



(1)	**Set the In point**
(2)	**Set the Out point**

1) Play back the source, and click [Set In Point] on the Player at the frame to set as the In point.

2) Continue to play back the source, and click [Set Out Point] on the Player at the frame to set as the Out point.

Alternative

- Click [Marker] on the menu bar, and click [Set In Point] or [Set Out Point].
- Right-click the slider on the Player, and click [Set In Point] or [Set Out Point].
- Click the timecode at [In] or [Out] on the Player, and enter the desired numerical value.
- To set the In and Out points at the clip marker position, right-click the clip marker on the position bar on the Player, and click [Set In Point] or [Set Out Point].

- Setting the In point: **[I]**
- Setting the Out point: **[O]**

- In the case of a clip registered to the bin or a clip displayed on the Player from the source browser, the positions of the In and Out points can be changed by dragging the In and Out sliders.

- When the Out point has been set before the In point, the position bar between In and Out points changes color to red and a part of the timecode on the Player is displayed in red.
- The duration can be changed based on the set In and Out points. Click the timecode at [Dur] on the Player, and enter the desired numerical value.
- If the In or Out point of the clip registered to the bin is added, changed or deleted, that operation will be automatically reflected on the clip in the bin. To leave behind the information of a clip before it is edited, register that clip to the bin as a different clip in advance.
  "Registering between In and Out Points to the Bin As a Separate Clip (Subclip)" (▶ page 188)
- From [User Settings] → [Application] → [Timeline], you can set whether the frame displayed in the preview window is to be included in the range of In and Out points.
  "[Timeline]" (▶ page 120)

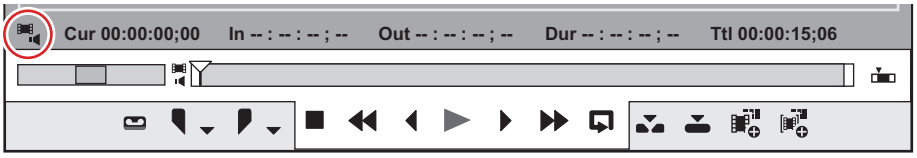
In/Out Point Settings for Video/Audio

Set In and Out points separately for video parts and audio parts of a video clip with audio.

Note

- In and Out points cannot be set separately to video and audio of sources that have not been captured.

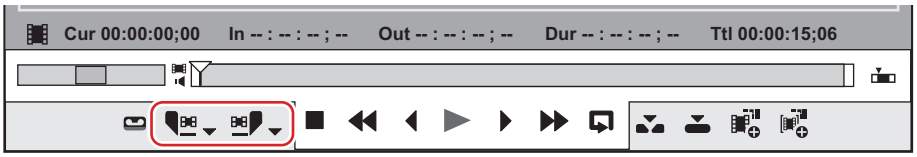
1) Click the video/audio mark on the timecode.



- Each click switches the video/audio mark display between on and off. Display the mark of the part you want to set In and Out points.

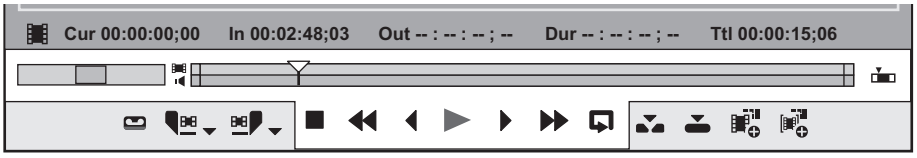
Example:

To set In and Out points to video



- [Set In Point] ([Set Out Point]) on the Player changes to [Set Video In] ([Set Audio In Point]) or [Set Video Out Point] ([Set Audio Out Point]).
  - (): Setting the In point of video (audio)
  - (): Setting the Out point of video (audio)

2) Play back the clip, and click [Set Video In] ([Set Audio In Point]) on the Player at the frame to set as the In point.



- The position bar is horizontally divided into two levels. The upper level is the video part, and the lower level is the audio part.

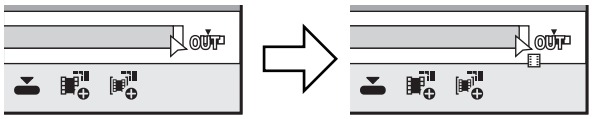
3) Continue to play back the source, and click [Set Video Out Point] ([Set Audio Out Point]) on the Player at the frame to set as the Out point.

Alternative

- Click the [Set In Point] ([Set Out Point]) list button on the Player at the frame to set as the In point, and click [Set Video In] ([Set Audio In Point]). Click [Set Video Out Point] ([Set Audio Out Point]) at the frame to set as the Out point.
- Click [Marker] on the menu bar, and click [Set Audio In Point] or [Set Audio Out Point].
- Right-click the slider on the Player, and click [Set Video In] ([Set Audio In Point]) or [Set Video Out Point] ([Set Audio Out Point]).
- Setting In/Out points for audio: **[U]/[P]**
- To set the In and Out points for video or audio at the clip marker position, right-click the clip marker on the position bar on the Player, and click [Set Video In] ([Set Audio In Point]) or [Set Video Out Point] ([Set Audio Out Point]).

- The video (audio) In and Out points can be adjusted by dragging the In slider or Out slider of the video (audio) part. If the slider for the video part has been dragged, the following is displayed.

- Place the mouse cursor on the left or right edge of the position bar, and the mouse cursor changes shape. Click at that position while holding down [Ctrl], and the position bar is horizontally divided into 2 levels. If the slider for the video part has been dragged, the following is displayed.



- When In and Out points have been set only for the video part or the audio part, you can place only the video (audio) part on the track. When In and Out points have been set for both video and audio parts, you can place both of the clips on the timeline as a single clip.
- If the In and Out points of the video/audio of the clip registered to the bin is added, changed or deleted, that operation will be reflected automatically on the clip in the bin. To leave behind the information of a clip before it is edited, register that clip to the bin as a different clip in advance.
  "Registering between In and Out Points to the Bin As a Separate Clip (Subclip)" (▶ page 188)

Note

- When In and Out points have been set in the video (audio) part, information for the audio (video) part will not be recognized.

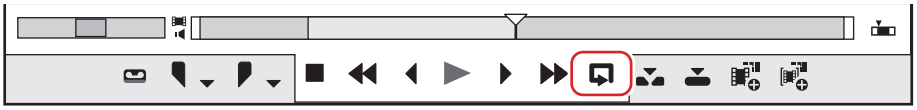
Playback between In and Out Points (Loop Playback)

Repeatedly play back between In and Out points of a clip. Playback starts from the current position of the slider.
"Playing Back with Shuttle/Slider" (▶ page 182)

Note

- Loop playback cannot be performed on sources displayed in the deck mode.

1) Click [Loop] on the Player.



- Playback starts from the current position of the slider.

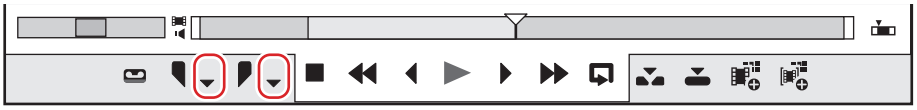
Alternative

- Playback between In and Out points: **[Ctrl] + [Space]**

Moving to In and Out Points

Move the slider on the position bar to the In (Out) point.
"Playing Back with Shuttle/Slider" (▶ page 182)

1) Click the [Set In Point] ([Set Out Point]) list button on the Player.



2) Click [Go to In Point] ([Go to Out Point]).

- To move to the In (Out) point of the video and audio parts, click [Go to Video In Point] ([Go to Video Out Point]) or [Go to Audio In Point] ([Go to Audio Out Point]).

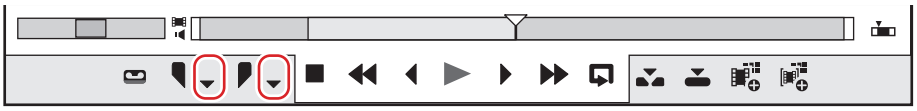
Alternative

- Click [Set In Point] ([Set Out Point]) with [Shift] on the keyboard held down. The same operation can be performed by [Go to Audio In Point] ([Set Video Out Point]) or [Set Audio In Point] ([Set Audio Out Point]).
- Right-click the slider on the Player, and click [Go to In Point] ([Go to Out Point]). To move to the In (Out) point of the video and audio parts, click [Go to Video In Point] ([Go to Video Out Point]) or [Go to Audio In Point] ([Go to Audio Out Point]).
- Moving to In point: **[Q]/[Shift] + [I]**
- Moving to Out point: **[W]/[Shift] + [O]**
- Moving to In point of audio part: **[Shift] + [U]**
- Moving to Out point of audio part: **[Shift] + [P]**

Deleting the In and Out Points

Delete the In (Out) point.

1) Click the [Set In Point] ([Set Out Point]) list button on the Player.



2) Click [Clear In Point] ([Clear Out Point]).

Alternative

- In the case of captured sources displayed in the file mode, move the slider to the In (Out) point, and click [Set In Point] ([Set Out Point]) with [Shift] on the keyboard held down. The same operation can be performed by [Set Video In] ([Set Video Out Point]) or [Set Audio In Point] ([Set Audio Out Point]).
- Right-click the slider on the Player, and click [Clear In Point] ([Clear Out Point]). To delete to the In (Out) point of the video and audio parts, click [Clear Video In Point] ([Clear Video Out Point]) or [Clear Audio In Point] ([Clear Audio Out Point]).
- Deleting In point: **[Alt] + [I]**
- Deleting Out point: **[Alt] + [O]**

Registering Clips Displayed on the Player to the Bin

Registering Clips on the Player to the Bin

Register clips displayed on the Player to the bin.

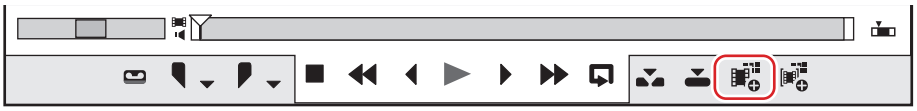
Note

- Sources displayed in the deck mode on the Player cannot be registered directly to the bin.
- When a clip displayed on the Player is registered to the bin from the source browser, the registered clip will directly reference the source on the device. When the source is transferred to the PC at the same time that it is registered to the bin, perform [Add and Transfer to Bin] from the source browser, or partially transfer the source.
  "Importing Source Browser File by Copying" (▶ page 169)
  "Automatic Partial Transfer at Addition to the Timeline/Registration to the Bin" (▶ page 179)

1) Display clips on the Player.

- **"Displaying Clips on the Player" (▶ page 183)**
- Set the In and Out points, if necessary.

2) Click [Add Clip on Player to Bin] on the Player.



Alternative

- Right-drag and drop the clip on the Player onto the bin, and click [Add clip(s)].
- Adding clips on the Player to the bin: **[Shift] + [Ctrl] + [B]**

Registering between In and Out Points to the Bin As a Separate Clip (Subclip)

The range between In and Out points set to the clip can be copied as a subclip and registered to the bin.
Subclips reference the same source as the original clip (master clip).

Note

- Subclips cannot be created from the sources displayed in the deck mode.
- Subclips cannot be created from clips to which In and Out points have been set separately for the video part or audio part of a video clip with audio.

1) Display the clip on the Player, and set the In and Out points.

- **"Setting the In and Out Points" (▶ page 184)**

2) Click [Add Subclip to Bin] on the Player.

- The subclip is created in the name format "original clip name-sub 4-digit sequential number", and is registered to the bin.

Alternative

- Right-drag and drop the clip on the Player onto the bin, and click [Add subclip(s)].

- The master clip also will be registered to the bin if the subclip has been created with the clip displayed directly on the Player from the source browser without being registered to the bin.
- Set the margins to add when creating subclips by [Source] in [User Settings] → [Automatic Correction].
  "[Automatic Correction]" (▶ page 127)
- To release a subclip and return it to the master clip, right-click the subclip registered to the bin, and click [Change to Master Clip].

Chapter 6

Interaction with Mync

This chapter explains the interaction with Mync.

Using Assets on EDIUS from [Mync] Window

You can use assets managed in the library of Mync on EDIUS.
The [Mync] window of EDIUS shows the contents in the [Management] tab of Mync as they are. The contents in the [Mync] window and the [Management] tab of Mync are always synchronized.
On the [Mync] window, you can view assets and catalogs/smart catalogs in the same way as when you use Mync, and assets can be registered to the bin or placed on the timeline directly by dragging and dropping.

- The [Mync] window of EDIUS and the [Management] tab of Mync have the same functions, with some exceptions. The following functions are not supported in the [Mync] window:
  - Displaying the preview pane
  - Selecting a display style of the thumbnail pane
  - Some menu items which are displayed by right-clicking on an asset/clip, etc.
- Using the [Mync] window, you can convert asset/clip files. For more information on how to convert files, see the manual of Mync.
- The source settings information of assets set with Mync (In/Out points, marker, and display color of asset, etc.) can be used on EDIUS as they are.
- When an original asset is edited on Mync, in such ways as changing display color or adding markers, the changes will also be reflected in the clips in the bins of all the projects.
  However, if the clip properties are edited in the bin of EDIUS, the changes will not be reflected in the assets managed on Mync.

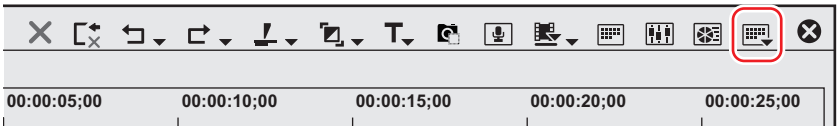
Note

- Interaction with Mync is supported only for Mync that comes with EDIUS.

Showing/Hiding the [Mync] Window

You can switch the show/hide setting for the [Mync] window.

1) Click [Toggle Window Display] of the timeline.



2) Click [Mync].

- The [Mync] window is displayed.

Alternative

- Click [View] on the menu bar, and click [Window] → [Mync].
- Click [View] on the menu bar, and click [Window] → [Show All] or [Hide All], to show/hide all the tab windows at one time.
- Showing/hiding the tab window: **[H]**
  "Showing/Hiding [Information] Palette" (▶ page 375)
  "Showing/Hiding [Effect] Palette" (▶ page 335)
  "Displaying the [Clip Marker] List" (▶ page 276)
  "Displaying the [Sequence Marker] List" (▶ page 283)
  "Showing/Hiding the [Job] Window" (▶ page 330)

- When the show/hide setting for the [Mync] window is switched, the show/hide setting for the tabs of the bin window, source browser window, and tab windows combined with the [Mync] window is also switched. To switch the show/hide setting separately, release the association of the window or tab windows.
  "Combining Tab Windows with Bin Window/Source Browser Window" (▶ page 144)

Registering Assets of Mync to Bin

An asset in the [Mync] window can be registered as a clip to a specified folder of the bin of EDIUS.

1) Start up EDIUS and create a project.

2) Display the bin window, and select a folder in the folder view.

- Select a folder to register the asset.

3) Display the [Mync] window, and click [Library] on the sidebar.

- All the assets registered to Mync are displayed in the thumbnail pane of the [Mync] window.
- To register an asset managed in a catalog/smart catalog to the bin, select the target catalog/smart catalog.

4) Right-click on an asset, and click [Send to EDIUS Bin].

- The asset of Mync is registered as a clip to the selected folder of the bin.

- Clips in the bins of projects that are managed in [Projects] can also be registered to the selected bin of the current project, in the same way as assets.
- The asset selected in the thumbnail pane can be displayed on the Player of EDIUS. Right-click on an asset in the thumbnail pane, and click [Show in Player].

Placing Assets of Mync Directly on the Timeline

Assets in the [Mync] window can be placed directly on the timeline of EDIUS.

1) Start up EDIUS and create a project.

2) Display the [Mync] window, and click [Library] on the sidebar.

- All the assets registered to Mync are displayed in the thumbnail pane of the [Mync] window.
- To place an asset managed in a catalog/smart catalog onto the timeline, select the target catalog/smart catalog.

3) Drag an asset and drop it onto the timeline.

- A clip is placed on the position where the asset is dropped, and channels are mapped to the desired tracks.

- Clips in the bins of projects that are managed in [Projects] can also be placed onto the timeline of the current project, in the same way as assets.

Using EDIUS from Mync

You can operate Mync to register assets managed in the library to the bin of EDIUS, or create new EDIUS projects. Also, you can open existing projects on EDIUS.

- The source settings information of assets set with Mync (In/Out points, marker, and display color of asset, etc.) can be used on EDIUS as they are.
- When an original asset is edited on Mync, in such ways as changing display color or adding markers, the changes will also be reflected in the clips in the bins of all the projects.
  However, if the clip properties are edited in the bin of EDIUS, the changes will not be reflected in the assets managed on Mync.
- For more information on how to operate Mync, see the manual of Mync.

Note

- Interaction with Mync is supported only for Mync that comes with EDIUS.

Registering Assets to Bin

An asset of Mync can be registered as a clip to a specified folder of the bin of EDIUS.

- This function can be used only when EDIUS is running.

1) Start up EDIUS and create a project.

2) Display the bin window, and select a folder in the folder view.

- Select a folder to register the asset.

3) On Mync, click on the [Management] tab.

- The display of the sidebar and thumbnail pane will be switched.

4) Click [Library] on the sidebar.

- All the assets registered to Mync are displayed in the thumbnail pane.
- To register an asset managed in a catalog/smart catalog to the bin, select the target catalog/smart catalog.

5) Right-click on an asset, and click [Send to EDIUS Bin].

- The asset of Mync is registered as a clip to the selected folder of the bin.

- Clips in the bins of projects that are managed in [Projects] can also be registered to the selected bin of the current project, in the same way as assets.
- The asset selected in the thumbnail pane can be displayed on the Player of EDIUS. Right-click on an asset in the thumbnail pane, and click [Show in Player].

Creating EDIUS Projects

You can select an asset in the library and edit it on EDIUS. On EDIUS, a project is created in accordance with the file format of the selected asset.

- This function cannot be used when EDIUS is running.

1) On Mync, click on the [Management] tab.

- The display of the sidebar and thumbnail pane will be switched.

2) Click [Library] on the sidebar.

- All the assets registered to Mync are displayed in the thumbnail pane.

- To create a project from an asset managed in a catalog/smart catalog, select the target catalog/smart catalog.

3) Right-click on an asset, and click [Edit with EDIUS].

- The [Create EDIUS Project] dialog box appears.

4) Enter a name of project, and click [OK].

- EDIUS is started and a project opens, which has been created in accordance with the file format of the asset.
- The selected asset is registered to the bin of the project.

Opening EDIUS Projects

You can select a project on Mync to open it with EDIUS.

- This function cannot be used when EDIUS is running.

1) On Mync, click on the [Management] tab.

- The display of the sidebar and thumbnail pane will be switched.

2) Click [Projects] on the sidebar.

- EDIUS projects are displayed in the thumbnail pane.

3) Right-click on a project in the thumbnail pane, and click [Open with EDIUS].

- EDIUS is started, and the selected project opens.

- To delete a project managed on Mync, perform the following procedures.
  - Click [Projects] on the sidebar, right-click on a project to delete in the thumbnail pane, and then click [Remove from library].
  - Right-click on a project folder to delete on the sidebar, click [×Delete], and then click [OK].

Chapter 7

Managing Sources

This chapter explains the operations to manage imported sources in the bin.

Bin

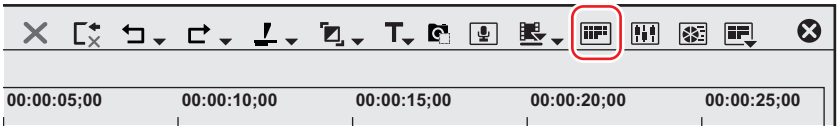
Clips are registered to the bin for management.
The following explains how the bin window is displayed and the types of clips that can be registered.

Showing/Hiding the Bin Window

Switch the show/hide setting for the bin window.

1) Click [Toggle Bin Window Display] on the timeline.

- Each click of [Toggle Bin Window Display] switches the show/hide setting.



Alternative

- Click [View] on the menu bar, and click [Bin].
- Showing/hiding the bin window: **[B]**

- When the show/hide setting for the bin window is switched, the show/hide setting for the tabs of the source browser window and the tab windows combined with the bin window is also switched. To switch the show/hide setting separately, release the association of the window or tab windows.
  "Combining Tab Windows with Bin Window/Source Browser Window" (▶ page 144)

Types of Registerable Clips

The following shows the clips that can be registered to the bin.

Clips

The following types of clips can be registered to the bin:

- Video clips
- Video subclips
- Still image clips
- Audio clips
- Audio subclips
- Color bar clips
- Color matte clips
- Title clips (clips created with title authoring software)
- Timeline sequence clips
- Sequence clips
- Caption clips

- A caption clip can be placed on the timeline and handled in the same way as other clips.
- A closed caption file with multiple streams will become a single caption clip after being registered to the bin.

Clip Display

This section describes the clip display on the bin.

- In this section, a screen example when the clip view display of the bin is set to [Clip] is used.

(1)	**Clip type**	: Video clip : Video subclip : Still image clip : Audio clip : Audio subclip : Color bar clip, color matte clip : Title clip : Timeline sequence clip : Sequence clip : Caption clip
(2)	**Poster frame/thumbnail display**	Displays a representative image of clip or thumbnail.

- When a title file has already been created, double-click on a blank area in the clip view of the bin to display the [Open] dialog box, and open the file. When no title file has been prepared, create a title file.
  "Creating a New Title" (▶ page 386)

Settings of Clips

Joining Multiple Video Clips All Together as a Single Clip

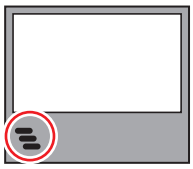
This section explains how to group multiple clips all together and set them as a single sequence clip, and how to ungroup single sequence clips.

Joining Multiple Clips (Set as Sequence)

Join multiple video clips all together as a single sequence clip.

1) Select and right-click the multiple clips in the bin, and click [Set as Sequence].

- The created clip is registered in the bin as a sequence clip.
- Clips set as a sequence take the name of the first joined clip as its clip name.



- **"Registering Consecutive Still Images" (▶ page 165)**

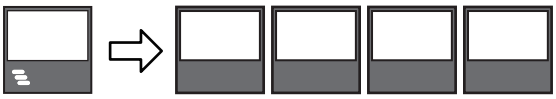
- Clips are joined in the sorting order of the bin.
- Clips are joined with the In and Out point settings of the video part held by the original clip intact.

Note

- Conditions for setting as a sequence are as follows:
  - The clip type, image size and aspect ratio of all clips must be matching.
  - For video, the field order and frame rate of all clips must be matching.
  - For audio, the sampling rate, quantization bitrate and number of channels of all clips must be matching.

Canceling a Set Sequence

Cancel joining of a sequence clip.



1) Right-click a sequence clip in the bin, and click [Cancel Sequence].

- After the sequence is canceled, the clip name returns to the one before the clips are joined.

- The In and Out point settings that were held by the clips before they were joined as a sequence are restored.

Changing Clip Information and Content

This section explains how to check the information of the clip and change settings.

Editing Properties

Change the frame rate or specify the start timecode of a clip using the [Clip Properties] dialog box or in the properties view.

Editing Properties in [Properties] Dialog Box

Display the [Properties] dialog box and edit the properties.

1) Right-click a clip in the bin, and click [Properties].

- The [Clip Properties] dialog box appears.
  "[Clip Properties] Dialog Box" (▶ page 198)

Alternative

- Displaying properties: **[Alt] + [Enter]**

2) Edit the settings, and click [OK].

- The properties of a clip placed on the timeline can be displayed. Right-click on a clip on the timeline, and click [Properties].

■ [Clip Properties] Dialog Box

The displayed tab varies according to the type of clip.

[File] tab	Check type, data size and other details of files. You can also rename clips, rename reels, enter comments, and change the clip display color.
[Video] tab	Check the start TC (timecode), end TC or image size. You can also change the start TC, poster frame, aspect ratio, color space, color correspondence range, field order, and frame rate. To return the settings to their state at capture, click [Back to Default Settings].
[Audio] tab	Check the start and end TCs, or re-acquire wave information (waveform representation of audio). For clips placed on the timeline, you can set playback methods for the clips. The setting items will differ depending on the number of audio channels that the selected clip has.
[Still image] tab	Check the format or image size. You can also change duration, aspect ratio, color space, and color correspondence range.
[Extended] tab	Check the expansion information of a file or clip. The details displayed differ depending on the clip type.
[Captions] tab	Check [Use Caption data] to use the caption information. If a closed caption file has been merged to the file, the saving destination of the currently referenced file can also be confirmed.

- In [Color Space] in the [Video] tab, color spaces of clips are automatically recognized and displayed.
  If the color space of a clip is not recognized automatically, you can change it manually by clicking the list button of [Color Space] in the [Video] tab.

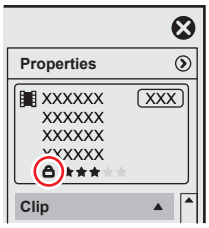
Editing Properties in Properties View

You can edit properties in the properties view of the bin.
"Bin Window" (▶ page 38)

1) Select a clip in the bin.

- You can select multiple clips.

2) Click [Edit Properties] in the properties view.



- The properties view is unlocked, and editing is enabled.

3) Click [Clip] in the properties view.

- The properties of [Clip] are displayed.

4) Edit properties.

5) Click [Edit Properties] in the properties view.

- Editing of the properties view is locked.

Checking Clip Save Destinations

Display the save destination folder for the clip.

1) Right-click a clip in the bin, and click [Explorer].

- Explorer starts up, and the save destination folder for the clip is displayed.

Opening Files with Software

You can open a file with application software associated to the file, for example, by opening *.psd files in Photoshop.

1) Right-click a clip in the bin, and click [Open].

- Open the file with the application software associated to the file.

- You can open a clip placed on the timeline by the associated application software by the following operation:
  - Right-click a clip placed on the timeline, and click [Open].
  - Click a clip placed on the timeline, and click [Clip] on the menu bar → [Open].
  - Opening clips placed on the timeline: **[Shift] + [Ctrl] + [P]**

Managing Clips

Operations in the Clip View

This section explains how to manage clips in the clip view, for example, by copying and pasting the selected clip.
"Clip View Display" (▶ page 153)

Selecting Clips

Select a clip in the clip view. The selected clip changes color.

1) Click on a clip in the clip view of the bin.

- To select multiple clips, drag the mouse to enclose the desired clips.

- Click a clip with [Ctrl] held down on the keyboard to add or release selected clips one at a time. You can select a range of clips in a single operation by clicking the topmost clip of the range with [Shift] on the keyboard held down and then clicking the bottommost clip of the range.
- Right-click any clip and a menu will appear so that you can perform various operations on the clip. This menu appears in the same way when multiple clips are enclosed by dragging with the right mouse button so that operations can be batch-performed on the clips selected in that range.

Copying Clips

Copy clips.

1) Right-click a clip in the bin, and click [Copy].

- You can then paste it.

Alternative

- Copying clips: **[Ctrl] + [C], [Ctrl] + [Insert]**

Cutting Clips

Cut clips. Cut clips are deleted from the bin.

1) Right-click a clip in the bin, and click [Cut].

- You can then paste it.

Alternative

- Cutting clips: **[Ctrl] + [X]/[Shift] + [Delete]**

Pasting Clips

Paste copied or cut clips.

1) Right-click a clip in the bin, and click [Copy].

- Clips can also be pasted by clicking [Cut].
  "Copying Clips" (▶ page 200)
  "Cutting Clips" (▶ page 200)

2) Right-click on a blank area in the clip view, and click [Paste].

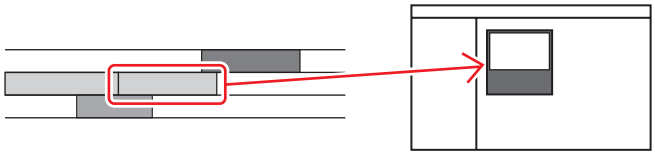
- To paste to another folder, select a folder and then click [Paste].

Alternative

- Right-click a clip and click [Paste].
- Pasting a clip: **[Ctrl] + [V]**

Registering from Timeline

Register clips placed on the track to the bin.



1) In the folder view of the bin, select a folder to register the clip.

2) On the timeline, right-click the clip to register, and click [Add to Bin].

- The clip is added to the bin.
- When video and audio clips have been placed separately on the V and A tracks, respectively, all clips linked to the right-clicked clip are added to the bin as separate clips. To add only the right-clicked clip to the bin, cancel the link and then perform the desired operation on the clip.
  "Group/Link Mode" (▶ page 217)
  "Handling Only the Video Part or Audio Part of Clips Separately" (▶ page 234)

Alternative

- Drag and drop clips to the bin.
- Select the clip, click [Clip] on the menu bar, and click [Add to Bin].
- Double-click a clip to display on the Player, and drag and drop the clip from the Player to the bin.
- Double-click the clip to display on the Player, and click [Add Clip on Player to Bin] on the Player.
- Adding clips on the timeline to the bin: **[Shift] + [B]**

Deregistering Clips

1) Right-click a clip in the bin, and click [Delete].

Alternative

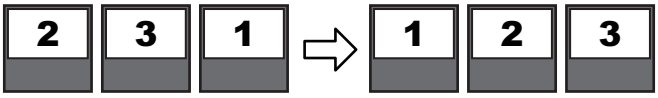
- Deregistering clips: **[Delete]**

Note

- Once you have deregistered clips, you cannot restore them (cannot undo deregistration).
- Source files are not deleted even by deregistering clips from the bin.

Sorting Clips

Sort clips in the clip view of the bin.



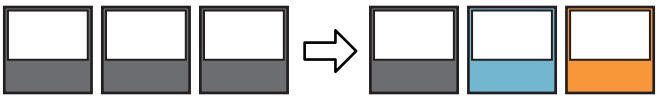
1) In the clip view of the bin, drag and drop a clip into the destination.

Alternative

- When the clip view display is set to [Detail] or [Icon], each click on an item switches between ascending and descending order.
  "Clip View Display" (▶ page 153)

Color-coding Clips

Color-code clips displayed in the bin to classify them.



1) Perform steps 1) to 3) in "Editing Properties in Properties View".

- **"Editing Properties in Properties View" (▶ page 198)**

2) Select the display color in [Clip Color].

- The color of the clip is changed. The color selected for [Clip Color] is marked with a white circle.

3) Click [Edit Properties] in the properties view.

- Editing of the properties view is locked.

Alternative

- Click [File] in the [Clip Properties] dialog box. Select the display color from the [Clip color] list.
  "[Clip Properties] Dialog Box" (▶ page 198)

Transferring to the Project Folder

The following explains how to transfer files referenced by clips in the bin to the project folder.

Note

- The following clips cannot be transferred to the project folder:
  - Non file-based clips such as color bar clips or color matte clips
  - Clips with an importer that does not support file transfer
  - Clips already transferred to the project folder

1) Select and right-click the clip, and click [Transfer to Project Folder].

- You can select multiple clips.
- Data transfer to the project folder is started in the background.
  "Checking the Progress of Background Jobs" (▶ page 177)
- The clip in the bin now references the file transferred to the project folder.

Transferring High-resolution Data

You can transfer high-resolution data of clips containing only proxy data to the project folder.

Note

- The high-resolution data of the following clips cannot be transferred:
  - Clips other than video clips
  - Clips already containing high-resolution data

1) Select and right-click a clip, and click [Transfer HiRes].

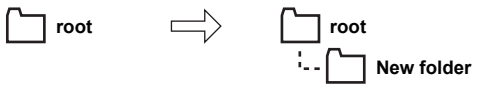
- You can select multiple clips.
- Data transfer to the project folder is started in the background.
  "Checking the Progress of Background Jobs" (▶ page 177)
- The clip in the bin now references the file transferred to the project folder.

Operations in the Folder View

You can register clips for individual folders to classify them. Folders can be added under the [root] folder in a hierarchical structure.
"Showing/Hiding Folder View and Properties View" (▶ page 153)

- The [root] folder cannot be moved or copied.
- Folders independent from the [root] folder cannot be created.

Creating a Folder

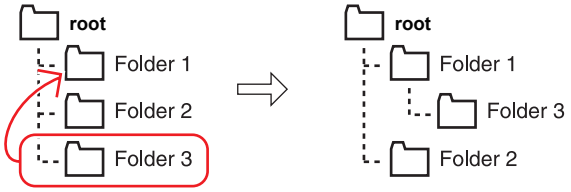


1) Right-click the folder in the folder view, and click [New Folder].

- A new folder is created on the layer under the selected folder.

2) Enter the folder name.

Moving Folders



1) Drag a folder, and drop it onto the destination folder.

- The [root] folder cannot be moved.

Renaming Folders

Rename a folder.

1) Right-click on the folder to rename in the folder view, and click [Rename].

Alternative

- Select a folder, and click on the folder name.

2) Enter a name.

Deleting Folders

Delete a folder.

1) Right-click on the folder to delete in the folder view, and click [Delete].

- A dialog box appears to confirm the deletion.

2) Click [Yes].

- When the [root] folder has been right-clicked and [Delete All] has been clicked, all clips and folders in the [root] folder are deregistered.

Note

- Once you delete a folder, you cannot restore it (cannot undo deletion).
- When a folder is deleted, all clips in that folder and sub folders are also deregistered.

Switching the Display Folder

Switch the folder to be displayed.

1) Select a folder to display in the folder view.

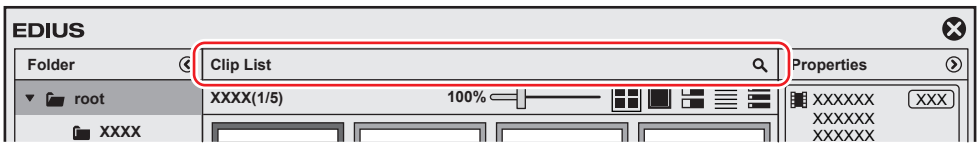
- When the folder view is hidden, click [↑]/[↓]/[←]/[→] displayed on the left of the bin window to move between folders.

Searching for Clips Registered to the Bin

Set the search conditions and search for the clips registered to the bin.
When you execute a search, a search result folder is created in [Search] of the folder view, in which you can view the clips that match the search conditions.

1) Select the search target folder in the folder view.

2) Click [Clip List].



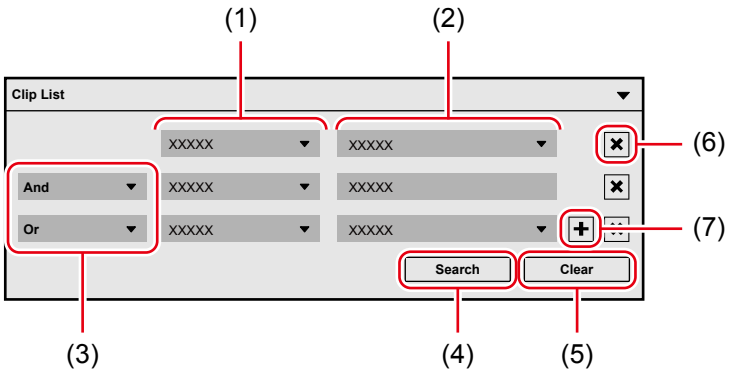
- The search settings pane is displayed.
  "Search Settings Pane" (▶ page 204)

3) Set the search conditions, and click [Search].

- Clips that match the search conditions will be displayed in the clip view.
  At the same time, a search result folder is created in [Search] of the folder view. The search result folder contains setting of search conditions. Therefore, when new clips that match the search conditions are registered to the bin, they are automatically registered to the search result folder.

- The search conditions set on the search result folder can be edited. Select the search result folder, edit the search conditions in the search settings pane, and then click [Update].
- Folders in [Search] can be resorted or moved between layers of hierarchy.
  Drag a folder you want to move and drop it onto the destination.
- To change the folder name, select the folder and click on the folder name again.
  Alternatively, you can change the folder name by right-clicking on the folder and then clicking [Rename].
- To close the search settings pane, click [Clip List] again.

Search Settings Pane



(1)	**Search category**	Click it to select a search category.
(2)	**Content of search**	Set content of search for each of the selected search category.
(3)	**[And]/[Or]**	Set the conditions in which multiple search conditions are satisfied.
(4)	**[Search]**	Click this item to execute a search according to the set search conditions.
(5)	**[Clear]**	Click this item to initialize the set search conditions.
(6)	**[×]**	Delete a search condition.
(7)	**[+]**	Add a search condition.

Deleting Search Results

Delete a search result folder that is no longer necessary.

1) Right-click on the search result folder to delete, and click [Clear].

- A dialog box appears to confirm the deletion.

2) Click [Yes].

- A deleted search result folder cannot be restored.

Note

- When a clip in a search result folder is deregistered individually, the clip is also deregistered from the [root] folder and its sub folders accordingly. You cannot restore them (cannot undo deregistration).

Chapter 8

Editing Operations

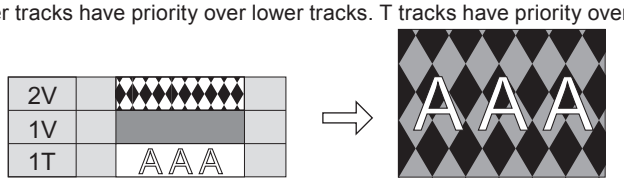
This chapter explains edit mode and track settings, and editing on the timeline.

Timeline Settings

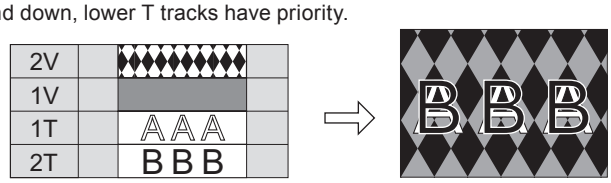
Tracks

You can add, delete, or move tracks. In addition, tracks can be muted or locked individually.
Tracks have several types, and the type of clips that can be placed on each type of track differ.
“Track Type” (▶ page 208)

- The priority in the order of display is determined by the up/down position or type of tracks.
  On video tracks (V/VA tracks), upper tracks have priority over lower tracks. T tracks have priority over video tracks (V/VA tracks).



If multiple T tracks are placed up and down, lower T tracks have priority.



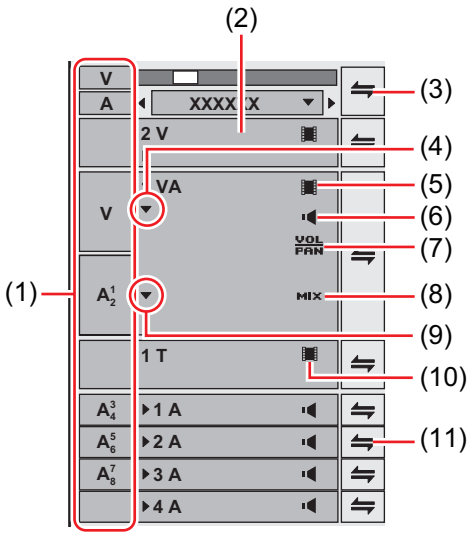
- Caption clips have priority to other clips in the order of display regardless of the up/down position or type of tracks where they have been placed.
- As to the clips with embedded closed caption data, the priority order for display is determined by the up/down position or type of tracks where they have been placed, in the same way as clips such as video clips.
  Note that the closed caption of a clip on a lower track may be prioritized in the order of display depending on the layouter settings of a clip on an upper track.

Track Display

The following explains the descriptions of the track header and the types of tracks.

Track Header

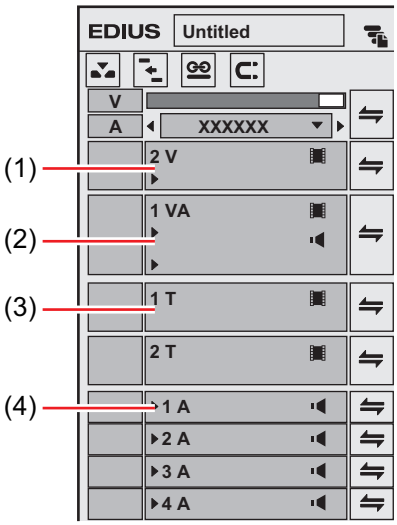
You can make settings for each track simply on the track header, for example, to lock the track for preventing placed clips from moving or to set the track to exclusively play back audio.
You can set the following items in the track header.



(1)	**Track patch**	When a clip is displayed on the Player, the audio source channels held by the clip are displayed on the track patch. When a clip in the source browser is selected, the source channels are displayed on the track patch according to the channel map of the project settings. The track patch position indicates which track the source channel is mapped to when a clip is placed on the timeline by a shortcut key or button. The source channel mapping to each track can be changed. **"Setting Channel Mapping" (▶ page 220)**
(2)	**Track panel**	Click this to switch the select/deselect setting for the track.
(3)	**Batch lock panel**	Click this to set sync-lock for all tracks on and off. **"Sync-lock (Synchronization)" (▶ page 215)** Right-click to lock the selected track. **"Locking Tracks" (▶ page 210)**
(4)	**Audio expand button**	Click this button to display the rubber band for the audio. **[Alt] + [S]**
(5)	**[Video Mute]**	When mute is set, the video part of the track is not played back. The video part and mixer area of the clip on a muted track is displayed in gray. **[Shift] + [W]**
(6)	**[Audio Mute]**	When mute is set, the audio part of that track is muted. The audio part and volume/pan part of the clip on a muted track is displayed in gray. **[Shift] + [S]**
(7)	**[Volume/Pan]**	Switch between the volume adjustment mode and the pan adjustment mode. **"Adjusting the Volume and Pan of a Clip" (▶ page 411)**
(8)	**[Mixer]**	Switch the transparency adjustment mode on/off. **"Transparency" (▶ page 369)**
(9)	**Mixer expand button**	Click this button to display the rubber band for the transparency. **[Alt] + [W]**
(10)	**[Title]**	Switch the show/hide setting for the title. The title is not played back when it is set as hidden. **[Shift] + [W]**
(11)	**Lock panel**	Click this to set sync-lock for a specific track on and off. **"Sync-lock (Synchronization)" (▶ page 215)** Right-click to lock the selected track. **"Locking Tracks" (▶ page 210)**

- Shortcut key operations are enabled on the selected track.

Track Type



(1)	**V track**	Place video, still image, title, color bar, color matte, and caption clip on this track. Video clips with audio are placed as video clips with the audio part disabled.
(2)	**VA track**	Place video, audio, still image, title, color bar, color matte, and caption clip on this track.
(3)	**T track**	Place video, still image, title, color bar, color matte, and caption clip on this track. Display priority is given to clips placed on the T track over V/VA tracks. Video clips with audio are placed as video clips with the audio part disabled.
(4)	**A track**	Place audio clip. Video clips with audio are placed as audio clips with the video part disabled.

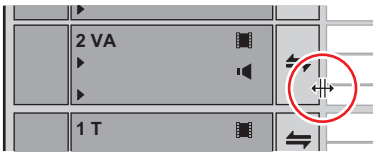
Customizing the Track Display

You can customize track width, height and track name.

Changing the Width of the Track Header

You can change the width of the track header.

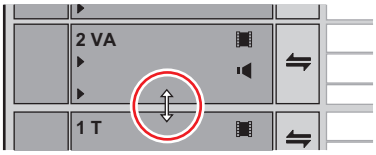
1) Move the mouse cursor to the right edge of the track header, and drag when the mouse cursor changes shape.



Changing the Track Height

You can change the height of the track. When the track is set higher, the thumbnails indicating clip frames are displayed larger.

1) Move the mouse cursor to the top or bottom edge of the track panel, and drag when the mouse cursor changes shape.



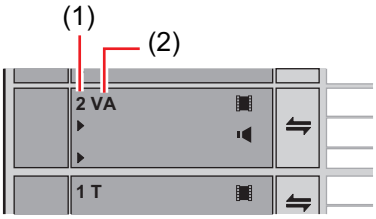
Alternative

- Right-click the track panel to change, and click [Height] → desired height.

- You can also change the height of multiple tracks in a single operation. Select and right-click multiple track panels, and click [Height (Selected Tracks)] → desired height.
- You can also adjust the height of all tracks in a single operation.
  Right-click the sequence tab, select [Track Height] and click the desired height.
  Newly added tracks from now on become the height set by this operation.

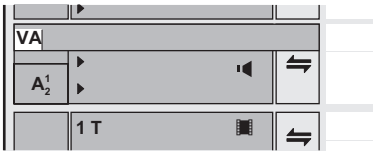
Renaming Tracks

You can rename tracks.



(1)	Track number
(2)	Track name

1) Right-click the track panel to change, click [Rename] and enter the new name.



- The sort order of the tracks is always displayed as the track number.
- Up to 30 characters can be used in the track name, and tracks with the same name also can be used. Track names that exceed the display range can be checked with the tooltip.
- When a track is copied, the name also is copied.
- The default track names are as follows:
  - Video track: V
  - Video/audio track: VA
  - Audio track: A
  - Title track: T

Track Operations

The following explains how to set and select tracks, and operations for changing numbers and moving tracks.

How to Set Tracks

The following content can be set in the [Project Settings] (Detailed Settings) dialog box.
You can also set the track settings for each sequence in the [Sequence settings] dialog box.

- TC preset
- TC mode
- Total length of timeline
- Number of tracks*
- Audio channel map

* The number of tracks cannot be set in the sequence settings.

To set a track when creating a new project, see “Creating a New Project (Detailed Settings)”, and to change settings when editing a track, see “Changing the Project Setting (Detailed Settings)”.

“Creating a New Project (Detailed Settings)” (▶ page 58)
“Changing the Project Setting (Detailed Settings)” (▶ page 67)

To change settings for each sequence, see “Sequence Settings”.

“Sequence Settings” (▶ page 68)

Selecting Tracks

Select the track to be edited.

1) Click the track panel.

- The selected track changes color.
- When selecting multiple tracks, selected tracks can be added or canceled one track at a time by clicking the track panel with [Ctrl] on the keyboard held down.
- You can select a range of tracks in a single operation by clicking the topmost track panel of the range with [Shift] on the keyboard held down and then clicking the bottommost track panel of the range.
- All tracks can be selected by double-clicking the track panel.

Alternative

- Selecting/deselecting tracks (1 to 8A): **[Shift] + [1] - [8]**
- Selecting/deselecting tracks (1 to 8VA/V): **[Shift] + [Ctrl] + [1] - [8]**
- Selecting/deselecting tracks (all audio tracks): **[Shift] + [9]**
- Selecting/deselecting tracks (all video tracks): **[Shift] + [Ctrl] + [9]**
- Selecting/deselecting tracks (all tracks): **[Shift] + [0], [Shift] + [Ctrl] + [0]**

Locking Tracks

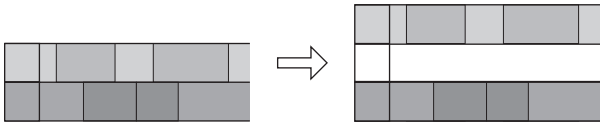
When a track is locked, the clip placed on the track can no longer be edited or moved.

1) Right-click the lock panel, and click [Track Lock].

- **“Track Header” (▶ page 207)**
- A diagonal line is displayed in locked tracks, and clips can no longer be edited, moved, or deleted. The ripple mode and sync-lock also are disabled.
- To unlock a track, right-click the lock panel, and click [Track Unlock].

- Multiple tracks can also be unlocked in a single operation. To unlock tracks, right-click the batch lock panel, and click [Lock Selected Tracks].

Adding Tracks



1) Right-click the track panel, and click [Add] → an item.

- **"Track Header" (▶ page 207)**

2) Enter the number of tracks to add.

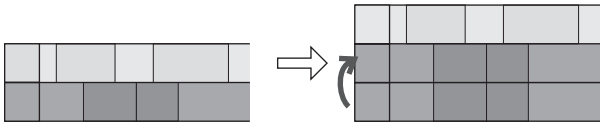
- To add VA tracks/A tracks, click [Channel map] and set the audio output channels of the additional tracks.
  "Configuring Audio Channel Map" (▶ page 63)

3) Click [OK].

Alternative

- Right-click a blank area of the track header, and select the track to add.

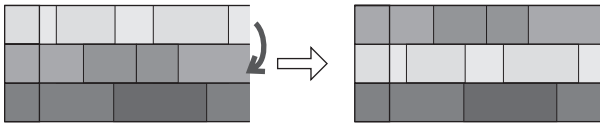
Duplicating Tracks



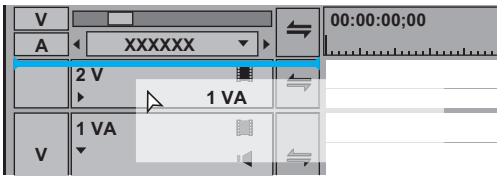
1) Right-click the track panel to duplicate, and click [Duplicate].

- **"Track Header" (▶ page 207)**
- The track is duplicated on top of the right-clicked track.

Moving Tracks



1) Click a track panel, and drag and drop onto the move destination.



Alternative

- Right-click the track panel to move, and click [Move] → [Move Front] or [Move Back].

- Tracks can be moved only between tracks of the same kind (video, audio, title track).
- Multiple tracks cannot be selected and moved.

Deleting Tracks

1) Right-click the track panel to delete, and click [Delete].

- **"Track Header" (▶ page 207)**
- Tracks on which clips are not placed are deleted at this time.

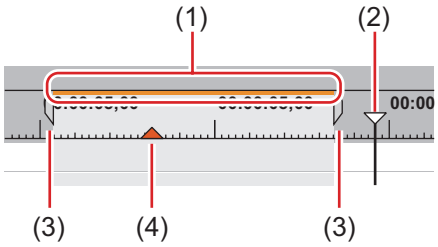
2) Click [OK].

- Multiple tracks can also be deleted in a single operation. Select and right-click the track, and click [Delete (Selected Tracks)].

Timeline Display

Marking the Time Scale

You can mark the time scale with the In and Out points for setting the range to apply operations in and sequence markers to serve as the reference for moving tracks, etc.

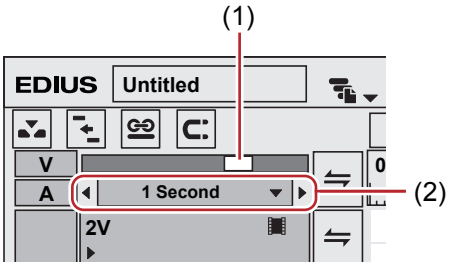


(1)	**Rendering options**	Display the required level of rendering for playing back the timeline in color by level. **"Color Coding of Time Scale" (▶ page 296)**
(2)	**Timeline cursor**	Move the timeline cursor by dragging to the left or right.
(3)	**In/Out points**	Indicate the In and Out points of the timeline. The range to apply operations in can be restricted between In and Out points. **"Setting the In and Out Points on the Timeline" (▶ page 222)**
(4)	**Sequence marker**	This is the mark to set on the timeline. An orange sequence marker becomes a chapter when exporting to DVD, etc. If you place the mouse cursor on the sequence marker, the timecode or comment on the sequence marker position is displayed (if it is set). **"Setting Sequence Markers" (▶ page 284)** **"Sequence Marker Types" (▶ page 286)**

Time Scale Settings

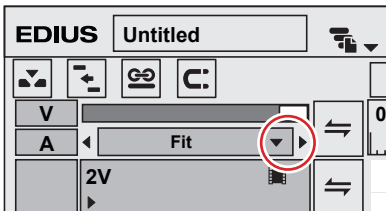
You can change the display unit for the time scale. The time scale can be displayed in the following units:

- Frames, seconds, minutes
- Fit (The display unit is automatically adjusted to fit the display range of the timeline window.)



(1)	**Time scale slider**
(2)	**Time Scale Settings**

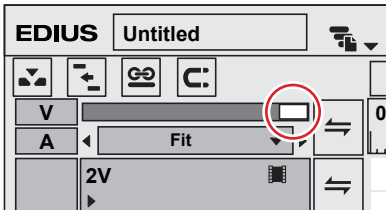
1) Click the list button at the time scale settings, and click the display unit.



- Click [Fit] to adjust the time scale to display all clips on the timeline. Click [Undo] to return to the previously set display unit.

Alternative

- Click the center of the time scale setting to switch the currently set display unit to [Fit].
- Drag the time scale slider. Move the slider to the left to reduce the display unit, or to the right to increase it. The right end is [Fit].



- Click

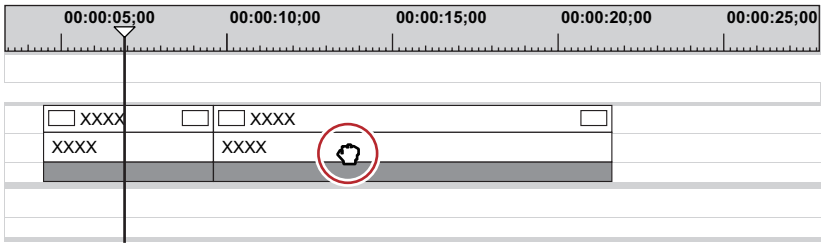
. Click the left end to set a smaller display unit, or click the right end to set a larger display unit.

- If a clip is on the timeline, you can fine-adjust the time scale settings in the range from [1 Frame] to [Fit] by dragging the time scale slider. The scale is indicated as “----” during fine-adjustment.

Moving the Display Range

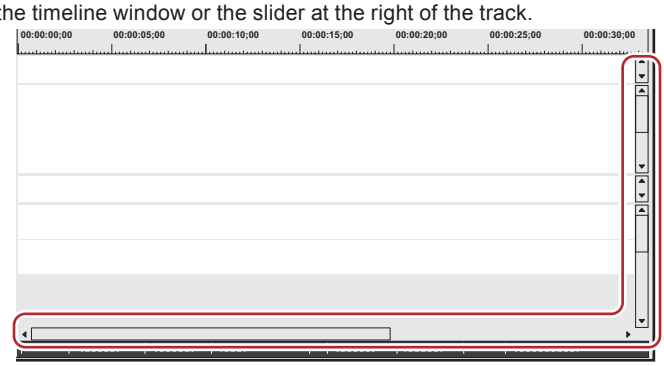
You can move the range currently displayed on the timeline window.

1) Right-drag with [Alt] on the keyboard held down.



Alternative

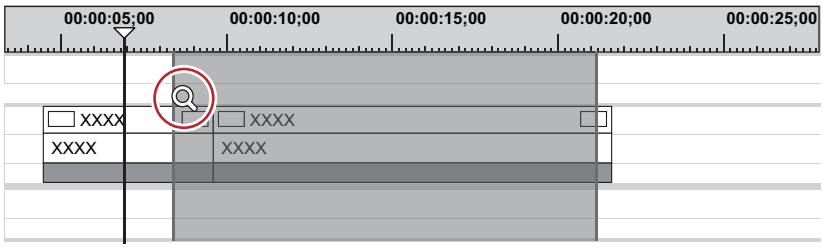
- Move the slider at the bottom of the timeline window or the slider at the right of the track.



Fitting to a Desired Range

You can specify a desired view range on the timeline and fit to this range.

1) Right-drag to enclose the range to fit to with [Shift] on the keyboard held down.



Color-coding Clips on the Timeline

You can color-code clips placed on the timeline to categorize them.

1) Right-click a clip on the timeline, and click [Properties].

- The [Clip Properties] dialog box appears.

Alternative

- Select a clip, click [Clip] on the menu bar, and click [Properties].
- Properties: **[Alt] + [Enter]**

2) Click the [File] tab, and select the desired color from the [Clip color] list.

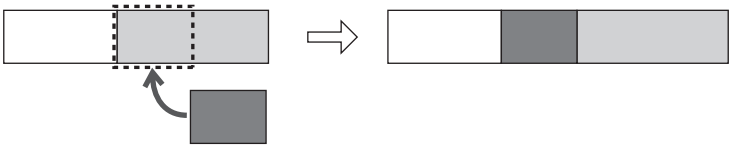
Switching the Editing Mode

Switching Mode when Placing/Moving Clips

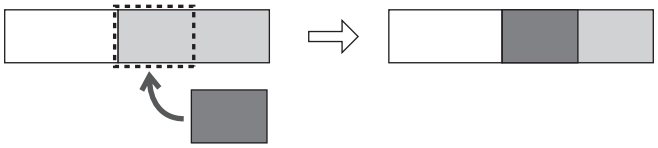
You can switch clip operations when placing clips on the timeline or operations for linking clips on the track by the editing mode.

Insert/Overwrite Mode

In the insert mode, if a clip exists at the position where you place a clip, the new clip moves the existing clip backward and is inserted at the position in between.



In the overwrite mode, if a clip exists at the position where you place a clip, the new clip overwrites part of existing clip overlapped by the new clip.



1) Click [Toggle Insert/Overwrite Mode] on the mode bar.

- Each click switches between the insert mode and the overwrite mode.

- : Insert mode
- : Overwrite mode
- The current mode (insert mode/overwrite mode) is displayed on the status bar of the timeline.

Alternative

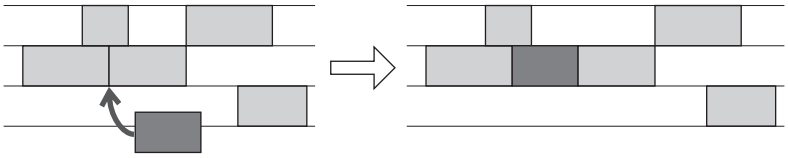
- Switch overwrite/insert mode: **[Insert]**

Sync-lock (Synchronization)

The result of track editing such as insertion or moving a clip affects other tracks, too, when sync-lock is set to a track.

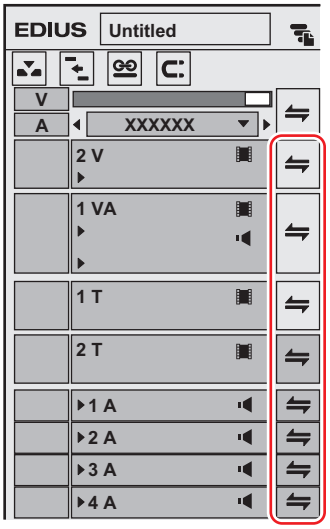
Example:

When sync-lock is set to all three tracks and a clip has been added in the insert mode:

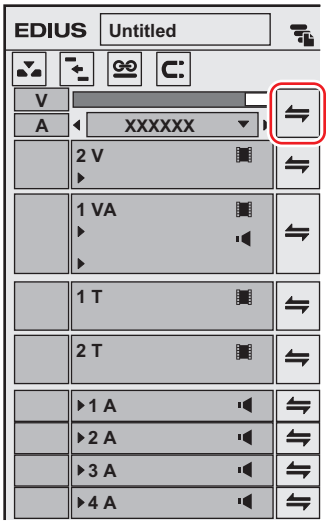


1) Click the lock panel of the track to which sync-lock is set.

- Each click switches between on and off.



- To set sync-lock to all tracks, click the batch lock panel.



Alternative

- Right-click the lock panel of the track to set sync-lock to, and click [Track Sync Lock]. To cancel, click [Track Sync Unlock].
- Select the track to set sync-lock to, right-click the batch track panel, and select [Sync Lock Selected Tracks].

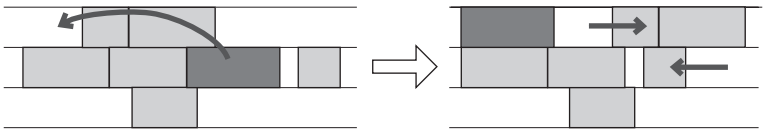
Ripple Mode

In the ripple mode, when a clip is deleted or trimmed, the subsequent clips move forward to prevent spaces from being formed on the timeline. When inserting a clip, you can move the subsequent clips while holding the space at the insert position.

- All subsequent clips following the clip that is being edited between tracks set with sync-lock are interlocked.

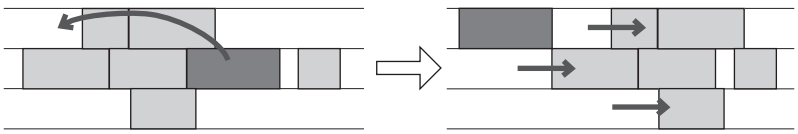
Example:

When sync-lock is disabled on all three tracks and a clip has been inserted with the ripple mode on (insert mode)



Example:

When sync-lock is set on all three tracks and a clip has been inserted with the ripple mode on (insert mode)



1) Click [Set Ripple Mode] on the mode bar.

- Each click switches the mode on and off.

- The current mode (ripple on/ripple off) is displayed on the status bar of the timeline.

Alternative

- Switching ripple mode: **[R]**

- When the ripple mode is on, sequence markers can be linked to the timeline editing.
  "Sync-Lock Setting of Sequence Marker" (▶ page 285)

Group/Link Mode

You can temporarily disable links or grouping of linked or grouped clips.

Note

- The links of VA clips on VA tracks cannot be released by setting the group/link mode to off. By switching the group/link mode, the links of clips placed separately on the V and A tracks are targeted for this operation. When releasing the links of VA clips, release links individually.
  "Unlinking Clips" (▶ page 234)

1) Click [Set Group/Link Mode] on the mode bar.

- Each click switches the mode on and off.

Alternative

- Switching group/link mode: **[Shift] + [L]**

Event Snap Mode

Switch the enable/disable setting of the snap function.

- You can set events to be used as the snap destination by [Application] in [User Settings] → [Timeline].
  "[Timeline]" (▶ page 120)

1) Click [Snap to Event] on the mode bar.

- Each click switches the mode on and off.

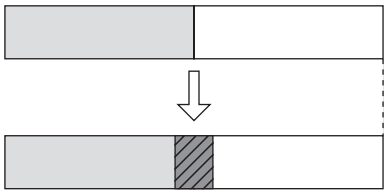
Extend/Fix mode

When adding a transition or audio cross fades between clips, set whether to add without changing the length of the whole clip (extend mode) or add without changing the length of individual clips (fix mode).

"Clip Transition" (▶ page 362)
"Audio Cross Fade" (▶ page 363)

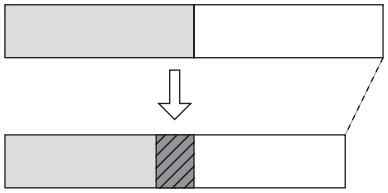
■ Extend Mode

Even when adding/deleting a transition or an audio cross fades between clips, the length of the whole clip on the timeline remains unchanged.



■ Fix mode

When adding/deleting a transition or an audio cross fades between clips, the length of the whole clip on the timeline shortens (lengthens) by the amount that the transition/audio cross fades was applied.



Setting the Extend/Fix Mode

- If you add [Toggle Extend Clips when Applying Transition/Cross Fade] as an operation button in advance to the timeline, you can switch between the extend/fix modes simply by clicking the button.
  "Operation Button Settings" (▶ page 146)

Setting Extend Mode

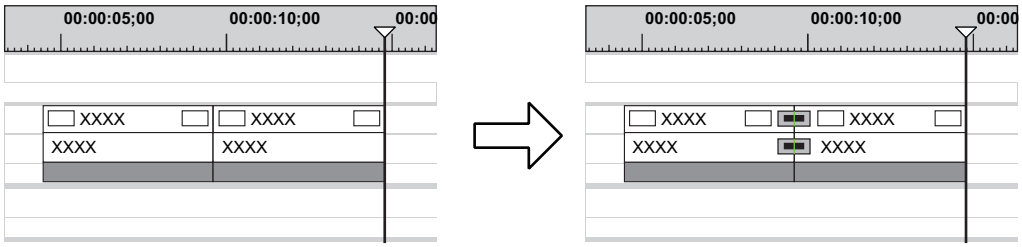
1) Click [Settings] on the menu bar, and click [User Settings].

2) Click the [Application] tree, and click [Timeline].

3) Check [Extend Clips when Applying Transition/Cross Fade].

■ When transition/audio cross fade is set...

As In/Out points of left and right clips extend when a transition has been set or its length has been changed, the total length of clips on the timeline remains unchanged.

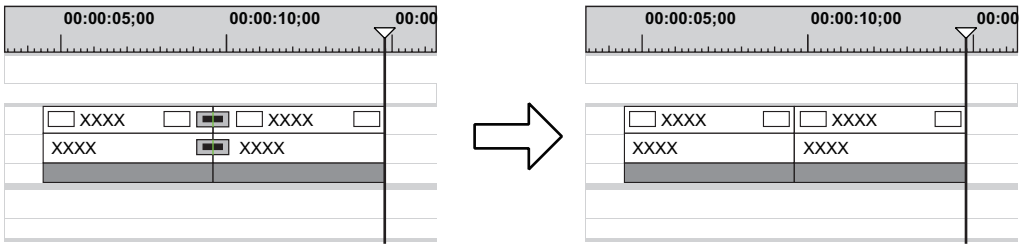


Note

- If a clip does not have a margin, transition/audio cross fades cannot be set (except for mixer area). You can extend the length of transitions by the margin of the clip.
  "Margin of Clip" (▶ page 362)

■ When transition/audio cross fade is deleted...

Clips contract by the extended amount due to the setting, and the total length of clips on the timeline remains unchanged.



- When one of the clips set with transition is deleted, the transition also is deleted at the same time. The length of the remaining clip changes, extending to the middle of the transition (the length including the extended amount when setting the transition).

Setting Fix Mode

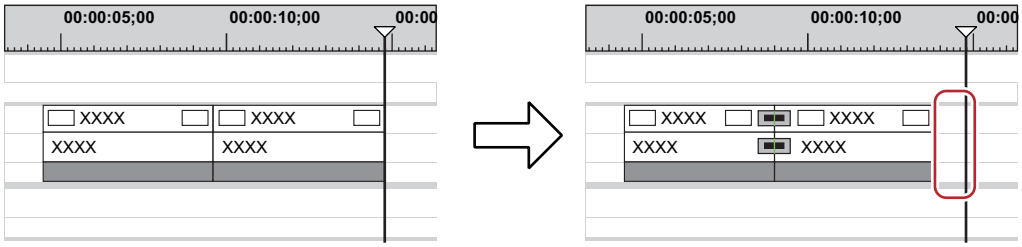
1) Click [Settings] on the menu bar, and click [User Settings].

2) Click the [Application] tree, and click [Timeline].

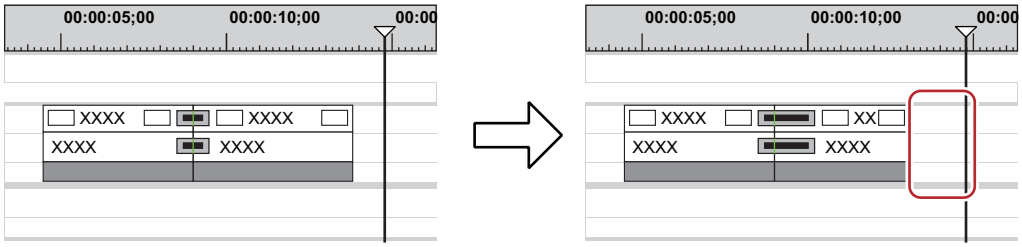
3) Uncheck [Extend Clips when Applying Transition/Cross Fade].

■ When transition/audio cross fade is set...

Left and right clips overlap with each other by the preset transition amount. The total length of the whole clip on the timeline shortens.

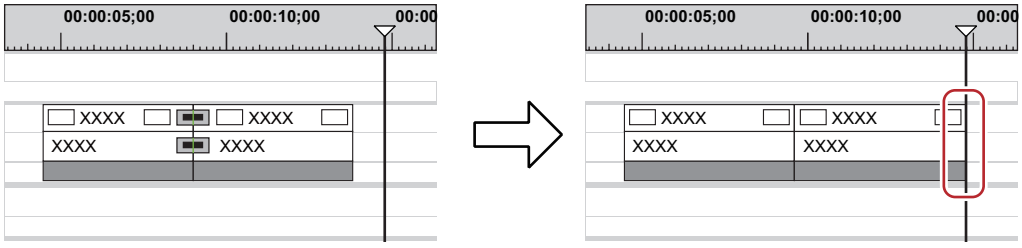


When the length of the transition has been changed, clips move to the left, and the length of the whole clip on the timeline changes according to the transition length.



■ When transition/audio cross fade is deleted...

The length of the whole clip on the timeline lengthens by the preset transition amount.



- To move the clips of other tracks together, turn on sync-lock of the track to move together with the track containing the clip to which transition/audio cross fades has been added.
  "Sync-lock (Synchronization)" (▶ page 215)

Placing Clips

Setting Channel Mapping

Set which track the channel containing the source clip (source channel) should be mapped to when placing clips on the timeline. When performing editing operations such as placing clips or pasting them with shortcut keys, the clips are placed on a track according to the channel mapping setting.

Connecting/Disconnecting the Source Channel

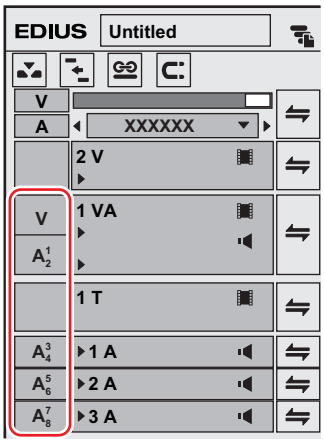
Connect or disconnect the channel containing the source clip (source channel). Disconnected channels are not placed on the timeline.

1) Display a clip in the bin to be placed onto the timeline on the Player.

- **"Displaying Clips on the Player" (▶ page 183)**
- The audio source channels are displayed on the track patch.
- When a clip in the source browser is selected, the audio source channels are displayed on the track patch according to the channel map of the project settings.

Example:

When the selected clip has video and audio 8 channels
The mapping is specified so that video and audio channels 1 and 2 are placed on the 1VA track, audio channels 3 and 4 on the 1A track, audio channels 5 and 6 on the 2A track, and audio channels 7 and 8 on the 3A track.



2) Click on the track patch of the unnecessary source channel to disconnect it.

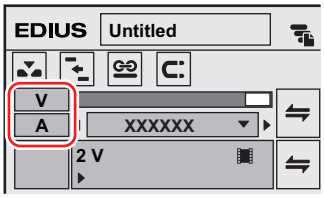
- Each click connects/disconnects it alternately.

- To change the destination to connect the source channel, drag and drop the track patch of the source channel to be changed to the new destination track patch.
- To place an audio source channel as a monaural channel or stereo channel, right-click on the track patch of the audio and click [Audio Source Channel (Stereo)]. Each click switches between the monaural channel and stereo channel modes.

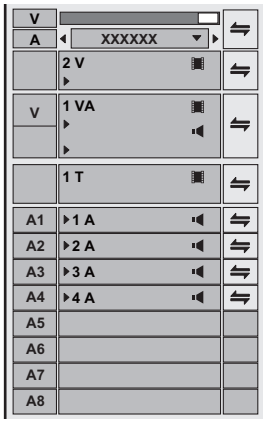
Alternative

- Right-click the track patch of the source channel, and click [Connect Source Channel (Video) (Toggle)]([Connect Source Channel (Audio) (Toggle)]).
- Connecting/disconnecting video source channel: **[7]**
- Connecting/disconnecting audio source channel: **[8]**

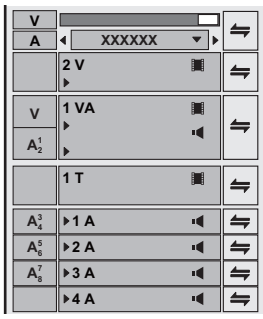
- You can connect/disconnect multiple source channels all together. Click [Connect Source Channel (Video) - Toggle] or [Connect Source Channel (Audio) - Toggle].



- As the default settings, 1st audio channel in each track is assigned to the 1st channel of the export destination, and 2nd audio channel is assigned the 2nd channel of the export destination.
  "[Audio Channel Map] Dialog Box" (▶ page 64)
- To place an audio source channel as a monaural channel or stereo channel, right-click on the track patch of the source channel and click [Audio Source Channel (Stereo)]. Each click switches between the monaural channel mode and stereo channel mode.
  When the monaural channel mode is set:



When the stereo channel mode is set:



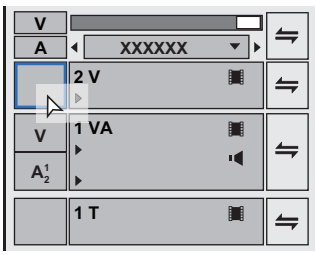
- If you add [Audio Source Channel Mode (Stereo/Monoral)] to the mode bar as an operation button, you can switch the mode simply by clicking the button.
  "Operation Button Settings" (▶ page 146)
- Clips are played back in the channel mode set in the track patch even when the clips are played back on the Player.

Changing the Connection Destination of Source Channels

1) On the Player, display a source clip to be placed.

- **"Displaying Clips on the Player" (▶ page 183)**
- The source channel is displayed in the track patch.

2) Drag and drop the track patch of the desired source channel onto the track patch of the connection destination.

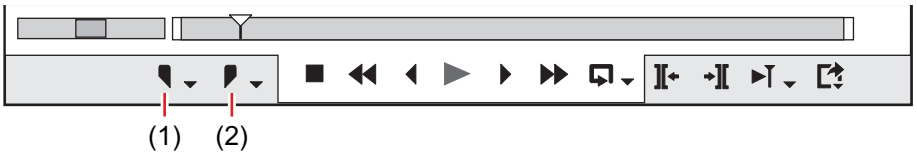


- When the desired source channel has been dragged and dropped onto the track patch to which an audio source channel is connected, the channel is switched.
- To initialize source channel mapping, right-click the track patch of the source channel and click [Reset Source Channel Mapping].

Setting the In and Out Points on the Timeline

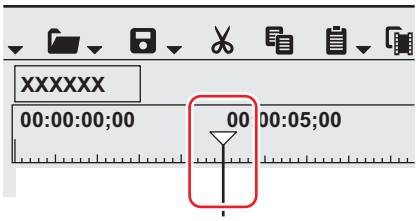
Setting the In and Out Points on the Timeline

By setting the In and Out points on the timeline, you can limit the range to apply operations to between In and Out points, or place clips referenced to the In and Out points.



(1)	Set the In point
(2)	Set the Out point

1) Move the timeline cursor to the position to set the In point.



2) Click [Set In] on the Recorder.

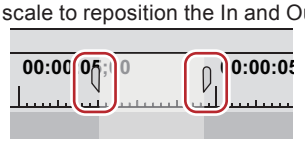
3) Move the timeline cursor to the position to set the Out point.

4) Click [Set Out] on the Recorder.

Alternative

- Move the timeline cursor to the position to set the In and Out points, and right-click the time scale. Click [Set In Point] or [Set Out Point].
- Move the timeline cursor to the position to set the In and Out points, and click [Marker] on the menu bar. Click [Set In Point] or [Set Out Point].
- Move the slider on the Recorder to the position to set the In and Out points, and right-click the slider. Click [Set In Point] or [Set Out Point].
- Setting In and Out points on the timeline: **[I]/[O]**

- You can drag the In and Out point slider on the time scale to reposition the In and Out points.



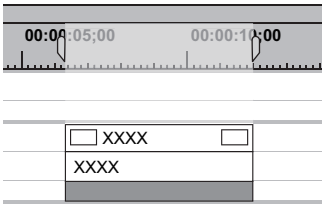
- When the Out point has been set before the In point, the time scale between In and Out points changes color to red and a part of the timecode on the Recorder is displayed in red.
- When duration is entered at [Dur] on the Recorder in the preview window after an In point (or Out point) has been set, the Out point (or In point) is set according to the duration.
- From [User Settings] → [Application] → [Timeline], you can set whether the frame displayed in the preview window is to be included in the range of In and Out points.
  "[Timeline]" (▶ page 120)

Setting In and Out Points to Both Ends of Clips

Set the In and Out points of the timeline to both ends of a selected clip.

1) Select a clip, click [Marker] on the menu bar, and click [Set In/Out Point to Selected Clip].

- In and Out points are set to both ends of the clip.



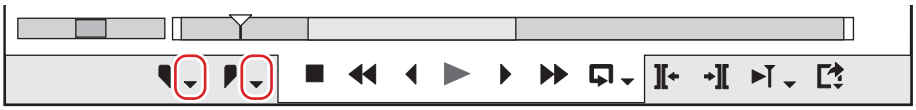
Alternative

- Setting In and Out points to both ends of a selected clip: **[Z]**

Deleting the In and Out Points on the Timeline

You can delete In and Out points on the timeline.

1) Click the [Set In] ([Set Out]) list button on the Recorder.



2) Click [Clear In Point] ([Clear Out Point]).

Alternative

- Right-click the time scale, and click [Clear In Point] ([Clear Out Point]).
- Click [Marker] on the menu bar, and click [Clear In Point] ([Clear Out Point]).
- Right-click the slider on the Recorder, and click [Clear In Point] ([Clear Out Point]).
- Deleting In and Out Points on the timeline: **[Alt] + [I]/[Alt] + [O]**

- You can delete In and Out points in a single operation by the following operation:
  - Right-click the time scale, and click [Clear In/Out Point].
  - Click [Marker] on the menu bar, and click [Clear In/Out Point].
  - Deleting In/Out points: **[X]**

Placing Clips

Placing Clips

You can place source clips on the timeline.
Clip operations at placement and placement results are dependent on the editing mode.
"Switching the Editing Mode" (▶ page 215)

1) Set the source channel mapping.

- **"Setting Channel Mapping" (▶ page 220)**

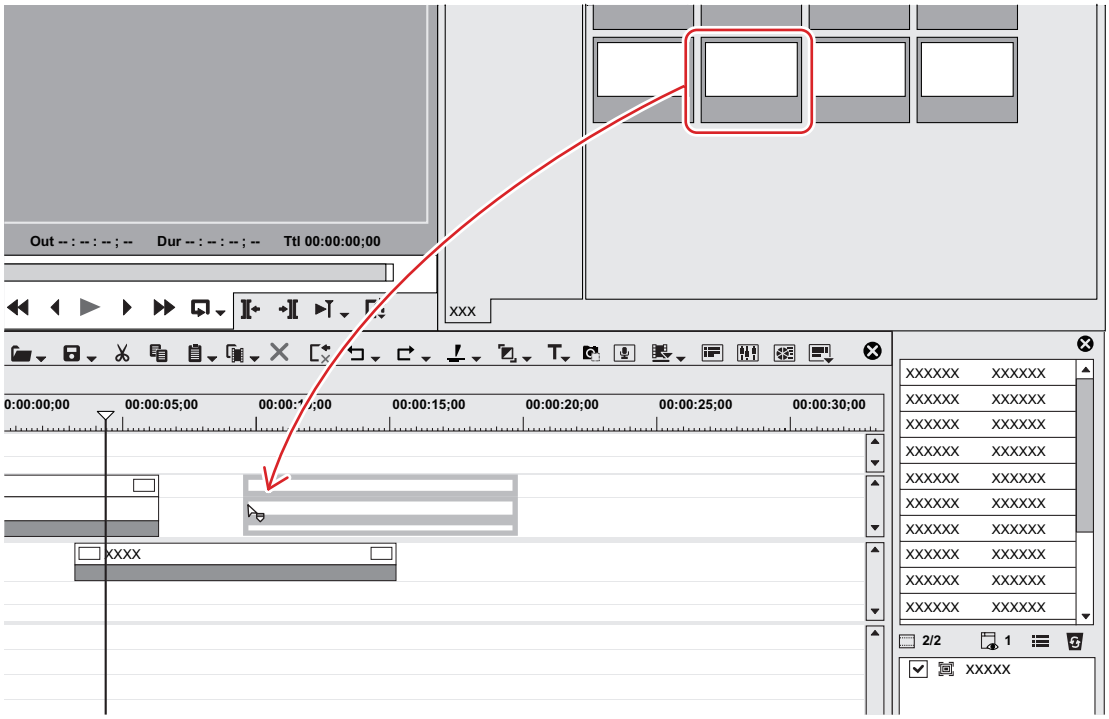
2) Move the timeline cursor to the position to place the clip.

3) Right-click a clip in the bin, and click [Add to Timeline].

- The clip is placed on the track with the position of the timeline cursor set as the In point.

Alternative

- Drag and drop a clip in the bin onto the timeline. Channels can be mapped to any desired track and clips can be placed according to the drop point regardless of the track patch setting.

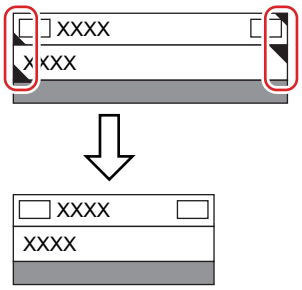


- Play back a clip on the Player, and drag and drop the clip onto the timeline from the Player. Channels can be mapped to any desired track according to the drop point regardless of source channel mapping.
- Play back a clip on the Player, and click [Insert to Timeline] or [Overwrite to Timeline].
- Placing a clip displayed on the Player on the timeline: **[E]**
- Set the source channel mapping, move the timeline cursor to the clip place point, and drag and drop the clip onto the Recorder.
- Placing clips: **[Shift] + [Enter]**

- You can place sources on the timeline without registering them to the bin.
  Move the timeline cursor to the clip place point, right-click a track, and click [Add Clip]. Select the source from the [Open] dialog box, and click [Open].

Placed Clips

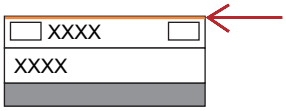
You can confirm that a filter or transition is set from the display of the clip placed on the track.
Triangular marks at both ends of the clip mean the start and end of the clip. Triangular marks are displayed when the clip has no margin.



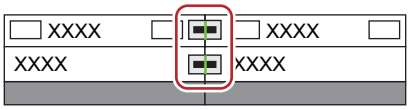
A green line is displayed at the top of the clip when rendering has been performed. An orange line is displayed when filter, time effect, layouter, normalize, etc. has been set.

Example:

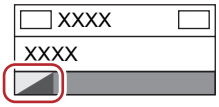
When effect has been set



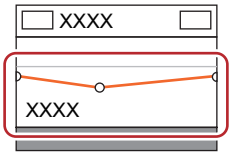
A frame is displayed as follows when a transition or audio cross fades is set between clips.



A triangle is displayed as shown below in the mixer area when a track transition is set at the start point of a clip.



Clicking the audio expand button displays a rubber band and waveform for the volume, and clicking the mixer expand button displays a rubber band for the transparency.



"Adjusting the Volume and Pan of a Clip" (▶ page 411)
"Transparency" (▶ page 369)

Setting In/Out Points and Placing Clips

You can set In and Out points to clips, and place only the required part on a track.

1) Right-click a clip in the bin, and click [Show in Player].

- The same operations can also be performed in the source browser.

2) Set the In and Out points to the clip.

- **"Setting the In and Out Points" (▶ page 184)**

3) Set the source channel mapping.

- **"Setting Channel Mapping" (▶ page 220)**

4) Move the timeline cursor to the position to place the clip.

5) Click [Insert to Timeline] on the Player.

- The clip is placed on the track with the position of the timeline cursor set as the In point.
- When [Overwrite to Timeline] is clicked, the clip is placed in the overwrite mode.

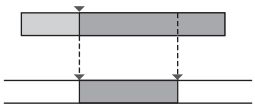
Alternative

- After setting the In and Out points to the clip, drag and drop the clip from the Player to place it on the timeline.
- Placing the clip displayed on the Player on the timeline: **[E]**

- Divided and placed video and audio clips are set in groups.
  "Ungrouping" (▶ page 235)

Placing Clips between In and Out Points on the Timeline (3 Point Editing)

Place clips between In and Out points on the timeline. Clips are placed by the length between In and Out points on the timeline.



1) Right-click a clip in the bin, and click [Show in Player].

- The same operations can also be performed in the source browser.
- Check the video on the Player, and set the In and Out points, if necessary.
  "Setting the In and Out Points" (▶ page 184)

2) Set the source channel mapping.

- **"Setting Channel Mapping" (▶ page 220)**

3) Set the In and Out points to the timeline.

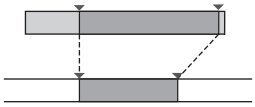
- **"Setting the In and Out Points on the Timeline" (▶ page 222)**

4) Click [Insert to Timeline] on the Player.

- The clip is placed trimmed to the length between In and Out points on the timeline. When the In point has been set, it is placed referenced to the In point.
- The playback speed of the placed clip remains unchanged.
- When [Overwrite to Timeline] is clicked, the clip is placed in the overwrite mode.

Placing the In and Out Points of Clips between In and Out Points on the Timeline (4 Point Editing)

Set the In and Out points to the clip, and place it between In and Out points on the timeline. The speed between In and Out points of the clip is adjusted automatically according to the length between In and Out points on the timeline.



1) Right-click a clip in the bin, and click [Show in Player].

- The same operations can also be performed in the source browser.

2) Set the In and Out points to the clip.

- **"Setting the In and Out Points" (▶ page 184)**

Note

- Even if a margin is not assigned to a source, set the In and Out points to the start and end of the source. The editing mode becomes 3-point editing when In and Out points are not set.

3) Setting the Source Channel Mapping

- **"Setting Channel Mapping" (▶ page 220)**

4) Setting the In and Out Points to the Timeline

- **"Setting the In and Out Points on the Timeline" (▶ page 222)**

5) Click [Insert to Timeline] on the Player.

- The In and Out points of a clip are placed between In and Out points on the timeline.
- When [Overwrite to Timeline] is clicked, the clip is placed in the overwrite mode.

Note

- When the duration between In and Out points on the timeline differs from that between In and Out points of the clip, the playback speed of the clip is adjusted automatically to stay between In and Out points on the timeline, with the range between In and Out points maintained.

Previewing Cut Switch Points (Preroll Edit (Preview))

Before placing clips, you can preview where cuts are switched.
Before operation, set to the overwrite mode.
"Insert/Overwrite Mode" (▶ page 215)

- Using the gang mode before preroll editing is useful in deciding the position where clips are placed on the timeline.
  "Synchronizing the Player and the Timeline (Gang Mode)" (▶ page 295)

1) Right-click a clip in the bin, and click [Show in Player].

- The same operations can also be performed in the source browser.
- Check the video on the Player, and set the In point (Out point), if necessary.
  "Setting the In and Out Points" (▶ page 184)
- If the In point is not set, the slider cursor position on the Player is set as the In point.

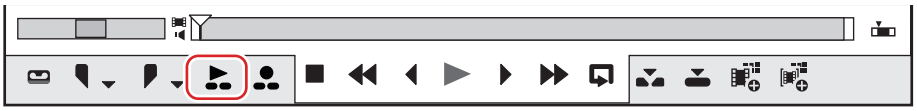
2) Set the source channel mapping.

- **"Setting Channel Mapping" (▶ page 220)**

3) Set the In point to the start position where the cut is switched.

- **"Setting the In and Out Points on the Timeline" (▶ page 222)**
- If the In point is not set, the current timeline cursor position is set as the In point.
- Set the Out point, if necessary.

4) Click [Pre-roll Edit (Preview)] on the Player.



- The [Pre-roll Edit (Preview)] dialog box appears, and playback near the In point on the timeline starts.

5) Check where the cut is switched on the Recorder, and click [Retry] or [All Stop].

- To preview again where the cut is switched, click [Retry].
- To end the preview, click [All Stop].

- By default, [Pre-roll Edit (Preview)] is not displayed. Before performing the operation, set to display the buttons on the Player.
  "Operation Button Settings" (▶ page 146)
- You can set the preliminary operation time (preroll/postroll) at [Preview] in [User Settings] → [Pre-Roll Editing].
  "[Pre-Roll Editing]" (▶ page 125)

Placing Clips while Checking Cut Switch Points (Preroll Edit (Rec))

You can place clips on the timeline while checking where cuts are switched.
Before operation, set to the overwrite mode.
"Insert/Overwrite Mode" (▶ page 215)

1) Right-click a clip in the bin, and click [Show in Player].

- The same operations can also be performed in the source browser.
- Check the video on the Player, and set the In point (Out point), if necessary.
  "Setting the In and Out Points" (▶ page 184)
- If the In point is not set, the slider cursor position on the Player is set as the In point.

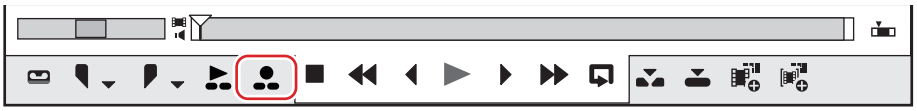
2) Setting the Source Channel Mapping

- **"Setting Channel Mapping" (▶ page 220)**

3) Set the In point to the start position where the cut is switched.

- **"Setting the In and Out Points on the Timeline" (▶ page 222)**
- If the In point is not set, the current timeline cursor position is set as the In point.
- Set the Out point, if necessary.

4) Click [Pre-roll Edit (Rec)] on the Player.



- The [Pre-roll Edit (Rec)] dialog box appears, and playback near the In point on the timeline starts.

5) Check where the cut is switched on the Recorder, and click [Rec Out] or [All Stop] at the cut switch end position.

- Clips are overwritten and placed on the timeline, setting the position where [Rec Out] or [All Stop] is clicked as the Out point.
- When [Rec Out] is clicked, the In point set in step **1)** or **3)** is updated to the position where [Rec Out] is clicked.
- When [All Stop] is clicked, the information of the In point (Out point) set in step **1)** or **3)** remains as it is.

6) Adjust the In point position on the Player if necessary, and repeat operations after step 4).

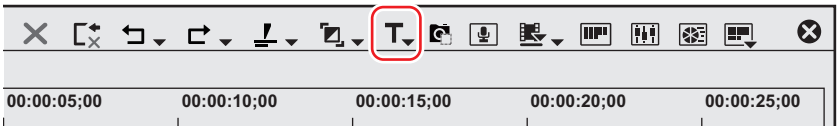
- By default, [Pre-roll Edit (Rec)] is not displayed. Before performing the operation, set to display the buttons on the Player.
  "Operation Button Settings" (▶ page 146)
- You can set the preliminary operation time (preroll/postroll) at [Preview] in [User Settings] → [Pre-Roll Editing].
  "[Pre-Roll Editing]" (▶ page 125)

Placing Special Clips on the Timeline

You can create color bar clips, color matte clips, and title clips on the timeline.

- For more information on how to create an adjustment clip, see "Applying Effect to Multiple Clips in a Batch".
  "Applying Effect to Multiple Clips in a Batch" (▶ page 373)

1) Click [Create Title] on the timeline.



2) Click the clip to create.

- When the In and Out points have not been set on the timeline, the clip is created at the position of the timeline cursor. The duration of the created clip can be set by [Source] in [User Settings] → [Duration].
- When the In and Out points have been set on the timeline, the clip is created between In and Out points. You can set whether to create clips between In and Out points or at the cursor position by [Source] in [User Settings] → [Duration].
  "[Duration]" (▶ page 126)

Note

- When all source channels have been released (track patch all set to off), color bar clips, color matte clips and title clips cannot be created. Also, title clips cannot be created when the video source channel is released.
  "Connecting/Disconnecting the Source Channel" (▶ page 220)

3) Edit the clip.

- **"Editing Color Bar Clips" (▶ page 229)**
- **"Editing Color Matte Clips" (▶ page 229)**
- **"Quick Titler" (▶ page 386)**

Alternative

- Right-click the track to create the clip on, and click [New Clip] → clip to create. The clip is placed at the right-clicked track regardless of the channel mapping settings.

- Color matte bars, color mattes and title clips placed on the timeline can be edited by the following operation.
  - Select the clip to edit, and click [Clip] on the menu bar → [Edit].
  - Double-click the clip to edit.
  - Editing selected clip: **[Shift] + [Ctrl] + [E]**

Editing Color Bar Clips

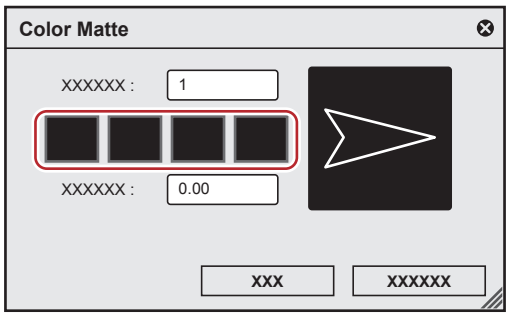
1) In the [Color Bars] dialog box, set [Color Bar Type] and [Tone].

2) Click [OK].

Editing Color Matte Clips

1) In the [Color Matte] dialog box, click the color palette.

- Set the color palette starting from the left.



- The [Color Select] dialog box appears.
  "[Color Select] Dialog Box" (▶ page 229)

2) Set the color.

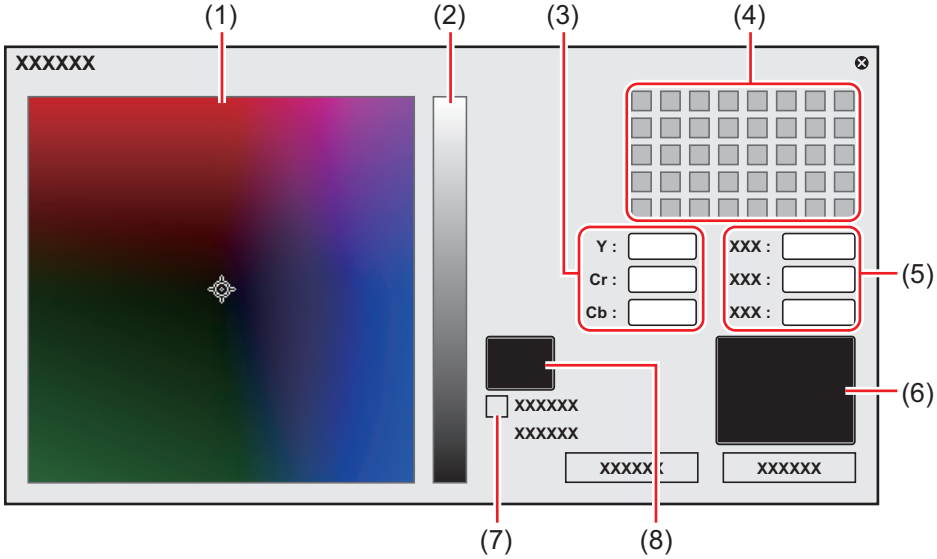
3) Click [OK].

- The screen returns to the [Color Matte] dialog box. To set a gradation, enter a numerical value of 2 or higher at [Colors] in the [Color Matte] dialog box, and repeat steps **1)** to **3)**.

4) Set the direction of the gradation, and click [OK].

- The gradation can be specified by, for example, entering the numerical value in degrees, rotating the mouse wheel or dragging the mouse.

■ [Color Select] Dialog Box



(1)	**Color spectrum**	Drag the cursor to set the color difference (Cr, Cb).
(2)	**Luminance slider**	Drag the slider to set the luminance (Y).
(3)	**YCrCb value input field**	Enter numerical values for brightness and color difference to set the color.
(4)	**Color palette**	Select a color from the standard color palette.
(5)	**RGB value input field**	Enter numerical values for red (R), green (G) and blue (B) to set the color.

(6)	**Color picker**	Select a color from video displayed on the Player/Recorder. Click the color picker, and click the desired color in the video currently displayed on the Player/Recorder.
(7)	**[IRE Warning]**	Check this item to display the color spectrum and luminance slider in the limited range of 0 to 100 IRE. The IRE value for the selected color is displayed under this checkbox.
(8)	**Preview box**	Display the preset color.

Placing Clips While Playing Back Timeline

You can place specified clips in order while playing back the timeline in the same way as linear editing.

1) Click [Mode] on the menu bar, and click [Title Insertion Mode].

- The [Title Insertion Panel] dialog box appears.
  "[Title Insertion Panel] Dialog Box" (▶ page 231)

2) Set the channel mapping for the tracks on which clips are placed.

- **"Setting Channel Mapping" (▶ page 220)**

3) Move the timeline cursor to the position to place the clip.

4) Select a clip in the bin.

- Select the clip to be placed at the beginning.

5) Click [ON] in the [Title Insertion Panel] dialog box and specify the In point where the clip is to be placed.

- The In point of the timeline where the clip is placed is fixed. [ON] changes to blue.
- The focus moves to the next clip to the one to be placed first in the bin.

6) Click [Play] in the [Title Insertion Panel] dialog box.

- As the timeline playback proceeds, clip placement on the timeline starts.
- Alternatively, click [Play] on the Recorder to play back the timeline.

7) Click [ON] at the Out point and place the clip.

- The Out point of the clip is fixed, and the clip is placed.
- Click [Change] to make the Out point of the placed clip connected to the In point of the next clip.

