SONY

CATALYST PREPARE

User Manual

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Chapter 1

Introduction

Catalyst Prepare is the fast, simple, reliable path from camera to post. You can use Catalyst Prepare to copy and back up clips, organize your media clips, create subclips, apply color correction, and export clips.

What's new in version 2023.1

- Visualization of stabilization data.
- Improved Copy snapshot to clipboard and Save snapshot functions.
 - Copy snapshot to clipboard and Save snapshot commands have been moved from the More Actions menu to a dedicated Snapshot menu.
 - ° The **Snapshot** menu provides access to options for saving snapshots.
- Mark In and Mark Out buttons have been moved to the main transport toolbar.

The Catalyst Prepare window

The Catalyst Prepare window can be displayed in two modes:

- In Organize mode, you can make a checksum-verified, full-volume backup; browse your computer for media files; copy media to your computer; add to your media libraries; organize library clips using bins; export clips to additional volumes or devices; upload to Sony Media Cloud Services Ci; and transcode files.
- In Edit mode, you can preview media, mark in and out points, and apply looks and color correction.

Click the Organize or Edit button at the top of the Catalyst Prepare window to change modes.

Organize mode



Edit mode



Chapter 2

Working with libraries

You can use libraries in Catalyst Prepare to organize your media.

Creating or opening a library

You can use different libraries to manage your media. A library helps you organize your clips, and you can use bins for even more control.

For example, creating a separate library for each project helps you keep your media organized and allows you to quickly find the right media for each project.

In Catalyst Prepare, you can have one library open at a time.

Creating a library

- 1. Click the Organize button at the top of the Catalyst Prepare window.
- 2. Click the Library button at the bottom of the Catalyst Prepare window and choose New from the menu.
- 3. Use the New Library dialog to choose the folder and file where you want to save your new library.
- 4. Click OK.

Opening a library

- 1. Click the Organize button at the top of the Catalyst Prepare window.
- 2. Click the Library button at the bottom of the Catalyst Prepare window and choose **Open** from the menu.
- 3. Browse to the library folder you want to load, select it, and click Open.
 - You can also double-click a .cpreplib file in Windows Explorer or macOS Finder.

Closing the library

If you want to work with clips independently of a library, you can use the **Close** command. After you've closed the library, **(No Library)** is displayed in the application's title bar.

A Some Catalyst Prepare features are unsupported without an open library:

When no library is opened, color adjustments are applied globally to all clips for previewing. If you want to save your color-correction settings, you can transcode clips to create new files. For more information, see "Exporting media from a library" on page 24.

Color adjustments to clip lists or spanned clips are not available when a library is open.

- When no library is opened, Channel Assignment controls in the Inspector are not available. For more information, see "Assigning audio channels" on page 103.
- When no library is opened, storyboard support is not available. For more information, see "Working with storyboards" on page 110.
- When no library is opened, bin support is not available. For more information, see "Adding bins to a library" on page 17.
- 1. Click the **Organize** button at the top of the Catalyst Prepare window.
- 2. Click the Library button at the bottom of the Catalyst Prepare window and choose Close from the menu.

Adding media to a library

To add media to a Catalyst Prepare library, you can copy clips from folders or devices attached to your computer, or you can choose to add clips without copying them to your computer.

To add a local folder to the library without copying clips, click the **Bin** button at the bottom of the Catalyst Prepare window in Organize mode, choose **Create from folder**, and browse to a folder on your computer. The folder and any clips in the folder are added to the current library.

When you edit a clip that is not included in the current library, the metadata is saved to the library without modifying the original clip. The clip is added to the Automatically Added bin. The following actions will add a clip to the Automatically Added bin in the current library:

- Changing in/out points.
- Adjusting color correction.
- Editing metadata.
- Editing audio channel assignments.

When browsing your clips, a badge is displayed in grid mode e or list mode to identify clips that are included in the current library. Click the badge to display more information about the clip.

🙆 Clip lists and spanned clips are not supported in Catalyst Prepare libraries.

Copying media from a device

Copying media allows you to import clips from cameras or decks to your computer, to another camera or deck, or to a centralized storage device.

1. Click the Organize button at the top of the Catalyst Prepare window.

The **Places** pane on the left side of the Catalyst Prepare window displays a list of the decks, cameras, and card readers that are connected to your computer.

- 2. Click the Library button to choose the library where you want to add media (or create a new library).
- 3. Select a device in the Devices list to display its media.
- 4. Select the media clips you want to import.
 - Click a file to select it.

Growing MXF files are displayed with the following icon:



Copying is not available when growing and nongrowing files are selected.

- Hold Shift and click the first and last file you want to select to select a range of files.
- Hold Ctrl (Windows) or Command (macOS) to select multiple files.

 $\mathbb Z$ Click the **Select** button $\overset{\blacksquare}{=}$ to select multiple files without using keyboard modifiers.

- 5. Click the **Copy** button et at the top of the Catalyst Prepare window.
- 6. Use the Copy pane to choose a destination for your files.
 - a. Choose how you want to copy the selected clips:
 - Select Copy clips to library to copy the clips from your device to your computer and add them to the current library. The clips will be copied to a timestamped folder (YYYY-MM-DD hh.mm.ss) in the library (_cpreplib) folder.
 - Select Copy clips to custom destination if you want to choose where to copy the clips when adding them the current library. Click the Browse button to choose a folder, and select the Create subfolder check box if you want to copy the selected clips to a named or timestamped subfolder in the destination.
 - A The Create subfolder check box is not available when copying to a known folder structure.
 - b. Select the Add to bin check box and choose a bin from the drop-down list if you want to copy the clips to a bin in the selected library (or create a new bin). For more information, see "Organizing media in a library" on page 15.

🔼 The Add to bin check box is not available when copying from a library.

- c. If you want to rename files, select the **Rename files** check box. Renaming ensures that source files will not be overwritten.
 - ° Type a string in the **Prefix** box if you want to start all file names with the same text.
 - Choose a setting from the **Numbering** drop-down list to indicate whether you want to number clips or use their original file names.
 - ° Type a string in the Suffix box if you want to end all file names with the same text.

For example, if you wanted to name clips using a convention such as **Commercial_ 001_Camera1.mxf**, you would type **Commercial_** in the **Prefix** box, choose **3 digits** from the **Numbering** drop-down list, and type **_Camera1** in the **Suffix** box.

- If you're exporting a still-image sequence for use in an editor that has specific file-naming requirements, you can use the **Rename files** controls to ensure your exported files are compliant with your editor's requirements.
- d. Select the **Copy all related media** check box if you want to copy all media related to the selected clips (metadata.proxy clips, and extra files).
 - When **SR Live metadata source** is set to **External file** in the Options pane, .srm files are not included with the copy operation. For more information, see "SR Live for HDR settings" on page 168.
- e. Select the Copy clips only radio button if you want to copy only full-resolution clips.
- f. Select the **Copy proxy only** radio button if you want to copy only proxy-resolution clips and all media related to the selected clips (metadata.proxy clips, and extra files).
- g. Select the Copy only between mark points check box if you want to copy only the media between the in and out points. For more information, see "Marking in and out points for playback" on page 96.
 - If you've logged mark in and out points, partial copying is not supported for some clip formats. Those clips will be transcoded using the **Default transcode format** setting in Options. For more information, see "Marking in and out points for playback" on page 96 or "Editing Catalyst Prepare options" on page 163.
- h. Select the **Close growing files** check box if you want to close growing MXF files generated by Sony decks when copying is complete.
 - When you're copying via FTP from Sony decks, growing files are closed automatically, and the check box is always selected. If you're copying from a local drive, you can select the check box to close growing files or clear the check box to copy the files without closing them.