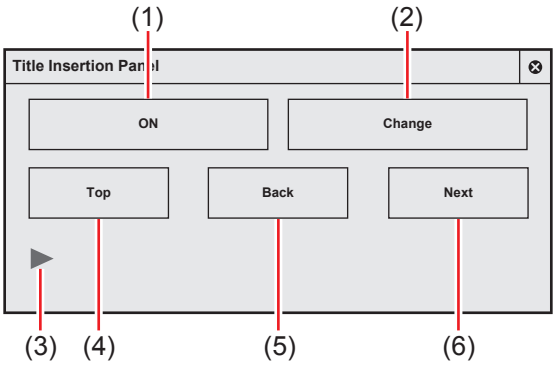
8) Repeat step 7) as necessary.

9) Click [Play] in the [Title Insertion Panel] dialog box.

- Timeline playback stops.
- Alternatively, click [Stop] on the Recorder to stop playback of the timeline.

- If you add [Title Insertion Mode] to the bin window as an operation button, you can switch the mode simply by clicking the button.
  "Operation Button Settings" (▶ page 146)

[Title Insertion Panel] Dialog Box



(1)	[ON]	Specify the In and Out points of the clip to be placed.
(2)	[Change]	Click this while placing a clip to switch to the next clip placement.
(3)	[Play]	Play back the timeline. Clicking this during playback stops playback.
(4)	[Top]	Move the focus to the clip at the beginning in the bin.
(5)	[Back]	Move the focus to the previous clip of the selected clip in the bin.
(6)	[Next]	Move the focus to the next clip to the selected clip in the bin.

Moving Clips

Drag a clip placed on the timeline, and drop it onto the destination. Clips can be moved to any desired position, including different tracks.

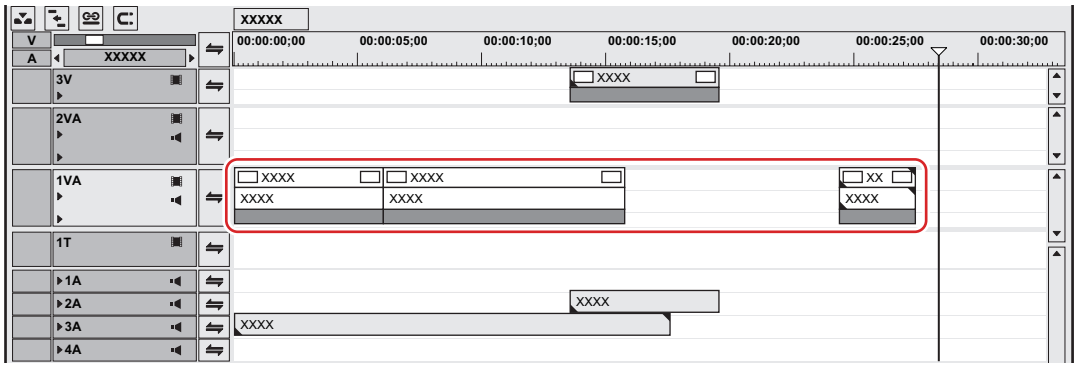
Selecting Multiple Clips

You can select all clips in the same track. You can also select all clips on the timeline.

1) Click the track panel to select the track.

2) Right-click the timeline, and click [Select] → [Selected Tracks].

- All clips on the selected track are selected.



- When [All Tracks] is clicked, all clips on the timeline are selected.

Alternative

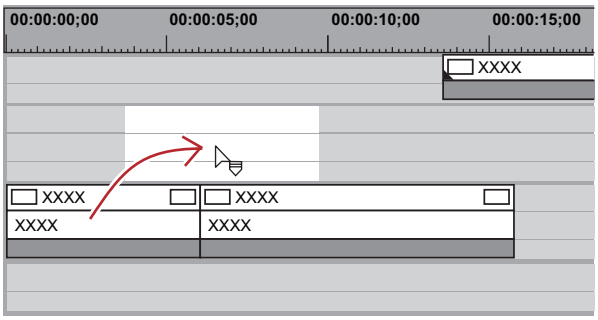
- Click a clip with [Ctrl] on the keyboard held down to add or remove the clip one at a time.
- Specify the range including the clip by dragging from the start point to the end point on the timeline.
- Click [Edit] on the menu bar, and click [Select] → [Selected Track] or [All Tracks].
- Selecting all clips on the selected track: **[Ctrl] + [A]**
- Selecting all clips on timeline: **[Shift] + [A]**

Moving Clips

You can move clips by dragging and dropping. You can also move multiple clips at the same time.

"Selecting Multiple Clips" (▶ page 231)

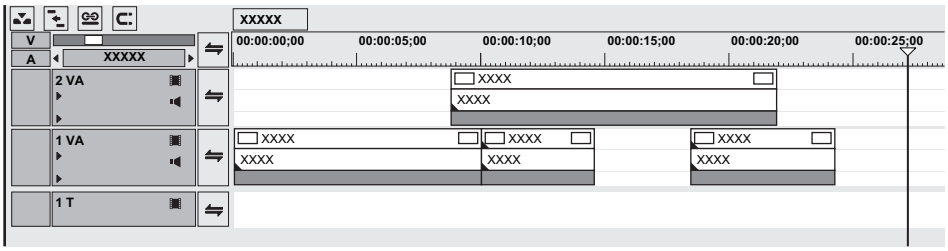
1) Select a clip, and drag and drop it at the destination.

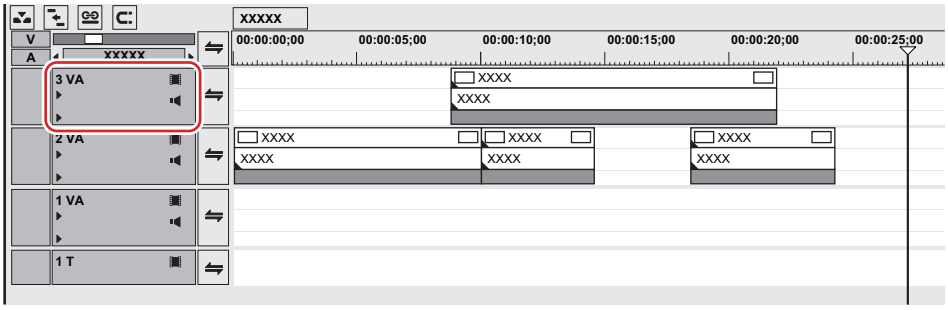


- Clip operations at move and move results are dependent on the editing mode.
  "Switching the Editing Mode" (▶ page 215)
- When you select clips over multiple tracks and move them to the area where the corresponding type of track does not exist, a track is automatically added.

Example:

When multiple clips on the 1VA track and 2VA track have been selected, and dragged and dropped to a track above



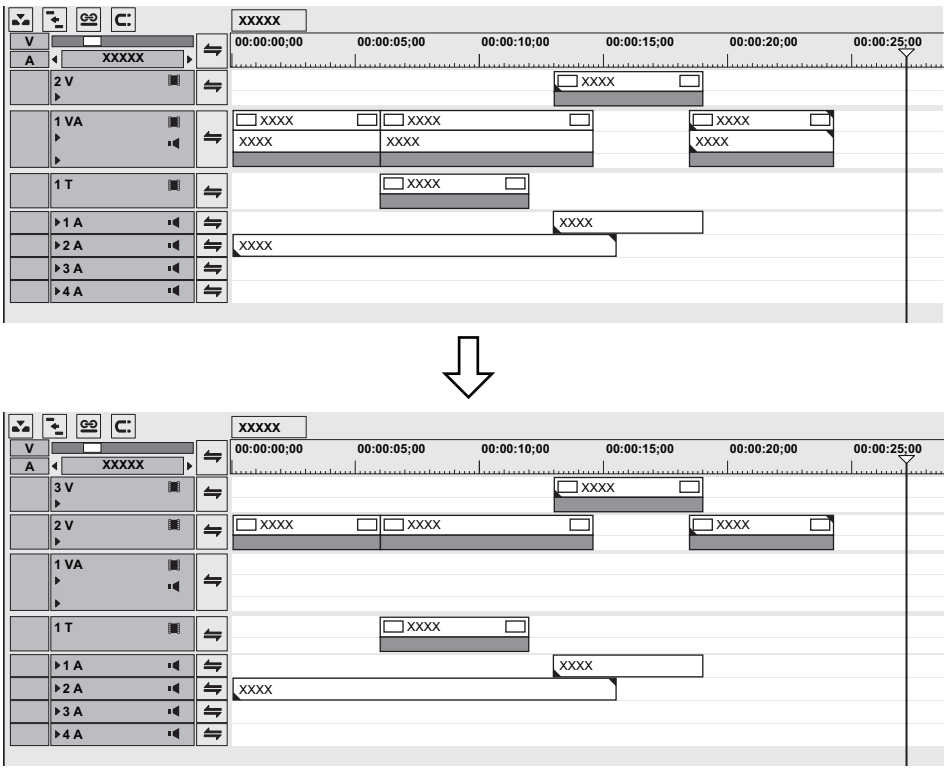


Alternative

- Right-drag the clip to the move destination, and click [Overwrite] or [Insert]. Clips can be moved in the overwrite mode or insert mode regardless of the editing mode.

Note

- When you have selected multiple clips placed on different types of tracks and dragged across tracks, only clips placed between tracks of the same type move.
  When multiple clips on the 1VA track, 1T track, and 1A track have been selected and dragged and dropped to a track above, the screen is displayed as follows.



- When only one of two clips set with a clip transition or audio cross fades is moved, only the selected clip moves and the transition is released.

Moving a Selected Clip and Subsequent Clips

You can move a selected clip and the subsequent clips within the same track with each position maintained.

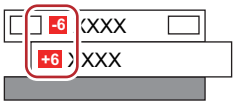
1) Select the starting clip of the clips to be moved, and drag it with [Shift] and [Alt] on the keyboard held down.

- The mouse cursor changes shape, and clips following the selected clip move at the same time.
- The clips of tracks set with sync-lock also are interlocked.
  "Sync-lock (Synchronization)" (▶ page 215)

Clip Operations

Handling Only the Video Part or Audio Part of Clips Separately

- Conditions for setting a link are as follows:
  - The clip is placed in the same track.
  - Part of the clip is overlapping.
  - The clip is referencing the same source.
- When the group/link mode is switched, the video part and audio part of all clips in the sequence can be temporarily handled separately.
  "Group/Link Mode" (▶ page 217)
- When the start points of the video and audio clips set with a link are out-of-position, the number of frames that the clips are out by is displayed at the top of the clip.



Unlinking Clips

The video and audio parts in a video clip on the VA track can be separated. By releasing the link, you can handle them as independent clips.

1) On the timeline, right-click the clip to unlink, and click [Link/Group] → [Unlink].

Alternative

- Click [Clip] on the menu bar, and click [Link/Group] → [Unlink].
- Unlinking: **[Alt] + [Y]**

Link Settings

Unlinked video clips and audio clips can be re-linked.

1) On the timeline, select the respective video and audio clips to be linked.

2) Right-click a clip, and click [Link/Group] → [Link].

- The link is set, and you can handle it as a single clip.

Alternative

- Click [Clip] on the menu bar, and click [Link/Group] → [Link].
- Setting link: **[Y]**

Handling Multiple Clips as a Single Clip

- When the group/link mode is switched, all groups in a sequence are temporarily ungrouped, and the video part and audio part of clips can be handled separately.
  "Group/Link Mode" (▶ page 217)

Setting Groups

Handle multiple clips as a single group. You can group the clips over different tracks.

1) On the timeline, select the multiple clips to be grouped.

2) Right-click a clip, and click [Link/Group] → [Set Group].

Alternative

- Click [Clip] on the menu bar, and click [Link/Group] → [Set Group].
- Setting group: **[G]**

Ungrouping

You can restore grouped clips to their original separate clips.

1) Right-click a clip in the group, and click [Link/Group] → [Ungroup].

Alternative

- Click [Clip] on the menu bar, and click [Link/Group] → [Ungroup].
- Ungrouping: **[Alt] + [G]**

Copying/Pasting Clips

Copying

1) Select a clip, and click [Copy] on the timeline.

- You can continue to paste and replace clips.

Alternative

- Right-click a clip and click [Copy].
- Click [Edit] on the menu bar, and click [Copy].
- Copying: **[Ctrl] + [C], [Ctrl] + [Insert]**

Cutting

Cut clips. The cut clip is deleted from its current position.

1) Select a clip, and click [Cut (Follow Mode)] on the timeline.

- The editing result of a cut operation is dependent on the editing mode.
  "Ripple Mode" (▶ page 216)
  "Sync-lock (Synchronization)" (▶ page 215)
- You can continue to paste and replace clips.

Alternative

- Right-click a clip, and click [Cut] or [Ripple Cut].
- Select a clip, click [Edit] on the menu bar, and click [Cut] or [Ripple Cut].
- Cutting (mode-dependent): **[Ctrl] + [X]**
- Cutting: **[Shift] + [Delete]**
- Ripple cutting: **[Alt] + [X]**

Pasting

You can paste copied or cut clips to the timeline.

1) Select a clip, and copy or cut it.

- **"Copying" (▶ page 235)**
- **"Cutting" (▶ page 235)**

2) Select a track, and move the timeline cursor to the paste position.

3) Click [Paste to Current Location] of the timeline.

- The clip is placed with the position on the timeline cursor set as the In point.

Alternative

- Click the [Paste to Current Location] list button on the timeline, and click [Cursor].
- Right click on the track to paste to, and click [Paste]. At this time, the clip will be pasted to the right-clicked track regardless of the currently selected track.
- Click [Edit] on the menu bar, and click [Paste] → [Cursor].
- Right click on any clip on the track to paste to, and click [Paste] → [Cursor]. At this time, the clip will be pasted to the position of the timeline cursor on the right-clicked track regardless of the currently selected track.
- Pasting: **[Ctrl] + [V]**

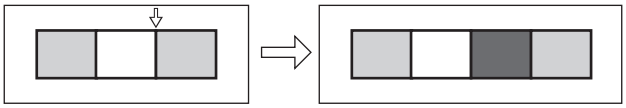
- A track is automatically added if there is no track at the paste destination.
- If a clip exists at the destination position, it is divided at the position of the timeline cursor and the pasted clip overwrites the existing clip or is inserted between the divided clips.

Pasting to the In and Out Points of Clips

You can insert another clip at (or in front of) the In point or at (or behind) the Out point of a specific clip.

Example:

When pasting another clip to the Out point of the white clip



1) Select a clip, and copy or cut it.

- **"Copying" (▶ page 235)**
- **"Cutting" (▶ page 235)**

2) Click the clip to be used as the reference for pasting.

3) Click the [Paste to Current Location] list button on the timeline.

4) Click [Clip In] or [Clip Out].

[Clip In]	Insert the clip at (or in front of) the In point of the selected clip.
[Clip Out]	Insert the clip at (or behind) the Out point of the selected clip.

Alternative

- Click [Edit] on the menu bar, and click [Paste] → [Clip In] or [Clip Out].
- Right-click the clip to be used as the reference for pasting, and click [Paste] → [Clip In] or [Clip Out].

Replacing a Clip

You can copy or cut a clip and paste it onto another clip to replace.

- All of the mixers and filters applied to the clip also are replaced.

1) Select a clip, and copy or cut it.

- **"Copying" (▶ page 235)**
- **"Cutting" (▶ page 235)**

2) Select the clip to replace.

3) Click the [Paste to Current Location] list button on the timeline.

4) Click [All].

Alternative

- Right-drag a clip onto a clip to be replaced, and click [Paste] → [All].
- Right-click on a clip to be replaced, and click [Paste] → [All].
- Click [Edit] on the menu bar, and click [Paste] → [All].
- Replacing a clip: **[Ctrl] + [R]**

Note

- When the duration differs from that of the clip to be replaced by a copied or cut clip, the clip will automatically be trimmed referenced to the In point of the copied or cut clip. The playback speed remains unchanged.

Partially Replacing a Clip

You can copy or cut a clip and paste its filter or mixer onto another clip to replace.

1) Select a clip, and copy or cut it.

- **"Copying" (▶ page 235)**
- **"Cutting" (▶ page 235)**

2) Select the clip to replace.

3) Click the [Paste to Current Location] list button on the timeline.

4) Click the replace item.

- Select an item to replace from [Filter], [Mixer], [Clip] and [Clip and Filter].

Alternative

- Right-drag a clip onto a clip to be replaced, and click [Paste] → the item to replace.
- Click [Edit] on the menu bar, and click [Paste] → the item to replace.
- Right-click on the target clip to be replaced, and click [Paste] → the item to replace.
- Replacing the filter: **[Alt] + [R]**
- Replacing the mixer: **[Shift] + [Ctrl] + [R]**
- Replacing the clip: **[Shift] + [R]**
- Replacing the clip with filter: **[Shift] + [Alt] + [R]**

Pasting Attributes

You can select attributes of a clip (layout information, filter, etc.) to paste them onto another clip.
For key frame, transition and filter, there are options for pasting.

1) Select a clip on the timeline, and copy or cut it.

2) Select a paste destination clip, and click [Select Attributes] on the timeline.

- You can select multiple clips.

- The [Paste Attributes] dialog box appears.
  "[Paste Attributes] Dialog Box" (▶ page 238)

Alternative

- Select a paste destination clip, click the [Select Attributes] list button on the timeline, and click [Select Attributes].
- Right-click on a paste destination clip, and click [Paste Attributes] → [Select Attributes].
- Select a paste destination clip, and click [Edit] → [Paste Attributes] → [Select Attributes] on the menu bar.

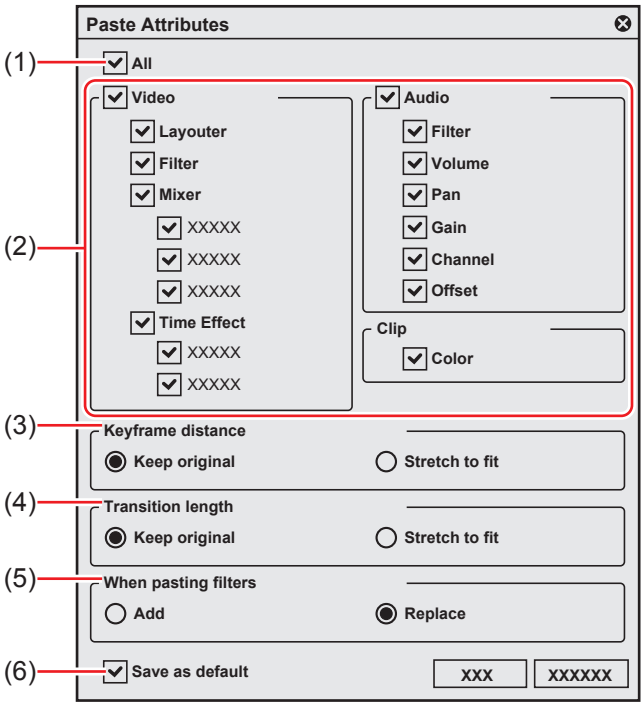
3) Configure the attributes to paste and pasting options for key frame and other items, and click [OK].

- The attributes of copied or cut clip will be pasted to the target clip.

Alternative

- In step **2)**, you can also select other items to be pasted.
  - [Attributes only]: Pastes all the attributes (but not the clip). The pasting options for key frame, transition and filter will be applied in accordance with the settings in the [Paste Attributes] dialog box.
  - [Clip and Attributes]: Pastes the clip and all the attributes. The pasting options for key frame, transition and filter will be applied in accordance with the settings in the [Paste Attributes] dialog box.
  - [Selected Attributes]: Pastes attributes of the default setting which has been saved as [Save as default] in the [Paste Attributes] dialog box.

[Paste Attributes] Dialog Box



(1)	**[All]**	Check this item to select all the items for [Video], [Audio], and [Clip].
(2)	**Attributes to paste to the target**	Select the attributes of video, audio, or clip to apply to the pasting target clip. Checking [Video] or [Audio] will select all the items for [Video] or [Audio].
(3)	**[Keyframe distance]**	Select the pasting option for key frame. **[Keep original]** The key frame is set on the same position as in the copy source clip. **[Stretch to fit]** The key frame is set after being adjusted according to the length of the target clip.
(4)	**[Transition length]**	Select the pasting option for transition. **[Keep original]** The transition is set on the same position as in the copy source clip. **[Stretch to fit]** The transition is set after being adjusted according to the length of the target clip.
(5)	**[When pasting filters]**[*1]	Select the pasting option for filter. **[Add]** The pasted filter is added as a new filter. **[Replace]** The pasted filter replaces that of the target clip.
(6)	**[Save as default]**	Check this item to save the current settings as defaults. The saved default values are applied when [Selected Attributes] is selected in pasting operation.

*1 A clip cannot have multiple [Stabilizer] settings. Therefore, if a clip already has a setting for [Stabilizer], the [Stabilizer] setting of another clip cannot be pasted by using [Add].

Note

- [Time Remap] will be pasted within the range of the clip used on the timeline.

Changing Clip Settings

Change the detailed settings of clips on the timeline.

MPEG File Media Settings

For MPEG format clips, setting to ensure faster seeking of files can be changed for each clip.

1) Right-click a clip on the timeline, and click [MPEG Media Settings].

- The [MPEG Media Settings] dialog box appears.
  "[MPEG Media Settings] Dialog Box" (▶ page 239)

Note

- [MPEG Media Settings] will not be displayed if the target file is not MPEG.

Alternative

- Select a clip placed on the timeline, click [Clip] on the menu bar, and then click [MPEG Media Settings].

2) Set each item and click [OK].

- The above settings can be changed on all MPEG files to be imported to EDIUS.
  "[MPEG]" (▶ page 109)

[MPEG Media Settings] Dialog Box

[Use accel. seek]	Set faster seeking of MPEG files. To speed up seeking, check this item first, and then check the following items if necessary. **[Create seek information in background]** Collect the time stamp information of MPEG files at idling to speed up the seek. **[Save seek information to file]** Save the seek information as a reusable file.
[A/V synchronization using PTS]	Some MPEG files have no valid PTS (time stamp information). Check this item to decode files that have no PTS. Check this item to use the PTS (time stamp information) for synchronization of audio and video.
[Get timecode from GOP header]	Some MPEG files may have timecode information in their header. Check this item to use timecode information.
[Dolby Digital]	**[Dynamic Range Compression Mode]** Set the operation mode of the dynamic range for Dolby Digital Professional and Dolby Digital Plus. Select [System Setting] to use the setting value in the system setting. **[Dynamic Range Control]** Set whether or not to control the dynamic range for Dolby Digital Professional and Dolby Digital Plus. Select [System Setting] to use the setting value in the system setting.

H.264 File Media Settings

You can set whether to acquire timecode information from Picture Timing SEI by each clip to H.264 codec clips.

1) Right-click a clip on the timeline, and click [H.264 Media Settings].

- The [H.264 Media Settings] dialog box appears.

Note

- If the target file is not H.264 codec, [H.264 Media Settings] will not be displayed.

Alternative

- Select a clip placed on the timeline, click [Clip] on the menu bar, and then click [H.264 Media Settings].

2) Set each item and click [OK].

[Get timecode from Picture Timing SEI]	Check this item to acquire the timecode information from Picture Timing SEI.
[Dolby Digital]	**[Dynamic Range Compression Mode]** Set the operation mode of the dynamic range for Dolby Digital Professional and Dolby Digital Plus. Select [System Setting] to use the setting value in the system setting. **[Dynamic Range Control]** Set whether or not to control the dynamic range for Dolby Digital Professional and Dolby Digital Plus. Select [System Setting] to use the setting value in the system setting.

- The above settings can be changed on all H.264 files to be imported to EDIUS.
  "[AVCHD]" (▶ page 106)

Setting Color Space of ProRes RAW

For ProRes RAW clips, color space for decoding can be set for each clip.

- When a file is loaded, EDIUS automatically recognizes clip metadata, and applies an appropriate color space. If a color space cannot be determined, [BT.2020/BT.2100 HLG] will be applied.

1) Right-click a clip on the timeline, and click [ProRes RAW Settings].

- The [ProRes RAW Settings] dialog box appears.

Note

- [ProRes RAW Settings] will not be displayed if the target file is not ProRes RAW.

Alternative

- Select a clip placed on the timeline, click [Clip] on the menu bar, and then click [ProRes RAW Settings].

2) Select a color space from the [Color Space] list, and click [OK].

Dividing Clips

Dividing Clips at the Timeline Cursor Position

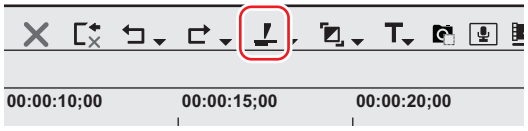
You can divide clips at the timeline cursor position. After dividing a clip, you can handle its divided segments as independent clips.

1) Select the clips to be divided.

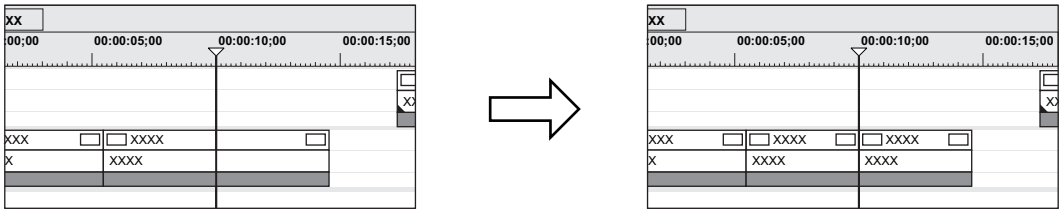
- You can select multiple clips.

2) Move the timeline cursor to the position where the clip is to be divided.

3) Click [Add Cut Point (Selected Tracks)] of the timeline.



- The clip is divided at the timeline cursor position.



Alternative

- Click the [Add Cut Point] list button, and click [Selected Tracks].
- Right-click the clip where the cut point is to be added, and click [Add Cut Point] → [Selected Tracks]. By this operation, the right-clicked clip is divided at the timeline cursor position regardless of the currently selected track.
- Click [Edit] on the menu bar, and click [Add Cut Point] → [Selected Tracks].
- Adding cut point at current position (selected tracks): **[C]**

- When the currently selected clip is at the timeline cursor position, that clip is divided regardless of the selected tracks.
- By the following operation, you can divide the clips on all tracks at the timeline cursor position in a single operation.
  - Click the [Add Cut Point] list button, and click [All Tracks].
  - Right-click any clip, and click [Add Cut Point] → [All Tracks].
  - Click [Edit] on the menu bar, and click [Add Cut Point] → [All Tracks].
  - Adding cut point (all tracks): **[Shift] + [C]**

Dividing Clips at the In and Out Points

You can set the In and Out points on the timeline to divide the clip at a desired position.

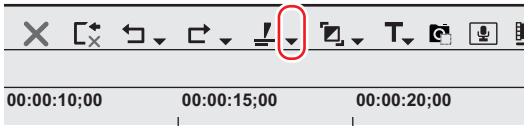
1) Select the track where the clip to be divided is currently placed.

- Multiple tracks also can be selected.
  "Selecting Tracks" (▶ page 210)

2) Setting the In and Out Points to the Timeline

- **"Setting the In and Out Points on the Timeline" (▶ page 222)**

3) Click the [Add Cut Point (Selected Tracks)] list button on the timeline.



4) Click [In/Out (Selected Tracks)].

Alternative

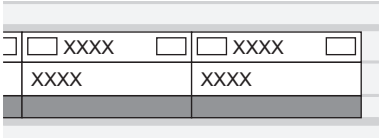
- Right-click the desired clip on the track where the cut point is to be added, and click [Add Cut Point] → [In/Out (Selected Tracks)].
- Select the track where the clip to divide is currently placed, click [Edit] on the menu bar, and click [Add Cut Point] → [In/Out (Selected Tracks)].
- Adding cut point at In/Out points (selected tracks): **[Alt] + [C]**

- When the currently selected clip is at the In or Out point, that clip is divided regardless of the selected tracks.
- By the following operation, you can divide the clips on all tracks at the In and Out points on the timeline in a single operation.
  - Click the [Add Cut Point] list button, and click [In/Out (All Tracks)].
  - Right-click any clip, and click [Add Cut Point] → [In/Out (All Tracks)].
  - Click [Edit] on the menu bar, and click [Add Cut Point] → [In/Out (All Tracks)].
  - Adding cut point at In/Out points (all tracks): **[Shift] + [Alt] + [C]**

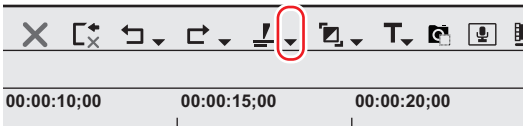
Combining Divided Clips

You can recombine divided clips.

1) Select 2 clips to be combined.

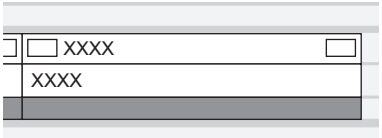


2) Click the [Add Cut Point (Selected Tracks)] list button on the timeline.



3) Click [Remove cut points].

- The 2 clips are combined, and can be handled as a single clip.



Alternative

- Right-click a clip and click [Remove cut points].
- Click [Edit] on the menu bar, and click [Remove cut points].
- Deleting cut point: **[Ctrl] + [Delete]**

- Three or more clips can be combined with the same operation.

Note

- [Remove cut points] is available only when neighboring clips are referencing the same source.
- When combining clips, if individual effects (e.g. video filter) or layouts have been applied to the clips before combining, the effect of clips placed to the leftmost side of the timeline are applied to clips after combining and other effects are deleted.
- The two clips before combining cannot be combined if their playback speed is different. Also, the settings of clips from the second clip from the left and onwards are discarded if a time remap has been set.
- When combining clips, the rubber band setting before combining is maintained. Note, however, that priority is given to the settings of subsequent clips when the rubber band points of the combined section are out-of-position.

Clip Enable/Disable

You can disable clips placed on the timeline. Disabled clips cannot be played back.

1) Right-click the clip to disable, and click [Enable/Disable].

- Disabled clips are displayed in gray regardless of their type.

Alternative

- Select the clip to disable, click [Clip] on the menu bar, and click [Enable/Disable].
- Enabling/disabling clips: **[0]**

- You can enable disabled clips by the same operation.

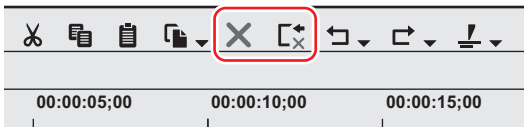
- Disabled clips can be edited in the same way as enabled clips.

Deleting Clips

Deleting Clips/Ripples

Delete clips placed on the timeline.

1) Select a clip, and click [Delete] or [Ripple delete] on the timeline.



- The selected clip is deleted.
- Regardless of the on/off setting of the ripple mode, when [Delete] is clicked, the selected clip is deleted, and when [Ripple delete] is clicked, all clips behind the deleted clip move forward together.

Alternative

- Select a clip, click [Edit] on the menu bar, and click [Delete] or [Ripple delete].
- Right-click the clip to delete, and click [Delete] or [Ripple delete].
- Deleting clip (mode-dependent): **[Delete]**
- Ripple deleting clip: **[Alt] + [Delete]**

Deleting/Ripple Deleting between In and Out Points on the Timeline

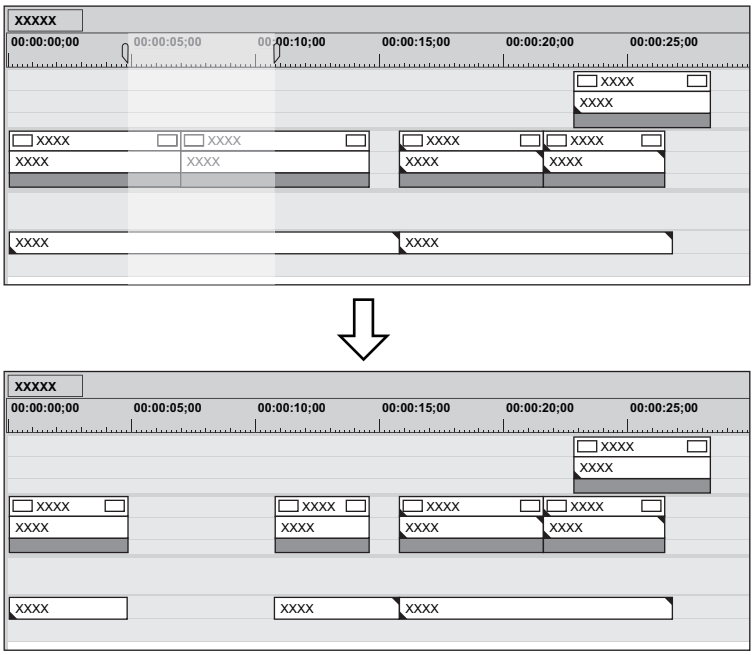
Delete the range of the clip between In and Out points on the timeline.

1) Setting the In and Out Points to the Timeline

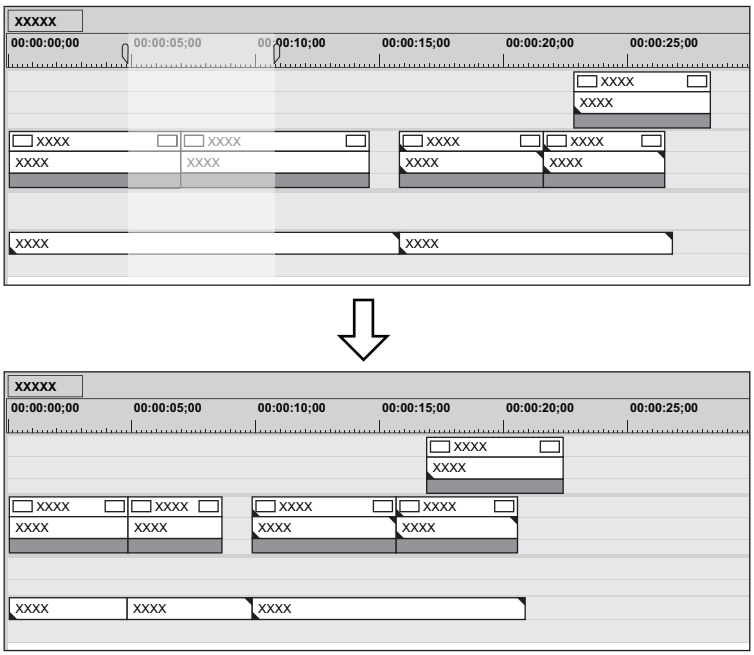
- **"Setting the In and Out Points on the Timeline" (▶ page 222)**

2) Click [Edit] on the menu bar, and click [Delete In/Out] or [Ripple Delete In/Out].

- When [Delete In/Out] is clicked, all clips between In and Out points are deleted.



- When [Ripple Delete In/Out] is clicked, all clips between In and Out points are deleted, and clips behind the deleted clips are moved forward together.



Alternative

- Right-click the time scale, and click [Delete In/Out] or [Ripple Delete In/Out].
- Right-click a track, and click [Delete In/Out] or [Ripple Delete In/Out].
- Deleting between In and Out points on the timeline (mode-dependent): **[D]**
- Ripple deleting between In and Out Points on the timeline: **[Alt] + [D]**

- When only the In point has been set, the range of the clip after the In point is deleted, and when only the Out point has been set, the range of the clip from the beginning of the timeline to the Out point is deleted.

Deleting/Ripple Deleting Only Video/Audio Clips

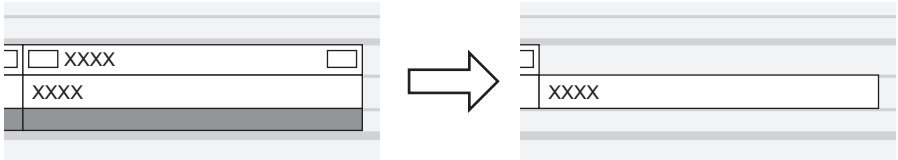
Delete only the video part or audio part of video clips with audio.

1) Select a clip.

2) Click [Edit] on the menu bar, and click [Delete Parts] → an item.

Example:

When deleting video clips



Alternative

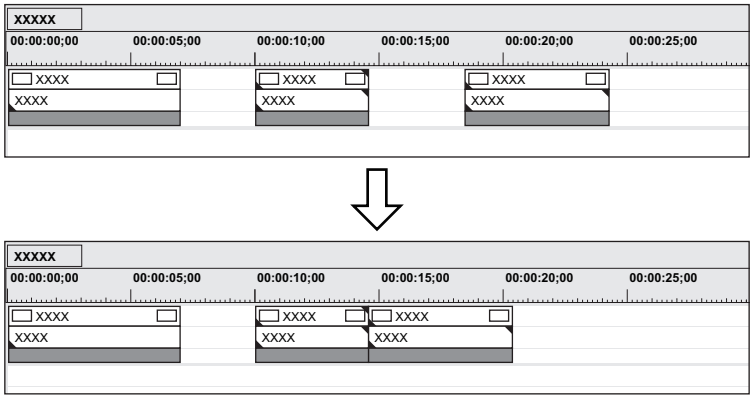
- Right-click a clip and click [Delete Parts] → an item.
- Unlink the clip, select only the video clip or audio clip, and delete/ripple delete.
  "Unlinking Clips" (▶ page 234)
  "Deleting Clips/Ripples" (▶ page 243)
- Once the clips are dragged and placed on the A track (V track), the video (audio) part is disabled.
- Deleting video clip only (mode-dependent): **[Alt] + [V]**
- Deleting video clip only (mode-dependent): **[Alt] + [A]**

Deleting Gaps (Blanks)

Delete blank spaces between clips, and move clips behind forward.

1) Right-click the gap to be deleted, and click [Delete Gap].

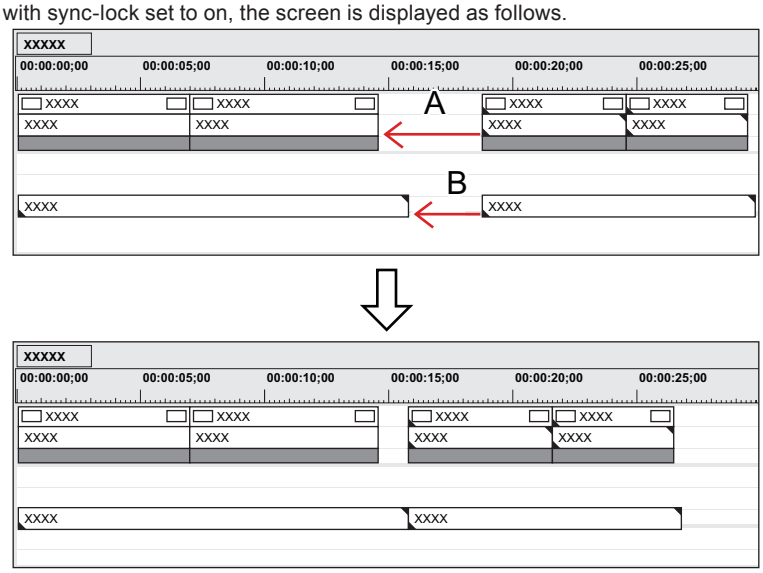
- The gap is deleted, and the clips behind are connected to the previous clip.



Alternative

- Select the clip behind the gap to delete, and press [Shift] + [Alt] + [S] or [Backspace] on the keyboard.
- Select the clip behind the gap to delete, and click [Edit] → [Delete Gap] → [Selected Clip] on the menu bar.
- Move the timeline cursor to the position of the gap to delete, select a track and click [Edit] → [Delete Gap] → [Cursor] on the menu bar.
- To delete multiple gaps at a time, select multiple gaps behind the gap to delete and perform the operation above.

- When sync-lock is set to on, the length of clips including linked tracks becomes the shortest by moving forward as a result of deleting the gap. Ripple delete does not function if there are no gaps on other tracks.
  When deleting the gap of A with sync-lock set to on, the screen is displayed as follows.



Deleting the gap A is limited to the gap length of B.

Playback Speed Adjustment

- When [Speed] or [Time Remap] is set, menu items to be displayed when each item is set is checked.

Note

- When the playback speed of clips is changed, ancillary data will be deleted.

Changing the Speed of the Whole Clip

You can change the playback speed of clips.

1) Right-click a clip, and click [Time Effect] → [Speed].

- The [Speed] dialog box appears.
  "[Speed] Dialog Box" (▶ page 246)

Alternative

- Click [Clip] on the menu bar, and click [Time Effect] → [Speed].
- Changing the speed of the whole clip: **[Alt] + [E]**

2) Set each item and click [OK].

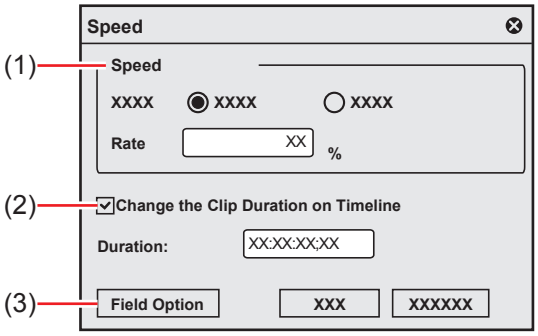
- An orange line is displayed on clips whose speed has been changed.

- The speed of multiple clips placed on separate clips can be changed in a single operation. A message is displayed if the speed change cannot be set depending on the combination of clips.

Note

- The playback speed cannot be changed for split trimmed clips on the VA track. To change the speed, unlink the clip.
  "Split Trim" (▶ page 268)
  "Unlinking Clips" (▶ page 234)

[Speed] Dialog Box



(1)	**[Speed]**	**[Direction]** Select the playback direction of the clips. **[Rate]** Enter the ratio to the original speed (100%). Since the speed is changed referenced to the In point, when [Change the Clip Duration on Timeline] is unchecked, the upper limit of Rate that can be entered changes according to the margin on the Out point side of the source clip. When there is no margin on the Out point side, a Rate greater than 100% cannot be entered.
(2)	**[Change the Clip Duration on Timeline]**	Check this item to change the duration of clips on the timeline according to the speed (value of [Rate]) of the clip. The duration of the clip can be entered at [Duration] to change the speed. When this item is unchecked, the speed can be changed without changing the duration of the clip on the timeline.
(3)	**[Field Option]**	The [Field Option] dialog box appears. **"[Field Option] Dialog Box" (▶ page 250)**

Partially Changing Playback Speed (Time Remap)

You can alter the speed of any part of a clip.

You can remap a particular frame of a clip to a different position of the timeline. The remaining frames are automatically interpolated, and as a result the speed of the previous/next frames is changed. The In point of a clip, the frame of the Out point and the overall length remain unchanged.

1) Right-click a clip, and click [Time Effect] → [Time Remap].

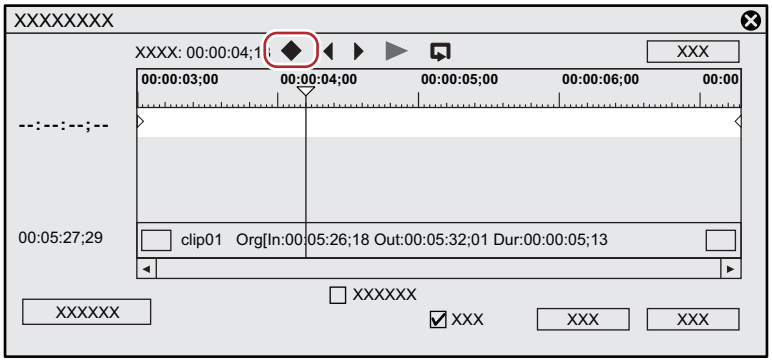
- The [Time Remap] dialog box appears.
  "[Time Remap] Dialog Box" (▶ page 248)

Alternative

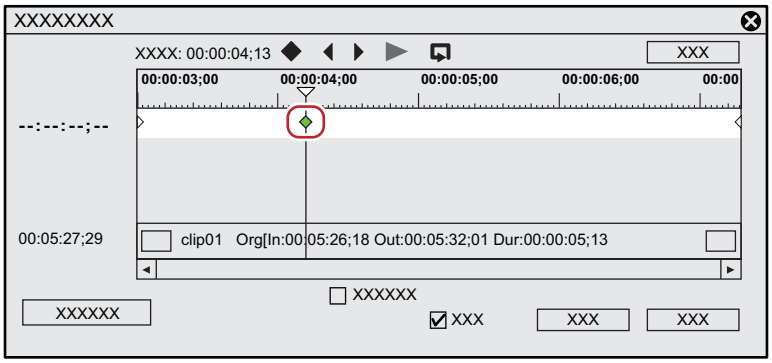
- Click [Clip] on the menu bar, and click [Time Effect] → [Time Remap].
- Partially changing playback speed: **[Shift] + [Alt] + [E]**

2) Drag the timeline cursor.

3) Click [Add Key / Delete] at the position to add a key.



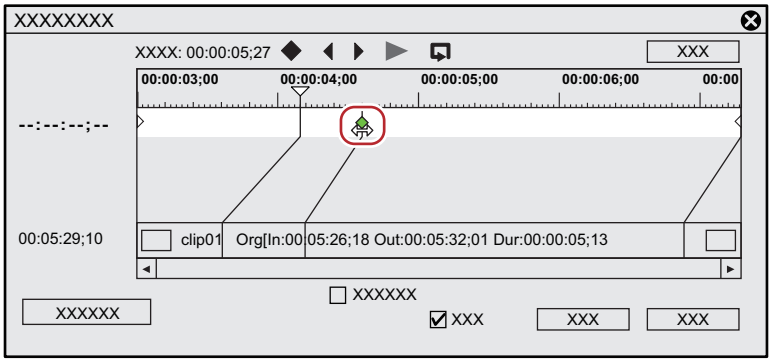
- The key is added in the key setting field.



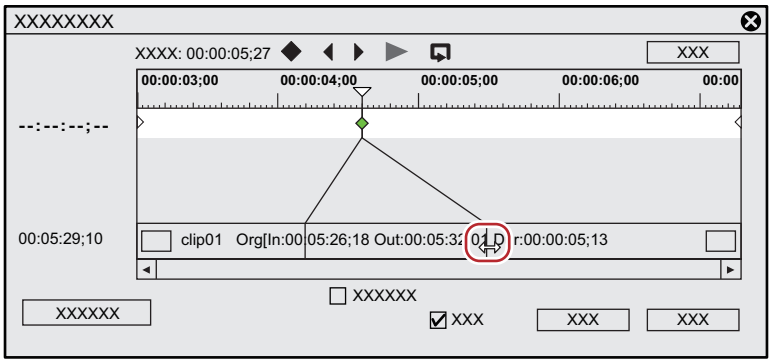
Alternative

- Right-click the [Time Remap] dialog box and click [Add Key] to add a key to the position of the timeline cursor.
- Right-click the [Time Remap] dialog box and click [Delete Key] to delete the key from the position of the timeline cursor.

4) Move the mouse cursor over the key, and drag to the left or right.



- The frame of the clip also can be dragged to the left or right.

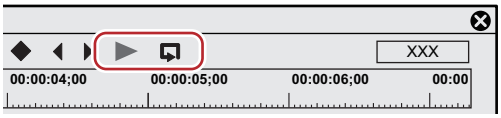


Alternative

- Moving the timeline cursor to the top frame of the clip: **[Home]**
- Moving the timeline cursor to the last frame of the clip: **[End]**
- Moving the timeline cursor to the previous frame: **[←]**

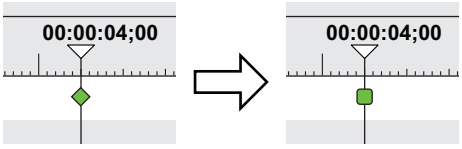
- Moving the timeline cursor to the next frame: **[→]**
- Moving key/frame to 1 frame before: **[,]** (This is enabled when the key setting field or a clip is focused, and the timeline cursor is moved to the key or the frame.)
- Moving key/frame to 1 frame behind: **[.]** (This is enabled when the key setting field or a clip is focused, and the timeline cursor is moved to the key or the frame.)
- Focusing on the key setting field: **[↑]**
- Focusing on the clip: **[↓]**

5) Click [Playback] or [Loop Playback] to check the video.



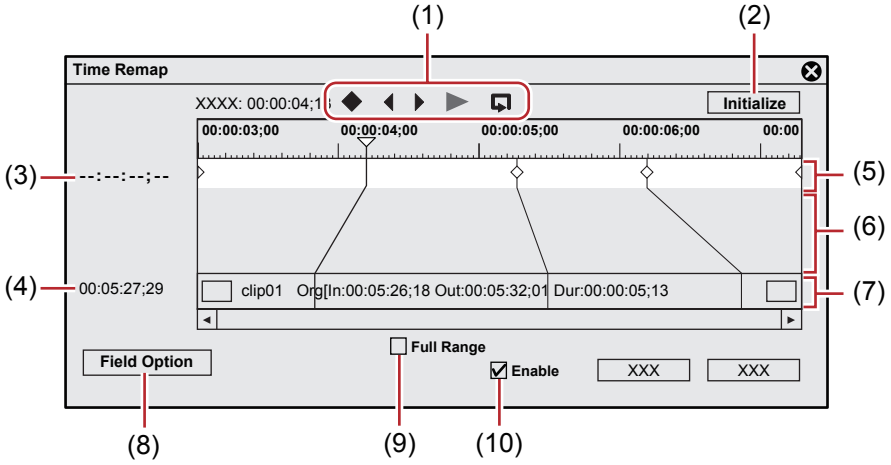
- The video is displayed on the Recorder.

- When you right-click the [Time Remap] dialog box and click [Information] to uncheck, the thumbnail displayed at the top and end of the clip, and the timecode can be set to hidden.
- When you right-click the [Time Remap] dialog box and click [Timeline Time] to uncheck, the top frame of the clip can be changed to “00:00:00;00”.
- When you right-click the [Time Remap] dialog box and click [Original Source Time] to uncheck, the timecode that takes the In point of the clip as “00:00:00;00” is displayed.
- Even clips with no key added are set with one key each at the beginning and end.
- As the default time remap setting, the speed of set keys onward is changed smoothly. If you want to maintain a fixed playback speed in a certain range, set the key to that range, right-click the key on the In point side, and click [Linear]. The key changes shape from diamond-shaped to square.



If you right-click a key set with linear change and click [Speed], a dialog box for entering the playback speed appears.

[Time Remap] Dialog Box



(1)	**Key frame edit buttons**	◆: Add a key at the position of the timeline cursor. If a key is placed at the position of the timeline cursor, the key is deleted. **Add: [Insert], [V]** **Delete: [Delete]**
		◀: Move the timeline cursor to the previous key. **[Page up], [A], [Ctrl] + [←]**
		▶: Move the timeline cursor to the next key. **[Page down], [S], [Ctrl] + [→]**
		▶: Play back the clip from the position of the timeline cursor to the end of the clip. When it is clicked during playback, playback pauses.
		: Repeatedly play back the clip. When it is clicked during playback, playback pauses.
(2)	**[Initialize]**	Click [Initialize] and click [Yes] to delete all added keys and restore the defaults.

(3)	**Timecode (Timeline)**	Directly enter the value to specify which place on the timecode of the timeline the key at the timeline cursor position is to be placed. The timecode is displayed when the timeline cursor is moved to the key.
(4)	**Timecode (Clip)**	Directly enter the value to specify which place on the timecode of the clip the key at the timeline cursor position is to be placed.
(5)	**Key setting field**	This space is used for setting the key. A green line is displayed at parts where the speed has not been changed.
(6)	**Time difference display area**	This space displays the values of the time difference that occurs when keys are added as a connected line.
(7)	**Clips**	Display the line connecting the key and the corresponding frame on a position on the clip.
(8)	**[Field Option]**	The [Field Option] dialog box appears. **"[Field Option] Dialog Box" (▶ page 250)**
(9)	**[Full Range]**	Display all margin sections of the clip. Checking this item when trimming or a cut operation has been performed after setting the time remap can display the keys of the cut section.
(10)	**[Enable]**	Switch the enable/disable setting for the time remap setting. Uncheck this item to disable the setting.

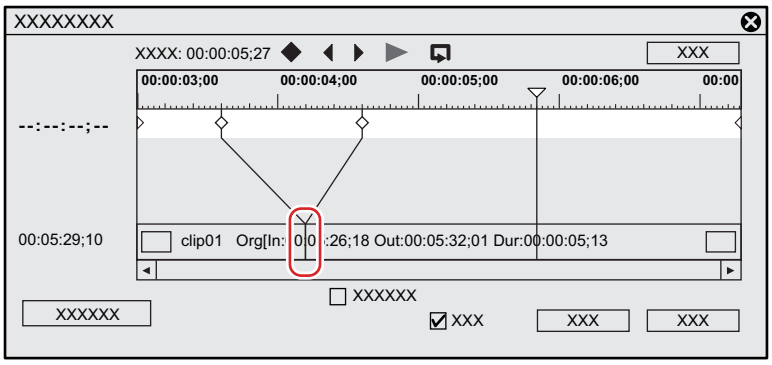
One Frame at a Time Playback (Freeze Frame)

Stop and play back the In or Out points of the clip. Clips can be stopped for not just the length of the clip but also the first half or second half from a desired frame.

Note

- Freeze frame can be set to video clips on the timeline.
- The freeze frame setting is deleted when a clip set with a freeze frame is added from the timeline to the bin.

- Any desired range of clips can also be frozen by time remap. Add keys to determine the range to freeze, and move to the position to stop the 2 key frames on the clip side.



1) Right-click a clip, and click [Time Effect] → [Freeze Frame] → [Setup].

Alternative

- Click [Clip] on the menu bar, and click [Time Effect] → [Freeze Frame] → [Setup].

2) Check [Enable freeze frame] in the [Freeze Frame] dialog box.

3) Select the fix position, and click [OK].

- When the In point is selected, the frame of the In point is freeze-framed for the length of the clip, and when the Out point is selected, the frame of the Out point is freeze-framed for the length of the clip.

- When a clip set with freeze frame enabled is trimmed, operation changes as follows depending on the fix position.
  - When the In point side of a clip with a fixed In point is trimmed, the displayed frame also moves matched to the trimming. Operation is not affected when the Out point side has been trimmed.
  - When the Out point side of a clip with a fixed Out point is trimmed, the displayed frame also moves matched to the trimming. Operation is not affected when the In point side has been trimmed.

Freeze-framing the First Half or Second Half from a Desired Frame

1) Move the timeline cursor to the frame to freeze.

2) Right-click a clip, and click [Time Effect] → [Freeze Frame] → [Before Cursor] or [After Cursor].

- The selected clip is cut at the timeline cursor position, and freeze frame is set to clips before or after the cursor. When freeze frame has been set after a cursor, the fix position becomes the In point, and when freeze frame has been set before a cursor, the fix position becomes the Out point.

Alternative

- Click [Clip] on the menu bar, and click [Time Effect] → [Freeze Frame] → [Before Cursor] or [After Cursor].

Note

- Freeze frame cannot be set when the timeline cursor is located at a transition between clips.

Field Options

You can set processing options for reducing flicker, for example, when slow motion has been set.

1) Select a clip.

- Multiple clips can be selected and set in a single operation.

2) Click [Clip] on the menu bar, and click [Time Effect] → [Field Option].

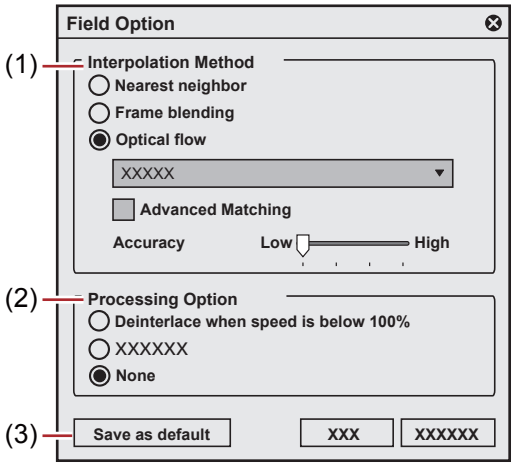
- The [Field Option] dialog box appears.
  "[Field Option] Dialog Box" (▶ page 250)

Alternative

- Right-click a clip and click [Time Effect] → [Field Option].

3) Set each item and click [OK].

[Field Option] Dialog Box



(1)	[Interpolation Method]	**[Nearest neighbor]** The length of the clip is adjusted by skipping frames or continuously displaying the same frame. **[Frame blending]** Adjacent frames are composed and a new frame is automatically generated to interpolate between the frames. **[Optical flow]** The motion in adjacent frames are analyzed by pixels and a new frame is automatically generated so that the motion of the subject is played back smoothly. Click the list button to set the quality of [Optical flow]. Select [Custom] to set [Advanced Matching] and [Accuracy] separately. • [Advanced Matching] Use [Advanced Matching] that analyzes detailed matching between images to recognize more detailed characteristics, which will separate the foreground and background sharply. Enabling [Advanced Matching] may cause specific artifacts. If it happens, uncheck [Advanced Matching]. **"Optical flow" (▶ page 251)** • [Accuracy] Set the accuracy of analysis. Accuracy of analysis can be selected from four levels from [Low] to [High]. Higher accuracy will take more time for analysis, but decreases smoky artifacts specific to the optical flow.
(2)	[Processing Option]	Set the processing option to reduce flicker during slow motion. Set [Deinterlace when speed is below 100%] when video is affected by the scanning line and flickers when a slower playback speed has been set.
(3)	[Save as default]	Click this item to save the current settings as defaults. When a clip is placed on the timeline, the default [Field Option] is always applied.

- If real time playback is disabled after [Optical flow] has been applied, using the draft preview or frame skip playback is helpful.
  "Draft Preview" (▶ page 301)
  "Frame Skip Playback" (▶ page 302)
- GPU acceleration is not supported.

High-Quality Slow Motion

By applying optical flow, an image interpolation technique, the video can be converted into a slow motion video with higher quality and smoother motion when the clip playback speed has been decreased due to setting change in [Speed] of [Time Effect].

■ Optical flow

Optical flow is a technique to generate new images to interpolate between images, by analyzing subtle motion between images and estimating spatially smooth motion. It enables to realize high-quality slow motion and smooth frame conversion.

Note

- For video like the following, high-quality slow motion effects may not be fully obtained.
  - Video with extremely high speed and long distance movement
  - Video in which subjects cross each other
  - Video that includes a building window, fence, or regular pattern like a horizontal striped T shirt
    Enabling [Advanced Matching] for [Optical flow] may cause specific artifacts.

  After applying high-quality slow motion, play back the video to check if the subject is mixed with the background or the images are distorted.

1) Right-click a clip on the timeline, and click [Time Effect] → [Speed].

- The [Speed] dialog box appears.
  "[Speed] Dialog Box" (▶ page 246)

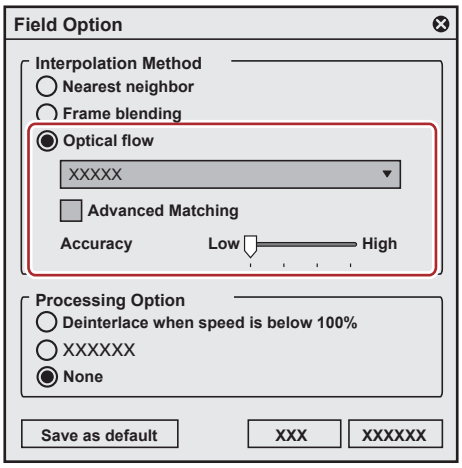
2) Set each item.

- To decrease the playback speed, change [Rate] in [Speed] to lower than 100%.
- Check [Change the Clip Duration on Timeline] to change the duration of clips on the timeline according to the speed (value of [Rate]) of the clip.

3) Click [Field Option].

- The [Field Option] dialog box appears.
  "[Field Option] Dialog Box" (▶ page 250)

4) Select [Optical flow] for [Interpolation Method], and click the list button to set the quality.



- If [Optical flow] has been selected for [Interpolation Method], selecting [None] for [Processing Option] will make the playback smoother.

5) Click [OK].

6) Click [OK].

- An orange line is displayed on a clip whose speed has been changed.

- [Optical flow] can also be used for progressive/interlace (P/I) conversion or frame rate conversion.
  If a progressive source is placed on an interlace timeline with the same frame rate (for example, 29.97p source is placed on the 59.94i timeline), the video can be played back smoothly due to P/I conversion in [Optical flow].

Video Layout

Transforming/Rotating Video

The layouter can be used to divide the screen, and video images can be placed or rotated in each screen, or keys can be set to each screen and assigned functions.
You can also use the motion tracking feature to make the image on the other track to follow a moving subject or to adjust the image so that the moving subject always appear on the center of the angular field.

- The layout of text objects in title clips also can be set.
  "Layout Settings" (▶ page 399)
- For projects having a video quantization bitrate of 10-bit, layouts are processed with 10-bit precision retained.

Editing Layouts

1) Click on a video part of a clip, and double-click [Layouter] in the [Information] palette.

- **"Showing/Hiding [Information] Palette" (▶ page 375)**
- The [Layouter] dialog box appears.
  "[Layouter] Dialog Box" (▶ page 254)

Alternative

- Click [Clip] on the menu bar, and click [Layouter].
- Right-click the video part of the V/VA clip on the timeline, and click [Layouter].
- Starting up layouter: **[F7]**

- You can resize the [Layouter] dialog box by moving the cursor to a corner or an edge of the dialog box and dragging the mouse when the cursor shape changes. You can also click [Maximize] to maximize the window size.
- The display area can be adjusted by moving the cursor to the bottom of the preview or parameter and dragging when the mouse cursor changes shape.
- When the mouse is right-clicked in the crop view or transform preview, the menu appears, and you can select tools or switch tabs.
- When the preview or anchor is dragged while [Shift] on the keyboard held down in the crop preview or transform preview, it can be moved limiting to X or Y axis.

2) Edit the layout.

- **"[Crop] tab" (▶ page 255)**
- **"[Transform] tab" (▶ page 255)**
- **"[Tracking] tab" (▶ page 256)**
- **"[Parameter] tab" (▶ page 256)**

Note

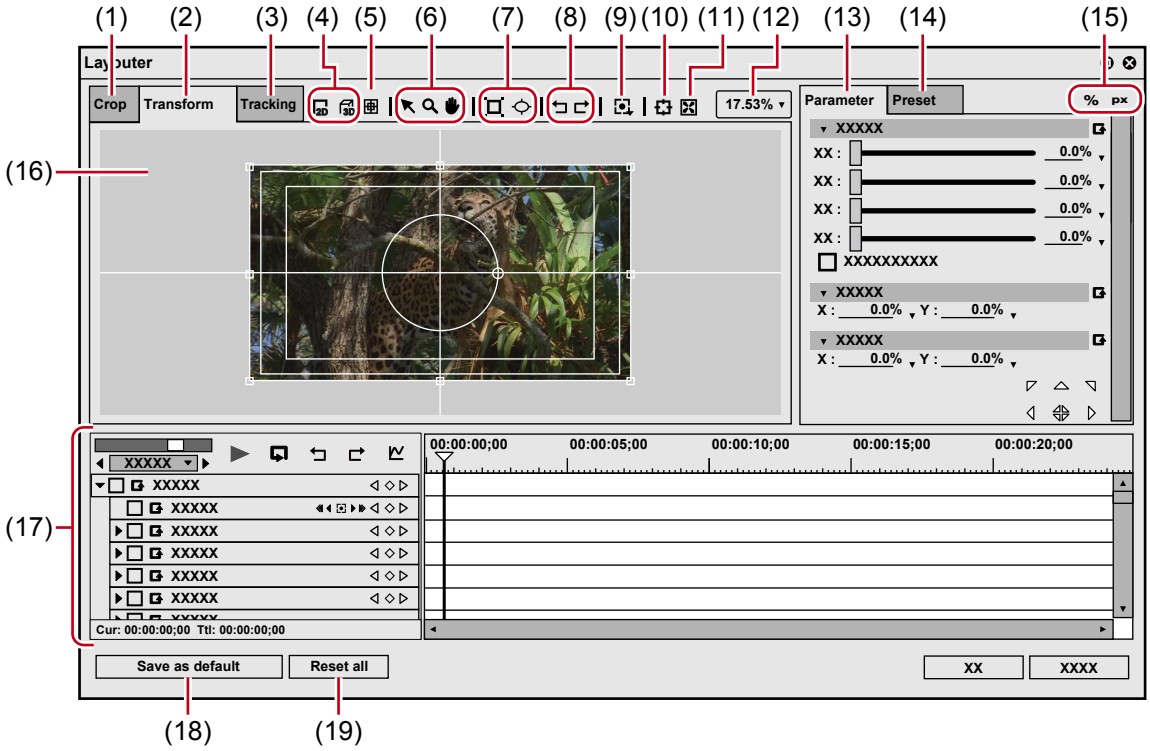
- When the 2D mode has been switched to the 3D mode during editing, editing details are carried over to the 3D mode. When the 3D mode has been switched to the 2D mode, the parameter values of items that cannot be edited in the 2D mode are discarded.

3) Click [OK].

- An orange line is displayed on clips set with the layouter.

- When the layouter has been edited, its settings can be registered to the [Effect] palette as original effects (user preset effects). Effects registered like this can be exported and imported to EDIUS on other PCs.
  "Registering Effects to [Effect] Palette" (▶ page 381)

[Layouter] Dialog Box



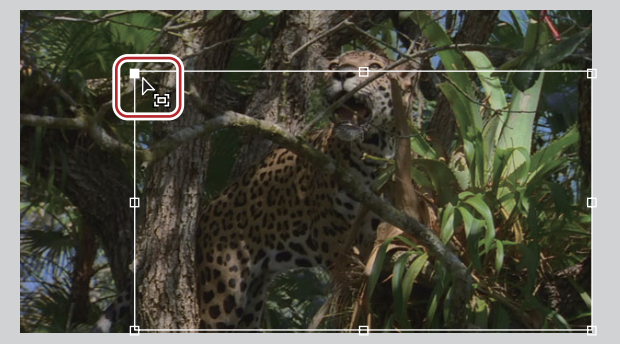
(1)	**[Crop] tab**	Display the crop preview.
(2)	**[Transform] tab**	Display the layout preview.
(3)	**[Tracking] tab**	Display the tracking preview.
(4)	**Mode buttons**[*1]	2D: Switch to 2D mode. Video can be moved or rotated on two dimensions. 3D: Switch to 3D mode. Video can be moved or rotated on three dimensions.
(5)	**Guide indication**[*1]	Switch the show/hide setting for guides such as centerline and safe area.
(6)	**Tool buttons**	: When the [Crop] or [Transform] tab is selected, drag the mouse to move the screen or perform handle operations. When the [Tracking] tab is selected, select or move the path. Dragging the handle can zoom in and out or rotate the path. : Drag the mouse to expand or contract the screen. From the drag start point, drag to the right to expand screens, and drag to the left to contract. : Drag the mouse to move the display area.
(7)	**Drawing buttons**[*2]	: Drag the mouse to draw a rectangle. Drag the mouse with [Shift] on the keyboard held down to draw a square. : Drag the mouse to draw an ellipse. Drag the mouse with [Shift] on the key board held down to draw a circle.
(8)	**[Undo]/[Redo]**	: Undo an operation. **[Ctrl] + [Z]** : Redo the undone operation. **[Ctrl] + [Y]**
(9)	**[Tracking]**[*2]	Select a tracking method and start tracking.
(10)	**[Centering]**	Center the display area which was moved by the pan tool.
(11)	**[Fit]**	Fit the expanded/contracted display to the display range of the preview screen.
(12)	**Zoom factor**	Change the zoom factor by entering a value or selecting a value from the list.
(13)	**[Parameter] tab**	Edit crops and transforms.
(14)	**[Preset] tab**	Save edited layouts and apply them to other clips. **"Saving Editing Details as Presets" (▶ page 261)**
(15)	**Switch display**	%: Switch parameters to % display (% display compatible items only). px: Switch parameters to pixel display (pixel display compatible items only).
(16)	**Preview**	Display the preview image in accordance with the selected tab. Selecting a path shows a handle or anchor to modify the path, which enables intuitive editing operations. Right-clicking on the screen displays the menu that is same as the operation buttons on the upper part of the [Layouter] dialog box.

(17)	**Key frame timeline**	Set the key frame to apply change to crops and transforms. The length of the timeline is the duration of the clip currently being edited. **“Setting Key Frames” (▶ page 262)**
(18)	**[Save as default]**	Click this item to save the current settings as defaults. When a clip is placed on the timeline, the default layout is always applied.
(19)	**[Reset all]**	Click this button to return the layouter settings to their defaults. To return the layout to the settings before they were changed, apply [Default] in the preset.

*1 Available only when the [Transform] tab is selected. When the [Tracking] tab is selected, the tracking mode selection buttons are displayed.
“[Layouter] Dialog Box (Motion Tracking)” (▶ page 260)
*2 Available only when the [Tracking] tab is selected.

■ [Crop] tab

Specify the display range by moving the cursor to an operation handle at the four corners or the center of a side and dragging.



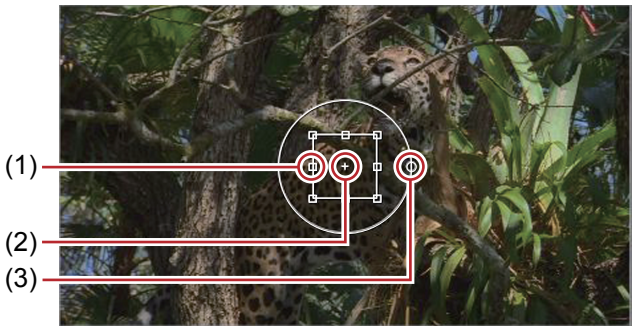
■ [Transform] tab

Reflect edited parameter details in the preview. You can also edit parameters by dragging handles inside the preview.

(1)	**Stretch handles**	Move the cursor to the operation handles at the corners and at the middle of the lines to zoom in and out the path.
(2)	**Guide**	Display the underscan, overscan, title safe, and horizontal/vertical centerlines. You can switch the show/hide setting by clicking [Guide].
(3)	**Rotation handle**	Move the cursor and drag the rotation handle to rotate the image. In the 3D mode, green part rotates around the Y axis, red part rotates around the X axis, and blue part rotates around the Z axis. With rotation on the preview screen, the X/Y/Z axes are the values for video, and with rotation by direct entry of numerical values to parameters, the X/Y/Z axes are the values for the display.
(4)	**Preview**	Display the results of editing parameters. The display position can be changed by dragging the preview. In the 3D mode, the display position can be moved in three dimensions in each of the X, Y and Z axis directions by dragging the arrow.
(5)	**Anchor**	Display the reference point of video. This point is a reference point for the rotation center and for stretching. Drag with [Ctrl] on the keyboard held down to change the position.

■ [Tracking] tab

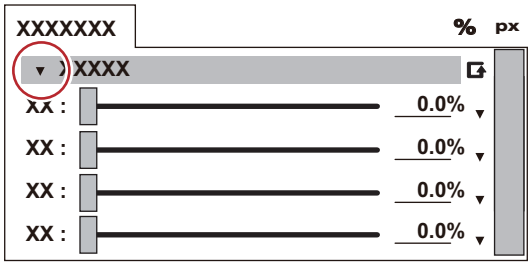
You can edit the shape that specifies the field of the tracking subject.



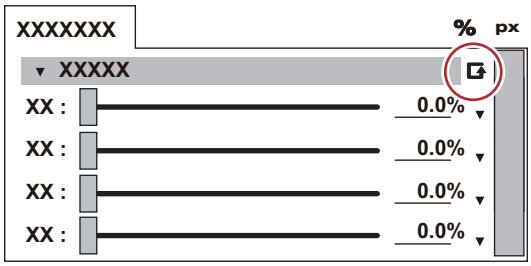
(1)	**Stretch handles**	Move the cursor to the operation handles at the corners and at the middle of the lines to zoom in and out the path.
(2)	**Anchor**	Indicate the reference point of the path. This point is a reference point for the rotation center and for stretching. Drag with [Ctrl] on the keyboard held down to change the position.
(3)	**Rotation handle**	Move the cursor and drag the rotation handle to rotate the image.

■ [Parameter] tab

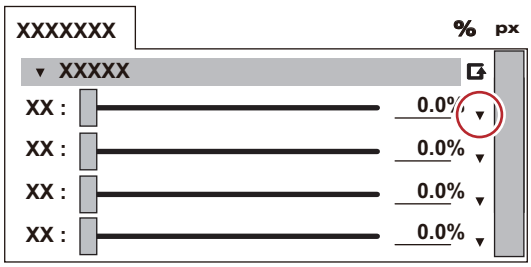
Enter numerical values or edit using the sliders or controls.
You can switch the show/hide setting for the sliders and controls by clicking the expand button on each editing menu.



Click [Set default parameters] to set the layout where settings in edit menus are saved as defaults.



Also, the display unit can be switched by clicking when a blue triangle mark is displayed in the respective value input field.



When the preview screen is edited, the editing details are reflected in parameters.

[Source crop]	Specify the crop range. In the % display, enter the crop ratio for each of the top/bottom/left/right parts with the width and height of the original clip as 100%. In the pixel display, enter the number of pixels to clip. This can also be edited by dragging the slider to the left and right. **[Auto adjust anchor]** Check this item to change the anchor position according to the crop amount. When this item is unchecked, the anchor does not move even if the crop values are changed.
[Anchor]	Set the reference position of the video. Set the anchor position by entering X and Y (in the 3D mode, X, Y and Z) with the origin at the center of the source video before it is cropped.

[Position]	Set the layout position of the video after cropping by directly entering a numerical value or by moving to the safe area. **X, Y/X, Y, Z** Set where the anchor is to be placed by entering X and Y (in the 3D mode, X, Y and Z) with the origin at the center of the frame. **Area selection** Select the area to be fitted to with the fit position buttons from the list. **Fit position buttons** Move the anchor to the upper left, upper edge, upper right, left edge, center, right edge, lower left, lower edge, and lower right of the cropped display area, and place video aligned to the respective position of the guide selected at area selection. During editing in the 3D mode, when the Z value has been changed by the position setting, video is placed at the position of the guide corresponding to depth.
[Stretch]	Set the scale of the video after cropping by entering a numerical value or clicking the fit button. **X, Y** Enter the scale with the size of the video after cropping as 100%. **Stretch fit button** Expand/contract video after cropping to fit the height or width of the screen. When ⛶ is clicked, video becomes the maximum size in which the entire video image can be displayed. **[Preserve frame aspect]** Check this item to expand/contract video with the aspect ratio of the original image maintained. **[Ignore pixel aspect]** Perform pixel mapping at actual size with no relation to the pixel aspect ratio. **[Resampling method]** Select the resampling mode when video is transformed for a clip currently being edited. **“[Resampling method] in the [Parameter] Tab” (▶ page 257)**
[Rotate]	Rotate the video after cropping. The angle can be rotated by entering a numerical value or moving the cursor to a control and dragging when the mouse cursor changes shape.
[Perspective]	Set perspective by entering a numerical value or dragging the slider to the left and right. In the 2D mode, [Perspective] is not displayed.
[Opacity and color]	Enter the opaque ratios for the source and its background, respectively. 0% is transparent and 100% is opaque. This can also be edited by dragging the slider to the left and right. **[Color of background]** Set the the background color. Click the color box to open the [Color Select] dialog box. **“[Color Select] Dialog Box” (▶ page 229)**
[Edge]	Attach a frame to video after cropping. **[Color]** Check this item to enable the color edge. Enter the edge width in pixels. This can also be edited by dragging the slider to the left and right. Click Color box to specify the edge color. **“[Color Select] Dialog Box” (▶ page 229)** **[Soft]** Check this item to apply blur to the edge. Enter a blur width in pixels. This can also be edited by dragging the slider to the left and right. **[Round corner]** Check this item to round the corners of edges. **[Side]** Select from the outside, inside or both sides of edges to apply [Color]/[Soft] to.
[Drop shadow]	When [Enable drop shadow] is checked, a drop shadow can be attached to video after cropping. Enter numerical values for [Distance] or [Opacity] and [Soften]. This can also be edited by dragging the slider to the left and right. The drop shadow direction can be set by entering an angle at [Angle] or moving the cursor to a control and dragging when the mouse cursor changes shape. Click Color box to specify the drop shadow color. **“[Color Select] Dialog Box” (▶ page 229)**

■ [Resampling method] in the [Parameter] Tab

[Resampling method] can be selected from the following options.

(1)	**[Current project setting]**
(2)	**[Bilinear (Fast Smooth)]**
(3)	**[Area Average (Fast Sharp)]**
(4)	**[Bicubic]**
(5)	**[Lanczos 2 (Best for interlaced picture)]**
(6)	**[Lanczos 3 (Hi-Quality)]**
(7)	**[Lanczos 3 Smoother (Best for motion graphics)]**

(8)	**[Lanczos 3 Sharper (Best for progressive picture)]**

See the following table for the resampling methods of **(2)** to **(8)**. The number of ★ indicates the processing ability to process the corresponding events.

- **For zooming in**

	Defocus	Alias	Overshoot	Calculation speed
(2)	★★	★★	★★★★★	★★★★★
(3)	★★★★★	★	★★★★★	★★★★★
(4)	★★★★	★★★	★★	★★★
(5)	★★★★	★★★★	★★★★	★★★
(6)	★★★★	★★★★★	★★★	★★★
(7)	★★★★	★★★★★	★★★	★★★
(8)	★★★★	★★★★★	★★★	★★★

- **For zooming out**

	Defocus	Alias	Overshoot	Calculation speed
(2)	★★	★★★★	★★★★★	★★★★
(3)	★★★	★★	★★★★★	★★★★
(4)	★★★★	★★★	★★★	★★★
(5)	★★★	★★★	★★★★	★★★
(6)	★★★★	★★★★	★★★	★★
(7)	★★★	★★★★★	★★★	★★
(8)	★★★★★	★★★	★★★	★★

Motion Tracking ([Layouter])

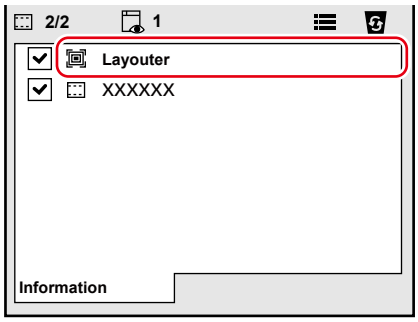
You can use two types of motion tracking using [Layouter].
Use [Anchor Mode (this layer)] to adjust the image so that the moving subject always appears on the center of the screen.
Use [Chase Mode (lower layer)] to make the image on the other track to follow a moving subject.
In addition to the position of the tracking target, the size and rotation will be analyzed, and the analysis result can be applied.

1) Place clips on tracks accordingly depending on the type of motion tracking.

- When you use [Anchor Mode (this layer)], place a clip which contains the subject on one track.
- When you use [Chase Mode (lower layer)], two tracks are used.
  Place a clip which contains the subject on a lower track, and place a still image on an upper track to make it to follow the movement of the subject, as well as other clips such as title.

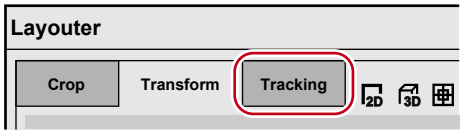
2) Click on a video part of a clip, and double-click [Layouter] in the [Information] palette.

- When you use [Chase Mode (lower layer)], double-click [Layouter] of the clip placed on the upper track.



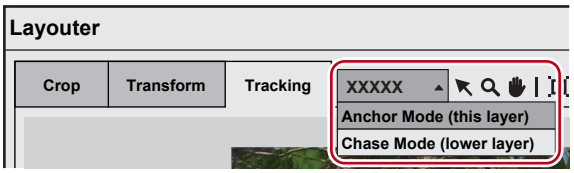
- The [Layouter] dialog box appears.
  "[Layouter] Dialog Box (Motion Tracking)" (▶ page 260)

3) Click the [Tracking] tab.



- A shape appears in the center of the preview image.

4) Click the tacking mode selection button to select a tracking mode.



- Select either [Anchor Mode (this layer)] or [Chase Mode (lower layer)] for the tracking mode.
  [Anchor Mode (this layer)] sets the subject on the selected clip as the tracking subject. Make adjustments so that the tracking subject always appears on the center of the screen.
  [Chase Mode (lower layer)] sets the subject on the clip placed on the lower track as the tracking subject. Make adjustments so that the image on the upper track follows the subject to be tracked.
- When an analysis result already exists, a message appears to make you to select whether to switch the tracking mode.

Alternative

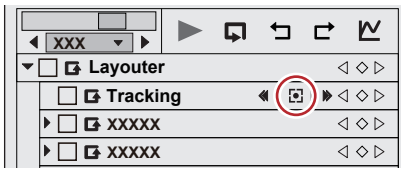
- Right-click on the preview image, and click [Tracking Mode] → [Anchor Mode (this layer)]/[Chase Mode (lower layer)].

5) Move the timeline cursor to the top frame.

6) Adjust the size and position of the shape to suit the tracking subject.

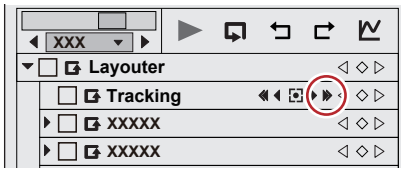
- Click a drawing button to create a new shape. When a new shape is created, the existing shape will be deleted.

7) Click [Tracking Option] for [Tracking], and select an analysis item.

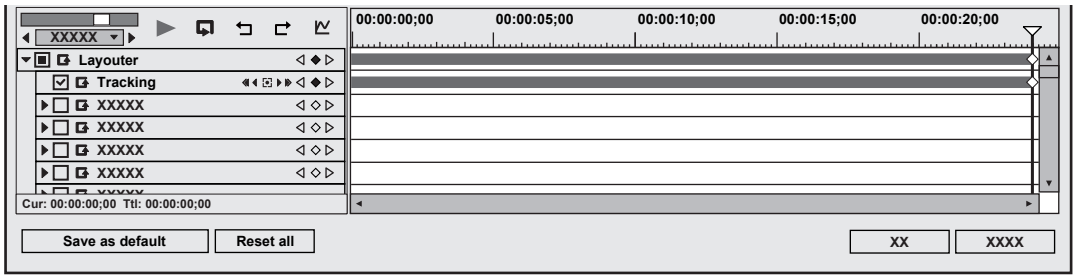


- The analysis item can be selected from [Position], [Scale], [Rotation], and [Distortion].
- A check mark appears on the selected item.

8) Click [Track Forward] in [Tracking].



- Tracking in the forward direction starts and a key frame will be set frame by frame. A progress bar is displayed to indicate the progress of the analysis.
- Tracking will end automatically at the last frame of the clip.



Alternative

- Click [Tracking] on the upper part of the [Layouter] dialog box, and click [Track Forward].

9) Play back the timeline to view the video.

- You can preview the video on which the analysis result of [Position] is applied in the preview window.
- Click on the [Transform] tab, and adjust the position and size as necessary.

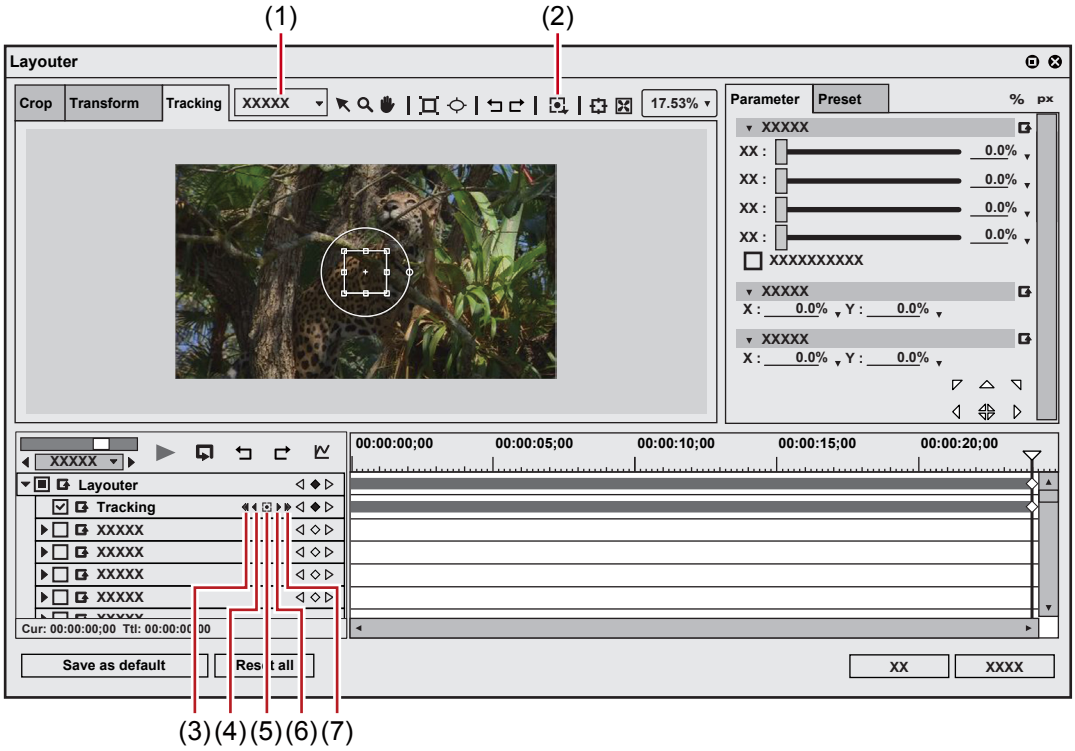
- To apply the analysis results of [Scale] and [Rotation], right-click on the preview image on the [Transform] tab, and click [Apply tracking] → [Scale]/[Rotation]. A check mark appears on the selected item. ([Position] is fixed to “on”.)

10) Click [OK].

- The [Layouter] dialog box will be closed.

- Set key frames can be adjusted frame by frame.
- The unit of time scale display on the [Layouter] dialog box can be adjusted in the time scale settings or by the time scale slider.
- For the interpolation method, only [Hold] is available.
- The position and size of the shape will not be saved. They will be maintained only while the [Layouter] dialog box is displayed.
- If tracking has stopped in the middle, set the key frame manually in the same way as motion tracking for [Mask].
  "If Automatic Tracking Has Been Disrupted" (▶ page 361)

[Layouter] Dialog Box (Motion Tracking)



(1)	**Tracking mode selection button**	Select a tracking mode.
(2)	**[Tracking]**	Select a tracking method and start tracking.
(3)	**[Track Reverse]**	Tracks in the reverse direction from the timeline cursor position and sets key frames. Tracking will end automatically at the top frame of the clip. **[Ctrl] + [,]**
(4)	**[Track Previous Frame]**	Tracks one frame in the reverse direction from the timeline cursor position and sets key frame. **[,]**
(5)	**[Tracking Option]**	This setting is only used for analysis. **[Position]** Tracks the position of the object. The default value is ON. **[Scale]** Tracks the size of the object. The default value is ON. **[Rotation]** Tracks the rotation of the object. The default value is ON. **[Distortion]** Tracks the distortion of the object (aspect ratio and shear). The default value is ON.
(6)	**[Track Next Frame]**	Tracks one frame in the forward direction from the timeline cursor position and sets key frame. **[.]**
(7)	**[Track Forward]**	Tracks in the forward direction from the timeline cursor position and sets key frames. Tracking will end automatically at the last frame of the clip. **[Ctrl] + [.]**

Saving Editing Details as Presets

1) Select a clip, start up layouter, and edit the layout.

2) Click the [Preset] tab.

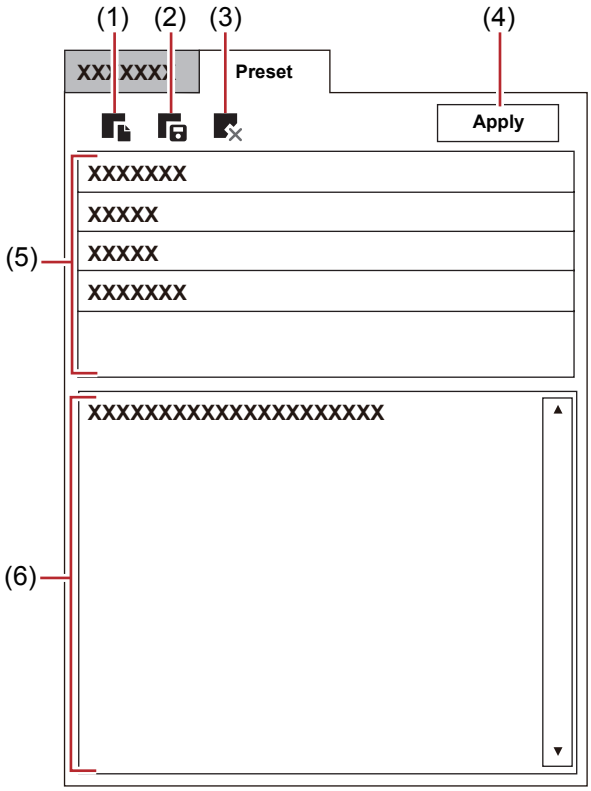
- **"[Preset] Tab" (▶ page 261)**

3) Click [New], and click [Yes].

4) Enter a preset name and comment, and click [OK].

- When the layouter has been edited, its settings can be registered to the [Effect] palette as original effects (user preset effects). Effects registered like this can be exported and imported to EDIUS on other PCs.
  "Registering Effects to [Effect] Palette" (▶ page 381)
- When a preset is selected in the preset list, and [Save] is clicked, select whether to overwrite save comment edits or editing details or save them as a new preset. To overwrite save, click [OK] without renaming the preset, and click [Yes].

[Preset] Tab



(1)	**[New]**	Save the current editing details as a new preset.
(2)	**[Save]**	Save the current editing details.
(3)	**[Delete]**	Delete the currently selected preset.
(4)	**[Apply]**	Select and apply the preset.
(5)	**Preset list**	Displays currently saved presets in a list.
(6)	**Comment**	Display the comment of the currently selected preset.

Editing Layout with Preset Applied

1) Select a clip, and start up layouter.

2) Click the [Preset] tab.

- "[Preset] Tab" (▶ page 261)

3) Select a preset, and click [Apply].

Alternative

- In the preset list, double-click the preset to apply.

4) Click [OK].

- An orange line is displayed on clips set with the layouter.

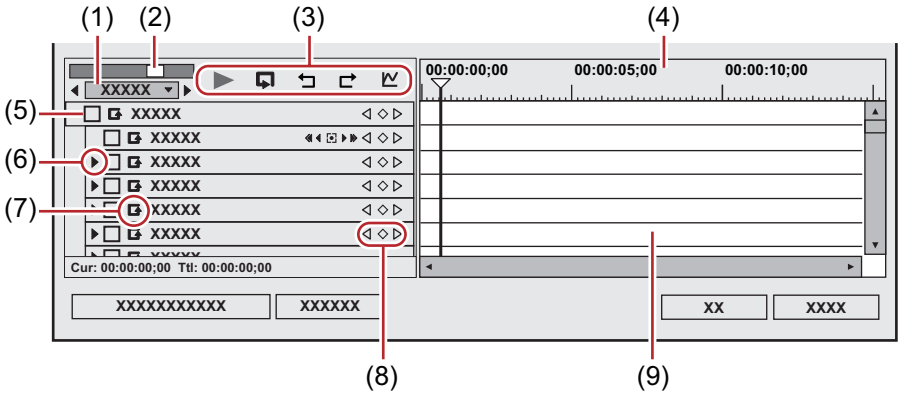
Changing Layouts along the Time Axis

Setting Key Frames

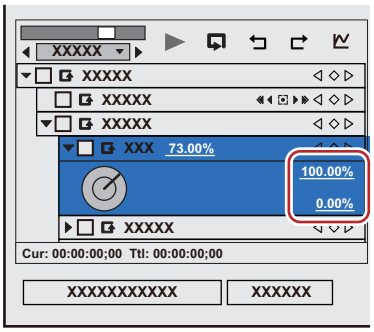
When a key frame is set, you can change the layout along the timeline.

1) Select a clip, and start up layouter.

- Set the key frame on the timeline in layouter.

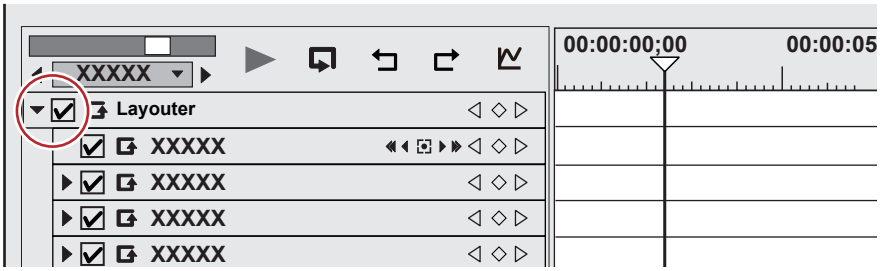


(1)	**Time scale settings**	Click this to toggle the specified display unit and [Fit]. Click the left arrow to reduce the display unit, or click the right arrow to increase the display unit.
(2)	**Time scale slider**	Drag the slider to the left and right to adjust the time scale display unit. Move the slider to the left to reduce the display unit, or to the right to increase it. The right end is [Fit].

(3)	**Playback/Tool buttons**	▶: Play back the timeline on the Recorder.
		: Repeatedly play back the clip currently being edited.
		: Undo an operation. **[Ctrl] + [Z]**
		: Redo the undone operation. **[Ctrl] + [Y]**
		: Switch the changes of each parameter to the chart view. In the chart view, the timeline is represented by a chart display of the selected key. The parameters can be edited by moving the keys up and down. The numerical values and gradations of the Y axis can be changed by entering numerical values. 
(4)	**Time scale for key frame**	Display a scale with the unit selected in the time scale setting on the timeline. Right-click the time scale and click [Timeline Timecode] to display the timecode of the timeline or click [Zero base Timecode] to display the timecode with the beginning of the clip as 0. If a sequence marker is set for the position where the clip is placed, right-click the time scale and click [Go to Previous Sequence Marker] or [Go To Next Sequence marker] to move the timeline cursor to the previous or next sequence marker.
(5)	**Enable/Disable**	Unchecking the item disables the parameter settings. To set a key frame, check [Layouter].
(6)	**Expand button**	Click this button to configure detailed settings for each item. The layout can be edited by entering a numerical value or moving the mouse to a control and dragging when the mouse cursor changes shape.
(7)	**[Add Default Key]**	Click this item to set the key frame of the items for each parameter in the layout (in an unchanged state) set as the [Default] in the preset at the timeline cursor position.
(8)	**Key frame setting**	Click ◆ in the center to set a key frame on the position of the timeline cursor. When the timeline cursor is located over the key frame, the key frame will be deleted. Click the left and right arrow to move to the previous and next key frame.
(9)	**Key frame timeline**	When a layout is edited at the timeline cursor position, a key frame is automatically added. Also, when parameter items are expanded, parameters can be edited by dragging the key frame up or down.

2) Check [Layouter] items.

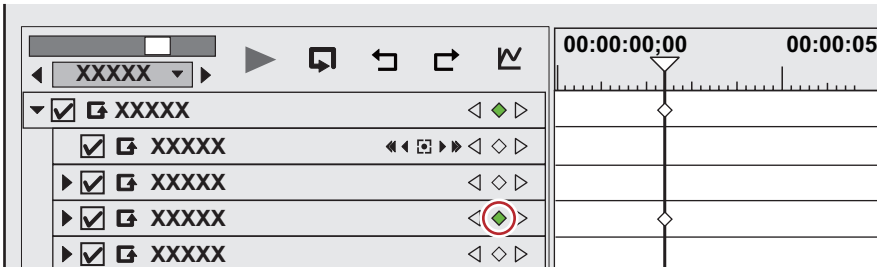
- Key frame settings are enabled.



3) On the timeline for the key frame, move the timeline cursor to the position to which the initial key frame is set.

4) Edit the layout.

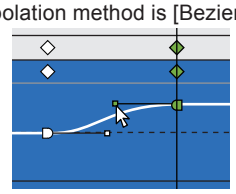
- A key frame is automatically added. If it is not added, click [Add Key / Delete] in the key frame settings.



5) Move the timeline cursor to the position to add the next key frame, and edit the layout.

- A key frame is automatically added. Repeat step **5)** if necessary.