If the copy destination is an FTP device, copied MXF files are not converted to closed files.

- i. Select the **Embed NRT metadata** check box if you want to embed non-real-time metadata from an XML sidecar file into an MXF file.
- j. Select the Copy with verification check box if you want to verify clips as they are copied.

A The **Copy with verification** controls are not available when the source or destination volume is an FTP device or when the destination volume is a Professional Disc Drive unit.

- Choose a setting from the **Verification mode** drop-down list to choose whether you want to verify the write operation only or also verify reading the source file.
 - Verify read/write is not available when the source volume is a Professional Disc Drive unit.
- Choose a setting from the **Hash type** drop-down list to choose the method (MD5, SHA1, CRC32, or xxHash64) that will be used to verify your copied clips.
- 7. Click the **Copy** button to copy the selected clips and add them to your library.

Progress is displayed in the activity pane at the top of the Catalyst Prepare window. Each copy job can contain multiple files if you have multiple files selected in step 2 above. If you have multiple jobs queued, a separate progress indicator is displayed for each job.

The imported clips will be available in Organize mode in the folder you selected above.

Adding media from a device without copying

If you want to include clips in your library without copying the files to your computer, you can drag them from the device to a library bin.

1. Click the Organize button at the top of the Catalyst Prepare window.

The **Places** pane on the left side of the Catalyst Prepare window displays a list of the decks, cameras, and card readers that are connected to your computer.

- 2. Click the Library button to choose the library where you want to add media (or create a new library).
- 3. Select a device in the Devices list to display its media.
- 4. Select the media clips you want to add to the library.
 - Click a file to select it.

Growing MXF files are displayed with the following icon:



Copying is not available when growing and nongrowing files are selected.

Hold Shift and click the first and last file you want to select to select a range of files.

- Hold Ctrl (Windows) or Command (macOS) to select multiple files.
- 5. Drag the clips from the middle pane to a bin on the left side of the Catalyst Prepare window.

 \mathbb{Y} You can also drag clips from the Organize pane to a bin or storyboard in the Places pane.

The device's clips are added to the library and are identified with a badge when you browse your device in grid mode or list mode.

Organizing media in a library

Organize mode allows you to view the clips on your computer's file system, attached devices, and libraries.

Select a folder in the Places pane to view the clips in a folder or device.

To navigate quickly, click the File button at the bottom of the Media Browser and choose Go to location.

To add the current folder to the Favorite Folders list in the Places pane, click the **File** button **t** at the bottom of the Media Browser and choose **Add to Favorites**.

To remove a folder from the Favorite Folders list, select the folder in the Places pane and click the X button:

▼ Documents

Select a library bin or storyboard in the Current Library pane to view a library's clips.

For more information, see "Adding media to a library" on page 10.

Choosing a library

- 1. Click the **Organize** button at the top of the Catalyst Prepare window.
- 2. The Places pane lists the current library. Click the **Library** button to choose a different library or create a new library.

The library's media is displayed in the right side of the Catalyst Prepare window.



 $\red{likelihood}$ Click the button to toggle thumbnail III and list III mode.

For more information, see "Creating or opening a library" on page 9.

Adding bins to a library

Bins are virtual folders within libraries that you can use to organize your media files. Bins are saved with your library and do not affect the way media is saved on your computer.

Click the **Bin** button **a** the bottom of the Catalyst Prepare window and choose a command from the menu:

- Choose **New** to add a new bin to the library. You can use bins to organize media within a library.
- Choose Create from folder to quickly add a local folder to the library without copying clips. The folder and any clips in the folder are added to the current library.
 - To create multiple bins quickly, select folders in the folder contents pane, right-click and choose **Add selected folders as bins**. A bin is created for each selected folder, and the folders' clips are added to the current library.

Adding clips to a bin

- 1. Use the Media Browser to browse your computer for video files.
- 2. Drag a clip (or folder) from the Media Browser to a bin in the Bins list.
 - To include a clip in more than one bin, drag it from the All Clips bin (or a local folder or device) to each bin where you want to include a link to the clip.

You can also drag a clip from one bin to another to move it.

You can also choose to add a clip to a bin when adding it to your library. For more information, see "Adding media to a library" on page 10.

🛕 Clip lists or spanned clips (🕜) cannot be added to bins.

Deleting bins from a library

- 1. Select a bin in the Bins list.
- 2. Click the **Bin** button at the bottom of the Catalyst Prepare window and choose **Delete** from the menu.

You're prompted with a confirmation dialog. If you also want to delete the source files from your computer, select the check box.

3. Click Delete.

If a folder or media file is moved or deleted outside of Catalyst Prepare, it is displayed with the following icon: 🐣

Renaming bins

- 1. Select a bin in the Bins list.
- 2. Click the **Bin** button at the bottom of the Catalyst Prepare window and choose **Rename** from the menu.
- 3. Type a new name in the box and click OK.

Cleaning a bin

- 1. Select a bin in the Bins list.
- 2. Click the **Bin** button at the bottom of the Catalyst Prepare window and choose **Clean**. The Clean dialog is displayed.
- 3. Select the check box for each type of clip you'd like to remove from the selected bin:
 - Delete items older than X days: Removes clips that were added to the library before the number of days you specify.
 - Delete items that can no longer be found: Removes clips that are no longer available on disk or are on disks that are not connected.

The dialog displays a list of clips that will be removed from the selected bin.

4. Click OK.

Exporting a library's bins as folders

- 1. Click the Organize button at the top of the Catalyst Prepare window.
- 2. The Places pane lists the current library. Click the Library button is to choose a different library or create a new library.

The library's media is displayed in the right side of the Catalyst Prepare window.



- 🕺 Click the button to toggle thumbnail 🎹 and list 트 mode.
- 3. Click the Library button and choose Export bins as folders.

4. Choose the folder where you want to export your library's bins, and then click OK.

Progress is displayed in the activity pane at the top of the Catalyst Prepare window.

🍸 The exported folders are named to match the library's bin names.

Only the portion of the video between the mark in and mark out points will be copied. For more information, see "Marking in and out points for playback" on page 96.

If you've logged mark in and out points, partial copying is not supported for some clip formats. Those clips will be transcoded using the **Default transcode format** setting in Options. For more information, see "Marking in and out points for playback" on page 96 or "Editing Catalyst Prepare options" on page 163.

Exporting a library's bins to Premiere

- 1. Click the Organize button at the top of the Catalyst Prepare window.
- 2. The Places pane lists the current library. Click the **Library** button to choose a different library or create a new library.

The library's media is displayed in the right side of the Catalyst Prepare window.

🕺 Click the button to toggle thumbnail 🎹 and list 🗮 mode.

- 3. Click the Library button and choose Export bins to Premiere.
- 4. Choose the folder where you want to create a new Premiere Pro project containing your library's bins and clips, and then click OK.

Progress is displayed in the activity pane at the top of the Catalyst Prepare window.

 \mathbb{Y} The exported folders are named to match the library's bin names.

Only the portion of the video between the mark in and mark out points will be copied. For more information, see "Marking in and out points for playback" on page 96.

If you've logged mark in and out points, partial copying is not supported for some clip formats. Those clips will be transcoded using the **Default transcode format** setting in Options. For more information, see "Marking in and out points for playback" on page 96 or "Editing Catalyst Prepare options" on page 163.

Exporting a library's bins to Final Cut Pro X

- 1. Click the Organize button at the top of the Catalyst Prepare window.
- 2. The Places pane lists the current library. Click the Library button to choose a different library or create a new library.

The library's media is displayed in the right side of the Catalyst Prepare window.

- 🕺 Click the button to toggle thumbnail 🎹 and list 🗮 mode.
- 3. Click the Library button and choose Export bins to Final Cut Pro X.
- 4. Choose the folder where you want to create a new Final Cut Pro X project containing your library's bins and clips, and then click OK.

Progress is displayed in the activity pane at the top of the Catalyst Prepare window.

 \mathbb{Y} The exported folders are named to match the library's bin names.

Only the portion of the video between the mark in and mark out points will be copied. For more information, see "Marking in and out points for playback" on page 96.

If you've logged mark in and out points, partial copying is not supported for some clip formats. Those clips will be transcoded using the **Default transcode format** setting in Options. For more information, see "Marking in and out points for playback" on page 96 or "Editing Catalyst Prepare options" on page 163.

Working with storyboards

You can create and edit storyboards to create a video project that is comprised of multiple, shorter video clips.

For more information, see "Working with storyboards" on page 110.

Moving clips between bins

When you're using bins to organize your library, you can easily move clips between bins.

- 1. In the Places pane on the left side of the Catalyst Prepare window, select the bin that contains the clips you want to move.
- 2. Select the clips you want to move in the Media Browser.

- 3. Click the **Move** button 🛃 at the bottom of the Media Browser.
- 4. Choose your destination folder from the Move clip to bin drop-down list.
- 5. Click the Move button.
 - You can also drag a clip from one bin to another to move it.

To include a clip in more than one bin, drag it from the All Clips bin (or a local folder or device) to each bin where you want to include a link to the clip.

Renaming clips

Renaming a library clip allows you to edit the name that is displayed in your Catalyst Prepare library. Renaming a clip does not rename the source media file on the disk.

- If you want to rename a file on disk, browse to a device or local folder in the Places pane, and select a clip. Click the File button at the bottom of the Media Browser, choose Rename, and type a new name in the edit box. The file and all instances of the file in your library are updated.
- 1. Select a clip in the Media Browser.
- 2. Click the **Clip** button III at the bottom of the Media Browser, choose **Rename**, and type a new name in the edit box.

Removing clips from a library (or bin)

- 1. Select a clip in the Media Browser.
- 2. Click the **Clip** button **I** at the bottom of the Catalyst Prepare window and choose **Remove** from the menu.

The Remove Clips dialog is displayed to allow you to choose to remove the selected clip only or all clips that use the source media.

If you want to remove all clips that use the source media, you can select the **Also delete the associated source file from disk** check box to delete the source file from disk. Selecting this check box automatically selects the **Also remove the clip from other bins** check box.

If you want to remove the clip from all bins without deleting the source clip, select only the **Also** remove the clip from other bins check box.

If a folder or media file is moved or deleted outside of Catalyst Prepare, it is displayed with the following icon:

Consolidating a library

Consolidating a library gathers all the library's clips to a single folder. When you consolidate a library, clips are copied to the new destination folder; the original clips are not moved.

- 1. Click the **Organize** button at the top of the Catalyst Prepare window.
- 2. In the Places pane, click the Library button and choose **Consolidate** from the menu.
 - If any of the library's clips cannot be found, you'll be prompted to relink the library clips. For more information, see "Relinking library media" on page 51.
- 3. Click OK to start copying media.

Saving and renaming a library (Save As)

You can use **Save As** to create a copy of the current library with a new name or to a different folder.

- 1. Click the Organize button at the top of the Catalyst Prepare window.
- 2. In the Places pane, click the Library button and choose Save As from the menu.
- 3. Choose the folder where you want to save the library.
- 4. Select the **Consolidate media with new library** check box if you want to copy clips to a subfolder in the destination folder. You can choose to copy the selected clips to a named or timestamped subfolder in the destination.
- 5. Click OK to start copying media.

Showing source clips

- 1. Select a file.
- 2. Click the Clip button III at the bottom of the Media Browser and choose Show in Finder (macOS) or Show in Explorer (Windows) to view the source clip in its containing folder.

Editing library clips

In Edit mode, you can preview media, log mark in and out points, and apply looks and color correction.

- 1. Click the **Organize** button at the top of the Catalyst Prepare window.
- 2. Select the clip you want to edit.

The left pane allows you to navigate the folders in your library, and the middle pane displays the contents of the selected folder.

- 3. Click the **Edit** button at the top of the Catalyst Prepare window to open the selected clip in Edit mode.
 - 👷 You can also double-click a clip in Organize mode to open it in Edit mode.

In Edit mode, the left pane allows you to browse the file system or the library's clips; the center pane allows you to preview the file, log mark in and mark out points, and apply color correction; and the right pane allows you to view and edit metadata for the selected file in the Inspector.

- For more information about previewing media, please see "Playing media" on page 89.
- For more information about logging mark in and out points, please see "Marking in and out points for playback" on page 96.
- For more information about applying color correction, please see "Applying color correction" on page 127.
- For more information about using the Inspector, please see "Viewing and editing metadata" on page 101.

Working with subclips in a library

A subclip is a library reference to a clip. You might create a subclip that uses different color correction than the source media or that uses different mark in and mark out points.

Subclips save disk space when transferring media to the NLE: you can transcode only material of interest and apply a meaningful name to simplify the editing stage.

When you view your library in Organize mode, subclips are labeled with the original clip name and a number — MainClip - Subclip 1, MainClip - Subclip 2, and so on — or you can provide your own name.

Creating subclips

- 1. Click the **Organize** button at the top of the Catalyst Prepare window.
- 2. Double-click a clip to open it in Edit mode.
- 3. Use the Mark In and Mark Out buttons to adjust the length of your subclip. For more information, see "Marking in and out points for playback" on page 96.
- 4. Click the **Create Subclip** button **W**. The Subclip Name dialog is displayed.

The subclip is created using the base name of the original clip. Edit the clip name if needed and click **OK** to add the subclip to your library.



The **Create Subclip** button is displayed under a **Log** button when the Catalyst Prepare window is too narrow to display the full toolbar.

Deleting subclips

- 1. Click the **Organize** button at the top of the Catalyst Prepare window.
- 2. Select the subclip you want to delete.
- 3. Click the Clip button 🖽 at the bottom of the Media Browser and choose Remove.

The Remove Clips dialog is displayed to allow you to choose to remove the selected clip only or all clips that use the source media.

If you choose to remove all clips that use the source media, you can select the **Also delete the associated source file from disk** check box to delete the source file from disk.

Exporting media from a library

Catalyst Prepare provides you with several methods to transcode and share clips from your library.

Working with FTP devices

You can use Catalyst Prepare to work with clips on a remote server using FTP/FTPS.

Connect to an FTP device

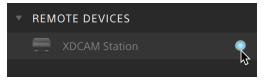
Click the **Tools** button \checkmark at the top of the Places pane and choose **Add remote server** to specify a server's connection settings.

Item	Description
Server name	Type a name to identify the server. This name will be displayed in the Remote Devices list in the Places pane.
Protocol	Choose a setting from the drop-down list to indicate whether you'll connect to the server via an FTP or FTPS (Explicit) connection.
Address/Port	Type the address or host name of the server and the port.
Folder	If you want to connect to a specific folder on the server, type its name here. Leave

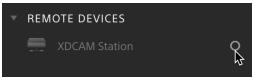
Item	Description
	this box blank to connect to the root of the device.
User name	Type the user name that you want to use to connect to the server.
Password	Type the password for the specified user name.

Disconnecting from or reconnecting to a server

To disconnect from a server, select the server in the Places pane and click the 🤍 button:



To reconnect to a server, select the server in the Places pane and click the button:



Editing a server's settings

To edit the settings for a connected server, select it and then click the **Tools** button at the top of the Places pane and choose **Edit remote server**.