- Key frames can be set without moving the timeline cursor by right-clicking the position to set the key to and clicking [Add].
- When the timeline is right-clicked and [Default] is clicked, the key frame is set to the right-clicked position on the layout currently set to [Default] in the preset (i.e. without any changes made to the layout).
- To delete a key frame, right-click the key frame and click [Delete].
- When the item name of a parameter is right-clicked and [Clear parameter of (item)] is clicked, all key frames for that item are deleted.
- Parameter items can be expanded, and copy, paste and other edit operations can be performed by right-clicking on the key frame.
- Parameter items can be expanded, and the method of interpolation can be changed by right-clicking the key frame. Select from [Hold] (fix layout up to next key frame), [Line] (change intuitively) and [Bezier] (change smoothly). The key changes shape when the interpolation method is changed.
- Parameter items can be expanded, and the parameters of the key frame can be edited by setting to chart display The interpolation curve can also be edited by dragging handles when the interpolation method is [Bezier].



- All set keys can be selected by right-clicking the timeline and clicking [Select All].
- Key frames can be added to the position of the timeline cursor by double-clicking the preview.
- When [Shift] + [V] on the keyboard are pressed, a key frame is added to all parameters with a valid key frame setting at the timeline cursor position.
- When [V] on the keyboard is pressed, a key frame is added to the currently selected parameter at the timeline cursor position.

6) Click [OK].

- An orange line is displayed on clips set with the layouter.

Trimming Clips

Trimming function allows fine adjustments of In and Out points of a clip placed on the timeline while viewing the video on a window. You can also move the boundary between clips and In and Out points of video/audio separately.

Trimming operation is performed by cut points. Clicking on a point near the In or Out point of a clip shows yellow and green lines. The yellow line appears at the currently selected point, and the green line appears on a point to be changed by the trimming operation.

There are three major methods of trimming. Dragging a cut point in the standard mode, switching to the trim mode and operating on the dedicated window that appears, and using shortcut keys.

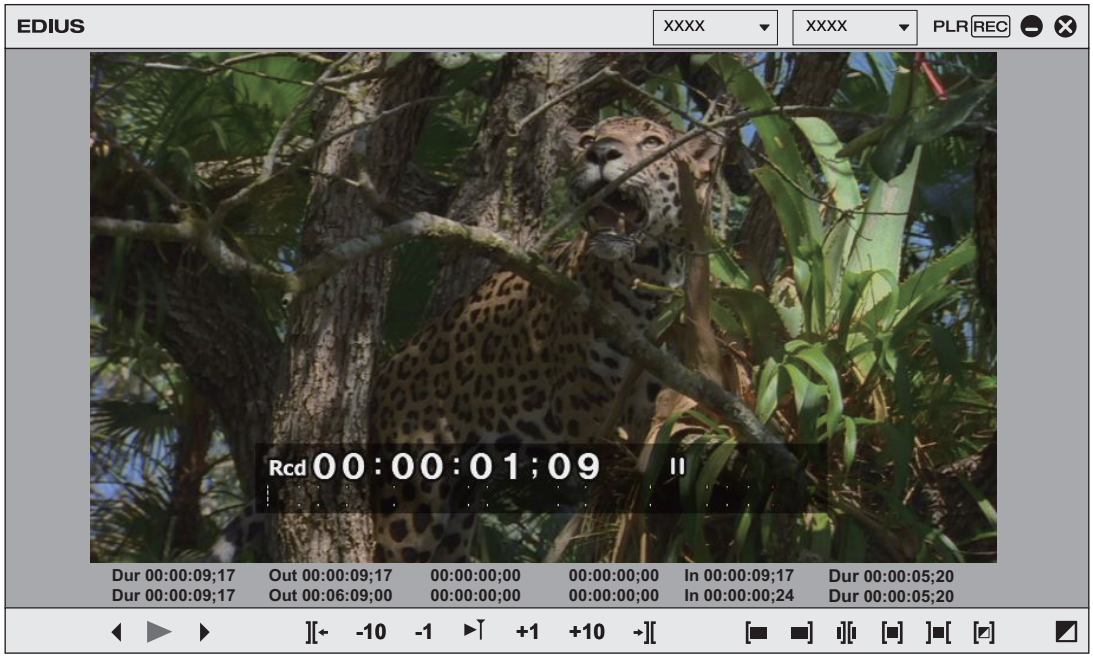
About the Trim Mode

You can switch to the trim mode to perform editing to fine-adjust video in 1 frame units or 10 frame units by button operation. Trimming is also possible in the standard mode by dragging the mouse.

Switching to the Trim Mode

1) Click [Mode] on the menu bar, and click [Trimming Mode].

- The preview window switches from the standard mode to the trim mode.



- The current trimming type is displayed on the status bar of the timeline window.

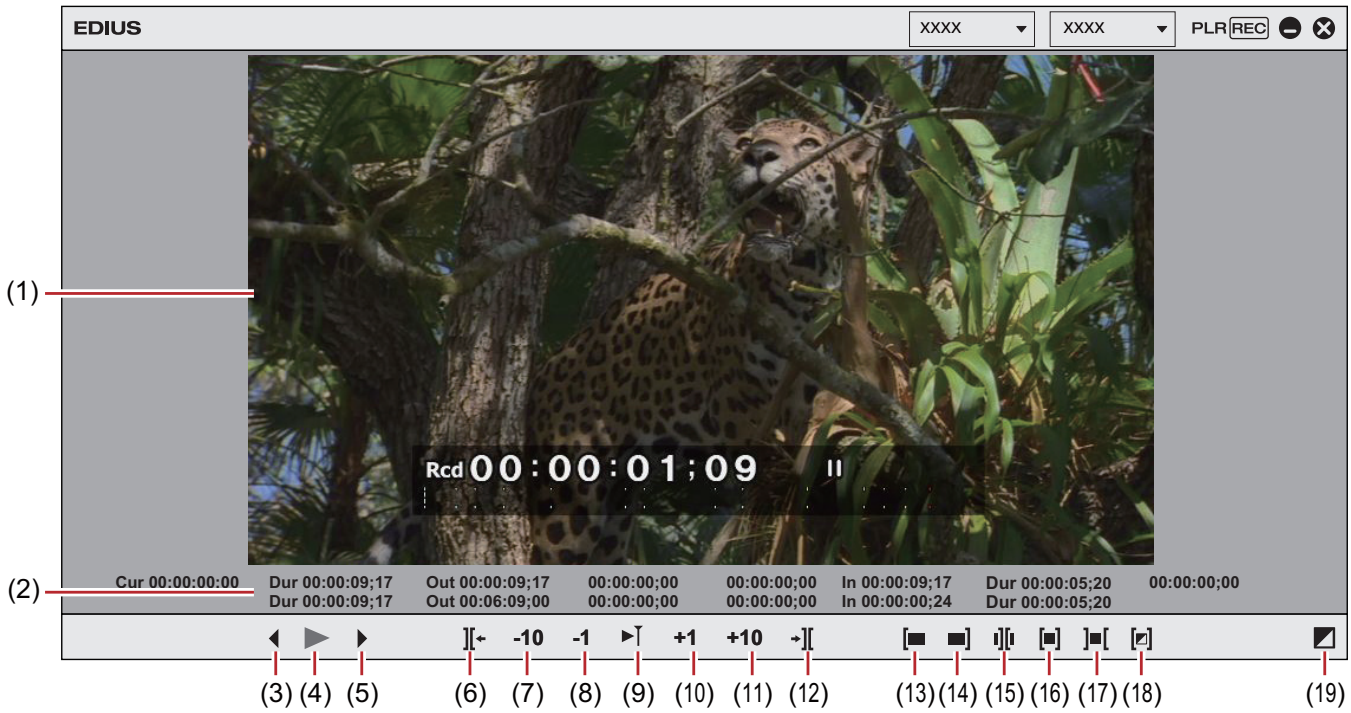
Alternative

- Switching to the trim mode: **[F6]**

- The trim mode can be switched to the standard mode by the following operation.
  - Click [Mode] on the menu bar, and click [Normal Mode].
  - Click [Switch to Normal Mode] on the lower right of the trim mode screen.
  - Press [F6] on the keyboard again.
  - Switching to standard mode: **[F5]**

About the Trim Window

Buttons exclusively for trimming and the preview are displayed in this window. When the trim mode button is clicked, the cut point corresponding to the trim mode is automatically selected. Trimming can also be performed more accurately by entering numerical values to the timecode for trimming.



(1)	**Preview window**	Switch the display to 1/2/4 screens depending on the trimming operation.
(2)	**Timecode**	Display the timecode of the In or Out point of the clip to edit. You can also change the trimming position by directly entering a numerical value.
(3)	**[Previous Frame]**	Move to the previous frame. **[←]**
(4)	**[Play]**	Play the timeline in the forward direction. When this button is clicked during playback, playback pauses. **[Enter]**
(5)	**[Next Frame]**	Move to the next frame. **[→]**
(6)	**[Move to Previous Edit Point (Trim)]**	Move the focus of the cut point and timeline cursor to the edit point (cut point) on the left of the current cut point position. **[Page up]**
(7)	**[Trim (-10 frames)]**	Adjust the trimming position in –10-frame units. **[Shift] + [,]**
(8)	**[Trim (-1 frame)]**	Adjust the trimming position in –1-frame units. **[,]**
(9)	**[Play the Event Area]**	Repeatedly play back the area around the focused cut point. Click it again to stop. **[/]**
(10)	**[Trim (1 frame)]**	Adjust the trimming position in +1-frame units. **[.]**
(11)	**[Trim (10 frames)]**	Adjust the trimming position in +10-frame units. **[Shift] + [.]**
(12)	**[Move to Next Edit Point (Trim)]**	Move the focus of the cut point and timeline cursor to the edit point (cut point) on the right of the current cut point position. **[Page down]**
(13)	**[Trim Mode (In Point)]**	Switch to the trim mode (In point). Only the In point can be selected.
(14)	**[Trim Mode (Out Point)]**	Switch to the trim mode (Out point). Only the Out point can be selected.
(15)	**[Trim Mode (Slide)]**	Switch to the trim mode (slide). Only the cut point of the slide trim can be selected.
(16)	**[Trim Mode (Slip)]**	Switch to the trim mode (slip). Only the cut point of the slip trim can be selected.
(17)	**[Trim Mode (Roll)]**	Switch to the trim mode (rolling). Only the cut point of the rolling trim can be selected.
(18)	**[Trim Mode (Transition)]**	Switch to the trim mode (transition). Only the transition (clip transition, track transition)/audio cross fades can be selected.

(19)	**[Switch to Normal Mode]**	Switch the trim mode to the standard mode. **[F5]**

* Sometimes there are no cut points that can be moved to on the selected tracks, or the cut point is sometimes disabled depending on the operation button.
"Entry of Values" (▶ page 44)

Trimming Type

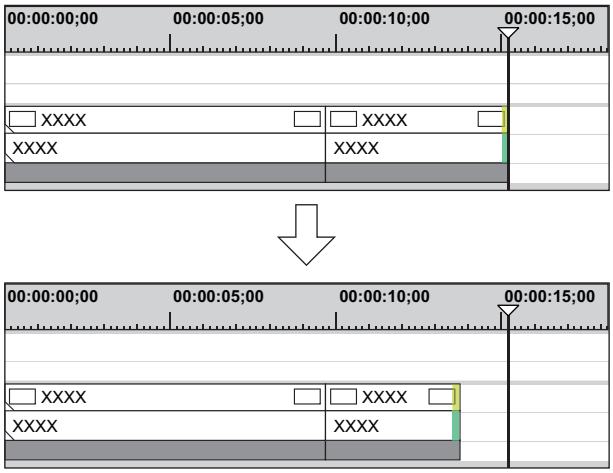
The following explains the features of each trimming type. For details on methods of operation, see the respective page.
"Trimming on the Timeline" (▶ page 271)
"Trimming on the Preview Window" (▶ page 272)
"Trimming by Entering the Timecode" (▶ page 273)
"Trimming by Shortcut Keys" (▶ page 274)

In point trim/Out point trim

Change the In and Out points of clips placed on the timeline.
The edit result is dependent on the edit mode.
"Switching the Editing Mode" (▶ page 215)

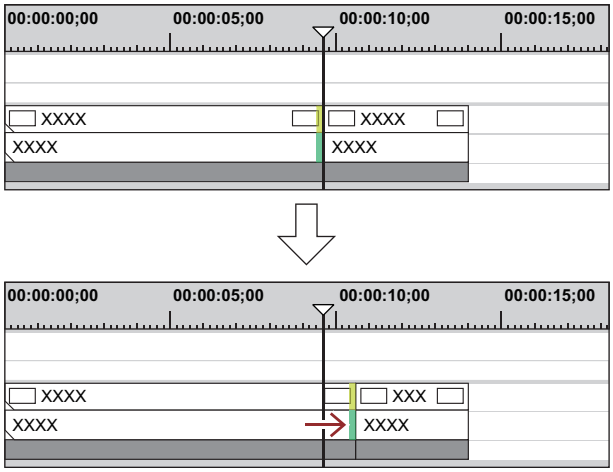
Example:

When the Out point side of the clip has been trimmed by a shortcut key (rippled mode off)



In the Overwrite Mode

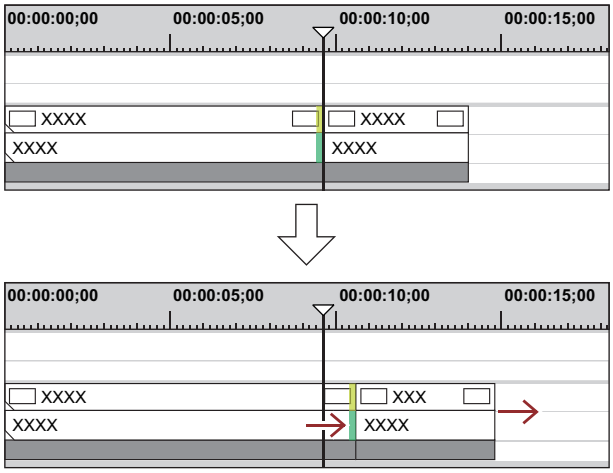
If you extend a clip, the subsequent clips shorten. If you extend the clip longer than the subsequent clips, all subsequent clips will be overwritten.



- Even if the ripple mode is off or the overwrite mode is set, neighboring clips can be fixed to prevent subsequent clips from being overwritten by mistake during trimming.
  "[Timeline]" (▶ page 120)

In the Insert Mode

If you extend a clip, the subsequent clips are shifted backward.



- You can move a clip together with all the subsequent clips.
  "Moving a Selected Clip and Subsequent Clips" (▶ page 233)
- You can trim the Out point of the clip by the following operation.
  - Select and right-click a clip, and click [Duration]. In the [Duration] dialog box, enter the playback time from the In point.
  - Select the clip and press [Alt] + [U] on the keyboard. In the [Duration] dialog box, enter the playback time from the In point.

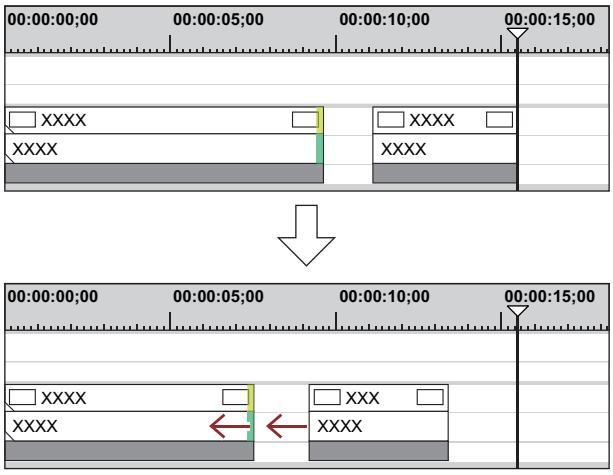
Ripple Trim

Change the In and Out points with the positional relationship with other clips maintained. Trimming is performed with the ripple mode on. Even if the ripple mode is off, ripple trimming is possible by using combinations of shortcut keys and keyboard operation.

"Ripple Mode" (▶ page 216)

Example:

When trimming the Out point side of the clip



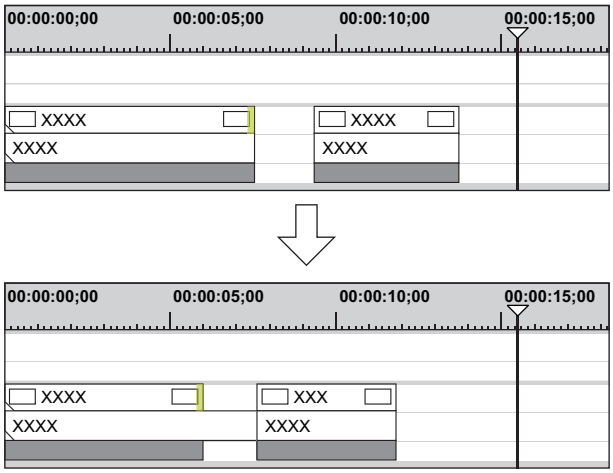
Split Trim

You can trim only the video section or audio section of video clips with audio.

- When the ripple mode is on, you cannot perform trimming if there is no gap between the trimming clip and the subsequent clip. Also, trimming can be performed by the length of the gap if the gap is shorter than the trimming clip.

Example:

When trimming the Out point side of a video clip with audio (video part)



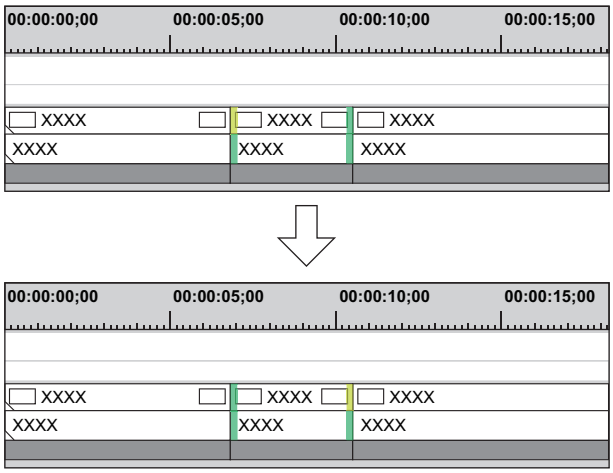
Slide Trim

Shift the start and end points of the neighboring clips forward and backward. The total length of the previous and subsequent clips remains unchanged.

- You cannot perform trimming if there is no margin between the trimming clip and the adjacent clips. When trimming clips with margins, trimming can be performed by the length of the margin of the clip.

Slip Trim

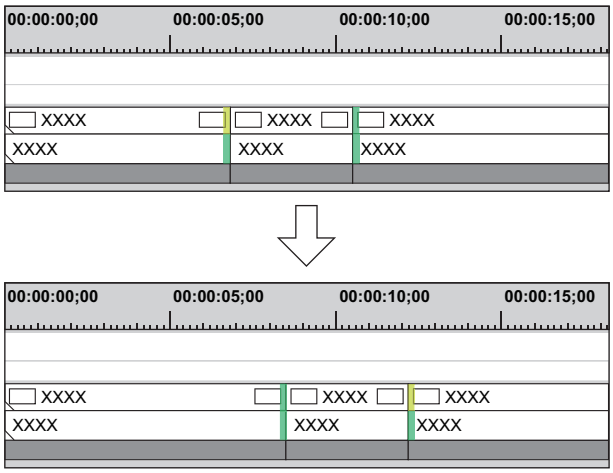
You can change the area of the clip to use, without changing the length or position of the clip. The length or position of the neighboring clips remain unchanged.



- You cannot perform trimming if the trimming clip has no margin. When trimming clips with margins, trimming can be performed by the length of the margin of the clip.

Rolling Trim

Shift the start and end points of the previous and subsequent clips without changing the length of specific clips.



Adjust the range to be used while checking the video displayed on the preview window.

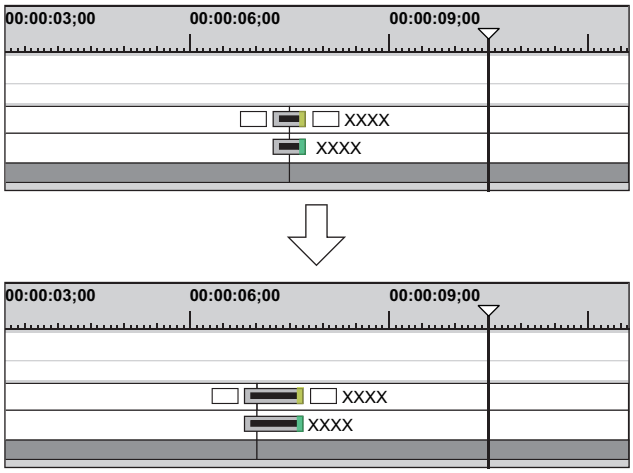
- You cannot perform trimming if the neighboring clip has no margin. When trimming clips with margins, trimming can be performed by the length of the margin of the clip.

Trimming Transitions/Audio Cross Fades

You can trim the length of transitions (clip transitions, track transitions)/audio cross fades in the same way as clips.

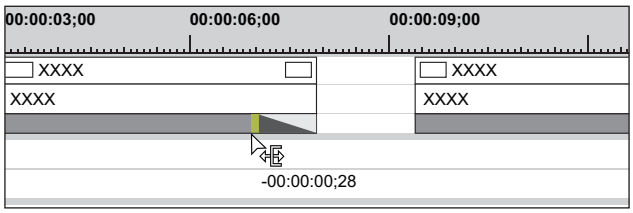
Example:

When trimming the Out point of a clip transition:

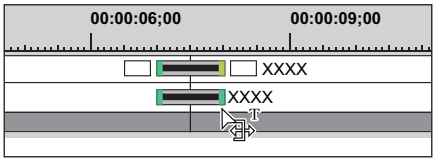


Example:

Track transition



Both edges of a transition/audio cross fades can also be trimmed at the same time.



- You can change the length of the title mixer by dragging in the same way as for the clips.
- You can extend the clip transition/audio cross fades by the margin of the clip.
- You can change the default duration value.
  "Changing Duration of Effect" (▶ page 365)

Trimming Operation Methods

Trimming on the Timeline

You can perform trimming while still in the standard mode by selecting and dragging a cut point. The edit result of trimming is dependent on the edit mode.

"Switching the Editing Mode" (▶ page 215)

The trimming type changes according to how the In and Out points are selected and keyboard combinations.

For details on respective trimming methods, see the respective page.

"In point trim/Out point trim" (▶ page 267)
"Ripple Trim" (▶ page 268)
"Split Trim" (▶ page 268)
"Slide Trim" (▶ page 269)
"Slip Trim" (▶ page 269)
"Rolling Trim" (▶ page 270)

1) Select the cut point of the trimming clip.

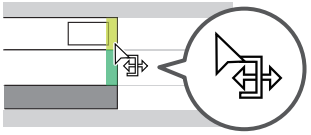
- The cut point for each trimming type is selected as follows:

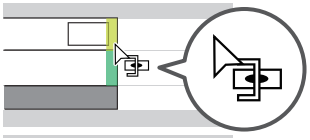
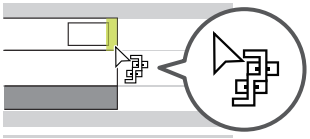
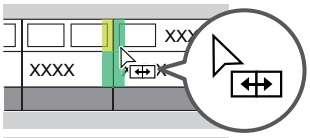
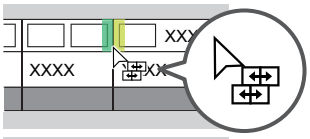
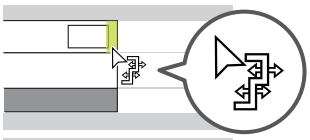
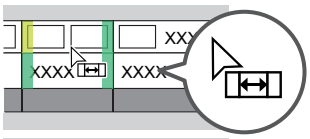
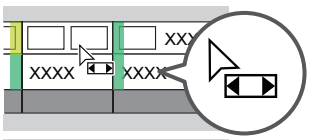
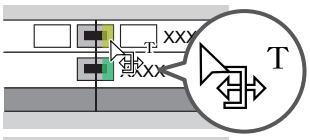
In point trim	Click the In point of the clip.
Out point trim	Click the Out point of the clip.
Ripple trim	Click [Shift] + In point or Out point.
Ripple trim (split)	Click [Alt] + [Shift] + In point or Out point.
Slide trim	Click [Ctrl] + [Shift] + In point or Out point.
Slide trim (split)	Click [Ctrl] + [Alt] + [Shift] + In point or Out point.
Split trim	Click [Alt] + In point or Out point.
Slip trim	Click [Ctrl] + [Alt] + center of the clip.
Rolling trim	Click [Ctrl] + [Shift] + center of the clip.
Transition trim	Click the In or Out point of transition (clip transition, track transition)/audio cross fades.
Transition trim (both edges)	Click [Shift] + clip transition/audio cross fade.

- Ripple trimming is also possible with the ripple mode off.

2) Move the mouse cursor to the cut point or clip, and drag to the left and right when the mouse cursor changes shape.

- Adjust the range to be used while checking the video displayed on the preview window.
- The mouse cursor changes shape according to the trim mode.

In point trim/Out point trim	

Ripple trim	
Ripple trim (split)	
Slide trim	
Slide trim (split)	
Split trim	
Slip trim	
Rolling trim	
Transition trim **Transition trim (both edges)**	

Trimming on the Preview Window

You can perform trimming by dragging the mouse on the preview window in the trim mode.

Note

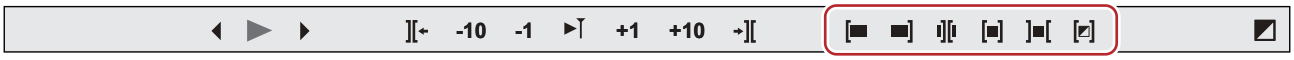
- The trim mode (transition) is not available in the preview window.

1) Click [Mode] on the menu bar, and click [Trimming Mode].

- The preview window switches from the standard mode to the trim mode.

2) Select the trimming clip.

3) Click the respective button at [Trimming Mode] in the trim window, and select the cut point.



- The cut point changes color to green or yellow, and trimming is enabled.
  "In point trim/Out point trim" (▶ page 267)
  "Ripple Trim" (▶ page 268)
  "Split Trim" (▶ page 268)
  "Slide Trim" (▶ page 269)

"Slip Trim" (▶ page 269)
"Rolling Trim" (▶ page 270)

4) Move the mouse cursor to the preview window, and drag to the left and right when the cursor changes shape.

- Adjust the range to be used while checking the video displayed on the preview window.
- The mouse cursor changes shape according to the trim mode.

In point trim:
Out point trim:
Slide trim:
Slip trim:
Rolling trim:

Trimming by Entering the Timecode

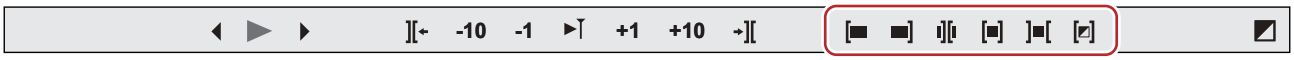
In the trim mode, the sequence timecode and the source timecode are displayed in the preview window, and you can execute trimming by entering numerical values.

1) Click [Mode] on the menu bar, and click [Trimming Mode].

- The preview window switches from the standard mode to the trim mode.

2) Select the trimming clip.

3) Click the respective button at [Trimming Mode] in the trim window, and select the cut point.



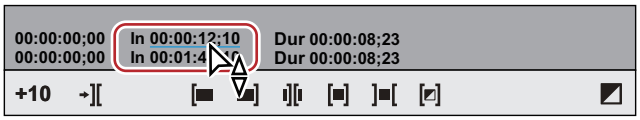
- The cut point changes color to green or yellow, and trimming is enabled.

"In point trim/Out point trim" (▶ page 267)
"Ripple Trim" (▶ page 268)
"Split Trim" (▶ page 268)
"Slide Trim" (▶ page 269)
"Slip Trim" (▶ page 269)
"Rolling Trim" (▶ page 270)

4) Enter the timecode.

- Move the mouse cursor to the timecode at the bottom of the trim window, and the mouse cursor changes shape. If you click in this state, a blue line is displayed under the timecode and numerical values can be entered.

"Entry of Values" (▶ page 44)

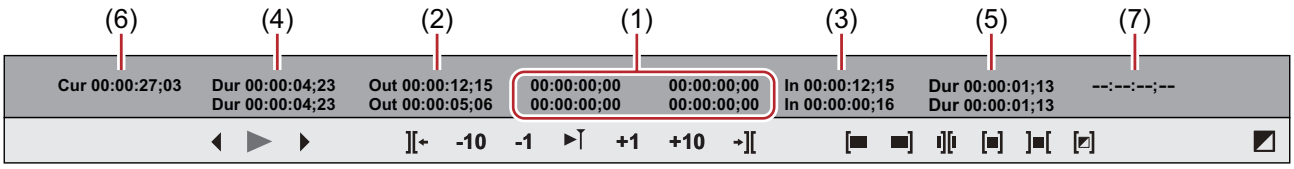


- **"Timecode of Trim Window" (▶ page 273)**

5) Press [Enter] on the keyboard.

- Adjust the range to be used while checking the video displayed on the preview window.

Timecode of Trim Window



The upper level is the timecode of the sequence, and the lower level is the timecode of the source. Numerical values can be entered in either level for trimming.

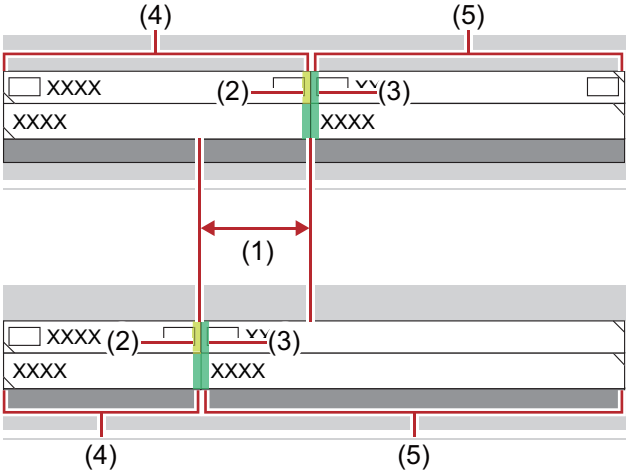
(1)	**Number of frames moved from focused cut point**
(2)	**Timecode of the focused cut point (Out point of clip)**
(3)	**Timecode of the focused cut point (In point of clip)**

(4)	**Length of clip to be trimmed (clip on Out point side)**
(5)	**Length of clip to be trimmed (clip on In point side)**
(6)	**Timecode at timeline cursor**
(7)	**Length of transition/audio cross fades to be trimmed**

* The items displayed may differ depending on the size of the preview window.

Example:

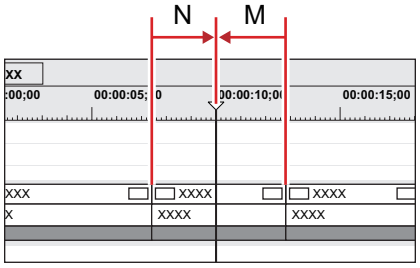
Slide trimming



Trimming by Shortcut Keys

The In and Out point sides of the timeline cursor can be trimmed by shortcut keys.

You can perform trimming from the In point up the timeline cursor by [N] on the keyboard and from the timeline cursor up to the Out point by [M].The trimming type changes according to the keyboard combination.



1) Select the clip to be trimmed.

- You can also perform trimming on a selected transition (clip transition, track transition) and audio cross fades. To trim a track transition, select the mixer.

2) Move the timeline cursor to the trimming position.

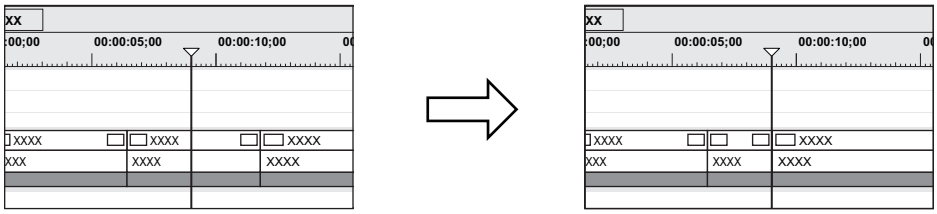
3) Press a key on the keyboard to perform trimming.

In point trim	[N]
Out point trim	[M]
Ripple trim (In point side)	[Alt] + [N]
Ripple trim (Out point side)	[Alt] + [M]
Slide trim (In point side)	[Ctrl] + [Alt] + [N]
Slide trim (Out point side)	[Ctrl] + [Alt] + [M]
Split trim (In point side)	[Shift] + [N]
Split trim (Out point side)	[Shift] + [M]

- Ripple trimming is also possible with the ripple mode off.

Example:

When the Out point side of the clip has been trimmed by slide trim ([Ctrl] + [Alt] + [M])



Markers

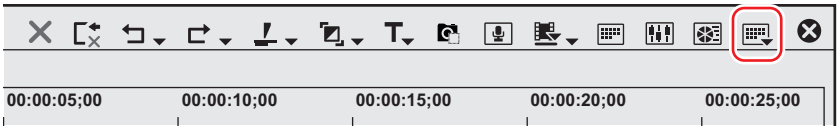
Setting Marker to Source

- A marker set to an asset on Mync can be utilized on EDIUS as a clip marker.

Displaying the [Clip Marker] List

Display the [Clip Marker] list in the [Marker] palette.

1) Click [Toggle Window Display] of the timeline.



2) Click [Marker].

Alternative

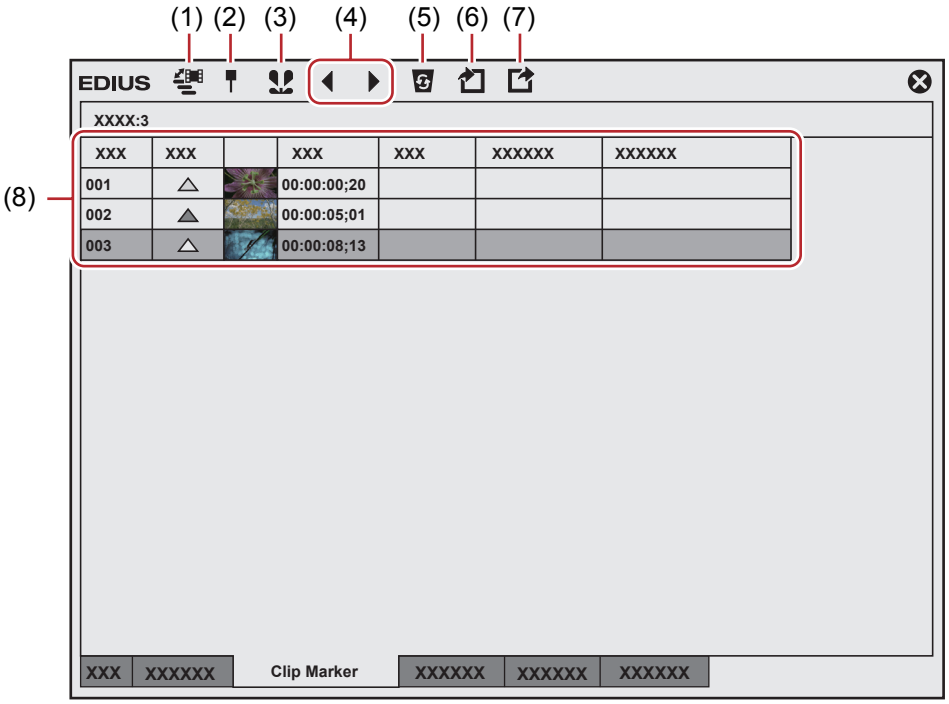
- Click [View] on the menu bar, and click [Window] → [Marker].
- Click [View] on the menu bar, and click [Window] → [Show All] or [Hide All], to show/hide all the tab windows at one time.
- Showing/hiding the tab window: **[H]**
  "Showing/Hiding [Information] Palette" (▶ page 375)
  "Showing/Hiding [Effect] Palette" (▶ page 335)
  "Showing/Hiding the [Mync] Window" (▶ page 190)
  "Showing/Hiding the [Job] Window" (▶ page 330)

- When the show/hide setting for the [Marker] palette is switched, the show/hide setting for the tabs of the bin window, source browser window, and tab windows combined with the [Marker] palette is also switched. To switch the show/hide setting separately, release the association of the window or tab windows.
  "Combining Tab Windows with Bin Window/Source Browser Window" (▶ page 144)

3) Click [Toggle Sequence Marker/Clip Marker] in the [Marker] palette.

- Each click switches between the [Clip Marker] list and the [Sequence Marker] list.
  "Displaying the [Sequence Marker] List" (▶ page 283)

[Clip Marker] List



(1)	**[Toggle Sequence Marker/Clip Marker]**	Switch between the [Clip Marker] list and the [Sequence Marker] list.
(2)	**[Set Marker]**	Add the clip marker to the position the slider on the Player.
(3)	**[Set Marker In/Out]**	Add the clip marker with range to between In and Out points of the clip currently displayed on the Player.
(4)	**[Go to Previous Marker]/[Go to Next marker]**	Move to the previous/next clip marker.
(5)	**[Clear Marker]**	Select and delete a clip marker from the clip marker list.
(6)	**[Import Marker List]**	Import a clip marker list.
(7)	**[Export Marker List]**	Export the clip marker list as a CSV file.
(8)	**Clip marker list**	Display the thumbnail, timecode or comment of the set clip marker. Click [Color] to change the color of the clip marker. **"Changing Color of Clip Marker" (▶ page 282)**

Note

- The [Clip Marker] list displays the clip marker information of clips currently displayed on the Player when the focus is on the Player and the clip marker information of clips currently displayed on the timeline when the focus is on the Recorder.

Setting Clip Markers at Capture

You can set markers to source clips while sources are being captured.

- The color of the clip marker that can be set at the time of capturing is orange. Clip markers in other colors cannot be set.

1) Start the source capture.

- **"Capturing and Importing Sources" (▶ page 160)**

2) At the scene to which the clip marker is to be set, click [Add Marker] in the [Capture] dialog box.

- The list of set markers is displayed. Enter a comment, if necessary.

- Multiple clip markers can be added by shortcut keys by the following operation. At the scene to add the clip marker to, press [V] on the keyboard, and enter the comment as required. To continue to add clip markers in scenes, press [Ctrl] + [M] on the keyboard, and enter the comment as required.

Setting Clip Markers

You can set clip markers to source clips registered to the bin and to the source currently displayed on the Player.

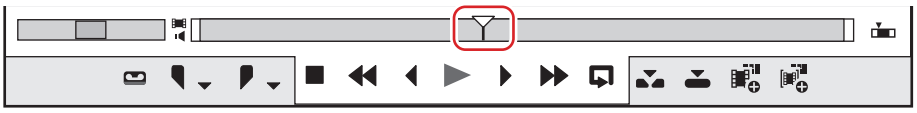
- The default color of clip marker is orange. The color of clip markers can be changed on the [Clip Marker] list.
  "Changing Color of Clip Marker" (▶ page 282)

1) Display the source on the Player.

- **"Displaying Clips on the Player" (▶ page 183)**

2) Move the slider on the Player to the clip marker setting position.

- **"Playing Back with Shuttle/Slider" (▶ page 182)**



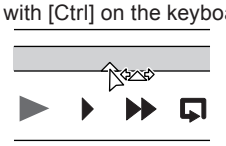
3) Click [Set Marker] in the [Clip Marker] list.

- **"[Clip Marker] List" (▶ page 277)**
- The clip marker is displayed for slider on the Player, and the timecode of the clip marker is displayed in the [Clip Marker] list.

Alternative

- Click [Marker] on the menu bar, and click [Add Marker].
- Right-click the clip marker list, and click [Set Mark].
- Right-click the slider on the Player, and click [Set clip marker/Clear clip marker (Toggle)].
- Setting clip markers: **[V]**

- You can move marker positions by the following operation.
  - Click the timecode at [In] in the [Clip Marker] list, and enter the desired numerical value.
  - Drag the clip marker on the position bar on the Player with [Ctrl] on the keyboard held down.



- You can enter comments at the same time you are setting clip markers.
  Click [Marker] on the menu bar, and click [Edit Marker] to enter the comment.
  "Entering Comments to Clip Markers" (▶ page 281)

Note

- When the focus is on the Recorder, clip markers cannot be set.
- Additions, deletions and edits made to clip markers are automatically reflected on clips in the bin. To leave behind the information of a clip before it is edited, register that clip to the bin as a different clip in advance.
  "Registering between In and Out Points to the Bin As a Separate Clip (Subclip)" (▶ page 188)
  When you add, delete, and edit the clip marker with a clip on the timeline displayed on the Player, register it to the bin as another clip, if necessary.
  "Registering Clips on the Player to the Bin" (▶ page 187)
- Clip markers cannot be set in the [Sequence Marker] list.

Adding Clip Markers to a Clip Placed on Timeline

You can use keyboard shortcuts to add clip markers to a clip placed on the timeline.
In this example, an orange-colored clip marker is added to a clip on the timeline using the keyboard shortcut for [Set marker to selected clips].

- The keyboard shortcut needs to be assigned in advance to the operation that adds a clip marker to a clip on the timeline.
  "Changing Keyboard Shortcut Assignments" (▶ page 157)
- Other than [Set marker to selected clips] that adds an orange-colored clip marker, keyboard shortcuts can be assigned to the following operations.

- Specifying color and range of a clip marker and adding it to a clip on the timeline
- Editing/deleting a clip marker of a clip on the timeline

Example:

Using the keyboard shortcut for [Set marker to selected clips]

1) On the timeline, select a clip to add a clip marker.

- You can select multiple clips.

2) Move the timeline cursor to the position where a clip marker is to be added.

3) Press the keys set as keyboard shortcut.

- An orange-colored clip marker is added to the selected clip.
- The timecode and other information of the set clip marker are added to the [Clip Marker] list.
  "[Clip Marker] List" (▶ page 277)

- When no clip is selected on the timeline, a clip marker will be added to a clip which is on the position of the timeline cursor of the selected track.
- Clip markers can be set even to disabled clips and clips placed on disabled tracks.
- Clip markers cannot be set to color bar clips and color matte clips.
- If you set a clip marker in a clip transition range, the clip marker will be added to the two clips before and after the transition.
- If you use a keyboard shortcut to add a clip marker in the same color to the position of an existing clip marker, the existing clip marker will be deleted. When multiple clip markers have been set, all of the existing clip markers will be deleted.

Setting Clip Markers with Range

You can set clip markers with range to source clips registered to the bin and to the source currently displayed on the Player.

- The default color of clip marker is orange. The color of clip markers can be changed on the [Clip Marker] list.
  "Changing Color of Clip Marker" (▶ page 282)

1) Display the source on the Player.

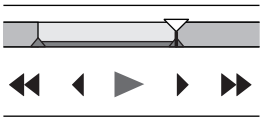
- **"Displaying Clips on the Player" (▶ page 183)**

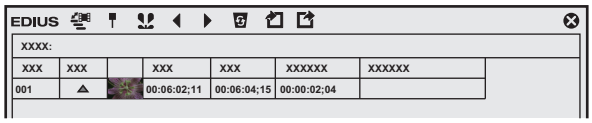
2) Set the In and Out points to source clips.

- **"Setting the In and Out Points" (▶ page 184)**

3) Click [Set Marker In/Out] in the [Clip Marker] list.

- **"[Clip Marker] List" (▶ page 277)**
- The clip marker with range is set to the slider on the Player, and the timecode and duration of the In and Out points of the clip marker are displayed on the [Clip Marker] list.

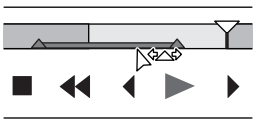




Alternative

- Right-click the clip marker list, and click [Set Mark In/Out].
- Right-click the slider on the Player, and click [Set clip marker In/Out].
- Click [Marker] on the menu bar, and click [Add Marker to In/Out Point].

- In step **1)**, the clip marker with range is set with the start of the clip as the In point when the In point has not been set and with the end of the clip as the Out point when the Out point has not been set.
- You can change the range of the clip marker by clicking [In], [Out] in the [Clip Marker] list or the timecode in [Duration] and entering the numerical value.
  "Entry of Values" (▶ page 44)
- You can move the marker position by dragging the clip marker with range on the position bar on the Player with [Ctrl] on the keyboard held down.



- Only the clip marker of the In point is displayed as the clip marker with range when that clip marker is not focused.

Note

- Clip markers with range cannot be set when the position of the In points of video and audio differ or when the position of the Out points of video and audio differ.
- When the focus is on the Recorder, clip markers cannot be set.
- Additions, deletions and edits made to clip markers are automatically reflected on clips in the bin. To leave behind the information of a clip before it is edited, register that clip to the bin as a different clip in advance.
  "Registering between In and Out Points to the Bin As a Separate Clip (Subclip)" (▶ page 188)
  When you add, delete, and edit the clip marker with a clip on the timeline displayed on the Player, register it to the bin as another clip, if necessary.
  "Registering Clips on the Player to the Bin" (▶ page 187)
- Clip markers cannot be set in the [Sequence Marker] list.

Deleting Clip Markers

You can delete set clip markers.

1) Display a clip set with a clip marker on the Player.

- **"Displaying Clips on the Player" (▶ page 183)**

2) Select the clip marker to delete from a clip marker list in the [Clip Marker] list.

3) Click [Clear Marker] in the [Clip Marker] list.

- **"[Clip Marker] List" (▶ page 277)**

Alternative

- Drag the clip marker to delete from the clip marker list, and drop it outside the [Clip Marker] list.
- Right-click on a clip marker to delete from the clip marker list, and click [Clear Marker].
- Right-click on the clip marker on the position bar on the Player, and click [Clear clip marker].
- Move the slider on the Player to the clip marker to delete, right-click the slider, and click [Set clip marker/Clear clip marker (Toggle)].
- Move the slider on the Player to the clip marker to delete, click [Marker] on the menu bar, and click [Clear Mark] → [Cursor].
- Click [Delete] in the [Edit Marker] dialog box for the clip marker.
  "Entering Comments to Clip Markers" (▶ page 281)

- You can also delete all clip markers in the clip marker list in a single operation by the following operation.
  - Click [Marker] on the menu bar, and click [Clear Mark] → [All].
  - Deleting all markers: **[Shift] + [Alt] + [V]**

Note

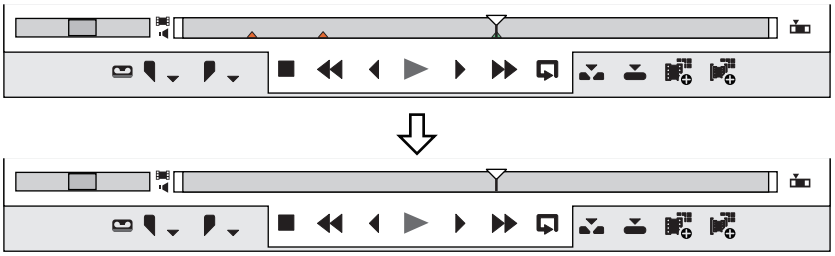
- When the focus is on the Recorder, clip markers cannot be deleted.

Showing/Hiding Clip Markers

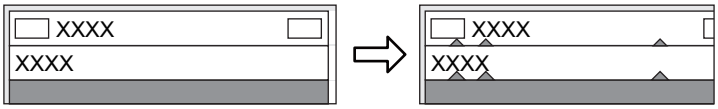
You can switch the show/hide setting for set clip markers for both the display on the Player and the display on the timeline.

1) Click [Marker] on the menu bar, and click [Show Clip Markers] → [Player] or [Timeline].

- When this item is checked, the clip marker or comment is displayed. This is no longer displayed when this item is unchecked.



Also, the clip marker is displayed on clips on the timeline when [Timeline] is clicked to check it. This is no longer displayed when this item is unchecked.



- Only comments for clip markers can also be hidden. Click [View] on the menu bar, and uncheck [Marker] in [Overlay].
  "Showing/Hiding Preview Window" (▶ page 148)
- Only the clip marker of the In point is displayed as the clip marker with range when that clip marker is not focused.

Using Markers

Entering Comments to Clip Markers

You can add a comment to clip markers that have been set.

1) Display a clip set with a clip marker on the Player.

- **"Displaying Clips on the Player" (▶ page 183)**

2) Right-click on the clip marker on the position bar, and click [Edit clip marker].

- When multiple clip markers are set on the same position on the position bar, [Edit clip marker] is not available.

3) In the [Edit Marker] dialog box, enter a comment and click [OK].

- Entered comments are displayed on the Player when the slider is moved to the clip marker. When a clip marker with range has been set, the comment is displayed while the slider on the Player is in the In and Out point range of the clip marker.
  Comments are displayed on the Player also during playback. However, comments displayed during playback are only those of clip markers with range.

Alternative

- Click the [Comments] field in the [Clip Marker] list.
- Right-click the clip marker list, and click [Edit Marker].
- Move the slider on the Player to the clip marker, click [Marker] on the menu bar, and click [Edit Marker]. Note that if multiple clip markers are set on the same position on the position bar, [Edit Marker] is not available.
- Comment carriage return: **[Ctrl] + [Enter]**

- You can also edit entered comments by the same operation.
- Additions, deletions and edits made to clip markers are automatically reflected on clips in the bin. To leave behind the information of a clip before it is edited, register that clip to the bin as a different clip in advance.
  "Registering between In and Out Points to the Bin As a Separate Clip (Subclip)" (▶ page 188)
  When you add, delete, and edit the clip marker with a clip on the timeline displayed on the Player, register it to the bin as another clip, if necessary.
  "Registering Clips on the Player to the Bin" (▶ page 187)
- When a clip set with a clip marker has been placed on the timeline, the comment is displayed on the Recorder when the timeline cursor is moved to the position of the clip marker. When a clip marker with range has been set, the comment is displayed on the Recorder while the timeline cursor is between In and Out points of the clip marker.
  Comments are displayed on the Player also during playback. However, comments displayed during playback are only those of clip markers with range.

Note

- When the focus is on the Recorder, comments cannot be entered to clip markers.

Changing Color of Clip Marker

The set color of clip markers can be changed.

1) Display a clip set with a clip marker on the Player.

- **"Displaying Clips on the Player" (▶ page 183)**

2) On the [Clip Marker] list, click [Color] of a clip marker to change the color and select a desired color.

- Selecting multiple clip markers can change the color at once.

- The color of the clip marker that can be set are [Orange], [Red], [Yellow], [Blue], [Pink], and [Purple].
- If you add the setting button of each color of clip marker to the [Clip Marker] list, you can set the clip markers of specific color simply by clicking the button.
  "Operation Button Settings" (▶ page 146)

Moving to the Clip Marker Position

You can jump to the position of set clip markers.

1) Click [Go to Previous Marker] or [Go to Next marker] in the [Clip Marker] list.

- **"[Clip Marker] List" (▶ page 277)**
- The clip marker moves forward or backward.
- When the focus is on the Player, the slider moves to the position of the clip marker set to that clip.
- When the focus is on the Recorder, the timeline cursor moves in order to the positions of the clip markers for clips selected on the timeline.

Alternative

- In the clip marker list, double-click on the [No.] field of the clip marker on the position to move to.
- Right-click the clip marker list, and click [Go to Previous Marker] or [Go to Next marker].
- Moving to previous/next clip marker position: **[Ctrl] + [←]/[Ctrl] + [→]**

Importing Clip Marker Lists (Import)

You can import clip marker list files in XML or CSV format.

1) Display the clip at the import destination on the Player.

- **"Displaying Clips on the Player" (▶ page 183)**

2) Click [Import Marker List] in the [Clip Marker] list.

- **"[Clip Marker] List" (▶ page 277)**

3) In the [Open] dialog box, select an XML or CSV file, and click [Open].

Alternative

- Click [Marker] on the menu bar, and click [Import Marker List].
- Right-click the clip marker list, and click [Import Marker List].

Note

- When the focus is on the Recorder, clip marker lists cannot be imported.
- The color of all clip markers imported in the CSV format is orange.
- XML format files cannot be imported to EDIUS version 9.2 and earlier.

Exporting Clip Marker Lists (Export)

You can export a clip marker list in the [Clip Marker] list to an XML or CSV file.

1) Display the clip, from which the clip marker list should be exported, on the Player.

- **"Displaying Clips on the Player" (▶ page 183)**

2) Click [Export Marker List] in the [Clip Marker] list.

- **"[Clip Marker] List" (▶ page 277)**

3) In the [Save As] dialog box, specify a file name and save destination.

4) Select the output format, and click [Save].

Alternative

- Click [Marker] on the menu bar, and click [Export Marker List].
- Right-click the clip marker list, and click [Export Marker List].

- If the exported file is to be used on version 9.2 or earlier, save it in "Ver.2" or "Ver.3".
- If it is to be used on version 9.3 or later, save it in "Ver.4" that supports exporting information of [Color].

Note

- When the focus is on the Recorder, clip marker lists cannot be exported.
- Exporting [Color] information is not supported for CSV format files. All clip markers exported in CSV format will be orange clip markers.

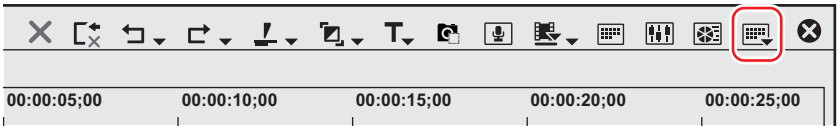
Setting Marker to Timeline

- When exported to DVD/BD, orange sequence markers become chapters and comments become chapter titles. Chapter titles can be edited at the time of export.

Displaying the [Sequence Marker] List

Display the [Sequence Marker] list in the [Marker] palette.

1) Click [Toggle Window Display] of the timeline.



2) Click [Marker].

Alternative

- Click [View] on the menu bar, and click [Window] → [Marker].
- Click [View] on the menu bar, and click [Window] → [Show All] or [Hide All], to show/hide all the tab windows at one time.
- Showing/hiding the tab window: **[H]**
  "Showing/Hiding [Information] Palette" (▶ page 375)
  "Showing/Hiding [Effect] Palette" (▶ page 335)
  "Showing/Hiding the [Mync] Window" (▶ page 190)
  "Showing/Hiding the [Job] Window" (▶ page 330)

- When the show/hide setting for the [Marker] palette is switched, the show/hide setting for the tabs of the bin window, source browser window, and tab windows combined with the [Marker] palette is also switched. To switch the show/hide setting separately, release the association of the window or tab windows.
  "Combining Tab Windows with Bin Window/Source Browser Window" (▶ page 144)

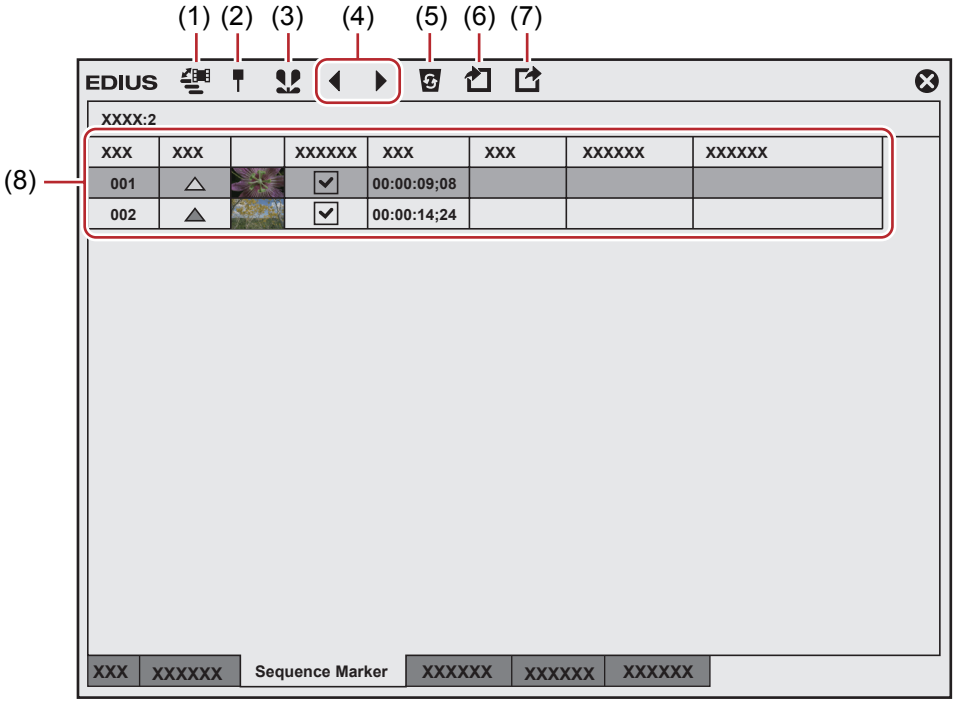
3) Click [Toggle Sequence Marker/Clip Marker] in the [Marker] palette.

- Each click switches between the [Sequence Marker] list and the [Clip Marker] list.
  "Displaying the [Clip Marker] List" (▶ page 276)

Note

- When the focus is on the Player in the preview window, the list cannot be switched to the [Sequence Marker] list. Switch to this list after selecting the Recorder.

[Sequence Marker] List



(1)	**[Toggle Sequence Marker/Clip Marker]**	Switch between the [Clip Marker] list and the [Sequence Marker] list.
(2)	**[Set Marker]**	Add a sequence marker at the timeline cursor position.
(3)	**[Set Marker In/Out]**	Add a sequence marker with range to between In and Out points on the timeline.
(4)	**[Go to Previous Marker]/[Go to Next marker]**	Move to the previous/next sequence marker.
(5)	**[Clear Marker]**	Select and delete a sequence marker from the sequence marker list.
(6)	**[Import Marker List]**	Import a sequence marker list.
(7)	**[Export Marker List]**	Export the sequence marker list as a CSV file.
(8)	**Sequence marker list**	Display the thumbnail, timecode or comment of the set sequence marker. Check [Anchor] to cancel linking the sequence marker to the timeline editing even in the sync-lock mode. **"Sync-Lock Setting of Sequence Marker" (▶ page 285)** Click [Color] to change the color of the sequence marker. **"Changing Color of Sequence Marker" (▶ page 287)**

Setting Sequence Markers

You can set a sequence marker on the timeline, and jump to the marker position or add a comment.

- The default color of sequence marker is orange. The color of sequence markers can be changed on the [Sequence Marker] list.
  "Changing Color of Sequence Marker" (▶ page 287)

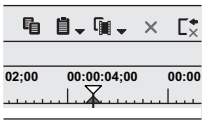
Note

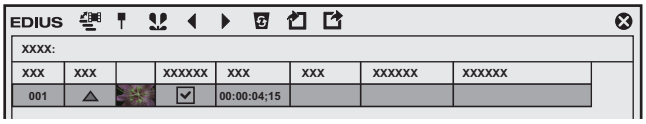
- When exported to DVD/BD, only orange sequence markers are recognized as chapters. Sequence markers in other colors are not recognized as chapters.

1) Move the timeline cursor to the position to set a sequence marker.

2) Click [Set Marker] in the [Sequence Marker] list.

- **"[Sequence Marker] List" (▶ page 284)**
- The sequence marker is set to the time scale, and the timecode of the sequence marker is displayed in the [Sequence Marker] list.





Alternative

- Right-click the time scale, and click [Set Sequence marker/Clear Sequence marker (Toggle)].
- Click [Marker] on the menu bar, and click [Add Marker].
- Right-click the sequence marker list, and click [Set Mark].
- Setting sequence markers: **[V]**

- You can move marker positions by the following operation.
  - Click the timecode at [In] in the [Sequence Marker] list, and enter the desired numerical value.
  - Drag the sequence marker on the time scale.
- Using the following operation, you can enter a comment at the same time you set a sequence marker.
  - Click [Marker] on the menu bar, and click [Edit Marker].
  - Right-click on the timeline scale, and click [Edit Sequence marker].

  "Entering Comments to Sequence Markers" (▶ page 287)

Note

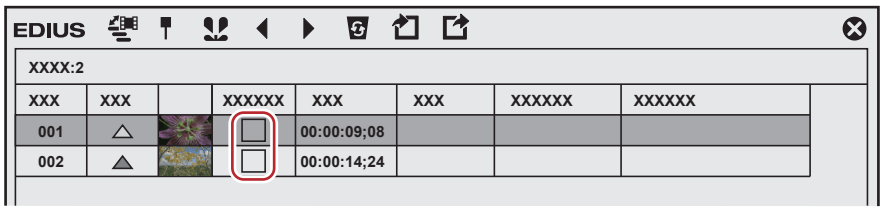
- Sequence markers cannot be set in the [Clip Marker] list.

Sync-Lock Setting of Sequence Marker

When the ripple mode of the timeline is on, sequence markers can be linked to the timeline editing.
"Ripple Mode" (▶ page 216)

1) Uncheck [Anchor] in the [Sequence Marker] list.

- Anchor setting is set to off.



Alternative

- Move the timeline cursor to the sequence marker on the time scale, click [Marker] on the menu bar, and click [Sequence Marker - Anchor].
- Move the timeline cursor to the sequence marker on the time scale, right-click on the time scale, and click [Sequence Marker - Anchor].

2) Click [Marker] on the menu bar, and click [Sync-Lock Sequence Marker - Toggle].

- It is set to on. When it is set to on, a check mark appears on the menu item.

- If you add [Sync-Lock Sequence Marker - Toggle] to the mode bar as an operation button, you can switch the sync-lock setting of sequence markers simply by clicking the button.
  "Operation Button Settings" (▶ page 146)

Sequence Marker Types

Shapes of sequence markers change to the following depending on the anchor setting, etc.
"Sync-Lock Setting of Sequence Marker" (▶ page 285)

Type	Status
	Anchor setting on (orange)
	Anchor setting off (orange)

Setting Sequence Markers with Range

You can set a sequence marker with range between In and Out points on the timeline.

- The default color of sequence marker is orange. The color of sequence markers can be changed on the [Sequence Marker] list.
  "Changing Color of Sequence Marker" (▶ page 287)

Note

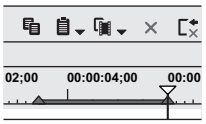
- Sequence markers with range become chapters at export to DVD/BD.

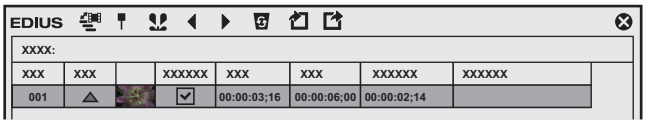
1) Setting the In and Out Points to the Timeline

- **"Setting the In and Out Points on the Timeline" (▶ page 222)**

2) Click [Set Marker In/Out] in the [Sequence Marker] list.

- **"[Sequence Marker] List" (▶ page 284)**
- The sequence marker with range is set to the time scale, and the timecode and duration of the In and Out points of the sequence marker are displayed on the [Sequence Marker] list.

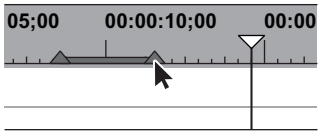




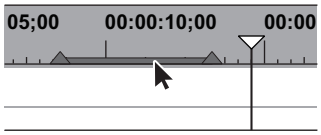
Alternative

- Right-click the sequence marker list, and click [Set Mark In/Out].
- Click [Marker] on the menu bar, and click [Add Marker to In/Out Point].

- When an In point has not been set in step **1)**, the start of the timeline is set as the In point of the sequence marker with range. Also, when an Out point has not been set, the Out point at the end clip on the timeline is set as the Out point of the sequence marker with range.
- You can change the range of the sequence marker by clicking [In], [Out] in the [Sequence Marker] list or the timecode at [Duration] and entering the numerical value.
  "Entry of Values" (▶ page 44)
- You can change the duration of sequence markers by dragging the In or Out point of the sequence marker with range on the time scale.



You can also move sequence markers by dragging the line section between In and Out points while holding down [Ctrl] on the keyboard.



- Only the sequence marker of the In point is displayed as the sequence marker with range when that sequence marker is not focused.

Note

- Sequence markers cannot be set in the [Clip Marker] list.

Deleting Sequence Markers

1) Select the sequence marker to delete from the sequence marker list at the [Sequence Marker] list.

2) Click [Clear Marker] in the [Sequence Marker] list.

- **"[Sequence Marker] List" (▶ page 284)**

Alternative

- Drag the sequence marker to delete from the sequence marker list, and drop it outside the [Sequence Marker] list.
- Right-click a marker in the sequence marker list, and click [Clear Marker].
- Right-click a sequence marker on the time scale, and click [Clear Sequence Marker] → [Current Sequence Marker].
- Move the timeline cursor to the sequence marker on the time scale, click [Marker] on the menu bar, and click [Clear Mark] → [Cursor].
- Move the timeline cursor to the sequence marker on the time scale, right-click and click [Set Sequence marker/Clear Sequence marker (Toggle)].
- Click [Delete] in the [Edit Marker] dialog box for the sequence marker.
  "Entering Comments to Sequence Markers" (▶ page 287)
- Deleting sequence markers: **[Delete]**

- You can also delete all sequence markers in a single operation by the following operation.
  - Right-click the sequence marker on the time scale, and click [Clear Sequence Marker] → [All].
  - Click [Marker] on the menu bar, and click [Clear Mark] → [All].
  - Deleting all markers: **[Shift] + [Alt] + [V]**

Using Sequence Markers

Entering Comments to Sequence Markers

You can add a comment to sequence markers that have been set.

- When exporting to DVD/BD, sequence marker comments become chapter titles. Chapter titles can be edited at export to DVD/BD.

1) Right-click a sequence marker on the time scale, and click [Edit Sequence marker].

- When multiple sequence markers are set on the same position on the time scale, [Edit Sequence marker] is not available.

2) In the [Edit Marker] dialog box, enter a comment and click [OK].

- Entered comments are displayed on the Recorder when the slider is moved to the sequence marker. When a sequence marker with range has been set, the comment is displayed while the timeline cursor of the Recorder is on a position between In and Out points of the sequence marker.

  Comments are displayed on the Recorder also during playback. However, comments displayed during playback are only those of sequence markers with range.

Alternative

- Click the [Comment] field in the [Sequence Marker] list.
- Right-click the sequence marker list, and click [Edit Marker].
- Move the timeline cursor to the sequence marker on the time scale, click [Marker] on the menu bar, and click [Edit Marker]. Note that if multiple sequence markers are set on the position of the timeline cursor, [Edit Marker] is not available.
- Comment carriage return: **[Ctrl] + [Enter]**

- You can also edit entered comments by the same operation.
- By right-clicking on the time scale and clicking [Edit Sequence marker], you can add a sequence marker on the position of the timeline cursor and edit the comment.

Changing Color of Sequence Marker

The set color of sequence markers can be changed.

1) On the [Sequence Marker] list, click [Color] of a sequence marker to change the color and select a desired color.

- Selecting multiple sequence markers can change the color at once.

- The color of the sequence marker that can be set are [Orange], [Red], [Yellow], [Blue], [Pink], and [Purple].
- If you add the setting button of each color of sequence marker to the [Sequence Marker] list, you can set the sequence markers of specific color simply by clicking the button.
  "Operation Button Settings" (▶ page 146)
- When data is exported using the [F4V] exporter, the [Color] information of markers are not maintained.

Moving to Sequence Marker Positions

You can jump to the position of set sequence markers.

1) Click [Go to Previous Marker] or [Go to Next marker] in the [Sequence Marker] list.

- **"[Sequence Marker] List" (▶ page 284)**
- The timeline cursor moves to the front and back sequence markers.

Alternative

- In the sequence marker list, double-click on the [No.] field of the sequence marker on the position to move to.
- Right-click the sequence marker list, and click [Go to Previous Marker] or [Go to Next marker].
- Right-click the time scale, and click [Go to Previous Sequence Marker] or [Go To Next Sequence marker].The timeline cursor moves to the previous or next sequence marker.
- Click [Marker] on the menu bar, and click [Go to Previous Sequence Marker] or [Go to Next Sequence Marker].
- Double-click a sequence marker on the time scale.
- Moving to sequence marker positions: **[Shift] + [Page up]/[Shift] + [Page down]**

Importing Sequence Marker Lists (Import)

You can import sequence marker list files in XML or CSV format.

1) Click [Import Marker List] in the [Sequence Marker] list.

- **"[Sequence Marker] List" (▶ page 284)**

2) In the [Open] dialog box, select an XML or CSV file, and click [Open].

Alternative

- Click [Marker] on the menu bar, and click [Import Marker List].
- Right-click the time scale, and click [Import Sequence Marker List].
- Right-click the sequence marker list, and click [Import Marker List].

Note

- When the focus is on the Player, sequence marker lists cannot be imported.
- The color of all sequence markers imported in the CSV format is orange.
- XML format files cannot be imported to EDIUS version 9.2 and earlier.

Exporting Sequence Marker Lists (Export)

You can export sequence marker list in the [Sequence Marker] list to an XML or CSV file.

1) Click [Export Marker List] in the [Sequence Marker] list.

- **"[Sequence Marker] List" (▶ page 284)**

2) In the [Save As] dialog box, specify a file name and save destination.

3) Select the output format, and click [Save].

Alternative

- Click [Marker] on the menu bar, and click [Export Marker List].

- Right-click the time scale, and click [Export Sequence marker list].
- Right-click the sequence marker list, and click [Export Marker List].

- If the exported file is to be used on version 7.3 or earlier, save it in “Ver.2”.
  If it is to be used on version 7.4 or later, save it in “Ver.3” that supports exporting information of [Anchor].
- If it is to be used on version 9.3 or later, save it in “Ver.4” that supports exporting information of [Anchor] and [Color].

Note

- Exporting [Color] information is not supported for CSV format files. All sequence markers exported in CSV format will be orange sequence markers.

Playing Back Timelines

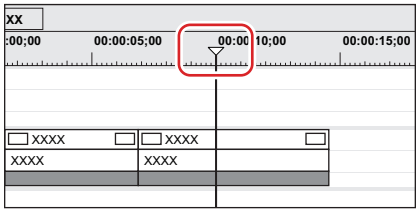
Playing Back Timelines

Playing Back by Scrubbing

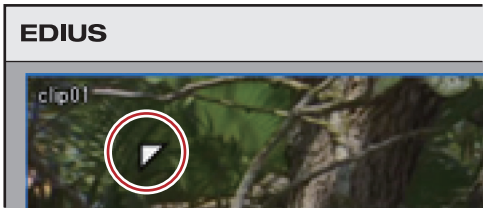
You can drag the timeline cursor forwards and backwards and move to the position to confirm on the timeline.

1) Drag the timeline cursor forwards and backwards.

- The timeline cursor moves, and its frame is displayed on the Recorder.



- When Recorder-related operations are being performed in the dual mode, a blue line is displayed around the Recorder.
- When the start frame of the timeline is displayed, a white triangle is displayed in the upper left corner.



Playing Back with Recorder Operation Buttons

You can play back or move clips in individual frame units by using the operation buttons on the Recorder.

"Playback with Player Operation Buttons" (▶ page 182)
"Operation Button Settings" (▶ page 146)

1) Click [Play] on the Recorder.

- Playback starts on the Recorder.

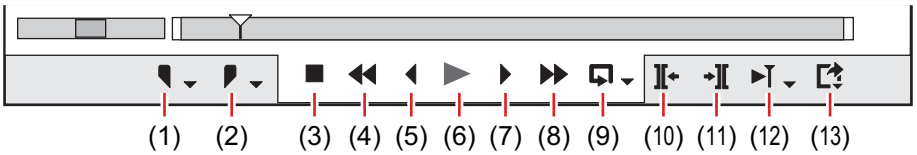
2) Click [Stop] on the Recorder.

- Playback stops.

Alternative

- Playing back Recorder: **[Enter]**

Recorder Operation Buttons



(1)	**[Set In]**	Set the In point to any position on the timeline. **[I]** **"Setting the In and Out Points on the Timeline" (▶ page 222)**
(2)	**[Set Out]**	Set the Out point to any position on the timeline. **[O]** **"Setting the In and Out Points on the Timeline" (▶ page 222)**

(3)	**[Stop]**	Stop playing back the timeline. **[K], [Shift] + [↓]**
(4)	**[Review]**	Rewind the timeline. Each click switches the playback speed in the reverse direction between 4 times and 12 times. **[J]**[*1]
(5)	**[Previous Frame]**	Each click rewinds the timeline one frame at a time in the reverse direction. Keeping this button clicked plays back the source at the same speed in the reverse direction. **[←]**
(6)	**[Play]**	Play the timeline in the forward direction. When this button is clicked during playback, playback pauses. Click again to restart playback. **[Enter], [Space]**
(7)	**[Next Frame]**	Each click advances the timeline one frame at a time in the forward direction. Keeping this button clicked plays back the source at the same speed in the forward direction. **[→]**
(8)	**[Fast Forward]**	Fast forward the timeline. Each click switches the playback speed in the forward direction between 4 times and 12 times. **[L]**[*2]
(9)	**[Loop]**	Repeat playback between In and Out points of the timeline. If no In point has been set, playback is repeated from the beginning of the timeline, and if no Out point has been set, playback is repeated until the end of the timeline. The entire timeline can also be played back as a loop. **[Ctrl] + [Space]**
(10)	**[Previous Edit Point]**	Move the timeline cursor to the edit point (e.g. the border of clip, In and Out points of the timeline) at the left side of the timeline cursor position. **[A], [Ctrl] + [←]**
(11)	**[Next Edit Point]**	Move the timeline cursor to the edit point at the right side of the timeline cursor position. **[S], [Ctrl] + [→]**
(12)	**[Play the Current Area]**	Play back the area before and after the timeline cursor.
(13)	**[Export]**	Display output (import) related menus.

*1 Each press of [J] on the keyboard switches the rewind speed in 6 levels between 2 to 32 times. Press [L] to slow down the rewind speed. Press this key with the source paused to play back at the same speed in the reverse direction.
*2 Each press of [L] on the keyboard switches the fast-forward speed in 6 levels between 2 to 32 times. Press [J] to slow down the fast-forward speed. Press it while pausing to play back at the same speed in the forward direction.

- When playback processing is slow, try the following operations.
  - Use the draft preview or frame skip playback.
    "Draft Preview" (▶ page 301)
    "Frame Skip Playback" (▶ page 302)
  - Click [Play] with [Shift] on the keyboard held down. (Playback is performed after the data is temporarily stored in the playback buffer. The playback buffer can be changed by [Application] in [System Settings] → [Playback].)
    "[Playback]" (▶ page 100)
  - Render clips or a part of the timeline.
    "Rendering only Overload/Load Areas" (▶ page 298)
    "Rendering Clips/Transitions" (▶ page 299)
- To move the timeline cursor to the start and end of the timeline, press [Home] and [End] on the keyboard, respectively.
- Moving 10 frames back: **[Shift] + [←]**
- Moving 10 frames forward: **[Shift] + [→]**

Playing Back with Shuttle/Slider

You can play back a clip by dragging the shuttle or slider on the Recorder.
"Control Area Settings" (▶ page 152)

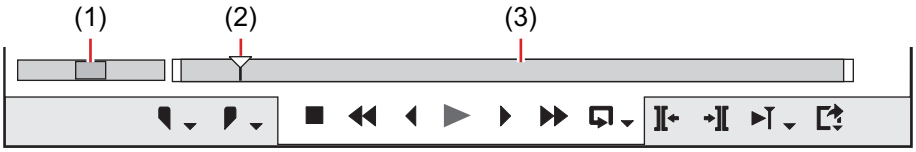
1) Drag the shuttle/slider.

- A frame at the slider position is displayed on the Recorder.

Alternative

- Shuttle (fast forward): **[Ctrl] + [L]**
  Each click of [Ctrl] + [L] on the keyboard switches the fast-forward speed in 12 levels between 1/16 to 32 times. Press [Ctrl] + [J] on the keyboard to slow down.
- Shuttle (rewind): **[Ctrl] + [J]**
  Each click of [Ctrl] + [J] on the keyboard switches the rewind speed in 12 levels between 1/16 to 32 times. Press [Ctrl] + [L] on the keyboard to slow down.

Shuttle/Slider



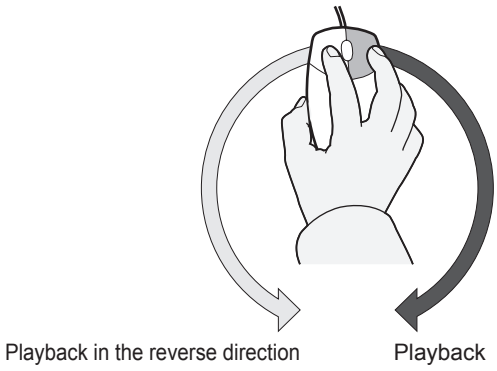
(1)	**Shuttle**	Drag the shuttle to the left and right to play back in the reverse and forward directions, respectively. Release dragging to return the shuttle to the center and pause playback. The playback speed can be selected in 21 levels both in the forward and reverse directions, from 1/20 to 16 times.
(2)	**Sliders**	Click any position on the position bar to move the slider and display the frame for that position. You can also drag the slider.
(3)	**Position bar**	Indicates the timeline on the Recorder.

Playing Back with Mouse (Mouse Gesture)

You can play back a clip by moving the mouse on the Recorder.

1) Position the mouse cursor on the Recorder, and move the mouse as if to draw a circle, with the right mouse button clicked.

- Draw the circle clockwise to playback in the forward direction, and counterclockwise in the reverse direction. The playback speed changes in proportion to the speed of the mouse action.



Alternative

- Place the mouse cursor on the Recorder, and rotate the mouse wheel.

Playing Back between In and Out Points on the Timeline (Loop Playback)

Repeat playback between In and Out points of the timeline.

1) Setting the In and Out Points to the Timeline

- **"Setting the In and Out Points on the Timeline" (▶ page 222)**

2) Click [Loop] on the Recorder.

- Playback is repeated between In and Out points of the timeline.
- Playback starts from the current position of the timeline cursor.

Alternative

- Loop playback: **[Ctrl] + [Space]**

3) Click [Stop] on the Recorder.

- Playback stops.

Playing Back the Area around the Timeline Cursor

You can play back the area around the timeline cursor.

1) Move the timeline cursor to the point from which you want to start playing back.

2) Click [Play the Current Area] on the Recorder.

- You can repeatedly play back the area around the timeline cursor.

3) Click [Stop] on the Recorder.

- Playback stops.

- You can also play back around the nearest cut point placed before the timeline cursor for the specified duration. Click the [Play the Current Area] list button, and click [Play around Cut Point (1 Sec)], [Play around Cut Point (2 Sec)] or [Play around Cut Point (3 Sec)].
- You can set the preliminary operation time (Preroll) at [Preview] in [User Settings] → [Playback].
  "[Playback]" (▶ page 123)

Displaying a Desired Scene Quickly

Jumping to In and Out Points on the Timeline

You can jump to In and Out points on the timeline.

1) Click the [Set In] ([Set Out]) list button on the Recorder.

2) Click [Go to In Point] ([Go to Out Point]).

- **"Setting the In and Out Points on the Timeline" (▶ page 222)**

Alternative

- Click [Marker] on the menu bar, and click [Go to In Point] ([Go to Out Point]).
- Right-click the slider on the Recorder, and click [Go to In Point] ([Go to Out Point]).
- Right-click the time scale, and click [Go to In Point] ([Go to Out Point]).
- Right-click the timeline cursor, and click [Go to In Point] ([Go to Out Point]).
- Jumping to the In and Out points on the timeline: **[Q]/[W]**

Entering the Timecode to Jump to

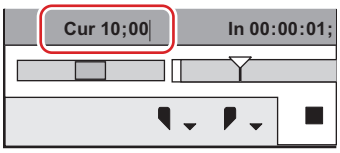
You can jump to a specified position on the timeline by entering the numerical values for the timecode at that position.

1) Click on the Recorder.

2) Enter the timecode with the numerical keypad on the keyboard.

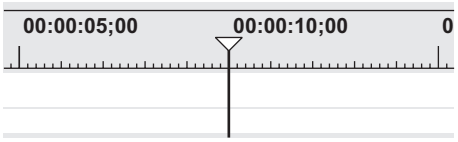
Example:

When "1000" is entered



3) Press [Enter] on the keyboard.

- The timeline cursor moves.



- Enter "+" or "−" at the beginning of the number with the numerical keypad, and the timeline cursor will jump forward or backward by the entered number.
  "Entry of Values" (▶ page 44)

Match Frame

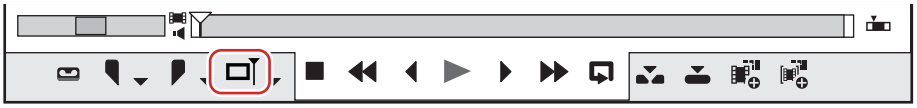
This function acquires the timecode of the frame displayed on the Player (or Recorder), and jumps to the position matching the timecode on the timeline (or Player). For example, you can use match frame when switching the video image of an interview to another video image of the same interview which was recorded from a different angle using 2 cameras, to smoothly switch the image cuts without any interruption in motion or sound.

Jumping from Player to Timeline

After acquiring the timecode of the clip displayed on the Player, jump to the corresponding position on the timeline clip and display it on the Recorder.
The timeline cursor is jumped to the timeline position matching the timecode of the specified source.

1) Play back a clip on the Player, and display the frame to be jumped to.

2) Click [Match Frame (Player to Recorder)] on the Player.



- The timeline cursor moves, and the matching frame is displayed on the Recorder.

Alternative

- Jumping from Player to the timeline: **[Ctrl] + [F]**

- By default, [Match Frame (Player to Recorder)] is not displayed. Before performing the operation, set to display the buttons on the Player.
  "Operation Button Settings" (▶ page 146)

Jumping from the Timelines to Source Clip

Display the matching frame of the source clip at the timeline cursor position on the Player.
If the source is a file, match frame operation on the file is possible.

1) Select the track where the target clip is placed.

- **"Selecting Tracks" (▶ page 210)**

2) Move the timeline cursor to display the frame to be jumped to on the Recorder.

3) Click [Clip] on the menu bar, and click [Match Frame] → [Display Source Clip].

- The matching frame is displayed on the Player.

Alternative

- Displaying source clip: **[Alt] + [F]**

- [Match Frame (Recorder to Player)] performs match frame on the source file currently displayed on the Player.
- [Match Frame (Recorder to Source)] displays the source file on the Player and performs match frame.
- The clip can be displayed on the Player by clicking and selecting the clip on the timeline and performing the following operation.

- Click [Clip] on the menu bar, and click [Show in Player].
- Displaying selected clip on the Player: **[Shift] + [Y]**

- In scenes set with a transition, 2 clips overlap each other on the same track. To execute the match frame function on overlapping clips, you can set the clip to acquire the timecode in before or after the clip.
  "[Match Frame]" (▶ page 121)

Synchronizing the Player and the Timeline (Gang Mode)

Switch to the gang mode to synchronize the cursor positions or In and Out points of the Player and the timeline.
Using the gang mode before preroll editing is useful in deciding the position where clips are placed on the timeline.
"Previewing Cut Switch Points (Preroll Edit (Preview))" (▶ page 226)
"Placing Clips while Checking Cut Switch Points (Preroll Edit (Rec))" (▶ page 227)

Note

- Sources displayed in the deck mode cannot be synchronized.

Switching to the Gang Mode

1) Click [Set Gang Mode] on the Player.

- Each click switches the mode on and off.

- By default, [Set Gang Mode] is not displayed. Before performing the operation, set to display the buttons on the Player.
  "Operation Button Settings" (▶ page 146)

Synchronizing Cursor Positions

1) Move the slider on the Player to the position to be synchronized.

2) Move the timeline cursor to the position to be synchronized.

3) Click the [Set Gang Mode] list button on the Player.

4) Confirm that [Cursor] is checked.

5) Switch to the gang mode.

- **"Switching to the Gang Mode" (▶ page 295)**
- The cursors of the Player and the timeline are synchronized based on the current cursor position. The cursor positions to be synchronized can be changed by the following operation. After unchecking [Cursor] and moving the cursor of the Player or the timeline, check [Cursor] again.

Synchronizing the In and Out Points

1) Set the In (Out) point on the Player to the position to be synchronized.

2) Set the In (Out) point on the timeline to the position to be synchronized.

3) Click the [Set Gang Mode] list button on the Player.

4) Click [In] ([Out]) to check the item.

5) Switch to the gang mode.

- **"Switching to the Gang Mode" (▶ page 295)**
- The In (Out) points of the Player and the timeline are synchronized based on the current In (Out) point position. The In (Out) point positions to be synchronized can be changed by the following operation. After unchecking [In] ([Out]) and changing the In (Out) point of the Player or the timeline, check [In] ([Out]) again.

Smooth Playback

If multiple effects and titles has been added, real time processing may not catch up the timeline playback.
This real time processing is delayed due to the heavy data loaded on the playback operation. While playback is performed, the lines of the parts where rendering is required are displayed in red (overloaded) or in orange (loaded).
Performing rendering enables smoother playback.

Color Coding of Time Scale

Realtime processing sometimes cannot keep up when playing back a timeline. The line of the part judged as requiring rendering when playing back changes color.
The line colors indicate the following states.

Line color	Timeline state
No line	No clip exists.
Blue	A clip matching the project settings is placed.
Light blue	Playback is keeping up. (Rendering is sometimes required.)
Orange	Rendering option (load area)
Red	Rendering is required (overload area).
Pink	Rendering job has already been registered to the Render Service, or rendering is in process in the background.
Green	Already rendered

- Rendering is judged based on the remaining buffer set by [Application] in [System Settings] → [Render], and a red line is displayed for overload areas when the remaining buffer is less than the preset value.
  "[Render]" (▶ page 101)
- When data such as CG animation has been placed on the timeline by one frame at a time as consecutive still images, rendering the range will not lighten the load of playback processing. In this case, use the [Render and Add to Timeline] item to replace with the exported clip.
  "Exporting Video Clips from Timeline" (▶ page 299)
- Rendering is enabled even if the clip becomes out-of-position by a ripple delete, for example.
- In the following cases, the color of the line of the time scale returns to the state before the rendering process started.
  - The rendering job has been canceled by operation from GV Job Monitor.
  - The rendering process has failed.

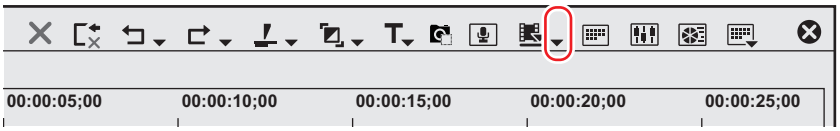
Note

- Tracks with mute set to video parts cannot be rendered.
- It is recommended to export the file using the exporter if you need to use rendered clips.
  "Exporting in File Formats" (▶ page 428)
- Temporary files generated at the time of rendering are saved in the following folder temporarily. Make sure that there is enough disk space for the files before starting rendering.
  The "rendered" folder in the folder specified from [User Settings] → [Application] → [Project] → [Rendered File]
  "Manually Deleting Temporary Files" (▶ page 300)
- Files generated by [Render and Add to Timeline] are saved in the following folder. Make sure that there is enough disk space for the files before starting rendering.
  The "RenderAndPaste" folder in the folder specified from [User Settings] → [Application] → [Project] → [Rendered File]
  "Exporting Video Clips from Timeline" (▶ page 299)

Rendering Overload Areas of the Entire Sequence

Render all the areas that are judged as overload (red) in the entire sequence.

1) Click the [Render In/Out (Render Overload Area)] list button on the timeline.



2) Click [Render Sequence] → [Render Overload Area].

- The rendering job will be registered to the Render Service, and the color of the line of the time scale changes to pink.
  Registered rendering jobs are processed in the background in a sequential order of the predetermined priority. The progress of the rendering process can be checked on GV Job Monitor.
  "GV Job Monitor" (▶ page 330)
- Even if the project file is closed before the rendering process is completed, the process of the rendering job will be continued.
- When the rendering process has been completed, the color of the line of the time scale changes to green.

Alternative

- Click [Render] on the menu bar, and click [Render Sequence] → [Render Red Area].
- Rendering overload areas on the entire sequence: **[Shift] + [Ctrl] + [Q]**

- Overload (red) and load (orange) areas on the entire sequence can be rendered at a time by the following operation.
  - Click the [Render In/Out (Render Overload Area)] list button, and click [Render All] → [Render Loaded Area].
  - Click [Render] on the menu bar, and click [Render Sequence] → [Render Orange Area].
  - Rendering (load areas) on the entire sequence: **[Shift] + [Ctrl] + [Alt] + [Q]**
- When In and Out points have been set on the timeline, only the range between the In and Out points can be rendered.
  "Rendering Overload Areas between In and Out Points" (▶ page 298)
- After rendering process has started, if the project is edited in a way that the range to be rendered changes, the rendering job will be canceled.

Rendering Overload Areas in the Entire Project

Render all areas that are judged as overload (red) in the entire project that comprises multiple sequences.

1) Click [Render] on the menu bar, and click [Render Entire Project] → [Render Red Area].

- The rendering job will be registered to the Render Service, and the color of the line of the time scale changes to pink.
  Registered rendering jobs are processed in the background in a sequential order of the predetermined priority. The progress of the rendering process can be checked on GV Job Monitor.
  "GV Job Monitor" (▶ page 330)
- Even if the project file is closed before the rendering process is completed, the process of the rendering job will be continued.
- When the rendering process has been completed, the color of the line of the time scale changes to green.

- Overload (red) and load (yellow) areas in the entire project can be rendered at a time. Click [Render] on the menu bar, and click [Render Entire Project] → [Render Orange Area].
- After rendering process has started, if the project is edited in a way that the range to be rendered changes, the rendering job will be canceled.

Rendering only Overload/Load Areas

Render only the areas that are judged as overload (red) or load (orange).

1) Right-click the line of overload (red) or load (orange) areas on the time scale, and click [Render].

- The rendering job will be registered to the Render Service, and the color of the line of the time scale changes to pink.
  Registered rendering jobs are processed in the background in a sequential order of the predetermined priority. The progress of the rendering process can be checked on GV Job Monitor.
  "GV Job Monitor" (▶ page 330)
- Even if the project file is closed before the rendering process is completed, the process of the rendering job will be continued.
- When the rendering process has been completed, the color of the line of the time scale changes to green.

- After rendering process has started, if the project is edited in a way that the range to be rendered changes, the rendering job will be canceled.

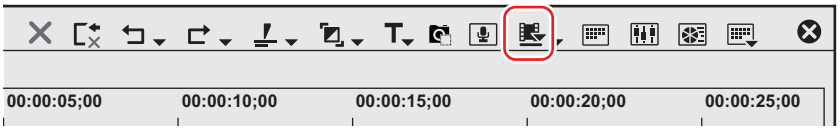
Rendering Overload Areas between In and Out Points

Render areas judged as overload (red) between In and Out points on the timeline.

1) Setting the In and Out Points to the Timeline

- **"Setting In/Out Points and Placing Clips" (▶ page 225)**

2) Click [Render In/Out (Render Overload Area)] on the timeline.



- The rendering job will be registered to the Render Service, and the color of the line of the time scale changes to pink.
  Registered rendering jobs are processed in the background in a sequential order of the predetermined priority. The progress of the rendering process can be checked on GV Job Monitor.
  "GV Job Monitor" (▶ page 330)
- Even if the project file is closed before the rendering process is completed, the process of the rendering job will be continued.
- When the rendering process has been completed, the color of the line of the time scale changes to green.

Alternative

- Click [Render] on the menu bar, and click [Render In/Out] → [Render Red Area].
- Click the [Render In/Out (Render Overload Area)] list button, and click [Render In/Out] → [Render Overload Area].
- Right-click the time scale, and click [Render In/Out] → [Render Overload Area].
- Rendering overload areas between In and Out points: **[Ctrl] + [Q]**

- All areas judged to be red, orange and light blue between In and Out points can be rendered by the following operation.
  - Click [Render] on the menu bar, and click [Render In/Out] → [All].
  - Click the [Render In/Out] list button, and click [Render In/Out] → [All].
  - Right-click the time scale, and click [Render In/Out] → [All].
  - Rendering between In and Out points (all): **[Shift] + [Alt] + [Q]**
- Overload (red) and load (orange) areas between In and Out points can be rendered at a time by the following operation.
  - Click [Render] on the menu bar, and click [Render In/Out] → [Render Orange Area].
  - Click the [Render In/Out (Render Overload Area)] list button, and click [Render In/Out] → [Render Loaded Area].
  - Right-click the time scale, and click [Render In/Out] → [Render Loaded Area].
  - Rendering between In and Out points (load area): **[Ctrl] + [Alt] + [Q]**
- After rendering process has started, if the project is edited in a way that the range to be rendered changes, the rendering job will be canceled.

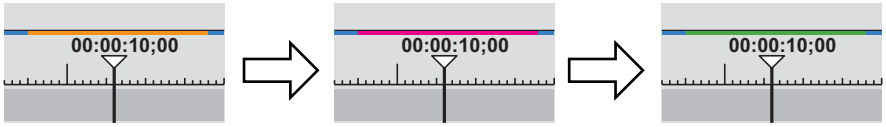
Rendering Around the Timeline Cursor Position

Render only overload areas (red) or load areas (orange) around the timeline cursor position.

1) Move the timeline cursor to the area to be rendered.

2) Click [Render] on the menu bar, and click [Render Cursor Area].

- The rendering job will be registered to the Render Service, and the color of the line of the time scale changes to pink.
  Registered rendering jobs are processed in the background in a sequential order of the predetermined priority. The progress of the rendering process can be checked on GV Job Monitor.
  "GV Job Monitor" (▶ page 330)
- Areas of the same line color on the time scale are rendered around the timeline cursor position. When there is a transition in same-color lines, the rendered area becomes the area up to the In or Out point of the transition.
- Even if the project file is closed before the rendering process is completed, the process of the rendering job will be continued.
- When the rendering process has been completed, the color of the line of the time scale changes to green.



- After rendering process has started, if the project is edited in a way that the range to be rendered changes, the rendering job will be canceled.

Rendering Clips/Transitions

Perform rendering in individual clip or transition units.

Note

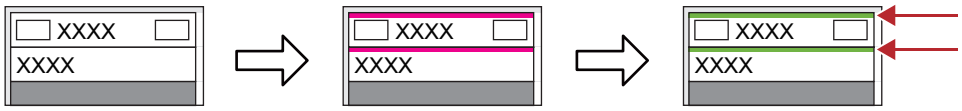
- If you perform clip rendering on a clip with alpha effect, alpha information will no longer be applied.
- Keys, transparencies or transitions between tracks (effects set in the mixer area) cannot be rendered. In this case, take the alternate method to render a part of the timeline.

1) Right-click the clip to be rendered, and click [Render].

- To render a transition, right-click the transition and click [Render].
- The rendering job will be registered to the Render Service, and pink lines appear on the clip.
  When a transition has been rendered, the lines at the center of the transition change to pink.
  Registered rendering jobs are processed in the background in a sequential order of the predetermined priority. The progress of the rendering process can be checked on GV Job Monitor.
  "GV Job Monitor" (▶ page 330)
- Even if the project file is closed before the rendering process is completed, the process of the rendering job will be continued.
- When the rendering process has been completed, the lines on the clip change to green.
  When a transition has been rendered, the lines at the center of the transition change to green.

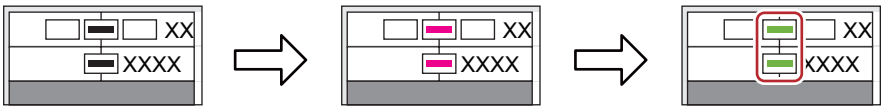
Example:

When a clip has been rendered



Example:

When a clip transition has been rendered



Alternative

- Click [Render] on the menu bar, and click [Render selected clip/transitions].
- Rendering clips/transitions: **[Shift] + [G]**

- If the clip or transition to be rendered is edited after rendering process has started, the rendering job may be canceled.

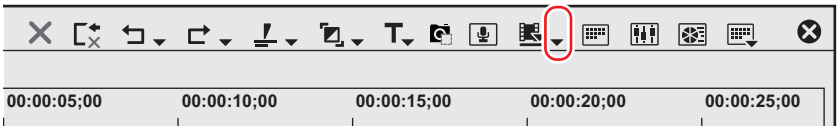
Exporting Video Clips from Timeline

Render between In and Out points on the timeline, and export only video clips as a file in AVI format. Exported clips are placed on the V/VA track.

1) Set the range of the clip to export from the timeline with the In and Out points.