Removing a server

To remove a remote server from the Remote Devices list, select it and then click the **Tools** button at the top of the Places pane and choose **Remove remote server**.

Browsing the contents of an FTP device

- 1. Connect to the FTP device. For more information, see "Connect to an FTP device" on page 24.
- 2. In the Places pane, select your FTP device. The contents of the device are displayed in the center pane.

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- 3. In the center pane, select a clip.
 - You can use the Inspector pane to view the selected clip's metadata. For more information, see "Viewing and editing metadata" on page 101.

🛕 Audio and video preview are not available over FTP connections.

- Right-click the selected clip and choose **Rename** to edit the clip's name.
- Right-click the selected clip and choose **Delete** to remove the selected clip from the device.

Copying, renaming, or deleting clip lists to SxS media and USB storage on the PZW-4000 is not supported.

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Library Bin Storyboard	Select Back Up Source	File Tools			29.97 fps

Copying clips from an FTP device to your library or computer

Working with clips from an FTP server is as simple as working with clips from your local computer or an external drive. After you connect to an FTP device, it will be displayed in a Remote Devices list in the Places pane, and you can browse it in the same way you browse other volumes.

- 1. Connect to the FTP device. For more information, see "Connect to an FTP device" on page 24.
- 2. In the Places pane, select your FTP device. The contents of the device are displayed in the center pane.

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Library Bin Storyboard		Select Back Up Source	File	Tools				

3. In the center pane, select the clip you want to copy to your library.

🛕 Audio and video preview are not available over FTP connections.



- 4. Click the **Copy** button at the top of the Catalyst Prepare window.
- 5. Use the Copy pane to choose a destination for your files.

Select the **Copy clips to library** radio button to copy the selected clips to the current library, or select **Copy clips to custom destination** and click **Browse** to browse to another folder.

6. Use the copy pane to choose copy options, and then click the Copy button to start copying.

For more information about the controls in the Copy pane, please see "Copying clips to a device" on page 41.

Copy clips to a Sony FTP device

- Connect to the FTP device where you want to copy the clips. If your source clips are also on an FTP device, also connect to the source FTP device. For more information, see "Connect to an FTP device" on page 24.
- 2. In the Places pane, select the source device from which you want to copy clips. The contents of the device are displayed in the center pane.

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Automatically Addea Automatically Addea Media STORYBOARDS Sample_Storyboard Bin Storyboard	MEMORY-B Select Back Up Source	File Tools	

3. In the center pane, select the clip you want to copy to your library.

🔼 Audio and video preview are not available over FTP connections.

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			C0008.MX			8111005845058	300800460201	25F7F6 (
				ي ا) x 1080
Library Bin Storyboard		Select Back Up Source	11 File	Tools				9.97 fps

- 4. Click the Copy button 💷 at the top of the Catalyst Prepare window.
- 5. Use the Copy pane to choose a destination for your files.

Select the **Copy clips to custom destination** radio button, click **Browse**, select your FTP device in the Copy To dialog, and then click **OK**.

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6. Use the copy pane to choose copy options, and then click the **Copy** button to start copying.

For more information about the controls in the Copy pane, please see "Copying clips to a device" on page 41.

📝 Notes:

The Create subfolder check box is not available when copying to a known folder structure.

The Copy clips only check box is not available when copying to a Sony FTP device.

The Use fast device-to-device copy check box is not available when using FTPS protocol.

Copy clips to a non-Sony FTP device

- Connect to the FTP device where you want to copy the clips. If your source clips are also on an FTP device, also connect to the source FTP device. For more information, see "Connect to an FTP device" on page 24.
- 2. In the Places pane, select the source device from which you want to copy clips. The contents of the device are displayed in the center pane.

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The source must be a Sony device.

3. In the center pane, select the clip you want to copy to your library.

🛕 Audio and video preview are not available over FTP connections.

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REMOTE DEVICES	C0003.MXF	C0004.MXF		
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BINS				
All Clips	7			ftp://admin@43.148.81.16/DISC
Automatically Added	6 C0005.MXF	50005 M/F		XDCAM HD/HD422
	- C0005.MXF	C0006.MXF		Wed Apr 2 11:38:02 2008 (Z)
	run nun			Fri Aug 1 14:17:52 2014 (+09:00)
STORYBOARDS				01:01:08:25
Sample_Storyboard	2			01:01:37:18 00:00:28:23
				81110058450580080046020125F7F6
	C0007.MXF	C0008.MXF		VIDEO
				1920 x 1080
Library Bin Storyboard	Select Back Up Source		Frame rate	29.97 fps

- 4. Click the **Copy** button at the top of the Catalyst Prepare window.
- 5. Use the Copy pane to choose a destination for your files.

Select the **Copy clips to custom destination** radio button, click **Browse**, select your FTP device in the Copy To dialog, and then click **OK**.

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6. Use the copy pane to choose copy options, and then click the **Copy** button to start copying.

For more information about the controls in the Copy pane, please see "Copying clips to a device" on page 41.

📝 Notes:

The Create subfolder check box is not available when copying to a known folder structure.

Only the **Copy clips only** option is available when copying from a Sony FTP device to a third-party FTP device.

The **Use fast device-to-device copy** check box is only available when copying from a Sony device using FTP protocol (FTPS protocol is not supported).

The **Preserve source UMID** check box is not available when copying too a third-party FTP device.

Transcoding clips

Transcoding clips allows you to convert clips to another format. The original clips are not affected (overwritten, deleted, or altered) during the exporting process.

1. Select the clips you want to export in Organize or Edit mode.

The left pane allows you to navigate the folders in your library, and the middle pane displays the contents of the selected folder

- Click a file to select it.
- Hold Shift and click the first and last file you want to select to select a range of files.
- Hold Ctrl (Windows) or # (macOS) to select multiple files.
 - Click the Select button to select multiple files without using keyboard modifiers.

An O on a thumbnail indicates a clip that spans multiple files due to file-size limitations but is displayed in Catalyst Prepare as a single virtual clip. Spanned XDCAM EX clips can be transcoded directly, but AVCHD clips must be copied first.

To transcode spanned AVCHD clips, first copy them to a new folder. After the copy is complete, the *indicator* is removed, and the clips are combined in a new clip that you can transcode. For more information, see "Transcoding clips" on page 34.

- 2. Click the **Export** button i at the top of the Catalyst Prepare window, and use the Export pane to choose a destination and format for your exported files.
- 3. The **Export clips to** box displays the path to the folder where the selected files will be exported. You can type a path in the box or click the **Browse** button to choose a folder.
- 4. If you want to rename files, select the **Rename files** check box. Renaming ensures that source files will not be overwritten.
 - Type a string in the **Prefix** box if you want to start all file names with the same text.
 - Choose a setting from the Numbering drop-down list to indicate whether you want to number clips or use their original file names.
 - Type a string in the **Suffix** box if you want to end all file names with the same text.

For example, if you wanted to name clips using a convention such as Commercial_ 001_Camera1.mxf, you would type Commercial_ in the Prefix box, choose 3 digits from the Numbering drop-down list, and type _Camera1 in the Suffix box.

- If you're exporting a still-image sequence for use in an editor that has specific filenaming requirements, you can use the **Rename files** controls to ensure your exported files are compliant with your editor's requirements.
- 5. The Source Metadata section shows you the file name, color space format, frame size, and frame rate of the selected clip.
 - 📝 Source metadata is not displayed when a storyboard or clip list is selected.
 - Click the **Reset** button in the Source Metadata heading in the Inspector pane to reset the **Color Space** based on the clip's metadata or the selected SR Live metadata source. For more information, see "SR Live for HDR settings" on page 168.
- 6. Use the Transcode Settings section to choose the format for your exported files. If you need to reset the transcode settings to their default values, click the **Reset** button **Q**.
 - a. If you want to use a transcode preset to choose the settings for your exported files, choose a setting from the **Transcode preset** drop-down list, and then click **Export**.

If you want to choose custom transcoding settings, choose **Custom** from the **Transcode preset** drop-down list and continue to step b.

For more information, see "Transcoding presets" on page 49.

- When you select a video processing device other than your CPU in the application settings dialog, high-quality deinterlacing and upscaling are applied to convert SD and HD sources to modern progressive HD and UHD assets. For more information, see "Choosing a video processing device" on page 163.
 - High-quality upscaling is applied during transcoding when you choose an HD or UHD render preset.
 - ° Please note that some systems with limited GPU memory are not supported.
- **b.** When exporting to a video format, choose a setting from the **Output color space** dropdown list to choose the color space that will be used for rendering the new files.

You can choose **Same as preview** or **Same as external monitor** (if an external monitor is enabled) to match the output color space and color adjustments to your video preview or external monitor setting. For more information, see "Editing Catalyst Prepare options" on page 163.

If the selected color space includes color adjustments, the color adjustments icon is displayed in white and a ToolTip notifies you that color adjustments will be included. If the selected color space does not include color adjustments, the color adjustments icon is displayed in gray and a ToolTip notifies you that color adjustments will be excluded.

If the selected output color space is not compatible with the source color space, a warning is displayed to notify you that the clip cannot be exported using the current settings.

SR Live settings are applied only when the **Output color space** drop-down is set to **Same as preview** or **Same as external monitor**. For more information, see "SR Live for HDR settings" on page 168.

- c. Choose a setting from the **Format** drop-down list to indicate the file format you want to use for your exported files.
 - Format settings that are not supported by the selected Output color space will not be available.
 - When transcoding to DPX format, you can type a value in the **Starting frame index** box to append a numeric index to transcoded file names.

OpenEXR is available only for S-Gamut, RAW, or X-OCN sources when Output color space is set to ACES, Rec.2020/Linear, S-Gamut/Linear or S-Gamut3/Linear.

ProRes is available on macOS only.

- d. Choose a setting from the **Frame size** drop-down list to choose the dimensions of the rendered frame, or choose **Same as source** to match the selected clip.
- e. Choose a setting from the Frame rate drop-down list to choose the number of frames per second for the rendered clip, or choose Same as source to match the selected clip.
- f. Choose a setting from the **Render preset** drop-down list to choose the settings that will be used for the exported files.
 - Choose the **Best match** preset if you want Catalyst Prepare to choose the most appropriate preset for each selected clip.
 - Render preset settings that are not supported by the selected Output color space and Format will not be available.

- Please note that the XAVC Long 422 3840x2160 200 Mbps (Sony) render presets require 16 GB or more RAM. If you're using a dedicated GPU, the presets also require 4 GB or more GPU memory.
- g. If you want to create a file with segmented body partitions from a single body partition, select the Create Sony Professional Disc partitions or Create segmented body partitions check box. When the check box is cleared, body partitions are not modified.
 - The Create Sony Professional Disc partitions check box is available only when XDCAM is selected in the Format drop-down list. Create segmented body partitions is available only when XAVC Intra or XAVC Long is selected in the Format drop-down list.

Files created with segmented body partitions may not be recognized properly by some Sony camcorders, decks, or servers.

- 7. Enable the Use advanced settings switch if you need to adjust additional transcoding settings.
 - a. Choose a setting from the **Crop type** drop-down list to choose the aspect ratio for your transcoded file:
 - None (letterbox/pillarbox): if the source frame is wider than the destination frame, black bars are displayed at the top and bottom (letterbox). If the source frame is narrower than the destination frame, black bars are displayed on the sides of the frame (pillarbox).
 - **Center crop (cut edges)**: if the source frame does not match the output frame, the frame is centered, and the edges are cropped as needed.
 - **Use masking ratio**: crops the frame to the masking ratio selected in the Clip Settings menu. For more information, see "Playing media" on page 99.
 - **b.** Choose a setting from the **Encode mode** drop-down list to choose whether you want to optimize image quality or transcoding speed.
 - c. Choose a setting from the Audio channels drop-down to choose how audio will be rendered in the output file.
 - Same as source: the rendered file will contain the same number of audio channels as the source clip.

• **Map audio channels**: you can choose how audio channels from the source clip will be mapped to audio channels in the rendered file.

Each channel in the rendered file will be displayed with a drop-down list so you can choose which source channel should be rendered to that channel.

d. Select the **Stitch clips** check box if you want to combine the selected clips into a single continuous clip. The order of the clips in the new clip will match the order they are displayed in Organize or Edit mode.

If you want the new clip to include continuous timecode based on the source clips' timecode, select the **Use continuous timecode** check box. Clip order will be adjusted as needed, and black frames will be added between clips to ensure the timecode in the new clip is not interrupted. For more information, see "Stitching clips" on page 123.

- e. Select the Add custom metadata check box if you want to include custom metadata items for the exported files. For each item that you define, an edit box is displayed to allow you to type the desired value for that metadata item. Custom metadata is saved in a sidecar .json file.
 - The Add custom metadata check box is only displayed if you have created a customMetadataExport.json file to define the items you want to export. For more information, see "Exporting custom metadata" on page 105.
- f. Select the **Burn in timecode** check box if you want to include timecode in the transcoded video.

Click the position control below the check box to indicate where timecode will be positioned in the frame.

The transcoded file will include the source clip's timecode. If you're transcoding a storyboard, each clip will display its source timecode.

g. Select the **Burn in clip name** check box if you want to include the clip name in the transcoded video.

Click the position control below the check box to indicate where the clip name will be positioned in the frame.

If you rename a clip, the custom name will be displayed. For more information, see "Renaming clips" on page 21.

If you're transcoding a storyboard, each clip will display its source clip name.

h. If the Burn in timecode and/or Burn in clip name check boxes are selected, you can select the Allow burn in within letterbox/pillarbox area check box if your output format will include letterboxing or pillarboxing and you want to allow the timecode/clip name to be placed in the letterbox/pillarbox area.

When the check box is cleared, the timecode/clip name will be limited to the source frame area.

i. Select the **Add watermark** check box if you want to include a watermark image in the transcoded video.

Click **Browse** to choose a JPEG or PNG image file.

Drag the **Opacity** slider to set the transparency/opacity of the watermark image.

Click the position control below the **Opacity** slider to indicate where the watermark image will be positioned in the frame:

- If you need to render multiple frame sizes, create a full-frame transparent
 PNG using the dimensions of your largest target frame size, and the watermark
 image will be scaled as needed for the smaller frame sizes.
- If your watermark image is smaller than the target frame size, no scaling is applied and the image will be anchored at the selected position control.
- j. Select the Use flip, rotate, and desqueeze settings check box if you're working with rotated video or video that was filmed with an anamorphic lens and want to preserve the Flip horizontal, Flip vertical, rotation, and Anamorphic desqueeze settings when transcoding. When the check box is not selected, letterboxing will be applied.

For more information, see "Playing media" on page 99.

k. Select the **Repair flash bands automatically** check box if want to automatically detect and repair flash bands when transcoding.

For more information, see "Repairing flash bands" on page 124.

- Select the Use mark in/out points check box if you want to transcode only the portion of the video between the mark in and mark out points. For more information, see "Marking in and out points for playback" on page 96.
- m. Select the Add padding to clips check box and type a number in the Seconds box if you want to preserve media before the mark in/mark out points.
- n. Select the **Transcode using proxy source clip** check box if you want to use the proxy as the source clip when transcoding. When you're transcoding a lower-resolution clip,

using the proxy as your source media is faster.