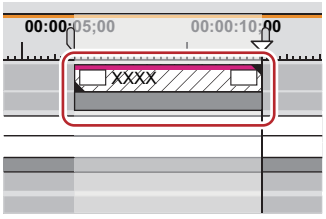
- **"Setting the In and Out Points on the Timeline" (▶ page 222)**

2) Click the [Render In/Out (Render Overload Area)] list button on the timeline.



3) Click [Render and Add to Timeline].

- The rendering job will be registered to the Render Service.
  An offline clip is placed on the V/VA track on the timeline, and a pink line appears on the clip. If there is no space to place a clip on the track, a new V track is added.



- Registered rendering jobs are processed in the background in a sequential order of the predetermined priority. The progress of the rendering process can be checked on GV Job Monitor.
  "GV Job Monitor" (▶ page 330)
- Even if the project file is closed before the rendering process is completed, the process of the rendering job will be continued.
- When the rendering process has completed, the offline clip changes into an online clip, and the pink line on the clip disappears.

Alternative

- Click [Render] on the menu bar, and click [Render and Add to Timeline].
- Right-click the time scale, and click [Render and Add to Timeline].
- Exporting video clips from the timeline: **[Shift] + [Q]**

- The exported clips are saved in the "RenderAndPaste" folder in the project folder by default. When the "RenderAndPaste" folder increases in size, delete the files manually.
- You can set the save destination of exported files from [User Settings] → [Application] → [Project] → [Rendered File].
- Once a rendering process has started, the rendering job will not be canceled even if the project is edited. To cancel a rendering job, use GV Job Monitor.
  "GV Job Monitor" (▶ page 330)

Note

- Title track clips and the track areas set with the mute are exported as black clips.
- If the exported clip is placed on the timeline and any referenced file in the "RenderAndPaste" folder is edited, the clip will become an offline clip.
  "Restoring the Source Link" (▶ page 90)
- Make sure that there is enough disk space for the files before starting rendering.
- To use exported clips in other projects, copy the files to another folder.

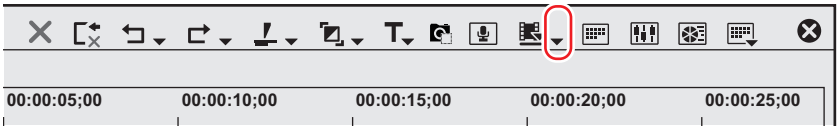
Manually Deleting Temporary Files

Manually delete temporary files that are created during rendering.

By default, temporary files for rendering are temporarily saved in the "rendered" folder created in the project folder. Temporary files that are not referenced by a project are automatically deleted when the project ends, however, it is recommended to manually delete them when the "rendered" folder increases in size.

- You can set the save destination of temporary files from [User Settings] → [Application] → [Project] → [Rendered File].

1) Click the [Render In/Out (Render Overload Area)] list button on the timeline.



2) Select [Delete Render Files] and click [Files that are not Used] or [All Files].

Alternative

- Click [Render] on the menu bar, and click [Delete Temporary Render Files] → [Files Not Used] or [All Files].
- Deleting unused files: **[Alt] + [Q]**

3) Click [Yes].

- Set when to automatically delete invalid rendering files (i.e. files not referenced by a project) at [Application] in [System Settings] → [Render].
  "[Render]" (▶ page 101)
- A temporary file is created in the following cases:
  - When a clip has been exported from the timeline
  - When whole or part of the timeline has been rendered
  - When a clip has been rendered
- Files created by [Render and Add to Timeline] and saved in the "RenderAndPaste" folder will not be deleted even if [Delete Render Files] is executed. In case there is a shortage of capacity of the "RenderAndPaste" folder, delete the files manually.

Note

- The temporary files created in the "rendered" folder can be operated (e.g. renamed, deleted or copied). However, temporary files referenced from a project, such as [Render In/Out], cannot be operated.

Exporting Still Image Clips from the Timeline

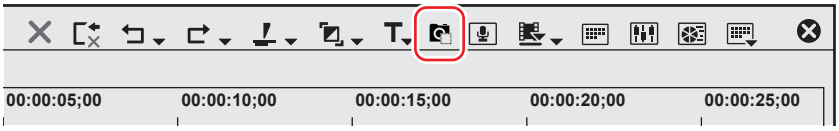
Video images in the selected preview window (Player/Recorder) can be exported as still image clips and registered to the bin.

Example:

To export the frame displayed on the Recorder as a still image

1) On the Recorder, display frames to be saved as still images.

2) Click [Create a Still Image (Save as)] on the timeline.



- The [Save As] dialog box appears.

3) Set a file name, save destination, and [Save as type], and then click [Save].

- The still image is saved in the specified folder, and the still image clip is registered to the bin.

Alternative

- Exporting still image clips from the timeline: **[Ctrl] + [T]**
- Click [Clip] on the menu bar, and click [Create a Still Image]. The still image is saved in the same folder as the project, and the still image clip is registered to the bin.

- Video from a deck also can be saved as still image clips.
- The aspect ratio of still images sometimes is output different from that of the original image depending on the frame size. To output correctly, set to correct the aspect ratio. The settings of still images to export can be changed by [Importer/Exporter] in [System Settings] → [Still Image].
  "[Still Image]" (▶ page 107)

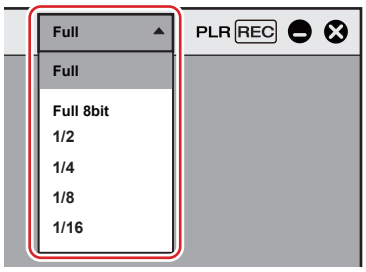
Draft Preview

Reducing image resolution or bit depth for preview improves the performance of real time playback. Although the preview image quality becomes lower, it reduces the load on PC and you can edit data comfortably.

Make use of this feature when you apply heavy-load effects such as [Mask] and [Layouter], or when you play the timeline where high-resolution clips such as 4K are placed.

1) Click [Preview Quality] on the menu bar, and select an item.

- The image quality for preview will be changed according to the selected item.



[Full]	Previews video without changing the resolution and bit depth.
[Full 8bit]	Previews video with the original resolution maintained but with the bit depth changed to 8-bit. This is displayed only for projects with video quantization bitrate of 10-bit.
[1/2]	Previews video in 1/2 of the original resolution.
[1/4]	Previews video in 1/4 of the original resolution.
[1/8]	Previews video in 1/8 of the original resolution.
[1/16]	Previews video in 1/16 of the original resolution.

- Click [Settings] on the menu bar, go through [User Settings] → [Preview] → [Playback], and add the check mark for [Show full quality when Paused], to enable preview in the original image quality when playback is paused.
- When proxy editing is started while [Preview Quality] is set to [Full] or [Full 8bit], the setting is automatically changed to [1/2]. When proxy editing is started while [Preview Quality] is set to lower than [1/2], the setting is maintained. After proxy editing is finished, [Full] is applied for [Preview Quality], regardless of the original setting.

Note

- Depending on the [Preview Quality] setting, the timecode or level meter in the status area may not be displayed.

■ Playing Back Video with Effects Applied Smoothly

When heavy-load effects such as [Mask] or [Layouter] are applied on a clip, real time processing may not catch up and the timeline may not be played back smoothly.

Draft preview can be used in such a case. Although the preview image quality becomes lower, it does not take time for converting resolution or bit depth, and the timeline can be played back quickly. If you need to check image details, adding the check mark for [Show full quality when Paused] can let you check the image in the original quality when playback is paused.

■ Playing Back 4K Video Smoothly

Draft preview is effective in playback of timeline where the data amount is large due to a case such as heavy usage of high quality 4K image clips.

For example, when [1/2] is selected for [Preview Quality], 4K (3840x2160) video is displayed in the image quality equivalent to Full HD (1920x1080). If you edit video on a notebook PC, selecting [1/4] and previewing in full screen can maintain an adequate image quality.

By using the draft preview, you can handle high-quality image sources regardless of the performance of your PC.

- Draft preview functions effectively in the following commonly used formats.
  Sony RAW, Cinema RAW, Cinema RAW Light, Avid DNxHD/Avid DNxHR, Apple ProRes, RED, Motion JPEG, JPEG, Grass Valley HQX

Frame Skip Playback

By thinning frames for preview, the performance of real time playback improves.

Make use of this feature when you apply heavy-load effects such as [Mask] and [Layouter], or when you play the timeline where RAW data clips are placed.

1) Click [Skipped Frames] on the menu bar, and select an item.

- The image quality for preview will be changed according to the selected item.

[Full frames]	Does not thin out frames for preview.
[1 frame] - [30 frames][*1]	Thins out the specified number of frames for preview. By increasing the number of thinned-out frames, the load on the PC during playback will be made smaller.

*1 Select [1 frame] - [5 frames] to specify by1-frame unit, or select [10 frames] - [30 frames] to specify by 5-frame unit.

- [Skipped Frames] in the multicam mode can hold specific setting values which are different from those in the normal and any other modes.
- If [Skipped Frames] is set to an option other than [Full frames], the timecode, closed captions, and other information to be displayed on the preview window also appear reduced according to the number of thinned-out frames.
- If a clip on which [Motion Blur] is applied is played by frame skip playback, the motion in the thinned-out frames will not be used.

Sequences

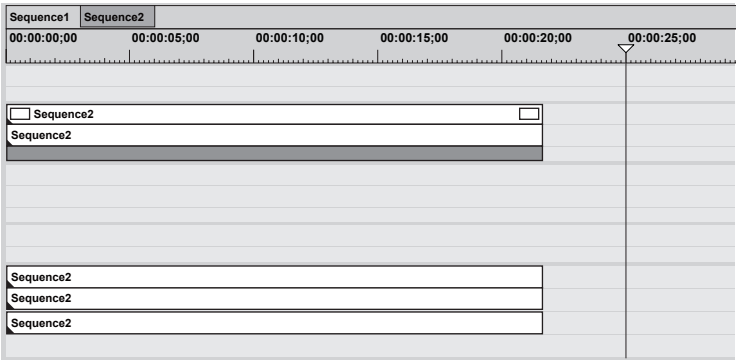
Creating New Sequence

What Are Sequences?

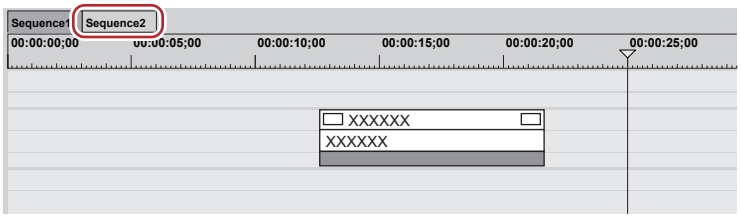
A single timeline included in a project is called a “sequence”.
A single project can be comprised of multiple sequences, and a sequence can be selected and edited by clicking the sequence tab.
Sequences are registered as “TL (timeline) sequence clip” to the bin and they can be edited like clips.
Nest sequence is the function for placing a certain sequence within other sequences in the same way as a clip for editing.

Example:

When “Sequence 2” is placed in the 1VA track of sequence 1



You can open and edit the clip in “Sequence 2”, which is placed in Sequence 1, in the timeline window.



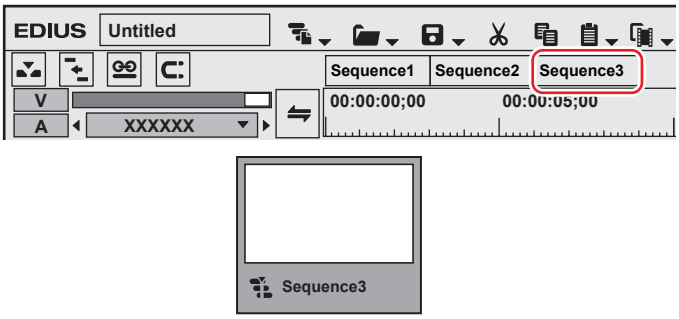
- Right-click the sequence tab to display the menu for changing the sequence setting or closing the sequence. Right-click the sequence tab of the sequence to be set.

Creating New Sequences

Create a new sequence.

1) Click [Create New Sequence] of the timeline.

- A blank sequence is created in the timeline window, and a timeline sequence clip also is registered to the bin at the same time.



- To select a sequence, click the sequence tab.

Alternative

- Click [File] on the menu bar, and click [New] → [Sequence].
- Creating new sequence: **[Shift] + [Ctrl] + [N]**

- You can change sequence settings.
  "Sequence Settings" (▶ page 68)
- You can sort the order of sequence tabs by dragging and dropping the tabs.
- You can rename sequences by right-double-clicking the sequence tab.

Editing Sequences

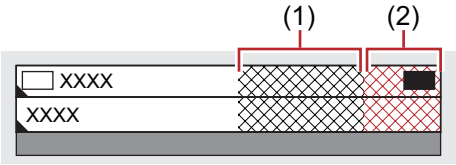
Opening the Sequence to Edit

Open and edit timeline sequence clips in the timeline window.

1) Double-click a timeline sequence clip in the bin or on the timeline.

- The sequence tab is displayed in the timeline window. Click the sequence tab to select the sequence to edit.

- Edits are reflected in the timeline sequence at the place destination when the timeline sequence clip is edited. Not, however, that the length of the timeline sequence at the place destination remains unchanged. The display changes as follows when there is not enough clip length left after editing:



(1) is gray and no clips are present in the total length of the sequence.
(2) is gray and no clips are present extending over the total length of the sequence.

- The total length can be changed in the sequence settings.
  "Sequence Settings" (▶ page 68)
- You can import timeline sequences created in other projects.
  "Importing Sequence (Sequence Import)" (▶ page 75)

Alternative

- Right-click a timeline sequence clip in the bin, and click [Open Sequence].

Closing Sequences

1) Right-click the sequence tab, and click [Close This Sequence].

Alternative

- Click [View] on the menu bar, and click [Close Sequence] → [Active Sequence].

- You can close all but one of currently displayed sequences by the following operation.
  - Right-click the sequence tab to leave behind, and click [Close All Other Sequences].
  - Click the sequence tab to leave behind, and click [View] → [Close Sequence] → [All Sequences except Active Sequence] on the menu bar.
- You cannot close all sequences displayed in the timeline window.

Effectively Editing Clips Using the Nest Sequence Function

Registering Clips on the Timeline to the Bin as Sequences

You can register clips between In and Out points placed on the timeline to the bin. You can also select a clip to register to the bin as a timeline sequence clip.

1) Setting the In and Out Points to the Timeline

- **"Setting the In and Out Points on the Timeline" (▶ page 222)**
- Select a clip when registering a clip on the timeline to the bin as a timeline sequence clip.

2) Click [Edit] on the menu bar, and click [Add Sequence to Bin] → [In/Out] or [Selected Clip].

- When [In/Out] is clicked, the range between In and Out points is registered to the bin as the timeline sequence clip, and when [Selected Clip] is clicked, the selected clip is registered.

- You can convert a video clip between In and Out points on the timeline to a sequence to place on a track. After setting the In and Out points to the timeline, click [Edit] on the menu bar, and click [Set Between In/Out as Sequence]. The clip between In and Out points is placed on the track as a sequence, and the timeline sequence clip is registered also to the bin at the same time. If there is no space to place a clip on the track, a new V track is added.
- Active sequences in the timeline window can be registered to the bin as timeline sequence clips by the following operation.
  - Right-click the sequence tab, and click [Add to Bin].
  - Click [Edit] on the menu bar, and click [Add Sequence to Bin] → [All].

Creating Blank Timeline Sequence Clips on Tracks

You can place a blank timeline sequence clip in advance at the sequence insert position.

1) Move the timeline cursor to the position to create the timeline sequence clip.

2) Right-click the track to create the sequence at, and click [New Sequence].

- A blank timeline sequence clip is placed on the track with the position of the timeline cursor set as the In point. It is also registered to the bin at the same time.

Duplicating Sequences

You can duplicate timeline sequence clips in the bin. Create a sequence with the same content but using a different name.

1) Right-click a timeline sequence clip in the bin, and click [Duplicate Sequence].

- Duplicated clips are named after the original clips and are appended with a sequential number.

Placing Sequences within Other Sequence (Nest Sequence)

You can place a timeline sequence clip within another timeline sequence.

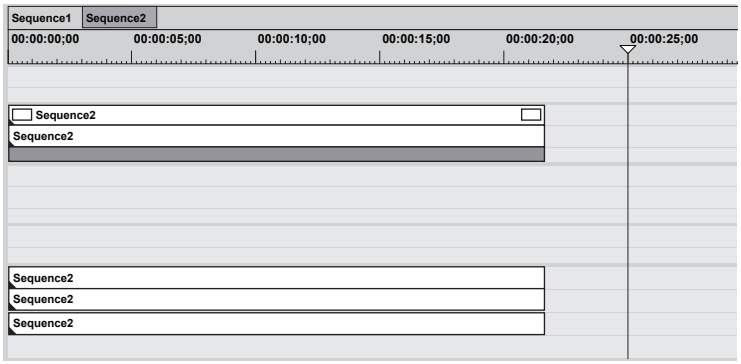
1) Set the source channel mapping.

- **"Setting Channel Mapping" (▶ page 220)**

2) Move the timeline cursor to the position to place the clip.

3) Right-click a timeline sequence clip in the bin, and click [Add to Timeline].

- The timeline sequence clip (gray) in the bin is placed on the other sequence.



Alternative

- Directly drag and drop a timeline sequence clip in the bin onto the timeline.
- Play back a timeline sequence clip on the Player, and click [Insert to Timeline] or [Overwrite to Timeline].

- Clip markers and sequence markers set to a timeline sequence clip will be displayed also in the destination sequence. The snap function is available in the same way as for normal clip markers or sequence markers.
  These markers can be edited also in the destination sequence, but the edited content will not be applied to the original sequence.
- The wave information (waveform representation of audio) of a timeline sequence clip is displayed also in the destination sequence.

Multicam Editing

In multicam editing, you can place clips including videos recorded by multiple cameras on the timeline along with the time axis and perform cut editing by switching scenes while playing back the clips simultaneously.
You can play back and edit videos of multiple clips up to 16 on the screen simultaneously.
After performing cut editing, you can also place only the selected clips on a single track.

- Multicam editing can be performed while in the multicam mode.

Setting the Sync Point to Place Clips

You can select a sync point as the reference point to be used when multiple clips are placed, and then place clips on the timeline.
A sync point can be selected from [Timecode], [Audio], [Clip Marker] , [Clip In], etc.
When a synchronized clip is to be placed, you can select either to create a new sequence or to use the currently active sequence.

- To place a clip in the bin to the currently active sequence, click on the sequence tab of the sequence to be synchronized to activate it in advance.
- To execute [Audio (Around the Marker)] or [Clip Marker] for [Sync Point], set a clip marker on each clip in advance. To place a clip in the bin to the currently active sequence, set a sequence marker on the sequence to be synchronized in advance.

1) Select and right-click the multiple clips in the bin, and click [Multicam Sync].

- The [Multicam Sync] dialog box appears.
  "[Multicam Sync] Dialog Box" (▶ page 309)
- When you place a clip in the bin to the currently active sequence, you can select only one clip in this step.

2) Select a reference sync point from the [Sync Point] list.

- When you select [Audio (Around the Marker)] or [Clip Marker], set [Marker].

3) Select [New sequence] or [Active Sequence] for [Target Sequence] of [Output].

- Select a sequence on which the synchronized clips are to be placed.
  Selecting [New sequence] will create a new sequence in accordance with the current project settings.
  Selecting [Active Sequence] will synchronize the currently active sequence with the clip selected in the bin. Clips will be added to the currently active sequence.
- When you select [New sequence], set [Sequence Name] and [Audio Channel].

4) Click [OK].

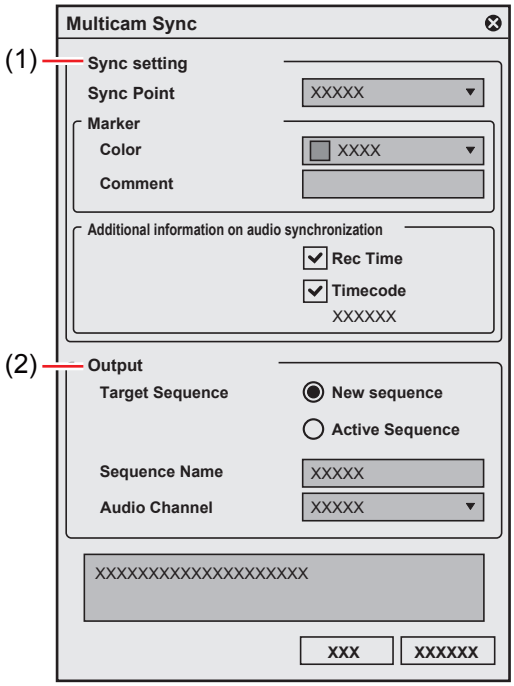
- The clip will be placed on the timeline.
- If [Audio] or [Audio (Around the Marker)] has been selected for [Sync Point], clicking [OK] will start analysis of audio data. The progress of the analysis process will be displayed, and clips will be placed after completion of the analysis.
- The sequence on which the clips are placed differs depending on the setting of [Target Sequence].
- When [New sequence] has been selected for [Target Sequence], multicam mode is set to the sequence.
  - Clips placed on the timeline are displayed in the multi-camera screen on the Recorder.
    The number of the multi-camera screens on the Recorder is determined automatically according to the number of clips selected in the bin.
    "Changing the Number of Screens" (▶ page 313)
  - The camera switch point is automatically set to the In and Out points of each clip. To change the camera switch point, overwrite it.
    "Setting the Camera Switch Point during Playback" (▶ page 315)

- The currently active sequence and the sequence clip selected in the bin can be synchronized.
  Note that the following sequence clips cannot be synchronized with the currently active sequence.
  - A sequence clip which is identical to the currently active sequence
  - A sequence clip which includes the currently active sequence

Note

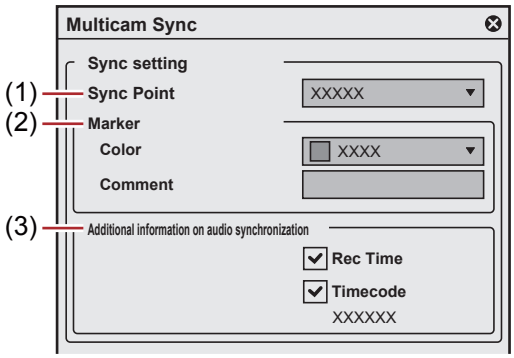
- When you place a clip on the timeline by a drag and drop operation, or when you right-click on a clip in the bin and then click [Add to Timeline], the clip cannot be placed using the sync point as the reference point.
- Selecting [Active Sequence] for [Target Sequence] will synchronize the currently active sequence with the clip selected in the bin. When the clip selected in the bin is placed on the timeline, the positions of clips which have already been placed on the timeline are maintained. Therefore, the clip selected in the bin may be trimmed on the In point side, or the clip may not be placed.

[Multicam Sync] Dialog Box



(1)	**[Sync setting]**	Sets a sync point or marker to be the reference for synchronization. **"[Sync setting]" (▶ page 309)**
(2)	**[Output]**	Makes settings of the sequence on which the synchronized clips are to be placed. **[Target Sequence]** • When [New sequence] has been selected A new sequence is created in accordance with the current project settings. Multicam mode will be set to the created sequence. • When [Active Sequence] has been selected The currently active sequence and the clip selected in the bin are synchronized. The synchronized clips will be added to the currently active sequence. The mode of the sequence (standard mode/multicam mode) will not be changed. − A clip cannot be placed on an empty sequence. − If [Audio (Around the Marker)] or [Clip Marker] has been selected for [Sync Point], the clip marker of the clip selected in the bin and the sequence marker set on the sequence will be the reference points for synchronization. **[Sequence Name]** Enter the name of the sequence. **[Audio Channel]** Select the audio channel from [Monaural] and [Stereo].

[Sync setting]



(1)	**[Sync Point]**	Select a sync point as the reference point for clips to be placed. **[Timecode]** Places clips on the timeline according to the start timecode of each clip. • Clips with no timecode information are excluded from the analysis target. **[Rec Time]** Places clips on the timeline according to the recording time of each clip. • Clips with no recording time information are excluded from the analysis target. **[Audio]** Analyzes audio data of every entire clip, and determines an optimal sync point automatically. Clips are placed on the timeline according to those sync points. **"Audio Sync" (▶ page 310)** **[Audio (Around the Marker)]** Analyzes audio data of each clip in the range of 10 seconds before and after the clip marker set on each clip, and determines an optimal sync point automatically. Clips are placed on the timeline according to those sync points. By limiting the analysis area to the range around the marker, the time for analysis will be shortened significantly. A marker to be the reference point can be set by [Marker]. • If [Active Sequence] has been selected for [Target Sequence], the clip marker of the clip selected in the bin and the sequence marker set on the sequence will be the reference points for analysis. • If a clip or sequence has no marker to be subject to synchronization, the entire clip or sequence will be analyzed. **"Audio Sync" (▶ page 310)** **[Clip Marker]** Places clips on the timeline according to the clip marker position of each clip. A marker to be the reference point can be set by [Marker]. • If [Active Sequence] has been selected for [Target Sequence], the clip marker of the clip selected in the bin and the sequence marker set on the sequence will be the reference points for synchronization. **[Clip In]** Places clips on the timeline according to the In point of the clip. If a clip has no In point, the top of the clip will be the reference point. • If [Active Sequence] has been selected for [Target Sequence], the In point of the sequence will be the reference point for synchronization. **[Clip Out]** Places clips on the timeline according to the Out point of the clip. If a clip has no Out point, the end of the clip will be the reference point. • If [Active Sequence] has been selected for [Target Sequence], the Out point of the sequence will be the reference point for synchronization.
(2)	**[Marker]**	Sets [Color] and [Comment] of the clip marker or sequence marker to be the reference point for synchronization. • The marker with the exact same color as selected in [Color] and the text string as set in [Comment] will be subject to synchronization. • The settings can be changed by selecting [Audio (Around the Marker)] or [Clip Marker] in [Sync Point]. **[Color]** Select the color of the marker to be the reference point for synchronization. **[Comment]** Enter the text string which exactly matches that of [Comments] for the marker to be the reference point for synchronization.
(3)	**[Additional information on audio synchronization]**	Sets the data to be used in analysis of audio sync. **[Rec Time]** Check this item to use the [RecDate/Time] data of the clip in analysis. **[Timecode]** Check this item to use the [Start TC] data of the clip in analysis. This setting is applied to free run source clips. However, if [Start TC] of a free run source clip is "00:00:00;00", the clip is treated as a rec run source, and its [Start TC] data is not used in analysis.

Audio Sync

The audio sync function analyzes audio data such as video clip and audio clip, and automatically determines an optimal sync point to synchronize them.

There are two major methods of audio sync, [Audio] and [Audio (Around the Marker)].

[Audio] analyzes audio data of every entire clip.

[Audio (Around the Marker)] analyzes audio data of each clip in the range of 10 seconds before and after the clip marker set on each clip. By limiting the analysis area to the range around the marker, the time for analysis will be shortened significantly.

■ Preparation

To execute [Audio (Around the Marker)] in [Sync Point], set a clip marker on each clip in advance. The marker position functions as a reference point for the range of audio data analysis. An analysis is performed in the range of 10 seconds before and after the marker.

- If a clip in the bin is placed onto the currently active sequence, the clip marker of the clip selected in the bin and the sequence marker set on the sequence will be the reference points for analysis.

Example:

To set a clip marker to be the reference point for analysis

1) Set a clip marker on a clip to be used for multicam editing.

- Set a clip marker on a position of a characteristic sound that is commonly included in all the clips, such as the start of music.
  "Setting Clip Markers" (▶ page 278)

2) Set [Color] and [Comments] for the clip marker of each clip.

- Set [Color] and [Comments] of the clip marker to be the reference point of analysis.
  The clip marker with the exact same setting as that for [Marker] in the [Multicam Sync] dialog box will be analyzed.
  "Changing Color of Clip Marker" (▶ page 282)
  "Entering Comments to Clip Markers" (▶ page 281)
- Even if [Comments] is not entered, synchronization will be performed.

- To place a clip in the bin onto the currently active sequence, set a sequence marker on the sequence to be synchronized in advance, and then set [Color] and [Comments].
  "Changing Color of Sequence Marker" (▶ page 287)
  "Entering Comments to Sequence Markers" (▶ page 287)

Synchronization by Audio Sync Function

This section describes how to synchronize clips using the audio sync function.

- To place a clip in the bin to the currently active sequence, click on the sequence tab of the sequence to be synchronized to activate it in advance.
- To execute [Audio (Around the Marker)] in [Sync Point], set a clip marker on each clip in advance. To place a clip in the bin to the currently active sequence, set a sequence marker on the sequence to be synchronized in advance.

1) Select and right-click the multiple clips in the bin, and click [Multicam Sync].

- The [Multicam Sync] dialog box appears.
  "[Multicam Sync] Dialog Box" (▶ page 309)
- When you place a clip in the bin to the currently active sequence, you can select only one clip in this step.

2) Select [Audio] or [Audio (Around the Marker)] from the [Sync Point] list.

- If you execute [Audio], proceed to step **4)**.

3) For [Marker], set [Color] and [Comment] of the marker to be the reference point for analysis.

- Set [Color] and [Comment] which exactly match those of the marker set for each clip in advance.

4) For [Additional information on audio synchronization], check the data to be used in analysis.

5) Select [New sequence] or [Active Sequence] for [Target Sequence] of [Output].

- Select a sequence on which the synchronized clips are to be placed.
  Selecting [New sequence] will create a new sequence in accordance with the current project settings when the audio data analysis is completed.
  Selecting [Active Sequence] will synchronize the output audio in the currently active sequence with the clips selected in the bin. Clips will be added to the currently active sequence.
- When you select [New sequence], set [Sequence Name] and [Audio Channel].

6) Click [OK].

- The analysis of audio data will start. The progress of the analysis process will be displayed, and clips will be placed on the sequence when the analysis is completed.

- After [Audio (Around the Marker)] has been selected for [Sync Point], if a clip or sequence has no marker to be subject to synchronization, the entire clip or sequence will be analyzed.
- If the number of audio channels exceeds the maximum limit of output channels in the project settings, the excess of the audio channels will not be placed in the sequence.
  If the number of audio channels in a clip exceeds the maximum limit that can be placed, a message will appear before the analysis of audio data starts. Click [Continue] to delete the audio channels that exceed the maximum limit for output, and then place the clip in the sequence.

■ To automatically distinguish different scenes and separate sequence

If [Audio] or [Audio (Around the Marker)] has been selected for [Sync Point], multiple sequences may be created, in such a case when multiple groups with different sync points are detected in audio data analysis.

For example, if a performance by a band is recorded in multi-camera recording by three cameras, in which four songs are performed and recording is stopped on each camera every time a song is finished.

When the recorded data is imported to EDIUS, 12 clips will be registered to the bin. If you select all the 12 clips in the bin and execute audio sync, automatic distinction of scenes will be performed based on the sync point information obtained from analysis.

After the analysis is completed, four sequences, each including three clips, will be created.

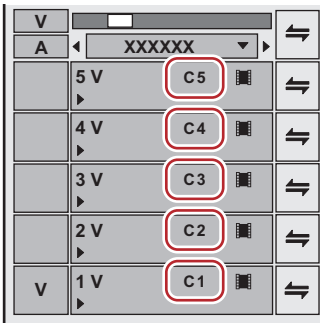
- Clips that have an identical reel name will not be analyzed for each other. Clips with an identical reel name are placed on the same track on the sequence.
- In case multiple sequences are created, the sequence names are given as follows.
  The following are examples of three sequences created when [Sequence Name] of [Output] is set to “Multicam1” in the [Multicam Sync] dialog box.
  - The name of the first sequence: “Multicam1”
  - The name of the second sequence: “Multicam1(2)”
  - The name of the third sequence: “Multicam1(3)”

Switching to the Multicam Mode

You can switch the mode of the currently active sequence to the multicam mode.

1) Click [Mode] on the menu bar, and click [Multicam Mode].

- The preview window switches from the standard mode to the multicam mode.
- When the preview window is displayed in the dual mode, the left side is the divided screen corresponding to the number of cameras, and the right side is the master (selected camera).
- When the preview window is displayed in the single mode, the screen is the divided screen corresponding to the number of cameras. The screen can also be set to display only the master.
  “Setting the Multicam Display” (▶ page 313)
- [Camera mapping] is displayed on the track panel of the timeline window.



Alternative

- Switching to the multicam mode: **[F8]**

- When the mode is switched to the multicam mode with clips placed on the timeline, the camera switch point is automatically set to the In and Out points of each clip. To change the camera switch point, overwrite it.
  “Setting the Camera Switch Point during Playback” (▶ page 315)
- When the preview window is displayed in the single mode, the display can be switched between the selected camera only display and the divided screen. Click [Mode] on the menu bar, and click [View Multicam] → [Show Only the Selected Camera in Single Monitor Mode].
- The multicam mode can be switched to the standard mode by the following operation.
  - Click [Mode] on the menu bar, and click [Normal Mode] or [Multicam Mode].
  - Press [F8] on the keyboard again.
  - Switching to standard mode: **[F5]**
- Operations on clips or tracks in the multicam mode are the same as in the standard mode, however, shortcut keys differ from those in the standard mode.

Note

- The multicam mode ends and the mode changes to the standard mode when the following operations are performed during multicam editing.
  - Switching to the Player during editing in the single mode
  - Displaying clips on the Player during editing in the dual mode
  - Opening the effect or layouter setting dialog box

Changing the Number of Screens

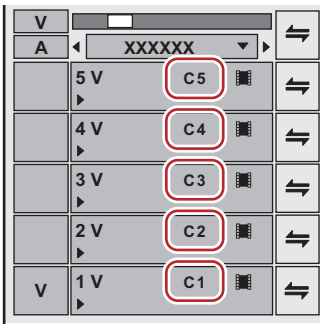
You can switch the number of multicamera screens on the Recorder.

1) Click [Mode] on the menu bar, and click [Number of Cameras] → an item.

Changing the Assigned Camera

You can change the camera assigned to each track.
When clips have been placed on the timeline in the multicam mode, cameras are assigned in the track number order of V/A tracks containing clips.

1) Click [Camera mapping] on the track panel of the V/A track.



2) Click the camera to assign to the selected track.

- Click [Unmap] to release the assignment set to the selected track.
- Click [Default] to initialize all camera assignments set to the tracks. Cameras will be reassigned in order of track numbers of the V track. Camera assignment to the A track will be released.

- [Camera mapping] is displayed only in the multicam mode.
- Tracks not assigned a camera are not displayed in the multicam mode.
- You can change camera assignments during editing.
- You can switch the display/hide setting for the track name at the upper left of each screen of the multicam mode. Click [Mode] on the menu bar, and click [View Multicam] → [Display Track Name] to uncheck the item.

Setting the Multicam Display

Set the preview display during editing in the multicam mode.

1) Click [Mode] on the menu bar, and click [View Multicam] → an item.

- On items are checked.

[Apply Video Filter]	Batch-switch the disabled (on)/enabled (off) setting of the video filter applied to clips. Temporarily disabling the video filter can reduce the load on the system during playback.
[Display Track Name]	Switch the show/hide setting for track names assigned to the divided screen.
[Display Only the Selected Camera on Full Screen Preview (Auto)]	When this item is on, only the video of the selected camera (master) is displayed in displays whose full screen view setting is set to [Auto]. When this item is off, the divided screen is displayed. **"[Monitor]" (▶ page 124)**
[Output the Selected Camera to External Monitor]	When this item is on, only the video of the selected camera (master) is displayed on the external monitor. When this item is off, the divided screen is displayed.

[Show Only the Selected Camera in Single Monitor Mode]	This item is enabled when the preview window is in the single mode. When this item is on, only the video of the selected camera (master) is displayed.

- If playback process cannot keep up with the playback speed in such a case as when there is a large number of camera assignment, frames can be thinned out for preview by using [Skipped Frames]. The multicam mode can hold specific setting values different from those of the normal and any other modes.
  "Frame Skip Playback" (▶ page 302)

Setting the Camera Switch Point and Selecting the Camera

Set the camera switch point as the trigger to switch cameras, and select clips to use.

- Switch the mode to the multicam mode in advance.
  "Switching to the Multicam Mode" (▶ page 312)

Setting Track to be Controlled with Camera Switch Point

You can set tracks to be controlled with the camera switch point in the multicam mode.

- Operations to add, move, and delete camera switch point as well as to switch the selected camera can be controlled with this function.

1) Click [Mode] on the menu bar, and click [Multicam Switching] → an item.

[Cut Video]	Set the track to be controlled with the camera switch point to the V track only.
[Cut Audio]	Set the track to be controlled with the camera switch point to the A track only.
[Cut Video and Audio]	Set the track to be controlled with the camera switch point to both of the V and A tracks.

- The current mode is displayed on the status bar of the timeline.

- [Cut Video] is set by default.
- If you add the buttons of [Multicam Switching] to be displayed on the mode bar and timeline as operation buttons, you can switch the track to be controlled with the camera switch point simply by clicking a button.
  "Operation Button Settings" (▶ page 146)
- If you a assign keyboard shortcut to each item of [Multicam Switching], you can easily change the track to be controlled with the camera switch point.
  "Changing Keyboard Shortcut Assignments" (▶ page 157)

Setting the Camera Switch Point

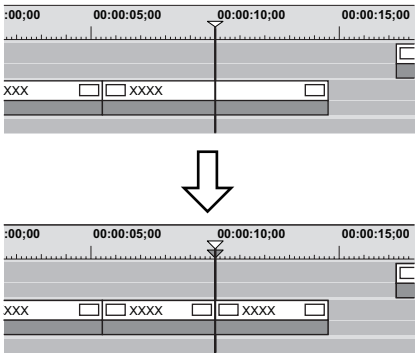
Set the camera switch point as the trigger to switch cameras.

- Before performing an operation, check the setting of [Multicam Switching]. In [Multicam Switching], you can specify the track(s) to be controlled with the camera switch point.
  "Setting Track to be Controlled with Camera Switch Point" (▶ page 314)

1) Move the timeline cursor to the position to set the camera switch point.

2) Right-click the time scale, and click [Add Cut Point/Clear Cut Point (Toggle)].

- The camera switch point is set at the timeline cursor position, and a cut point is added to the clip on the switch point.



- Repeat steps **1)** and **2)**, to set the camera switch point. The enable/disable setting of clips to use can be set by switching the selected camera.
  "Switching the Selected Camera" (▶ page 316)
  "Clip Enable/Disable" (▶ page 242)

Alternative

- Double-click the time scale at the position to set the camera switch point.
- Double-click the camera video of each track.
- Setting camera switch point: **[0]**

- The same operations can also be performed during playback.
- The track(s) to be switched when switching the camera will be determined according to the camera numbers specified on the V and A tracks.

Setting the Camera Switch Point during Playback

You can set the camera switch point during playback. Playback operations are the same as in the standard mode.

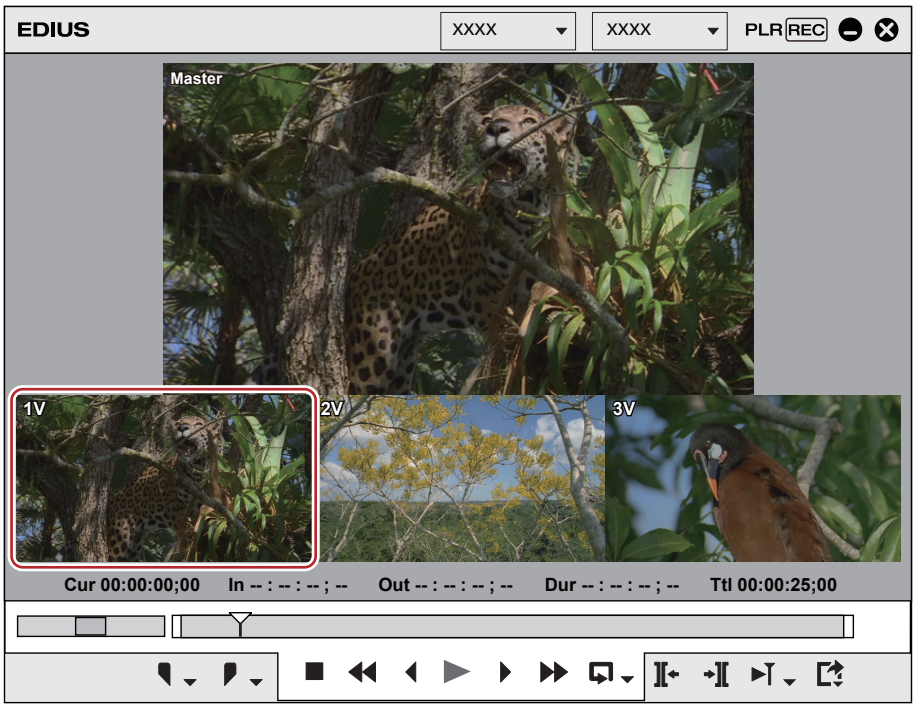
The following explains operations in the divided screen in the multicam mode. When display of only the selected camera in the single mode has been set, operate using the numerical keypad on the keyboard.

"Multicam Editing by Shortcut Keys" (▶ page 317)

- Before performing an operation, check the setting of [Multicam Switching]. In [Multicam Switching], you can specify the track(s) to be controlled with the camera switch point.
  "Setting Track to be Controlled with Camera Switch Point" (▶ page 314)

1) Move the timeline cursor to the position to start playback.

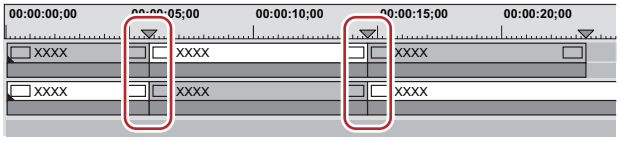
2) Click the camera video of the clip to be enabled first.



3) Click [Play] on the Recorder.

4) Click the camera video of the clip to be enabled at the video switching position.

- The camera switch point is set to the timeline cursor position. When playback stops, a cut point is added to the clip on the camera switch point.



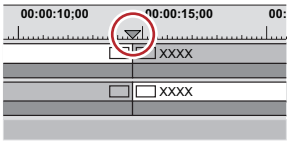
- Any camera switch point which is placed between the first up to the playback stop point is deleted.
- When setting the camera switch point during playback, you can set not to delete the camera switch points that playback has passed through. Click [Mode] on the menu bar, and click [Overwrite Cut Point] to uncheck the item.

Moving Camera Switch Points

You can delete camera switch points.

- Before performing an operation, check the setting of [Multicam Switching]. In [Multicam Switching], you can specify the track(s) to be controlled with the camera switch point.
  "Setting Track to be Controlled with Camera Switch Point" (▶ page 314)

1) Drag the camera switch point.



- During dragging, the images of the previous and next frames of the camera switch point are displayed on the camera of the respective track on the Recorder.

Alternative

- Click the clip boundary, and perform a slide trim.
  "Trimming Operation Methods" (▶ page 271)
- Place the mouse cursor on the Recorder with [Shift] on the keyboard held down, and rotate the mouse wheel. The master at the position of the camera switch point being moved and the video of each track are displayed on the Recorder. Check the video, and release [Shift] at the position to place the camera switch point to place the point at the move destination.

- If you have moved through other camera switch points, the camera switch points in between are deleted.
- Move the camera switch point set to the Out point of a clip to trim the clip.

Deleting Camera Switch Points

You can delete camera switch points.

- Before performing an operation, check the setting of [Multicam Switching]. In [Multicam Switching], you can specify the track(s) to be controlled with the camera switch point.
  "Setting Track to be Controlled with Camera Switch Point" (▶ page 314)

1) Move the timeline cursor to a camera switch point to delete.

2) Right-click the time scale, and click [Add Cut Point/Clear Cut Point (Toggle)].

- The camera switch point is deleted, and clips are merged. The enable/disable settings of clips when a camera switch point is deleted are dependent on the previous clip.
  The camera switch point cannot be deleted when the camera switch point set to the In and Out points of a clip which has no margin.

Alternative

- Right-click the camera switch point to delete, and click [Add Cut Point/Clear Cut Point (Toggle)].
- Double-click the camera switch point.

- To delete all camera switch points on the time scale, right-click the time scale, and click [Delete All Cut Points].
- To delete camera switch points between the In and Out points on the timeline, right-click the time scale, and click [Delete Cut Points between In/Out].

Switching the Selected Camera

You can change the clips to acquire after setting the camera switch points.

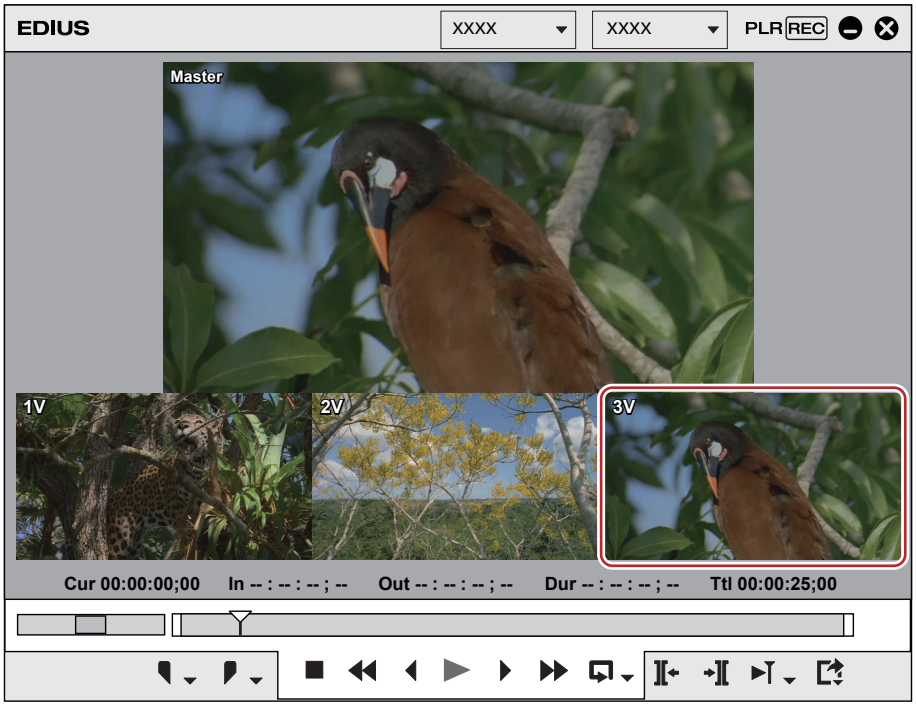
The following explains operations in the divided screen in the multicam mode. When display of only the selected camera in the single mode has been set, operate using the numerical keypad on the keyboard.

"Multicam Editing by Shortcut Keys" (▶ page 317)

- Before performing an operation, check the setting of [Multicam Switching]. In [Multicam Switching], you can specify the track(s) to be controlled with the camera switch point.
  "Setting Track to be Controlled with Camera Switch Point" (▶ page 314)

1) Move the timeline cursor on the clip to switch the selected camera while the timeline is stopped.

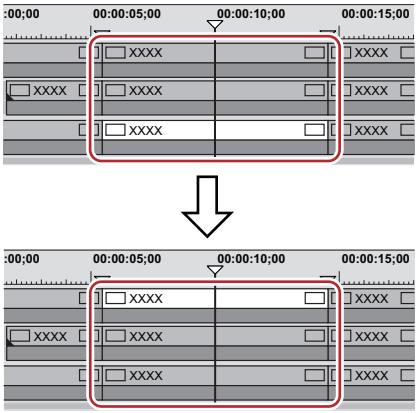
2) Click the camera video to set as the selected camera from among the camera videos of each track.



- The clips of the selected camera are enabled, and others are disabled.

Example:

When switching the selected camera of the clip at the timeline cursor position from [C1] to [C3]



- When the timeline cursor is moved over the clip to switch the selected camera, and the camera video of each track currently displayed on the Recorder is double-clicked, the camera switch point can be set and the selected camera can be switched at the same time.

Multicam Editing by Shortcut Keys

You can set the camera switch point and selected the camera using the numeric keypad. When only the selected camera is displayed in the single mode, perform multicam editing using shortcut keys. The following shows shortcut key operations and camera numbers assigned to each key.

Camera No.	Corresponding Numeric Keypad Operation
1	[1]
2	[2]
3	[3]
4	[4]
5	[5]
6	[6]
7	[7]
8	[8]

Camera No.	Corresponding Numeric Keypad Operation
9	[9]
10	[Alt] + [0]
11	[Alt] + [1]
12	[Alt] + [2]
13	[Alt] + [3]
14	[Alt] + [4]
15	[Alt] + [5]
16	[Alt] + [6]

Switching the Selected Camera Simultaneously with Setting of the Camera Switch Point

- Before performing an operation, check the setting of [Multicam Switching]. In [Multicam Switching], you can specify the track(s) to be controlled with the camera switch point.
  "Setting Track to be Controlled with Camera Switch Point" (▶ page 314)

1) Move the timeline cursor to the point to switch the camera.

2) Press the numeric keypad corresponding to the camera to switch to with [Ctrl] on the keyboard held down.

Switching the Selected Camera Simultaneously with Setting of the Camera Switch Point during Playback

1) Play back the timeline, and press the numeric keypad corresponding to the camera selected at the time of switching.

- The camera switch point is set to the timeline cursor, and the camera video is switched.

Switching the Selected Camera

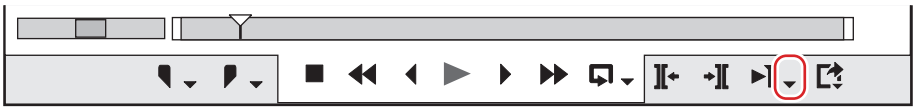
1) Move the timeline cursor over the clip to switch the selected camera.

2) Press the numeric keypad corresponding to the camera to switch to.

Playing Back around the Camera Switch Point

You can playback around a camera switch point to confirm the video. You can also confirm video in the same way by regular playback operation.

1) Click the [Play the Current Area] list button on the Recorder.



2) Click the playback method.

[Play around Cut Point]	Play back around the camera switch point which is nearest and placed before the timeline cursor.
[Play around Cut Point (1 Sec)]	Play back around for the specified length.
[Play around Cut Point (2 Sec)]	
[Play around Cut Point (3 Sec)]	
[Play around Cut Point - Show only Selected Camera]	Display only videos of the selected camera. Play back around the camera switch point which is nearest and placed before the timeline cursor.

[Play around Cut Point (1 Sec) - Show only Selected Camera]	Display only videos of the selected camera. Play back around for the specified length.
[Play around Cut Point (2 Sec) - Show only Selected Camera]	
[Play around Cut Point (3 Sec) - Show only Selected Camera]	

- You can repeatedly play back around the camera switch point.

- You can set the preliminary operation time (Preroll) at [Preview] in [User Settings] → [Playback].
  "[Playback]" (▶ page 123)
- You cannot set the camera switch point while playing around a camera switch point. Set the camera switch point by regular playback operation.
  "Setting the Camera Switch Point during Playback" (▶ page 315)

Copying Only the Selected Clips to Track

Group together the clips of the selected camera and copy them to one track.
Extract enabled clips from the track where the camera is assigned, and copy them to the specified track.

- Switch the mode to the multicam mode in advance.
  "Switching to the Multicam Mode" (▶ page 312)

1) Click [Mode] on the menu bar, and click [Compress to a Single Track].

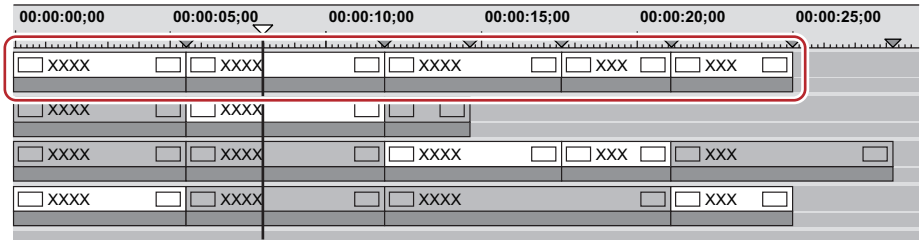
- The [Compress selected clips] dialog box appears.

2) Select the tracks to copy the selected clips from the [Select output track] list.

- Check [Apply between In/Out] to acquire selected clips between In and Out points on the timeline.

3) Click [OK].

- Selected clips are copied to the specified track. When other clips are already placed on the specified part, select whether to overwrite clips.



- If multiple enabled clips are placed between the camera switch points, priority is given to the camera point with the larger number.

Proxy Editing

Editing Using Proxy Files

In this mode, proxy data that has been optimized for editing, for example, by lowering image quality from the original high-resolution data is used. You can proceed with editing more effortlessly since the load placed on the CPU during editing can be lightened.
When only the proxy or source including the proxy has been checked out for checkout field editing, the project automatically opens in the proxy mode.
"Field Editing a Project" (▶ page 87)

- From [System Settings] → [Application] → [Proxy], you can set the size of proxy files to be created at the time of checkout.
  "[Proxy]" (▶ page 99)

Switching to the Proxy Mode

1) Click [Mode] on the menu bar, and click [Proxy Mode].

- When the proxy mode is set to on, a check mark appears on the menu item, and "proxy mode" is displayed on the status bar of the timeline.
- By default, when the mode is switched to the proxy mode, a proxy will be created for every clip used on the current project in the background. A proxy is named "clip name including extension.proxy.mov", and is saved in the same directory as the source file.
  Proxies are created using the Render Service.
  Registered rendering jobs are processed in the background in a sequential order of the predetermined priority. The progress of the rendering process can be checked on GV Job Monitor.
  "GV Job Monitor" (▶ page 330)
- Even if the project file is closed before the rendering process is completed, the process of the rendering job will be continued.
- The setting to prevent a proxy from being automatically generated can be changed by [Application] in [User Settings] → [Proxy Mode].
  "[Proxy Mode]" (▶ page 121)
- In the proxy mode, clips reference the proxy. When the proxy has been moved to a different directory, the clip becomes an offline clip.

- The default proxy mode setting is off.
- If the proxy cannot be saved to the same directory as the source file when the proxy is generated, it will be saved to the "Transferred" folder under the project folder.
- When the mode is switched to the proxy mode, clips that already have a proxy use that proxy and a new proxy is not generated.
- The proxy mode can be simply switched to by displaying the [Proxy Mode] operation button on the timeline or mode bar.
  "Operation Button Settings" (▶ page 146)

Creating Proxy Files

Create a proxy from clips (high-resolution) in the bin or on the timeline.

Note

- Proxies of the following clips cannot be created:
  - Clips other than video clips
  - Still image clips
  - Title clips
  - Caption clips
  - Clips already containing a proxy
  - Clips with alpha channel
  - Partially transferred clips

- A proxy file can be set to be automatically generated at capture. Set [Proxy File] to [Hires and Proxy files] at [Input H/W, Format Settings] in the device preset used for capture.
  "[Input H/W, Format Settings] Screen" (▶ page 137)

1) Click [File] on the menu bar, and click [Create Proxy] → an item.

2) Click [Yes].

- The rendering job will be registered to the Render Service.
  Registered rendering jobs are processed in the background in a sequential order of the predetermined priority. The progress of the rendering process can be checked on GV Job Monitor.
  "GV Job Monitor" (▶ page 330)
- Even if the project file is closed before the rendering process is completed, the process of the rendering job will be continued.
- A proxy is named "clip name including extension.proxy.mov", and is saved in the same directory as the source file. Clips are set to reference proxies.

- A proxy of any clip currently registered to the bin can be generated. Right-click the clip in the bin window, and click [Create Proxy]. The progress of generation of the proxy is displayed in the thumbnail of the proxy.
- If the proxy cannot be saved to the same directory as the source file when the proxy is generated, it will be saved to the "Transferred" folder under the project folder.

Editing Using Camera Proxy Files

In EDIUS, original proxy files recorded in the P2 or XDCAM camera can be used. You can also utilize functions such as "Proxy originated editing" that allows to use an untransferred clip or temporary editing clip (proxy source) while editing and replace it with the actual editing clip (high-resolution source) before final export.

- Formats that allow switching between high-resolution and proxy editing sources are as follows.
  - Sony: XDCAM, XAVC, XAVC S
  - Panasonic: P2
  - Nikon: ProRes RAW, N-RAW
- Formats that can be used in proxy originated editing are as follows.
  - Sony: XDCAM, XAVC, XAVC S
  - Panasonic: P2, sub-recording format by Panasonic cameras
  - Canon: XF-AVC, Cinema RAW Light

Editing Flow by Switching Between High-resolution and Proxy Sources

1) From the source browser, import sources (such as P2 or XDCAM) containing a proxy file.

- High-resolution/Proxy is displayed in the area of High-resolution/Proxy of the bin, because sources have a property of a high-resolution and proxy.
  "Importing P2 Sources" (▶ page 172)
  "Importing XDCAM Sources from a Server" (▶ page 174)

2) Switch to the proxy mode and edit.

- **"Switching to the Proxy Mode" (▶ page 320)**

3) Replace the proxy source with a high-resolution clip and export the edited clip.

Proxy Originated Editing Flow

The flow of proxy originated editing is as follows.

1) Import proxy sources.

- Untransferred clips or temporary editing clips are registered in the bin.
- **"Importing Proxy Sources" (▶ page 322)**

2) Edit the timeline using the untransferred clips or temporary editing clips.

- **"Editing Timeline" (▶ page 322)**

3) Replace the untransferred clips or temporary editing clips with the actual editing clips.

- **"Replacing with the Actual Editing Clip" (▶ page 322)**

Importing Proxy Sources

There are two methods to import proxy sources.

- **“Importing from Source Browser” (▶ page 322)**
- **“Importing from [Open] Dialog Box” (▶ page 322)**

■ Importing from Source Browser

1) Connect media that contain proxy sources to the PC.

2) In the folder view of the source browser, click the medium to view, and then click on the drive or reference folder.

- The operation differs depending on the medium.
  “Importing Source Browser File by Copying” (▶ page 169)
- Sources on the medium are displayed in the clip view.

3) Right-click on a proxy source clip to import, and click [Add and Transfer to Bin].

- Data transfer to the PC will be started in the background at the same time that the clip is registered to the bin.
- The clip will become an untransferred clip and will be recognized as a source that has only proxy data (not transferred to high-resolution data).

■ Importing from [Open] Dialog Box

1) Transfer proxy source files to the local disk on the explorer or other means.

- The following files are recognized as proxy files.
  - P2: MOV and MP4 files in the “PROXY” folder
  - XDCAM: MXF files in the “Sub” folder
  - XAVC: MP4 files in the “Sub” folder
    (MXF proxy files in the MPEG HD422 format cannot be handled as temporary editing clips.)
  - XAVC S: MP4 files in the “SUB” folder

2) Register the proxy source clips to the bin.

- **“Registering a File to the Bin as a Clip” (▶ page 165)**
- The clips will become temporary editing clips. They are recognized as high-resolution sources.

Editing Timeline

1) Place the imported untransferred clips or temporary editing clips on the timeline.

- On the status bar of the timeline window, a message will appear to indicate that untransferred clips or temporary editing clips are used.

Example:

When imported from the source browser
The icon indicating untransferred clips is displayed with the number.

Example:

When imported from the [Open] dialog box
The icon indicating temporary editing clips is displayed with the number.

Replacing with the Actual Editing Clip

Replace the untransferred clips or temporary editing clips with the actual editing clips as follows.

- **“Replacing Using [Transfer HiRes]” (▶ page 323)**

- **"Replacing Using the [Restore and Transfer Clips] Dialog Box" (▶ page 323)**
- **"Replacing Using the Source Browser" (▶ page 323)**
- **"Replacing While Exporting (For Untransferred Clips)" (▶ page 323)**
- **"Replacing While Exporting (For Temporary Editing Clips)" (▶ page 324)**

■ Replacing Using [Transfer HiRes]

Replace untransferred clips in the bin individually to the actual editing clip.

- This procedure is only available when proxy sources have been imported from the source browser.

1) Right-click a clip in the bin, and click [Transfer HiRes].

- The [Disc Request - Background Job] dialog box appears.

2) Connect media that contain the actual editing clips to the PC.

- Data transfer to the project folder is started in the background.
- The clip in the bin now references the file transferred to the project folder.

■ Replacing Using the [Restore and Transfer Clips] Dialog Box

In the [Restore and Transfer Clips] dialog box, specify the actual editing clips for the untransferred or temporary editing clips and replace them individually.

1) Display the [Restore and Transfer Clips] dialog box.

- **"Restoring an Offline Clip" (▶ page 90)**

2) Select a clip from [Clip list], and select either [Transfer HiRes] or [Relink (select file)] from the [Restoration Method] list.

- Select [Transfer HiRes] for untransferred clips or select [Relink (select file)] for temporary editing clips.

3) In the [Open] dialog box, select the actual editing clip file, and click [Open].

4) Click [OK].

- The [Restore and Transfer Clips] dialog box closes and the untransferred clips or temporary editing clips are replaced with the actual editing clips.

■ Replacing Using the Source Browser

1) Connect media that contain the actual editing clips to the PC.

2) In the folder view of the source browser, click the medium to view, and then click on the drive or reference folder.

- The operation differs depending on the medium.
  "Importing Source Browser File by Copying" (▶ page 169)
- Sources on the medium are displayed in the clip view.

3) When the message is displayed indicating that the actual editing clip corresponded to the untransferred clip or the temporary editing clip is found, click [Yes].

- The [Restore and Transfer Clips] dialog box appears with [Restoration Method] and [Restore file] preconfigured.

4) Click [OK].

- The [Restore and Transfer Clips] dialog box closes and the untransferred clips or temporary editing clips are replaced with the actual editing clips.

■ Replacing While Exporting (For Untransferred Clips)

The procedure for untransferred clips imported from the source browser is as follows.

1) Click [Export] on the Recorder.

2) Click [Print to File].

- The [Print to File] dialog box appears.
  "[Print to File] Dialog Box" (▶ page 432)

3) Select an exporter, and click [Export].

4) Configure export details and confirm the file name, saving destination, etc.

- A message appears to indicate that temporary editing clips are used.

5) Click [Yes].

- The [Restore and Transfer Clips] dialog box appears.

6) Click [OK].

- The [Disc Request - Background Job] dialog box appears.

7) Connect media that contain the actual editing clips to the PC.

- Data transfer to the project folder is started in the background.
- Repeat step **7)** as necessary.
  When all untransferred clips have been replaced with the actual editing clips, the export operation starts automatically.

■ Replacing While Exporting (For Temporary Editing Clips)

The procedure for temporary editing clips imported from the[Open] dialog box is as follows.

1) Click [Export] on the Recorder.

2) Click [Print to File].

- The [Print to File] dialog box appears.
  "[Print to File] Dialog Box" (▶ page 432)

3) Select an exporter, and click [Export].

4) Configure export details and confirm the file name, saving destination, etc.

- A message appears to indicate that temporary editing clips are used.

5) Click [Yes].

- The [Restore and Transfer Clips] dialog box appears.

6) Select a clip from [Clip list], and select [Relink (select file)] from the [Restoration Method] list.

7) In the [Open] dialog box, select the actual editing clip file, and click [Open].

8) Repeat steps 6) to 7) as necessary to specify the actual editing clips to be restored.

9) Click [OK].

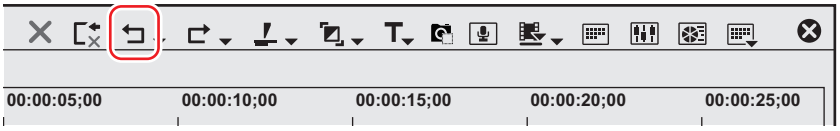
- The [Restore and Transfer Clips] dialog box closes and the temporary editing clips are replaced with the actual editing clips. The export operation starts automatically.

Undoing Operations/Redoing Undone Operations

Undoing Operations (Undo)

You can undo the performed operations, or return to the previous status.

1) Click [Undo] of the timeline.



- Executed operations are undone, and the timeline cursor and the In and Out points return to their original positions.

Alternative

- Undoing operations: **[Ctrl] + [Z]**

- Click the [Undo] list button to display a history of operations executed so far, and select the operation to undo. This history is saved for each individual sequence.
- Though the number of undos is basically unlimited, the history will be deleted starting with the oldest record if the system runs out of memory.

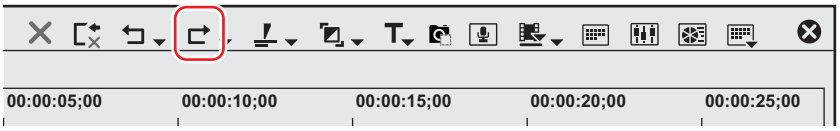
Note

- Operations and settings in the bin window cannot be undone.

Redoing Canceled Operations (Redo)

You can redo canceled operations that have been executed by undo.

1) Click [Redo] of the timeline.



- Executed operations are undone, and the timeline cursor and In and Out points are repositioned.

Alternative

- Redoing canceled operation: **[Ctrl] + [Y], [Shift] + [Ctrl] + [Z]**

- Click the [Redo] list button to display a history of operations undone so far, and select an operation to redo. This history is saved for each individual sequence.

Checking Color

Checking Color Data

Even a video finely displayed on a PC monitor may cause problems like highlight/shadow detail loss when actually displayed on a TV monitor. Although the best solution is to edit the video while checking an environment where the final video is screened or confirming the screening rules, in many cases, editing must be performed without such environment and rules. In such cases, use the vector scope, waveform or histogram to check the brightness and colors of the image displayed in the preview window, and perform the editing process.

[Videoscope]

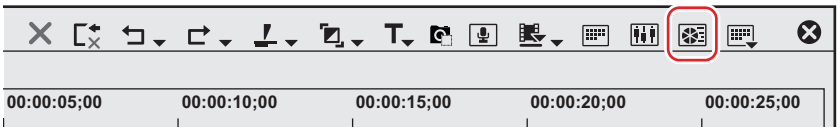
Vector scope, waveform and histogram can be used to monitor the brightness and colors, allowing fine adjustment of detailed parts that cannot be seen by eyes.

Example:

To check recorder image

1) Move the timeline cursor to display the image to check the color data on Recorder.

2) Click [Toggle Videoscope Display] of the timeline.



- The [Videoscope] dialog box appears.
  "[Videoscope] Dialog Box" (▶ page 326)

Alternative

- Click [View] on the menu bar, and click [Videoscope].

Note

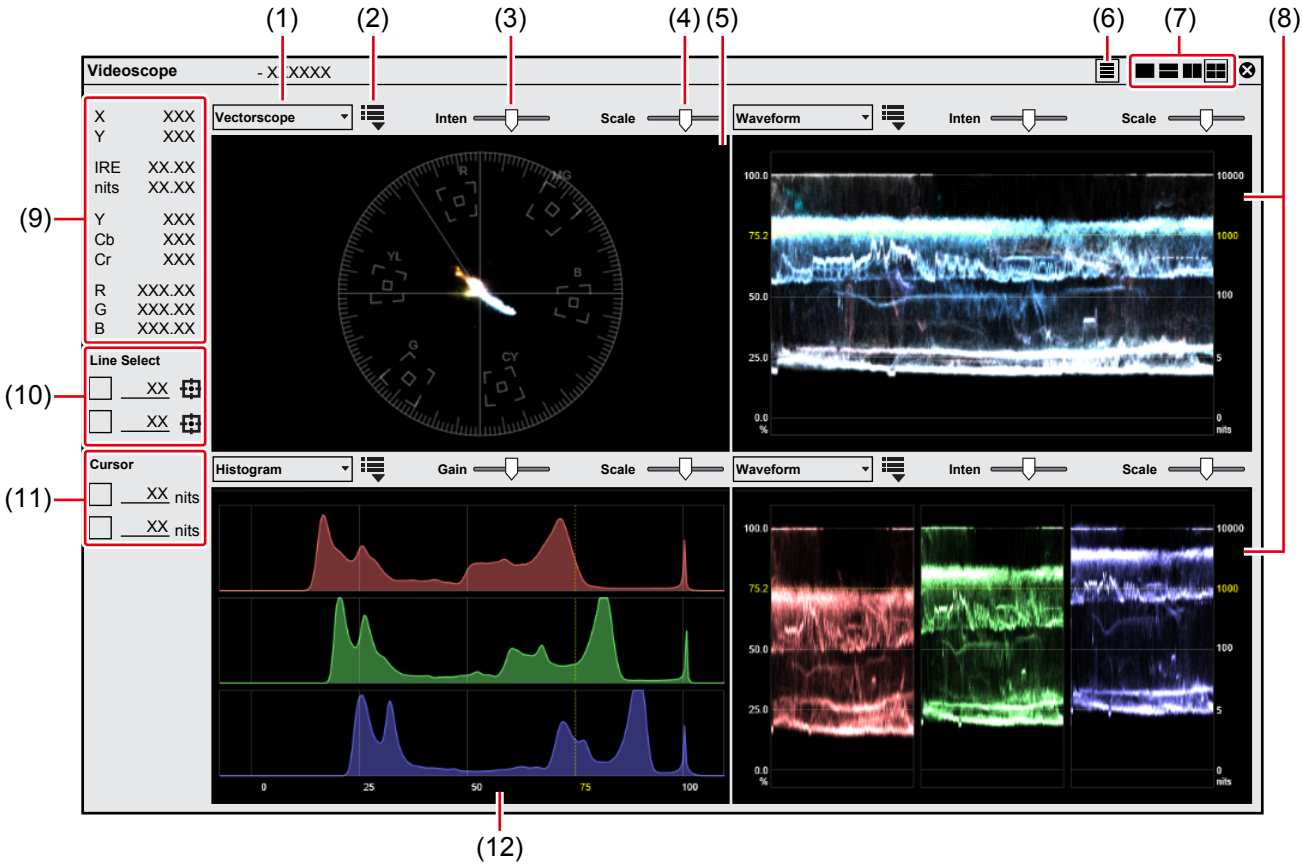
- Displaying vector scope/waveform/histogram increases the CPU loading. Display them only when required.

[Videoscope] Dialog Box

The following screenshot is an example of the [Videoscope] dialog box divided into four windows.

- The conventional analog-based design was changed into a digital-based design.

- The conventional [Line] function of [Vector Scope/Waveform] was discontinued.

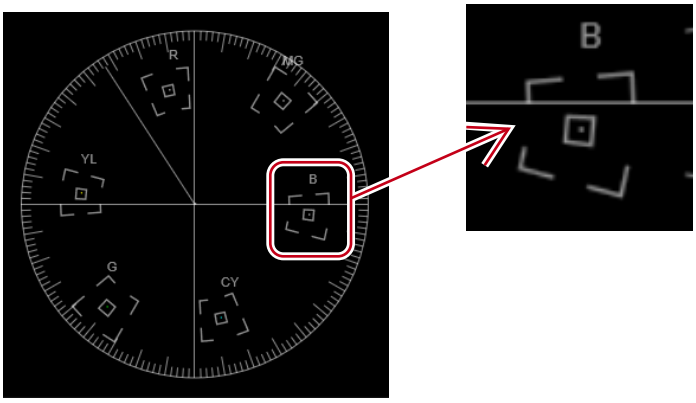


(1)	**Videoscope switching**	Switch the view between vector scope/waveform/histogram.
(2)	**View mode**	Set the display color and zoom ratio of the vector scope, waveform mode (Y/YCbCr/RGB), and display color (Y only). • Not available for histogram.
(3)	**[Inten]/[Gain]**	Adjust the luminance of the vector scope/waveform, and the gain of histogram.
(4)	**[Scale]**	Adjust the brightness of the scale.
(5)	**Vector scope**	Display the color distribution of the image displayed on the preview window. The circle represents the color circle, and the distance from the center represents the saturation. A reference line for skin color adjustment will appear between the yellow and red lines.
(6)	**Showing/hiding sidebar**	Switch show/hide of the sidebar that has information area or other items including [Line Select].
(7)	**Display view**	Switch the display view between vector scope/waveform/histogram.
(8)	**Waveform**	Display chroma and luminance levels of the image on the preview window.
(9)	**Information area**	Display coordinate values on the screen (X, Y), as well as values of IRE, nits, YCbCr, and RGB.
(10)	**[Line Select]**	Display the information of a Y-axis (vertical) position. Check this item, click ⊞, and then click a position on the preview window. You can also directly enter the scanning line. The box shows the Y coordinate value of that position, and the display of the vector scope/waveform/histogram are fixed to the color data of that position. Even after you uncheck the item, the last display of the vector scope/waveform/histogram is reproduced when you check the item box again.
(11)	**[Cursor]**	Add a line with desired luminance level to the waveform and histogram. Select the checkbox and directly enter the luminance level (unit: nits). An yellow dashed line appears.
(12)	**Histogram**	Show the brightness distribution of the image displayed on the preview window by RGB. The horizontal axis indicates brightness, and the vertical axis indicates the number of pixels by color brightness.

Example:

Measure the color balance using a vector scope
Measure the color bar recorded in the source clip using the [Videoscope] dialog box.

For 75% color bar, if the dot indicating color distribution is largely away from the center of ☐ with [Zoom 100%] display mode setting, the setting may not be appropriate. Check the setting.



Example:

Measure the luminance with waveform to check if it is within the appropriate range

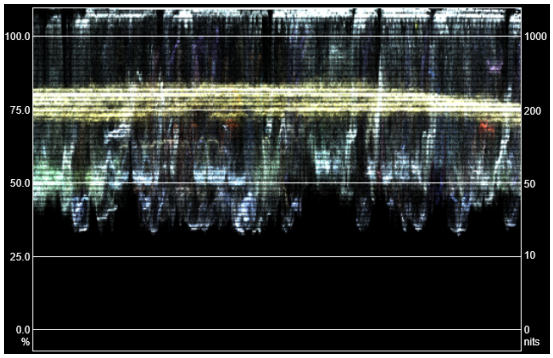
- The graduation on the left of the scale (%) indicates the value of IRE. The graduation on the right of the scale (nits) indicates the value of luminance level.

When you place a white color matte clip created in the safe color range on the timeline and measure it in the [Videoscope] dialog box, IRE100 appears. (The position of (1))

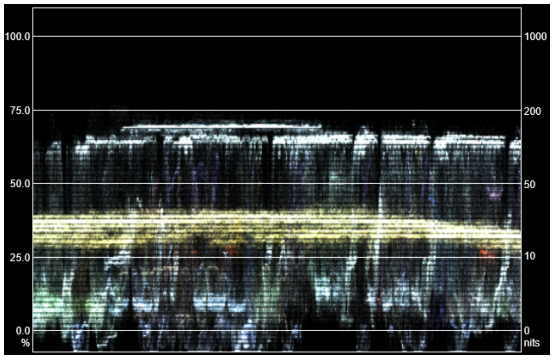
"Placing Special Clips on the Timeline" (▶ page 228)

In the case of black color matte clips created in the safe color range, IRE0 appears. (at the position of (2)) Adjustment is not necessary when IRE is a minus value.

If the luminance is high, the following screen is displayed.



If the luminance is low, the following screen is displayed.



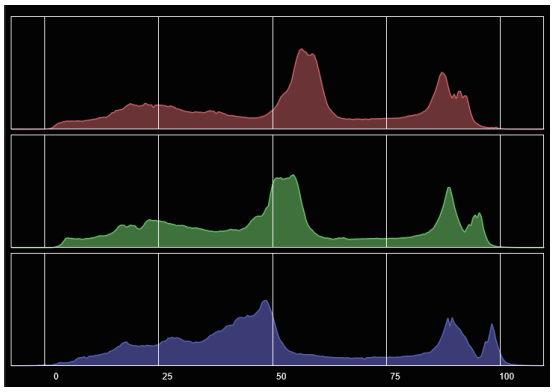
If IRE needs to be restricted in a range 0% to 100%, see “Video Signal Level Restriction”.
“Video Signal Level Restriction” (▶ page 475)

Example:

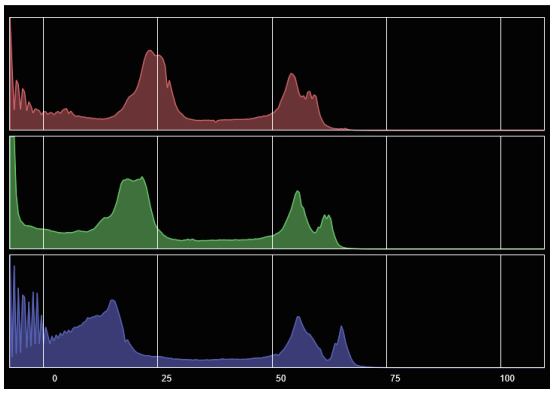
Measure and check if the brightness distribution is appropriate using the histogram

- The graduation under the scale indicates the value of IRE.

Pixels distributed widely without right and left unevenness indicates appropriate brightness.



Pixels are concentrated to the left or right if highlight/shadow detail loss occurs.
Following illustration shows that the pixels are concentrated to the left and shadow detail loss occurs.



GV Job Monitor

In EDIUS, processes such as file export are registered to the Render Service as rendering jobs. Rendering jobs registered to the Render Service are processed in a sequential order of the predetermined priority. By using the Render Service, you can continue other editing work on EDIUS while rendering jobs are being processed.

On GV Job Monitor, you can check the progress or status of those rendering processes, or you can cancel rendering jobs.

The following processes are registered to the Render Service as rendering jobs.

- Export of file
- Batch export
- File conversion
- Partial rendering
- Clip rendering
- Generation of wave information (waveform representation of audio)
- Creation of proxy files

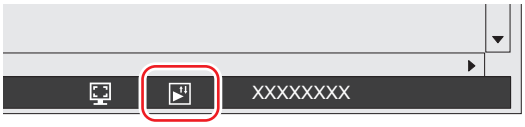
- GV Job Monitor and GV Render Engine (Render Service) start up at the same time when EDIUS is started up, which reside in the notification area on the task bar.
- The priority of rendering process is determined by the order of registration to the Render Service or the stage of [Priority]. If multiple rendering jobs have the same stage of [Priority], the one registered to the Render Service earlier will be prioritized.
  However, the following rendering jobs will be prioritized regardless of the order of registration to the Render Service or the stage of [Priority]. When the following rendering jobs are registered to the Render Service, processes of other rendering jobs will be paused.
  - File conversion
  - Partial rendering
  - Clip rendering
  - Generation of wave information (waveform representation of audio)
  - Creation of proxy files
- By right-clicking on the GV Render Engine icon in the notification area on the task bar and then clicking [Pause], you can pause the Render Service.
  If you pause the Render Service while a job is in process, the job will be paused until the service is restarted.
  To resume the Render Service, right-click the GV Render Engine icon, and click [Start].

Note

- When a heavy-load editing work is performed on EDIUS, rendering jobs may be paused temporarily.

■ GV Job Monitor Icon Indication

The GV Job Monitor icon is constantly displayed on the status bar of the timeline window.



- Double-clicking the icon displays GV Job Monitor ([Job] window).
- The icon color turns to purple while a file is being exported or a batch export rendering job is being processed in the current project. When the process has been completed, the icon color returns to its original state.

Showing/Hiding GV Job Monitor

There are two ways to display GV Job Monitor: the [Job] window and the separate [GV Job Monitor] application.

Showing/Hiding the [Job] Window

You can switch the show/hide setting for the [Job] window.

1) Click [Toggle Window Display] of the timeline.

2) Click [Job].

- The [Job] window is displayed.
  "[Job] Window" (▶ page 332)

Alternative

- Click [View] on the menu bar, and click [Window] → [Job].
- Click [View] on the menu bar, and click [Window] → [Show All] or [Hide All], to show/hide all the tab windows at one time.
- Showing/hiding the tab window: **[H]**
  "Showing/Hiding [Information] Palette" (▶ page 375)
  "Showing/Hiding [Effect] Palette" (▶ page 335)
  "Displaying the [Clip Marker] List" (▶ page 276)
  "Displaying the [Sequence Marker] List" (▶ page 283)
  "Showing/Hiding the [Mync] Window" (▶ page 190)
- Double-click the GV Job Monitor icon on the status bar.
  "GV Job Monitor Icon Indication" (▶ page 330)

- When the show/hide setting for the [Job] window is switched, the show/hide setting for the tabs of the bin window, source browser window, and tab windows combined with the [Job] window are also switched. To switch the show/hide setting separately, release the association of the window or tab windows.
  "Combining Tab Windows with Bin Window/Source Browser Window" (▶ page 144)
- Even after the [Job] window is hidden, GV Job Monitor will reside in the notification area on the task bar.

Showing/Hiding [GV Job Monitor] Application

If you keep the [GV Job Monitor] application shown, the progress and status of rendering jobs can be checked even after you exit EDIUS.

Showing [GV Job Monitor] Application

1) Click [Tools] on the menu bar, and click [GV Job Monitor].

- The [GV Job Monitor] application is shown.
  "[GV Job Monitor] Application" (▶ page 333)

Alternative

- Right-click the GV Job Monitor icon in the notification area on the task bar, and click [Open GV Job Monitor].
- Display the Windows start menu, and click [Grass Valley] → [GV Job Monitor].

Closing [GV Job Monitor] Application

1) Click [×] of the [GV Job Monitor] application.

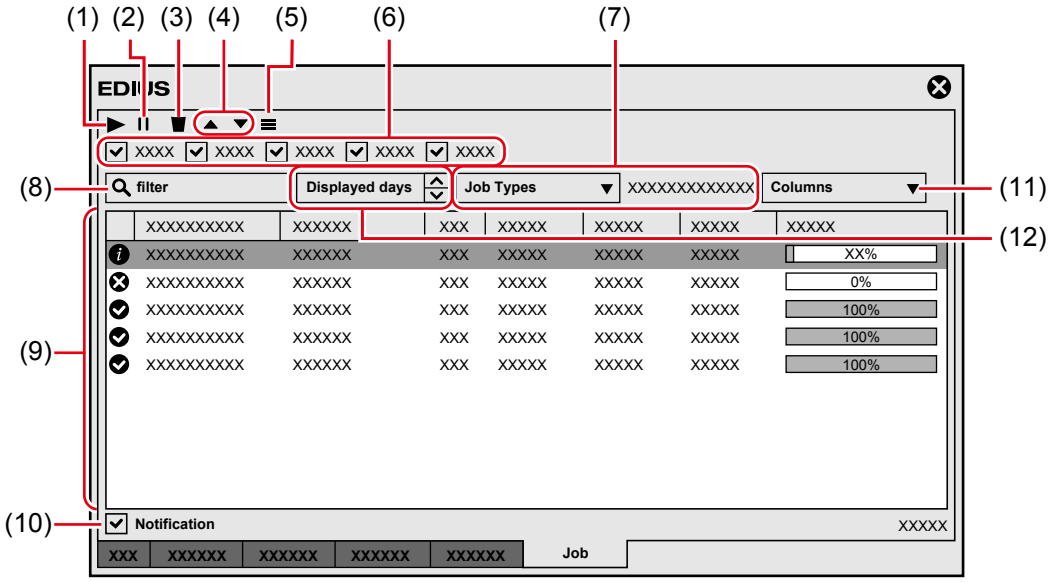
- The [GV Job Monitor] application is closed.
- Even after the [GV Job Monitor] application is closed, GV Job Monitor will reside in the notification area on the task bar.

- Alternatively, right-click the GV Job Monitor icon in the notification area on the task bar and click [Close GV Job Monitor] to close the [GV Job Monitor] application. This operation will hide the GV Job Monitor icon in the notification area on the task bar.

GV Job Monitor Screen Configuration

[Job] Window

In the [Job] window, you can check the progress of the rendering job processes, or you can cancel the processes.



(1)	**[Resume]**	Resume the job selected on the job list.
(2)	**[Pause]**	Pause the job selected on the job list.
(3)	**[Cancel]**	Cancel the job selected on the job list.
(4)	**[Up]/[Down]**	Change the [Priority] of the job selected on the job list. For [Priority], three stages of [High], [Normal] and [Low] can be set.
(5)	**[Properties]**	Display the properties of the job selected on the job list.
(6)	**Setting of display according to job status**	Check job status items to display the applicable jobs in the job list. **[In Progress]** Display jobs which are in rendering processes. **[Finished]** Display jobs for which the rendering processes have completed. **[Error]** Display jobs on which errors occurred during the rendering processes. **[Canceled]** Display jobs for which the rendering processes have been canceled. **[Current Project Only]** Display only the jobs in the currently open project. • The [Current Project Only] item is not displayed on the [GV Job Monitor] application. • The [Sent from this PC] item is displayed on the [GV Job Monitor] application. Checking this item displays jobs which have been executed on the PC in use.
(7)	**[Job Types]**	Check an item of job type to display the applicable jobs in the job list. • Using the checkbox that appears on the top of the list, you can select/deselect all the items. **[Export/Batch Export]** Display file export or batch export jobs. **[Waveform Cache]** Display wave information (waveform representation of audio) generation jobs. **[Proxy]** Display proxy file creation jobs. **[Convert File]** Display file conversion jobs. **[Partial Rendering]** Display partial rendering jobs. **[Clip Rendering]** Display clip rendering jobs.
(8)	**[filter]**	Enter a keyword to execute searching from all jobs. The job list will show jobs that match the entered keyword. The keyword is searched from all the information of the jobs on the job list, such as [Job Name] and [Export File Path].

(9)	**Job list**	Display jobs registered to the Render Service as rendering jobs. The progress and status of the rendering process of each job can be checked. The icons of jobs indicate the following statuses. : Succeeded rendering job : Job on which an error occurred : Job in the waiting state of rendering process/job in rendering process, canceled job • Every click of an item switches the sorting order between ascending and descending. Some of the items do not support sorting in ascending/descending order. • You can sort the order of the items by dragging and dropping them. You can also change the display width of an item by dragging its border. After being changed, the sorting order and display width are retained. • Right-clicking on a job displays a menu with which you can display a file of processed job on the Player or add the file to the bin. You can also start Explorer to display the saving destination folder of the file. Selecting multiple jobs and right-clicking on them will also display the menu which you can use to perform batch operation on the selected jobs. • The history is maintained for 7 days.
(10)	**[Notification]**	Check this item to display notification when a job is started or finished or an error occurs. • If notification does not appear even after this item is checked, check the Windows configuration.
(11)	**[Columns]**	Set the items to display on the job list.
(12)	**[Displayed days]**	Display the jobs for the specified number of days.

- Jobs in the job list can be dragged and dropped on the timeline, bin, and Player.
  The applicable jobs are as follows.
  - Export of file
  - Batch export
  - File conversion
  - Creation of proxy files
- Pressing [F5] on the keyboard will update the display of GV Job Monitor.

[GV Job Monitor] Application

The screen configuration of the [GV Job Monitor] application is the same as that of the [Job] window, except for some parts.
For details on the screen configuration of the [GV Job Monitor] application, see “[Job] Window”.
“[Job] Window” (▶ page 332)

- When EDIUS is not running, part of the functions are disabled.

Chapter 9

Effect

This chapter explains how to apply various effects, including filters and transitions.

[Effect] Palette

Effect

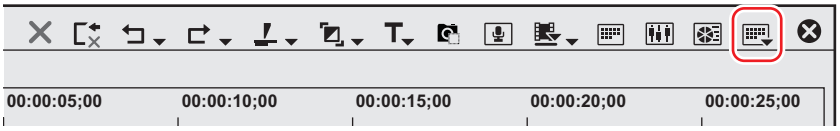
The [Effect] palette lists the effects you can use.

- After OpenFX Plugins has been installed, “OFX Plugins” and “OFX Transitions” are added to the [Effect] palette.

Showing/Hiding [Effect] Palette

You can show or hide the [Effect] palette.

1) Click [Toggle Window Display] of the timeline.



2) Click [Effect].

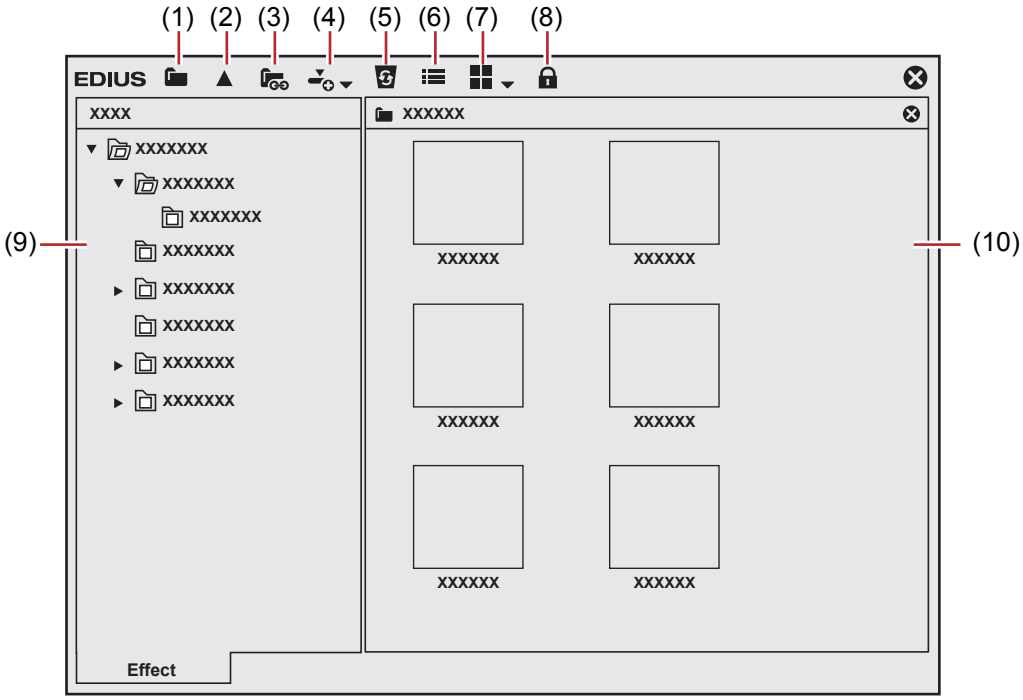
- The [Effect] palette appears.
  “[Effect] Palette” (▶ page 336)

Alternative

- Click [View] on the menu bar, and click [Window] → [Effect].
- Click [View] on the menu bar, and click [Window] → [Show All] or [Hide All], to show/hide all the tab windows at one time.
- Showing/hiding the tab window: **[H]**
  “Showing/Hiding [Information] Palette” (▶ page 375)
  “Displaying the [Clip Marker] List” (▶ page 276)
  “Displaying the [Sequence Marker] List” (▶ page 283)
  “Showing/Hiding the [Mync] Window” (▶ page 190)
  “Showing/Hiding the [Job] Window” (▶ page 330)

- When the show/hide setting for the [Effect] palette is switched, the show/hide setting for the tabs of the bin window, source browser window, and tab windows combined with the [Effect] palette is also switched. To switch the show/hide setting separately, release the association of the window or tab windows.
  “Combining Tab Windows with Bin Window/Source Browser Window” (▶ page 144)

[Effect] Palette



(1)	**[Hide Effect View]**	Click this button to display the folder view only.
(2)	**[Move up one folder]**	Display the folder in the upper level than the one selected in the folder view.
(3)	**[Folder Link]**	Set up the effect folders frequently used to open these folders quickly. **"Folder Shortcuts" (▶ page 383)**
(4)	**[Add to Timeline]**	Add the selected effect to a clip on the timeline. Click the [Add to Timeline] list button and you can also select the position to add.
(5)	**[Delete]**	Delete the user preset effect. **"Deleting Effects from [Effect] Palette" (▶ page 381)**
(6)	**[Property]**	Display the contents of the selected effect. **"Properties of Effects" (▶ page 337)**
(7)	**[View]**	Each click changes the display. Click the [View] list button to select the display method.
(8)	**[lock]**	Lock the effect folder to prevent the folder structure from being changed. **"Folder Structure of [Effect] Palette" (▶ page 382)**
(9)	**Folder view**	Display the effect folder in tree structure.
(10)	**Effect view**	Display the contents of effects in the selected folder. Select the effect with animation to display with animation.

Showing/Hiding Effect View

You can show or hide the effect view.

1) Click [Hide Effect View] in the [Effect] palette.

- The effect view is hidden.

Effect Types

There are 4 available effects.

Plug-in Base Effect

Base effects initially stored which cannot be deleted from the [Effect] palette. Plug-in base effects include video filter, audio filter, transition, audio cross fade, title mixer, and key.

System Preset Effect

These are initially stored and customized plug-in base effects. You cannot delete them from the [Effect] palette. “S” is displayed on their icons.

User Preset Effect

Effects registered by the user. These effects can be customized (by adjusting the parameters, combining multiple effects, or renaming) and saved. “U” is displayed on their icons.

“Registering Effects to [Effect] Palette” (▶ page 381)

Default Effect

Effects used in the default setting. You can set these effects only for transition, audio cross fade, and title mixer.

“Changing Default Effects” (▶ page 364)

Properties of Effects

You can check the effect with animation. You can also change the property of user preset effects.

1) Select an effect and click [Property] in the [Effect] palette.

- The [Property] dialog box appears.

Alternative

- Right-click the effect and click [Property].

- You can check the transitions in animation by selecting an effect in the effect view.
- You can change the property of user preset effects. You can only edit the user preset effects.

How to Apply Effects

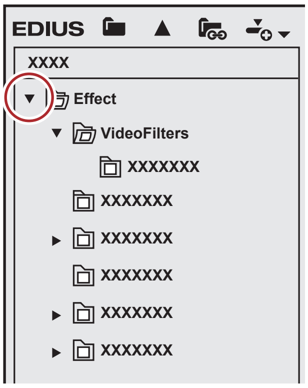
Simply drag and drop an effect on the [Effect] palette to the clip on the timeline to apply the effect. The following procedure explains how to apply video filter as an example. Transitions and keyers can be applied in the same way.

Example:

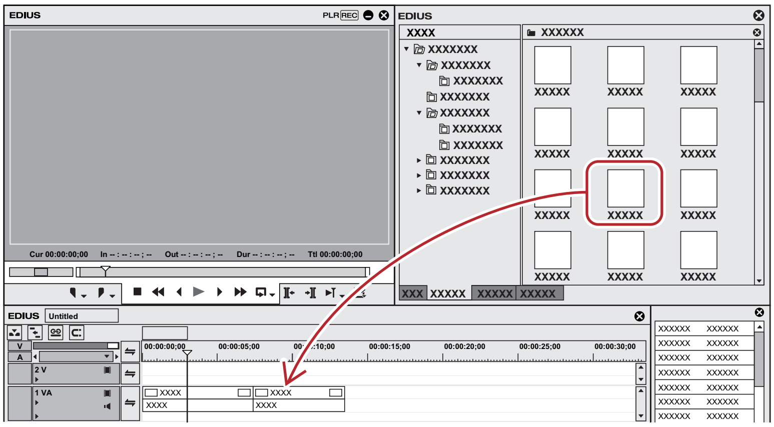
To select from [VideoFilters]

1) Display the [Effect] palette.

2) **In the folder view of the [Effect] palette, click the [Effect] tree, and click [VideoFilters].**



3) **Drag and drop the effect to be applied onto a clip (video part) on the timeline.**



Clips with video filter applied are displayed with an orange line.

Note

- Drag and drop the video filter to the video part of a clip on the V/VA track, and drag and drop the transition to the part where a clip shifts to another or the mixer part of In/Out point of a clip.
- Drag and drop the audio filter to the audio part of a clip on the A/VA track, and drag and drop the audio cross fade to the audio part where a clip shifts to another.
- Drag and drop the title mixer to the mixer part of the In/Out point of a clip on the T track.
- Drag and drop the keyer to the mixer part of a clip on the V/VA track.

Alternative

- Right-click on an effect in the [Effect] palette, and click [Add to Timeline].
- While the effect view is displayed, select a clip or mixer part on the timeline, select an effect in the [Effect] palette, and click [Add to Timeline] in the effect view. For some effects, you can click the [Add to Timeline] list button to specify [In], [Out], and [Both].
- Select a clip or mixer on the timeline, and drag an effect from the [Effect] palette and drop it onto the [Information] palette. Some effects cannot be applied.

- When applying a clip transition or audio cross fade, you can specify the position to apply, including [In], [Out] and [Both], as well as [From], [Center] and [To] for each effect.
- Click the list button of [View] in the [Effect] palette to select the display method of the effect view.