- o. Select the **Override start timecode** check box and type a number in the edit box to specify the starting timecode for your transcoded clip. When the check box is cleared, the clip's timecode is used.
 - A The **Override start timecode** check box is available when transcoding MXF clips to DNxHD, SStP, XAVC-I, XAVC-L, and XDCAM formats.
- If you want to save your transcoding settings, click the Transcode Tools button in the Transcode Settings heading and choose Save transcode preset.

For more information, see "Transcoding presets" on page 49.

8. Click Export.

If multiple clips are selected, the **Export** button at the bottom of the Export pane is displayed as **Batch Export**.

Progress is displayed in the activity pane at the top of the Catalyst Prepare window. Each export job can contain multiple files if you have multiple files selected in step 2 above. If you have multiple export jobs queued, a separate progress indicator is displayed for each job.

Copying clips to a device

Copying clips allows you to copy clips (or clip lists) from your library to another location. The original clip name and format are preserved if possible, and color correction is not applied to the copied clips.

You can drag a clip to a folder on a drive or device in the Places pane to copy the entire clip (with no transcoding, color correction, or renaming).

1. Select the clips you want to copy in Organize or Edit mode.

The left pane allows you to navigate the folders in your library, and the middle pane displays the contents of the selected folder

- Click a file to select it.
- Hold Shift and click the first and last file you want to select to select a range of files.
- Hold Ctrl (Windows) or # (macOS) to select multiple files.

- Click the Select button to select multiple files without using keyboard modifiers.
- An *O* on a thumbnail indicates a clip that spans multiple files due to file-size limitations but is displayed in Catalyst Prepare as a single virtual clip. After you copy a spanned AVCHD clip, the *O* indicator is removed, and the clips are combined in a new clip that you can transcode. For more information, see "Transcoding clips" on page 34.
- 2. Click the **Copy** button at the top of the Catalyst Prepare window.
- 3. Use the Copy pane to choose a destination for your files.
 - a. Choose where you want to copy the selected files:
 - Select the **Copy clip to library** radio button to copy the selected files to the current library.
 - Select Copy clip to custom destination radio button to choose a folder where the selected files will be copied. You can type a path in the box or click the Browse button to choose a folder.

Select the **Create subfolder** check box if you want to copy the selected clips to a subfolder in the destination.

- If you want to name the subfolder based on the date and time you copied the files, choose Time stamped from the drop-down list.
- If you want to name the subfolder yourself, choose **Custom folder name** from the drop-down list and type a name in the box.
 - A The Create subfolder check box is not available when copying to a known folder structure.
 - For more information about working with FTP devices, please see " Working with FTP devices" on page 24.
- **b.** Select the **Add to bin** check box and choose a bin from the drop-down list if you want to add the selected clips to a bin in your library.

For more information, see "Adding bins to a library" on page 17.

- c. If you want to rename files, select the **Rename files** check box. Renaming ensures that source files will not be overwritten.
 - Type a string in the **Prefix** box if you want to start all file names with the same text.
 - Choose a setting from the **Numbering** drop-down list to indicate whether you want to number clips or use their original file names.
 - Type a string in the **Suffix** box if you want to end all file names with the same text.

For example, if you wanted to name clips using a convention such as Commercial_001_Camera1.mxf, you would type Commercial_ in the Prefix box, choose 3 digits from the Numbering drop-down list, and type _Camera1 in the Suffix box.

- If you're exporting a still-image sequence for use in an editor that has specific file-naming requirements, you can use the **Rename files** controls to ensure your exported files are compliant with your editor's requirements.
- d. Select the **Copy all related media** radio button if you want to copy all media related to the selected clips (metadata, proxy clips, and extra files).
 - When **SR Live metadata source** is set to **External file** in the Options pane, .srm files are not included with the copy operation. For more information, see "SR Live for HDR settings" on page 168.
 - Only the Copy all related media option is available when the destination volume is a Sony device.
 - If you need to copy all files from a volume, you can use the Back Up Source command. For more information, please see "Backing up a volume" on page 51.
- e. Select the Copy clips only radio button if you want to copy only full-resolution clips.
 - A Only the **Copy clips only** option is available when copying to a non-Sony device.
- f. Select the **Copy proxy only** radio button if you want to copy only proxy-resolution clips and all media related to the selected clips (metadata, proxy clips, and extra files).

- When you edit the metadata for a proxy file, the metadata for the full-resolution clip is updated when you copy the proxy clip back to the device. For more information, see "Viewing and editing metadata" on page 101.
- g. Select the Copy only between mark points check box if you want to copy only the media between the in and out points when copying files. For more information, see "Marking in and out points for playback" on page 96.
 - If you've logged mark in and out points, partial copying is not supported for some clip formats. Those clips will be transcoded using the **Default transcode format** setting in Options. For more information, see "Marking in and out points for playback" on page 96 or "Editing Catalyst Prepare options" on page 163.
 - Copy only between mark points is not available when copying to or from an FTP device.
- h. If you want to create a file with segmented body partitions from a single body partition, select the Create Sony Professional Disc partitions or Create segmented body partitions check box. When the check box is cleared, body partitions are not modified.
 - A The Create Sony Professional Disc partitions / Create segmented body partitions check box is not available during FTP copy.
 - Files created with segmented body partitions may not be recognized properly by some Sony camcorders, decks, or servers.
- i. Select the **Use fast device-to-device copy** check box if you want to copy clips directly between devices via FTP (FTPS protocol is not supported).

When this check box is selected, clips are copied directly between the devices without copying to your computer.

Device access is not available during a fast device-to-device copy:

- ° Copy progress is not displayed.
- ° Device-to-device copy operations cannot be canceled.
- j. Select the Copy with verification check box if you want to verify clips as they are copied.
 - A The Copy with verification controls are not available when the source or destination volume is an FTP device or when the destination volume is a Professional Disc Drive unit.

• Choose a setting from the **Verification mode** drop-down list to choose whether you want to verify the write operation only or also verify reading the source file.

Verify read/write is not available when the source volume is a Professional Disc Drive unit.

- Choose a setting from the Hash type drop-down list to choose the method (MD5, SHA1, CRC32, or xxHash64) that will be used to verify your copied clips.
- k. Select the Override start timecode check box and type a number in the edit box to specify the starting timecode for your transcoded clip. When the check box is cleared, the clip's timecode is used.

🛕 The **Override start timecode** check box is available when copying MXF clips.

The Override start timecode check box is not available when copying to/from an FTP device.

I. Select the **Preserve source UMID** check box if you want to preserve a clip's UMID (Unique Material Identifier) when copying it to an FTP device. When the check box is cleared, the clip's UMID may be changed when it is copied to the device.

The Preserve source UMID check box is available when copying from a local drive to a Sony FTP device.

4. Click Copy.

Progress is displayed in the activity pane at the top of the Catalyst Prepare window. Each copy job can contain multiple files if you have multiple files selected in step 2 above. If you have multiple jobs queued, a separate progress indicator is displayed for each job.

Rendering a storyboard as separate files

You can convert a storyboard's clips to another format. A separate file is created for each clip, and the original clips are not affected (overwritten, deleted, or altered) during the exporting process.

- 1. Click a storyboard in the Storyboards section of the left pane.
- 2. Select the clips you want to export.
- 3. Click the Export button dat the top of the Catalyst Prepare window.
- 4. Select the Render clips as separate files radio button.

- 5. Use the controls in the Export pane to choose a destination and format for your exported files. For more information about the controls, please see "Transcoding clips" on page 34.
- 6. Click Export.