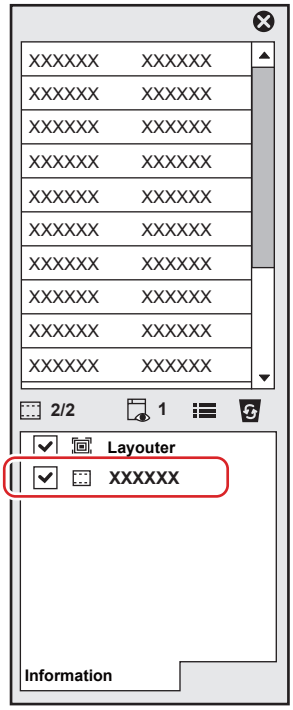
Placing the mouse cursor over an effect in the effect view displays simple description of the effect.

How to Adjust Effects

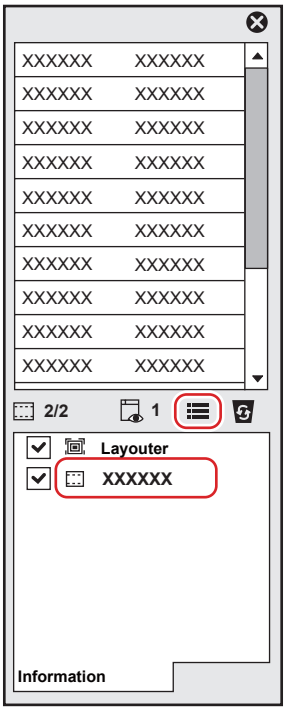
Adjust effects applied on clips on the timeline from the [Information] palette.

1) Click the part of a clip where effects are applied on the timeline.

- The applied effects are displayed in the effect list on the [Information] palette.



2) Click on the name of the effect to be adjusted on the [Information] palette, and click [Open Setup Dialog].



- The dialog box for effect detailed settings appears.

Alternative

- Double-click on an effect name in the [Information] palette.

- Unchecking the checkbox at the left of the effect name temporarily disables the applied effect.

3) Adjust or set each item.

Setting Effects

Adjusting Color/Brightness (Color Correction)

You can adjust the color tone to match the previous/next video, or adjust the brightness by correcting color cast, highlight detail loss, and shadow detail loss. The following filters are provided for color correction.

■ [3-Way Color Correction]

Correct colors for shadow (black), intermediate (gray), and highlight (white).

"Adjusting 3-Way Color Correction" (▶ page 341)

■ [YUV Curve]

Adjust luminance (Y), blue color difference (U), and red color difference (V) on the chart. You can make a fine adjustment to balance the shadow and highlight.

Keys can be added for the YUV curve but interpolation animation between keys is not available.

"Adjusting the YUV Curve" (▶ page 342)

■ [Color Balance]

Adjust chroma, luminance, contrast, and color tone with the slider.

"Adjusting Color Balance" (▶ page 344)

■ [Color Wheel]

Move the pointer to adjust the color density, or rotate the wheel to adjust the color tone.

"Adjusting Color Wheel" (▶ page 345)

■ [Monotone]

Make the video monotone.

"Adjusting Monotone" (▶ page 346)

■ [Primary Color Correction]

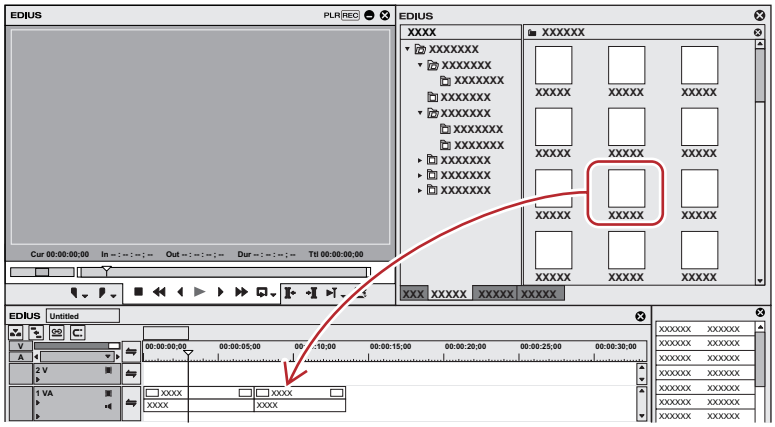
Adjust the brightness and color by applying color grading on a clip shot in the Log format.

"Adjusting Primary Color Correction" (▶ page 347)

1) In the folder view of the [Effect] palette, click the [VideoFilters] tree.

2) Click the [Color Correction] tree to display filters.

3) Drag and drop the filter to use to the clip on the timeline.



Alternative

- Select the clip on the timeline, right-click the filter in the [Effect] palette, and click [Add to Timeline].
- Right-drag an effect and drop it onto a clip, and click [Add].
- Right-drag an effect and drop it onto a clip, and click [Paste] → [All].

Adjusting 3-Way Color Correction

1) Display the [Information] palette, and double-click [3-Way Color Correction].

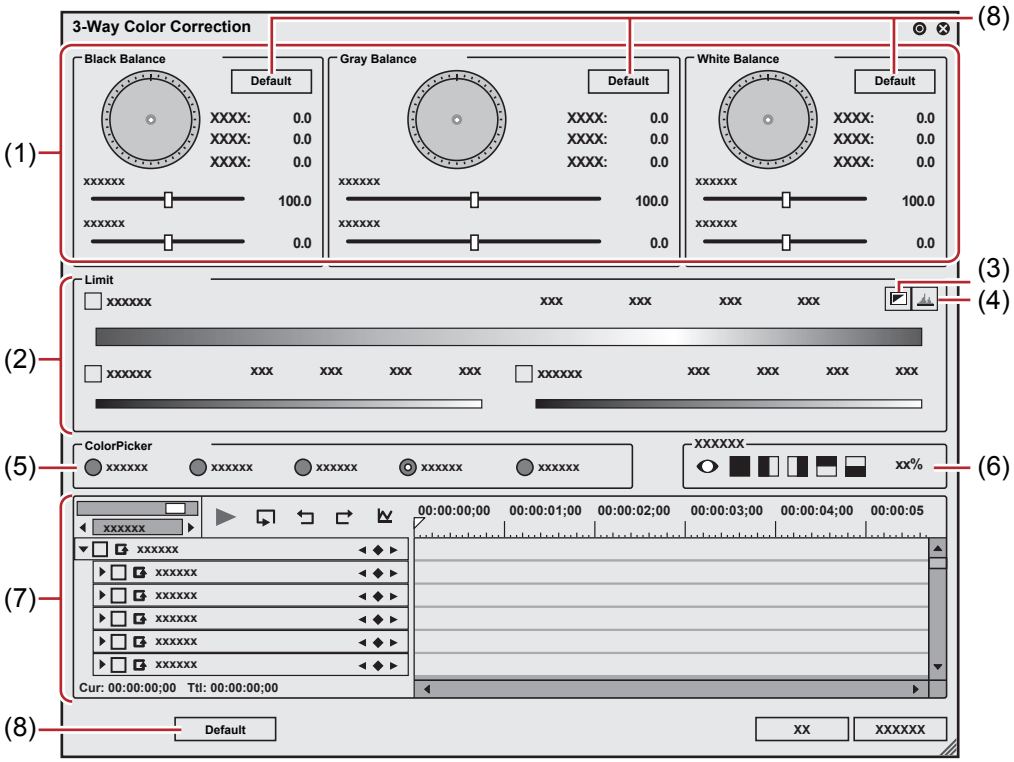
- **"Checking/Adjusting Effects" (▶ page 376)**
- The [3-Way Color Correction] dialog box appears.
  "[3-Way Color Correction] Dialog Box" (▶ page 341)

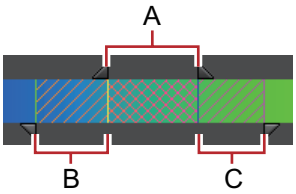
2) Adjust the balance of each color and click [OK].

Note

- Colors appear differently depending on the monitor. Therefore, when exact color adjustment is necessary, output the video to the monitor on which the final video is screened.
- If the completed video is broadcasted on TV, adjust the colors within the range of the regulations.
- If you check [Safe Color] in [Color Balance] or [Color Wheel] of color correction, the upper or lower limit of brightness and color can be adjusted within a certain range.

[3-Way Color Correction] Dialog Box



(1)	**[Black Balance]/[Gray Balance]/[White Balance]**	Drag a point in each color to correct colors for shadow (black balance), intermediate (gray balance), and highlight (white balance). Drag the point of color wheel to adjust the hue, or move the slider to adjust saturation and contrast.
(2)	**[Limit]**	Correct colors in the specified range. Check [Hue], [Saturation], and [Luminance] to specify the range to adjust. You can set the effect range by entering a value directly in each field or dragging the triangle slider, or grating/slant parts.  A: Range to apply 100% adjustment B: Range where you increase the adjustment volume gradually C: Range where you decrease the adjustment volume gradually

(3)	**[Key display]**	View which range is applied with the effects by setting [Limit]. The area with the effects applied 100% is displayed in white; 0% in black.
(4)	**[Histogram display]**	Display a calculated histogram for each of hue, saturation, and luminance.
(5)	**[ColorPicker]**	Select a color from the displayed image on the Player or the Recorder.
(6)	**Preview setting**	**"Preview setting" (▶ page 343)**
(7)	**Key frame setting**	**"Key frame setting" (▶ page 344)**
(8)	**[Default]**	Click [Default] in each balance frame to reset only the parameters related to that balance to their default values. Click [Default] at the bottom of the window to delete all the keys and reset the parameters to their default values.

Adjusting Colors Entirely

1) Display the [Information] palette, and double-click [3-Way Color Correction].

- The [3-Way Color Correction] dialog box appears.
  "[3-Way Color Correction] Dialog Box" (▶ page 341)

2) Click the color to correct from Color Picker.

- When you click [Black], an adjustment is made so that the color obtained in the color picker should be black. Similarly, an adjustment is made so that it should be gray or white when you select [Gray] or [White], respectively.
- If you click [Auto], the color is determined based on the brightness of the obtained color. For example, the color is adjusted for white when a bright color is obtained.

3) Click the part to correct in Recorder.

- The color is automatically corrected. You can also adjust the color by using the color wheel point, or the sliders of saturation and contrast.

Example:

When correcting a color-casted white table
Click [White] in Color Picker, and click a point on the table in the image.

Correcting Only One Part

You can define the range to apply the correction, when adjusting the color tone of skin.

1) Display the [Information] palette, and double-click [3-Way Color Correction].

- The [3-Way Color Correction] dialog box appears.
  "[3-Way Color Correction] Dialog Box" (▶ page 341)

2) Click [Color range] in Color Picker.

3) Click the part to correct in Recorder.

- Click additional points with [Shift] on the keyboard held down to include the color of the points to the currently specified range.

4) Correct the color.

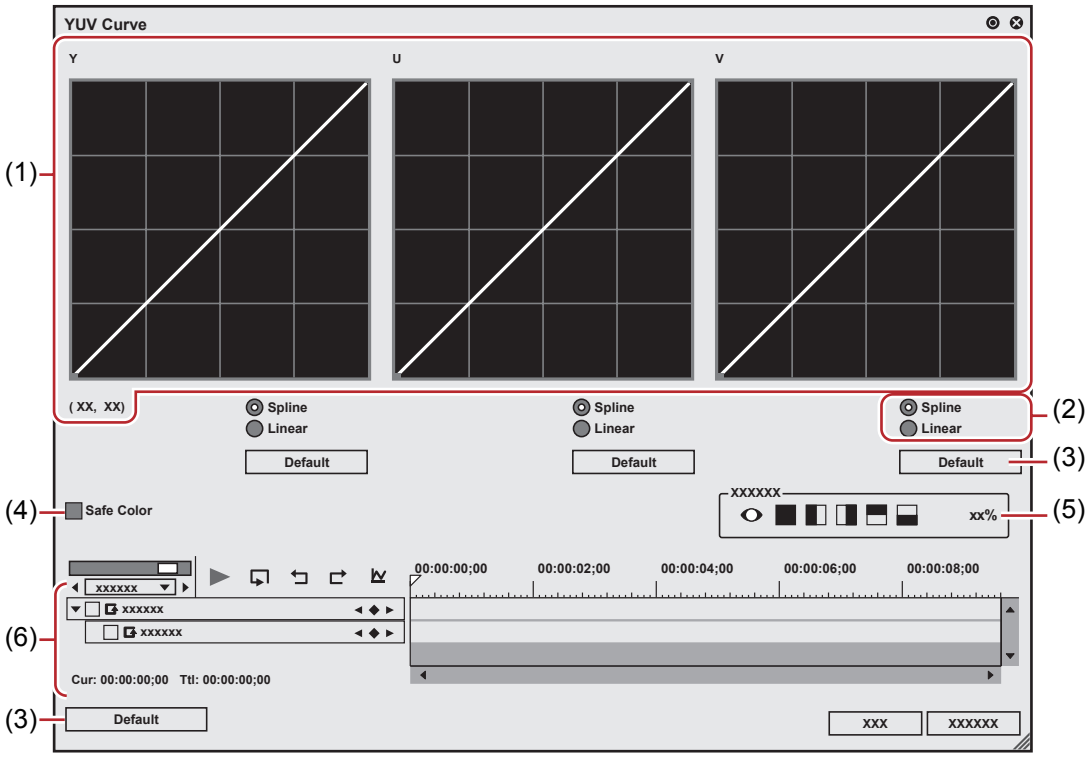
Adjusting the YUV Curve

1) Display the [Information] palette, and double-click [YUV Curve].

- **"Checking/Adjusting Effects" (▶ page 376)**
- The [YUV Curve] dialog box appears.
  "[YUV Curve] Dialog Box" (▶ page 343)

2) Adjust the YUV curve and click [OK].

[YUV Curve] Dialog Box



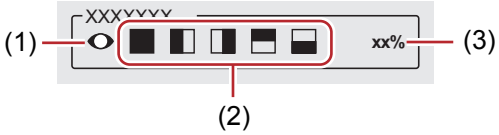
(1)	**YUV curve**	Drag the line on each chart to adjust Y, U, and V. The value on the bottom left of the Y curve indicates the input value and output value.
(2)	**[Spline]/[Linear]**	Select the line of the chart (curve or straight).
(3)	**[Default]**	Click [Default] of each chart to restore the defaults for each Y, U, and V value and add them as the keys. Click [Default] at the bottom of the window to delete all the keys and reset the chart to its initial values.
(4)	**[Safe Color]**	Check this item to make an automatic adjustment to keep the video signal within the YUV color space.
(5)	**Preview setting**	**“Preview setting” (▶ page 343)**
(6)	**Key frame setting**	Adjust the YUV curve chart for each key frame. The field option for the key will be [Hold], and no change along the time axis is allowed. For how to set a key frame, see “Key frame setting”. **“Key frame setting” (▶ page 344)**

- Although Safe Color clips a range of luminance 16-235 and chroma 16-240, and the chroma is not automatically included in the safe area, it is calculated to include luminance/chroma within IRE0-100.

Common Settings in Color Correction

■ Preview setting

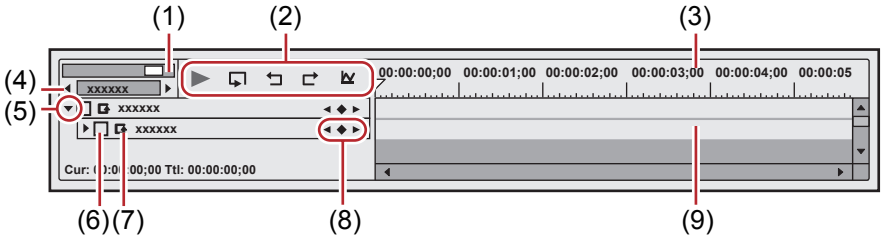
You can lay and compare the image applied color correction and the original image.

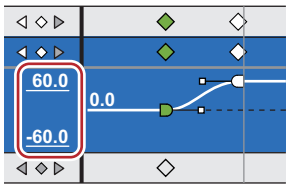


(1)	**[Use current screen to show filter effect]**	Fix the screen with the timeline cursor position when comparing filter effects.
(2)	**Check the filter effects**	Set the segmentation of the screen when checking the result of the filter.
(3)	**Filter apply screen ratio**	Set the screen ratio to display the video with the filter applied when comparing the result of the filter.

■ Key frame setting

You can change the parameters of color correction along the time axis, and play it to check the result.



(1)	**Time scale slider**	Drag the slider to the left and right to adjust the time scale display unit. Move the slider to the left to reduce the display unit, or to the right to increase it. The right end is [Fit].
(2)	**Playback/Tool buttons**	▶: Play back the timeline on the Recorder. : Repeatedly play back the clip currently being edited. : Undo an operation. **[Ctrl] + [Z]** : Redo the undone operation. **[Ctrl] + [Y]** : Switch the changes of each parameter to the chart view. In the chart view, the timeline is represented by a chart display of the selected key. The parameters can be edited by moving the keys up and down. The numerical values and gradations of the Y axis can be changed by entering numerical values. 
(3)	**Time scale for key frame**	Display a scale with the unit selected in the time scale setting on the timeline. Right-click the time scale and click [Timeline Timecode] to display the timecode of the timeline or click [Zero base Timecode] to display the timecode with the beginning of the clip as 0. If a sequence marker is set for the position where the clip is placed, right-click the time scale and click [Go to Previous Sequence Marker] or [Go To Next Sequence marker] to move the timeline cursor to the previous or next sequence marker.
(4)	**Time scale settings**	Click here to toggle the specified display unit and [Fit]. Click the left arrow to reduce the display unit, or click the right arrow to increase the display unit.
(5)	**Expand button**	Click this button to configure detailed settings for each item. You can edit the parameters by moving the cursor to a value input or control and dragging it when the mouse cursor shape changes.
(6)	**Enable/Disable**	Unchecking the item disables the parameter settings. To configure a key frame, check the effect name.
(7)	**[Add Default Key]**	Click this item to set the default key frames of each parameter item at the timeline cursor position.
(8)	**Key frame setting**	Click ◆ in the center to set a key frame on the position of the timeline cursor. If the timeline cursor is on the key frame, the key will be deleted. Click the left and right arrow to move to the previous and next key frame.
(9)	**Key frame timeline**	Automatically add a key frame when you edit an effect at the timeline cursor. If you expand each parameter item, you can edit the parameter by dragging key upward or downward.

- Right-click the timeline for key or key frame to display a menu to add/delete keys or switch the method of interpolation between key frames. You can select the interpolation method from [Hold], [Line], and [Bezier].
- When the item name of a parameter is right-clicked and [Clear parameter of (item)] is clicked, all key frames for that item are deleted.
- When [Shift] + [V] on the keyboard are pressed, a key frame is added to all parameters with a valid key frame setting at the timeline cursor position.
- When [V] on the keyboard is pressed, a key frame is added to the currently selected parameter at the timeline cursor position.

Adjusting Color Balance

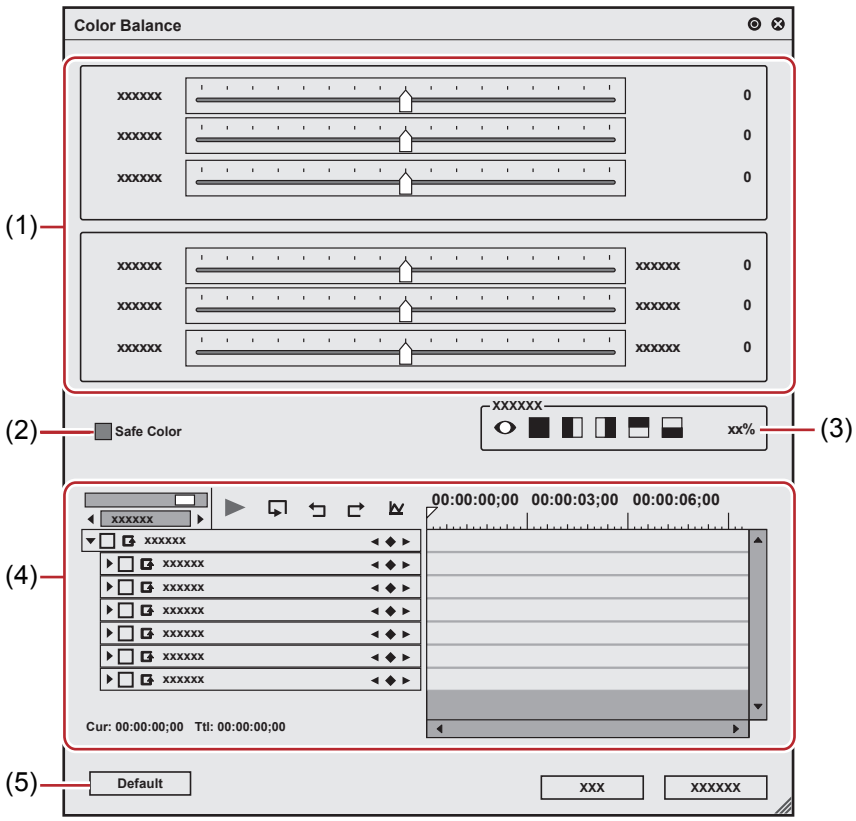
1) Display the [Information] palette, and double-click [Color Balance].

- **"Checking/Adjusting Effects" (▶ page 376)**

- The [Color Balance] dialog box appears.
  "[Color Balance] Dialog Box" (▶ page 345)

2) Adjust the color balance and click [OK].

[Color Balance] Dialog Box



(1)	**Sliders**	Move the slider to adjust each item.
(2)	**[Safe Color]**	Check this item to make an automatic adjustment to keep the video signal within the YUV color space.
(3)	**Preview setting**	**"Preview setting" (▶ page 343)**
(4)	**Key frame setting**	**"Key frame setting" (▶ page 344)**
(5)	**[Default]**	Click this button to restore the default settings for all the sliders.

- Although Safe Color clips a range of luminance 16-235 and chroma 16-240, and the chroma is not automatically included in the safe area, it is calculated to include luminance/chroma within IRE0-100.

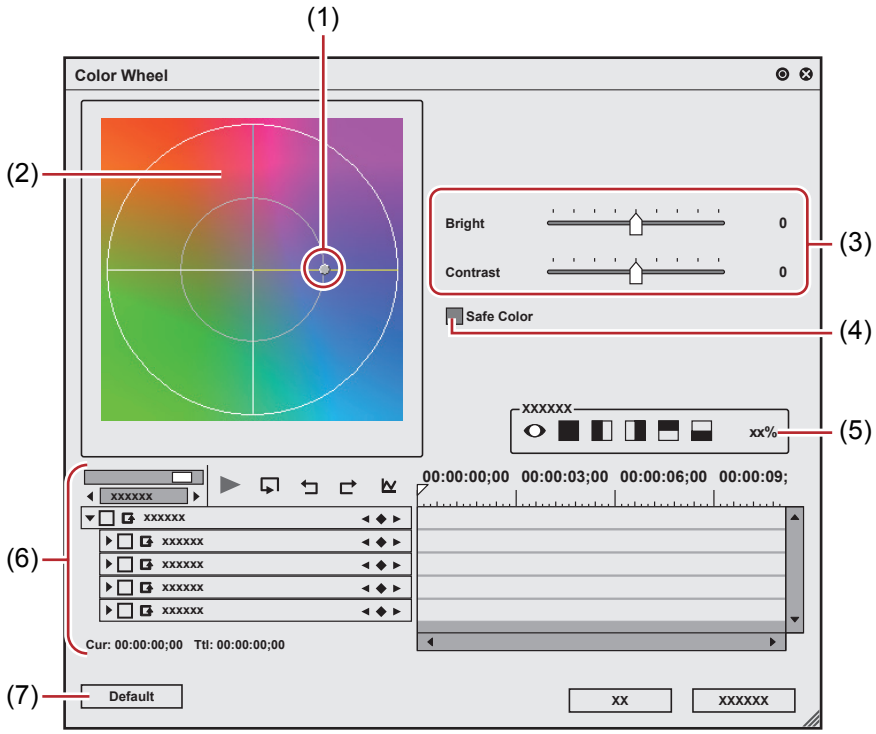
Adjusting Color Wheel

1) Display the [Information] palette, and double-click [Color Wheel].

- **"Checking/Adjusting Effects" (▶ page 376)**
- The [Color Wheel] dialog box appears.
  "[Color Wheel] Dialog Box" (▶ page 346)

2) Adjust the color wheel and click [OK].

[Color Wheel] Dialog Box



(1)	**Color wheel point**	Slide this point to adjust the color density (chroma). Chroma increases as the point moves to the outline of the circle.
(2)	**Wheel**	Drag and rotate it to adjust the color tone.
(3)	**[Bright]/[Contrast]**	Adjust the luminance and contrast by moving the sliders.
(4)	**[Safe Color]**	Check this item to make an automatic adjustment to keep the video signal within the YUV color space.
(5)	**Preview setting**	**"Preview setting" (▶ page 343)**
(6)	**Key frame setting**	**"Key frame setting" (▶ page 344)**
(7)	**[Default]**	Click this button to delete all the keys and restore the default settings for the wheel and color wheel point.

- Although Safe Color clips a range of luminance 16-235 and chroma 16-240, and the chroma is not automatically included in the safe area, it is calculated to include luminance/chroma within IRE0-100.

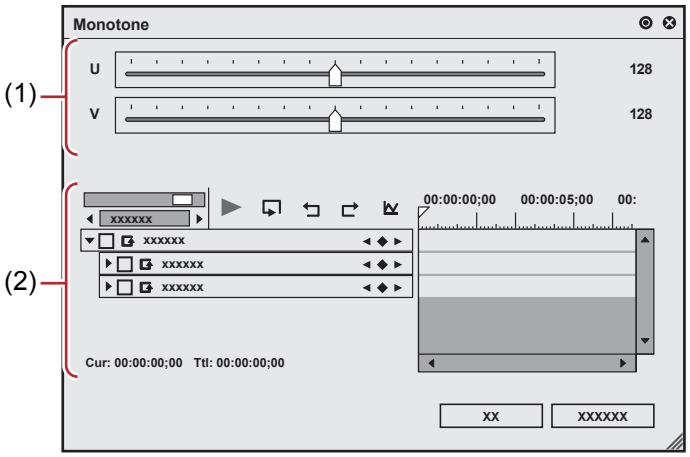
Adjusting Monotone

1) Display the [Information] palette, and double-click [Monotone].

- **"Checking/Adjusting Effects" (▶ page 376)**
- The [Monotone] dialog box appears.
  "[Monotone] Dialog Box" (▶ page 347)

2) Adjust the monotone and click [OK].

[Monotone] Dialog Box



(1)	**Sliders**	Adjust the color tone by moving the slider.
(2)	**Key frame setting**	**“Key frame setting” (▶ page 344)**

Adjusting Primary Color Correction

You can adjust the brightness and color by applying color grading on a clip shot in the Log format.
[Primary Color Correction] has predefined color space profiles that support Log formats for each of the camera manufacturers.
When a clip is recognized by its metadata as a Log file, [Primary Color Correction] filter will automatically select an optimal color space and adjust the brightness and colors.
You can also select the color space manually.
Alternatively, you can register LUT files (*.cube) to [Primary Color Correction] and apply to clips.
You can obtain preferred brightness and colors by fine adjusting the parameters.
“What is Log?” (▶ page 347)
“What is LUT?” (▶ page 347)

Note

- Some Log formats may not be supported.
- Some LUT files may not be supported.

■ What is Log?

Log is a shooting format that can maintain wide dynamic range.
For videos shot in the Log format, color grading is essential. By performing color grading on a shot video with lower contrast, wider color tone range can be realized to reproduce realistic images that are closer to what it actually looks like.
Even under conditions where highlight/shadow detail loss is likely to occur, shooting in the Log format will help in correcting the details later without deteriorating the image quality.
“Reproducing Clouds Where Highlight Detail Loss Has Occurred” (▶ page 351)
“Adjusting the Brightness of a Person Where Shadow Detail Loss Has Occurred Due to Backlight” (▶ page 351)

■ What is LUT?

LUT (Look Up Table) is a standard profile for color space conversion. You can apply it to adjust the brightness and color on video shot in the Log format.

Adjusting with [Primary Color Correction]

Example:

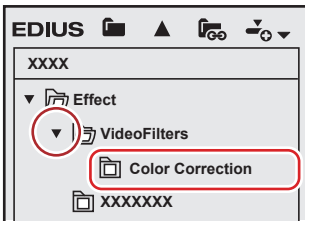
To adjust the brightness and colors of a source shot in the Log format (S-Log source)

■ Preparation

- Create a project (QFHD 3840x2160 29.97p, 10-bit).
- Import the S-Log source file in the source browser, register it to the bin, and place the clip on the timeline.

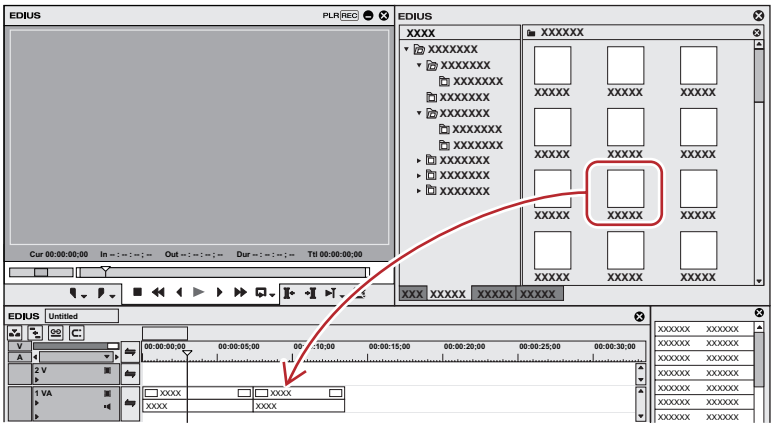
1) In the folder view of the [Effect] palette, click the [Effect] tree.

2) Click the [VideoFilters] tree, and click [Color Correction].



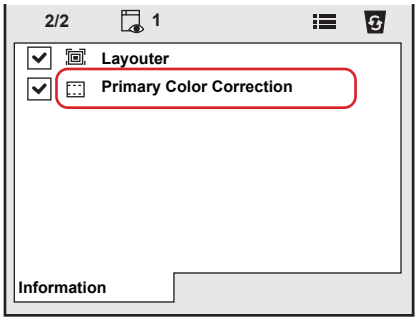
- A list of [Color Correction] effects is displayed in the effect view.

3) Drag and drop [Primary Color Correction] to the clip (video part) on the timeline.



- Clips with the [Primary Color Correction] effect applied (video part) are displayed with an orange line.
- When a clip is recognized as a Log file, an optimal color space will be applied automatically to adjust the brightness and color. You can view the result of the applied color space in the preview window.
- If a color space has not been applied automatically, you can open the [Primary Color Correction] dialog box to apply a color space manually. To apply a color space manually or finely adjust the brightness and colors, proceed to step **4)**.

4) Display the [Information] palette, and double-click [Primary Color Correction].



- The [Primary Color Correction] dialog box appears.
  "[Primary Color Correction] Dialog Box" (▶ page 349)

5) Click the list button of [Source] in [Color Space] and select a color space that is optimal for the source shot in the Log format.

- If the color space was selected automatically, this operation is not necessary.

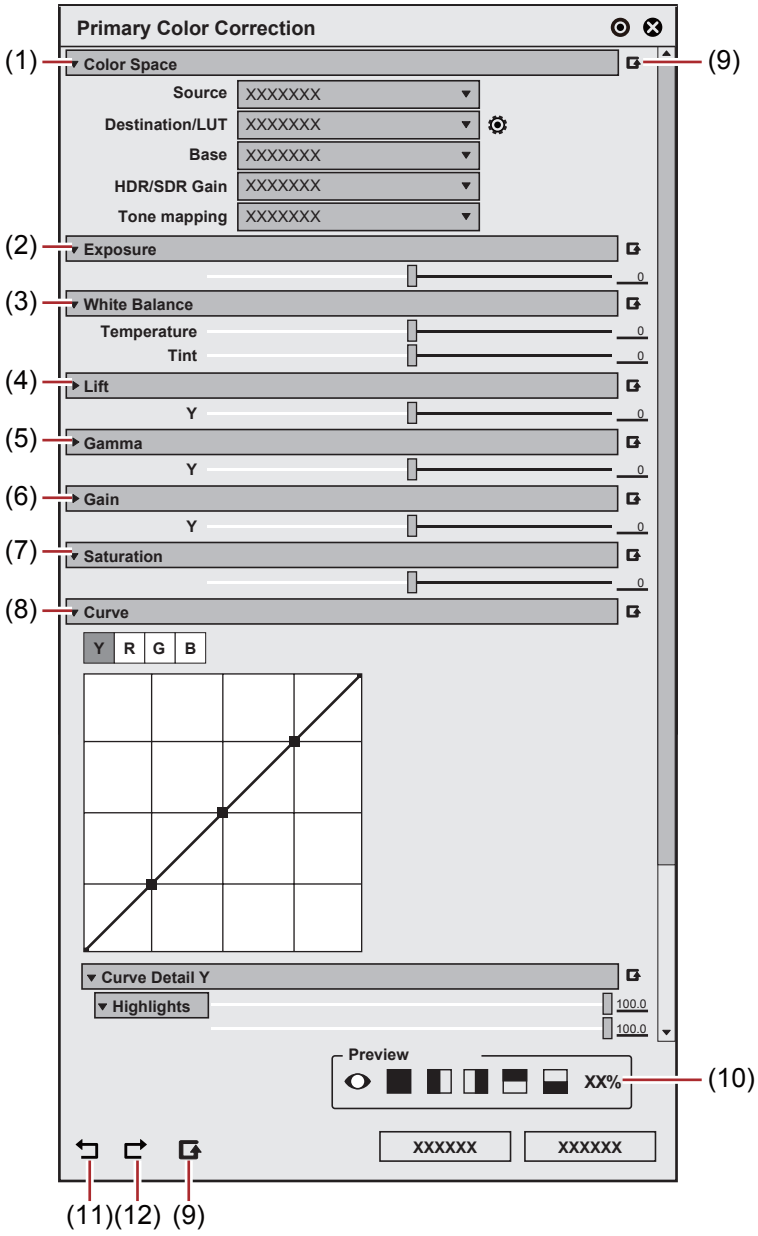
6) While viewing the video in the preview window, make fine adjustment to the parameters.

7) Click [OK].

- The [Primary Color Correction] dialog box is closed.

- If real time playback is disabled after [Primary Color Correction] has been applied, using the draft preview or frame skip playback is helpful.
  "Draft Preview" (▶ page 301)
  "Frame Skip Playback" (▶ page 302)

■ [Primary Color Correction] Dialog Box



(1)	[Color Space]	**[Source]** Select a color space to apply to the clip. **[Destination/LUT]** Select a color space or LUT to apply when exporting. Click [LUT Settings] on the right of [Destination/LUT] to display the [LUT Settings] dialog box. Configure settings of LUT, such as registering/unregistering LUT. **“Registering LUT” (▶ page 352)** **[Base]** Enable settings for color space conversion format. • If [Display light] is selected This conversion format does not change the tone of video displayed on the display after conversion. [Display light] is set by default. • If [Scene light] is selected This conversion format has been used for Version 8.32 or older. It applies the tone specific to the color space selected for [Destination/LUT] to the video. **[HDR/SDR Gain]** Set the gain value to be applied when the color space of either HDR or SDR is converted to/from the other. In some conditions, the brightness of the reference white of HDR may differ from that of SDR. In this case, a video converted from HDR to SDR will appear brighter, and that converted from SDR to HDR will appear darker. Setting [HDR/SDR Gain] will apply the gain value when the color space of either HDR or SDR is converted to/from the other, preventing the variation in brightness. Set the gain value to the conversion value for the display light. Select an item from [Disable], [Current project setting], [0.00 dB], [3.00 dB], [6.00 dB], [6.15 dB], [9.00 dB] and [12.00 dB]. Select [6.15 dB] to comply with ITU-R BT.2408. The content in [Current project setting] will be determined in accordance with the [HDR/SDR gain] setting in the project settings. You can also directly enter a value (unit: dB) within a range from “0.00” to “20.00”. • [Current project setting] is set by default. • If LUT is selected for [Destination/LUT], this setting will not be applied. • For details on [HDR/SDR gain], the information will be released in the FAQ on our website. **“Our Website” (▶ page 499)** **[Tone mapping]** This setting is applied to conversion in which the dynamic range of the color space gets smaller, such as when a HDR source is used as SDR. Setting [Disable] will not apply the tone mapping. Areas with brightness that exceeds the luminance range of SDR will be replaced to 100% white. Setting [Soft Clip] will compress the high-luminance areas to show smooth gradation so that they will not be clipped easily. The content in [Current project setting] will be determined in accordance with the [Tone mapping] setting in the project settings. • [Current project setting] is set by default. • If LUT is selected for [Destination/LUT], this setting will not be applied.
(2)	[Exposure]	Adjusts the brightness. Increasing or decreasing the numeric value by 25 will increase or decrease the brightness equivalent to 1 stop in aperture.
(3)	[White Balance]	**[Temperature]** Adjusts the color temperature. **[Tint]** Adjusts the tint.
(4)	[Lift]	Locks the highlight area and adjust the brightness of the shadow area.
(5)	[Gamma]	Adjusts the brightness of intermediate tone area.
(6)	[Gain]	Locks the shadow area and adjust the brightness of the highlight area.
(7)	[Saturation]	Adjusts the saturation.
(8)	[Curve]	Adjusts the hue and saturation using the tone curves. **[Curve Detail]** Moves the five points of [Curve] set by the luminosity level vertically and horizontally to adjust the brightness.
(9)	[Set default parameters]	Click [Set default parameters] on the right of each item to restore the default setting for the item. Click [Set default parameters] on the bottom of the dialog box to restore the default settings for all items.
(10)	Preview setting	Aligns the video of a clip to which primary color correction is applied and the other clips to compare the colors.
(11)	[Undo]	Undoes an operation.
(12)	[Redo]	Redoes an undone operation.

- The types and sort order of color spaces that are displayed when the list button of [Source]/[Destination/LUT] in [Color Space] is clicked can be changed in [Application] in [System Settings] → [Color Space].
  "[Color Space]" (▶ page 97)

Example When [Primary Color Correction] is Applied

■ Reproducing Clouds Where Highlight Detail Loss Has Occurred

For landscape shooting, "highlight detail loss" may cause the blue sky to appear in all white or the clouds and distant mountains to be merged with each other.

Standard shooting format has limited dynamic range compared to that of the Log format. With an improper exposure setting, highlight detail loss occurs, causing the color tones exceeding the upper limit of the dynamic range to be lost and all replaced by white.

Thus, video shot in the standard format may not be able to reproduce the realistic image quality of material texture, etc. even if applying post-shooting color corrections, because the light condition is adjusted and recorded at the time of shooting.

The Log format has wider dynamic range and enables recording of the range for the tone of light that could normally be recorded as white in the standard shooting. By performing color grading on a Log source, the color tone of areas where highlight details have been lost can be reproduced and video with realistic details like film images can be obtained.

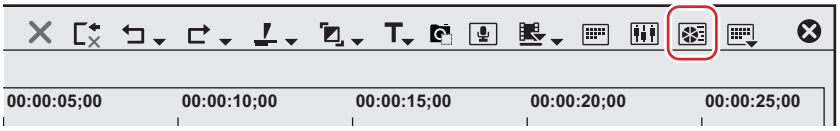
- The following procedure shows an example of primary color correction.

1) Perform steps 1) to 5) in "Adjusting with [Primary Color Correction]".

- **"Adjusting with [Primary Color Correction]" (▶ page 347)**

2) Click [Toggle Videoscope Display] on the timeline.

- The [Videoscope] dialog box appears.

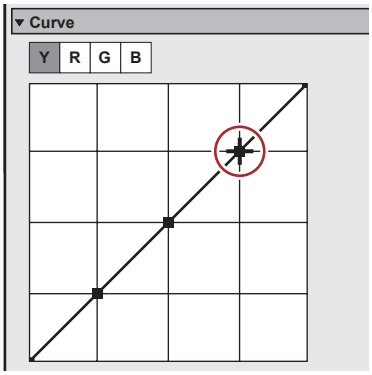


3) While viewing the waveform, adjust [Gain] in the [Primary Color Correction] dialog box in the minus direction.

- While locking the shadow area, adjust the brightness of the highlight areas.

4) In [Curve], drag the second point from the upper right to finely adjust the brightness of the highlight area.

- Move the mouse cursor onto the point until the point turns red, then you can adjust the position of the point.



■ Adjusting the Brightness of a Person Where Shadow Detail Loss Has Occurred Due to Backlight

When shot with sunset or light in the background, the image of a person in the video may be dark because of the backlight, resulting in "shadow detail loss". In the same way as "highlight detail loss", post-shooting color correction of such a video may not be possible as intended.

If the source is shot in the Log format, the color tone of areas where shadow details have been lost can be reproduced by performing color grading.

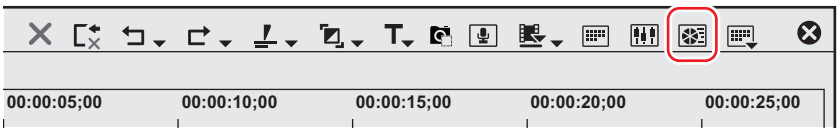
- The following procedure shows an example of primary color correction.

1) Perform steps 1) to 5) in "Adjusting with [Primary Color Correction]".

- **"Adjusting with [Primary Color Correction]" (▶ page 347)**

2) Click [Toggle Videoscope Display] on the timeline.

- The [Videoscope] dialog box appears.

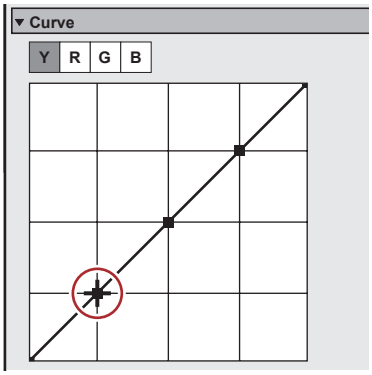


3) While checking the waveform, adjust [Lift] in the [Primary Color Correction] dialog box in the plus direction.

- While locking the highlight area, adjust the brightness of the shadow areas.

4) In [Curve], drag the second point from the lower left to finely adjust the brightness of the shadow area.

- Move the mouse cursor onto the point until the point turns red, then you can adjust the position of the point.



Registering LUT

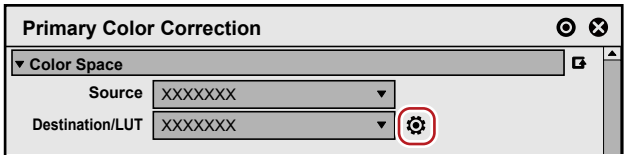
LUT files (*.cube) that are provided by camera manufacturers can be registered to [Primary Color Correction] to apply to clips.

- Prepare the LUT files (*.cube) on your PC in advance.

1) Display the [Primary Color Correction] dialog box.

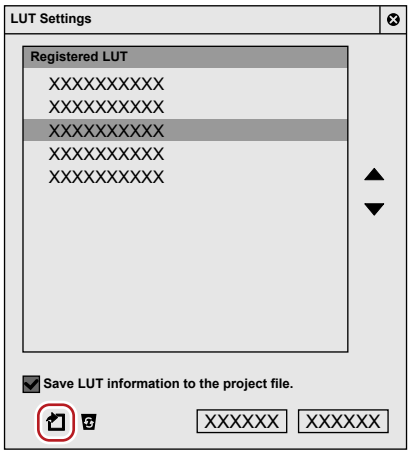
- Apply [Primary Color Correction] to a clip on the timeline, and double-click [Primary Color Correction] in the [Information] palette.

2) Click [LUT Settings] on the right of [Destination/LUT].



- The [LUT Settings] dialog box appears.
  "[LUT Settings] Dialog Box" (▶ page 353)

3) Click [Register new LUT].



- The [Open] dialog box appears.

4) Select a LUT file to register, and click [Open].

- The [Setting for LUT] dialog box appears.

5) Set the range of LUT for [Input]/[Output].

- Select the range to which LUT is to be associated at the time of input or output from [Full] or [Video].

[Full]	Associate the RGB value 0 to 100% of LUT to the entire range including super black and super white.
[Video]	Associate the RGB value 0 to 100% of LUT to the range of reference black to reference white of video (video range).

Note

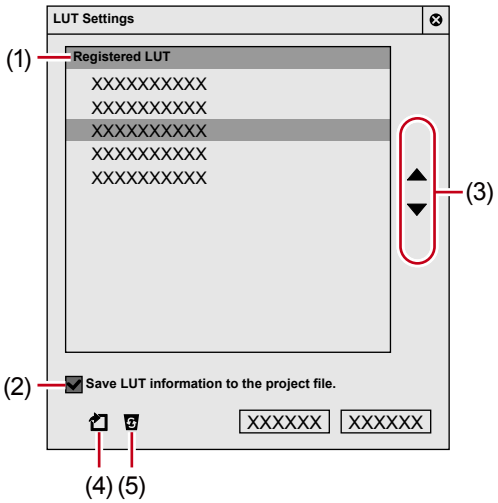
- The setting of range differs depending on the LUT file. For details, contact the provider of your LUT file.

6) Click [OK].

- The selected LUT is added to [Registered LUT] in the [LUT Settings] dialog box.
  The range setting values selected in **5)** will be displayed on the right of the LUT name.

7) Click [OK].

■ [LUT Settings] Dialog Box



(1)	**[Registered LUT]**	Displays the list of registered LUT.
(2)	**[Save LUT information to the project file.]**	Check this item to save the information of the LUT file to the project file. Even when the project file is imported in a different environment from that where the file was created, it can be used with the registered LUT.

(3)	**[Move up]/[Move down]**	Sorts LUT. Selecting LUT from [Registered LUT] and clicking [Move up] or [Move down] move up or down the selected LUT.
(4)	**[Register new LUT]**	Click this item to display the [Open] dialog box that allows to register the LUT file.
(5)	**[Remove LUT from list]**	Unregisters a LUT selected in [Registered LUT].

- If the project file is imported and used in another environment, checking on [Save LUT information to the project file.] is recommended.
  If it is unchecked, the used LUT file must be registered when the project file is imported in another environment.
  Be sure to check it when an external render engine is used in the Chorus Hub system.
- The LUT process in [Primary Color Correction] is based on input LUT.
- The LUT file format supported in [Primary Color Correction] is only “No shaper LUT” in the *.cube formats of DaVinci Resolve.
- The results may differ between when the color space is converted with [Primary Color Correction] and when an equivalent LUT file provided by a camera manufacturer is applied, because camera manufacturers make their own adjustments in the file. For details on LUT file settings, the information will be released in the FAQ on our website.
  “Our Website” (▶ page 499)
- The entire LUT data imported from a file is not saved in an effect preset. Therefore, the LUT cannot be referred to (when LUT is not registered or saved in the project file), a proper operation will not be performed, which makes clips on the timeline to appear checkered in red and black.

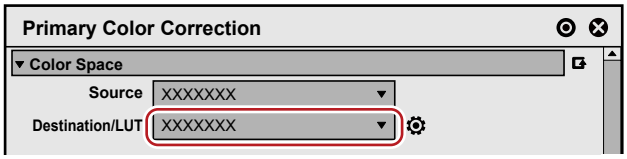
Applying LUT

Apply registered LUT to clips.

1) Display the [Primary Color Correction] dialog box.

- Apply [Primary Color Correction] to a clip on the timeline, and double-click [Primary Color Correction] in the [Information] palette.

2) Click the [Destination/LUT] list button in [Color Space], and click a LUT to apply.



- The LUT is applied, and brightness and color are adjusted.
  You can view the result of the applied LUT in the preview window. Move the timeline cursor to show the frame that includes the adjustment result.
- Make fine adjustment of parameters as necessary.

3) Click [OK].

- The [Primary Color Correction] dialog box is closed.

Video Filter

You can add such effects as reducing flicker or make the image stereoscopic like a lithograph to the whole video.

1) In the folder view of the [Effect] palette, click the [VideoFilters] tree and display the filters.

- Check the filter details in the description in the property, or by trying to apply the filter.

2) Drag and drop the filter to use to the clip on the timeline.

Alternative

- Select a clip on the timeline. Select an effect in the [Effect] palette, and click [Add to Timeline].
- Select a clip on the timeline. Right-click an effect in the [Effect] palette, and click [Add to Timeline].
- Select an effect in the [Effect] palette, right-drag it to the clip on the timeline, and click [Add].
- Select an effect in the [Effect] palette, right-drag it to the clip on the timeline, and click [Paste] → [All].

Audio Filter

You can make such adjustment to audio part as reducing noise or emphasizing human voice.

1) In the folder view of the [Effect] palette, click [AudioFilters] and display the filters.

- Check the filter details in the description in the property, or by trying to apply the filter.

2) Drag and drop the filter to use to the clip on the timeline.

Alternative

- Select a clip on the timeline. Select an effect in the [Effect] palette, and click [Add to Timeline].
- Select a clip on the timeline. Right-click an effect in the [Effect] palette, and click [Add to Timeline].
- Select an effect in the [Effect] palette, right-drag it to the clip on the timeline, and click [Add].
- Select an effect in the [Effect] palette, right-drag it to the clip on the timeline, and click [Paste] → [All].

Camera Shake Correction

[Stabilizer]

Correct the camera shake by image processing.

1) In the folder view of the [Effect] palette, click the [VideoFilters] tree and display the filters.

2) Drag and drop [Stabilizer] to the clip on the timeline.

- Analysis of the video motion of the clip starts in the background.
  "[Background Job]" (▶ page 121)

Alternative

- Select a clip on the timeline. Select [Stabilizer] in the [Effect] palette, and click [Add to Timeline].
- Select a clip on the timeline. Right-click [Stabilizer] in the [Effect] palette, and click [Add to Timeline].
- Select [Stabilizer] in the [Effect] palette, right-drag it to the clip on the timeline, and click [Add].
- Select [Stabilizer] in the [Effect] palette, right-drag it to the clip on the timeline, and click [Paste] → [All].

3) Play back a clip to check the video.

- For the part where analysis is completed, the camera shake correction is performed on the spot during playback. Change the camera correction setting after step **4)**, if necessary.

4) Display the [Information] palette, and double-click [Stabilizer].

- The [Video Stabilizer] dialog box appears.
  "[Video Stabilizer] Dialog Box" (▶ page 355)

5) Configure the settings and click [OK].

[Video Stabilizer] Dialog Box

[Smoothness]	Move the slider to adjust the smoothness level of the video motion. Items set to [Off] are not corrected. **[Translate]** Adjust correction level for vertical and horizontal shake. **[Scale]** Adjust correction level for zoom-in and zoom-out shake. **[2D Rotate]** Adjust correction level for rotation shake. **[3D Rotate]** Adjust correction level for perspective shake. **[Rolling Shutter]** Adjust correction level for distortion of the rolling shutter.
[Auto Trimming]	Check this item to enlarge the video automatically in order not to make a gap at the edge of the video after correcting the video. You can also enter a value for enlargement factor.
[Preview]	Display the corrected video on the entire screen or at the left/right/upper/lower screen, and compare with the original video. Click the button to select where to display the video. You can enter a value for the ratio to display the corrected video against the entire screen.

Range-Restricted Effects/Multiple Filters

You can combine and set multiple video filters to one clip.
User preset effects or system preset effects are also available.

- [Mask]
- [Chrominance]
- [Combine Filters]
- [Blend Filters]

This section explains how to apply the mask filter for an example. For other filters, check the filter details in the description in the property, or by trying to apply the filter.

Mask Filter

You can apply a video filter to outside and inside of any range. You can also move the mask position in the key frame according to the video.

1) In the folder view of the [Effect] palette, click the [VideoFilters] tree and display the filters.

2) Drag and drop [Mask] to the clip on the timeline.

Alternative

- Select a clip on the timeline. Select [Mask] in the [Effect] palette, and click [Add to Timeline].
- Select a clip on the timeline. Right-click [Mask] in the [Effect] palette, and click [Add to Timeline].
- Select [Mask] in the [Effect] palette, right-drag it to the clip on the timeline, and click [Add].
- Select [Mask] in the [Effect] palette, right-drag it to the clip on the timeline, and click [Paste] → [All].

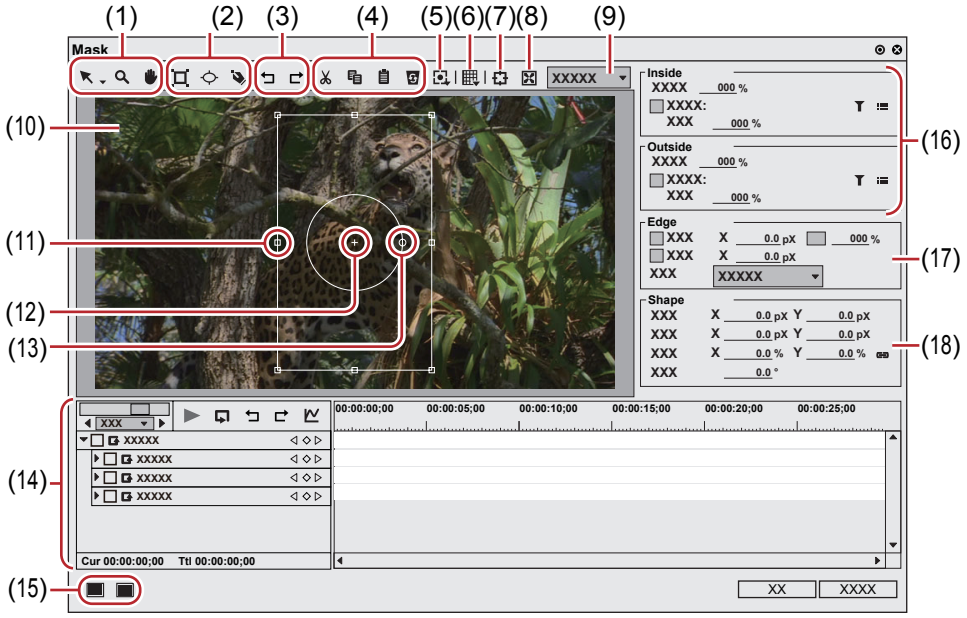
3) Display the [Information] palette, and double-click [Mask].

- The [Mask] dialog box appears.
  "[Mask] Dialog Box" (▶ page 356)

4) Configure the mask and click [OK].

- Clips with the mask specified are displayed with an orange line.

[Mask] Dialog Box



(1)	**Tool buttons**	↖: Select or move the path. Dragging the handle can zoom in and out or rotate the path. Click the list button and select the shape edit tool to edit the path by dragging the path vertex or the handle. 🔍: Drag the mouse to expand or contract the screen. From the drag start point, drag to the right to expand the screen, and drag to the left to contract. ✋: Drag the mouse to move the display area.

(2)	**Drawing buttons**	: Drag the mouse to draw a rectangle. Drag the mouse with [Shift] on the keyboard held down to draw a square. : Drag the mouse to draw an ellipse. Drag the mouse with [Shift] on the key board held down to draw a circle. : Draw a free shape using Bezier curve.
(3)	**[Undo]/[Redo]**	: Undo an operation. : Redo the undone operation.
(4)	**Edit buttons**	Cut, copy, paste, and delete a selected path.
(5)	**[Tracking]**	Select a tracking method and start tracking. **"Batch Tracking of Multiple Paths" (▶ page 361)**
(6)	**Function menu**	**[Apply Mask]** Switch the enable/disable setting for mask temporarily. **[Background]** Switch the show/hide setting for the transparent grid if the transparency is set for outside and inside of the mask. **[Motion Path]** Switch the show/hide setting for the path if the position is changed by key frame and the setting is enabled. **[Grid]** Switch the show/hide setting for the grid. **[Guide]** Switch the show/hide setting for the underscan, overscan, title safe, horizontal/vertical center line.
(7)	**[Centering]**	Center the display area which was moved by the pan tool.
(8)	**[Fit]**	Fit the expanded/contracted display to the display range of the preview screen.
(9)	**Zoom factor**	Change the zoom factor by entering a value or selecting a value from the list.
(10)	**Preview**	Display a preview of the image being edited. Select a path to display a handle or anchor to modify the path.
(11)	**Stretch handles**	Move the cursor to the operation handles at the corners and at the middle of the lines to zoom in and out the path.
(12)	**Anchor**	Indicate the reference point of the path. This point is a reference point for the rotation center and for stretching. Drag with [Ctrl] on the keyboard held down to change the position.
(13)	**Rotation handle**	Move the cursor and drag the rotation handle to rotate the image.
(14)	**Key frame timeline**	Set a key frame to apply a movement to the mouse position. **"Key frame setting" (▶ page 344)**
(15)	**Window layout**	Toggle the window layouts between [Normal], [Preview], and [Multi]. Select [Preview] to hide the parameters and key frame timeline to enlarge the preview. Select [Multi] for a multi-monitor view. * [Multi] option is not displayed for a single monitor system.
(16)	**[Inside]/[Outside]**	Set video filters for outside and inside the path. **[Opacity]** Use these settings to configure the transparency inside and outside of the path. **[Filter]** Check this item to enable the video filters set inside and outside the path. : Click this button to select a video filter. : Click this button to configure the video filter setting for outside and inside the path. **[Strength]** The strength of video filter effects can be set.
(17)	**[Edge]**	Use these settings to specify colors and blur to the path. If there are multiple paths, the edge settings are applied to all the paths. Individual setting is not allowed. **[Color]** Check this item to enable the color edge. Enter an edge width in [Width] in pixels. Click Color box to specify the edge color. **"[Color Select] Dialog Box" (▶ page 229)** Enter the edge transparency in percentage. **[Soft]** Check this item to blur the edge. Enter a blur width in [Width] in pixels. **[Side]** Apply the color and soft (blur) widths for outside and inside (or both) the path.

(18)	[Shape]	For the selected path, change the various settings including the position by entering a value. You can select multiple paths to change in batch. To select multiple paths, click the paths or drag the mouse with [Shift] on the keyboard held down to enclose the paths. **[Anchor]** Specify the reference position of the path. With the path center as the origin, specify the anchor position by entering values to X and Y. **[Position]** Specify the path position. With the frame center as the origin, specify where to place the anchor position by entering values to X and Y. **[Scale]** Enter a zoom factor for zoom in and out. Click to enable or disable the fixed aspect ratio. **[Rotation]** Enter an angle to rotate the image.

- You can resize the [Mask] dialog box by moving the cursor to a corner or an edge of the dialog box and dragging the mouse when the cursor shape changes. You can also click [Maximize] to maximize the window size.
- Move the cursor to the bottom of the preview window and drag the mouse when the cursor shape change to adjust the display area.
- Right-click the preview to display a menu to select a tool or change the zoom factor. Right-click and click [Zoom] → [Fit] to fit the frame to the preview window. When you move the frame using the pan tool, right-click the frame and click [Centering] to place the frame to the center.
- When the selected path or anchor is dragged while [Shift] on the keyboard held down, it can be moved limiting to X or Y axis.
- Double-click the preview to add a key frame on the timeline cursor position when the parameter of the key frame setting is enabled.

Motion Tracking ([Mask])

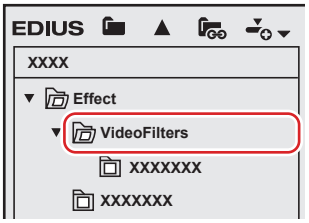
This feature utilizes the mask function to automatically track specific parts of the subject in motion and apply [VideoFilters] effects such as [Mosaic].
Multiple paths can be tracked at the same time.

Example:

To apply [Mosaic] to the face of a person approaching

1) In the folder view of the [Effect] palette, click the [Effect] tree.

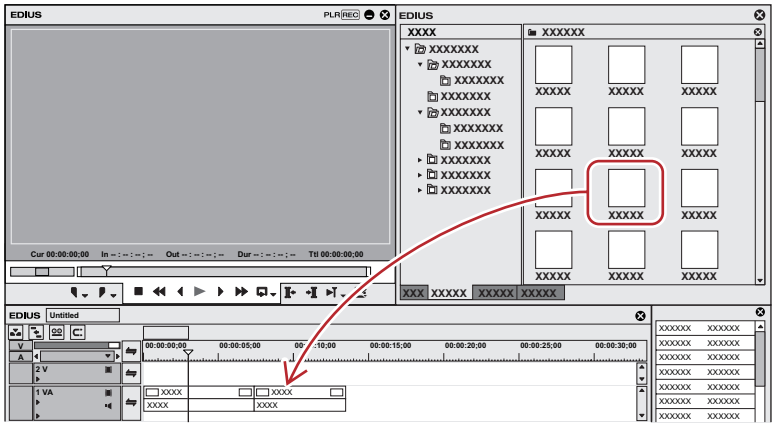
2) Click [VideoFilters].



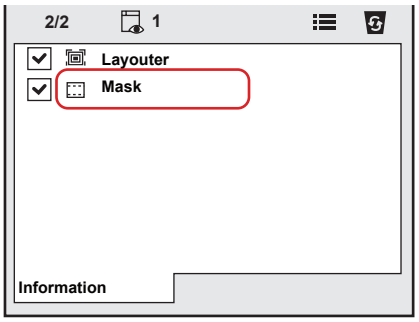
- A list of [VideoFilters] effects is displayed in the effect view.

3) Drag and drop [Mask] to the clip (video part) on the timeline.

- Clips with the [Mask] effect applied (video part) are displayed with an orange line.



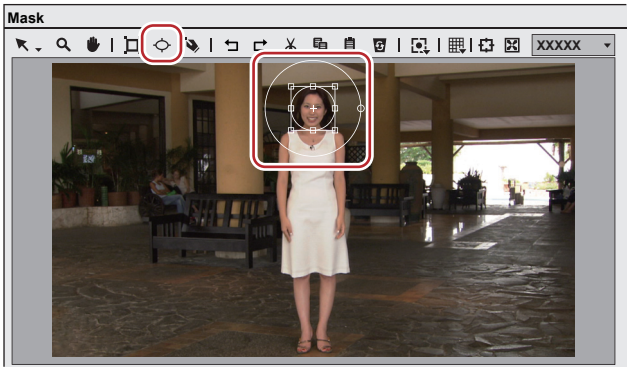
4) Display the [Information] palette, and double-click [Mask].



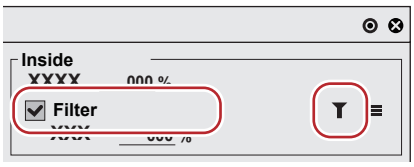
- The [Mask] dialog box appears.
  "[Mask] Dialog Box (Motion Tracking)" (▶ page 360)

5) Move the timeline cursor to the top frame.

6) Click the draw button of ellipse and encircle the person's face with an ellipse.

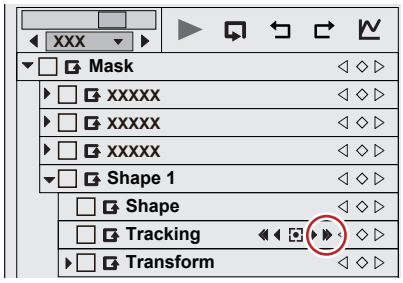


7) Check [Filter] for [Inside], click ▼, and select [Mosaic].



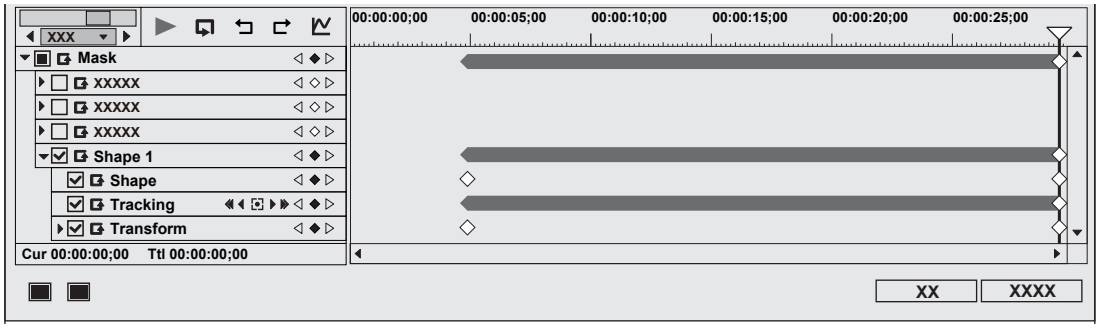
- Click ☰ to set the details of [Mosaic].
- You can view the result of the applied video filter in the preview window.

8) Click [Track Forward] in [Tracking].



- Tracking in the forward direction starts and a key frame will be set frame by frame. A progress bar is displayed to indicate the progress of the analysis.

- Tracking will end automatically at the last frame of the clip.



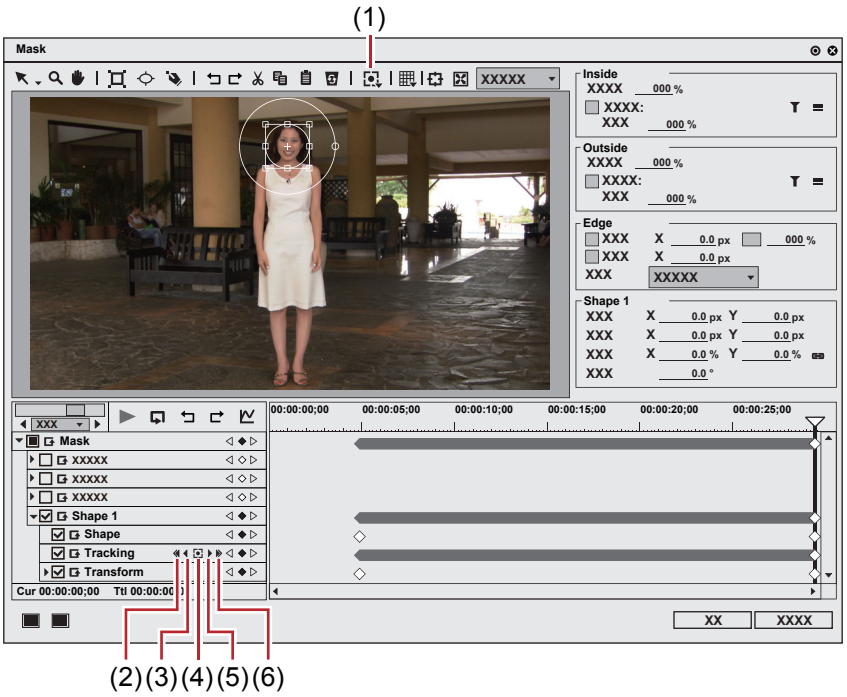
9) Play back the timeline to view the video.

10) Click [OK].

- The [Mask] dialog box is closed.

- Set key frames can be adjusted frame by frame.
- The unit of time scale display on the [Mask] dialog box can be adjusted in the time scale settings or by the time scale slider.
- There are two types of interpolation methods, [Hold] and [Linear].

[Mask] Dialog Box (Motion Tracking)



(1)	**[Tracking]**	Select a tracking method and start tracking. Multiple paths can be tracked at the same time. **“Batch Tracking of Multiple Paths” (▶ page 361)**
(2)	**[Track Reverse]**	Tracks in the reverse direction from the timeline cursor position and sets key frames. Tracking will end automatically at the top frame of the clip. **[Ctrl] + [,]**
(3)	**[Track Previous Frame]**	Tracks one frame in the reverse direction from the timeline cursor position and sets key frame. **[,]**

(4)	[Tracking Option]	**[Position]** Tracks the position of the object. The default value is ON. **[Scale]** Tracks the size of the object. The default value is ON. **[Rotation]** Tracks the rotation of the object. The default value is ON. **[Distortion]** Tracks the distortion of the object (aspect ratio and shear). This item can be set only when [Position], [Scale] and [Rotation] are all set to ON. The default value is ON.
(5)	[Track Next Frame]	Tracks one frame in the forward direction from the timeline cursor position and sets key frame. **[.]**
(6)	[Track Forward]	Tracks in the forward direction from the timeline cursor position and sets key frames. Tracking will end automatically at the last frame of the clip. **[Ctrl] + [.]**

Batch Tracking of Multiple Paths

You can select and track multiple paths at the same time.

1) Perform steps 1) to 7) in "Motion Tracking ([Mask])".

- **"Motion Tracking ([Mask])" (▶ page 358)**
- Draw multiple paths in advance.

2) While pressing [Shift] on the keyboard, select multiple paths.

3) Click [Tracking] on the tool bar, and click a tracking method.

- Tracking for multiple paths starts at one time and finishes automatically at the last frame.

4) Play back the timeline to view the video.

If Automatic Tracking Has Been Disrupted

Tracking may be disrupted in the middle when an obstacle blocks the subject being tracked or when the motion is too fast.
This section explains how to set the key frames manually on the frames from the one where automatic tracking has been disrupted to the one where automatic tracking can be resumed.
You can also track in the reverse direction using [Track Reverse].

1) Perform steps 1) to 8) in "Motion Tracking ([Mask])".

- **"Motion Tracking ([Mask])" (▶ page 358)**
- Tracking has been disrupted in the middle. Automatic tracking cannot be continued. Set key frames manually up to the frame where automatic tracking can be resumed.

2) Set key frames manually.

- To set a key frame frame by frame, click [Track Next Frame]. Adjust the path position and size as necessary.
- To set a key frame at a desired position, move the timeline cursor to the position to set the key frame and then adjust the path position and size. A key frame is added automatically when you edit the path. Repeat this step as necessary.
- To delete key frames collectively, drag the mouse upward to select the key frames and press [Delete] on the keyboard.

3) Move the timeline cursor to the position to start automatic tracking, and click [Track Forward] again.

- Automatic tracking resumes.

4) Play back the timeline to view the video.

5) Click [OK].

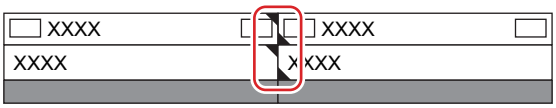
- The [Mask] dialog box is closed.

Transition

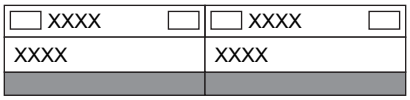
The following explains the transition and audio cross face between clips.

Margin of Clip

The margin of the clip is the video outside the range between In and Out points. Black triangular mark at both ends of the clip means the top (end) of each clip.
When both clips have no margin



When there is a margin at the end of front clip and at the beginning of back clip

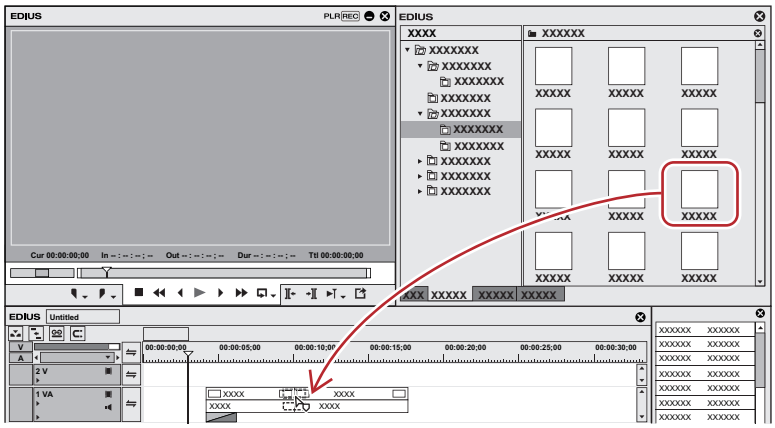


In the extend mode, to add transition/audio cross fade between two clips, both clips need margins. If there is no margin, switch to the fix mode or create margins by trimming or other operations.
"Extend/Fix mode" (▶ page 217)
"Trimming Clips" (▶ page 265)

Clip Transition

You can add a transition between 2 clips.

1) Select a transition in the [Effect] palette, and drag and drop it to the joint of clips.



- The timeline display changes as shown below. The default audio cross fade is simultaneously added.
  "Changing Default Effects" (▶ page 364)

Alternative

- Select a clip on the timeline and select a transition from the [Effect] palette. Click the [Add to Timeline] list button and click an item. If you click [Add to Timeline] instead of the list button, the transition is applied to both the In and Out points of the selected clip.
- Select a clip on the timeline. In the [Effect] palette, right-click a transition, and click [Add to Timeline] → an item.
- Select a transition in the [Effect] palette, right-drag it to the clip on the timeline, and click [Add].
- Select a transition in the [Effect] palette, right-drag it to the clip on the timeline, and click [Paste] → [All].
- Select a transition in the [Effect] palette, right-drag it to the clip on the timeline and click [Custom], to set the duration and position to apply transition.

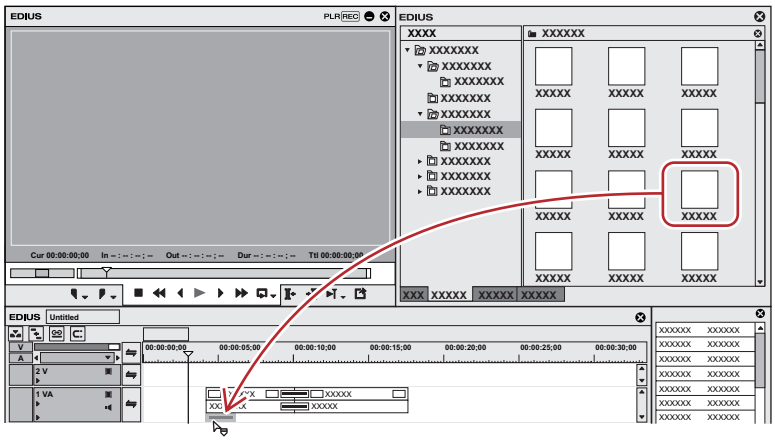
- By [Application] in [User Settings] → [Timeline], you can set so that the default audio cross fade should not be applied when the transition is applied.
  "[Timeline]" (▶ page 120)
- In the extend mode, the clip border after setting the transition is displayed as a green line (cut point).
  "Setting Extend Mode" (▶ page 218)
- A clip transition on the timeline can be applied to the joint of other clips by dragging and dropping.

- Use the GPU of your PC to apply more complex and high-quality GPUfx transitions. If the [GPU] folder is not displayed, view the error information by [Effect] in [System Settings] → [GPUfx].
  "[GPUfx]" (▶ page 117)

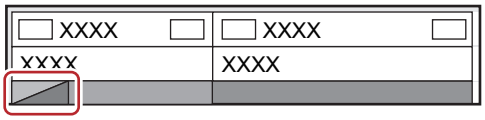
Track Transition

You can apply a transition to a video in the part where the video moves to another clip on another track.

1) Select a transition in the [Effect] palette, and drag and drop it to the mixer of clips.



- The effect is applied at the beginning (or the end) of the clip.



Alternative

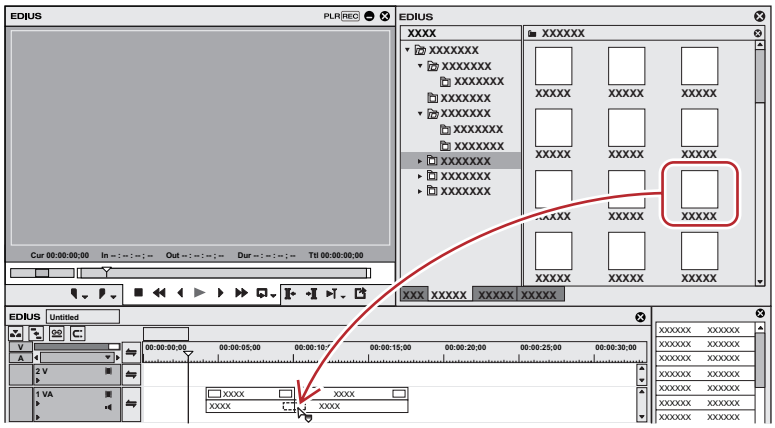
- Select a mixer of the clip on the timeline, and select a transition in the [Effect] palette. Click the [Add to Timeline] list button and click an item. If you click [Add to Timeline] instead of the list button, the transition is applied to both the In and Out points of the selected clip.
- Select a mixer of the clip on the timeline. In the [Effect] palette, right-click a transition, and click [Add to Timeline] → an item.
- Select a transition in the [Effect] palette, right-drag it to the mixer of the clip on the timeline, and click [Add].
- Select a transition in the [Effect] palette, right-drag it to the mixer of the clip on the timeline, and click [Paste] → [All].
- Select a transition in the [Effect] palette, right-drag it to the mixer of the clip on the timeline and click [Custom], to set the duration and position to apply transition.

- A track transition on the timeline can be applied to other mixer areas by dragging and dropping the mixer area.

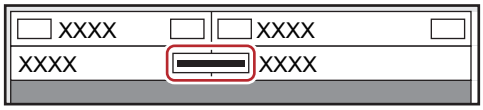
Audio Cross Fade

You can add an audio cross fade between 2 clips.

1) Select an audio cross fade in the [Effect] palette, and drag and drop it to the joint of clips.



- The timeline display changes as shown below.



Alternative

- Select a clip on the timeline, and select an audio cross fade from the [Effect] palette. Click the [Add to Timeline] list button and click an item. If you click [Add to Timeline] instead of the list button, the audio cross fade is applied to both the In and Out points of the selected clip.
- Select a clip on the timeline. In the [Effect] palette, right-click an audio cross fade, and click [Add to Timeline] → an item.
- Select an audio cross fade in the [Effect] palette, right-drag it to the clip on the timeline, and click [Add].
- Select an audio cross fade in the [Effect] palette, right-drag it to the clip on the timeline, and click [Paste] → [All].
- Select an audio cross fade in the [Effect] palette, right-drag it to the clip on the timeline and click [Custom], to set the duration and position to apply audio cross fade.

- You can set the default transition not to be applied, when applying audio cross fade.
  "[Timeline]" (▶ page 120)
- In the extend mode, the clip border after setting the audio cross fade is displayed as a green line (cut point).
  "Setting Extend Mode" (▶ page 218)
- An audio cross fade on the timeline can be applied to the joint of other clips by dragging and dropping.

Applying Default Effects

You can easily add effects by selecting clips on the timeline and clicking the button. In this case, effects set as default are applied.
The default effects are set as shown below.
Transition: Dissolve
Audio cross fade: Linear → linear
Title mixer: Fade

1) Move the timeline cursor to the point to apply the effect.

2) Click [Set Default Transition] of the timeline.

- The effect is applied to the position on the timeline cursor.
- Select a clip and click the [Set Default Transition] list button to select the position where you apply the effect.

Alternative

- Default effect settings: **[Ctrl] + [P]**

Changing Default Effects

You can change transition, audio cross fade, or title mixer, to be applied by default.

1) Right-click an effect to set as default in the [Effect] palette, and click [Set as Default Effect].

- “D” s displayed on the icons of effect set as default.

Changing Duration of Effect

You can change the duration of an effect.
Durations of the transition and audio cross fade on the timeline can be changed by trimming.
“Trimming Clips” (▶ page 265)

Changing Duration of Effect

You can set the default value for duration when applying transition or audio cross fade.

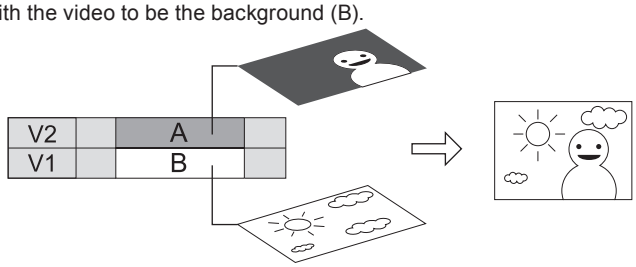
1) Right-click in the [Effect] palette, select [Duration] and click an effect.

2) Enter a duration and click [OK].

Blending

You can composite multiple video by overlaying.

- When you composite videos, the videos are displayed in the order of the alignment on the track. Overlay the track with the video to apply the composition (A) on the track with the video to be the background (B).

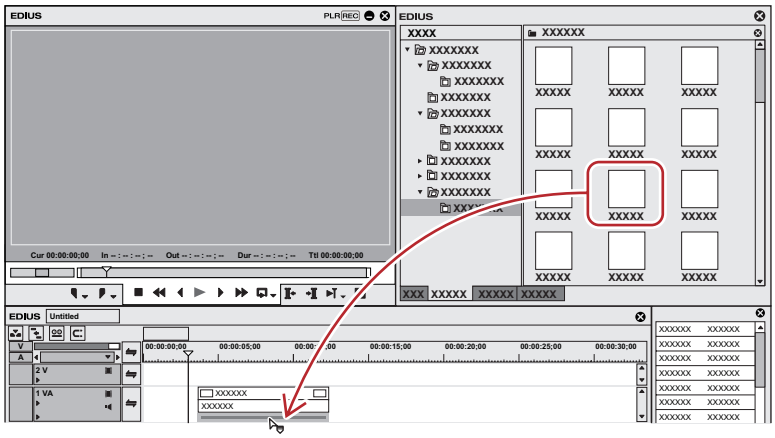


Blend

You can composite 2 video.

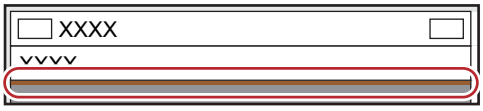
1) In the folder view of the [Effect] palette, click the [Keyers] tree.

2) Click the [Blend] tree, and drag and drop the composition to be applied on the mixer area of the clip.



- Check the composition details in the description in the property, or by trying to apply the composition.

- Clips with key effects applied are displayed with an orange line.



Alternative

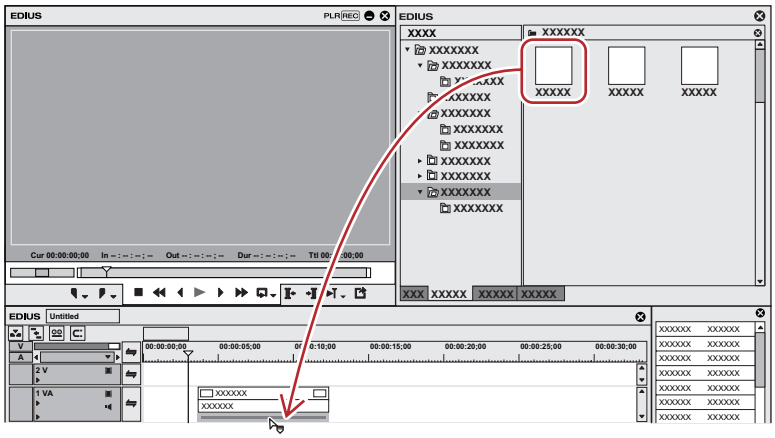
- Select a mixer of the clip on the timeline. Select an effect in the [Effect] palette, and click [Add to Timeline].
- Select a mixer of the clip on the timeline. Right-click an effect in the [Effect] palette, and click [Add to Timeline].
- Select an effect in the [Effect] palette, right-drag it to the mixer of the clip on the timeline, and click [Add].
- Select an effect in the [Effect] palette, right-drag it to the mixer of the clip on the timeline, and click [Paste] → [All].

Key

You can overlay a video onto another, and display the lower video through the upper video. The keys include [Chromakey] to transmit specific color and [Luminancekey] to transmit specific brightness.

1) In the folder view of the [Effect] palette, click the [Keyers] tree.

2) Drag and drop [Chromakey] ([Luminancekey]) onto the mixer area of the clip.



- Clips with key effects applied are displayed with an orange line.

Alternative

- Select a mixer of the clip on the timeline. Select an effect in the [Effect] palette, and click [Add to Timeline].
- Select a mixer of the clip on the timeline. Right-click an effect in the [Effect] palette, and click [Add to Timeline].
- Select an effect in the [Effect] palette, right-drag it to the mixer of the clip on the timeline, and click [Add].
- Select an effect in the [Effect] palette, right-drag it to the mixer of the clip on the timeline, and click [Paste] → [All].

Key Settings

1) Click the mixer area of the clip with the key applied and display the [Information] palette.

- **"Showing/Hiding [Information] Palette" (▶ page 375)**

2) Click [Chromakey] ([Luminancekey]) and click [Open Setup Dialog].

- The [Chromakey] ([Luminancekey]) dialog box appears.
  "[Chromakey] Dialog Box" (▶ page 367)
  "[Luminancekey] Dialog Box" (▶ page 368)

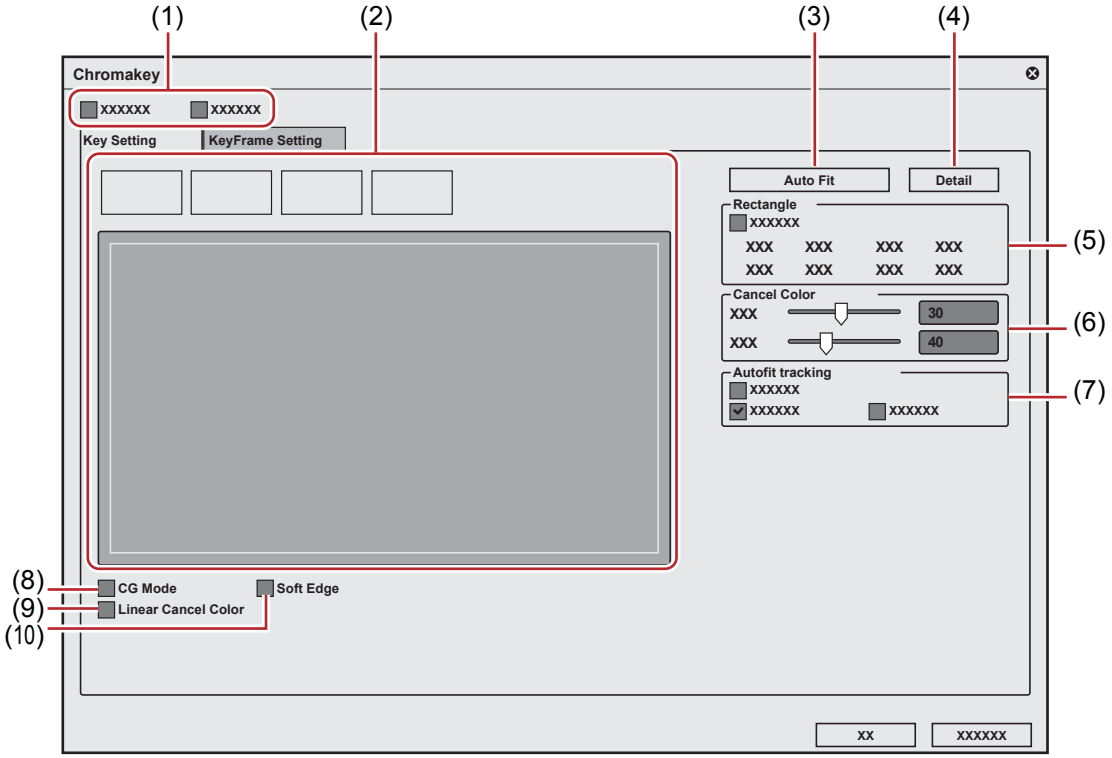
Alternative

- Double-click [Chromakey] ([Luminancekey]) in the [Information] palette.
- Drag and drop [Chromakey] ([Luminancekey]) in the [Information] palette onto [Open Setup Dialog].
- Right-click [Chromakey] ([Luminancekey]) in the [Information] palette and click [Open Setup Dialog].

3) Configure the settings and click [OK].

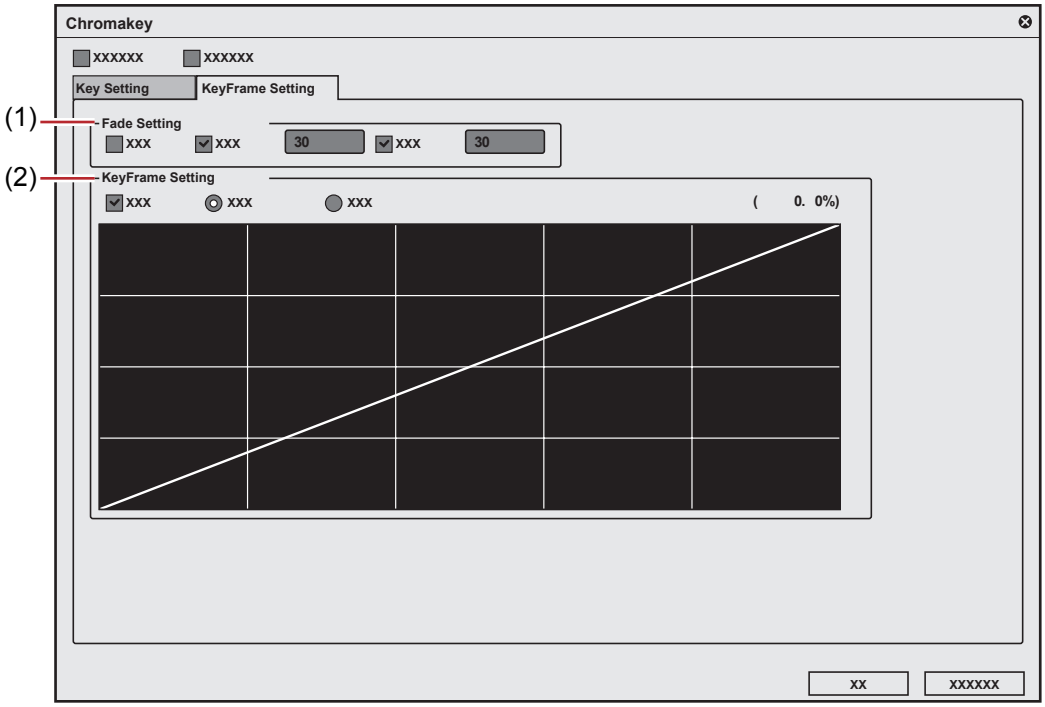
[Chromakey] Dialog Box

■ [Key Setting] tab



(1)	**Display switching**	Check [Key display] to display a part available to cut out in black. Check [Histogram display] to display the histogram.
(2)	**Color selection**	Select a color to transmit from the window. You can select a color (key color) to transmit by 4 methods.
(3)	**[Auto Fit]**	Click this button to automatically define keyer settings appropriate for the selected key color.
(4)	**[Detail]**	Define the detailed keyer settings.
(5)	**[Rectangle]**	Apply chromakey to a particular range.
(6)	**[Cancel Color]**	Add the key color and its opposite color onto the border part where the key color and other colors are bounded so that a natural composite image can be created.
(7)	**[Autofit tracking]**	Check [Enable] to adjust the key color variation automatically.
(8)	**[CG Mode]**	Check this item to set the parameter for CG.
(9)	**[Linear Cancel Color]**	Check this item to resolve the bleeding of the blue screen or green screen or the discoloration by reflections.
(10)	**[Soft Edge]**	Check this item to blur the border of the background image and overlaid image.

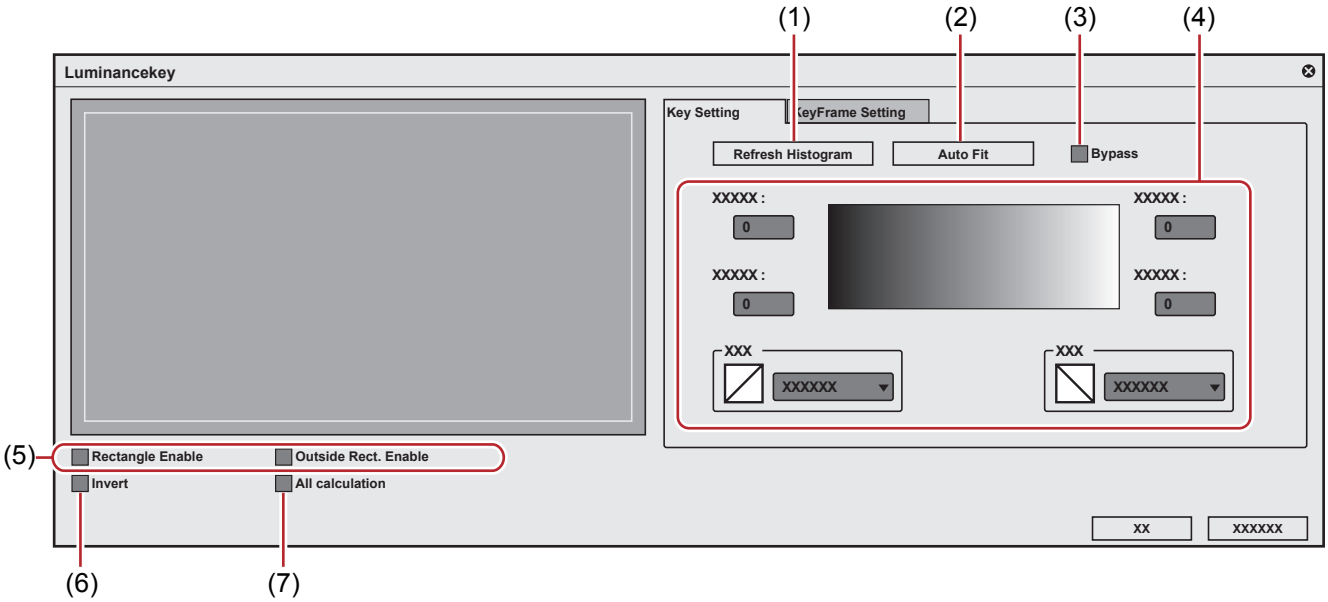
■ [KeyFrame Setting] tab



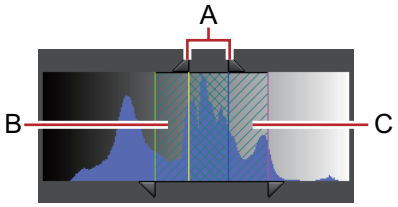
(1)	**[Fade Setting]**	Check [Enable] to add fade effects to In and Out of the area applied with chromakey. Duration can be set to each of In and Out.
(2)	**[KeyFrame Setting]**	Check [Enable] to increase or decrease the effect of chromakey. Click the line to add key frame, and drag the point to set. Field option can be set from either linear or curve.

[Luminancekey] Dialog Box

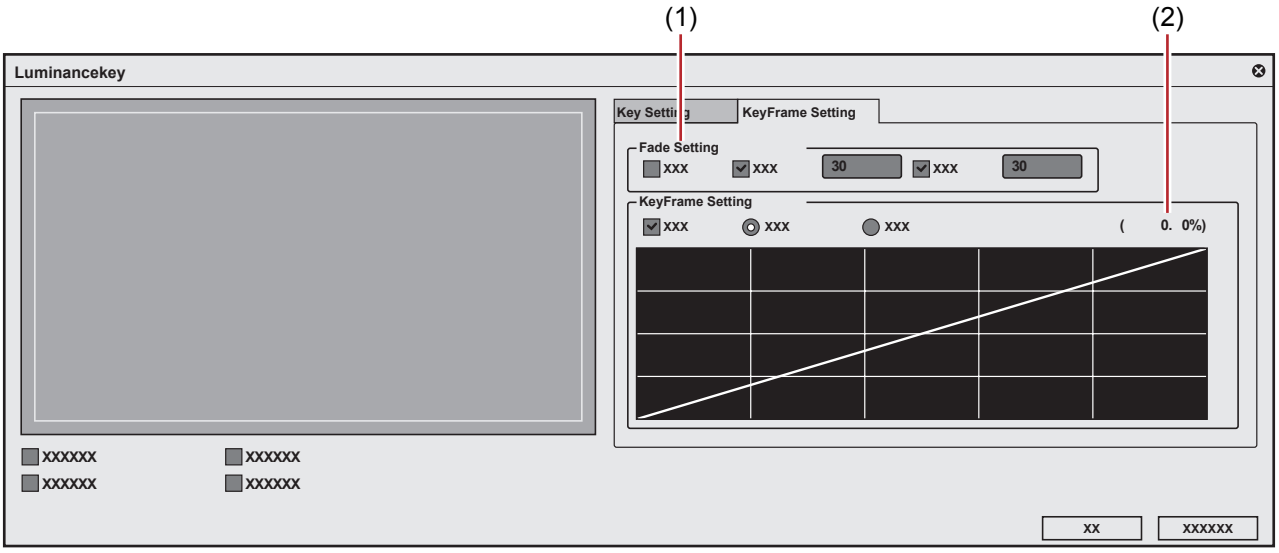
■ [Key Setting] tab



(1)	**[Refresh Histogram]**	Click this button to refresh the histogram.
(2)	**[Auto Fit]**	Click this button to automatically define keyer settings appropriate for the selected key color.
(3)	**[Bypass]**	Switch the image applied with the luminancekey and the original image.