Progress is displayed in the activity pane at the top of the Catalyst Prepare window. Each export job can contain multiple files if you have multiple files selected in step 2 above. If you have multiple export jobs queued, a separate progress indicator is displayed for each job.

Rendering a storyboard as a single clip

In addition to exporting individual storyboard clips, you can convert a storyboard to a single media file. The original clips are not affected (overwritten, deleted, or altered) during the exporting process.

- 1. Click a storyboard in the Storyboards section of the left pane.
- 2. Click the Export button data the top of the Catalyst Prepare window.
- 3. Select the Render storyboard as single file radio button.
- 4. Use the controls in the Export pane to choose a destination and format for your exported file. For more information about the controls, please see "Transcoding clips" on page 34.
- 5. Click Export.

Progress is displayed in the activity pane at the top of the Catalyst Prepare window. If you have multiple export jobs queued, a separate progress indicator is displayed for each job.

Exporting a storyboard to another editor

You can convert a storyboard to a project that you can edit in a video editor.

- 1. Click a storyboard in the Storyboards section of the left pane.
- 2. Click the **Export** button ¹ at the top of the Catalyst Prepare window.
- 3. Select the Export storyboard as project radio button.
- 4. The **Export project to** box displays the path to the folder where the project will be exported. You can type a path in the box or click the **Browse** button to choose a folder.
- 5. Type a name in the File name box to set the file name that will be used for your exported project file.
- 6. Choose an export format from the **Project format** drop-down list:

- Apple Final Cut Pro X (*.fcpxml)
- Adobe Premiere (*.prproj)
- Avid Media Composer (*.aaf)
- Vegas Pro EDL (*.txt)
- 7. Choose transcoding options:
 - If you want to link to the original clips in the original locations, clear the Transcode media check box.
 - If you want to transcode the storyboard's media to another format when exporting, select the Transcode media check box and use the Transcode Settings controls to choose transcoding options.

For more information about the controls, please see "Transcoding clips" on page 34.

8. Click Export.

Progress is displayed in the activity pane at the top of the Catalyst Prepare window. If you have multiple export jobs queued, a separate progress indicator is displayed for each job.

An HTML report file is created in the same folder as the exported project with details about the export. Any warnings or errors will be displayed in the report.

Uploading files to Ci Workspace

- 1. Select the files you want to upload in Organize or Edit mode.
- 2. Click the Share button 🖾 at the top of the Catalyst Prepare window.
- 3. From the Upload clip to drop-down list, choose Ci Workspace.
- 4. Use the Share pane to log on to your Ci account and follow the on-screen instructions to upload the selected files to your Ci workspace.

Choose a setting from the **Login method** drop-down list to choose whether you want to log in with a username/email or a Contributor Code.

- If your account has multiple workspaces available, you can use the **Workspace** drop-down to choose the workspace that will be used by default.
- Select the Upload original clips radio button if you want to upload the source clips, or select Transcode clips before upload and choose your transcoding settings if you want to convert the clips to another format before uploading.

- When you upload the original clips, the source format is preserved, and no color adjustments are applied.
- When you transcode before uploading, you can choose file format and color-adjustment settings for the uploaded files. For more information about the controls, please see
 "Transcoding clips" on page 34.
- 6. Click Upload.

Progress is displayed in the activity pane at the top of the Catalyst Prepare window. If you have multiple upload jobs queued, a separate progress indicator is displayed for each job.

Uploading files to YouTube

- 1. Select the files you want to upload in Organize or Edit mode.
- 2. Click the Share button 🖾 at the top of the Catalyst Prepare window.
- 3. From the Upload clip to drop-down list, choose YouTube.
- 4. Use the Share pane to log on to your Google account and follow the on-screen instructions to upload the selected file.
 - a. Rename your uploads if needed:
 - When you're uploading a single clip, the **Title** box displays the file name of the selected clip. You can type a new title to identify your video.
 - ° When you're uploading multiple clips, select the Rename files check box.
 - Type a string in the Prefix box if you want to start all file names with the same text.
 - Choose a setting from the Numbering drop-down list to indicate whether you want to number clips or use their original file names.
 - Type a string in the Suffix box if you want to end all file names with the same text.

For example, if you wanted to name clips using a convention such as Commercial_001_Camera1, you would type Commercial_ in the Prefix box, choose 3 digits from the Numbering drop-down list, and type _ Camera1 in the Suffix box.

b. Type a description of your movie in the **Description** box.

- c. Type keywords you want to associate with your movie in the **Tags** box. Use words that relate to your movie and describe its content. These tags will be used when searching YouTube. Use commas to separate multiple keywords.
- d. From the Privacy drop-down list, choose a setting to set broadcast options for your movie. Public videos can be seen by any YouTube user; private videos can be seen only by members you specify; unlisted videos can be seen by anyone who has a link to the video, but they are not included in YouTube searches.
- e. Choose a setting from the **Category** drop-down list. The category you choose is used to classify videos on the YouTube site.
- f. Choose a setting from the Frame size drop-down list to choose the frame size of the video.
- g. Choose a setting from the Frame rate drop-down list to the frame rate of the video.
- h. Enable the **Use advanced settings** switch if you need to adjust additional transcoding settings. For more information about the controls, please see "Transcoding clips" on page 34.
- 5. Click Upload.

Progress is displayed in the activity pane at the top of the Catalyst Prepare window. If you have multiple upload jobs queued, a separate progress indicator is displayed for each job.

Transcoding presets

Transcode presets make it easy to transcode multiple files with the same settings.

Presets are saved in the following folder:

- Windows: C:\Users\<user>\Documents\Sony\Catalyst\Transcode Presets\
- macOS: /Users/<user>/Documents/Sony/Catalyst/Transcode Presets/

Importing transcode presets

If you're transferring preset files across computers, copy the .ctranscode files from the source computer to the destination computer. Presets are saved in the following folder:

- Windows: C:\Users\<user>\Documents\Sony\Catalyst\Transcode Presets\
- macOS: /Users/<user>/Documents/Sony/Catalyst/Transcode Presets/

Close and restart the application to load the new presets.

Saving transcoding presets

Saving a preset allows you to reuse transcoding settings easily and transfer settings across computers.

- 1. Click the **Export** button ¹ at the top of the Catalyst Prepare window.
- 2. Use the Transcode Settings section of the Export pane to adjust your settings as needed. For more information, see "Exporting media from a library" on page 24.
- 3. Click the **Transcode Tools** button so in the Transcode Settings.
- 4. Click Save transcode preset in the Transcode Tools menu.
- 5. Type name for your preset in the File name box and click OK.
 - Yereset files are saved in the following folder:
 - Windows: C:\Users\<user>\Documents\Sony\Catalyst\Transcode Presets\
 - macOS: /Users/<user>/Documents/Sony/Catalyst/Transcode Presets/

Deleting transcoding presets

Deleting a preset removes it from your computer.

- 1. Click the **Export** button ¹ at the top of the Catalyst Prepare window.
- 2. From the Transcode preset drop-down list, select the preset you want to delete.
- 3. Click the **Transcode Tools** button shi in the Transcode Settings.
- 4. Click Delete transcode preset in the Transcode Tools menu.
- 5. When prompted to confirm deleting the preset, click Delete.

Relinking library media

Relinking allows you to relink media files within a library when you move a library to a different drive or use media from an external drive.

- 1. Open a library. For more information, see "Creating or opening a library" on page 9.
- 2. In the Places pane, click the Library button and choose **Relink** from the menu.
- 3. For each clip, the Relink Clips dialog displays the original clip and its linked clip.