(4)	**Setting range to apply**	Set the range to apply by entering a value directly in each field or dragging the triangle slider, or grating/slant parts.  A: Range to apply 100% B: Range to increase the effect of luminancekey gradually C: Range to decrease the effect of luminancekey gradually Select the form to show increase or decrease of the effect in range B and C (slope).
(5)	**[Rectangle Enable]**	Set the range to set the luminancekey. The area outside the range becomes all transparent and the track image below is displayed through. Select [Outside Rect. Enable] to apply the luminancekey only within the range.
(6)	**[Invert]**	Invert the range with the luminancekey applied.
(7)	**[All calculation]**	Check this item to calculate all the area including the range specified with the [Rectangle Enable] settings.

■ [Key Frame Setting] tab

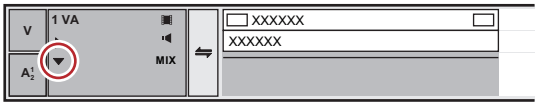


(1)	**[Fade Setting]**	Check [Enable] to add fade effects to In and Out of the area applied with luminancekey. Duration can be set to each of In and Out.
(2)	**[KeyFrame Setting]**	Check [Enable] to increase or decrease the effect of luminancekey. Click the line to add key frame, and drag the point to set. Set either linear or curve.

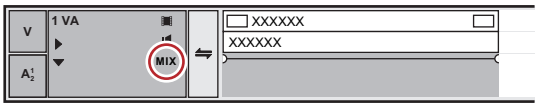
Transparency

You can overlay a video onto another, and transmit the upper video to display lower video, by changing the transparency of one of the videos.

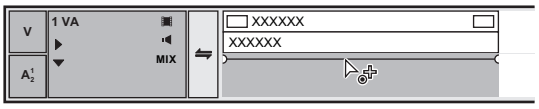
1) Click the expand button of the mixer of the track panel where the clip whose transparency is to be changed is placed.



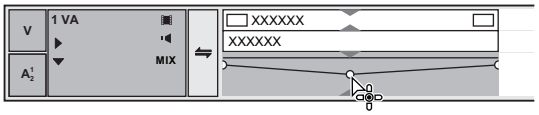
2) Click [Mixer].



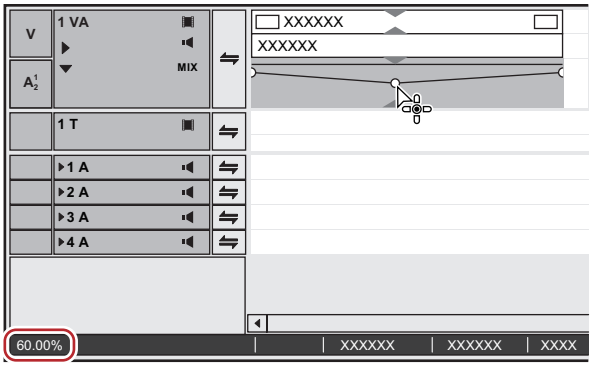
3) Click the rubber band to set the key frame.



4) Drag up and down to adjust the transparency.



- The transparency is displayed on lower left on the timeline. The video becomes completely transparent when the transparency is 0%.



- Clips with transparency applied are displayed with an orange line.

- To finely adjust the rubber band, drag it with [Ctrl] on the keyboard held down.
- To change the whole rubber band, drag the line while pressing [Shift] key of the keyboard.
- The operation procedure to adjust or delete the key frame with value entry is the same as in the audio rubber band.
  "Adjusting by Entering Values" (▶ page 413)
  "Initializing/Deleting Rubber Band Points" (▶ page 413)

[Fade In]/[Fade Out]

You can set [Fade In] to make the video appear gradually, or [Fade Out] to make the video disappear gradually.

1) Select a clip to set fade in/fade out.

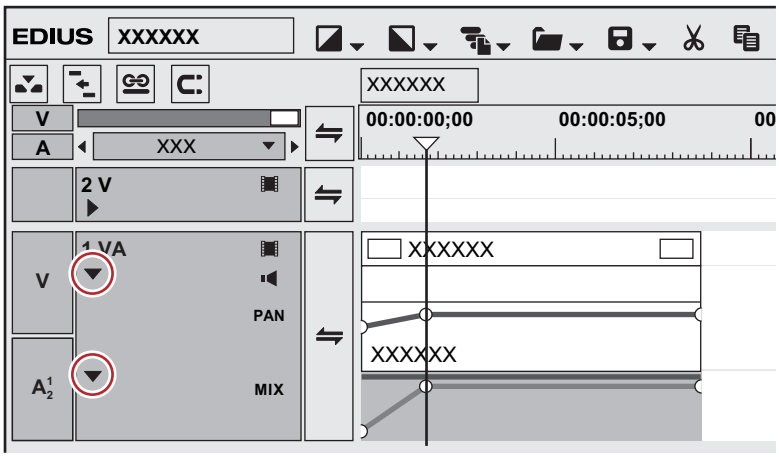
- You can select multiple clips on separate tracks.

2) Move the timeline cursor to the end position of the fade in effect (or the start position of the fade out effect).

3) Click [Fade In] or [Fade Out] on the timeline.

- The mixer area with [Fade In] or [Fade Out] applied is displayed with an orange line.

- You can view the settings of the audio and video parts by clicking the audio expand button or mixer expand button on the track panel. A key frame is added to the position to which [Fade In] or [Fade Out] is set.



- To delete the [Fade In] or [Fade Out] effect, delete both the audio part and the video parts.
  - To delete the video part, select and right-click a clip, and click [Delete Parts] → [Mixer] → [Transparency].
  - To delete the audio part, select and right-click a clip, then click [Delete Parts] → [Audio Rubber Band] → [Volume].

Note

- [Fade In] or [Fade Out] is not shown in the default setting. Define the setting to display the button on the timeline in advance.
  "Operation Button Settings" (▶ page 146)

Setting Fade-in/Fade-out to Video or Audio Parts Individually

You can set fade in or fade out effects to the video or audio parts individually.

1) Select a clip to set fade in/fade out.

- You can select multiple clips on separate tracks.

2) Move the timeline cursor to the end position of the fade in effect (or the start position of the fade out effect).

3) Click the [Fade In] or [Fade Out] list button on the timeline.

4) Click [Video clip only] or [Audio clip only].

Alternative

- Release the link mode and specify fade in/fade out.
  "Group/Link Mode" (▶ page 217)

[Track Matte]

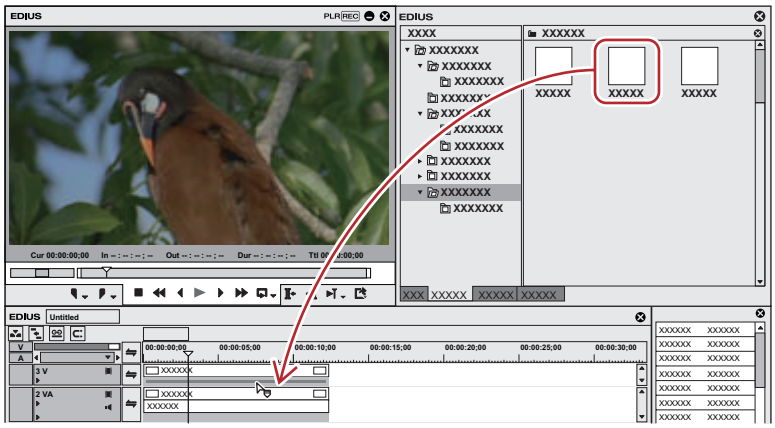
Generate alpha (transparency information) from the clip placed on the timeline as a matte clip, and multiply it by alpha of the clip placed as a source clip. In addition, you can place it overlaying the background image.

1) Place a clip to use as a matte clip on a track.

2) Place a clip to use as a source clip on a track on the matte clip.

3) In the folder view of the [Effect] palette, click the [Keyers] tree.

4) Drag and drop [Track Matte] to the mixer area of the clip.



- Clips with key effects applied are displayed with an orange line.

Alternative

- Select a mixer of the clip on the timeline. Select an effect in the [Effect] palette, and click [Add to Timeline].
- Select a mixer of the clip on the timeline. Right-click an effect in the [Effect] palette, and click [Add to Timeline].
- Select an effect in the [Effect] palette, right-drag it to the mixer of the clip on the timeline, and click [Add].
- Select an effect in the [Effect] palette, right-drag it to the mixer of the clip on the timeline, and click [Paste] → [All].

5) Display the [Information] palette.

- **"Showing/Hiding [Information] Palette" (▶ page 375)**

6) Click [Track Matte], and click [Open Setup Dialog] in the [Information] palette.

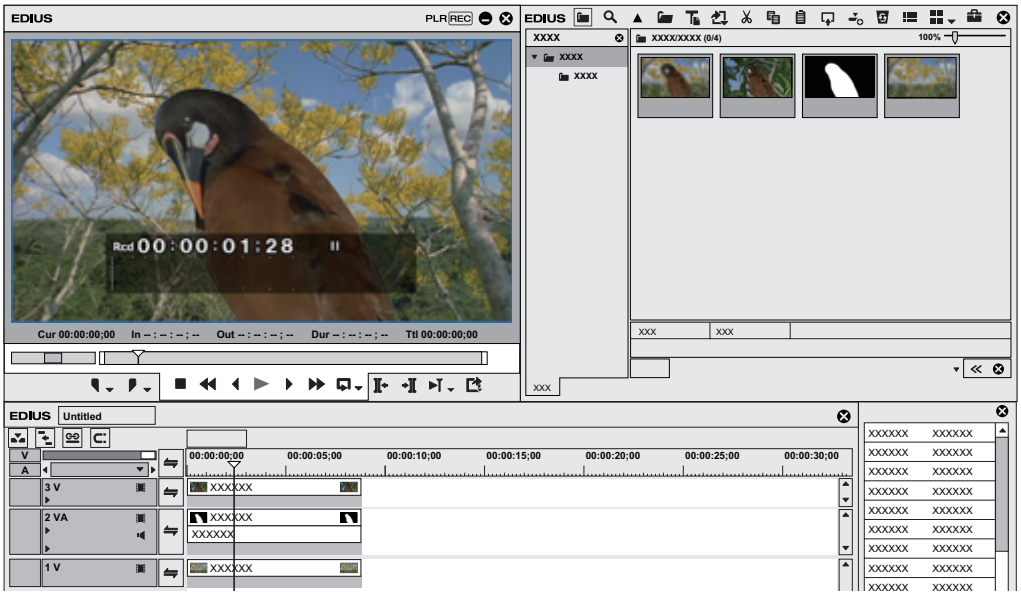
- The [Track Matte] dialog box appears.
  "[Track Matte] Dialog Box" (▶ page 373)

Alternative

- Double-click [Track Matte] in the [Information] palette.
- Drag [Track Matte] in the [Information] palette and drop it on [Open Setup Dialog].
- Right-click [Track Matte] in the [Information] palette, and click [Open Setup Dialog].

7) Configure the settings and click [OK].

8) Place a background clip on the track beneath the matte clip and compose.



Note

- If there is no clip to be the matte clip beneath the source clip, track matte setting is not applied.

[Track Matte] Dialog Box

[Matte]	**[Luminance]** Use the matte clip luminance (16 - 235) as alpha (0 - 100%) and multiply it by the source clip alpha. **[Alpha]** Multiply the matte clip alpha by the source clip alpha.
[Invert]	Invert alpha generated from the matte clip and multiply.

Title Effect

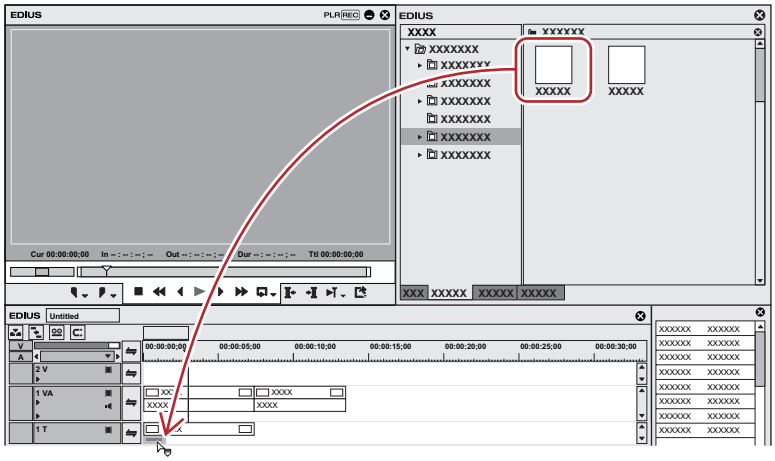
You can apply effects to the titles as well.

Title Mixer

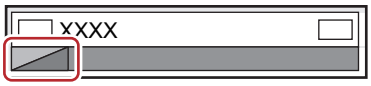
You can apply effects on In and Out of title clips.

1) In the folder view of the [Effect] palette, click the [TitleMixers] tree.

2) Drag and drop a title mixer onto the mixer area of the clip.



- A title mixer can be set individually on In and Out points.
- The timeline display changes as shown below.



- Check the title mixer details in the description in the property, or by trying to apply the effect.
  "Properties of Effects" (▶ page 337)

Alternative

- Select a mixer of the clip on the timeline. Select an effect in the [Effect] palette, and click [Add to Timeline].
- Select a mixer of the clip on the timeline. Right-click an effect in the [Effect] palette, and click [Add to Timeline].
- Select an effect in the [Effect] palette, right-drag it to the mixer of the clip on the timeline, and click [Add].
- Select an effect in the [Effect] palette, right-drag it to the mixer of the clip on the timeline, and click [Paste] → [All].

- When placing the title clip, you can add the default title mixer automatically by setting at [Source] in [User Settings] → [Duration].
  "[Duration]" (▶ page 126)
- - You can change the length after placing on the timeline.
  "Trimming Clips" (▶ page 265)

Applying Effect to Multiple Clips in a Batch

By placing an adjustment clip on a track and applying an effect, you can apply the same effect in a batch to multiple clips on the tracks below the current track.

- Video filter and color correction can be applied to an adjustment clip.
- The effect applied to an adjustment clip does not affect the clips on the T track.

1) Move the timeline cursor to the position where the adjustment clip is placed.

2) Right-click on the track to place an adjustment clip, and click [New Clip] → [Adjustment Clip].

- The effect applied to the adjustment clip is applied to the clips on the tracks below the current track. Place an adjustment clip onto the upper track of that to which the clips you want to apply the effect are placed.
- The adjustment clip is placed onto the track on which the position of the timeline cursor is selected as the In point. Adjust the length of the adjustment clip as necessary.

3) Apply video filter or color correction to the adjustment clip.

- **"Video Filter" (▶ page 354)**
- **"Adjusting Color/Brightness (Color Correction)" (▶ page 340)**

4) Adjust and configure the effect as necessary.

Operation for Effects

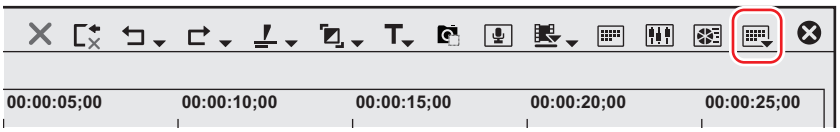
Checking/Adjusting Effects

Check, adjust, or delete effects applied to a clip.

Showing/Hiding [Information] Palette

The selected clips and effects are displayed in the [Information] palette.

1) Click [Toggle Window Display] of the timeline.



2) Click [Information].

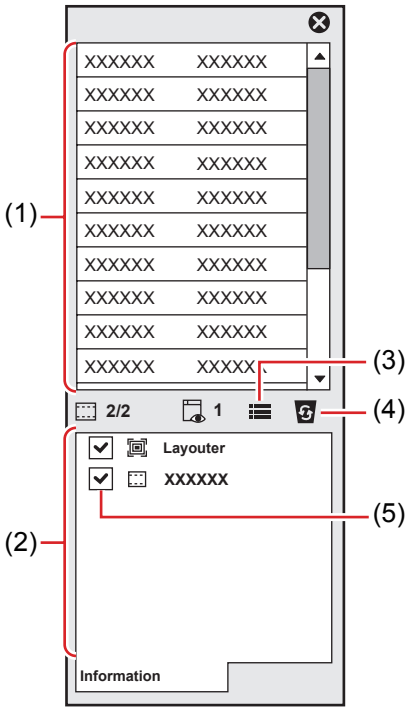
- The [Information] palette appears.
  "[Information] Palette" (▶ page 376)

Alternative

- Click [View] on the menu bar, and click [Window] → [Information].
- Click [View] on the menu bar, and click [Window] → [Show All] or [Hide All], to show/hide all the tab windows at one time.
- Showing/hiding the tab window: **[H]**
  "Showing/Hiding [Effect] Palette" (▶ page 335)
  "Displaying the [Clip Marker] List" (▶ page 276)
  "Displaying the [Sequence Marker] List" (▶ page 283)
  "Showing/Hiding the [Mync] Window" (▶ page 190)
  "Showing/Hiding the [Job] Window" (▶ page 330)

- When the show/hide setting for the [Information] palette is switched, the show/hide setting for the tabs of the bin window, source browser window, and tab windows combined with the [Information] palette is also switched. To switch the show/hide setting separately, release the association of the window or tab windows.
  "Combining Tab Windows with Bin Window/Source Browser Window" (▶ page 144)

[Information] Palette



(1)	**Information area**	Display information such as the file name or duration. The displayed contents differ depending on the part selected on the timeline.
(2)	**Effect list**	Display applied effects in a list. For a clip with a video part, [Layouter] is displayed. Double-click an item to display the [Layouter] dialog box for cropping and transformation. **"Video Layout" (▶ page 253)** The number on the upper left of the list shows the number of available effects/number of applied effects. **"Enabling and Disabling Effects" (▶ page 377)**
(3)	**[Open Setup Dialog]**	Display a settings dialog box to adjust each effect or the [Layouter] dialog box.
(4)	**[Delete]**	Delete the effect. [Layouter] items cannot be deleted.
(5)	**Enable/Disable**	Temporarily disable the layouter or effect settings. Uncheck this item to disable the settings.

Checking/Adjusting Effects

You can check or adjust the applied effect from the [Information] palette.

1) Click the area with effects applied on the timeline.

- **"Parts Where Effects Are Applied" (▶ page 377)**
- A list of the applied effects is displayed in the [Information] palette.

2) Click an effect name on the effect list in the [Information] palette, and click [Open Setup Dialog].

- A settings dialog box to adjust each effect appears.

Alternative

- Double-click on an effect name in the effect list.
- Drag and drop an effect name onto [Open Setup Dialog] in the [Information] palette.
- Right-click on an effect name in the [Information] palette, and click [Open Setup Dialog].

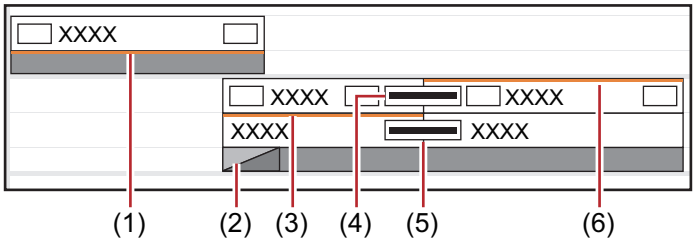
3) Adjust the effect.

- For adjustment of effects, refer to the procedures to apply each effect.

- You can specify a name to and save an adjusted parameter in the [Effect] palette.
  "Registering Effects to [Effect] Palette" (▶ page 381)

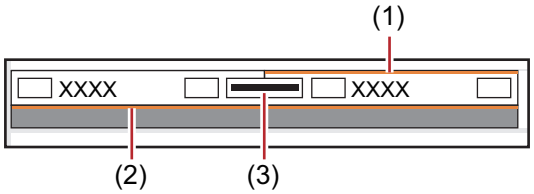
Parts Where Effects Are Applied

■ VA track



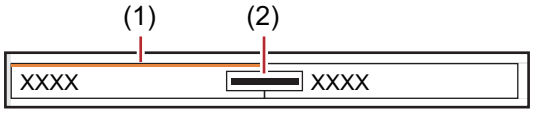
(1)	Key
(2)	Track Transition
(3)	Audio filter
(4)	Clip transition
(5)	Audio cross fade
(6)	Video filter, layouter

■ V track



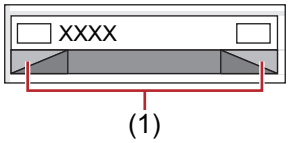
(1)	Video filter, layouter
(2)	Key
(3)	Clip transition

■ A track



(1)	Audio filter
(2)	Audio cross fade

■ T track



(1)	Title mixer

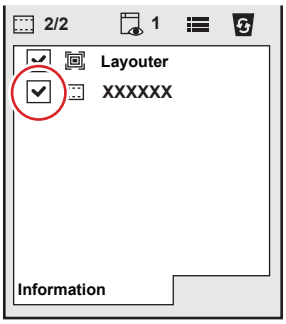
Enabling and Disabling Effects

You can temporarily disable the layouter or effects.

1) Click the area with effects applied on the timeline.

- "Checking/Adjusting Effects" (▶ page 376)

2) Uncheck the item in the effect list in the [Information] palette.



- Check this item to enable the effect, and uncheck to disable the effect.

Alternative

- Right-click on an effect name in the effect list, and click [Enable/Disable].
- Select an effect name in the effect list, and press [Ctrl] + [F] on the keyboard.

Deleting Effects

You can delete the applied effects.

Deleting Effects Using Timeline

Example:

To delete a filter

1) Select a clip with the effect applied.

2) Click [Edit] on the menu bar, and click [Delete Parts] → [Filter] → an item.

Alternative

- Right-click a clip, and click [Delete Parts] → [Filter] → an item.
- Right-click the mixer area with the effect applied and click [Delete].
- Clip transition: **[Shift] + [Alt] + [T]**
- Audio cross fade: **[Ctrl] + [Alt] + [T]**
- Key: **[Ctrl] + [Alt] + [G]**
- Transparency: **[Shift] + [Ctrl] + [Alt] + [G]**
- Video filter: **[Shift] + [Alt] + [F]**
- Audio filter: **[Ctrl] + [Alt] + [F]**
- Deleting all transitions: **[Alt] + [T]**
- Deleting all filters: **[Shift] + [Ctrl] + [Alt] + [F]**

Deleting Effects Using [Information] Palette

1) Click the area with effects applied on the timeline.

- **"Checking/Adjusting Effects" (▶ page 376)**

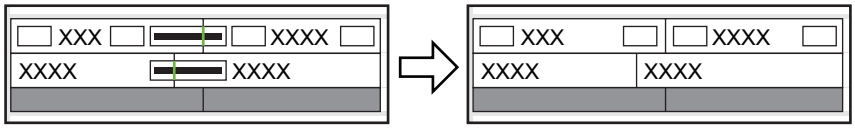
2) Click an effect name on the effect list in the [Information] palette, and click [Delete].

- **"[Information] Palette" (▶ page 376)**

Alternative

- Drag an effect name out of the [Information] palette.
- Right-click an effect name and click [Delete].
- Select an effect to delete and press [Delete] key of the keyboard.

- When you set the transition or audio cross fade, green line (cut point) is displayed. This is the border for the transition before setting. If you delete the transition or audio cross fade, the Out point of the front clip and the In point of the back clip move back to the cut point.



Applying the Adjusted Effect to Another Clip

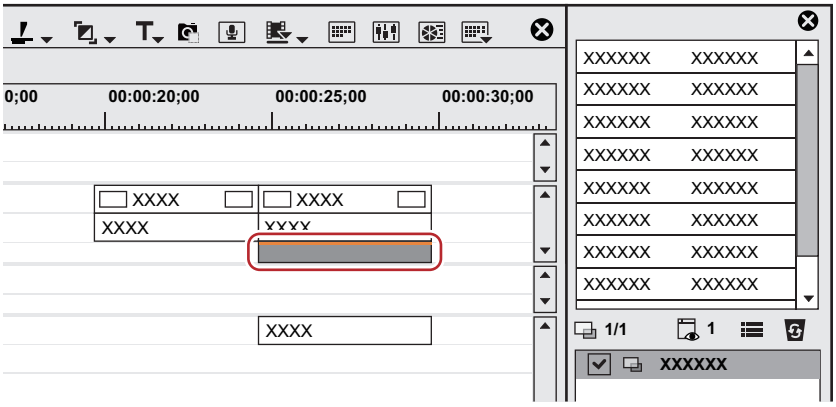
You can copy effects applied to a particular clip, or replace them with other effects from other clips.

Copying Effects

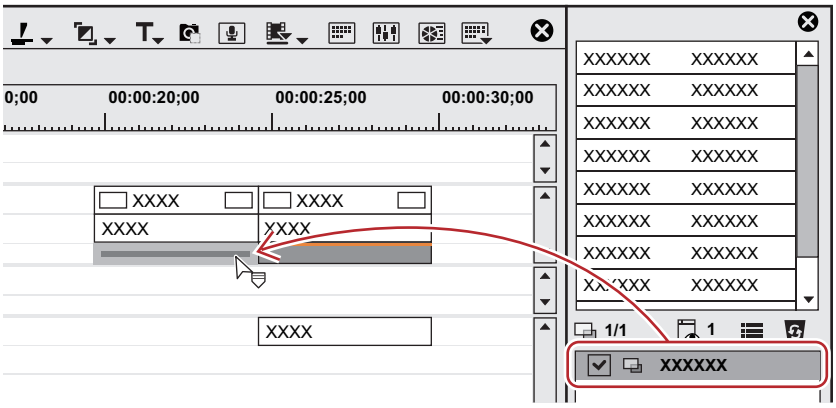
You can copy adjusted effects applied to a clip, and then apply it to other clips with their original settings.

1) Click the area with effects applied on the timeline.

- **"Checking/Adjusting Effects" (▶ page 376)**



2) Drag and drop the effect in the effect list in the [Information] palette to the copy destination.



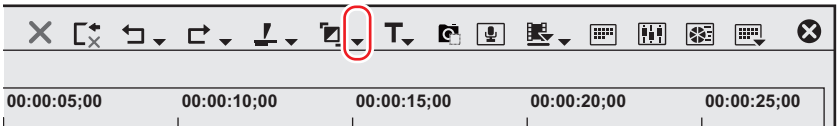
Copying Transition

1) Click a transition specified on the timeline, and click [Copy] of the timeline.

2) Select the clip on which to paste the transition.

- If you want to paste a transition to the point of the timeline cursor, click the track on which the clip is placed and move the timeline cursor to the position to paste the transition.

3) Click the [Set Default Transition] list button.



4) Click the clip paste method.

Alternative

- Drag and drop an effect applied to the clip onto the timeline to other clips.

Replacing Effects

Copy an adjusted filter or mixer applied to a clip, and use it to replace a filter or mixer on other clips.

- You can also specify the attributes and detailed settings of a filter or mixer and replace them.
  "Pasting Attributes" (▶ page 237)

1) Click a clip with a filter or mixer applied, and click [Copy].

2) Select a paste destination clip.

3) Click the [Paste to Current Location] list button on the timeline.

4) Click [Filter] or [Mixer].

- You can also copy the mixer area/clip transition and use it to replace the selected mixer area/clip transition of the paste destination clip.

Alternative

- Select a clip to paste, click [Edit] on the menu bar, and click [Paste] → [Filter]/[Mixer].
- Right-drag a clip on which a filter or mixer is applied onto a clip to paste, and click [Paste] → [Filter]/[Mixer].
- Drag a mixer with effects to copy and drop it onto the destination mixer.

Preset

Registering Presets

You can register customized effects to [Effect].

Registering Effects to [Effect] Palette

You can adjust an existing effect to create an original effect (user preset effect) and register it to the [Effect] palette. You can also register multiple effects as one effect.

1) Click the area applied with an effect to be registered.

2) Click the folder to register the effect in the [Effect] palette.

- You can also create a new folder.
  "Creating Folder in [Effect] Palette" (▶ page 382)

3) Right-click the effect name to register in the [Information] palette, and click [Save as Current User Preset].

- The effect is registered in the folder in the [Effect] palette. "U" appears on the icon of the registered effects.
  "User Preset Effect" (▶ page 337)

4) Enter a name.

Alternative

- From the effect list in the [Information] palette, drag and drop the effect name onto a folder in the [Effect] palette.

- You can register multiple effects simultaneously. Select multiple effects and right-click them. Click [Save as Current User Preset] to register the selected multiple effects as one effect, or click [Save as Separate User Preset] to register them as separate effects.

Deleting Effects from [Effect] Palette

Delete the user preset effect.

1) Select the user preset effect to delete in the [Effect] palette, and click [Delete].

- If you want to delete a folder including the effect, select the folder and click [Delete].

2) Click [Yes].

Alternative

- Right-click the user preset effect to delete in the [Effect] palette, and click [Delete].
- Select a user preset effect to delete and press [Delete] key of the keyboard.

Note

- You cannot delete the plug-in base effects and system preset effects.
- If the selected folder includes effects other than the user preset effects, only the user preset effects are deleted.
- If the selected folder includes folders registered as a folder shortcut, a confirmation dialog box appears. Click [OK] to delete the folder.

Customizing [Effect] Palette

You can rename effects and folders, or change the folder structure.

Creating Folder in [Effect] Palette

You can create a new folder in the [Effect] palette.

1) Right-click a folder in the [Effect] palette and click [Create New Folder].

- A new folder is created under the selected folder.

2) Enter a name.

Renaming Effects

You can change the name of an effect or a folder.

1) Right-click an effect or a folder and click [Change Name].

Alternative

- Click the name of the effect or folder.
- Right-click an effect and click [Properties]. Change the name in the [Properties] dialog box and click [OK].

2) Enter a name.

- You cannot rename the plug-in base effects and system preset effects.

Folder Structure of [Effect] Palette

You can sort effects or folders, or change the folder structure. Or you can lock them not to move by mistake.

Fixing Folder Structure

1) Click [lock] in the [Effect] palette.

- Each click on [lock] switches the lock on and off.

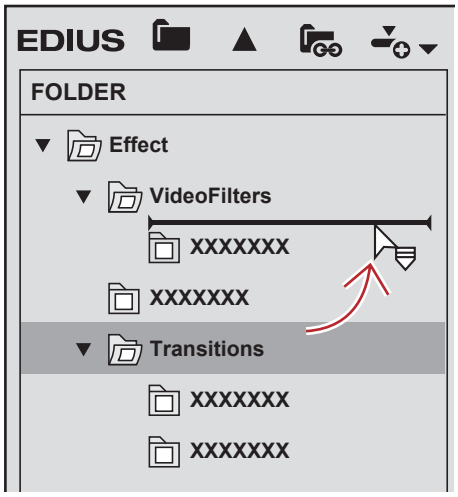
Note

- When you select [Back to default], the settings return to the default even after [lock] is enabled.
  "Initializing [Effect] Palette" (▶ page 383)

Changing Folder Structure

- Before making an operation, click [lock] to disable the lock.

1) Drag and drop an effect or folder to the destination.



Folder Shortcuts

You can quickly open the frequently used folders by assigning them to folder shortcut.

Setting with Effect View

1) Select a folder to set as a shortcut.

2) Click [Folder Link] in the [Effect] palette.

3) Click [Add Link].

- The selected folder is added to the list.

- You can assign up to 8 folders to a folder shortcut.

Deleting Folder Shortcuts

1) Click [Folder Link] in the [Effect] palette.

2) Click [Arrange].

- The [Arrange] dialog box appears.

3) Select a shortcut to delete and click [Delete].

- Click [Close] to finish the operation.

Initializing [Effect] Palette

You can reset the [Effect] palette to the default.

1) Right-click the [Effect] palette, and click [Back to default].

2) Click [OK].

Note

- When you select [Back to default], the settings return to the default even after [lock] is enabled.

Import/Export

You can export the effect you created and import to other EDIUS, or import effects created by EDIUS.

Exporting Effects (Export)

You can export and save user preset effects. The extension of the saved file is “*.tpd”.

1) Right-click the effect or folder to export in the [Effect] palette, and click [Export].

- The [Save As] dialog box appears.

2) Set a file name and save destination, and click [Save].

Importing Effects (Import)

You can read the effect file with the extension “*.tpd” as user preset effect.

1) Right-click the folder to import the user preset effect in the [Effect] palette, and click [Import].

2) Select a file, and click [Open].

- A new folder is created in the selected folder, and the imported effect is registered to the folder.

- Effects for audio can also be imported by registering the VST plug-in.
  “VST Plug-in Registration” (▶ page 118)

Chapter 10

Title

This chapter explains how to use the Quick Titler software for creating a title and manipulating a title clip with EDIUS.

Quick Titler

Starting up and Exiting Quick Titler

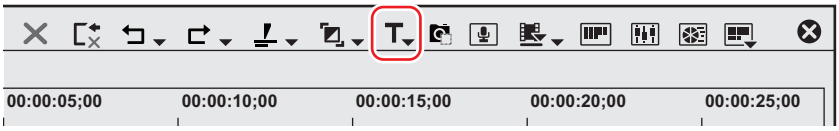
Creating a New Title

Quick Titler starts up automatically when you create a title clip on EDIUS.
The created title clip is placed on the timeline, and simultaneously registered to the bin.

- The existing titler can be changed from [Application] in [User Settings] → [Other].
  "[Other]" (▶ page 123)
- You can also start up Quick Titler independently by double-clicking QuickTitler.exe. However, it cannot be started up on the PC without EDIUS license.
- To check the version information for Quick Titler, click [Version Info], or click [Help] on the Quick Titler menu bar → [Quick Titler Version Information].

1) Move the timeline cursor to the position in which to create a title clip.

2) Click [Create Title] of the timeline.



3) Select a track to create a title.

- Quick Titler will start up.
- The created title clip is placed on the timeline, and also simultaneously registered in the bin.
- If In and Out points have not been set on the timeline, when a title is created and saved, the title clip is placed on the selected track at the position of the timeline cursor. The default duration can be set from [Source] in [User Settings] on EDIUS → [Duration].
  "[Duration]" (▶ page 126)
- If In and Out points have been set on the timeline, the title clip is placed between In and Out points on the selected track when a title is created and saved. Even if In and Out points have been set, you can also configure the settings in order to place the title clip with a default duration.
  "[Duration]" (▶ page 126)

Alternative

- Right-click the track on which to place the title clip, and click [New Clip] → [QuickTitler].
- Starting up Quick Titler: **[T]**

Note

- If the video source channel has been deleted, you cannot select [Create Title in Video Channel Track].
  "Connecting/Disconnecting the Source Channel" (▶ page 220)

Exiting Quick Titler

This section explains how to exit Quick Titler.

- Quick Titler exits when you save the title clip currently being edited.

1) Click [File] on the Quick Titler menu bar, and click [Close].

Alternative

- Click [×] in the Quick Titler window.

2) Click [Yes].

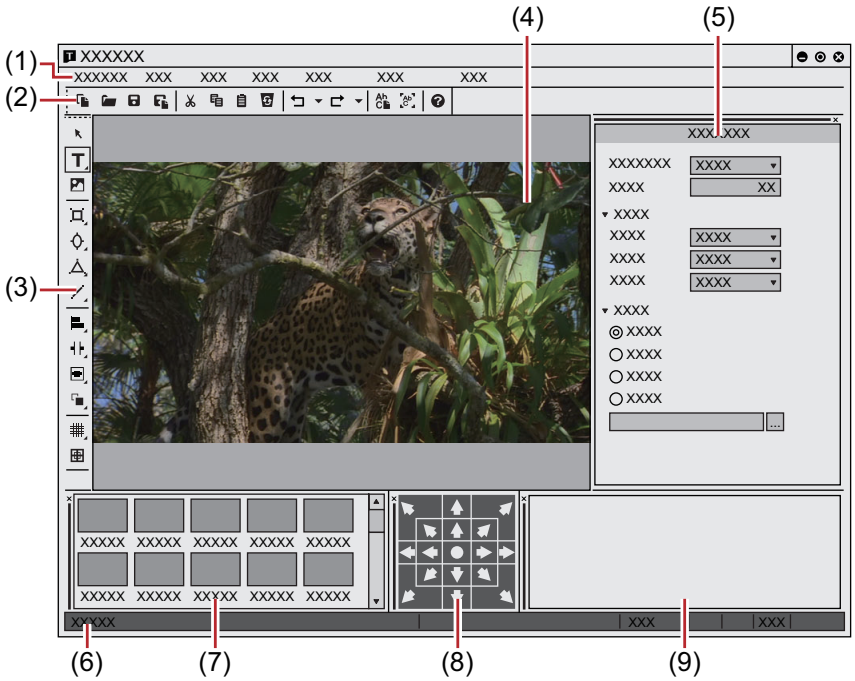
- Click [No] if you do not want to save the title clip. Click [Cancel] to cancel the operation.

About the Quick Titler Screen Configuration

About the Screen

The following explains the Quick Titler screen.
The Quick Titler screen mainly consists of a screen for the creation/editing of objects, a properties panel for setting the color and effects, and a style list that displays preset styles.

Quick Titler Screen



(1)	**Quick Titler menu bar**	Perform general operations for Quick Titler.
(2)	**File tool bar**	Operation buttons for new file creation/saving, copying/deleting, style registration and preview.
(3)	**Object tool bar**	Operation buttons for selection, text entry and creation/alignment of objects.
(4)	**Object creating screen**	Edit a title.
(5)	**Title object property bar**	Set the properties of a selected text object. [Background Properties], [Text Properties],[Image Properties],[Object Properties] will be displayed respectively.
(6)	**Status bar**	Displays a simple description of an operation button or menu, keyboard status and text object location.
(7)	**Title object style bar**	Displays a list of the styles that can be applied to a currently selected text object.
(8)	**Layout bar**	Align a text object to the center/title safe area/overscan area. Not displayed at the start-up for the first time. **“Showing/Hiding Bars” (▶ page 388)**
(9)	**Text entry bar**	Enter text. Not displayed at the start-up for the first time. Text can also be entered directly in the object creating screen. **“Showing/Hiding Bars” (▶ page 388)**

- Click [Preview Mode] or press [Ctrl] + [Shift] + [F3] on the keyboard to switch between the high resolution and low resolution of the preview.

- Press [F5] on the keyboard to switch focus between the object creating screen, title object property bar and title object style bar.
- If Quick Titler is started up independently, [Video settings] in [Background Properties] will be enabled. Set the video format, frame size and aspect ratio of the title to be created.

Showing/Hiding Bars

You can switch the show/hide setting for the title object property bar and title object style bar, etc.

1) Click [View] on the Quick Titler menu bar, and click a bar to hide/show.

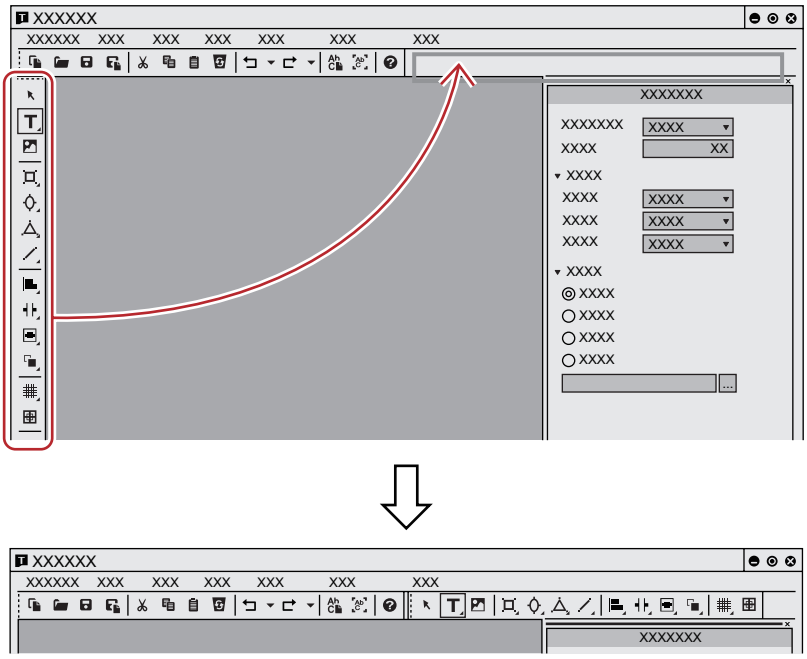
- When a bar is checked it will be shown, and if unchecked, it will be hidden.

Moving Bars

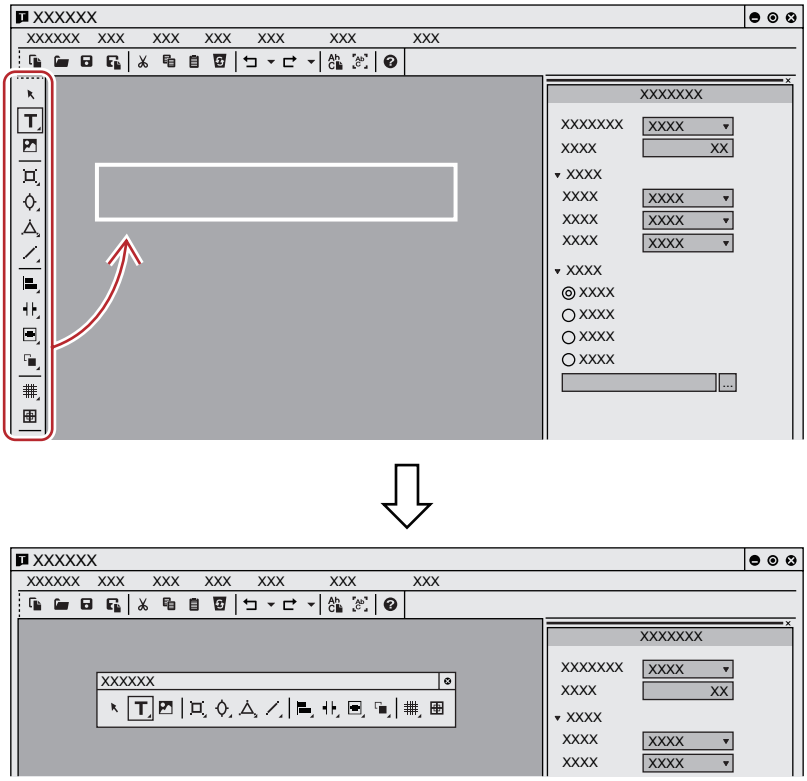
You can place the title object property bar and title object style bar where you want.

1) Drag a bar to move and drop it in its destination.

- Bars will be moved into a position indicated by a white frame that appears during dragging.



- If dropped into a position indicated with a thick white frame, the bar will float as a new window.



Creating/Saving Title Clip

Creating a New Title Clip

When Quick Titler is started up from an EDIUS timeline, a new title clip is created automatically. This section describes how to create a new title clip during Quick Titler editing or after start-up.

1) Click [File] on the file tool bar.

Alternative

- Click [File] on the Quick Titler menu bar, and click [New].
- Creating a new title clip: **[Ctrl] + [N]**

Opening a Title Clip

You can open and edit an existing title clip.

1) Click [Open] on the file tool bar.

2) Select a file, and click [Open].

Alternative

- Click [File] on the Quick Titler menu bar, and click [Open].
- Opening a title clip: **[Ctrl] + [O]**

- When you click [File] on the Quick Titler menu bar, up to 4 of the most recently edited title clips are displayed. Click the file name to open the file.
- When you double-click on a title clip on the EDIUS timeline, the titler starts up and the file is opened.

Exporting a Still Image

You can export a title you have created, including the background, as a still image.

1) Click [File] on the Quick Titler menu bar, and click [Export].

- The [Save As] dialog box appears.

2) Select the save destination, file name and file format, and click [Save].

Overwrite Saving

You can overwrite save a title clip during editing.

Note

- When using multiples of the same title clip on a timeline, editing one of the title clips will update the content of all the title clips. If you want to edit only one title clip out of multiple same title clips, save it in another name.

1) Click [Save] on the file tool bar.

- Save the title clip and exit Quick Titler.

Alternative

- Click [File] on the Quick Titler menu bar, and click [Save].
- Overwrite saving: **[Ctrl] + [S]**

- When [Save] is clicked, the file is saved in the “title” folder present in the folder where the project file is saved. The file name will be “Year, month and day saved-4-digit sequential number.etl”.
- If you start up Quick Titler independently to edit a title and click [Save], the file will be saved in another name.

Saving in Another Name

You can save a title clip being edited with a given name.

1) Click [File] on the Quick Titler menu bar, and click [Save As].

- The [Save As] dialog box appears.

2) Enter a file name, select a file format from the [Save as type] list, and then click [Save].

- Save the title clip and exit Quick Titler.
- For the file format, *.etl or *.etl2 can be selected.
  If *.etl2 is set as the file format, the same rendering result can be obtained for titles that have been created with different DPI.
  If you want to prioritize the compatibility with titles created in Version 8.5 and earlier, set it to the conventional file format (*.etl).

- If you double-click a title clip on the timeline to start up Quick Titler and then save in another name, only the title clip opened with the double-click will be updated, while a new title clip will be registered in the bin.

Automatic Saving in Another Name

You can automatically save the title clip being edited with a given name.

Note

- When Quick Titler has been started up independently, you cannot save automatically with another name.

1) Click [Auto save as] on the file tool bar.

- The title clip will be saved with the file name “Year, month and day saved-4-digit sequential number.etl”.

Alternative

- Click [File] on the Quick Titler menu bar, and click [Auto save as].
- Automatic saving in another name: **[Ctrl] + [Shift] + [S]**

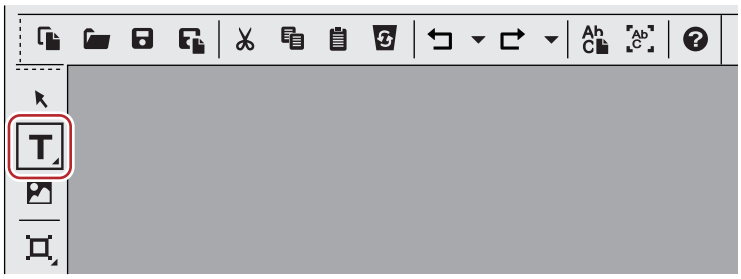
- If you double-click a title clip on the timeline to start up Quick Titler and then save in another name, only the title clip opened with the double-click will be updated, while a new title clip will be registered in the bin.

Creating Text Object

Entering Text

This section explains how to enter text.

1) Click [Horizontal Text] on the object tool bar.



- If you click and hold down [Horizontal Text], you can select [Vertical Text].

2) Click on the object creating screen.

- The text cursor appears on the object creating screen.

3) Enter text using the keyboard.

- You can also display a text input bar to edit text.
  "Showing/Hiding Bars" (▶ page 388)

Alternative

- Click [Insert] on the Quick Titler menu bar, and click [Text] → [Horizontal] or [Vertical].
- Right-click with nothing selected, and click [Insert] → [Text] → [Horizontal] or [Vertical].
- Right-click a text box and click [Edit text].

- You can input text by importing text files.
  "Importing External Files" (▶ page 394)

Formatting Settings

You can change the text format such as the font or text size.
Settings such as font or text decoration can be changed under [Font] on the text properties bar. Text format settings can be applied at the character or level or at the line level.

1) Select the text string or text box to be formatted.

- Kerning, Font, Default size, Bold, Italic and Underline can be applied at the character level. To apply to specific characters, drag along the desired character string to select it. When no specific character string is selected, format settings can be applied to an entire selected text box. You can change leading at the line level. To apply leading to a specific line, place the cursor in the desired line. To set leading for an entire text, select the text box.

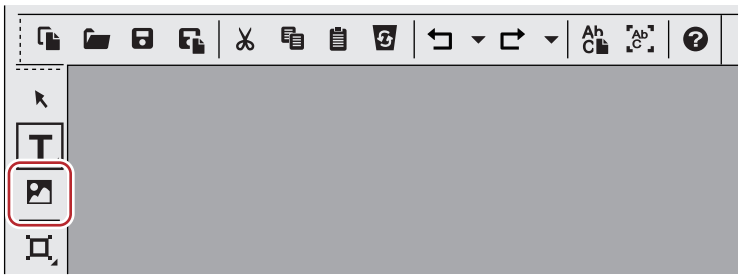
2) Set the text format using text properties.

[X], [Y]	Specify the position of a text box.
[Width]/[Height]	Specify the size of a text box. The character size will also be increased/decreased to fit in a text box. Check [Fix aspect ratio] to fix the aspect ratio.
[Kerning]	Enter a value. Set a value in the range of −300% to 300%.
[Leading]	Enter a value. Considering that a leading value of "0" is 100%, set a value in the range of −300% to 300%.
[Font]	Select the font.
[Size]	Select the character size.
[Horizontal], [Vertical]	Select between horizontal or vertical.
[Bold]/[Italic]/[Underline]	Click a button to apply a Bold, Italic or Underline effect to text strings.
[Left Tab]/[Center]/[Right Tab]	Specify the alignment of a text string. For vertical text, [Top], [Center] or [Bottom] can be selected.

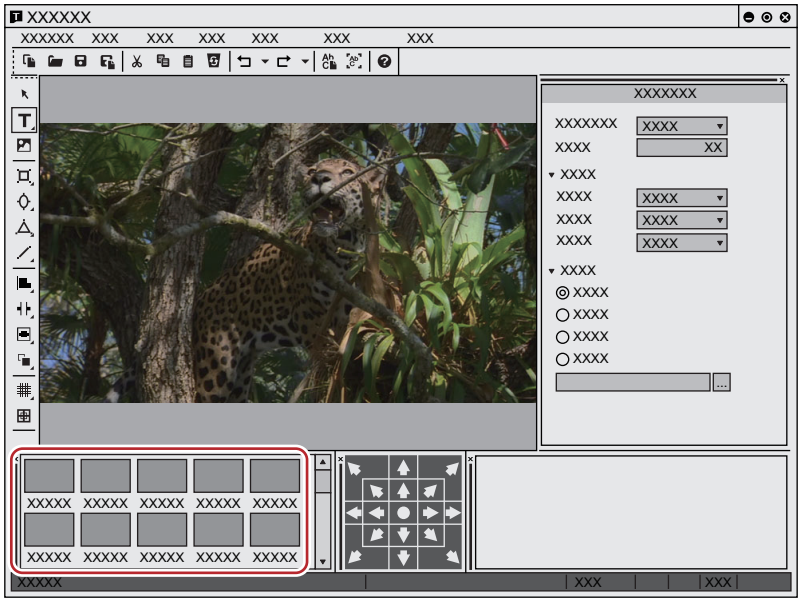
Creating Images

You can select and place your desired image from those provided on the title object style bar.

1) Click [Image] on the object tool bar.



- Style chips are displayed on the title object style bar.



2) Click the style chip you want to create.

3) Click or drag the object creating screen.

- An image will be placed in the selected style.
- Drag the image to the desired size.

Alternative

- Click [Insert] on the Quick Titler menu bar, and click [Image].
- Right-click with nothing selected, and click [Insert] → [Image].

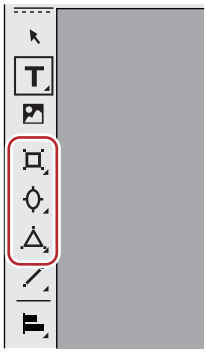
- To place any still image, after step **3)**, click [...] of the [File] tree on the image properties bar and select a file.

Creating Graphics

You can create your desired graphics.

1) Click [Rectangle], [Ellipse] or [IsoscelesTriangle] on the object tool bar.

- Clicking and holding a button of a shape will let you select a rounded rectangle, circle or right-angled triangle.



2) Click or drag the object creating screen.

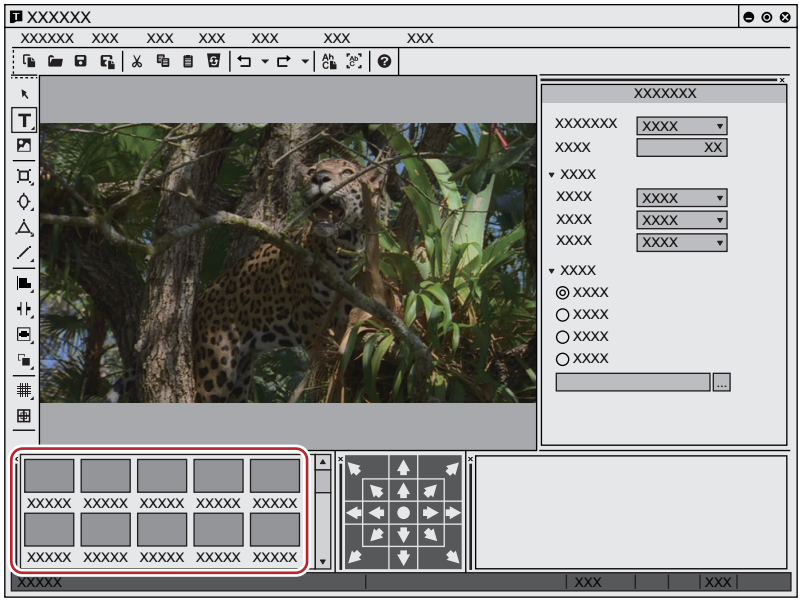
- The shape will be placed.
- Drag the shape to the size you want the shape to be.

Alternative

- Click [Insert] on the Quick Titler menu bar, and click the type of shape to be created.
- Right-click with nothing selected, and click [Insert] → shape type.

3) Set the style.

- Use the object properties bar to set the style such as color or border.
  "Applying Effects to Text Object" (▶ page 400)
- In the title object style bar, double-click the style chip you want to apply.

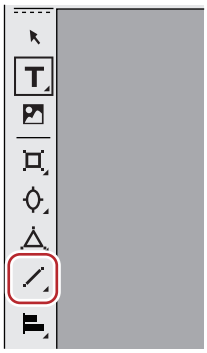


Creating Lines

You can create straight or polygonal lines.

1) Click [Line] on the object tool bar.

- If you click and hold down [Line], you can select [Continuous line].



2) Click or drag the object creating screen.

- The line will be placed.
- Drag on the screen to the length you want the line to be.
- If [Continuous line] was selected, click the start point → click the corner points → double-click the final point on the line.

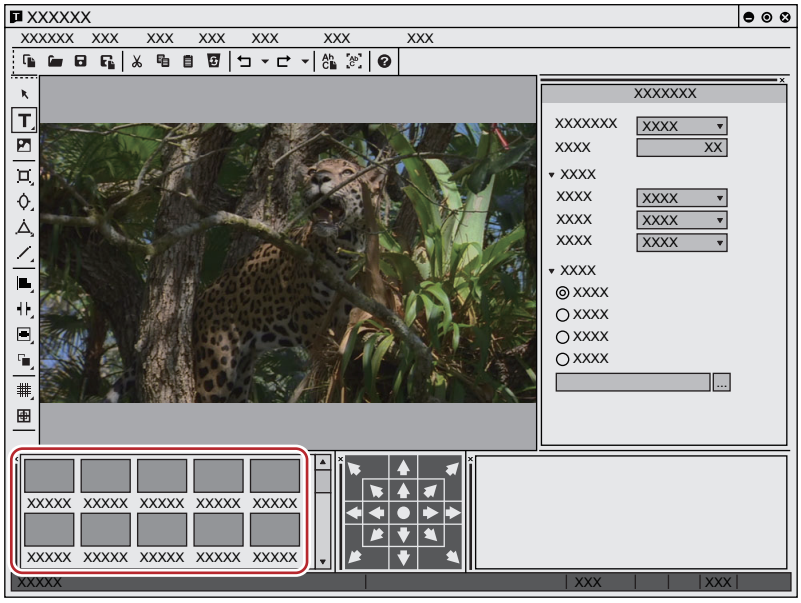
Alternative

- Click [Insert] on the Quick Titler menu bar, and click [Line] → [Line] or [Continuous line].

3) Set the style.

- Click the [Style] tree on the object properties bar, and then select a line type and shape of start/end point from the list.

- You can also select other settings like color or border.
  "Applying Effects to Text Object" (▶ page 400)
- In the title object style bar, double-click the style chip you want to apply.



Importing External Files

You can import text files or image files by dropping them on the object creating screen.

- The following file formats can be imported.
  - Text file: TXT
  - Image file: BMP, GIF, JPEG, PNG, TIFF, TARGA, PSD, EMF

1) Drag and drop the file you want to import from your desktop or a folder onto the object creating screen.

- For image files, clicking [Original size] under [Transform] on the image properties bar resizes the image to its original size.

Alternative

- For images, create an image, and then select the image files by clicking [...] of the [File] tree on the properties bar.
- For text, put the cursor in a text box, click [Insert] on the Quick Titler menu bar, and then click [Text] → [File]. Select a text file in the [Open] dialog box.

Text Object Operations

Copying

You can copy a text object.

1) Select a text object, and click [Copy] on the file tool bar.

- You can then paste it.

Alternative

- Right-click a text object and click [Copy].
- Click [Edit] on the Quick Titler menu bar, and click [Copy].
- Copying: **[Ctrl] + [C]**

Cutting

You can cut a text object.

1) Select a text object, and click [Cut] on the file tool bar.

- You can then paste it.

Alternative

- Right-click a text object and click [Cut].
- Click [Edit] on the Quick Titler menu bar, and click [Cut].
- Cutting: **[Ctrl] + [X]**

Pasting

You can paste a copied or cut text object.

1) Copy or cut a text object.

- **"Copying" (▶ page 394)**
- **"Cutting" (▶ page 395)**

2) Click [Paste] on the file tool bar.

- A copied or cut text object will be pasted in the same position as the original text object.

Alternative

- Right-click a text or object and click [Paste].
- Click [Edit] on the Quick Titler menu bar, and click [Paste].
- Pasting: **[Ctrl] + [V]**

- A copied or cut text object can be pasted onto another title clip.
- When you have dragged along a text to select it then copy or cut it, the text can then be pasted at the cursor position when in text editing mode. The text can only be pasted when in text editing mode.
- When a text box is selected then copied or cut, it cannot be pasted when in text editing mode.

Deleting

You can delete a text object.

1) Select a text object, and click [Delete] on the file tool bar.

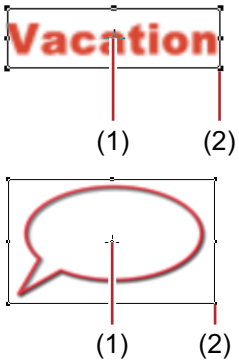
Alternative

- Right-click a text object and click [Delete].
- Click [Edit] on the Quick Titler menu bar, and click [Delete].
- Deleting: **[Delete]**

Resizing a Text Object

You can resize a text object.

You can adjust a text object size by dragging the edge of the object frame.



(1)	Center point handle
(2)	Operation handle

1) Place the mouse cursor over an operation handle.

2) When the mouse cursor changes shape, start to drag.

Changing by Entering Values

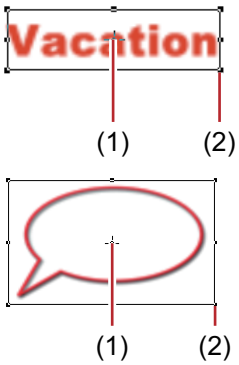
You can specify size from the [Transform] tree on the properties bar.

1) Select a text object and enter values for [Width] and [Height].

- Check [Fix aspect ratio] to fix the aspect ratio.
- For images, click [Original size] to return an image to its original size.

Rotating a Text Object

You can rotate a text object.
To rotate a text object, drag a corner of the object frame.



(1)	Center point handle
(2)	Operation handle

1) While holding down the [Ctrl] key, place the mouse cursor over an operation handle.

- If you move the mouse cursor over a center point handle, the mouse cursor shape changes, and you can drag to move the axis of rotation. To return the rotation axis to the center point, click the background to deselect the selected text object.

2) When the mouse cursor changes shape, start to drag.

- Rotating while holding down the [Shift] key rotates the text object in 15-degree increments. Rotating while holding down the [Alt] key rotates the text object around the center of opposite corners.

Undoing Operations/Redoing Undone Operations

You can undo a performed operation or redo an undone operation. Up to 10 undos and 10 redos are recorded. You can select to undo/redo an operation from the list of recorded operations.

1) Click [Undo] or [Redo] on the file tool bar.

Alternative

- Undoing operation: **[Ctrl] + [Z]**
- Redoing undone operation: **[Ctrl] + [Y]**

- Clicking the [Undo] or [Redo] list button displays a list of 10 operations performed. You can select how many operations to undo or redo.

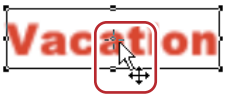
Adjusting Position of Text Object

- EDIUS can be used to configure the layout of a title clip.
  "Layout Settings" (▶ page 409)

Moving a Text Object

You can move a text object.

1) Click a text object and, after the mouse cursor changes shape, drag it.



Changing by Entering Values

You can specify the position from [Transform] on the properties bar.

1) Select a text object and enter values for [X] and [Y].

Aligning a Text Object

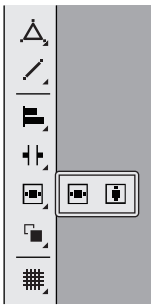
You can align text objects.

Alignment to the Vertical/Horizontal Center

1) Select the text objects to be aligned.

- Multiple text objects can be selected with the selection tool by clicking them while holding down the [Ctrl] key on the keyboard.

2) Click [Center (vertically)] or [Center (horizontally)] on the object tool bar.



Alternative

- Click [Layout] on the Quick Titler menu bar, and click [Center in screen] → [Vertical] or [Horizontal].
- Right-click a text object, and click [Layout] → [Center in screen] → [Vertical] or [Horizontal].

Alignment to a Reference Text Object

1) Select the text objects to be aligned.

- Multiple text objects can be selected with the selection tool by clicking them while holding down the [Ctrl] key on the keyboard.

2) Right-click the text object, click [Next Object] and then select a text object to be used as a reference for alignment.

- The text object with an operation handle displayed at its border is the selected text object (active object).
- You can switch the active object by clicking [Next Object].

3) Click [Left Tab] on the object tool bar.

- If you click and hold down [Left Tab], you can select between [Right Tab], [Top], [Bottom], [Center (vertically)] and [Center (horizontally)].

Alternative

- Click [Layout] on the Quick Titler menu bar, and click [Align] → an item.
- Right-click a text object, and click [Layout] → [Align] → an item.

- When multiple text objects are selected, you can apply Align Left, Align Right, Align Top, Align Bottom, Align Center (vertically), and Align Center (horizontally).

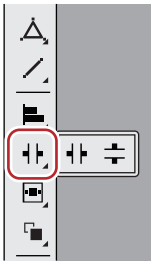
Uniform Horizontal/Vertical Alignment

1) Select the text objects to be aligned.

- Multiple text objects can be selected with the selection tool by clicking them while holding down the [Ctrl] key on the keyboard.

2) Click [Align at top and bottom] on the object tool bar.

- If you click and hold down [Align at top and bottom], you can select [Align at right and left].



Alternative

- Click [Layout] on the Quick Titler menu bar, and click [Same space] → an item.
- Right-click a text object, and click [Layout] → [Same space] → an item.

- Align vertically and align horizontally can be applied when 3 or more text objects are selected.

Layout Settings

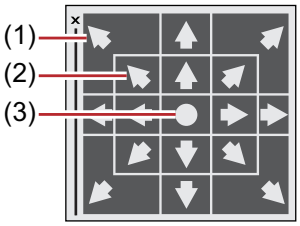
You can align text and objects to fit the center, title safe area or overscan area.

1) Show the layout bar.

- **"Showing/Hiding Bars" (▶ page 388)**

2) Select a text object and then click where to place it using the layout bar.

- Multiple text objects can be selected with the selection tool by clicking them while holding down the [Ctrl] key on the keyboard.



(1)	**Overscan**
(2)	**Title safe area**
(3)	**Center**

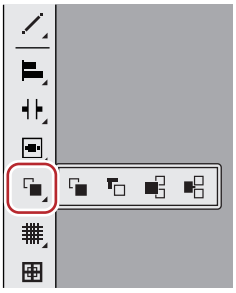
Switching the Order of Text Objects

You can switch the order of text and objects.

1) Select the text and objects you want to switch the order of.

2) Click [Front] on the object tool bar.

- If you click and hold down [Front], you can select [Back], [Move to Top] or [Move to Bottom].



Alternative

- Click [Layout] on the Quick Titler menu bar, and click [Order] → an item.

- Right-click a text object, and click [Layout] → [Order] → an item.

Showing/Hiding Grid and Safe Area

You can display a grid or safe area on the object creating screen to use as a guide when moving text objects.

1) Click [Line Grid] or [Title Safe Area] on the object tool bar.

- If you click and hold down [Line Grid], you can select [Dot Grid].

Alternative

- Click [View] on the Quick Titler menu bar, and click [Grid] → [Dot Grid] or [Line Grid].
- Click [View] on the Quick Titler menu bar, and click [Title Safe Area].

- If Quick Titler starts up from EDIUS, the 4:3 title safe area will also be displayed when [4:3] for the 16:9 screen guide line is set to be displayed through [Preview] in [User Settings] → [Overlay].
  "[Overlay]" (▶ page 125)

Displaying a Background

You can import EDIUS Recorder images or any still images to be the background of the object creating screen to use as a guide when positioning text objects.
Clicking the background will display the background properties.

1) Click the [Background] tree on the background properties bar, and then select an item to be displayed as background.

- If you have selected [Still Image], click [...] and select a still image in the [Select Background File] dialog box.
- Even if a background is set as the background in the background properties of QuickTitler, the background is not used in the title clip. The background set in the background properties is available as the background for the edit screen. To output an edited title with a background, export a still image.
  "Exporting a Still Image" (▶ page 389)

Applying Effects to Text Object

- EDIUS can be used to apply effects such as fade-in/fade-out.
  "Applying a Title Mixer" (▶ page 407)
- You can apply effects using the properties bar. A text, image or shape properties bar will be displayed depending on whether text, an image or shape is selected. The text properties bar is used here for demonstration purposes. Your screen may differ depending on what you have selected.

Color Settings

You can set the color of text and shapes. You can also apply a gradation effect.

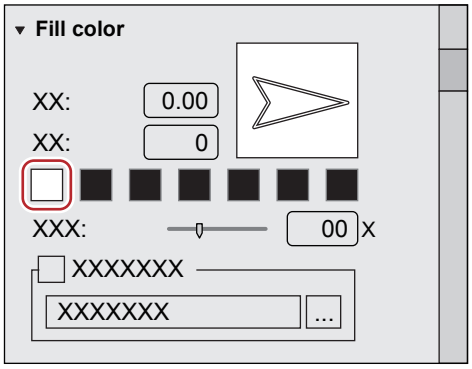
Note

- You cannot change the color for images.

1) Select the text or shape in which to change the color.

2) Click the [Fill color] tree on the properties bar.

3) Click the color palette.



- The [Color Select] dialog box appears.
  "[Color Select] Dialog Box" (▶ page 229)

4) Specify a color.

> **Note**
> - When [Texture File] is checked, the color change is not applied to the text or shape.

Gradation Settings

1) Select a text or shape in which to apply gradation.

2) Click the [Fill color] tree on the properties bar.

3) Enter the number of colors used for the gradation in [Color].

- Up to 7 colors can be used.

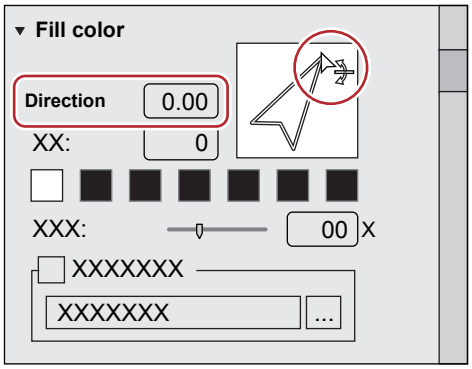
4) Click the color palette.

- The [Color Select] dialog box appears.
  "[Color Select] Dialog Box" (▶ page 229)

5) Specify a color.

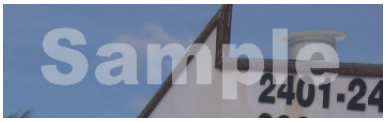
6) Repeat steps 4) and 5) for the number of specified colors.

7) Adjust the color gradation by entering a value in [Direction] or by dragging the arrow figure.



Transparency Settings

You can adjust the transparency of a text object in order to see the background behind it.



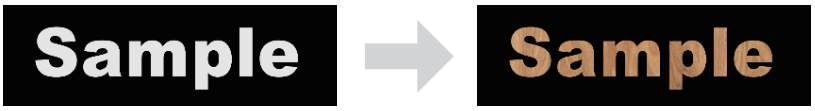
1) Select the text object of which to adjust transparency.

2) Click the [Fill color] tree on the properties bar.

3) Move the [Transparency] slider to adjust transparency.

Pasting Texture

You can paste a texture file onto a text object.



1) Select a text object in which to paste texture.

2) Click the [Fill color] tree on the properties bar.

- To paste the texture on the edge (border), click the [Edge] tree (for objects, click the [Border / Line Shape] tree).

3) Check [Texture File], and click [...].

4) Select the image file to be pasted, and click [Open].

- File formats that can be used for texture mapping are as follows:
  - Windows Bitmap (*.bmp, *.dib, *.rle)
  - GIF format (*.gif)
  - JPEG format (*.jpeg, *.jpg)
  - PNG format (*.png)
  - TIFF format (*.tiff, *.tif)
  - Windows Extended Metafile (*.emf, *.wmf)
  - Photoshop format (*.psd)
  - Targa format (*.tga, *.targa, *.vda, *.icb, *.vst)

Edge (Border) Settings

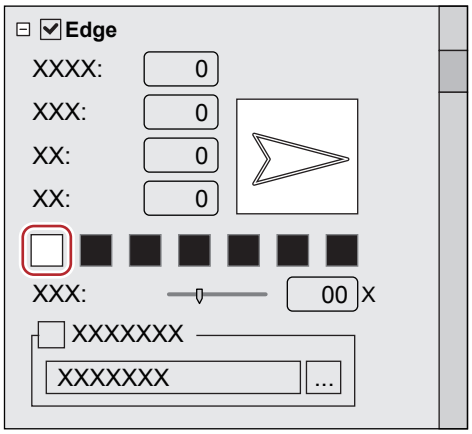
You can set the color of or paste a texture to text and object borders.

1) Select a text object on which to apply an edge (border).

2) Click the [Edge] tree on the properties bar, and check it.

- [Borders] is displayed on the image properties bar, [Border / Line Shape] is displayed on the object properties bar.

3) Click the color palette.



- The [Color Select] dialog box appears.
  "[Color Select] Dialog Box" (▶ page 229)

4) Specify a color.

5) Enter a value in [Hard width] to specify a width for the edge (border).

6) Enter a value in [Soft width] to specify the blur for the edge (border).

- You can also set gradation, paste a texture or adjust transparency.
  "Gradation Settings" (▶ page 401)
  "Pasting Texture" (▶ page 402)
  "Transparency Settings" (▶ page 402)

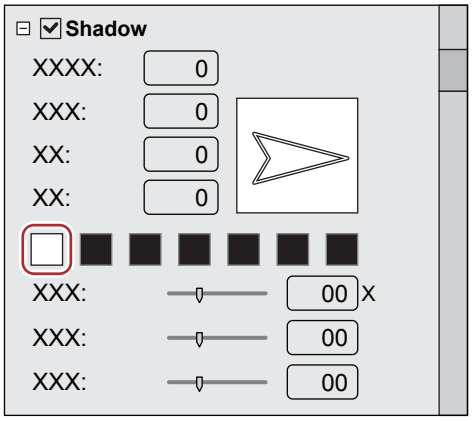
Shadow Settings

You can apply shadow to text objects.

1) Select a text object on which to apply shadow.

2) Click the [Shadow] tree on the properties bar, and check it.

3) Click the color palette.



- The [Color Select] dialog box appears.
  "[Color Select] Dialog Box" (▶ page 229)

4) Specify a color.

5) Enter a value in [Hard width] to specify a width for the shadow.

6) Enter a value in [Soft width] to specify the blur for the shadow.

7) Move the [Horizontal] and [Vertical] sliders to adjust the position of the shadow.

8) Move the [Transparency] slider to adjust the shadow transparency.

- A gradation effect can be applied to a shadow.
  "Gradation Settings" (▶ page 401)

Emboss Settings

An emboss effect can be applied to text objects.

Note

- You cannot apply an emboss effect to images.

1) Select a text or shape where emboss is applied.

2) Click the [Emboss] tree on the properties bar, and check it.

3) Click [Inside] or [Outside].

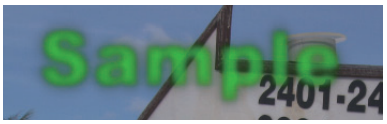
- For shapes, [Inside] and [Outside] are displayed.

4) Enter values for [Angle] and [Edge Height] to specify the degree of emboss.

5) Set the light source position.

Blur Settings

You can apply a blur effect to text object borders.



1) Select a text object on which to apply blur.

2) Click the [Blur] tree on the properties bar, and check it.

3) Move the sliders to adjust the blur.

- Move the slider or enter a value for following properties; [Text / Edge] to apply the blur to a text string and the edge, [Edge] to apply to the edge only, and [Shadow] to apply to the shadow only.
- [Image / Border], [Border] and [Shadow] are displayed on the image properties bar.
- [Shape / Border], [Border] and [Shadow] are displayed in the object properties bar.

Roll/Crawl Settings

You can set an action that moves a text object horizontally/vertically.
Clicking the background will display the background properties.

1) When the background properties bar is displayed, select an action from the [Title type] list.

[Title type]	Select an action for the text. Roll moves vertically and crawl moves horizontally.
[Number of pages]	Displays the number of pages that the text object moves across, where 1 page represents the range of the display area. A vertical scroll bar appears for 2 or more pages. A white dotted line is shown at page breaks, though it is not shown in the actual video.

- Roll/crawl settings such as the start point or end point are performed from the timeline in EDIUS.
  "Detailed Title Settings" (▶ page 407)
- The roll/crawl speed depends on the number of pages and the length of the title clip. Shorten the length of the title clip for a quick roll/crawl. Extend the length of the title clip for a slow roll/crawl. Set the title clip length on the timeline in EDIUS.

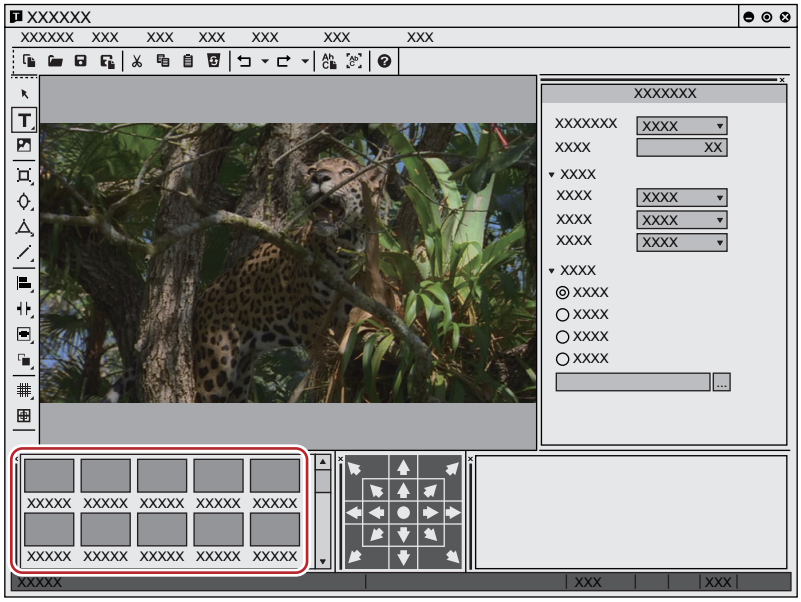
Registering Edited Effect

Applying a Style

Effects can be applied to the title simply by applying registered style chips.

1) Select the text object on which to apply a style.

2) Double-click the style chip on the title object style bar you want to apply.



Alternative

- Select the style chip to be applied, click [Style] on the Quick Titler menu bar, and then click [Apply Style].
- Select the style chip to be applied, right-click the text object and then click [Style] → [Apply Style].

Registering a Style

You can register the effect applied to a text object as a style chip.

1) Select the text object on which effects have been applied.

2) Click [New Style] on the file tool bar.

Alternative

- Click [Style] on the Quick Titler menu bar, and click [Save As New Style].
- Right-click a text object on which effects have been applied, and click [Style] → [Save As New Style].
- Right-click the title object style bar and click [Save As New Style].

3) Enter a file name and click [OK].

- If the style name exists, the style cannot be registered. Register with a different name.

Changing the Style Name

You can change the name of a created style chip.

1) Select the style chip to have its name changed.

2) Click [Style] on the Quick Titler menu bar, and click [Change Style Name].

Alternative

- Right-click the registered style chip, and click [Change Style Name].

3) Enter a new name.

- You can only change the names of registered style chips.

Deleting a Style

You can delete a created style chip.

1) Select a style chip to be deleted.

2) Click [Style] on the Quick Titler menu bar, and click [Delete Style].

Alternative

- Right-click the registered style chip, and click [Delete Style].

- You can only delete registered style chips.

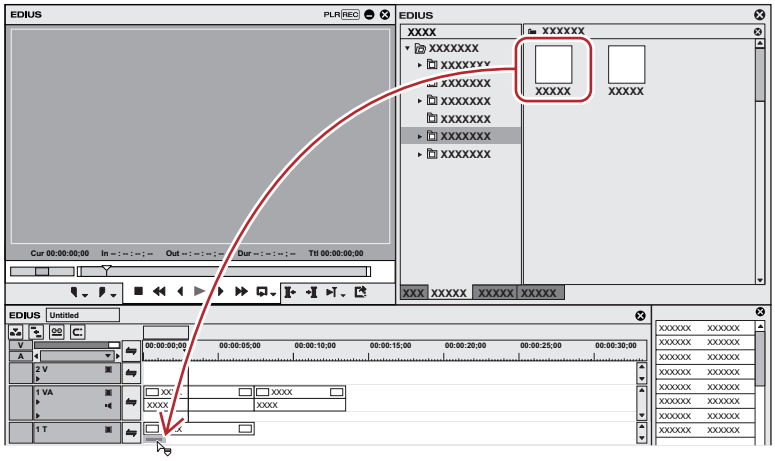
Setting Effects

Applying a Title Mixer

You can apply various effects for showing or hiding the title.
Effects available to be applied to a title clip are saved in the title mixer of the [Effect] palette.

1) Select a particular effect from title mixers in the [Effect] palette.

2) Drag the effect to the mixer area below a title clip that is placed on the timeline.



- Move the timeline cursor over the title clip to confirm the effects applied.

Alternative

- Select the mixer area of a title clip. Right-click the desired title mixer on the [Effect] palette, click [Add to Timeline], and then click the position in which to add it from [In], [Out], and [Both].
- Select the mixer area of a title clip, and then drag and drop the desired title mixer from the [Effect] palette onto the effect list of the [Information] palette.

- When placing a title clip, the default title mixer is set automatically. You can change the automatic setting of the title mixer from [Source] in [User Settings] → [Duration].
  "Changing Default Effects" (▶ page 364)
  "[Duration]" (▶ page 126)

Detailed Title Settings

You can set whether to resize a title clip to fit the project frame size. Also, if a roll/crawl movement is applied for a title clip, you can set whether to start from outside the screen or inside the screen.

1) Right-click the title clip, and click [Title detail setting].

- The [Title detail setting] dialog box appears.

[Title detail setting] Dialog Box

[Resize title]	Select whether to resize a title clip to fit the screen. **[Auto]** Displays the title clip at the same size as the frame size according to project settings. The title clip will resize to fit the project setting even if, after a title clip has been placed on the timeline, the frame size is then changed in the project setting. **[Don't resize(Title size)]** Displays the title clip at the same size as the frame size when the title was created. The title clip will not resize to fit the project setting if the frame size in the project setting is changed after a title clip has been placed on the timeline.

[Roll/Crawl setting]	**[Start]** Select from the list where to start movement of a text object. [Outside] starts movement of a text object from off the screen. [Inside] starts movement of a text object from within a screen as the text object resides inside the 1st page of the screen. With [Position] you enter the position where a roll/crawl starts in the entry field on the right. **[End]** Select from the list where to end movement of a text object. [Outside] continues roll/crawl until all text objects have left the screen. [Inside] ends roll/crawl at the last page of the text object at the time point displayed in the screen. With [Position] you enter the position where the last page of the text objects completes its roll/crawl in the entry field on the right. **[In]** Enter the number of frames a text object is held for until it starts to move. **[Out]** Enter the number of frames a text object is held for after roll/crawl.

- Roll/crawl settings can only be changed if roll/crawl is applied to the text in a title clip. Roll/crawl settings cannot be changed if the title type is [Still Image]. For details on title types, see “Roll/Crawl Settings”.
  “Roll/Crawl Settings” (▶ page 405)

Title Position Adjustment

Layout Settings

You can adjust the title position as displayed on the screen from the title clip placed on the timeline.

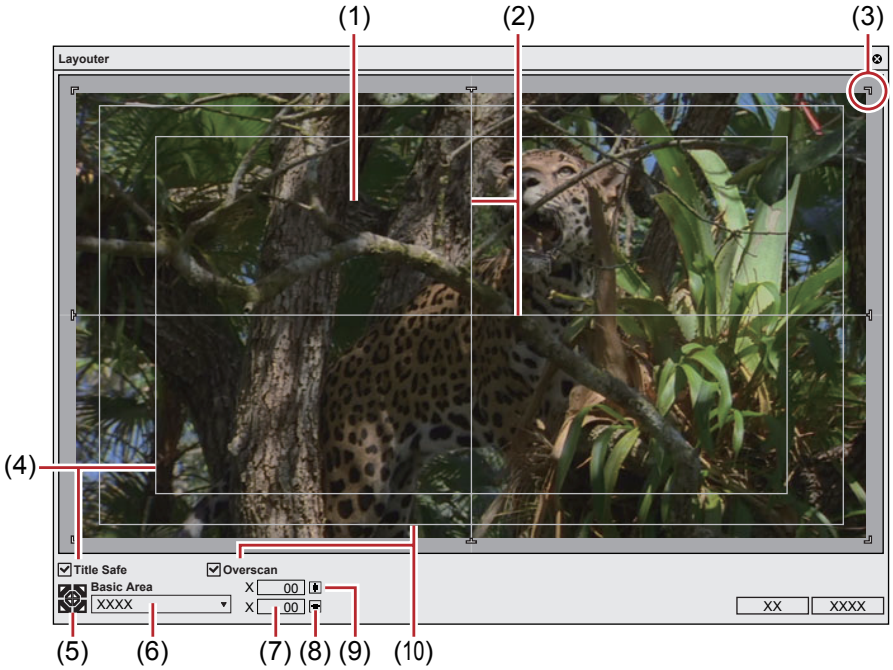
1) Right-click the title clip, and click [Layouter].

- The [Layouter] dialog box appears.
  "[Layouter] Dialog Box" (▶ page 409)

2) Set the title layout, and click [OK].

- The layout is saved.

[Layouter] Dialog Box



(1)	**Layout preview**	Displays the setting a preview
(2)	**Horizontal guide, Vertical guide**	Indicates the horizontal, vertical or center.
(3)	**Title frame**	Indicates the edge of the created title.
(4)	**[Title Safe]**	Check this item to display the title safe area.
(5)	**Position fit**	Fit the title frame to the center or to the corner of the area selected with [Basic Area].
(6)	**[Basic Area]**	Select the area to be fitted to with the fit position buttons from the list.
(7)	**Position entry fields**	Enter X, Y values to specify the position.
(8)	**Horizontal fit**	Fit the title to the horizontal center.
(9)	**Vertical fit**	Fit the title to the vertical center.
(10)	**[Overscan]**	Check this item to display the overscan area.

Chapter 11

Audio

This chapter explains how to adjust the volume on a clip/track and how to add narration, etc.

Volume/Pan Adjustment

You can add background music and sound effect, adjust parts of the audio volume, and perform other audio editing.
In addition to the audio clips placed on the A tracks, the volume of the audio part of clips placed on the VA tracks can be adjusted.

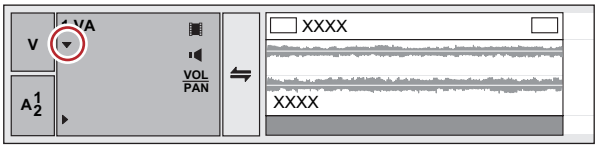
Adjusting the Volume and Pan of a Clip

Adding a Rubber Band Point

Two rubber bands are displayed on audio clips placed on the timeline; a volume rubber band (orange line) used to adjust volume and a pan rubber band (blue line) used to change the L/R stereo balance. Rubber band points can be added to adjust the shape of the rubber band.

1) Click the expand button for the audio on the track panel.

- The track expands and the rubber band and the waveform are displayed. For stereo audio, a waveform is displayed in each channel.



Alternative

- Expanded display of audio: **[Alt] + [S]**

2) Click [Volume/Pan].

- Clicking it switches between Volume, Pan and Lock.
  "Volume/Pan Rubber Band" (▶ page 411)

3) Click on a rubber band in the position where you want to apply a change.

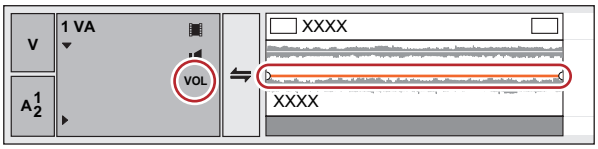
- A point is added that is used to adjust the volume or pan.

Alternative

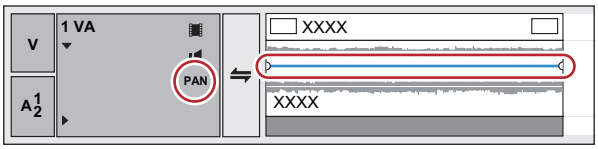
- Right-click a rubber band in the position you want to add a point, then click [Add/Delete].

Volume/Pan Rubber Band

■ Volume rubber band (orange line)



■ Pan rubber band (blue line)



Adjusting the Rubber Band

You can adjust the volume and pan of a clip. You can also adjust the volume and the pan along to the time axis by adjusting the shape of the relevant rubber band.

Adjusting Using a Point

1) Display the volume rubber band or the pan rubber band, and add a rubber band point.

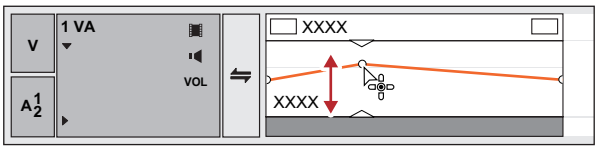
- **"Adding a Rubber Band Point" (▶ page 411)**

2) Drag the point vertically or horizontally.

- Fine adjustments can be made by dragging the point with [Ctrl] on the keyboard held down.
- You can adjust the whole rubber band by dragging the point with [Alt] on the keyboard held down.

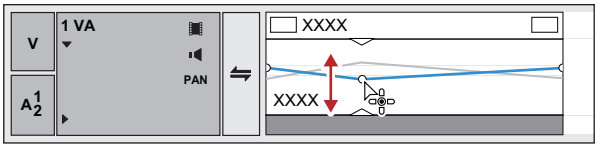
■ For volume points

Drag a point upwards to increase the volume, and downwards to decrease the volume.



■ For pan points

Drag a point upwards or downloads to adjust the L/R balance of the stereo. Drag the point upward to spread the sound to the left side, and downward to spread the sound to the right side.



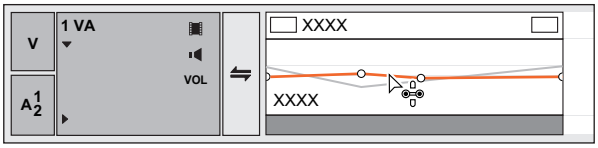
Adjusting between 2 Points

1) Display the volume rubber band or the pan rubber band, and add a rubber band point.

- **"Adding a Rubber Band Point" (▶ page 411)**

2) Drag the rubber band between 2 points up or down with [Shift] on the keyboard held down.

- The pointer shape will change to shift the rubber band up or down between the 2 points.
- Fine adjustments can be made by dragging with [Shift] + [Ctrl] on the keyboard held down.



Also, by dragging with [Alt] on the keyboard held down, you can automatically add a new point between the 2 other points and move it in parallel. You can set how many frames within 2 points at either end an automatically added point is placed using [Source] in [User Settings] → [Duration].

"[Duration]" (▶ page 126)

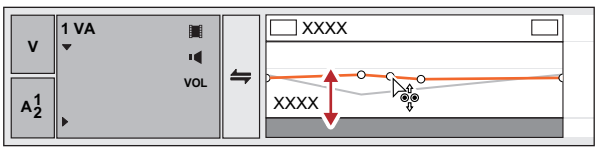
Adjusting a Whole Rubber Band

1) Display the volume rubber band or the pan rubber band.

- **"Adding a Rubber Band Point" (▶ page 411)**

2) Drag a rubber band or rubber band point up or down with [Shift] + [Alt] on the keyboard held down.

- The pointer shape will change and the whole rubber band can be adjusted.
- All other other points will move proportionately according to the amount the selected rubber band or point is varied.
- Fine adjustments can be made by dragging with [Ctrl] on the keyboard held down.



Adjusting by Entering Values

You can adjust a rubber band by entering values.

1) Display the volume rubber band or the pan rubber band.

- **"Adding a Rubber Band Point" (▶ page 411)**

2) Right-click a rubber band point, and click a method by which to adjust.

[Move]	Adjust the volume or timecode of a selected point.
[Move two aligning points]	Move the rubber band that is between a selected point and the next point to the right of the selected point horizontally and in proportion according to the amount the selected point is varied. **"Adjusting the Rubber Band" (▶ page 411)**
[Add points and move]	Add 2 new points between the selected point and the next point to the right, and move the rubber band between the 2 added points horizontally and in proportion according to the amount the 2 added points are varied. **"Adjusting the Rubber Band" (▶ page 411)**
[Move All]	Move other points in proportion according to the amount the selected point is varied.
[Move All On Scale]	Adjust the volume of all points proportionally. **[Shift] + [Alt] + [Y]**

- The value input dialog box appears.

3) Enter values.

- **"Entry of Values" (▶ page 44)**

4) Click [OK].

Setting the Pan Rubber Band to the Center

The sound level can be adjusted to make L/R equal.

1) Display the pan rubber band.

- **"Adding a Rubber Band Point" (▶ page 411)**

2) Right-click the pan rubber band, and click [Center].

- All rubber band points are deleted and the rubber band is centered.
- Clicking [L] or [R] will delete all rubber band points and adjust the rubber band to L or R.

Initializing/Deleting Rubber Band Points

You can delete or initialize a specific rubber band.

Deleting All Rubber Band Points in a Clip

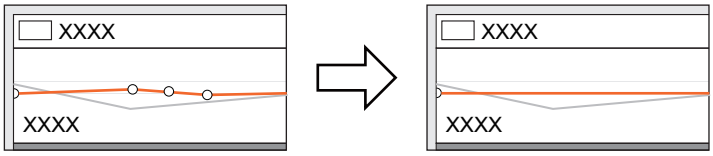
1) Display the volume rubber band or the pan rubber band.

2) Right-click the rubber band, and click [Delete All].

- All points are deleted and the entire rubber band is initialized.

Example:

For [Volume]



Alternative

- Right-click a clip, and click [Delete Parts] → [Audio Rubber Band] → [Volume] or [Pan].
- Select a clip, click [Edit] on the menu bar, and click [Delete Parts] → [Audio Rubber Band] → [Volume] or [Pan].
- Deleting a volume rubber band: **[Shift] + [Alt] + [H]**
- Deleting a pan rubber band: **[Ctrl] + [Alt] + [H]**

- The following procedures initialize only the position of a rubber band, leaving rubber band points in place on the rubber band.
  - Right-click a rubber band, and click [Initialize All].
  - Initializing rubber band: **[Shift] + [Ctrl] + [U]** (Perform procedure after selecting the desired rubber band.)

Deleting a Selected Rubber Band Point

1) Display the volume rubber band or the pan rubber band.

- **"Adding a Rubber Band Point" (▶ page 411)**

2) Right-click a rubber band point, and click [Add/Delete].

Alternative

- Select a rubber band point and press [Delete] on the keyboard.

Audio Mixer

Adjusting with the Audio Mixer

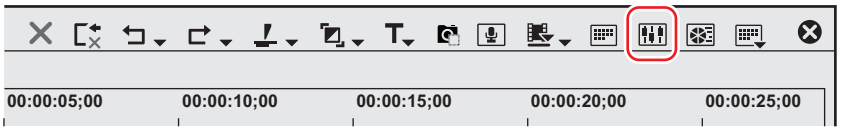
By using the audio mixer, you can adjust the volume and pan of the track or clip on the timeline, or the clip being played on the preview window while playing it back. The level meter display can be switched between peak meter and VU meter.

When the fader is operated with learning, after a point is added to the rubber band the point can be edited.

"Adjusting the Rubber Band" (▶ page 411)

Volume Adjustment

1) Click [Toggle Audio Mixer Display] of the timeline.



- The [Audio Mixer] dialog box appears. The meter displayed (peak meter or VU meter) is the meter used in the [Audio Mixer] dialog box the last time it was closed.
  "[Audio Mixer] Dialog Box" (▶ page 415)

Alternative

- Click [View] on the menu bar, and click [Audio Mixer].

2) Click [Settings], and click [Peak meter] or [VU meter].

- Display the peak meter to adjust momentary sounds and other sounds difficult for humans to hear, and display the VU meter to adjust sounds as they are heard by humans.

3) Click the operation setting for the track for which the volume is to be adjusted, and select an item.

- To adjust the volume of an entire track click the master operation setting and click [Master].
- To adjust the volume on individual tracks click the operation setting for each track and select what is to be adjusted ([TrackNo] or [Clip]).
- To adjust using the learning function, select the learning mode from [Latch], [Touch] and [Write].

4) Move the timeline cursor to the position to start playing, and click [Play] in the [Audio Mixer] dialog box.

5) Drag the fader to adjust volume.

- When operating in learning mode points are added to the rubber band of a clip. To redo an adjustment, either overwrite in [Write] mode or delete an entire rubber band.
  "Deleting All Rubber Band Points in a Clip" (▶ page 413)

Alternative

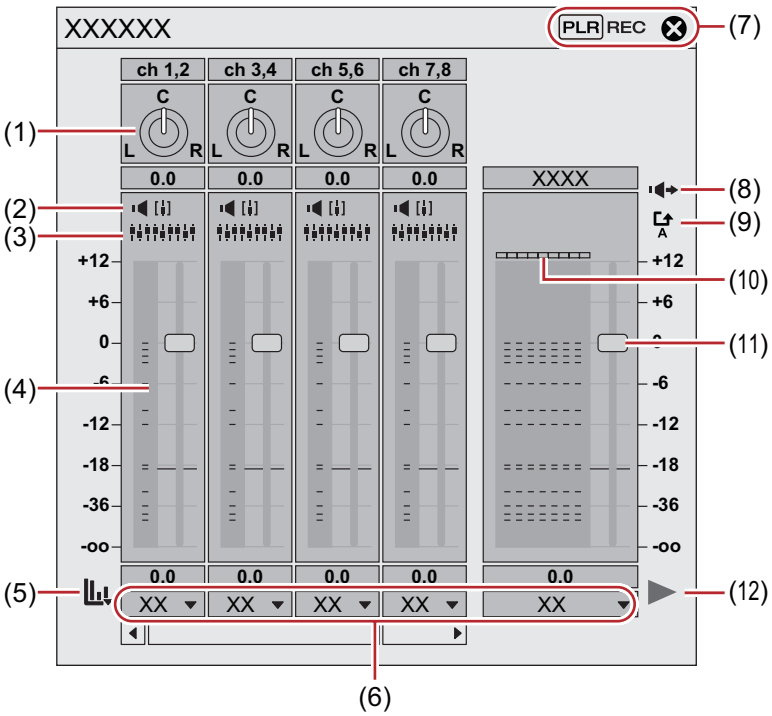
- Volume adjustment (1 dB increments): **[↑]/[↓]**
- Volume adjustment (0.1 dB increments): **[Shift] + [↑] /[Shift] + [↓]**

- An optional fader controller can be used to operate the fader. See the manual included with the product for instructions on use.

■ [Audio Mixer] Dialog Box

Example:

[Audio Mixer] dialog box of the Player



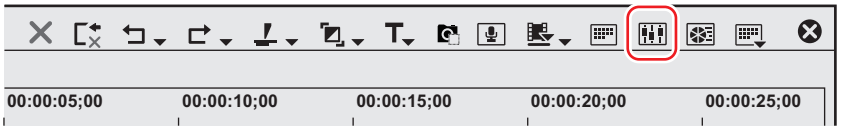
(1)	**Pan control**	Control the pan.
(2)	**[Mute]/[Solo]**	Toggle mute on a track. **"Playing/Muting a Specific Track Only" (▶ page 418)**
(3)	**[Gang]**	Connect to a fader. **"Adjusting while Maintaining Volume Difference" (▶ page 417)**
(4)	**Level meter**	Displays a level meter.
(5)	**[Settings]**	**[Peak meter]** Check momentary changes in the audio signal visually. The gradation is displayed as a full scale. **[VU meter]** Displays the average volume of an audio signal. The audio signal can be checked in a display that shows what is close to what is heard by the human ear. The gradation is displayed as an audio reference scale. **[Keep operation setting]** Even if playback is stopped during learning, learning mode (operation setting) is maintained and the operation setting does not return to off. Closing the [Audio Mixer] dialog box returns the [Keep operation setting] setting to off.

(6)	**Operation setting**	Switch the volume adjustment learning mode (operation setting) or the subject of volume/pan adjustment from the list. Setting to any of [Latch], [Touch] or [Write] sets the learning mode so points are added to the rubber band. Pan cannot be adjusted in learning mode. The master operation setting can be only [Master] or [Off]. **[Master]** Adjust the volume of a whole track. **[Track]** Update individual tracks with pan control and fader operations. Learning is not implemented. **[Clip]** The clip where the timeline cursor is positioned is updated with pan control and fader operations. The rubber band is updated with operations. If a rubber band point is set, pan updates as “Move All” and volume updates as “Move All On Scale”. However, if the value is -∞ at the beginning of the operation, the setting will be updated as “Move All”. Learning is not implemented. **[Off]** Lock the pan control and fader. **[Latch]** Implement learning from the time point where the fader starts to be dragged up to where playback is ended. **[Touch]** Implement learning from the position where you start dragging the fader until it is released. Release the mouse to return the fader to the original volume automatically. **[Write]** Implement learning through the entire playback. Differing from [Latch] or [Touch], all the previously used volume values are overwritten regardless of dragging/releasing the fader.
(7)	**[Change to Player]/ [Change to Recorder]**	Specify the window where the source whose audio is to be adjusted is placed.
(8)	**[Audio Monitoring Mode]**	Set audio output for monitoring on the Player or Recorder. **“Audio Monitoring” (▶ page 426)**
(9)	**[Reset audio level]***	Reset the adjusted audio level.
(10)	**Level over indicator**	Illuminate when the level is over. Click to turn the light off.
(11)	**Fader**	Drag up and down to adjust the volume.
(12)	**[Play]**	Play the timeline from the timeline cursor position.

* Displayed only in the [Audio Mixer] dialog box on the Player.

Pan Adjustment

1) Click [Toggle Audio Mixer Display] of the timeline.



- The [Audio Mixer] dialog box appears.
  “[Audio Mixer] Dialog Box” (▶ page 415)

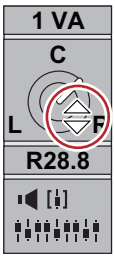
Alternative

- Click [View] on the menu bar, and click [Audio Mixer].

2) Click the operation setting for the track for which the pan is to be adjusted, and select [Track] or [Clip].

- Click [Track] to adjust pan on each track and click [Clip] to adjust pan for each clip at the timeline cursor position.

3) Move the mouse cursor over the pan control and drag when the mouse cursor changes shape.



- Dragging up or to the right adjusts to the right side, and dragging down or to the left adjusts to the left side.

Alternative

- Pan adjustment (1 dB increments): **[←]/[→]**
- Pan adjustment (0.1 dB increments): **[Shift] + [←] /[Shift] + [→]**

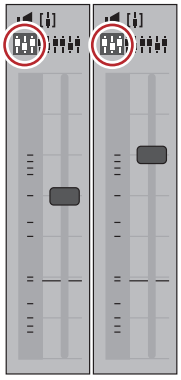
- When you right-click the [Audio Mixer] dialog box of an individual track and click [Reset], the volume and pan settings, connection settings, mute/solo settings and operation mode of the track are reset. To reset the settings of all tracks, right-click the [Audio Mixer] dialog box and click [Reset All].
- Performing [Reset] or [Reset All] does not reset the volume or pan settings for clips.
- The [Audio Mixer] dialog box size can be adjusted. Move the cursor to the left or right edge of the [Audio Mixer] dialog box and when the cursor shape changes, drag to adjust the size. After adjusting the size, the [Audio Mixer] dialog box will display at the same size upon reopening.

Adjusting while Maintaining Volume Difference

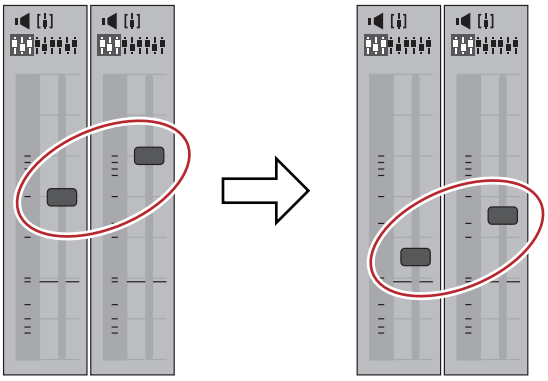
The controllers for fader and pan adjustment can be linked across multiple tracks.
Three link patterns can be set: [Gang1] (yellow), [Gang2] (red) and [Gang3] (blue).

1) Click [Gang] on each track to be adjusted simultaneously in the [Audio Mixer] dialog box.

- The fader color changes according to the color of each [Gang].



2) Adjust single fader (controller) from among the linked faders (controllers).



- Tracks with faders in the same color are adjusted while maintaining the differences between each volume.

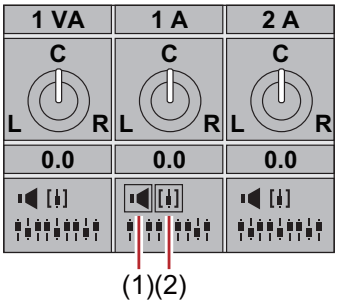
- Before operating the fader (controller), from among the linked tracks, set [Operation] for the tracks you want to link to other than [Off].

Playing/Muting a Specific Track Only

Audio playback can be restricted to a specific track. Specific tracks can also be muted.

1) In the [Audio Mixer] dialog box, click [Mute] or [Solo] for the track (or tracks) to be played.

- Clicking [Mute] will mute selected tracks. Click [Solo] to play back audio of the selected track only.



(1)	Mute
(2)	Solo

Normalization

Normalizing Audio Level of Multiple Clips (Normalization)

You can set a reference audio level for multiple desired clips and adjust the audio levels together. When normalize is applied to multiple clips, the gain value is adjusted to adjust each clip to a proper audio level.

"Checking and Changing the Gain Value of Clips" (▶ page 418)

- Normalize cannot be applied to the following clips.
  - Timeline sequence clips
  - Clips being edited with a time difference
  - Proxy clips
- During normalization processing, how much time is used as a sample from which to calculate an output value can be set. You can change the setting from [Source] in [User Settings] → [Automatic Correction].
  "[Automatic Correction]" (▶ page 127)

1) Select the clips to be normalized.

2) Click [Clip] on the menu bar, and click [Normalize].

- The [Normalize] dialog box appears.

Alternative

- Right-click a clip and click [Normalize].

3) Enter the audio level to be used as reference, and click [OK].

- The initial level setting will be the [Audio reference level] in the project setting.
- When normalize is applied, an orange line will be displayed in the area below the audio part of the clip.

Checking and Changing the Gain Value of Clips

The gain value of clips can be checked and changed.

1) Select the clip for which the gain value will be confirmed or changed.

2) Click [Clip] on the menu bar, and click [Properties].

- The [Properties] dialog box appears.

Alternative

- Right-click a clip and click [Properties].

3) Click the [Audio] tab.

- The gain value of the clip is displayed next to [Gain].

4) Enter a gain value, and click [OK].

- The normalize gain value can also be confirmed in the detailed display of the bin and the [Information] palette.
- When a clip on which the gain value has been changed on the timeline is registered in the bin, the changed gain value will be maintained.
- The change in gain will not be updated if, for example, you display the clip on the Player and remap it to the timeline from the Player after changing the gain value of each clip on the timeline as the followings.
  (1) For an audio 1ch and video 2ch clip, map the V channel and A1 channel to the 1VA track, and A2 channel to the 1A track.
  (2) Change the gain of the 1VA track clip to 5 dB, and the gain of the 1A track clip to 10 dB.
  (3) Display the clip of the 1VA track on the Player with double-click.
  (4) Place the clip on the Player again with the same mapping setting (mapping the V channel and A1 channel to the 1VA track, and A2 channel to the 1A track).
  At this time, the gain value of the clip placed in the 1VA track is 5 dB, but the change in the gain value of the clip placed in the 1A track is not reflected, and it becomes 0 dB.

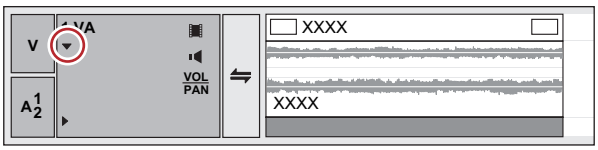
Partially Adjusting Volume

Showing Waveforms

To conceal noise, etc., operate while viewing the waveform.

1) Click the expand button for the audio on the track panel.

- The track is expanded and the audio rubber band and the waveform are displayed. For stereo audio, a waveform is displayed in each channel. You can detect noise, etc. by reviewing the waveform range and the sound actually being played back.



- The waveform display can be changed from [Application] in [User Settings] → [Timeline].
  "[Timeline]" (▶ page 120)

Reducing Momentary Noise (V-mute Function)

Fade in or fade out before and after a single central point to conceal noise, etc.

1) Select the track where the clip to be V-muted is placed.

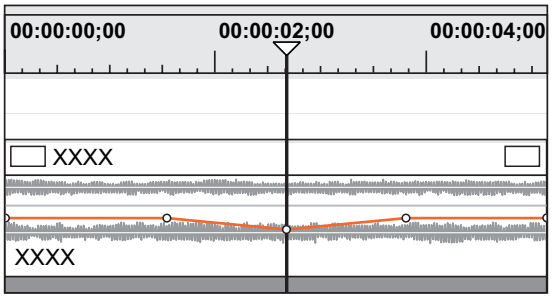
- **"Selecting Tracks" (▶ page 210)**

2) Move the timeline cursor to a position where the volume is zero.

- Confirm the shape of the waveform display, and adjust the position of the timeline cursor.

3) Right-click the clip on which V-mute is to be applied, and click [V-Mute].

- The volume at the position of the timeline cursor becomes zero, and four points are added on the volume rubber band with the timeline cursor at their center.



Alternative

- V-mute settings: **[Shift] + [V]**

- After setting V-mute, drag a point on the volume rubber band left and right for fine adjustment of mute duration.
  "Adjusting the Rubber Band" (▶ page 411)
- The default duration for V-mute can be changed from [Source] in [User Settings] → [Duration].
  "[Duration]" (▶ page 126)

Audio Measurement

In digital broadcasts, volume adjustment based on "loudness" is required for the purpose of suppressing variance in the volume between programs and broadcasting stations. Loudness is a numerically converted value of the sound level sensed by humans.
EDIUS can measure the size of noise compliant with the ITU-R BS.1770-2 and EBU R128 loudness standards.

Measuring the Loudness of Sequences

The loudness of the current sequence can be measured.

1) Click [View] on the menu bar, and click [Loudness Meter].

- The [Loudness Meter] dialog box appears.
  "[Loudness Meter] Dialog Box" (▶ page 421)

2) Select [ITU-R BS.1770-2] or [EBU R128] from the list of loudness standards, and click [Settings].

- The [Loudness Meter Settings] dialog box appears.
  "[Loudness Meter Settings] dialog box" (▶ page 422)

- You can also select the registered preset.
  "[Loudness Meter]" (▶ page 102)

3) In [Measurement Group 1] ([Measurement Group 2] if necessary), set the output channel where L/R/C/LS/RS channels are to be remapped, and click [OK].

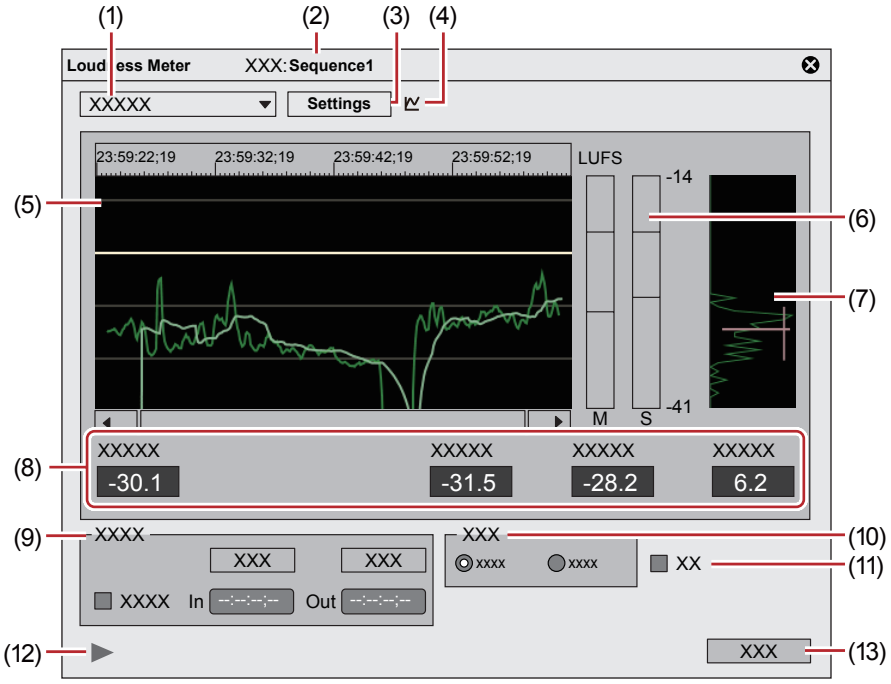
4) Move the timeline cursor to the position to start playback.

5) Click [Play] in the [Loudness Meter] dialog box, and click [Start] when measurement is started.

- The loudness measurement value is displayed as a chart or numerical value.
- To stop measurement during playback, click [Pause]. Clicking [Continue] resumes measurement. Click [Reset] to reset measurement.

- During measurement, volume in the part where exceeding the target level can be adjusted with the audio mixer.
  "Audio Mixer" (▶ page 414)

[Loudness Meter] Dialog Box



(1)	**Loudness standard**	Select the preset or the standard to be used for loudness measurement from the list.
(2)	**Measurement target**	Displays the sequence name and measurement group to be measured.
(3)	**[Settings]**	View the settings of loudness standards and set the output channels for L/R/C/LS/RS channels. **"[Loudness Meter Settings] dialog box" (▶ page 422)**
(4)	**Switch measurement group**	The icon is displayed when two measurement groups have been set. Click this to switch the measurement group.
(5)	**History display**	Display the measurement result as a chart. The momentary value is displayed in green, and the short term value is displayed in light blue. Click anywhere on the time scale and you can move to the clicked timecode position. Press [I] or [O] on the keyboard anywhere on the time scale to set the In or Out point.
(6)	**Level meter**	Display the momentary (M) and short time (S) level.
(7)	**Loudness range**	Displayed when measurement is being performed by EBU R128. A distribution based on the loudness measurement values of the history display is displayed. When measurement ends, the loudness range and average level are displayed on the distribution.
(8)	**Measurement value**	**[Integrated]** Displays the average loudness value of the measured time in real time. Loudness values are displayed in red when the target level is exceeded. **[Momentary]** Displays the average loudness value of 400 ms in real time. **[Short-term]** Displays the average loudness value of 3000 ms in real time. **[Loudness Range]** Displayed when measurement is being performed by EBU R128. Display the width of loudness measurement values.
(9)	**Trigger**	**[Start]/[Pause]/[Continue]** Start, pause or restart measurement. **[Reset]** Reset the measurement results. **[In/Out]** Check this item to automatically measure between In and Out points during playback. The timecode can be entered to change the In/Out points.
(10)	**Scale**	Change the scale of the Y axis of the history display when measurement is being performed by EBU R128.
(11)	**LU**	Check this item to switch the display unit to LU. Uncheck this item to switch the display unit to LUFS/LKFS.
(12)	**[Play]**	Play back timelines. Clicking this during playback stops playback.
(13)	**[OK]**	Close the dialog box.

[Loudness Meter Settings] dialog box

[Mode]	Select the loudness standard to check the settings from the list. **[Block Scale Momentary]** Display the measurement time of the momentary value. **[Block Scale Short-term]** Display the measurement time of the short time value. **[Overlap]** Display the overlap value. **[Gating threshold]** Display the relative gating block level. **[Target]** Display the gating level.
[Measurement Group 1]/[Measurement Group 2]	Set which output channel to assign the L/R/C/LS/RS channel to. Both [Measurement Group 1] and [Measurement Group 2] can be set so that measurement is performed on two lines simultaneously. **[Downmix]** Select the downmix calculation formula from the list.
[Default]	Return settings to their defaults.

- Both [Measurement Group 1] and [Measurement Group 2] can be set so that measurement is performed as follows.
  - The loudness values of 2ch and 5.1ch can be measured together. (For example, set L-ch1, R-ch1 and [Downmix]- No to [Measurement Group 1], and L-ch3, R-ch4, C-ch5, LS-ch7, RS-ch8, and [Downmix]- No to [Measurement Group 2].)
  - 5.1ch output and the downmix processing result can be measured together. (For example, set L-ch1, R-ch2, C-ch3, LS-ch5, RS-ch6, and [Downmix] - [No.] to [Measurement Group 1], and set L-ch1, R-ch2, C-ch3, LS-ch5, RS-ch6, and [Downmix] - [Equation - 2] to [Measurement Group 2].)
  - In mono measurement, the same output channel is assigned to both L/R.

Measuring Loudness between In and Out points on the Timeline

Measure the loudness between In and Out points on the timeline.

1) Set the In and Out Points to the timeline.

- **"Setting the In and Out Points on the Timeline" (▶ page 222)**

2) Click [View] on the menu bar, and click [Loudness Meter].

- The [Loudness Meter] dialog box appears.
  "[Loudness Meter] Dialog Box" (▶ page 421)

3) Select [ITU-R BS.1770-2] or [EBU R128] from the list of loudness standards, and click [Settings].

- The [Loudness Meter Settings] dialog box appears.
  "[Loudness Meter Settings] dialog box" (▶ page 422)

- You can also select the registered preset.
  "[Loudness Meter]" (▶ page 102)

4) In [Measurement Group 1] ([Measurement Group 2] if necessary), set the output channel where L/R/C/LS/RS channels are to be remapped, and click [OK].

5) Check [In/Out] in the [Loudness Meter] dialog box.

- Enter the timecode in [In] or [Out] to change the In/Out points.

6) Click [Start] in the [Loudness Meter] dialog box, and click [Play].

- Playback starts from the position 3 seconds before the In point on the timeline, and the loudness measurement value is displayed as a chart or numerical value.

- During measurement, volume in the part where exceeding the target level can be adjusted with the audio mixer.
  "Audio Mixer" (▶ page 414)

Measuring the Loudness of Clips

The loudness of clips in the bin can be measured.

1) Right-click a clip in the bin, and click [Loudness].

- The [Loudness] dialog box appears.

2) Select [ITU-R BS.1770-2] or [EBU R128] from the list of loudness standards, and click [Settings].

- The [Loudness Meter Settings] dialog box appears.
  "[Loudness Meter Settings] dialog box" (▶ page 422)

- You can also select the registered preset.
  "[Loudness Meter]" (▶ page 102)

3) In [Measurement Group 1] ([Measurement Group 2] if necessary), set the output channel where L/R/C/LS/RS channels are to be remapped, and click [OK].

4) Click [In/Out] or [Entire File] at [Trigger], and click [OK].

- The loudness measurement starts.
- When measurement completes, the [Loudness Meter] dialog box appears. The loudness measurement value is displayed as a chart or numerical value.
  "[Loudness Meter] Dialog Box" (▶ page 421)

- During measurement, volume in the part where exceeding the target level can be adjusted with the audio mixer.
  "Audio Mixer" (▶ page 414)

Adding and Editing Audio

Adding Narration and Sound Effects

Addition of Speech with Voice Over

Voice over is a function for adding narration or sound effects while previewing a timeline clip. You can add audio (sound effect) while previewing a scene.

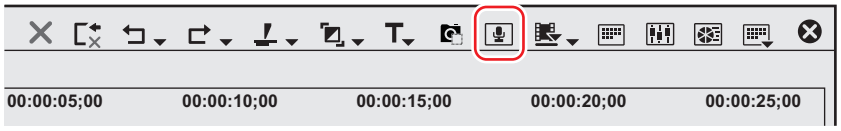
Note

- For microphones or other voice entry devices the device preset must be set in advance.
  "Registering Device Presets" (▶ page 135)

1) Map the audio channel and set an In point at the position in which to place the audio.

- **"Setting Channel Mapping" (▶ page 220)**
- **"Setting the In and Out Points on the Timeline" (▶ page 222)**

2) Click [Toggle Voice Over Display] of the timeline.



- The [Voice Over] dialog box appears.

Alternative

- Click [Capture] on the menu bar, and click [Voice Over].

3) Select a preset from the [Device Preset] list.

- The device preset must be set in advance. The preset cannot be selected if only one preset is registered.
  "Registering Device Presets" (▶ page 135)

4) Adjust the volume of the source data with the [Volume] slider.

- Adjust the level meter visually so that the volume does not exceed 0 dB.

5) Select [Track] from the [Output] list.

[Bin]	Add the audio clip only to the bin.
[Track]	Add the audio clip both to the A track specified in step **1)** and to the bin.

6) Enter a file name, and click [...] to specify the save destination.

7) Click [Start].

- The white circle in the upper left of the Recorder blinks to start the count down. The white circle turns red when recording starts. If there is an audio clip on the export destination track, the audio on the track will mute at the same time as audio recording begins.

- The time taken between clicking [Start] and the start of recording changes according to the time set in [Application] in [System Settings] → [Margin] in [Capture], and [Preview] in [User Settings] → [Preroll Time] in [Playback].

8) Click [End].

- Clip playback and audio data creation are stopped and a dialog box appears to confirm whether to add the created file.

9) Click [Yes].

- The audio clip is placed and data saved.

- The white line on the right side of the level meter changes to red when the volume exceeds 0 dB. Clicking the line returns it to its original setting.

- If playback of the timeline does not stop in time, recording is also stopped.

Playback with Shifted Audio

Offset of Audio

The timing of video and audio playback can be adjusted by sample increments.

1) Select a clip, and click [Clip] on the menu bar → [Audio Offset].

- Multiple clips can also be selected.
- The [Audio Offset] dialog box appears.
  "[Audio Offset] Dialog Box" (▶ page 425)

Alternative

- Right-click a clip and click [Audio Offset].

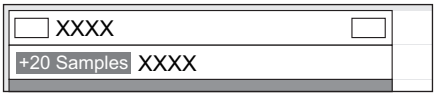
Note

- Audio offset cannot be applied if multiple clips of differing sampling rate are selected.

2) Select the direction of movement and enter the offset.

3) Click [OK].

- When offset has been applied to a clip, the offset value is displayed in blue at the start of the clip.



- Waveforms will also update with the applied audio offset.

- If the link between video and audio is not in sync, the number of frames they are out of sync will be displayed with priority.
  "Unlinking Clips" (▶ page 234)

[Audio Offset] Dialog Box

[Direction]	Select whether to delay the audio compared to video, or advance the audio compared to video.
[Offset]	Enter a value by which to delay or advance. Values can be entered by sample increments or seconds.

Audio Monitoring

When [Audio Monitoring Mode] is set, clips on the Recorder can be played back with the different setting from that of the audio output set in the channel map of [Sequence settings] or [Project Settings]. In [Audio Monitoring Mode], audio output of the clip played back on the Player can also be set.

Note

- When a sequence clip is exported to a file, export is performed according to the settings of [Channel map] in [Sequence settings], regardless of the modes in [Audio Monitoring Mode].
- If you select a channel to be output using the output hardware product while [Audio Monitoring Mode] is set, the channel will conform to the output channel set in [Audio Monitoring Mode].
- Audio source of the clip to be played back on the Player is played back in the channel mode set in the track patch.

1) Click [Change to Player]/[Change to Recorder] to switch to the display window to be set.

2) Click [View] on the menu bar, and click [Audio Monitoring Mode] → the mode to be set.

[Off]	Output the original channel of the source on the Player. Output audio according to the settings in [Channel map] of [Sequence settings] on the Recorder. **"Sequence Settings" (▶ page 68)**
[Monaural]	Output audio in monaural. Downmix to L (Ch1) and R (Ch2) to be the same audio.
[Stereo]	Output audio in stereo. Divide the audio to L (Ch1) and R (Ch2) and downmix by decreasing 3 dB.
[Custom]	Play back audio in the mode set in [Custom setting].
[Custom setting]	Customize [Audio Monitoring Mode]. The customized settings can be saved and loaded as presets.

Alternative

- Set this function in [Audio Monitoring Mode] in the [Audio Mixer] dialog box.
  "[Audio Mixer] Dialog Box" (▶ page 415)

- Default value can be changed with the [Audio Monitoring Mode] setting in [System Settings]. Changed default value is applied when the project starts.
  "[Audio Monitoring Mode]" (▶ page 99)

Chapter 12

Export

This chapter explains methods of exporting projects on which editing is complete.
You can export projects in a variety of file formats, as well as to disc media such as DVD or BD.
Optional license is required for Blu-ray or DVD authoring.

Exporting in File Formats

Points to Be Checked before Exporting a File

This section describes the settings to confirm before export, and matters to know in advance when exporting a file with an exporter.

Marker Settings

To export only one part of an edited video, make sure to specify the export range using [Set In] and [Set Out] on the Recorder.
To add a chapter, make sure that an orange sequence marker is set to the desired position in advance.
"Setting the In and Out Points on the Timeline" (▶ page 222)
"Setting Sequence Markers" (▶ page 284)

Export Formats

When exporting a file with an exporter, you can export using the same setting as in the project settings, or export with a format that differs from the project settings.
"Exporting with Exporter" (▶ page 431)
"Exporting in a Format that Differs from the Project Settings" (▶ page 434)
The following file formats are available for export.

- Operation is not guaranteed for all formats described in this section.

■ Video

Note

- Some formats may not support codec.
- Depending on the device specifications and compatibility, playback and output on the device may not be supported.

Format/container	Codec	File extension	Exporter	Page
AVCHD	—	*.m2ts	[AVCHD]	**447**
			[AVCHD Writer]	
AVI	Grass Valley HQ	*.avi	[Grass Valley HQ AVI]	**438**
	Grass Valley HQX		[Grass Valley HQX AVI]	
	Grass Valley Lossless		[Grass Valley Lossless]	
	DV		[DV AVI]	
	DVCPRO50		[DVCPRO50 AVI]	
	DVCPRO HD		[DVCPRO HD AVI]	
	Uncompressed (RGB)		[Uncompressed RGB AVI]	
	Uncompressed (RGBA)		[Uncompressed RGBA AVI]	
	Uncompressed (UYVY)		[Uncompressed UYVY AVI]	
	Uncompressed (YUY2)		[Uncompressed YUY2 AVI]	
	Uncompressed (v210)		[Uncompressed v210 AVI]	
Blu-ray	H.264/AVC	*.m2ts	[Blu-ray][*1][*2]	**440, 461**
DVD[*1][*2]	MPEG-2	—	—	**461**
Flash Video	H.264/AVC	*.f4v	[F4V]	**446**
H.264/AVC	H.264/AVC	*.mp4	[H.264/AVC]	**441**
			[H.264/AVC (NVIDIA)][*3]	
H.265/HEVC	H.265/HEVC	*.mp4	[H.265/HEVC][*4]	**441**
			[H.265/HEVC (NVIDIA)][*5]	
HDV	MPEG-2 Transport Stream	*.m2t	[HDV]	—
iPod	H.264/AVC	*.mp4	[iPod]	**441**

Format/container	Codec	File extension	Exporter	Page
K2 (CMF)*2	AVC-Intra 50	*.xml	[K2 AVCIntra Clip]	**451**
	AVC-Intra 100			
	AVC-LongG		[K2 AVCUltra Clip]	
	AVCHD		[K2 AVCHD Clip]	
	D10		[K2 D10 Clip]	
	DNxHD		[K2 DNxHD Clip]	
	DV		[K2 DV Clip]	
	DVCPRO HD		[K2 DVCPRO HD Clip]	
	MPEG-2		[K2 MPEG2 Clip]	
K2 (GXF)	AVC-Intra 50	*.gxf	[AVCIntra GXF]	
	AVC-Intra 100			
	AVC-LongG		[AVCUltra GXF]	
	D10		[D10 GXF]	
	DNxHD		[DNxHD GXF]	
	DV		[DV GXF]	
	DVCPRO25		[DVCPRO25 GXF]	
	DVCPRO50		[DVCPRO50 GXF]	
	DVCPRO HD		[DVCPROHD GXF]	
	JPEG2000		[JPEG2000 GXF]	
	MPEG-2		[MPEG2 GXF]	
MP4	H.264/AVC	*.mp4	[H.264/AVC]	**441**
			[H.264/AVC (NVIDIA)]*3	
MPEG-2 Program Stream	MPEG-2	*.mpg, *.m2p	[MPEG2 Program Stream]	**444**
MXF	AVC-Intra 50	*.mxf	[AVCIntra MXF]	**452**
	AVC-Intra 100			
	AVC-Intra 200			
	AVC-LongG		[AVCUltra MXF]	
	AVC-Intra 4K/2K 422			
	D10		[D10 MXF]	
	DNxHD		[DNxHD MXF]	
	DNxHR		[DNxHR MXF]	
	DV		[DV MXF]	
	DVCPRO25		[DVCPRO25 MXF]	
	DVCPRO50		[DVCPRO50 MXF]	
	DVCPRO HD		[DVCPROHD MXF]	
	Grass Valley HQ		[HQ MXF]	
	Grass Valley HQX		[HQX MXF]	
	JPEG2000		[JPEG2000 MXF]	
	MPEG-2		[MPEG2 MXF]	
	DNxHR 444		[DNxHR 444 MXF]	
	ProRes MXF		[ProRes MXF]	
	ProRes 4444 MXF		[ProRes 4444 MXF]	
	XAVC		[XAVC MXF]	
P2	AVC-Intra 50	*.xml + *.mxf	[HD P2 Clip]	**448**
	AVC-Intra 100			
	AVC-Intra 200			
	AVC-LongG		[AVCUltra P2 Clip]	
	AVC-Intra 4K/2K 422			
	DV		[P2 Clip]	
	DVCPRO25			
	DVCPRO50			
	DVCPRO HD		[HD P2 Clip]	
PlayStation Portable	H.264/AVC	*.mp4	[PlayStation Portable]	**441**

Format/container	Codec	File extension	Exporter	Page
QuickTime	Grass Valley HQ	*.mov	[Grass Valley HQ MOV]	**440**
	Grass Valley HQX		[Grass Valley HQX MOV]	
	H.264/AVC		[H.264/AVC MOV]	
	H.265/HEVC		[H.265/HEVC MOV]	
	ProRes		[ProRes MOV]	
	ProRes 4444		[ProRes 4444 MOV]	
	JPEG2000		[JPEG2000 MOV]	
	Motion JPEG		[Motion JPEG MOV]	
	PNG		[PNG MOV]	
	QT Animation		[QT Animation MOV]	
	H.264/AVC		[H.264/AVC MOV (NVIDIA)]*3	
	H.265/HEVC		[H.265/HEVC MOV (NVIDIA)]*5	
	DNxHD		[DNxHD MOV]	
	DNxHR		[DNxHR MOV]	
	DNxHR 444		[DNxHR 444 MOV]	
	DV		[DV MOV]	
	DVCPRO25		[DVCPRO25 MOV]	
	DVCPRO50		[DVCPRO50 MOV]	
	DVCPRO HD		[DVCPRO HD MOV]	
WindowsMedia	—	*.wmv	[WindowsMediaVideo]	**431**
XAVC	XAVC Intra	*.xml + *.mxf	[XAVC]	**450**
	XAVC Long GOP			
	XAVC S*6	*.xml + *.mp4	[XAVC S]	**450**
XDCAM	DVCAM	*.xml + *.mxf	[XDCAM DV]	**449**
	MPEG IMX		[XDCAM MPEG IMX]	
	MPEG HD		[XDCAM HD]	
	MPEG HD422		[XDCAM HD 422]	
XDCAM EX	DVCAM	*.xml + *.mp4	[XDCAM EX DV]	**447**
	MPEG HD		[XDCAM EX]	

*1 To export to a disc, select [Burn to disc] from [Export] on the Recorder.
*2 It can be supported by using options.
*3 A graphics board manufactured by NVIDIA which supports H.264/AVC encoding is required.
For the supported graphics boards, visit our website.
“Our Website” (▶ page 499)
*4 To perform hardware encoding, Quick Sync Video (Intel Core i series CPU (6th generation or later)) that supports H.265/HEVC encoding is required.
*5 A graphics board manufactured by NVIDIA which supports H.265/HEVC encoding is required.
For the supported graphics boards, visit our website.
“Our Website” (▶ page 499)
*6 To load medium where a file has been exported to the camera, perform [Restore Media] on the camera. Thumbnails cannot be displayed on the camera.

■ Audio

Format/container	File extension	Exporter	Page
AAC	*.m4a	[Advanced Audio Coding (AAC)]	**438**
AIFF	*.aif, *.aiff	[PCM AIFF]	
ALAC	*.m4a	[Apple Lossless]	
Dolby Digital Plus (E-AC-3)	*.ec3	[Dolby Digital Plus (E-AC-3)]	
Dolby Digital Professional (AC-3)	*.ac3	[Dolby Digital Professional (AC-3)]	
MP3	*.mp3	[MPEG-1/2 Audio Layer-3 (MP3)]	
Sony/Sonicfoundry Wave64	*.w64	[Sony/Sonicfoundry Wave64]	
Vorbis	*.ogg	[Vorbis]	
Wave	*.wav	[PCM WAVE]	
Windows Media Audio	*.wma	[WindowsMediaAudio]	

■ Still image

Format/container	File extension	Exporter	Page
JPEG File Interchange Format	*.jfif	[Still Image]	**445**
JPEG	*.jpg, *.jpeg		
Photoshop	*.psd		
PNG (Portable Network Graphics)	*.png		
SGI	*.sgi, *.rgb		
Targa	*.tga, *.targa, *.vda, *.icb, *.vst		
TIFF	*.tif, *.tiff		
Windows Bitmap	*.bmp, *.rle		

■ Caption

Format/container	File extension	Exporter	Page
Scenarist Closed Caption	*.scc	[Scenarist Closed Caption (.scc) file]	**454**
MacCaption	*.mcc	[MacCaption (.mcc) file]	

Registering Export Settings

Exporter settings can be registered as a preset. The exporter settings can also be registered in combination with the conversion settings used to export in a format that differs from the project settings. Once registered, an exporter preset can be easily called upon.
"Creating Exporter Presets" (▶ page 456)

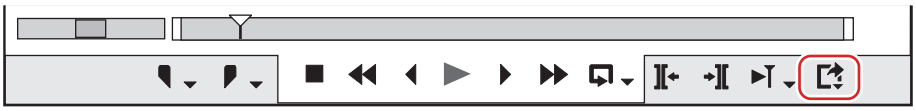
Exporting with Exporter

You can select file formats to export as files in various formats.
You can also use exporters suitable for SNS or other upload destinations, to easily export files that suit the target.
"Using Exporter by Target" (▶ page 455)

Example:

Exporting in the Windows Media Video format.

1) Click [Export] on the Recorder.



2) Click [Print to File].

- The [Print to File] dialog box appears.
  "[Print to File] Dialog Box" (▶ page 432)

Alternative

- Click [File] on the menu bar, and click [Export] → [Print to File].
- Exporting to file: **[F11]**

3) Click [Windows Media] on the category tree.

- A list of exporters is displayed in [Windows Media].

4) Click [WindowsMediaVideo], and click [Export].

- The [WindowsMediaVideo] dialog box appears.
  "[WindowsMediaVideo] Dialog Box" (▶ page 434)

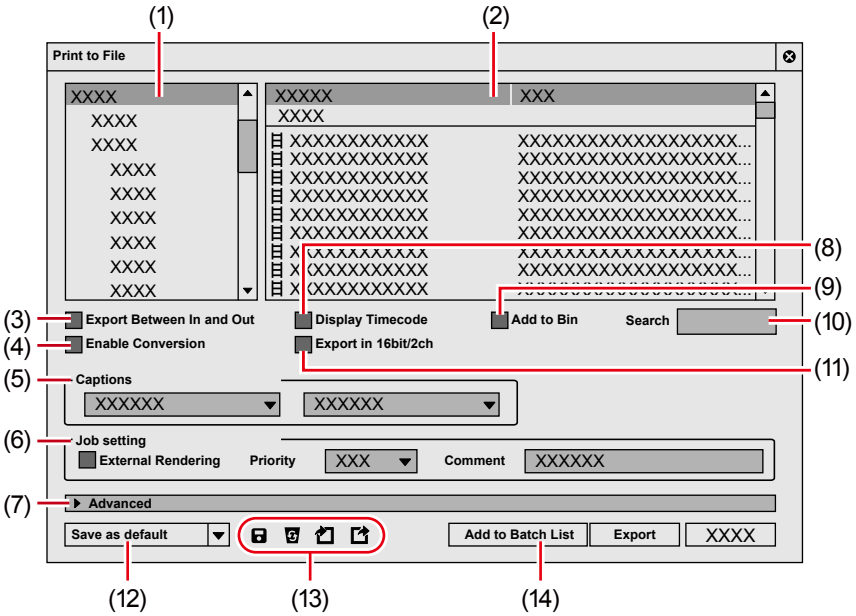
5) Configure the export settings.

6) Enter a file name, select the save destination and click [Save].

- The rendering job will be registered to the Render Service. An indication appears on the PC screen to notify that rendering will be started.
  Registered rendering jobs are processed in the background in a sequential order of the predetermined priority. The progress of the rendering process can be checked on GV Job Monitor.
  "GV Job Monitor" (▶ page 330)
- If [Add to Bin] has been checked in the [Print to File] dialog box, a clip will be registered to the bin. The icon to indicate that the background job is in process is displayed on the clip, and the progress is indicated by a progress bar and percentage.
- The color of the GV Job Monitor icon on the status bar turns to purple while a file export rendering job is being processed.
  When the rendering process has been finished, an indication appears on the PC screen to notify that rendering has been finished. The color of the icon on the status bar returns to its original state.
  "GV Job Monitor Icon Indication" (▶ page 330)
- Even if the project file is closed before the rendering process is completed, the process of the rendering job will be continued.

- After step **3)**, the procedure differs according to the selected exporter. Perform operations according to the on-screen instructions.
- Clicking [OK] on the notification of start/finish of file export will display GV Job Monitor ([Job] window). Clicking [Close] will close the notification.
- The notification for start/finish of file export will be indicated in accordance with the setting of the [Notification] checkbox in GV Job Monitor, as well as the Windows configuration.

[Print to File] Dialog Box



(1)	**Category tree**	Select a category to narrow down the exporter options. **[Current default]** Display the default exporters. **[Recently used]** Display exporters in a list in the order of most recently used first. **[My presets]** Display the exporter presets registered by the user in a list. **[Target]** Display the list of exporters that can export files in the formats suitable for SNS or other upload destinations. **[All]** Display all exporters in a list. You can narrow the exporter options by selecting a category by format.

(2)	**Exporter/Preset list**	Display the exporters within a selected category in a list. **[Preset]** Display exporter presets stored as default and exporter presets stored by the user. **“Creating Exporter Presets” (▶ page 456)** **“Deleting Exporter Presets” (▶ page 456)** **“Exporting Exporter Presets (Export)” (▶ page 457)** **: Video exporter** Indicates exporters to export a file that includes a video element. **: Audio exporter** Indicates exporters to export an audio element. **: A preset where conversion is performed** Check [Enable Conversion] to display all exporter presets including exporter presets with a format that differs from the project settings. **“Exporting in a Format that Differs from the Project Settings” (▶ page 434)** **“Creating Exporter Presets” (▶ page 456)**
(3)	**[Export Between In and Out]**	Check this item to export only between In and Out points of the timeline.
(4)	**[Enable Conversion]**	Check this item to enable conversion processing used to export in formats that differ from the project settings. **“Exporting in a Format that Differs from the Project Settings” (▶ page 434)**
(5)	**[Captions]**	Select the export method of closed captions. Selectable items differ depending on the selected exporter. • The closed caption alone can be exported to a file as well. **“Exporting Closed Caption” (▶ page 454)**
(6)	**[Job setting]**	**[External Rendering]** Displayed only when the Chorus Hub system is used. Check this item to process file export rendering jobs with an external render engine. **[Priority]** Set [Priority] of file export rendering jobs. For [Priority], three stages of [High], [Normal] and [Low] can be set. **[Comment]** Enter a comment to be displayed in GV Job Monitor. The entered comment is displayed in [Comment] in the job list of GV Job Monitor. [Comment] of GV Job Monitor can be shown/hidden by setting [Columns] on GV Job Monitor. **“GV Job Monitor” (▶ page 330)**
(7)	**[Advanced]**	Click the expand button to configure conversion processing when exporting in a format that differs from the project settings. **“[Print to File] (Detailed Settings) Dialog Box” (▶ page 435)**
(8)	**[Display Timecode]**	Check this item to export with a timecode shown on-screen.
(9)	**[Add to Bin]**	Check this item to register the exported files to the bin. When the file export rendering job is registered to the Render Service, a clip will be registered to the bin.
(10)	**[Search]**	Search the exporters.
(11)	**[Export in 16bit/2ch]**	Check this item to perform export in 16-bit/2ch regardless of the audio format of the project settings or selected exporter preset. It is convenient to leave it checked when a multi-channel project is to be exported and used with software by another manufacturer.
(12)	**[Save as default]**	Save four items for [Current default]. **“Registering Exporter Configuration as Default Exporter” (▶ page 455)** The saved exporters are displayed in [Current default] of the category tree. Also, clicking [Export] on the Recorder and selecting [Print to File (Default Exporter)]/[Add to Batch Export (Default Exporter)] → default exporter to use can select the saved default exporter easily.
(13)	**Preset operation buttons**	**: [Save preset]** Register the exporter selected in the exporter/preset list together with the conversion processing configured under [Advanced] as an exporter preset. **“Creating Exporter Presets” (▶ page 456)** **: [Delete preset]** Delete the exporter preset selected in the exporter/preset list. **“Deleting Exporter Presets” (▶ page 456)** **: [Import preset]** Import exporter presets. **“Importing Exporter Presets (Import)” (▶ page 457)** **: [Export preset]** Export the exporter preset selected in the exporter/preset list. **“Exporting Exporter Presets (Export)” (▶ page 457)**
(14)	**[Add to Batch List]**	Add the specified range to the batch list. **“Registering Ranges to Be Exported in a Batch List” (▶ page 457)**

- To export a multi-channel project to use with software by another manufacturer, either check [Export in 16bit/2ch] or select an exporter in 16-bit/2ch audio format.

[WindowsMediaVideo] Dialog Box

[Video settings]	**[Mode]** [CBR] is a fixed transfer mode. It encodes with a constant bitrate regardless of movement or image complexity. Enter a value for [Bitrate]. [CBR (2-pass)] performs encoding after an analysis for movement and image complexity. [VBR (quality based)] is a variable transfer mode of direct conversion. The allotted bitrate is varied according to movement and image complexity. Enter a value for [Quality]. [VBR (2-pass)] is a variable transfer mode. The allotted bitrate is varied after an analysis of movement and image complexity. Enter the average bitrate in [Bitrate], and maximum bitrate in [Max]. **[Frame rate]** Check this item to change the frame rate (1-60 fps). To set to 29.97 fps, enter “2997”. **[Picture size]** The image size can be set by selecting from the list. Checking [Square pixel] sets the image aspect ratio at 1:1. Check this if the video is made vertically long or horizontally long by the playback device. **[Quality setting]** Move the slider depending on the relative importance of [frame rate (0)] (prioritizes smooth movement) and [image quality (100)].
[Audio settings]	**[Mode]** [CBR] is a fixed transfer mode. It encodes with a constant bitrate regardless of audio complexity. Select a bitrate from the [Bitrate] list. [CBR (2-pass)] performs encoding after an analysis for audio complexity. [VBR (quality based)] is a variable transfer mode. The allotted bitrate is varied according to audio complexity. Select an average bitrate from the [Quality] list.

Exporting in a Format that Differs from the Project Settings

You can use an exporter to export to file in a format that differs from the project settings.

1) Click [Export] on the Recorder.

2) Click [Print to File].

- The [Print to File] dialog box appears.
  “[Print to File] Dialog Box” (▶ page 432)

Alternative

- Click [File] on the menu bar, and click [Export] → [Print to File].
- Exporting to file: **[F11]**

3) Click a category in the category tree, and check [Enable Conversion].

- All exporters and exporter presets where the export format differs from the project settings are displayed. Exporter presets where conversion processing is to be performed will have a “→” symbol on their icon.

4) Select an exporter, and click the expand button in [Advanced].

- Exporter presets stored as default can also be selected.
- The [Print to File] (Detailed Settings) dialog box appears.
  “[Print to File] (Detailed Settings) Dialog Box” (▶ page 435)

5) Set the details of the format to be exported.

- Clicking [Save as default] saves the current settings. Clicking [Export] on the Recorder and selecting [Print to File (Default Exporter)] → default exporter to use can select the exporter easily.
  "[Print to File] Dialog Box" (▶ page 432)
- You can save the current settings as a preset.
  "Creating Exporter Presets" (▶ page 456)

6) Click [Export], and configure according to the on-screen instructions.

7) Enter a file name, select the save destination and click [Save].

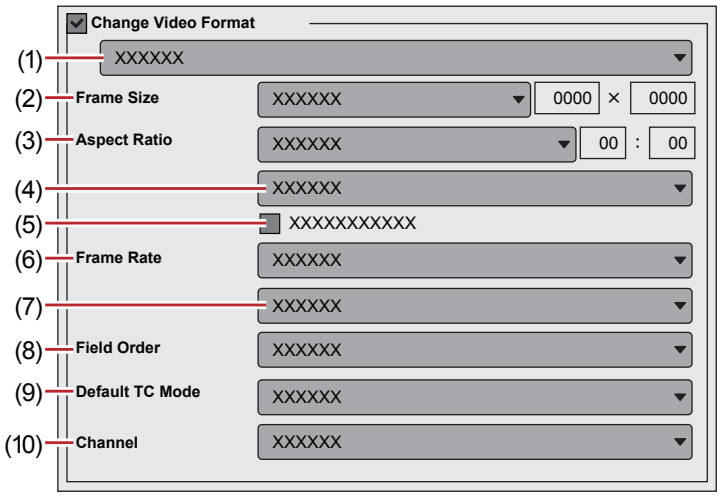
- The rendering job will be registered to the Render Service. An indication appears on the PC screen to notify that rendering will be started. Registered rendering jobs are processed in the background in a sequential order of the predetermined priority. The progress of the rendering process can be checked on GV Job Monitor.
  "GV Job Monitor" (▶ page 330)
- If [Add to Bin] has been checked in the [Print to File] dialog box, a clip will be registered to the bin. The icon to indicate that the background job is in process is displayed on the clip, and the progress is indicated by a progress bar and percentage.
- The color of the GV Job Monitor icon on the status bar turns to purple while a file export rendering job is being processed. When the rendering process has been finished, an indication appears on the PC screen to notify that rendering has been finished. The color of the icon on the status bar returns to its original state.
  "GV Job Monitor Icon Indication" (▶ page 330)
- Even if the project file is closed before the rendering process is completed, the process of the rendering job will be continued.

- After step **6)**, the procedure differs according to the selected exporter. Perform operations according to the on-screen instructions.
- Clicking [OK] on the notification of start/finish of file export will display GV Job Monitor ([Job] window). Clicking [Close] will close the notification.
- The notification for start/finish of file export will be indicated in accordance with the setting of the [Notification] checkbox in GV Job Monitor, as well as the Windows configuration.

[Print to File] (Detailed Settings) Dialog Box

If an exporter preset was selected in step **4)**, you will switch to the export format settings of that exporter preset.

■ Setting [Change Video Format]



Checking [Change Video Format] exports files converting to the video format set in the following items.
"*" in the right field of a setting indicates that the setting agrees with the project settings.

(1)	**Video profile list**	Display a list of commonly used video formats. When you select a video format from the list, [Frame Size] and other items will switch to the selected video format settings.
(2)	**[Frame Size]**	Select a frame size from the list. Select [Custom] to enter a setting value in pixels.
(3)	**[Aspect Ratio]**	Select an aspect ratio from the list. If you select [Custom Display Aspect] or [Custom Pixel Aspect Ratio], you can set the aspect ratio by entering values. If you have set a customized aspect ratio, make sure to select a conversion method from the aspect ratio conversion setting.
(4)	**Aspect ratio conversion settings**	If the aspect ratio set in [Aspect Ratio] differs from the project settings, select which method to use to convert the aspect ratio from the list. **"Setting the Aspect Ratio Conversion" (▶ page 437)**
(5)	**[Crop Overscan Area]**	Check this item to convert the aspect ratio after cropping with the overscan size. The overscan size differs according to the project settings.

(6)	**[Frame Rate]**	Select a frame rate from the list. If you have set a customized frame rate, be sure to select a conversion method in the frame rate conversion settings.
(7)	**Frame rate conversion settings**	If the frame rate set in [Frame Rate] differs from the project settings, select from the list which conversion to perform. If you select [Frame blending], supplemental frames will be interpolated by combining the frame before and after each supplemental frame. If you select [Nearest frame], the nearest frame will be used to make supplementary frames.
(8)	**[Field Order]**	Select a field order from the list. If you select [Auto], the optimum perceived field order will be selected automatically.
(9)	**[Default TC Mode]**	Select whether the video to be exported displays the drop frame timecode or the non drop frame timecode as default.
(10)	**[Channel]**	This can be set when an exporter to which the alpha channel is retained and can be output to is selected. Select whether to output only the color channel or to output the color channel and the alpha channel.

■ Setting [Change Audio Format]

Checking [Change Audio Format] changes the audio format so it is exported with the below-described items. However, if [Export in 16bit/2ch] has been checked, the [Channels] and [Bit Depth] settings will be fixed.

"*" in the right field of a setting indicates that the setting agrees with the project settings.

[Channels]	Select the number of channels from the list. If the selected number of channels is fewer than the project setting, the channels will be exported in order from 1ch. Select [2ch] to export a multi-channel project to be used with software of another company.
[Sampling Rate]	Select a sampling rate from the list.
[Bit Depth]	Select an audio quantization bitrate from the list. Select [16bit] to export a multi-channel project to be used with software of another company.
[Export Audio]	Check this item to export the audio part.
[Create Waveform Cache]	Check this item to create waveform cache (waveform representation of audio).

■ [Remove Ancillary data] setting

This can be set when a compatible exporter is selected. Check this item to export with ancillary data removed. This setting does not affect the export of closed captions.

Note

- Even if it is unchecked, when the frame size, after the frame rate or aspect ratio is corrected, is different from that of the project settings, ancillary data will be removed.
- Configure the ancillary data export setting in conjunction with [Preserve Ancillary data] in the sequence setting.
  "Sequence Settings" (▶ page 68)

■ [Remove Audio Bitstream] setting

This can be set when a compatible exporter is selected. Check this item to export with the audio bitstream removed.

Note

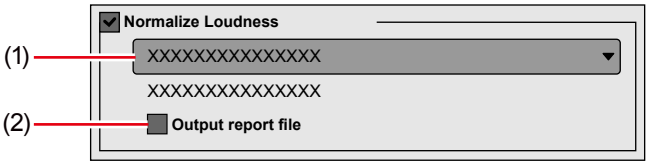
- Even if this item is unchecked, when the frame rate or audio sampling rate differs from that of the project setting, audio bitstream will be removed.

■ [Normalize Loudness] setting

Checking this item enables to measure the loudness and perform normalization at the same time when you export a project file.

For normalization, the volume of the entire project can be adjusted according to a predefined loudness reference value.

"[Loudness Meter]" (▶ page 102)



(1)	**Loudness reference value**	Select the preset to use as the reference for loudness measurement and normalization.

(2)	**[Output report file]**	Check this item to export the loudness adjustment details and measurement result values of the sequence to a text file. The text file will be saved in the same location as the exported project file. If project files are to be exported to FTP or some other destinations, they will be saved in the “Log” folder in the project folder.

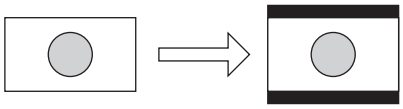
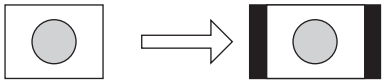
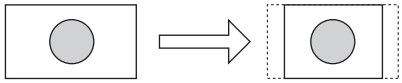
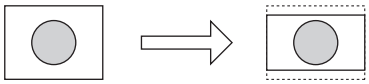
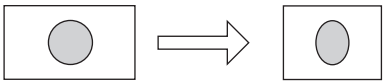
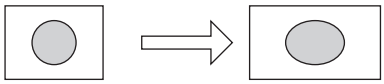
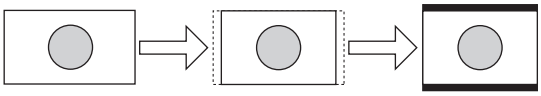
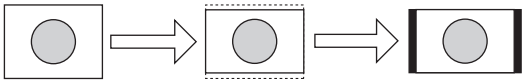
- Clicking [Save preset] in the [Print to File] dialog box will create an exporter preset that contains the setting details of [Normalize Loudness].

Note

- If the audio of the project to be normalized is muted or low, after a message [The audio adjustment level is too large.] is displayed, export may be canceled. This is performed to prevent low-volume sound such as noise from being unintentionally adjusted louder.

Setting the Aspect Ratio Conversion

For the items in the list of the aspect ratio conversion setting to be set in the [Print to File] (Detailed Settings) dialog box, what follows are example descriptions of converting a 16:9 screen to a 4:3 screen, and a 4:3 screen to a 16:9 screen.

Item	Original screen → Converted screen	Description
Letter box / Side panel	16:9 → 4:3	The 16:9 screen is displayed in the center of a 4:3 screen, and a letter box effect is added above and below. 
	4:3 → 16:9	The 4:3 screen is displayed in the center of a 16:9 screen, and side panels are added at the edges. 
Side cut / Crop top and bottom	16:9 → 4:3	The left and right sides of the 16:9 screen are cropped to fit the 16:9 screen to a 4:3 screen size. 
	4:3 → 16:9	The top and bottom parts of the 4:3 screen are cropped to fit the 4:3 screen to a 16:9 screen size. 
Anamorphic	16:9 → 4:3	The 16:9 screen is compressed horizontally to fit a 4:3 screen size. The frame aspect ratio is not conserved. 
	4:3 → 16:9	The 4:3 screen is stretched horizontally to fit a 16:9 screen size. The frame aspect ratio is not conserved. 
Semi-letter box (14:9/13:9)	16:9 → 4:3	The 16:9 screen is cropped to a 14:9 or 13:9 screen size, displayed in the center of a 4:3 screen and a letter box effect is added above and below. 
	4:3 → 16:9	The 4:3 screen is cropped to a 14:9 or 13:9 screen size, displayed in the center of a 16:9 screen and side panels are added at the edges. 

AVI Format

The compression format can be selected to export a project as an AVI file.

1) Click a codec of [AVI] in the category tree of the [Print to File] dialog box.

- **"Exporting with Exporter" (▶ page 431)**

2) Select an exporter, and click [Export].

- For the items for the Grass Valley HQ AVI and Grass Valley HQX AVI codec settings, see the description given for the [Settings - Grass Valley HQ]/[Settings - Grass Valley HQX] dialog box in [System Settings].
  "[Settings - Grass Valley HQ]/[Settings - Grass Valley HQX] Dialog Box" (▶ page 138)
- If [Use MSDV codec] is checked when the [DV AVI] exporter has been selected, it will export as AVI with the MSDV codec.

3) Set a file name and save destination, and click [Save].

Audio Format

You can export just the audio of a project.

- For details on [Dolby Digital Professional (AC-3)] exporter and [Dolby Digital Plus (E-AC-3)] exporter, see "Dolby Digital Professional or Dolby Digital Plus Format".
  "Dolby Digital Professional or Dolby Digital Plus Format" (▶ page 438)

1) Click [Audio] in the category tree of the [Print to File] dialog box.

- **"Exporting with Exporter" (▶ page 431)**
- To export as Windows Media Audio, click [Windows Media] in the category tree.

2) Select an exporter, and click [Export].

3) Set a file name and save destination, and click [Save].

- If the [WindowsMediaAudio] exporter has been selected, select the transfer mode. If [CBR] (fixed transfer mode) has been selected, select a bitrate from the [Bitrate] list. If [VBR (quality based)] (variable transfer mode) has been selected, select a bitrate from the [Quality] list.
- If the [MPEG-1/2 Audio Layer-3 (MP3)] exporter has been selected, select a transfer mode between [CBR] (fixed transfer mode) and [VBR] (variable transfer mode), and select a bitrate from the [Bitrate] list.

Dolby Digital Professional or Dolby Digital Plus Format

Projects can be exported as Dolby Digital Professional or Dolby Digital Plus format files.

- On EDIUS Broadcast, [Dolby Digital Professional (AC-3)] exporter can be used instead of [Dolby Digital (AC-3)] exporter. As Dolby Digital Professional (AC-3) is compatible with Dolby Digital (AC-3), saved presets can be used as they are.

1) Click [Audio] in the category tree of the [Print to File] dialog box.

- **"Exporting with Exporter" (▶ page 431)**

2) Select [Dolby Digital Professional (AC-3)] or [Dolby Digital Plus (E-AC-3)], and click [Export].

[Format]	Select the number of bits.
[Setting]	Set bitstream details. **"[Dolby Setting] Dialog Box" (▶ page 439)**

3) Set a file name and save destination, and click [Save].

■ Assigning output channels

Output channels are assigned to the front left (L), front right (R), front center (C), LFE, rear left (Ls), and rear right (Rs), in the order from the smallest channel number. (Channels that are not used will be skipped.) When the single rear (S) is to be used, the rear left (Ls) is assigned.
Output channel can be set in the channel map of the project setting or sequence setting.

Example:

When [Audio Coding Mode] in the [Dolby Setting] dialog box is set to [2/0]
Audio set as Ch1 in the sequence settings is encoded as L, and audio set as Ch2 is encoded as R.
"[Dolby Setting] Dialog Box" (▶ page 439)

[Audio Coding Mode]	[LFE Channel]*1	Stream to be assigned						
		L	R	C	LFE	Ls	Rs	S
[1/0]	—	—	—	Ch1	—	—	—	—
[2/0]	—	Ch1	Ch2	—	—	—	—	—
[2/1]	—	Ch1	Ch2	—	—	—	—	Ch3
	○	Ch1	Ch2	—	Ch3	—	—	Ch4
[2/2]	—	Ch1	Ch2	—	—	Ch3	Ch4	—
	○	Ch1	Ch2	—	Ch3	Ch4	Ch5	—
[3/0]	—	Ch1	Ch2	Ch3	—	—	—	—
	○	Ch1	Ch2	Ch3	Ch4	—	—	—
[3/1]	—	Ch1	Ch2	Ch3	—	—	—	Ch4
	○	Ch1	Ch2	Ch3	Ch4	—	—	Ch5
[3/2]	—	Ch1	Ch2	Ch3	—	Ch4	Ch5	—
	○	Ch1	Ch2	Ch3	Ch4	Ch5	Ch6	—

*1 ○ indicates that [LFE Channel] in the [Dolby Setting] dialog box is checked.

[Dolby Setting] Dialog Box

[Audio Coding Mode]	Specify the audio channel (front left (L), front center (C), front right (R), single rear (S) rear left (Ls), rear right (Rs)). Select an option from [1/0] (C only, monaural), [2/0] (L/R, stereo), [2/1] (L/R/S), [2/2] (L/R/Ls/Rs), [3/0] (L/C/R), [3/1] (L/C/R/S), [3/2] (L/C/R/Ls/Rs). The items where the number of channels exceeds the audio channels in the project setting cannot be selected.
[LFE Channel]	Check this item to export including LFE channel. When [Audio Coding Mode] is set to [1/0] or [2/0], it cannot be selected.
[Dolby Surround Mode]/[Dolby Surround Mode EX]*1	Set Dolby surround or Dolby Digital surround EX. When [Audio Coding Mode] is set to [1/0] or [2/1], it cannot be selected.
[Stereo Downmix Preference]	Can be set when [Audio Coding Mode] is set to [3/0], [3/1], or [3/2]. **[Not indicated]** Dolby surround mode is not specified. **[Lt, Rt]** Downmix to audio compatible with Dolby surround. **[Lo, Ro]** Downmix to audio compatible with stereo or monaural playback. **[Pro Logic II]** Downmix in the Dolby Digital Pro Logic II format. For Dolby Digital Professional, it cannot be set.
[Center Mix Level]	Can be set when [Audio Coding Mode] is set to [3/0], [3/1], or [3/2]. Select a value to downmix the center channel when the playback device does not have the center channel and stereo playback is to be performed. Selecting [-INF dB] deletes the center channel.
[Surround Mix Level]	Can be set when [Audio Coding Mode] is set to [2/1], [2/2], [3/1], or [3/2]. Select a value to downmix the surround channel when the playback device does not have the surround channel and stereo playback is to be performed. Selecting [-INF dB] deletes the surround channel.
[Peak mixing level]	Specify the peak sound pressure level (SPL) in the environment where the final mixing has been performed (such as a studio or dubbing stage). Select from [111 dB] to [80 dB].
[Dialog Normalization]	Specify the average audio level of the bitstream. Specifying this value enables playback of multiple audio with the same level on the playback device. Select from [-31 dB] to [-1 dB]. The difference between the selected value and 31 dB is the attenuation when the audio is played back on a playback device. Select the audio level [-31 dB] from the edited file. **Example:** For audio of average −6 dB Set [-6 dB]. The attenuation will be 31 dB – 6 dB = 25 dB. **Example:** For audio of average −12 dB Set [-12 dB]. The attenuation will be 31 dB – 12 dB = 19 dB.
[Bitstream Mode]	Set the audio service included in the bitstream.

[Room type]	Specify the information on the environment where the final mixing has been performed (such as a studio or dubbing stage).
[Dynamic range control profile]	Specify the dynamic range compression settings. To use [Dynamic range control profile], configure [Dialog Normalization] properly.
[A/D converter type]	Specify the digital conversion process.
[LFE lowpass filter]	Check this item to enable the low-pass filter of the LFE channel and to filter audio of 120 Hz or higher.
[90-degree phase shift]	Check this item to output in Dolby surround compatible audio when downmix playback of multi-channel audio is performed on a 2-channel decoder.
[3 db attenuation]	Check this item to decrease the surround channel by 3 dB when home theater equipment compatible with multi-channel is used.
[Copyright Flag]	Check this item to specify that the output file contains copyright-protected contents.
[Original Flag]	Check this item to specify that the output file is not a copy but an original file.

*1 If [2/0] is specified for [Audio Coding Mode], [Dolby Surround Mode] is set. If [2/2], [3/0], [3/1], or [3/2] is specified, [Dolby Surround Mode EX] is set.

QuickTime Format

You can export a project in MOV format that can be played back as a QuickTime movie.

- If one of the following exporters is used for export when [Color Space] in [Project Settings] is set to [BT.2020/BT.2100 HLG] or [BT.2020/BT.2100 PQ], HDR metadata will be added at the time of export.
  - [Grass Valley HQX MOV]
  - [Grass Valley HQ MOV]
  - [H.264/AVC MOV]
  - [H.264/AVC MOV (NVIDIA)]
  - [H.265/HEVC MOV]
  - [H.265/HEVC MOV (NVIDIA)]
  - [ProRes MOV]
  - [ProRes 4444 MOV]
  - [DNxHD MOV]
  - [DNxHR MOV]
  - [DNxHR 444 MOV]

1) Click [QuickTime] in the category tree of the [Print to File] dialog box.

- **"Exporting with Exporter" (▶ page 431)**

2) Select an exporter, and click [Export].

3) Select a file format from the [Save as type] list, and configure the detailed settings.

- If the exporter is [ProRes MOV], set the codec in [ProRes CODEC settings].
  Select an item from [ProRes 422 HQ], [ProRes 422], [ProRes 422 LT] and [ProRes 422 Proxy].
- If the exporter is [ProRes 4444 MOV], set the codec in [ProRes CODEC settings].
  There is only one setting item, [ProRes 4444].
- If the exporter is [JPEG2000 MOV] or [QT Animation MOV], set [Video] and [Audio]. [Quality] for video and [Codec] for audio can be set.
- For the detailed items when [H.264/AVC MOV] and [H.265/HEVC MOV] are set for the exporter, see the descriptions given for the [Basic Settings] tab/[Extended Settings] tab in "MP4 Format".
  "MP4 Format" (▶ page 441)
- If the exporter is [DNxHD MOV], set [Bitrate].
- If the exporter is [DNxHR MOV] or [DNxHR 444 MOV], set [Format] and [VBR].

4) Configure the export settings, enter a file name and click [Save].

- For the items for the Grass Valley HQ and Grass Valley HQX codec settings, see the description given for the [Settings - Grass Valley HQ]/[Settings - Grass Valley HQX] dialog box in [System Settings].
  "[Settings - Grass Valley HQ]/[Settings - Grass Valley HQX] Dialog Box" (▶ page 138)
- See the QuickTime player help for more information on the detailed settings for each file export.

BD Format

You can export to an MPEG 2 format file (*.m2ts) for BD.

1) Click [H.264/AVC] in the category tree of the [Print to File] dialog box.

- **"Exporting with Exporter" (▶ page 431)**

2) Click [Blu-ray], and click [Export].

- The [Blu-ray] dialog box appears.
  "[Blu-ray] Dialog Box" (▶ page 441)

3) After setting the export details, specify a file name and save destination and click [Save].

[Blu-ray] Dialog Box

■ [Basic Settings] tab

[Video settings]	**[Profile]** Set the profile. The selectable profiles will differ dependent on the frame size to be exported. **[Bit Rate Type]** [CBR] assigns a constant number of bits. Although noise, etc. may be present, the encoding process is made quicker. [VBR] changes the assigned bitrate according to the complexity of the movement or image quality. Compared with [CBR], the media volume can be used more efficiently, and this enables more consistent image quality overall. **[Average]** Set this item if [CBR] or [VBR] has been selected as the bitrate type. You can either select from the list or enter values directly. **[Max]** Set this item if [VBR] has been selected as the bitrate type. You can either select from the list or enter values directly. **[Quality]** Select the image quality from the list. **[Use Hardware Encoder]** Check this item to output video using hardware encoding with Quick Sync Video. Unchecking this item will output video using H.264 software encoder that enables high-quality and high-speed encoding. In an environment where hardware encoding is not available, [Use Hardware Encoder] will not be displayed. The encoder for output will be fixed to H.264 software encoder.
[Audio settings]	**[Format]** Select the audio compression format from the list. • For [Dolby Digital Professional (AC-3)] If the number of audio channels in the project settings is 7ch or more, the 7th channel and later are discarded, and the project is output with 5.1ch - 1ch:L, 2ch:R, 3ch:C, 4ch:LFE, 5ch:Ls, and 6ch:Rs. If the number of audio channels in the project settings is 5ch or less, all except 1/2ch are discarded and the project is output with 2ch. • For [Linear PCM] If the number of audio channels in the project settings is 8ch, output is with 8ch; if the number is 6ch/7ch, output is with 6ch; if the number is 4ch/5ch, output is with 4ch: and if the number is 3ch, output is with 2ch. **[Bit Rate]** Select a bitrate from the list.

■ [Extended Settings] tab

[GOP Structure]	Select the GOP structure.
[Picture Count]	Set the GOP length.
[Number of Reference Frames]	Set up to how many frames to consider when motion estimation is performed.
[Multi Slice]	Check this item to divide 1 frame into 4 parts. If the decoder supports multi-slicing, the decoding may be made quicker.
[Entropy Coding Mode]	Select the H.264 encoding mode.
[Bit Depth]	Video quantization bitrate is fixed at [8].
[Chroma Format]	Pixel format of YUV is fixed at [4:2:0].

MP4 Format

Projects can be exported in MP4 format files (*.mp4).

- If [Bit Depth] is set to [10] in the [Extended Settings] tab at the time of export, the file will be exported in 10-bit.
- If one of the following exporters is used for export when [Color Space] in [Project Settings] is set to [BT.2020/BT.2100 HLG] or [BT.2020/BT.2100 PQ], HDR metadata will be added at the time of export.
  - [H.264/AVC]
  - [H.264/AVC (NVIDIA)]
  - [H.265/HEVC]
  - [H.265/HEVC (NVIDIA)]
- Export in H.265/HEVC is available by using Quick Sync Video. The [H.265/HEVC] exporter can be used only on an environment equipped with Intel Core i series CPU (6th generation or later).
  Note that the 6th generation CPUs do not support export of project in 4:2:0 10-bit.
  If Quick Sync Video is not equipped, encoding will be performed with software.
- Export in H.264/AVC or H.265/HEVC is available by using a graphics board manufactured by NVIDIA. The exporters for [H.264/AVC (NVIDIA)] and [H.265/HEVC (NVIDIA)] can be used only on an environment equipped with a graphics board manufactured by NVIDIA.
  For the supported graphics boards, visit our website.
  "Our Website" (▶ page 499)
- The [H.264/AVC (NVIDIA)] exporter does not support export of interlaced files and files with a bit depth of 10-bit.

1) Click [H.264/AVC] or [H.265/HEVC] in the category tree of the [Print to File] dialog box.

- **"Exporting with Exporter" (▶ page 431)**

2) Select an exporter, and click [Export].

- Select one of the following exporters.
  - [H.264/AVC]
  - [H.264/AVC (NVIDIA)]
  - [PlayStation Portable]
  - [iPod]
  - [H.265/HEVC]
  - [H.265/HEVC (NVIDIA)]

3) After setting the export details, specify a file name and save destination and click [Save].

- **"Export Settings Dialog Box in MP4 Format" (▶ page 442)**

Export Settings Dialog Box in MP4 Format

The setting items will differ depending on the exporter.

■ [Basic Settings] tab

[Video settings]	**[Profile]** Set the profile. The selectable profiles will differ depending on the frame size to be exported. **[Bit Rate Type]** [CBR] assigns a constant number of bits. Although noise, etc. may be present, the encoding process is made quicker. If the exporter is [H.265/HEVC (NVIDIA)] or [H.265/HEVC MOV (NVIDIA)] for [QuickTime], you cannot select [CBR]. [VBR] changes the assigned bitrate according to the complexity of the movement or image quality. Compared with [CBR], the media volume can be used more efficiently, and this enables more consistent image quality overall. **[Average]** Set this item if [CBR] or [VBR] has been selected as the bitrate type. You can either select from the list or enter values directly. **[Max]** Set this item if [VBR] has been selected as the bitrate type. You can either select from the list or enter values directly. **[Quality]** Select the image quality from the list. **[Use Hardware Encoder]** Check this item to output video using hardware encoding with Quick Sync Video. Unchecking this item will output video using the H.264/H.265 software encoder that enables high-quality and high-speed encoding. In an environment where hardware encoding is not available, [Use Hardware Encoder] will not be displayed. The encoder for output will be fixed at H.264 software encoder. If the [H.264/AVC (NVIDIA)] or [H.265/HEVC (NVIDIA)] exporter has been selected and you check [Use Hardware Encoder] to output video in an environment where software encoding is not available, the job will result in an error.

[Audio settings]	**[Format]**[*1] The audio compression format will be fixed at [AAC]. **[Bit Rate]** Select a bitrate from the list.

*1 If the exporter is [H.264/AVC MOV] or [H.265/HEVC MOV] for [QuickTime], you can also select [Linear PCM].

■ [Extended Settings] tab

[GOP Structure]	Select the GOP structure.
[Picture Count]	Set the GOP length.
[Number of Reference Frames]	Set the maximum number of frames to be taken into consideration in motion estimation.
[Multi Slice]	Check this item to divide 1 frame into 4 parts. If the decoder supports multi-slicing, the decoding may be made quicker.
[Entropy Coding Mode]	Select the H.264 encoding mode.
[Adjust bitrate by pixels per sec]	Check this item to adjust the bitrate in accordance with the number of pixels per second.
[Bit Depth]	Select a video quantization bitrate from the list.
[Chroma Format]	Select a YUV pixel format from the list.
[MP4 Option]	Select [Fast Start] to add moov at the start of the file, set it as Fast Start, and export it. Select [Fragmented] to export the file in Fragmented MP4 format. If you do not use [Fast Start] and [Fragmented], select [None].
[Audio Option][*1]	Select [Multi Channels] to output the channels as center, right or left. Select [Multi Tracks] to output multiple streams of 2ch channel. When 6 or more channels are output, all channels can be output using this option. If you check [Apply bitrate per track], the [Bit Rate] setting made for [Audio settings] in the [Basic Settings] tab will be applied to each track. This setting is enabled only when [Multi Tracks] has been selected.

*1 Available only when [Format] of [Audio settings] in the [Basic Settings] tab is set to [AAC].

Note

- If [Bit Depth] is set to [10], or if [Chroma Format] is set to [4:2:2], hardware encoding may not be performed depending on the hardware capability, even when the [Use Hardware Encoder] checkbox has been selected in [Video settings]. In such a case, encoding will be performed with software.

Uploading HDR video to YouTube

This section describes how to export files recognized as HDR video on YouTube.

- The following procedure shows an example.

1) Create a project.

- Create a project with the following project settings.
  - [Video Preset]: [QFHD 3840 x 2160 59.94p]
  - [Video Bit Depth]: [10bit]
  - [Color Space]: [BT.2020/BT.2100 PQ]

2) Register a clip in the Log format to the project, and place the clip on the timeline.

3) Apply [Primary Color Correction] to the clip.

- If the clip is not recognized as Log file, set the color space manually.
- Performing color grading in the [Primary Color Correction] dialog box, if necessary.
- **“Adjusting with [Primary Color Correction]” (▶ page 347)**

4) Click [Print to File].

5) Click [H.264/AVC] or [H.265/HEVC] in the category tree of the [Print to File] dialog box.

6) Select [H.264/AVC MP4 3840x2160 59.94p 10bit] or [H.265/HEVC MP4 3840x2160 59.94p 10bit] from [Preset] of exporter.

7) Click [Export] and specify the file name and save destination, and click [Save].

- When the exported file is uploaded to YouTube, the file is recognized as HDR video. For details, visit the website of YouTube.

MPEG-2 Format

Projects can be exported as an MPEG-2 format file.

1) Click [MPEG] in the category tree of the [Print to File] dialog box.

- **"Exporting with Exporter" (▶ page 431)**

2) Click [MPEG2 Program Stream], and click [Export].

- The [MPEG2 Program Stream] dialog box appears.
  "[MPEG2 Program Stream] Dialog Box" (▶ page 444)

3) Configure the video and audio settings, specify a file name and save destination and click [Save].

[MPEG2 Program Stream] Dialog Box

■ [Basic Settings] tab

The setting items displayed may differ in part depending on the exporter.

[Video settings]	**[Segment Encode]** Check this item to export a clip of a raw source without re-encoding. This increases the output speed. **[Size]** Select an image quality. **[Quality/Speed]** Select quality from the list. The higher the quality, the more time it takes to be encoded. **[Bit Rate]** Select a bitrate type. [CBR] sets a fixed transfer rate, allocating a fixed number of bits during the encoding process. Select a bitrate from the [Average(bps)] list. You can also enter a value directly. [VBR] sets a variable transfer rate, altering the number of assigned bits according to the complexity of the movement or image quality. Compared with [CBR], the media volume can be used more efficiently, and this enables more consistent image quality overall. Select a bitrate from the [Average(bps)] and [Maximum(bps)] lists. You can also enter a value directly.
[Audio settings]	**[Format]** Select the audio compression format from the list. **[Channel]** Select from [Stereo], [Dual Channel] or [Joint Stereo]. [Stereo] is normal stereo that records separately on the left and right sides. If there is a large difference between the left and right audio, compared to stereo that saves audio with a greater focus on one side, [Dual Channel] records totally independently so that there is no bias in sound quality to one side. Select to enter narration in 2 languages, etc. [Joint Stereo] improves audio quality and compression ratio when recording left and right audio separately by automatically using a single channel that combines the audio when the left and right sides are the same or one more channel when the left and right audio are different. **[Bit Rate]** Select a bitrate from the list.

■ [Extended Settings] tab

[Video settings]	**[Field Order]** For interlace, a field order can be selected. **[Chroma Format]** Select a YUV pixel format from the list. **[Profile & Level]** Select a profile & level. If [Chroma Format] is [4:2:0] and [4:2:2], the profile will be set to Main Profile and 422Profile, respectively. The level for SD image quality will be Main Level, and the level for HD image quality will be High Level. The profile & level changes according to the format selected in [Chroma Format]. **[GOP Structure]** For MPEG, a certain number of frames is considered as a group, and operations such as compression/enlargement and cut editing are performed on a GOP basis. A GOP comprises “I frame”, “P frame” and “B frame”. The I frame allows images to be reproduced independently, the P frame is for recording and reproducing only the differences with the preceding image, and the B frame reproduces images from the differences in the preceding and following images. Select I, P and B frame patterns of the GOP from the list. Normally, select [IBBP]. [I-Frame Only] is comprised of only I-pictures. Editing is made easier, but the amount of data increases in size. **[Picture count]** Set the number of frames included in a group. **[Closed GOP]** Check this item to complete information within each GOP. Although the amount of data increases, the video can be re-edited using software that supports GOP-based editing. Normally, leave this item unchecked.
[Audio settings]	**[Emphasis]** Select from the list for high-frequency compensation that saves while emphasizing the high range. With [None], there is no high-frequency compensation. [50/15 us] is an emphasis setting employed by some audio CDs, etc. [CCITT J.17] is a telecommunications standard recommended by CCITT. **[Protection]** The “protection_bit” indicates whether redundancy is added to an audio stream in order to make error detection and correction possible. Check this item to change it to “1”, indicating that redundancy is being added. Uncheck this item to change it to “0”, indicating that redundancy is not being added. **[Original Flag]** Check this item to change the “original_copy” bit to “1”, indicating the original copy. If it is unchecked, it becomes “0”, indicating a duplication. **[Copyright Flag]** Check this item to change the “copyright” bit to “1”, indicating that the copyright is protected. If it is unchecked, it becomes “0”, indicating there is no copyright.

Still Image Format

You can export the timeline as still image files.

1) Click [Other] in the category tree of the [Print to File] dialog box.

- **“Exporting with Exporter” (▶ page 431)**

2) Click [Still Image], and click [Export].

3) Specify a file name and export destination, and select the export format.

- A sequential number will be added based on the file name entered.

[Advanced]	Change the aspect ratio correction or export field settings. The settings for [Still Image] in [System Settings] will be the initial values. **“[Still Image]” (▶ page 107)**

- For example, if “Still1” is entered as the file name, the exported image files will become “Still1”/“Still2”/“Still3”... and if “Still5” is entered as the file name, the exported image files will become “Still5”/“Still6”/“Still7”..., etc. If a number is not added at the end of the file name, an 8-digit sequential number will be added automatically.

4) Click [Save].

- The video is exported as still images.

Flash Video (F4V) Format

Projects can be exported in F4V format for Flash.

- If [Color Space] is set to [BT.2020/BT.2100 HLG] or [BT.2020/BT.2100 PQ] in [Project Settings], HDR metadata will be added at the time of export.

1) Click [H.264/AVC] in the category tree of the [Print to File] dialog box.

- **"Exporting with Exporter" (▶ page 431)**

2) Click [F4V], and click [Export].

- The [F4V] dialog box appears.
  "[F4V] Dialog Box" (▶ page 446)

3) After setting the export details, specify a file name and save destination and click [Save].

[F4V] Dialog Box

■ [Basic Settings] tab

[Video settings]	**[Profile]** Set the profile. The selectable profiles will differ depending on the frame size to be exported. **[Bit Rate Type]** [CBR] assigns a constant number of bits. Although noise, etc. may be present, the encoding process is made quicker. [VBR] changes the assigned bitrate according to the complexity of the movement or image quality. Compared with [CBR], the media volume can be used more efficiently, and this enables more consistent image quality overall. **[Average]** Set this item if [CBR] or [VBR] has been selected as the bitrate type. You can either select from the list or enter values directly. **[Max]** Set this item if [VBR] has been selected as the bitrate type. You can either select from the list or enter values directly. **[Quality]** Select the image quality from the list. **[Use Hardware Encoder]** Check this item to output video using hardware encoding with Quick Sync Video. Unchecking this item will output video using H.264 software encoder that enables high-quality and high-speed encoding. In an environment where hardware encoding is not available, [Use Hardware Encoder] will not be displayed. The encoder for output will be fixed at H.264 software encoder.
[Audio settings]	**[Format]** The audio compression format will be fixed at [AAC]. **[Bit Rate]** Select a bitrate from the list.

■ [Extended Settings] tab

[GOP Structure]	Select the GOP structure.
[Picture Count]	Set the GOP length.
[Number of Reference Frames]	Set the maximum number of frames to be taken into consideration in motion estimation.
[Multi Slice]	Check this item to divide 1 frame into 4 parts. If the decoder supports multi-slicing, the decoding may be made quicker.
[Entropy Coding Mode]	Select the H.264 encoding mode.
[Adjust bitrate by pixels per sec]	Check this item to adjust the bitrate in accordance with the number of pixels per second.
[Bit Depth]	Video quantization bitrate is fixed at [8].
[Chroma Format]	Pixel format of YUV is fixed at [4:2:0].

■ [Metadata] tab

[Export sequence marker as cue point]	Check this item to export sequence markers as cue points for Flash. Select the name of the type of cue point.

[Metadata]	Export is possible with metadata appended. Select an item from the [Name] list, and enter metadata at [Value].
[Import]	Import XMP format (*.xmp) metadata. This is reflected in the [Metadata] setting.
[Export]	Export the settings made at [Metadata] in XMP format.

AVCHD Format

AVCHD streams can be easily exported to an SD memory card or memory stick. A file can be exported to any desired save destination.
If exporting to removable media, make sure to connect the SD memory card or memory stick to the PC before export.

- If you want to edit a menu, etc. use Disc Burner to write the project to DVD or BD.
  "Exporting to Disc" (▶ page 461)

Note

- If you try to export a file to the internal storage or internal memory of an AVCHD video camera or a removable disk and play it back on the AVCHD video camera, export or playback may not be available on some cameras.
- You cannot write AVCHD streams from EDIUS directly to a DVD-R or BD.

1) Click [AVCHD] in the category tree of the [Print to File] dialog box.

- **"Exporting with Exporter" (▶ page 431)**

2) Select an exporter, and click [Export].

- To write to removable media, click [AVCHD Writer], and proceed to step **3)**.
- To export to an AVCHD format file without writing to removable media, click [AVCHD], and proceed to step **5)**.

Note

- Depending on the type of save destination, a warning message may be displayed saying that data will become unrecognizable. Be sure to create a backup before export, as required.

3) Select [Drive] in [Destination].

- The SD memory card or memory stick connected to the PC will be recognized as an external drive.

- You can select [Folder] and click [Select] to export an AVCHD stream to a specific location on the PC.

4) Select [SD Memory Card] or [Memory Stick / HDD Camera] in [Format].

- Select according to the media being used.

5) Configure each item in the [Basic Settings] tab and [Extended Settings] tab.

- For the setting items, see the descriptions given for the [Basic Settings] tab/[Extended Settings] tab in "BD Format".
  "BD Format" (▶ page 440)

6) Click [OK].

- For [AVCHD], set a file name and save destination, and click [Save].

- If a stream file size exceeds 2 GB, the file will be split up and exported.

XDCAM EX Format

Projects can be exported to an SxS memory card or an SDHC memory card in the XDCAM EX format.
Connect a device to the PC, and check the power is turned on.
Projects can also be exported as files to the storage on the PC.

Note

- Be sure to format the SxS memory card with an XDCAM EX device in advance.

1) Click [XDCAM] in the category tree of the [Print to File] dialog box.

- **"Exporting with Exporter" (▶ page 431)**

2) Select an exporter, and click [Export].

- Select either [XDCAM EX] or [XDCAM EX DV] as the exporter.

3) Set the export destination, quality, metadata, etc., and click [OK].

- The setting items will differ depending on the exporter.

Example:

If [XDCAM EX] has been selected.

[Destination]	Select whether to export to an SxS memory card, to export to an SDHC memory card, or to save to a local folder. A file is exported in a folder structure. If [Sony - SxS Memory Card] or [JVC - SDHC Memory Card] is selected, select a card from the list. If [Automatically select the next card when card is full.] is checked, when free space runs out on the SxS memory card selected as the export destination, an SxS memory card with free space will be selected automatically and exported to. If it is unchecked, a dialog box will be displayed to select the export destination. If [Folder] has been selected, click [...] and specify a save destination.
[Segment Encode]	Check this item to export a clip of a raw source without re-encoding. This increases the output speed.
[ClosedGOP]	Check this item to complete information within each GOP. Although the amount of data increases, the video can be re-edited using software that supports GOP-based editing.
[Audio/Stereo]	Check this item to export the audio as a stereo track. This is only displayed when the audio channel is 2ch.
[Mode]	Select an image quality mode (SP or HQ).
[Quality/Speed]	Select quality from the list. The higher the quality, the more time it takes to be encoded.
Metadata	Add metadata such as title and comments to clips to be exported.

P2 Format

You can export a project to a P2 card.
Connect the P2 device to the PC, and check that the power is turned on.
Projects can also be exported as files to the storage on the PC.

- If data is to be exported by the AVC-Intra or AVC-Ultra codec and [Color Space] is set to [BT.2020/BT.2100 HLG] or [BT.2020/BT.2100 PQ] in [Project Settings], HDR metadata will be added at the time of export.

Note

- Make sure that the P2 device drivers are already installed.
- Audio will be exported in 16-bit format audio, even if the project preset is set to 24-bit format audio.

1) Click [P2] in the category tree of the [Print to File] dialog box.

- **"Exporting with Exporter" (▶ page 431)**

2) Select an exporter, and click [Export].

- Select either [P2 Clip], [HD P2 Clip], or [AVCUltra P2 Clip] as the exporter. Exporters that do not support the project settings will not be displayed.

3) Set the export destination, user clip name, codec, etc., and click [OK].

- The setting items will differ depending on the exporter.

- Metadata, such as the created by and capture information, can be imported from another P2 clip. Click [Load Metadata] and select the XML file to be imported.
- If there is no more free space in the export destination or if the clip consists of files with a size exceeding 4 GB in total, the clip will be split up and exported.
  If [Automatically select the next card when card is full.] is checked, when the clip is split, a P2 card drive that has free space will be selected automatically and exported to. If it is unchecked, when the clip is split, a dialog box will appear to select the export destination.

- If exporting at 720p, the export frames must be even frames. If a confirmation message appears, select a processing method.
- If a DVCPRO HD export format and the settings content for an EDIUS project preset differ, the export data will be stretched before export so that the frame rate and the field order correspond to each other.

XDCAM Format

With the XDCAM exporter you can output a project as an MXF file, and upload it to an XDCAM device or FTP server.
Projects can also be exported as MXF files to the storage on the PC.

- Files can also be exported to the XDCAM Memory drive (SxS memory card formatted with an XDCAM device).
- To export to an FTP server, have the connection destination set in advance in system settings.
  "XDCAM Connection Settings" (▶ page 111)

Note

- Be sure to format the SxS memory card with an XDCAM device in advance.
- Files cannot be exported to an SxS memory card formatted in the XDCAM EX format.
- Proxy files will not be exported.

1) Click [XDCAM] in the category tree of the [Print to File] dialog box.

- **"Exporting with Exporter" (▶ page 431)**

2) Select an exporter, and click [Export].

- Select from [XDCAM DV], [XDCAM HD], [XDCAM HD 422], [XDCAM HD 720P] or [XDCAM MPEG IMX] for the project image size.
- Exporters that do not support the project settings will not be displayed.

3) Set the export destination, clip name, etc., and click [OK].

- The setting items will differ depending on the exporter.

Example:

If [XDCAM HD] has been selected.

[Destination]	Select whether to export to an XDCAM drive, to an FTP server, or to the desired folder on the PC. A file is exported in a folder structure. If [XDCAM Drive] was selected, select a Drive from the list. If [FTP] was selected, check the server to be exported to and, as necessary, check the item described below. If [Folder] was selected, click [Select] and specify a save destination. **[Upload to FTP after exporting file.]** Check this item to export a temporary file to the project folder, and then upload the actual data to an FTP server. After outputting the temporary file, if an error occurs during transfer to the FTP server or if the upload is aborted, the temporary file will not be deleted.
[Clip Name]	Set the file name to be exported. **[Auto (C****)]** If it is checked, a file name will be set automatically. To set a preferred file name, remove the check from [Auto (C****)] and enter a name in [Clip Name]. ("Clip Naming" must be set as "Free" on the XDCAM drive.)
[Segment Encode]	Check this item to export a clip of a raw source without re-encoding. This increases the output speed.
[Bit Rate]	Select a bitrate from the list.
[Quality/Speed]	Select a quality.
[ClosedGOP]	Check this item not to use the B-picture at the GOP border as reference across GOPs. Although the amount of data increases, the video can be re-edited using software that supports GOP-based editing, as the information is completed within each GOP.
[Audio Format]	Select the audio format to export.

- If a clip is exported that does not include high-resolution or proxy data, a dialog box will appear to set the processing before export. Select a processing method and click [OK].
- If [XDCAM MPEG IMX] was selected, 3 lines (black) will be added above and below the 720x480 video to be exported as Even (Top Field First).
  Also, 720x576 (Odd) video will be shifted by 1 line to be exported as Even (Top Field First).
- If uploading an MXF file to an FTP server that has once been exported to a folder on a PC, use the source browser. Click the XDCAM tree in the source browser, right-click the FTP connection destination and click [Upload]. Select an MXF file, and click [Open].

XAVC S Format

You can export a project to an XQD memory card in the XAVC S format.
Connect a device to the PC, and check that the power is turned on.
Projects can also be exported as files to the storage on the PC.

- If [Color Space] is set to [BT.2020/BT.2100 HLG] or [BT.2020/BT.2100 PQ] in [Project Settings], HDR metadata will be added at the time of export.

Note

- Be sure to format the XQD memory card with an XAVC S device in advance.

1) Click [XAVC] in the category tree of the [Print to File] dialog box.

- **"Exporting with Exporter" (▶ page 431)**

2) Click [XAVC S], and click [Export].

3) Set the export destination, clip name, etc., and click [OK].

[Destination]	Select whether to export to an XAVC S device or to a desired PC folder. A file is exported in a folder structure. If [Memory Card] is selected, select a device from the list. If [Folder] is selected, click [...] and specify a save destination.
[Video settings]	**[Bit Rate]** Select a bitrate from the list. **[Quality]** Select an image quality. **[Use Hardware Encoder]** Check this item to output video using hardware encoding with Quick Sync Video. Unchecking this item will output video using H.264 software encoder that enables high-quality and high-speed encoding. In an environment where hardware encoding is not available, [Use Hardware Encoder] will not be displayed. The encoder for output will be fixed to H.264 software encoder.
[Audio settings]	Select the audio format of the video to be exported.
Metadata	Add metadata such as title and comments to clips to be exported.

XAVC Format

With the XAVC exporter, you can export a project, and upload it to an XDCAM device or FTP server.
Projects can also be exported to the storage on the PC.

- Files can also be exported to the XDCAM Memory drive (SxS memory card formatted with an XDCAM device).
- To export to an FTP server, configure the setting of the connection destination in advance in system settings.
  "XDCAM Connection Settings" (▶ page 111)
- If [Color Space] is set to [BT.2020/BT.2100 HLG] or [BT.2020/BT.2100 PQ] in [Project Settings], HDR metadata will be added at the time of export.

Note

- Be sure to format the SxS memory card with an XDCAM device in advance.
- Files cannot be exported to an SxS memory card formatted in the XDCAM EX format.

1) Click [XAVC] in the category tree of the [Print to File] dialog box.

- **"Exporting with Exporter" (▶ page 431)**

2) Click [XAVC], and click [Export].

3) Set the export destination, clip name, etc., and click [OK].

[Destination]	Select whether to export to an XDCAM drive, to an FTP server, or to the desired folder on the PC. A file is exported in a folder structure. If [XDCAM Drive] was selected, select a drive from the list. If [FTP] was selected, check the server to be exported to and, as necessary, check the item described below. If [Folder] was selected, click [Select] and specify a save destination. **[Upload to FTP after exporting file.]** Check this item to export a temporary file to the project folder, and then upload the actual data to an FTP server. After exporting the temporary file, if an error occurs during transfer to the FTP server or if the upload is aborted, the temporary file will not be deleted.
[Clip Name]	Set the file name to be exported. **[Auto (C****)]** If it is checked, a file name will be set automatically. To set a preferred file name, remove the check from [Auto (C****)] and enter a name in [Clip Name]. (“Clip Naming” must be set as “Free” on the XDCAM drive.)
[Format]	Select the format to export.
[Quality/Speed]	Select quality and speed.
[Audio Channels]	Select the number of audio channels.

K2 (CMF) or K2 (GXF) Format

You can export a project in the CMF or GXF format employed by K2.

- To export to an FTP server, have the connection destination set in advance in system settings.
  “[GXF]” (▶ page 107)

Note

- Audio will be exported in 16-bit format audio, even if the project preset is set to 24-bit format audio.

1) Click [K2] in the category tree of the [Print to File] dialog box.

- **“Exporting with Exporter” (▶ page 431)**

2) Select an exporter, and click [Export].

- The output settings dialog box appears. The setting items will differ depending on the exporter.

Example:

If [MPEG2 GXF] has been selected.

[Clip Name]	Enter the name of the clip (file) to be exported.
[Destination]	Select whether to export to a desired PC folder or to an FTP server. If [Folder] was selected, click [Select] and specify a save destination. If [FTP] was selected, check the server to be exported to and, as necessary, check the items described below. **[Overwrite file when it exists]** Check this item to overwrite a file if the file with the same file name is present at the FTP server of the export destination. **[Upload to FTP after exporting file]** Check this item to export a temporary file to the project folder, and then upload the actual data to an FTP server. After outputting the temporary file, if an error occurs during transfer to the FTP server or if the upload is aborted, the temporary file will remain undeleted. **[Do not add file extension when exporting to FTP]** Check this item to export a file without adding the file extension to the name entered in [Clip Name]. (If [Clip Name] contains a file extension, export will take place with a clip file name with its file extension removed.) When this item is unchecked, export will take place with the “*.gxf” file extension added if the name entered in [Clip Name] does not include the file extension.
[Keep the created file when aborting]	Becomes enabled if [Upload to FTP after exporting file] is unchecked. If it is checked and export is aborted, the file created up to the time point of the abort will remain at the export destination.

[Encode Settings]	**[Segment Encode]** Check this item to export a clip of a raw source without re-encoding. This increases the output speed. **[Bit Rate]** Select a bitrate type. [CBR] sets a fixed transfer rate, allocating a fixed number of bits during the encoding process. Enter an average bitrate in [Average]. [VBR] sets a variable transfer rate, altering the number of assigned bits according to the complexity of the movement or image quality. Enter the average bitrate in [Average], and maximum bitrate in [Max]. **[Quality/Speed]** Select quality from the list. **[Field Order]** The field order can be selected if it is in SD format. **[GOP structure]** Select I, P and B frame patterns of the GOP from the list. Normally, select [IBBP]. [I-Frame Only] is comprised of only I-pictures. Editing is made easier, but the amount of data increases in size. **[Picture count]** Enter the number of frames included in 1 GOP. **[Closed GOP]** If it is checked, the GOP will be closed. Although the amount of data increases, the video can be re-edited using software that supports GOP-based editing, as the information is completed within each GOP. Normally, leave this item unchecked. **[Chroma Format]** Select a YUV pixel format from the list. **[Profile/Level]** Select a profile & level. If [Chroma Format] is [4:2:0] and [4:2:2], the profile will be set to Main Profile and 422Profile, respectively. The level for SD image quality will be Main Level, and the level for HD image quality will be High Level. The profile & level changes according to the format selected in [Chroma Format].
[Bit Rate]	Select a bitrate from the list.
[Audio settings]	**[Channels]** Select the number of audio channels you want to export from the list. [Current setting] is the number of channels configured in the project settings. If [Enable Conversion] is checked for the exporter and the number of channels for the audio format is changed from the project settings, the number of channels will be the number set here. **[Bit Depth]** Select the number of bits to be used during sampling. [Current setting] is the number of bits configured in the project settings.

3) Configure the export and click [OK].

MXF Format

You can export to MXF, a video file format used in industry for server transfer, etc.

- To export to an FTP server, have the connection destination set in advance in system settings.
  "MXF FTP Server Settings" (▶ page 110)
- If one of the following exporters is used for export when [Color Space] in [Project Settings] is set to [BT.2020/BT.2100 HLG] or [BT.2020/BT.2100 PQ], HDR metadata will be added at the time of export.
  - [HQ MXF]
  - [HQX MXF]
  - [AVCIntra MXF]
  - [AVCUltra MXF]
  - [XAVC MXF]
  - [DNxHR MXF]
  - [DNxHR 444 MXF]
  - [ProRes MXF]
  - [ProRes 4444 MXF]

1) Click [MXF] in the category tree of the [Print to File] dialog box.

- **"Exporting with Exporter" (▶ page 431)**

2) Select an exporter, and click [Export].

- The output settings dialog box appears. The setting items will differ depending on the exporter.

Example:

If [MPEG2 MXF] has been selected.

[Clip Name]	Enter the name of the clip (file) to be exported.
[Destination]	Select whether to export to a desired PC folder or to an FTP server. If [Folder] was selected, click [Select] and specify a save destination. Checking [Create the index file for simul edit.] will create an index file for editing while recording. Simultaneous editing from a separate terminal will be available while export is in process. If [FTP] was selected, check the server to be exported to and, as necessary, check the items described below. **[Overwrite file when it exists]** Check this item to overwrite a file if the file with the same file name is present at the server of the export destination. Uncheck this item to display a confirmation message. **[Upload to FTP after exporting file]** Check this item to export a temporary file to the project folder, and then upload the actual data to an FTP server. After outputting the temporary file, if an error occurs during transfer to the FTP server or if the upload is aborted, the temporary file will not be deleted. **[Do not add file extension when exporting to FTP]** Check this item to export a file without adding the file extension to the name entered in [Clip Name]. (If [Clip Name] contains a file extension, export will take place with a clip file name with its file extension removed.) Uncheck this item to export a file with the “*.mxf” added if the name entered in [Clip Name] does not include the file extension.
[Keep the created file when aborting]	Becomes enabled if [Upload to FTP after exporting file] is unchecked. When this item is checked, the file being uploaded will be completed if an upload is aborted.
[Encode Settings]	**[Segment Encode]** Check this item to export a clip of a raw source without re-encoding. This increases the output speed. **[Bit Rate]** Select a bitrate type. [CBR] sets a fixed transfer rate, allocating a fixed number of bits during the encoding process. Enter an average bitrate in [Average]. [VBR] sets a variable transfer rate, altering the number of assigned bits according to the complexity of the movement or image quality. Enter the average bitrate in [Average], and maximum bitrate in [Max]. **[Quality/Speed]** Select quality from the list. **[Field Order]** The field order can be selected if it is in SD format. **[GOP structure]** Select I, P and B frame patterns of the GOP from the list. Normally, select [IBBP]. [I-Frame Only] is comprised of only I-pictures. Editing is made easier, but the amount of data increases in size. **[Picture count]** Enter the number of frames included in 1 GOP. **[Closed GOP]** If it is checked, the GOP will be closed. Although the amount of data increases, the video can be re-edited using software that supports GOP-based editing, as the information is completed within each GOP. Normally, leave this item unchecked. **[Chroma Format]** Select a YUV pixel format from the list. **[Profile/Level]** Select a profile & level. If [Chroma Format] is [4:2:0] and [4:2:2], the profile will be set to Main Profile and 422Profile, respectively. The level for SD image quality will be Main Level, and the level for HD image quality will be High Level. The profile & level changes according to the format selected in [Chroma Format].
[Bit Rate]	Select a bitrate from the list.
[Audio settings]	**[Channels]** Select the number of audio channels you want to export from the list. [Current setting] is the number of channels configured in the project settings. If [Enable Conversion] is checked for the exporter and the number of channels for the audio format is changed from the project settings, the number of channels will be the number set here. **[Bit Depth]** Select the number of bits to be used during sampling from the list. [Current setting] is the number of bits configured in the project settings. **[Channels Per Track]** Specify the number of channels to be included in 1 audio track for MXF. **[Type]** Select the audio format to export.
[System Type]	Select a system item format.
[KAG Size]	Select a KAG (KLV Alignment Grid) size.

[MXF Profile]	Export MXF files which have compatibility with third party systems.

- If the exporter is [ProRes MXF], set the codec in [Format].
  Select an item from [ProRes 422 HQ], [ProRes 422], [ProRes 422 LT] and [ProRes 422 Proxy].
- If the exporter is [ProRes 4444 MXF], set the codec in [Format]. There is only one setting item, [ProRes 4444].
- If the exporter is [DNxHR 444 MXF], set the codec in [Format]. There is only one setting item, [444].
  Checking [VBR] will change the bitrate to be assigned in accordance with the complexity of the movement or image quality.

3) Configure the export and click [OK].

AAF Format

You can export a project in an AAF file.

1) Click [Other] in the category tree of the [Print to File] dialog box.

- **"Exporting with Exporter" (▶ page 431)**

2) Click [AAF Project Exporter], and click [Export].

3) Set a file name, export destination, and [Preset], and then click [Save].

- **"[Project Exporter (AAF)] Dialog Box" (▶ page 79)**
- If you want to check the preset settings or change export settings, click [Detail].
  "[AAF Export Detail Settings] Dialog Box" (▶ page 79)

Exporting Closed Caption

Exporting a Project Containing Closed Caption Data

You can export a project that contains closed caption to a file.
A sidecar file (closed caption file) can be exported besides an output file, or closed caption data can be embedded into the output file.

- Closed caption data on upper tracks will be prioritized in export.

1) Select an exporter in the category tree of the [Print to File] dialog box.

- **"Exporting with Exporter" (▶ page 431)**

2) Select the export method from the list on the left of [Captions].

[None]	A file will be exported with the closed caption data removed.
[Sidecar File]	A normal file and sidecar file (closed caption file) are exported separately. Select the export method of the closed caption file from the list on the right. • The closed caption file formats supported for export are as follows. − *.scc − *.mcc • An exported closed caption file will be named as "Output file name.Container name.scc" or "Output file name.Container name.mcc". • If the conditions below are satisfied, two closed caption files will be exported. − [Scenarist Closed Caption (.scc) file] has been selected for the export format. − The output file has information on both CC1 and CC3 for CEA-608. In this case, the file names will be "Output file name.Container name.scc" (CC1) and "Output file name_cc3.Container name.scc" (CC3).
[Burn into Video]	A file will be exported with the closed caption displayed on the screen. In the exported file, closed caption will always be displayed. • The standard and type set for the closed caption display will be applied to the closed caption to be exported. **"Setting Closed Caption Display" (▶ page 151)**
[Embed in File]	Closed caption data is embedded in the output file and output as a single file. • This item can be selected when a file is exported either in the MXF/CMF/GXF format. • This item does not appear when [Preserve Ancillary data] in the sequence settings has been disabled. • Ancillary data including closed caption data will be exported from the position of frame 0 on the timeline regardless of existence of closed caption data.

3) Click [Export].

4) Set the export contents, and click [Save] or [OK].

- The export contents differ depending on the selected exporter. See the explanation for the respective exporter.

Note

- If [Sidecar File] or [Embed in File] has been selected for [Captions], changing [Frame Rate] in the [Print to File] (Detailed Settings) dialog box will disable export of closed caption.
- If one of the exporters in the categories [AVCHD] and [K2] (CMF) has been selected, [Sidecar File] cannot be selected for [Captions]. Also, if files are to be exported to an XDCAM device or FTP server using the [XDCAM] exporter, [Sidecar File] cannot be selected.
- The [Remove Ancillary data] setting in the [Print to File] (Detailed Settings) dialog box does not affect the export of closed captions.
- Some combination of input and output formats may cause change of data format or defects in output file.
- Closed caption data are not re-encoded. The input data will be output as they are.
- MCC Version 2 can be imported. However, the option parameters will not be evaluated.
- The 608 ancillary data packets (DID=61h and SDID=02h) are not supported.

Exporting Closed Caption File Alone

You can export the closed caption of a project alone to a file.

1) Click [Captions] in the category tree of the [Print to File] dialog box.

- **"Exporting with Exporter" (▶ page 431)**

2) Select an exporter, and click [Export].

3) Set a file name and saving destination, and click [Save].

Using Exporter by Target

You can easily export files using exporters for formats that are suitable for SNS or other upload destinations.

1) Click [Target] in the category tree of the [Print to File] dialog box.

- **"Exporting with Exporter" (▶ page 431)**

2) Select an exporter, and click [Export].

3) After setting the export details, specify a file name and save destination and click [Save].

- **"Export Settings Dialog Box in MP4 Format" (▶ page 442)**

Registering Exporter Configuration as Default Exporter

Click [Export] on the Recorder and select [Print to File (Default Exporter)] or [Add to Batch Export (Default Exporter)] to register a default exporter that can be selected by simple operation. The exporter settings can also be registered in combination with the conversion settings used to export in a format that differs from the project settings. Four exporters can be registered.

Creating Default Exporter

Register exporter configuration as a default exporter.

1) Select an exporter in the [Print to File] dialog box.

- **"Exporting with Exporter" (▶ page 431)**
- Configure the conversion settings with the purpose of registering the conversion settings, which export in a format that differs from the project settings, as a preset.
  "Exporting in a Format that Differs from the Project Settings" (▶ page 434)

2) Click the [Save as default] list button in the [Print to File] dialog box, and click a number to which the default exporter is to be registered → [Save].

- The exporter is registered as a default exporter.

Alternative

- Selecting an exporter in the [Print to File] dialog box and then clicking [Save as default] registers the exporter to [1] of [Current default].

- When you click [Current default] in the category tree, all user-registered default presets are displayed in the exporter/preset list.
- You can rename exporters registered as [Current default]. Click the [Save as default] list button in the [Print to File] dialog box, click the number of the exporter to rename → [Rename], and edit the name.

Deleting Default Exporter

Registered default exporters can be deleted.

1) Click the [Save as default] list button in the [Print to File] dialog box, and click a default exporter to be deleted → [Delete].

- The default exporter will be deleted.

Registering Exporter Settings as Preset

You can register frequently used exporter settings as presets. The exporter settings can also be registered in combination with the conversion settings used to export in a format that differs from the project settings.

Creating Exporter Presets

An exporter setting can be registered as an exporter preset.

1) Select an exporter in the [Print to File] dialog box.

- **"Exporting with Exporter" (▶ page 431)**
- Configure the conversion settings with the purpose of registering the conversion settings, which export in a format that differs from the project settings, as a preset.
  "Exporting in a Format that Differs from the Project Settings" (▶ page 434)

2) Click [Save preset] in the [Print to File] dialog box.

- [Preset Dialog] will be displayed.

3) Enter an exporter preset name in [Preset name], and configure the export details.

- The export contents differ depending on the exporter.

- You can enter your preferred description in [Description]. It will be displayed at the exporter/preset list in the [Print to File] dialog box.

4) Click [OK].

- The created preset is registered in the exporter/preset list.

- When you click [My presets] in the category tree, all user-registered exporter presets are displayed in the exporter/preset list.
- To change the settings of an already-created exporter preset, select the exporter preset to be changed, click [Save preset] and change the settings.

Deleting Exporter Presets

You can delete the exporter presets that you have created.

1) Select the exporter preset to be deleted in the [Print to File] dialog box.

- **"Exporting with Exporter" (▶ page 431)**

2) Click [Delete preset] in the [Print to File] dialog box.

3) Click [Yes].

- Only exporter presets that have been registered by the user can be deleted.

Importing Exporter Presets (Import)

You can import exporter presets. “*.tpd” and “*.expd” files can be imported.

1) Click [Import preset] in the [Print to File] dialog box.

- **“Exporting with Exporter” (▶ page 431)**

2) Select a file, and click [Open].

- When you click [My presets] in the category tree, imported exporter presets are displayed in the exporter/preset list.

Note

- Files with the “*.expd” extension cannot be imported to EDIUS version 10.34.10112 and earlier.

Exporting Exporter Presets (Export)

You can export the exporter presets that you have created. The extension of the exported file is “*.expd”.

1) Select an exporter preset in the [Print to File] dialog box.

- **“Exporting with Exporter” (▶ page 431)**

2) Click [Export preset] in the [Print to File] dialog box.

3) Enter a file name, select the save destination and click [Save].

- Exportable presets are the user-registered exporter presets, default exporters, and recently used exporters.

Exporting Multiple Sequences/Ranges Together

You can register exporters and ranges to be exported as a batch list, to export multiple ranges together that have been registered as a batch list.

Registering Ranges to Be Exported in a Batch List

You can specify exporters and ranges to be exported and register them in a batch list.

1) Set the In and Out points of a range to be exported.

- **“Setting the In and Out Points on the Timeline” (▶ page 222)**

2) Select an exporter in the [Print to File] dialog box, and click [Add to Batch List].

- **“Exporting with Exporter” (▶ page 431)**

Note

- If an exporter that does not support batch export has been selected, [Add to Batch List] will become disabled and you cannot add it to the batch list.

Alternative

- After setting the In and Out points of a range to be exported, click [Export] on the Recorder, and click [Add to Batch Export].
- After setting the In and Out points of a range to be exported, right-click the time scale and click [Add to Batch Export].
- After setting the In and Out points of a range to be exported, click [File] on the menu bar, and click [Export] → [Add to Batch Export].
- After setting the In and Out points of a range to be exported, right-click in the export list of the [Batch Export] dialog box and click [New].
  "[Batch Export] Dialog Box" (▶ page 459)

3) After setting the export details, specify a file name and export destination and click [Save] or [OK].

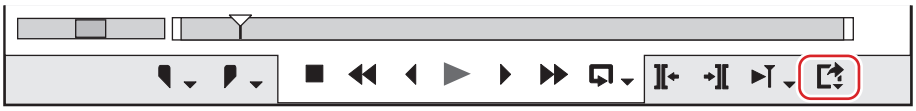
- Click [Save] or [OK] to register in the batch list.
- The export contents differ depending on the exporter.
- If you want to add multiple ranges from within a single project to the batch list, repeat the operations to set In and Out points and add to the batch list.

- After setting the In and Out points of a range to be exported, you can right-click the time scale and select [Add to Batch Export (Default Exporter)] → a default exporter to use. After setting the In and Out points of a range to be exported, you can also click [Export] on the Recorder and select [Add to Batch Export (Default Exporter)] → a default exporter to use.
  The file name and save destination are automatically set as follows. (When no default exporter is set or when [Export] is disabled, [Add to Batch Export (Default Exporter)] cannot be selected.)
  - File name: Exp MonthDay_000 (3-digit sequential number) + extension
  - Save destination: Project folder
  "[Print to File] Dialog Box" (▶ page 432)
- After setting the In and Out points of a range to be exported, if you right-click the time scale and click [Add to Batch Export (Project format)], the specified range is added to the batch list with the format specified in [Render format] of the [Project Settings] (Detailed Settings) dialog box. In this case, the file name and destination are set automatically as shown below: [Add to Batch Export (Project format)] cannot be selected when [Export] is disabled.
  - File name: Exp MonthDay_000 (3-digit sequential number) + extension
  - Save destination: Project folder
  "[Project Settings] (Detailed Settings) Dialog Box" (▶ page 59)
- The content of the batch list can be changed in the [Batch Export] dialog box.

Exporting Multiple Ranges Together (Batch Export)

You can export multiple ranges registered in the batch list together.

1) Click [Export] on the Recorder.



2) Click [Batch Export].

- The [Batch Export] dialog box appears.
  "[Batch Export] Dialog Box" (▶ page 459)

Alternative

- Click [File] on the menu bar, and click [Export] → [Batch Export].

3) Check the item to be exported, and click [Export].

- The rendering job will be registered to the Render Service. When registration to the Render Service has been completed, the checkbox in the [Batch Export] dialog box will be unchecked. An indication appears on the PC screen to notify that rendering will be started.
  Registered rendering jobs are processed in the background in a sequential order of the predetermined priority. The progress of the rendering process can be checked on GV Job Monitor.
  "GV Job Monitor" (▶ page 330)
- If [Add to Bin] has been checked in the [Batch Export] dialog box, a clip will be registered to the bin. The icon to indicate that the background job is in process is displayed on the clip, and the progress is indicated by a progress bar and percentage.
- The color of the GV Job Monitor icon on the status bar turns to purple while a batch export rendering job is being processed.
  When the rendering process has been finished, an indication appears on the PC screen to notify that rendering has been finished. The color of the icon on the status bar returns to its original state.
  "GV Job Monitor Icon Indication" (▶ page 330)
- Even if the project file is closed before the rendering process is completed, the process of the rendering job will be continued.

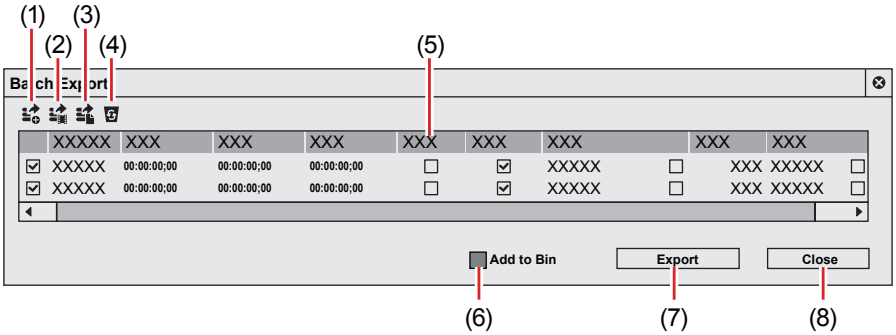
- After setting the In and Out points of a range to be exported, you can register a new range for export by right-clicking on the export list and clicking [New].

- If you right-click the export list and click [Select All], you can select all ranges registered for export. Check one of multiple selected items to check all the selected items.
- If you right-click an item on the export list and click [Change Exporter], you can change the exporter. You can change the exporter for multiple selected items. However, if those items include an exporter for which the file name cannot be set, such as the P2 exporter, changes will be applied to all selected exporters excluding that exporter.
- Clicking [OK] on the notification of start/finish of file export will display GV Job Monitor ([Job] window). Clicking [Close] will close the notification.
- The notification for start/finish of file export will be indicated in accordance with the setting of the [Notification] checkbox in GV Job Monitor, as well as the Windows configuration.

Note

- If you delete a sequence registered in the batch list from both the timeline and bin, the batch list will become disabled and will be displayed in red.
- If you change the sequence settings or project settings of a sequence registered in the batch list, the changes will also be applied in the batch list. If changes are made that mean an exporter can no longer be used, the exporter is displayed in red in the batch list and its export cannot be performed.

[Batch Export] Dialog Box



(1)	**[Add to Batch Export]**	When this button is clicked while a range to be exported is selected, the [Print to File] dialog box appears. An item is added to the batch list when you configure export settings.
(2)	**[Add to Batch Export (Default Exporter)]**	When this button is clicked while a range to be exported is selected, an item is added to the batch list. The exporter will be set to [1] in [Current default].
(3)	**[Add to Batch Export (Project format)]**	When this button is clicked while a range to be exported is selected, an item is added to the batch list. The rendering format will be set to [Render format] in the project settings.
(4)	**[Delete Batch Export item]**	When this button is clicked while an item is selected on the list, the item is deleted from the batch list.
(5)	**Export list**	Displays the batch list to which items have been added, where you can check and change the export content. Check the items to be exported. **[Sequence]** Displays sequence names. **[In]/[Out]/[Duration]** Click the values to edit them. If the Out point is set before the In point or the In point exceeds the clip range, it is displayed in red and export cannot be performed. **[Show TC]** Check this item to export sequences with their timecodes displayed. **[Waveform Cache]** Check this item to create waveform cache (waveform representation of audio). This setting may not be available depending on the selected exporter. **[Exporter]** Click on the icon to the right of the exporter name column to display the [Print to File] dialog box. **"[Print to File] Dialog Box" (▶ page 432)** **[File Size]** Displays the file size. If the total size of the file to be exported exceeds the free space in the export destination, a warning dialog box may appear and the export cannot be performed. The displayed file size is only a guide. The size of the file to be exported will change dependent on the video content and the selected exporter. **[File Name]** Click on the icon to the right of the file name column to change the file name, export destination and export content.
(6)	**[Add to Bin]**	Check this item to register the exported files to the bin. When the batch export rendering job is registered to the Render Service, a clip will be registered to the bin.

(7)	**[Export]/[Cancel]**	Start an export. The button changes to [Cancel] during export, and click it to cancel the export.
(8)	**[Close]**	Close the [Batch Export] dialog box.

Deleting Registered Ranges from the Batch List

You can delete ranges registered in the batch list.

1) Click [Export] on the Recorder.

2) Click [Batch Export].

- The [Batch Export] dialog box appears.
  "[Batch Export] Dialog Box" (▶ page 459)

3) Select an item to delete and click [Delete Batch Export item].

- If you remove the check from export range items in the [Batch Export] dialog box, you can exclude those items from the export without deleting the items.

Exporting to Disc

Exporting to DVD/BD

You can export a project as a disc image file to be written to DVD/BD.
Regardless of the details of the project settings, you can start up Disc Burner and write the project to DVD or BD. Even projects in progressive formats (such as 60p) can be written to DVD/BD by changing the export format on Disc Burner.

- Optional license is required for Blu-ray or DVD authoring.

Note

- If format conversion is performed at export, the image quality will be affected.

Exporting to Disc

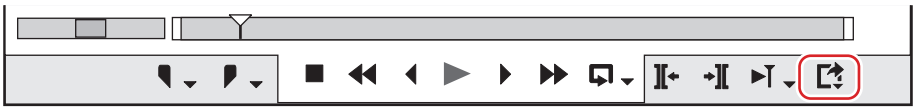
You can write a project to a DVD/BD. You can create title and chapter menus, as well as set the background of the menu screen and buttons displayed on the screen.

- To export only one part of an edited video, make sure to specify the export range using a [Set In] and [Set Out] on the Recorder.
  "Setting the In and Out Points on the Timeline" (▶ page 222)
- To add a chapter, make sure that an orange sequence marker is set to the desired position in advance.
  "Setting Sequence Markers" (▶ page 284)

Note

- When exporting to disc, you will need sufficient free space on the HDD.
- You will also need a drive that supports writing to DVD/BD.
- If packet writing software of another company is installed/running on your PC, you cannot export to DVD/BD from EDIUS.

1) Click [Export] on the Recorder.



2) Click [Burn to disc].

- Disc Burner starts up.

Alternative

- Click [File] on the menu bar, and click [Export] → [Burn to disc].
- Exporting to DVD/BD: **[Shift] + [F11]**

- Clicking [Return] ends the settings, and returns to EDIUS. If you return to EDIUS and save the project, the settings of "Exporting to Disc" will also be saved.

3) Click the [Basic] tab, and set the disc type or codec.

- **"[Basic] Tab" (▶ page 462)**

4) Click the [Movie] tab, and set the movie to be exported to disc.

- **"[Movie] Tab" (▶ page 462)**

5) Click the [Style] tab, and set the style for the menu screen.

- **"[Style] Tab" (▶ page 462)**

6) Click the [Edit] tab to edit the menu.

- **"[Edit] Tab" (▶ page 463)**

7) Click the [Write] tab to set the export settings.

- **"[Write] Tab" (▶ page 464)**

8) Click [Create Disc].

- Start writing to disc.
- When you perform format conversion at export, in the confirmation dialog box that appears, click [Yes].

[Basic] Tab

[Disc]	Select the type of disc to be exported to from the list. **[Format]** Select the format to export. To export in the same format as the original project settings, select the format with the indication [(No conversion)]. The formats that can be selected are as follows. The displayed formats differ depending on the project settings. • If [DVD] has been selected for [Disc] 720x480 59.94i, 720x576 50i • If [Blu-ray] has been selected for [Disc] 1920x1080 59.94i, 1920x1080 50i, 1920x1080 23.98p, 1440x1080 59.94i, 1440x1080 50i, 1280x720 59.94p, 1280x720 50p, 720x480 59.94i, 720x576 50i
[Codec]	When exporting to BD, select the codec.
[Menu]	Select [Use Menu] to create a disc with a menu screen.

Note

- If the project setting is the NTSC standard such as 59.94i, the export format for the PAL standard such as 50i cannot be selected. Likewise, if the project setting is the PAL standard, the export format for the NTSC standard cannot be selected.

[Movie] Tab

[Disc Information]	Displays the number and file size of the titles to be added and the available disc space.
[Media]	Select the type of disc to be exported to from the list.
[Movie]	Displays the added titles. **[Settings]** Displays the settings dialog box used to change the bitrate. **"[Title setting] dialog box" (▶ page 462)** **[Delete]** Remove titles from the list. Does not delete the original file. **[Up]/[Down]** Change the order of titles.
[Add File]	Click this button to display the [Add Title] dialog box. Select a file, and click [Open].
[Add Sequence]	Click this button to display the [Select Sequence] dialog box. Check the sequence to be added and click [OK].

■ [Title setting] dialog box

[Automatic]	Uncheck this item to set the format and bitrate for video and audio.
[Prohibit Operations During Playback]	Disable operations such as moving chapters or fast-forwarding by the user during title playback.
[Display Timecode]	Add a timecode to the video if the title is a sequence. The type of timecode can be set at [Application] in [User Settings] → [Timeline]. **"[Timeline]" (▶ page 120)**

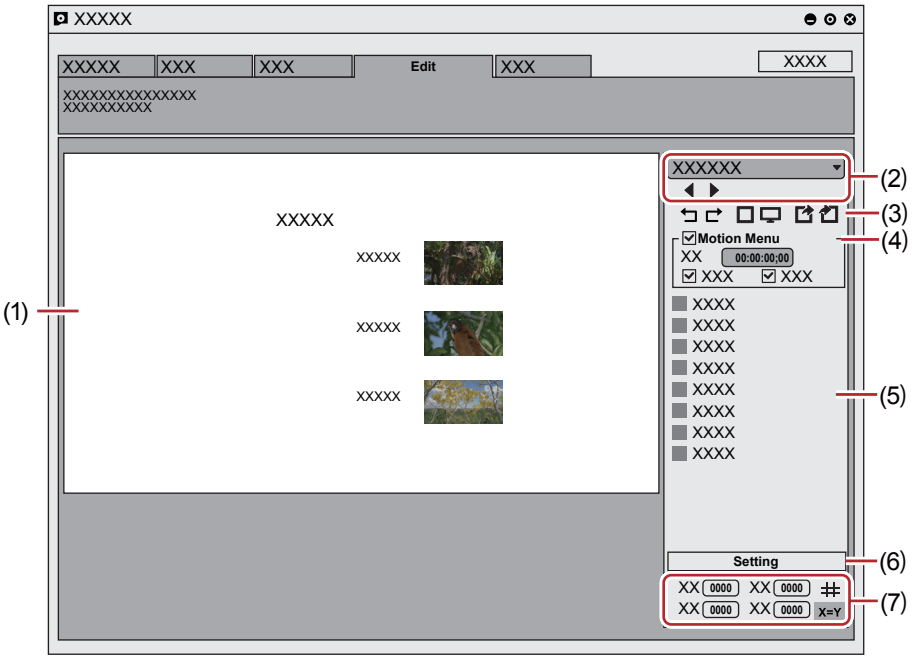
[Style] Tab

[Auto Layout]	Set the placement of the buttons. Uncheck [Auto] to select the number of buttons to place from the [Row] and [Horizontal] lists.

[Aspect Ratio]	Select the size of the menu screen. If [BD] is selected for [Disc], you cannot select [4:3].
[Frame Rate]	If [BD] is selected for [Disc], you can change the frame rate of the menu. Normally, there is no need to change the frame rate.
[No Chapter Buttons]	Check this item to use thumbnails as chapter buttons.
[No Chapter Menu (Only One Chapter)]	If there is only one chapter, only the title menu will be created.
[No Title Menu (Only One Title)]	If there is only one title, only the chapter menu will be created with no title menu. Not displayed when there are multiple titles.
[Cursor style]	Select the shape of the selection cursor displayed on the menu screen.
Style list	Select a design for the menu screen from the list. The styles are classified in each tab according to type.

- You can download and add a style.
  Click [Help] on the menu bar, and click [Download DVD Menu Style] to download the setup file in the msi format. Double-click the setup file to add a style to the style list in the [Style] tab of Disc Burner.
- If you have update from the version EDIUS 8 or earlier, a message prompting download of the setup file may appear to add a style. Follow the on-screen instructions to add a style.

[Edit] Tab



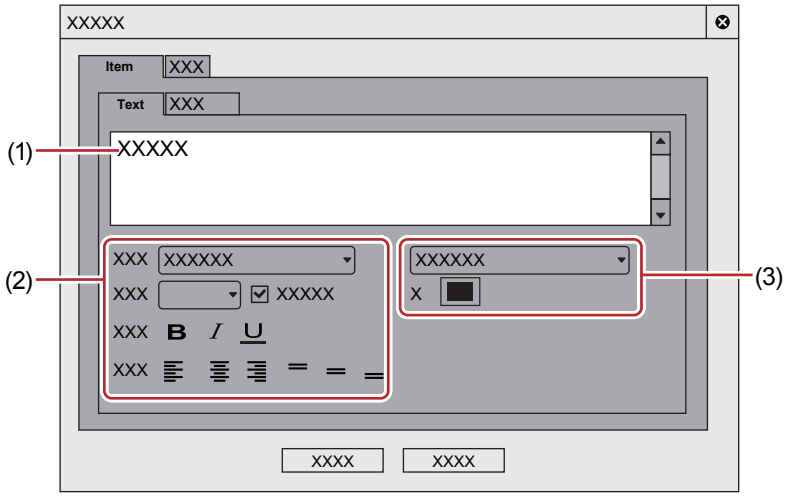
(1)	**Edit screen**	Displays a preview of the menu screen. Items can be edited directly, such as by clicking a title to enter text or moving or resizing pictures. If you double-click or right-click an item or picture then click [Setting], the [Menu Item Settings] dialog box appears. **"[Menu Item Settings] Dialog Box" (▶ page 464)**
(2)	**Page selection**	Select the page of the menu to be edited from the list. Click the buttons to display the previous or next page.
(3)	**Edit buttons**	: Undo an operation to return to the previous state. : Redo the undone operation. : Display lines as guidance. : Display a preview as viewed on TV. : Save the layout of the current page (background image, position of page labels, position of title buttons, position of page buttons). : Reflect a saved page layout to the current page.
(4)	**[Motion Menu]**	Check this item to set a video as the menu background. Set the video to be used at the [Picture] tab in the [Menu Item Settings] dialog box. **"[Menu Item Settings] Dialog Box" (▶ page 464)** **[Length]** Enter the length of the motion menu. The maximum length is 1 minute. **[Fade In]/[Fade Out]** Check this item to add In/Out effects to the motion menu.

(5)	**Item list**	Displays the items shown in the edit screen as a list. If you click an item in the list, a red frame appears around the selected item in the edit screen. If you double-click or right-click an item or picture then click [Setting], the [Menu Item Settings] dialog box appears. **"[Menu Item Settings] Dialog Box" (▶ page 464)**
(6)	**[Setting]**	Select an item and click this button to display the [Menu Item Settings] dialog box. **"[Menu Item Settings] Dialog Box" (▶ page 464)**
(7)	**Item position/size**	Change the position and size of an item by entering values. #: Display lines as guidance using a selected item as reference. X=Y: Fix the aspect ratio of a selected item.

- Multiple items can be selected by clicking items with the [Shift] key on the keyboard held down. If you right-click with multiple items selected, you can choose align top, align left, etc. by selecting [Placement].
- You can add an item or picture by right-clicking on the item list. You can delete an item or picture by right-clicking an added item or picture and clicking [Remove Item].

[Menu Item Settings] Dialog Box

■ [Item] → [Text] tab



(1)	**Text field**	Enter the text to be displayed.
(2)	**Text settings**	Set the font, text size, decoration, and text position within the item display frame.
(3)	**Color settings**	Select from [Solid Color], [Gradation Color] or [Texture File]. Clicking [Color] displays the [Color Select] dialog box. **"[Color Select] Dialog Box" (▶ page 229)** To select a texture file, click [...] and select a file.

■ [Item] → [Picture] tab

Preview	Display a preview with the current settings.
[Change]	Click this item to change the image to be used for the thumbnail. Move the timeline cursor in EDIUS and click [Set].
[Set Image File]	Import an image file or sequence to use for thumbnails. Check this item and click [select image file] to select a file, or click [Select Sequence] to select a sequence.
[Zoom]	Change the zoom factor for an image by moving the position bar or by entering a value.

■ [Effect] → [Frames] tab

[Add Effects]	Check this item to apply effects such as a frame or shadow to thumbnails. If you selected [Picture Frame], click [...] and select a file to use as a frame.

[Write] Tab

■ [Output] tab

[Settings]	Set the number of discs to write to and the volume label.
Drive information	Set which drive to use and the write speed.
[Enable Detailed Settings]	Check this item to add setting items. **[Folder Settings]** Specify the folder in which to save files (such as MPEG and disc image files) that are created for the purpose of making a disc. **[Compile disc image to folder]** Check this item to create only the disc image file, without writing it to disc media. **[Create Disc and Also Export as Image File]** Check this item to prevent deletion of the disc image file after the disc image file has been written to disc media. Check this item to save the disc image file on the HDD. **[Verify Disc After Creating]** Check this item to verify that data can be read correctly after having been written to media. **[Number of Drives]** Simultaneously write to a specified number of multiple drives. The settings tab for each drive is displayed in the drive information.

- To create multiple discs with the same content, after 1 disc is created change the disc and continue the disc creation.
- The disc image file that remains when [Create Disc and Also Export as Image File] is checked is overwritten upon export of another movie. If you need that disc image file, either change the folder settings or move the file from the save destination.

■ [Option] tab

[First play command]	Select the action performed when a created disc is inserted into a disc player.
[Command after playing movie]	Select the action performed after a playback of one title.
[Command after playing the last movie title]	Select the action performed after a playback of all titles.

Writing a Disc Image File to a Disc

You can write disc image files to disc.
You can write saved disc image files to disc. Make sure that the disc image file is saved to a preferred folder.

1) Click [Tools] on the menu bar, and click [Disc Burner].

Alternative

- Click [Tools] in the bin window, and click [Disc Burner].

2) Select the folder where the disc image file is saved, and click [OK].

3) Configure the export settings.

[Media]	Select the type of media to export to from the list.
[Settings]	Set the number of discs to write to and the volume label.
Drive information	Set which drive to use and the write speed.
[Image Folder]	Select the folder in which the disc image file is saved. If outputting to DVD, be sure to specify a folder that contains a “VIDEO_TS” folder and “AUDIO_TS” folder. If outputting to BD, make sure to specify a folder that contains a “BDMV” folder and “CERTIFICATE” folder.
[Verify Disc After Creating]	Check this item to verify that data can be read correctly after having been written to media.
[Number of Drives]	Simultaneously write to a specified number of multiple drives. The settings tab for each drive is displayed in the drive information.

- To create multiple discs with the same content, after 1 disc is created change the disc and continue the disc creation.

4) Click [Create Disc].

- Start writing to disc.

Chapter 13

Appendix

This chapter explains support and other information.

License Management

Serial Number Management

Starting up GV License Manager

GV License Manager is used for serial number management.

Note

- To use GV License Manager, it must be executed in the environment where EDIUS is installed. The following description are examples for Windows 10.
  The operation may differ depending on the type or version of OS on your PC.

1) Display the Windows start menu, and click [Grass Valley] → [GV License Manager].

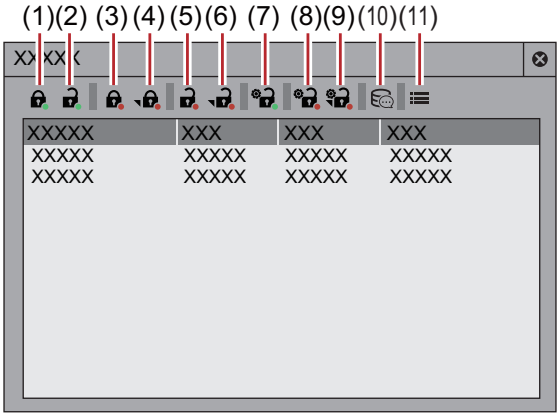
- The GV License Manager starts up and the [License List] dialog box appears.
  "[License List] Dialog Box" (▶ page 467)

Alternative

- Right-click the GV License Manager icon in the notification area on the task bar, and click [License List].
- Double-click the GV License Manager icon in the notification area on the task bar.

- To exit GV License Manager, right-click the GV License Manager icon in the notification area on the task bar, and click [Exit].

[License List] Dialog Box



(1)	**[Online activation]**	Register the serial number. **"Activating EDIUS" (▶ page 48)**
(2)	**[Online deactivation]**	Return licenses on the EDIUS terminal in the online environment to the activation server. **"Moving License in Online Environment" (▶ page 468)**
(3)	**[Offline Activation Create ID File]**	Create an ID file to activate licenses on the EDIUS terminal in the offline environment. **"Registering License (Offline Activation)" (▶ page 469)**
(4)	**[Offline Activation Register Activation File]**	Register the license activation file acquired from the activation server to the EDIUS terminal in the offline environment. **"Registering License (Offline Activation)" (▶ page 469)**
(5)	**[Offline Deactivation Create ID File]**	Create an ID file to deactivate licenses on the EDIUS terminal in the offline environment. **"Unregistering License (Offline Activation)" (▶ page 468)**
(6)	**[Offline Deactivation Register Activation File]**	Register the license deactivation file acquired from the activation server to the EDIUS terminal in the offline environment. **"Unregistering License (Offline Activation)" (▶ page 468)**
(7)	**[Online Repair]**	This item is not available.

(8)	**[Offline Repair Create ID File]**	This item is not available.
(9)	**[Offline Repair Register Repair File]**	This item is not available.
(10)	**[Check the expiration date of the license on the server]**	Reflect the license expiration date to GV License Manager if the license expiration date of the activation server has been updated.
(11)	**[Settings]**	Click this button for various settings. **"[Settings] Dialog Box" (▶ page 468)**

[Settings] Dialog Box

[Use floating license server]	Check this item to use EDIUS with a floating license. **[Prioritize node-locked licenses]** Check this item to prioritize the use of a node-locked license, if the same type of license exists for both a floating license and node-locked license. **[Get settings automatically]** If the Chorus Hub system is in use, checking this item will set the server address and port number automatically. If you do not check this item, enter [Server address] and [Port number].
[Use proxy server]	Check this item to use proxy server for network communication with the activation server.
[Show License Expiration Warning]	Set the timing to display a warning message for license expiration. If you check [Warning of the subscription license is not displayed], the warning message to notify subscription license expiration will not be displayed.
[Administrator Password]	Restrict license activation/deactivation operations to the administrator. Check this item and enter the administrator password.

- Part of the serial number can be displayed in the [License List] dialog box.
  In the [License List] dialog box, right-click the product to confirm the serial number, and then click [Confirm part of serial number].
- To display the [Settings] dialog box, you can also right-click the GV License Manager icon in the notification area on the task bar, and click [Settings].

Moving License in Online Environment

The following explains how to move licenses between EDIUS terminals in the online environment.

1) Start up GV License Manager on the move source EDIUS terminal.

- **"Starting up GV License Manager" (▶ page 467)**

2) Select products to deactivate licenses in the [License List] dialog box.

3) Click [Online deactivation], and click [Yes].

- Access the activation server automatically and deactivate the licenses.

4) Start up EDIUS on the move destination EDIUS terminal.

5) Enter the serial number, and click [Register].

- The license authentication is performed.

6) A message appears, and click [OK].

Transferring License in Online Environment

Move licenses between offline EDIUS terminals via another PC in the online environment.

- To transfer a license in the offline environment, a storage device such as USB memory device is necessary.
  This section describes the procedure to transfer a license using a USB memory device.

Unregistering License (Offline Activation)

Deactivate your license on the EDIUS terminal in the offline environment.

1) Connect a USB memory device to the PC where EDIUS is installed.

2) Start up GV License Manager.

- **"Starting up GV License Manager" (▶ page 467)**

3) Select products to deactivate licenses in the [License List] dialog box.

4) Click [Offline Deactivation Create ID File].

5) Select the USB memory device as the export destination in the [Destination for ID File] dialog box, and click [Select Folder].

6) A confirmation message appears, then click [OK].

7) Disconnect the USB memory device, and connect it to a PC that is connected to the Internet.

8) Open the USB memory device on the explorer and double-click GVDeactivation.exe in the "Deactivation" folder.

9) A message [Do you wish to deactivate the license?] appears, then click [Yes].

10) A confirmation message appears, then click [OK].

- Disconnect the USB memory device.

11) Connect the USB memory device to the previous EDIUS terminal, and start up GV License Manager.

12) Select products to deactivate licenses in the [License List] dialog box.

13) Click [Offline Deactivation Register Activation File].

14) Open the USB memory device on the explorer, specify Response.key in the "Deactivation" folder, and then click [Open].

15) A confirmation message appears, then click [OK].

16) Check that EDIUS has been removed from the license list on the [License List] dialog box, and then exit GV License Manager.

Registering License (Offline Activation)

Activate your license on the EDIUS terminal in the offline environment.

1) Connect a USB memory device to the PC where EDIUS is installed.

2) Start up GV License Manager.

- **"Starting up GV License Manager" (▶ page 467)**

3) Click [Offline Activation Create ID File].

4) Enter the serial number of EDIUS, and click [OK].

5) Select the USB memory device as the export destination in the [Destination for ID File] dialog box, and click [Select Folder].

6) A confirmation message appears, then click [OK].

7) Disconnect the USB memory device from the PC, and connect it to a PC that is connected to the Internet.

8) Open the USB memory device on the explorer and double-click GVActivation.exe in the “Activation” folder.

9) A message [Do you wish to activate the license?] appears, then click [Yes].

10) A confirmation message appears, then click [OK].

- Disconnect the USB memory device.

11) Connect the USB memory device to the PC where EDIUS is installed, and start up GV License Manager.

12) Click [Offline Activation Register Activation File].

13) Open the USB memory device on the explorer, specify Response.key in the “Activation” folder, and then click [Open].

14) A confirmation message appears, then click [OK].

15) Check that EDIUS has been activated and registered to the list on the [License List] dialog box, and then exit GV License Manager.

EDIUS System Reporter

About EDIUS System Reporter

Collect necessary information for detecting troubles on EDIUS.
When EDIUS has been shut down abnormally or does not respond, EDIUS system reporter will be displayed.

■ [EDIUS System Reporter] Dialog Box

[Create System Report]	Click this item to display a dialog box for file saving, and set the save destination to create a system report.

- You can also create a system report from the Windows start menu by starting EDIUS System Reporter.
  Display the Windows start menu, and click [Grass Valley] → [EDIUS 11 System Reporter].

Edit Workflow and Various Settings

This section explains the workflows to edit videos with EDIUS and their relation to various settings. For the general overview and relationship diagram, see the list of the setting descriptions.

"List of Setting Descriptions" (▶ page 96)

If you use a regular user profile, the settings for the editing environment can be changed anytime.

- In EDIUS, both the administrator who configures the environment and the operator who performs the editing tasks in mind, a new restricted user profile with a limited access is introduced to prevent system settings. If access restriction is not required, use the regular user profile.

Editing Workflow

Video editing workflow is as follows. Settings/operations for source import and export differ depending on the device or media you use.

1. Prepare for editing.
Prepare sources such as shot video, pictures, and background music, and check the structure of a work and the final output format.

2. Start up EDIUS.
Start up EDIUS. At the first start-up, specify a folder to save projects (edited video files).
"Installation/Activation" (▶ page 46)
"Startup" (▶ page 55)

3. Create a project.
When working with EDIUS, the largest work unit is the project file. Configure the project settings according to the final output format of your work and shooting format of video. A project file contains information including edit histories and video formats.
"Creating a Project" (▶ page 57)

4. Import sources.
Import movie files saved on your PC or video files recorded in a device such as camera to your PC.
"Importing Sources" (▶ page 159)

5. Edit video.
Place sources on the timeline along the time axis. Edit the sources by applying video effects, adding screen texts (titles) such as tickers, etc.
- Editing on the timeline
  "Editing Operations" (▶ page 206)
- Audio editing
  "Audio" (▶ page 410)
- Applying effects
  "Effect" (▶ page 334)
- Creating titles
  "Title" (▶ page 385)

6. Export video.
Export the project in a format that suits the objective.
"Export" (▶ page 427)

Editing Environment Configuration (Restricted users cannot perform this task)

Creating New Project Presets → System Settings

Create and register a project preset.

"Project Preset/Project Template" (▶ page 69)

* A restricted user can change and use the content of the preset, but cannot create a new preset. Before you start editing using the restricted user profile, ensure to create a preset.

Create New Device Presets → System Settings

To use a camera or deck to import sources or export projects, create and register a device preset. A device preset is required for each device as well as for each format and file type to import and export.

"Using a Device" (▶ page 135)

* A restricted user cannot create or change a device preset. Before you start editing using the restricted user profile, ensure to create a preset with the device, stream type and format,

Other Editing Environment Settings → System Settings

- Configure connection settings and detailed settings to use a preview monitor and/or input controllers including a fader.
- Register the plug-in effects.
- Configure other processes including the capture and rendering.

"[System Settings]" (▶ page 97)

Create New Profile → System Settings

If you want to change the editing environments for different projects or use the restricted user profile to perform editing tasks, you can register the device preset described above and other editing environment settings as a profile.

If you use the restricted user profile, you need a restricted user profile for each PC used by a restricted user.

The profiles can be managed through network.

"Editing Environment Management" (▶ page 130)

Creating a New Project

Create a New Project → Project Settings

Select a project preset or project template, and open a project. The content of the project preset can be changed in the project settings.

"Creating a New Project (Simple Settings)" (▶ page 57)
"Creating a New Project (Detailed Settings)" (▶ page 58)

Importing Sources

Capturing Sources from Cameras or Decks

Select a device preset and capture sources. A device preset must be created in the system settings before capturing.

"Capturing" (▶ page 160)

Copying File-Based Sources

You can use the source browser to copy source files from BD and other devices* including AVCHD video cameras, P2, and XDCAM by simple operations. Files can be browsed by simply connecting a device or drive to your PC and inserting the storage media.

"Source Browser" (▶ page 166)

* You can register the reference destination in the system settings to browse files previously copied to the storage.

"[Importer/Exporter]" (▶ page 106)

Editing Timelines

Configure TC Presets and Channel Maps → Sequence Settings or Project Settings

Configure TC presets and channel maps for each sequence. The default value for a new sequence can be changed in the project settings.

"Sequence Settings" (▶ page 68)
"Changing the Project Setting (Detailed Settings)" (▶ page 67)

Customize Editing Environment → User Settings

Customize various settings including the folder to save the project files, timeline settings, information displayed in preview, as well as buttons and windows. Keyboard shortcut and input controller settings can be imported and exported. These settings are recorded in the user profile in use, and changed settings are reflected instantly.

"[User Settings]" (▶ page 120)
"Screen Customization" (▶ page 146)
"Registering Profiles" (▶ page 130)

Editing Video Layouts

Edit the video layout using the layouter. The edited content can be saved as a preset in the layouter, or registered as a user preset effect to the [Effect] palette, which can be exported.

"Video Layout" (▶ page 253)
"Preset" (▶ page 381)

Editing Effects

Edit an existing effect, and register and export it as a user preset effect to the [Effect] palette.

"Preset" (▶ page 381)

Export

Export to File → Exporter

Select an exporter and export to different file types. The exporter settings can be registered and exported as a preset.

"Exporting in File Formats" (▶ page 428)
"Creating Exporter Presets" (▶ page 456)

Project Format

Set the project format according to the format of sources to be used and the final export format. In EDIUS, you can select one of the basic project presets prepared by default, or you can register the frequently used formats as project presets, which help you to start a project quickly.

Registration of project presets can be easily performed by simply selecting preset formats of video and audio.

“Creating a New Project (Simple Settings)” (▶ page 57)

You can also create projects in any formats that are not registered as project presets.

“Creating a New Project (Detailed Settings)” (▶ page 58)

Resolution	Frame rate	Typical use
7680x4320 (8K UHD)	60p etc.	Digital cinema, video for events, etc.
4096x2160 (DCI 4K)	24p etc.	
3840x2160 (4K UHDTV, QFHD)	60p etc.	
2432x1366 (2.5K)	30p etc.	
2048x1080 (2K)	60p etc.	
1920x1080 (Full HD)	60p, 59.94i, etc.	Blu-ray, HDCAM-SR, etc.
1600x1200 (UXGA)	30p etc.	PC monitor, etc.
1440x1080 (HD)	59.94i etc.	Terrestrial digital broadcasting, HDV, etc.
1280x1080 (HD)	59.94i etc.	DVCPRO HD, etc.
1280x720 (HD)	30p etc.	HDV, etc.
1024x768 (XGA)	30p etc.	PC monitor, etc.
800x600 (SVGA)	30p etc.	PC monitor, etc.
720x576 (PAL, SECAM, SD)	50p etc.	DVD, analog broadcasting, DV, DVCPRO, etc.
720x480 (NTSC, SD)	59.94i etc.	DVD, analog broadcasting, DV, DVCPRO, etc.
640x480 (VGA)	30p etc.	PC monitor, etc.

Video Signal Level Restriction

■ IRE range

Video signal level is indicated by IRE with the normal range from 0% to 100%. However, even a small deviation from the normal range will cause the video signal clipped due to inexistence of the supported code, which sometimes causes troubles in actual operations. Therefore, signal allocation is being performed in the range that includes marginal parts called “super white” and “sub black”, and thus, IRE range is approximately –7% to +109%.

■ Automatic adjustment using [Safe Color]

To restrict the IRE range to 0% - 100% at final output after editing and other works have been completed, [Color Balance] in [Color Correction] can be used.

Checking [Safe Color] in the [Color Balance] dialog box restricts each signal of YCbCr so that its IRE range is to be within the range 0% - 100%.

“Adjusting Color Balance” (▶ page 344)

After automatic adjustment by [Safe Color] has been performed, some part may not be within the 0% - 100% range in the RGB waveform of [Videoscope]. This occurs after conversion of YCbCr signals restricted within 0% - 100% range into RGB signals, in which some parts are out of the 0% - 100% range of RGB signal.

- Unless a codec that outputs RGB signals, such as uncompressed RGB, is used as the output format, output will be performed in YCbCr signals which has the range 0% - 100%.

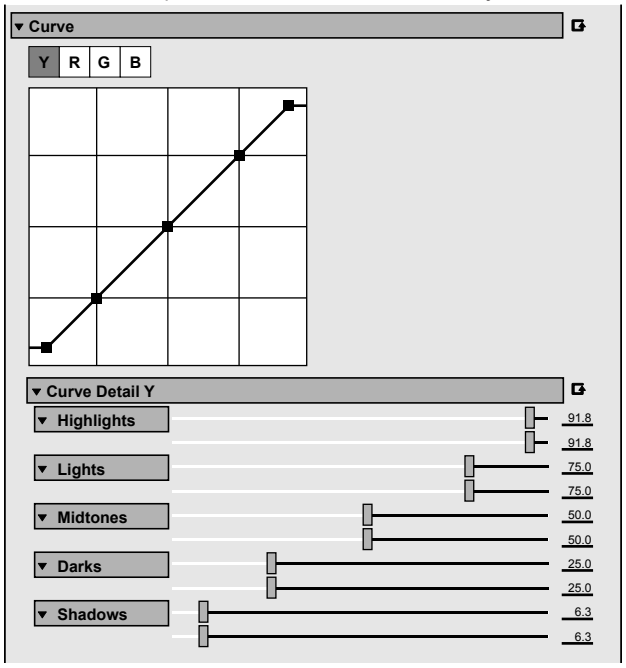
■ Restricting IRE range of RGB signals

If you need to maintain the 0% - 100% range also when data of RGB signals is displayed, adjustment can be performed using primary color correction.

Use [Curve] in the primary color correction and set as in the figure below, to make RGB signals within the 0% - 100% range.

“Adjusting with [Primary Color Correction]” (▶ page 347)

- If RGB signals are restricted within the range 0% - 100%, YCbCr signals will also be within the range 0% - 100%, which does not require adjustment by [Safe Color] of [Color Balance].
- The setting values for [Highlights] and [Shadows] correspond to IRE 100% and 0% respectively. Since [Lights], [Midtones], and [Darks] are not affected by the signal level restrictions, their parameters can be modified to adjust the tone.



Keyboard Shortcuts

Keyboard shortcuts are listed by operation category.

[Edit]

Operation	Shortcut key
[Copy]	**[Ctrl] + [Insert]** **[Ctrl] + [C]**
[Cut (Follow Mode)]	**[Shift] + [Delete]** **[Ctrl] + [X]**
[Paste Transition (In Point)]	**[Shift] + [Alt] + [K]**
[Paste Transition (Out Point)]	**[Alt] + [K]**
[Paste Transition]	**[Ctrl] + [Alt] + [K]**
[Paste to Current Location]	**[Ctrl] + [V]** **[Shift] + [Insert]**
[Ripple Cut]	**[Alt] + [X]**
[Redo]	**[Ctrl] + [Y]** **[Shift] + [Ctrl] + [Z]**
[Undo]	**[Ctrl] + [Z]**
[Insert Copied Clip to Timeline]	**[Shift] + [[]**
[Insert to Timeline]	**[[]**
[Overwrite Copied Clip to Timeline]	**[Shift] + []]**
[Overwrite to Timeline]	**[]]**

[View]

Operation	Shortcut key
[Scroll Up]	**[Shift] + [Ctrl] + [Page up]**
[Scroll Down]	**[Shift] + [Ctrl] + [Page down]**
[Scroll Right]	**[Ctrl] + [Page down]**
[Scroll Left]	**[Ctrl] + [Page up]**
[Toggle Bin Window Display]	**[B]**
[Toggle Status]	**[Ctrl] + [G]**
[Display Thumbnail]	**[Alt] + [H]**
[Toggle Center (Line Display)]	**[Shift] + [H]**
[Toggle Safe Area Display]	**[Ctrl] + [H]**
[Toggle Window Display]	**[H]**
[Window Layout Normal]	**[Shift] + [Alt] + [L]**
[Focus Menu]	**[Shift] + [F1]**
[Help]*	**[F1]**

* The “Help” keyboard shortcut cannot be customized.

[Timeline]

Operation	Shortcut key
[Delete Gap]	**[Backspace]** **[Shift] + [Alt] + [S]**
[Switch to Previous Sequence]	**[Shift] + [Ctrl] + [Tab]**
[Switch to Next Sequence]	**[Ctrl] + [Tab]**
[Move Cursor to End of Timeline]	**[End]**
[Move to Start]	**[Home]**

Operation	Shortcut key
[Previous Edit Point]	**[Ctrl] + [←]** **[A]**
[Next Edit Point]	**[Ctrl] + [→]** **[S]**
[Change Time Scale (Fit)]	**[Ctrl] + [0]**
[Change Time Scale (1 frame)]	**[Ctrl] + [1]**
[Change Time Scale (5 frame)]	**[Ctrl] + [2]**
[Change Time Scale (1 sec)]	**[Ctrl] + [3]**
[Change Time Scale (5 sec)]	**[Ctrl] + [4]**
[Change Time Scale (15 sec)]	**[Ctrl] + [5]**
[Change Time Scale (1 min)]	**[Ctrl] + [6]**
[Change Time Scale (5 min)]	**[Ctrl] + [7]**
[Change Time Scale (15 min)]	**[Ctrl] + [8]**
[Change Time Scale (1 hour)]	**[Ctrl] + [9]**
[Ripple Delete (Between In/Out)]	**[Alt] + [D]**
[Delete (Between In/Out) - Follow Mode]	**[D]**
[Display Source Clip]	**[Alt] + [F]**
[Match Frame (Recorder to Source)]	**[F]**
[Create New Sequence]	**[Shift] + [Ctrl] + [N]**
[New Project]	**[Ctrl] + [N]**
[Open Project (Monitor/Timeline)]	**[Ctrl] + [O]**
[Save Project]	**[Ctrl] + [S]**
[Save As]	**[Shift] + [Ctrl] + [S]**
[Create a Still Image]	**[Ctrl] + [T]**
[Change Time Scale (Undo)]	**[Ctrl] + [U]**
[Edit Transition (In)]	**[Shift] + [Alt] + [U]**
[Edit Transition (Out)]	**[Ctrl] + [Alt] + [U]**
[Initialize Rubber Band Setting]	**[Shift] + [Ctrl] + [U]**
[Move All Rubber Band Points on Scale]	**[Shift] + [Alt] + [Y]**
[Zoom In Time Scale]	**[Ctrl] + [Num +]**
[Zoom Out Time Scale]	**[Ctrl] + [Num -]**
[Nudge (-10 frames)]	**[Shift] + [Ctrl] + [,]**
[Nudge (-1 frame)]	**[Ctrl] + [,]**
[Nudge (+10 frames)]	**[Shift] + [Ctrl] + [.]**
[Nudge (+1 frame)]	**[Ctrl] + [.]**
[Play the Event Area]	**[/]**

[Preview]

Operation	Shortcut key
[Toggle Player/Recorder]	**[Tab]**
[Playback (With Buffer)]	**[Shift] + [Space]** **[Shift] + [Enter]**
[Play/Stop]	**[Space]** **[Enter]**
[Loop Playback]	**[Ctrl] + [Space]**
[Previous Frame]	**[←]**
[Back (10 frames)]	**[Shift] + [←]**
[1 Frame Forward]	**[→]**
[Forward (10 frames)]	**[Shift] + [→]**
[Pause]	**[Shift] + [↓]** **[Ctrl] + [K]** **[K]**
[Add Clip to Timeline]	**[E]**
[Jog (Rewind)]	**[Ctrl] + [J]**
[Review]	**[J]**
[Jog (Forward)]	**[Ctrl] + [L]**

Operation	Shortcut key
[Cue]	[L]
[Change to Player]	[Ctrl] + [Alt] + [P]
[Change to Recorder]	[Ctrl] + [Alt] + [R]
[TC Jump (+)]	[Num +]
[TC Jump (-)]	[Num -]
[Play the Cursor Area]	[Ctrl] + [/]

[Preview - Player]

Operation	Shortcut key
[Add Clip on Player to Bin]	[Shift] + [Ctrl] + [B]
[Match Frame (Player to Recorder)]	[Ctrl] + [F]

[Preview - Recorder]

Operation	Shortcut key
[Add Clip to Timeline]	[Shift] + [Ctrl] + [O]
[Print to DVD/BD]	[Shift] + [F11]
[Print to File]	[F11]

[Trim]

Operation	Shortcut key
[Move to Previous Edit Point (Trim)]	[Page up]
[Move to Next Edit Point (Trim)]	[Page down]
[Split Slide Trim (In Point)]	[Shift] + [Ctrl] + [Alt] + [N]
[Split Slide Trim (Out Point)]	[Shift] + [Ctrl] + [Alt] + [M]
[Split Trim (In Point)]	[Shift] + [N]
[Split Trim (Out Point)]	[Shift] + [M]
[Split Ripple Trim (In Point)]	[Shift] + [Alt] + [N]
[Split Ripple Trim (Out Point)]	[Shift] + [Alt] + [M]
[Slide Trim (In Point)]	[Ctrl] + [Alt] + [N]
[Slide Trim (Out Point)]	[Ctrl] + [Alt] + [M]
[Trim (In Point)]	[N]
[Trim (Out Point)]	[M]
[Ripple Trim (In Point)]	[Alt] + [N]
[Ripple Trim (Out Point)]	[Alt] + [M]
[Trim (-1 frame)]	[,]
[Trim (-10 frames)]	[Shift] + [,]
[Trim (1 frame)]	[.]
[Trim (10 frames)]	[Shift] + [.]

[Clip]

Operation	Shortcut key
[Clip Properties]	[Alt] + [Enter]
[Enable/Disable Clip]	[0]
[Remove cut points]	[Ctrl] + [Delete]

Operation	Shortcut key
[Set Transition (1 sec)]	**[Alt] + [1]**
[Set Transition (2 sec)]	**[Alt] + [2]**
[Set Transition (3 sec)]	**[Alt] + [3]**
[Set Transition (4 sec)]	**[Alt] + [4]**
[Set Transition (5 sec)]	**[Alt] + [5]**
[Add to Bin]	**[Shift] + [B]**
[Add Cut Point (In/Out) - All Tracks]	**[Shift] + [Alt] + [C]**
[Add Cut Point (In/Out) - Selected Tracks]	**[Alt] + [C]**
[Add Cut Point (All Tracks)]	**[Shift] + [C]**
[Add Cut Point (Selected Tracks)]	**[C]**
[Time Remap]	**[Shift] + [Alt] + [E]**
[Speed]	**[Alt] + [E]**
[Edit of Clip]	**[Shift] + [Ctrl] + [E]**
[Ungroup]	**[Alt] + [G]**
[Set Group]	**[G]**
[Initialize Volume Settings on Audio Rubber Band]	**[Shift] + [Alt] + [H]**
[Open the Original File of a Clip]	**[Shift] + [Ctrl] + [P]**
[Set Transition (In Point)]	**[Shift] + [Alt] + [P]**
[Set Transition (Out Point)]	**[Alt] + [P]**
[Set Default Transition]	**[Ctrl] + [P]**
[Paste Clip (All)]	**[Ctrl] + [R]**
[Paste Clip]	**[Shift] + [R]**
[Paste Clip and Filter]	**[Shift] + [Alt] + [R]**
[Paste Filter]	**[Alt] + [R]**
[Paste Mixer]	**[Shift] + [Ctrl] + [R]**
[Create Title in Video Channel Track]	**[T]**
[Duration]	**[Alt] + [U]**
[V Mute]	**[Shift] + [V]**
[Unlink Clip]	**[Alt] + [Y]**
[Link]	**[Y]**
[Display in Player]	**[Shift] + [Y]**
[Layouter]	**[F7]**

[Clip - Delete]

Operation	Shortcut key
[Ripple delete]	**[Alt] + [Delete]**
[Delete (Follow Mode)]	**[Delete]**
[Delete Audio of Selected Clip (Follow Mode)]	**[Alt] + [A]**
[Delete Video of Selected Clip (Follow Mode)]	**[Alt] + [V]**
[Delete All Filters on Selected Clip]	**[Shift] + [Ctrl] + [Alt] + [F]**
[Delete Audio Filter on Selected Clip]	**[Ctrl] + [Alt] + [F]**
[Delete Video Filter on Selected Clip]	**[Shift] + [Alt] + [F]**
[Delete Key on Selected Mixer Track]	**[Ctrl] + [Alt] + [G]**
[Delete Transparency on Selected Mixer Track]	**[Shift] + [Ctrl] + [Alt] + [G]**
[Delete Pan Settings on Audio Rubber Band]	**[Ctrl] + [Alt] + [H]**
[Delete Transitions for All Selected Clips]	**[Alt] + [T]**
[Delete Clip Crossfade]	**[Ctrl] + [Alt] + [T]**
[Delete Clip Transition]	**[Shift] + [Alt] + [T]**

[Clip - Select]

Operation	Shortcut key
[Clear Focus]	**[Shift] + [Esc]**
[Add Focus]	**[Alt] + [Space]**
[Toggle Focus]	**[Shift] + [Ctrl] + [Alt] + [Space]**
[Select a Clip to Forward]	**[Alt] + [Page up]**
[Select a Clip to Back]	**[Alt] + [Page down]**
[Select From the Timeline Cursor to End (All Tracks)]	**[Shift] + [End]**
[Select From the Timeline Cursor to End (Selected Tracks)]	**[Ctrl] + [End]**
[Select Timeline Start to the Cursor (All Tracks)]	**[Shift] + [Home]**
[Select From Timeline Start to the Cursor (Selected Tracks)]	**[Ctrl] + [Home]**
[Toggle Focus to Left]	**[Ctrl] + [Alt] + [←]**
[Move Focus to Left]	**[Shift] + [Ctrl] + [Alt] + [←]**
[Add Focus to Left]	**[Shift] + [Alt] + [←]**
[Move Focus to Left]	**[Alt] + [←]**
[Toggle Focus to Up]	**[Ctrl] + [Alt] + [↑]**
[Move Focus to Up]	**[Shift] + [Ctrl] + [Alt] + [↑]**
[Add Focus to Up]	**[Shift] + [Alt] + [↑]**
[Move Focus to Up]	**[Alt] + [↑]**
[Toggle Focus to Right]	**[Ctrl] + [Alt] + [→]**
[Move Focus to Right]	**[Shift] + [Ctrl] + [Alt] + [→]**
[Add Focus to Right]	**[Shift] + [Alt] + [→]**
[Move Focus to Right]	**[Alt] + [→]**
[Toggle Focus to Down]	**[Ctrl] + [Alt] + [↓]**
[Move Focus to Down]	**[Shift] + [Ctrl] + [Alt] + [↓]**
[Add Focus to Down]	**[Shift] + [Alt] + [↓]**
[Move Focus to Down]	**[Alt] + [↓]**
[Select All Clips (All Tracks)]	**[Shift] + [A]**
[Select All Clips (Selected Tracks)]	**[Ctrl] + [A]**

[Track]

Operation	Shortcut key
[Track Height (High)]	**[Ctrl] + [↑]**
[Track Height (Low)]	**[Ctrl] + [↓]**
[Move Track Patch (Up)]	**[↑]**
[Move Track Patch (Down)]	**[↓]**
[Connect Source Channel (All) - Toggle]	**[Shift] + [Ctrl] + [Delete]** **[9]**
[Sync-Lock Track (All) - Toggle]	**[Shift] + [Ctrl] + [Alt] + [0]** **[Shift] + [Alt] + [0]**
[Select Track (All Tracks) - Toggle]	**[Shift] + [Ctrl] + [0]** **[Shift] + [0]**
[Sync-Lock Track (1A) - Toggle] - [Sync-Lock Track (8A) - Toggle]	**[Shift] + [Alt] + [1] - [8]**
[Sync-Lock Track (1VA/V) - Toggle] - [Sync-Lock Track (8VA/V) - Toggle]	**[Shift] + [Ctrl] + [Alt] + [1] - [8]**
[Connect Source Channel (A1) - Toggle] - [Connect Source Channel (A4) - Toggle]	**[1] - [4]**
[Connect Source Channel (A12) - Toggle]	**[5]**
[Connect Source Channel (A34) - Toggle]	**[6]**
[Select Track (1A) - Toggle] - [Select Track (8A) - Toggle]	**[Shift] + [1] - [8]**
[Select Track (1VA/V) - Toggle] - [Select Track (8VA/V) - Toggle]	**[Shift] + [Ctrl] + [1] - [8]**
[Sync-Lock Track (Audio) - Toggle]	**[Shift] + [Alt] + [9]**
[Sync-Lock Track (Video) - Toggle]	**[Shift] + [Ctrl] + [Alt] + [9]**
[Connect Source Channel (Audio) - Toggle]	**[Shift] + [K]** **[8]**
[Select Track (All Audio Tracks) - Toggle]	**[Shift] + [9]**
[Select Track (All VA/V Tracks) - Toggle]	**[Shift] + [Ctrl] + [9]**

Operation	Shortcut key
[Connect Source Channel (Video) - Toggle]	**[Shift] + [J]** **[7]**
[Toggle Lock (Selected Tracks)]	**[Alt] + [L]**
[Audio Mute]	**[Shift] + [S]**
[Video Mute]	**[Shift] + [W]**
[Extend Audio Track Display]	**[Alt] + [S]**
[Extend Mixer Track Display]	**[Alt] + [W]**
[Toggle Waveform]	**[Ctrl] + [W]**

[Marker]

Operation	Shortcut key
[Move Cursor to Previous Sequence Marker]	**[Shift] + [Page up]**
[Move Cursor to Next Sequence Marker]	**[Shift] + [Page down]**
[Clear In Point]	**[Alt] + [I]**
[Set In Point]	**[I]**
[Go to In Point]	**[Shift] + [I]** **[Q]**
[Clear Out Point]	**[Alt] + [O]**
[Set Out Point]	**[O]**
[Go to Out Point]	**[Shift] + [O]** **[W]**
[Set Audio Out Point]	**[P]**
[Go to Audio Out Point]	**[Shift] + [P]**
[Set Audio In Point]	**[U]**
[Go to Audio In Point]	**[Shift] + [U]**
[Shift Cut Point to Cursor (Transition)]	**[Shift] + [Ctrl] + [T]**
[Clear All Markers]	**[Shift] + [Alt] + [V]**
[Set Marker]	**[V]**
[Clear In/Out Point]	**[X]**
[Set In/Out Point on Current Clip]	**[Shift] + [Z]**
[Set In/Out Point to Focused Area]	**[Z]**

[Mode]

Operation	Shortcut key
[Toggle Insert/Overwrite Mode]	**[Insert]**
[Set Group/Link Mode]	**[Shift] + [L]**
[Set Ripple Mode]	**[R]**
[Switch to Normal Mode]	**[F5]**
[Switch to Trim Mode]	**[F6]**

[Mode - Multicam]

Operation	Shortcut key
[Multicam]	**[F8]**

[Capture]

Operation	Shortcut key
[Capture]	**[F9]**
[Input Preset 1]	**[F2]**
[Input preset 2]	**[F3]**
[Input Preset 3]	**[F4]**

[Render]

Operation	Shortcut key
[Render]	**[Shift] + [G]**
[Render In/Out (Render Loaded Area)]	**[Ctrl] + [Alt] + [Q]**
[Render In/Out (All)]	**[Shift] + [Alt] + [Q]**
[Render In/Out (Render Overload Area)]	**[Ctrl] + [Q]**
[Render and Add to Timeline (Between In/Out)]	**[Shift] + [Q]**
[Delete Temp Files]	**[Alt] + [Q]**
[Render All (Render Loaded Area)]	**[Shift] + [Ctrl] + [Alt] + [Q]**
[Render All (Render Overload Area)]	**[Shift] + [Ctrl] + [Q]**

Effects List

- Hovering the mouse cursor over an effect in the [Effect] palette displays a simple description of the effect.

[VideoFilters]

Besides the following effects, frequently used effects, such as video filter for old movies, are registered as system presets.

[Color Correction]

Includes video filters for color adjustment, such as 3-Way color correction and YUV curve.
"Adjusting Color/Brightness (Color Correction)" (▶ page 340)

[Anti Flicker]

Reduces screen flicker. Effective for images with little motion.

[Emboss]

Makes a three-dimensional monotone image like a lithograph. You can set the direction and depth of the shadow.

[Old Movie/Film]

Makes an image look like an old film.

[Chrominance]

Specifies a color as the key color, and apply a specific filter to the inside, edge or outside.

[Sharpness]

Sharpens the outline of objects and makes an image look as if it is a higher resolution.

[Stabilizer]

Correct the camera shake by image processing.

[Strobe/Freeze]

Creates an effect like a strobe light flashing.

[Soft Focus]

Applies an effect like a mist that softens the video.

[Select channel]

Switches the output of a clip with alpha channel to key output or fill output.

[Tunnel Vision]

Makes an image look like it is in a tunnel. It is effective when used in combination with [Loop Slide].

[Video Noise]

Adds noise.

[Blur]

Makes an image look blurred.

[Blend Filters]

Blends two video filters in any respective proportion. The blend ratio can be set to change along the time axis by setting a key frame.

[Mask]

Applies a video filter to the inside or outside of a given range. Using the pass, the application range can be rectangular, elliptical, or any shape.
You can also use motion tracking. It automatically tracks specific parts of a subject in motion and apply an effect.
"Motion Tracking ([Mask])" (▶ page 358)

[Matrix]

Applies a preferred set matrix to every pixel, to blur or sharpen an image. It is effective when exporting images in MPEG format that have a lot of movement.

[Mirror]

Reverses an image.

[Median]

Balances an image to be smooth to decrease the noise component. Increasing the threshold value gives a paintbrush effect.

[Mosaic]

Applies a mosaic to an image. It is effective when used on parts of an image in combination with [Mask].

[Motion Blur]

Applies the [Blur] effect to moving objects only. This effect can be applied when the whole image moves on the screen such as during a pan or tilt movement.

[Raster Wipe]

Transforms an image to become wavelike.

[Loop Slide]

Slides an image as if it is connected above, below, left or right.

[Block Color]

Displays an image in monochrome. It is effective when used on parts of an image in combination with [Mask].

[Pencil Sketch]

Makes an image look like its outline was traced with a pencil.

[Smooth Blur]

Applies an effect where the focal point seems blurred while suppressing discoloration.

[Combine Filters]

Sets up to 5 filters simultaneously. You can also set multiple filters without using [Combine Filters], though the synergistic effect of multiple filters may not appear if you do not use [Combine Filters].(For example, when applying multiple filters in an area specified using a [Mask] or [Chrominance] filter.)

[Gaussian Blur]

Applies a defocusing effect in higher quality than [Blur] and [Smooth Blur].

[Transform]

Sets cropping, zoom-in/out, movement, rotation, etc. of the image.

[AudioFilters]

Besides the following effects, frequently used effects, such as enhancement for high-pitched sound/low-pitched sound and audio filter for echo, are registered as system presets.

[Graphic Equalizer]

Sets the frequency properties by adjusting the master fader or the fader of each frequency range.

[Delay]

Creates an echo-like effect by repeating the same sound at different levels or with a time difference.

[Tone Controller]

Sets the intensity of low pitch sound and high pitch sound.

[High-pass Filter]

Cuts the frequency region below a set frequency.

[Parametric Equalizer]

Emphasizes or de-emphasizes sound of a certain frequency.

[Panpot Balance]

Maps the audio signal input from channels on the left and right to the left, right or center. The input level and the output balance can also be set for the left and right channels.

[Pitch Shifter]

Adjusts the audio pitch.

[Low-pass Filter]

Cuts the frequency region above a set frequency.

[Transitions]

- Click a transition in the [Effect] palette and select an animation to display the animation and confirm its movement.

[2D]

Planar movement transitions. You can also call upon and apply a preset from the settings dialog box of each transition.

[Clock]

Transitions the video with a movement like the hands on a clock.

[Circle]

Transitions the video with an expanding circle.

[Stripe]

Transitions the video in striped parts.

[Stretch]

Transitions while expanding video B.

[Slide]

Transitions by inserting video B from a specified direction.

[Dissolve]

Gradually transitions from video A to video B. This is set as the default transition in the initial settings.

[Blind Slide]

Transitions by inserting video B in stripes from the left and right sides (top and bottom sides).

[Blind Wipe]

Video B is revealed in stripes that slide in from left and right sides (top and bottom sides).

[Block]

Video B is revealed in blocks that snake around video A.

[Push]

Video A is slid out and video B slides into the screen in stripes that move towards the left and right sides.

[PushStretch]

Transitions in a way where video B appears to push video A off the screen.

[Box]

Transitions the video with an expanding rectangle.

[Border Wipe]

Transitions by sliding video B in from a specific direction.

[3D]

Three-dimensional movement transitions. You can also call upon and apply a preset from the settings dialog box of each transition.

[3D Dissolve]

In addition to a normal dissolve, you can set the light, shadow, movement, etc.

[Cube Spin]

A cube with video A and video B displayed on its sides rotates to transition from video A to video B.

[Single Door]

Transitions the video with a door opening movement.

[Sphere]

Video A becomes a sphere and flies away.

[Double Door]

Transitions the video as if a double door opens.

[Two Pages]

Transitions to video B by peeling away video A as if on 2 sheets of paper.

[Peel Away]

Peels away video A as if on 1 sheet of paper.

[Peel Over]

Transitions to video B by peeling away video A as if on 1 sheet of paper with video B on its reverse.

[Four Pages]

Transitions to video B by peeling away video A as if on 4 sheets of paper.

[Fly Away]

Video A flies away to reveal video B.

[Flip Over]

Transitions the video by flipping it over.

[Blinds]

Turns over video A in stripes as if a set of blinds to reveal video B on the reverse.

[Page Peel]

Transitions by peeling over the video.

[GPU]

High quality and complex transitions that use the GPU (Graphics Processing Unit) can be set. A large number of presets are included in the [GPU] effect folder. If you want to set parameters to create a new transition, they can be set and applied from the [Advanced] folder.

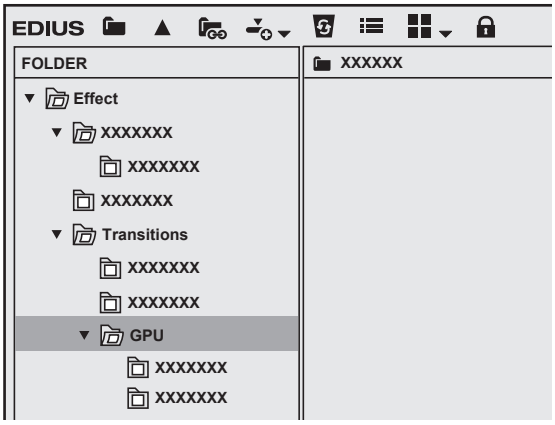
The settings dialog box of each transition contains [Design] settings to adjust the direction of movement, angle of incidence of light and the like, and [Time] settings to specify a key frame and adjust movement along the time axis. These settings can be used to apply complex movement and effects.

You can set the antialiasing and image quality when GPUfx is applied, from [Effect] in [System Settings] → [GPUfx].

If [GPU] is not displayed in the [Effect] palette, or if the transitions do not move, confirm the system environment and the error information from [Effect] in [System Settings] → [GPUfx].

“[GPUfx]” (▶ page 117)
“Clip Transition” (▶ page 362)

To display GPUfx transition, click the [Transitions] tree in the folder view of the [Effect] palette, and click the [GPU] tree.



Note

- GPUfx cannot be used if video memory on your PC is smaller than 256 MB. The [GPU] folder also will not be displayed on the [Effect] palette.
- To use GPUfx transition, an operating environment that satisfies certain conditions is required. For details on operating environment, see the Grass Valley website.
  "Our Website" (▶ page 499)

- If you have applied an effect in the [Advanced] folder, you may not be able to check the results of an effect with default settings. Either adjust the applied effect or apply a preset.
  "Checking/Adjusting Effects" (▶ page 376)

■ Adjusting GPUfx transition

The following procedure explains how to adjust [Explosion] in the [Advanced] folder as an example. For how to apply GPUfx transition, see "Transition".
"Transition" (▶ page 362)

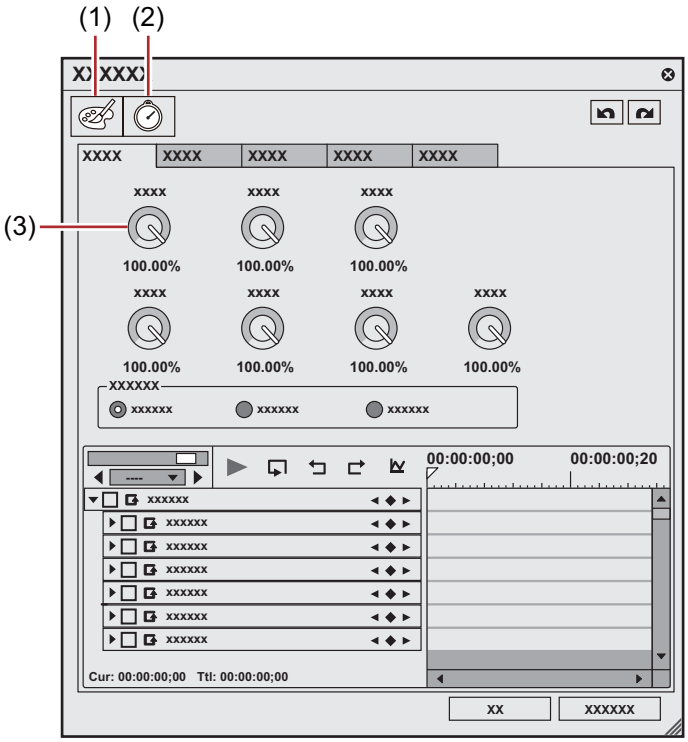
1) Click the transition to which GPUfx has been applied.

- **"How to Adjust Effects" (▶ page 338)**

2) Select [Explosion] in the [Information] palette, and click [Open Setup Dialog].

- The [Explosion] dialog box appears.

3) Set each item.



(1)	**[Design]**	Display a setting screen to adjust the motion or lighting. Use [Divide] to change the fragment size, use [Spread] to change the spread of fragments, and perform other operations. Also set key frames to change the motion of video along the time axis.
(2)	**[Time]**	Display the setting screen to set the key frame and apply changes to the motion along the time axis.
(3)	**Controller**	Drag up and down to adjust.

4) Click [OK].

[Accordion]

Transitions by folding the video like an accordion.

[Album]

Transitions the video as if folding over a stiff page in a book.

[Extend]

Transitions the video by stretching it.

[Explosion]

Transitions by applying an effect where it looks as if the video has exploded.

[Cube Tube]

Transitions the video by rotating it on a three-dimensional cube.
The effect cannot be checked with default settings. Make sure to change the parameters after applying the effect.

[Clapper Board]

Transitions the video with a movement like a clapper board.

[Sphere]

Transitions the video while turning the video into a sphere.

[Tube]

Transitions the video while turning the video into a pipe shape.

[Twist]

Transitions the video by twisting it.

[Two Pages]

Transitions by peeling the video in 2 directions.

[Transform]

Transitions the video with a variety of freeform transformations.
The effect cannot be checked with default settings. Make sure to change the parameters after applying the effect.

[Door]

Transitions the video with a door opening movement.

[Peel]

Transitions the video by peeling it.

[Folder]

Transitions the video by folding it.

[Four Pages]

Transitions by peeling the video in 4 directions.

[FlyingAway]

Transitions the video by flying it away.

[FlyingIn]

Transitions the video by flying it in.

[Flip Over]

Transitions the video by flipping it over.

[Blind Wave]

Transitions the video by splitting it into tiles/stripes and turning it over.

[Ripple]

Transitions the video while applying a wave-like effect.

[Rotation]

Transitions the video while rotating it.

[Advanced]

Applies a basic movement and configure the settings as you wish.

[SMPTE]

Applies SMPTE standard transitions.

[Alpha]

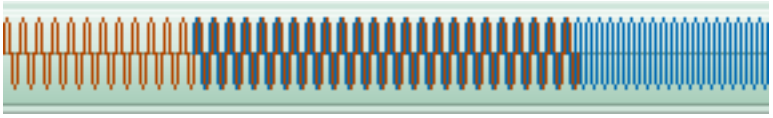
[Alpha Custom Map]

A transition that is like dissolve, except you can apply unevenness to the dissolve or change the direction, rotation, speed, etc.

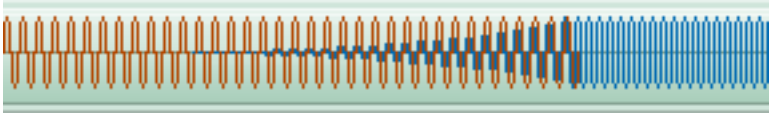
[AudioCrossFades]

The illustrations represent the change in volume in the area where the audio cross fade has been applied.

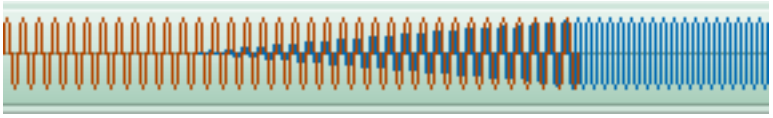
[Cut out/in]



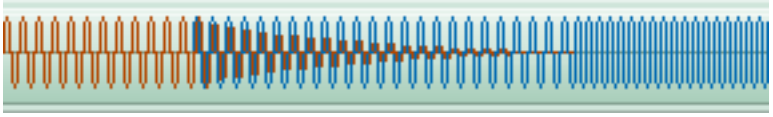
[Cut out/Spline in]



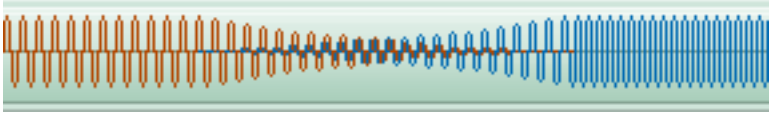
[Cut out/Linear in]



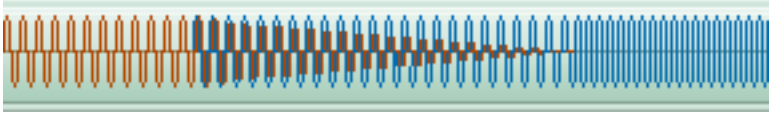
[Spline out/Cut in]



[Spline out/in]



[Linear out/Cut in]



[Linear out/in]

This is set as the default audio cross fade in the initial settings.

[TitleMixers]

Applies changes to how a title appears or disappears. Different effects can be applied to the In side and the Out side.
Parameters can only be changed for [Soft Slide] and [Soft Wipe].

[Slide A]

The title enters the screen from outside the screen, and exists the screen in the selected direction.

[Slide B]

The title slides within a rectangle in the selected direction. The rectangle includes all text frames and other objects placed when creating the title.

[Soft Slide]

The title enters the screen from outside the screen in the selected direction, sliding up to a rectangular range. The borders are blurred during In and Out.

[Soft Wipe]

The title appears during a wipe in the selected direction. The wipe borders are blurred.

[Fade Slide A]

Slide A is moved while dissolving.

[Fade Slide B]

Slide B is moved while dissolving.

[Laser]

The title appears as if projected by a laser. The opposite movement is performed during Out.

[Wipe]

The title appears during a wipe in the selected direction.

[Wipe Vertical]

The title appears during a wipe in a vertical direction.

[Wipe Horizontal]

The title appears during a wipe in a horizontal direction.

[Fade]

The same as the dissolve effect. This is set as the default title mixer in the initial settings.

[Blur]

The title dissolves while becoming blurred.

[Keyers]

Blends multiple videos on top of one another.

[Blend]

Blends 2 videos on top of each other. Video A is the 1VA video and video B is 2VA, where video B is blended on top of video A.
The above images are examples of blending the blue gradation as video A (background) and the red gradation as video B (foreground).
The following images are examples of blending the skydiving image as video A (background) and the image of the airplane flying above a lake as video B (foreground).

■ Original images

Video B (foreground) Key application side	
Video A (background)	

[Overlay]

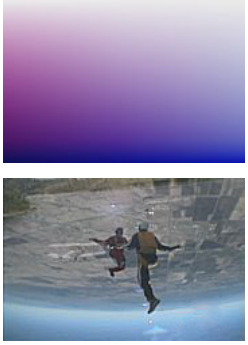
The blending creates a darker area where the background is dark due to a multiplying effect, and a brighter area where the background is light due to a screening effect.

[Screen]

Since the pixels are negated, multiplied then negated again, the image becomes brighter.

[Soft Light]

Applies a multiplication and screening effect, making the background darker where the foreground is dark, and the background lighter where the foreground is light.



[Hard Light]

Blending of where the foreground is dark makes the image darker due to a multiplying effect, and blending of where the foreground is light makes the image lighter due to a screening effect.

[Vivid Light]

Blending of where the foreground is light lowers the contrast and makes the image lighter, and blending of where the foreground is dark increases the contrast and makes the image darker.

[Pin Light]

Replaces parts that are light in the foreground with a darker part, and replaces parts that are dark in the foreground with lighter parts.

[Linear Light]

Increases the brightness of parts that are bright in the foreground, and lowers the brightness of parts that are dark in the foreground.

[Multiply]

Multiplies the colors and so makes the image darker.

[Addition]

Adds the colors and so makes the image brighter.

[Difference]

Displays colors that have been converted into an absolute value from the difference between the background and foreground.

[Lighter]

Compares the background and foreground, and displays the brighter color.

[Darker]

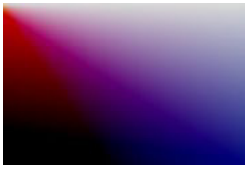
Compares the background and foreground, and displays the darker color.

[Subtract]

Subtracts the foreground from the background so parts of the foreground that are bright become dark.

[Color Burn]

Leaves the background color as it is and darkens parts that are superimposed.



[Color Dodge]

Leaves the background color as it is and brightens parts that are superimposed.

[Exclusion]

Displays colors that have been converted to an exclusive OR for the background and foreground.

[Chromakey]

Displays the lower video through a specific color.

“Key” (▶ page 366)

[Track Matte]

Produces an alpha channel according to the luminance of the lower image, which is multiplied to the alpha channel of the clip to which track matte is applied.

“[Track Matte]” (▶ page 371)

[Luminancekey]

Displays the lower video through a specific brightness.

“Key” (▶ page 366)

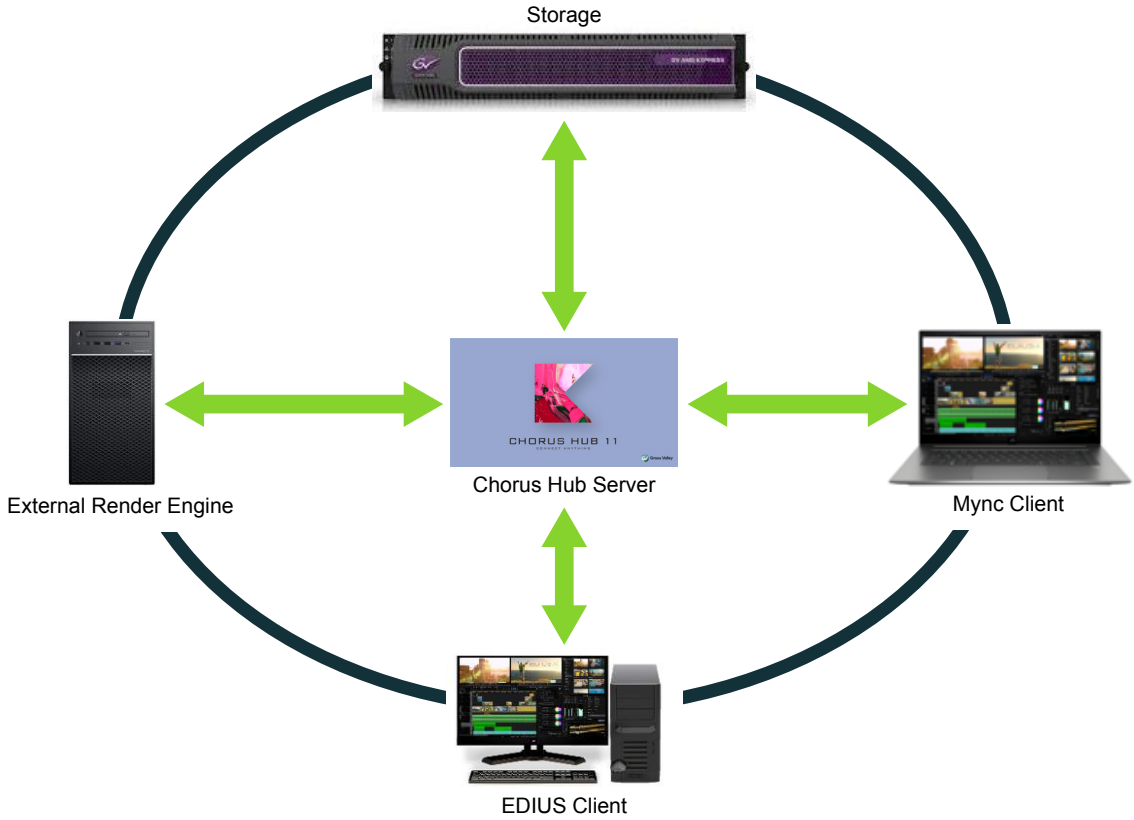
Interaction with Chorus Hub

By connecting all the applications including EDIUS/Mync via the Chorus Hub server and making them interact with each other, you can build a speedy and efficient editing environment.

Summary

Chorus Hub is a solution for groups engaged in creative work. It allows multiple EDIUS/Mync clients to connect with a Chorus Hub server. It allows for source settings, video editing data, and other resources from each client terminal to be shared within a group, making work more efficient.

The overall configuration consists of “Chorus Hub server” that manages the central database, a “floating license server” that manages licenses throughout the entire solution, and multiple EDIUS/Mync clients. An external rendering terminal can also be added to function as a dedicated engine for processes such as encoding and rendering.



Chorus Hub Features

Content Sharing

Chorus Hub can be used to share data with clients, such as source settings information configured using Mync 11 (In/Out points, marker, and display color of asset, etc.), as well as EDIUS 11 projects and sequences managed by Mync 11.

When editing with EDIUS, the new [Mync] window added in EDIUS 11 allows users to make use of this shared information directly and seamlessly.

External Rendering

An external rendering terminal can be connected in order to export EDIUS 11 timeline files and convert Mync 11 asset files externally. This can significantly reduce the load on client terminals.

Grass Valley Product Support

For technical assistance, to check on the status of a question, or to report a new issue, contact Grass Valley Product Support via e-mail, the Web, or by phone or fax.

Web Technical Support

To access support information on the Web, visit the product support Web page on the Grass Valley Web site. You can download software or find solutions to problems by searching our Frequently Asked Questions (FAQ) database.

■ World Wide Web:

https://www.grassvalley.com/support/

■ Contact Customer Support

https://www.grassvalley.com/support/contact/

Authorized Support Representative

To locate the support representative for your country, visit the following Product Support Web page on the Grass Valley Web site.

- https://www.grassvalley.com/support/

END-OF-LIFE PRODUCT RECYCLING NOTICE

Grass Valley's innovation and excellence in product design also extends to the programs we've established to manage the recycling of our products. Grass Valley has developed a comprehensive end-of-life product take back program for recycle or disposal of end-of-life products. Our program meets the requirements of the European Union's WEEE Directive, the United States Environmental Protection Agency, and U.S. state and local agencies.

Grass Valley's end-of-life product take back program assures proper disposal by use of Best Available Technology. This program accepts any Grass Valley branded equipment. Upon request, a Certificate of Recycling or a Certificate of Destruction, depending on the ultimate disposition of the product, can be sent to the requester.

Grass Valley will be responsible for all costs associated with recycling and disposal, including freight. However, you are responsible for the removal of the equipment from your facility and packing the equipment to make it ready for pickup.

For further information on the Grass Valley product take back system please contact Grass Valley at + 800 80 80 20 20 or +33 1 48 25 20 20 from most other countries. In the U.S. and Americas please call 800-547-8949 or 530-478-4148, and ask to be connected to the EH&S Department. Additional information concerning the program can be found at: www.grassvalley.com/about/environmental-policy

Our Website

The latest information of our products including this product are released on the Grass Valley website. Visit our website to download the latest drivers, utilities, applications, product manuals (online or PDF) or to see FAQs, for your better editing environment.

- https://www.grassvalley.com/
- https://www.ediusworld.com/

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October 11, 2023
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