Click a folder path and browse to a new location to choose a new location for your source clips.

Click **Locate Folder** or **Locate File** (if a clip is missing) or a clip's path and browse to a new file to choose a replacement file.

- 😢 Click the 🕖 button to display the full path.
- 4. Click Relink. The paths to the library clips are replaced, and your library is updated.

Backing up a volume

Catalyst Prepare allows you to create verified backups of your discs and cards. A backup is an exact replica of the original storage media — with all files and volume structure — backed up for long-term safety and storage.

1. Click the Organize button at the top of the Catalyst Prepare window.

The **Places** pane on the left side of the Catalyst Prepare window displays a list of the available volumes.

- 2. Select a volume in the Places pane.
- 3. Click the Back Up Source button sat the bottom of the Places pane.
- 4. The **Destination folder** box displays the path to the parent folder where the backup will be created. You can type a path in the box or click the **Browse** button to choose a folder.
- 5. The Subfolder box displays the name of the folder where the backup will be created.
- 6. Choose a setting from the Verification mode drop-down list to choose the method (MD5, SHA1, CRC32, or xxHash64) that will be used to verify your backup file, or choose None to skip verification.
- 7. Click OK to start the backup.

Chapter 3

Finding media

Organize mode allows you to browse your computer for media files that you want to add to your media libraries, organize the clips in your media libraries, export clips to additional volumes or devices, and transcode files.

For more information, see "Adding media to a library" on page 10 or "Organizing media in a library" on page 15.

 $\overline{\mathbb{Z}}$ An igcup on a thumbnail indicates that an error was detected with the clip.

A **imin** indicates a clip from an Optical Disc Archive volume.

An ^(W) on a thumbnail indicates a clip that contains LUT metadata. For more information, see "Editing Color Adjustments controls" on page 127.

An ^(C) on a thumbnail indicates a clip that contains lens breathing metadata. For more information, see "<u>Correcting lens breathing</u>."

An ^(IIII) on a thumbnail indicates a clip that contains stabilization metadata. For more information, see "Stabilizing clips" on page 118.

The stabilize icon is not displayed for clips on FTP devices, XDCAM Station volumes via CIFS, XDCAM decks, XDCAM Drive units, or Optical Disc Archive volumes.

An on a thumbnail indicates a rotated clip. For more information, see "<u>Working with rotated</u> clips."

An O on a thumbnail indicates that a clip spans multiple discs on an Optical Disc Archive volume. When you play a clip that spans discs, an indicator is displayed in the timeline to identify the point where the clip switches discs:

An ^(IIII) on a thumbnail indicates a clip that spans multiple files due to file-size limitations but is displayed in Catalyst Prepare as a single virtual clip. Spanned XDCAM EX clips can be transcoded directly, but AVCHD clips must be copied first.

To transcode spanned AVCHD clips, first copy them to a new folder. After the copy is complete, the indicator is removed, and the clips are combined in a new clip that you can transcode. For more information, see "Exporting media from a library" on page 24 or "Exporting media from a library" on page 24.

An 🔍 on a thumbnail indicates a proxy clip that does not have a full-resolution clip available.

Clip lists and spanned clips are not supported in Catalyst Prepare libraries.

Connect to a device via FTP

You can use Catalyst Prepare to work with clips on a remote server using FTP/FTPS in much the same way you work with clips on your computer's drives.

For more information, see "Working with FTP devices" on page 24.

Format a USB drive for PZW-4000

Select a USB drive in the Devices tab, click the **Tools** button *F*, and choose **Format for PZW-4000** from the menu.

If the drive you want to format is not displayed in the Devices tab, you may need to format it using your computer's operating system first.

After formatting the drive, the drive will be treated as read-only media by the PZW-4000. Catalyst Prepare can write to the drive, and the PZW-4000 can import clips to its internal drive.

If you want to create the XDROOT folder on a formatted drive, select a USB drive in Organize mode, click the **Tools** button, and choose **Create XDROOT folder** from the menu.

Displaying files in a list or thumbnail mode

Click the button to toggle thumbnail \blacksquare and list \blacksquare mode.

In thumbnail mode (), the Media Browser displays thumbnail images and file names.

In list mode ($\stackrel{\text{IE}}{=}$), you can click the headings in the Media Browser to sort the file list by various attributes. Click the heading again to sort in ascending or descending order. An arrow is displayed to indicate the current sorting method:

Zoo_Card > BPAV				
Name +				Date Modified
807_0351_01.MP4				
807_0352_01.MP4				
807_0353_01.MP4				
807_0354_01.MP4	MP4	XDCAM EX MP4	Wed Sep 915:2	Wed Sep 914:26:16 2009

Searching for clips

- 1. Select the folder you want to search. Subfolders will be included in your search.
- 2. Click the **Search** button \bigcirc to display the Search bar at the top of the Media Browser.
- **3.** Type your search terms in the Search bar. The Media Browser displays all clips in the selected folder that contain your search terms in the file name or Summary metadata.

Select a clip and click **Go to folder The select** a clip's folder.

Click the **Close** button \bigotimes to close the Search bar and clear the search results from the Media Browser.

Select a different folder to clear your search terms and start a new search in the selected folder.

Filtering clips

You can use the **Filter** button **T** to filter the contents of the Media Browser. You can filter files by file type, file format, date created, or flag metadata.

- 1. Select the folder you want to view.
- 2. Click the Filter button T to display the Filter By menu at the top of the Media Browser.

	FILTER BY:			
Filter:				
🗸 Туре	is	▼	MP4	•
Format	is not	•	XAVC Intra	T
✓ Date created	on or after	•	2020-08-12	
✓ Flag	is	▼	NG	•

- 3. Enable the Filter switch at the top of the menu to enable the filter.
- 4. Select the check box for each filter you want to apply.

For the **Type**, **Format**, and **Flag** filters, you can choose **is** or **is not** to indicate whether files that match the filter should be included or excluded from the Media Browser.

For the **Date Created** filter, you can choose to display files created on or before a date, on or after a date, or between two dates.

To turn off the filter and display all files in the Media Browser, turn off the **Filter** switch at the top of the menu.

Using filtering, you can quickly find and select clips that you had tagged **OK** during shooting and copy or transcode the filtered clips. For more information, see "Transcoding clips" on page 34 or "Copying clips to a device" on page 41.

Selecting files

Click a file to select it.

Growing MXF files are displayed with the following icon:



Copying is not available when growing and nongrowing files are selected.

- Hold Shift and click the first and last file you want to select to select a range of files.
- Hold Ctrl (Windows) or Command (macOS) to select multiple files.

 $\stackrel{\curvearrowleft}{\simeq}$ Click the **Select** button $\stackrel{\blacksquare}{=}$ to select multiple files without using keyboard modifiers.

Showing source clips

- 1. Select a file.
- 2. Click the File/Clip button III at the bottom of the Media Browser and choose Show in Finder (macOS) or Show in Explorer (Windows) to view the source clip in its containing folder.

Managing SxS and Professional Disc volumes

If you need to format an SxS card, please use the Memory Media Utility.

If you need to format or finalize an XDCAM Professional Disc volume, please use the XDCAM Drive Software.

Supported video formats for reading

Catalyst Prepare supports reading the following video formats from volumes or as independent clips:

XDCAM

SD format

Format	Frame Size	Frame Rate	Field Order	Video Codec	Bit Rate	Audio Channels
DV	720x480	59.94i	Lower	DV	25 CBR	4x16 bit
DV	720x576	50i	Lower	DV	25 CBR	4x16 bit
MPEG IMX	720x512	59.94i	Upper	MPEG-2 Intra	30, 40, 50 CBR	4x24 bit / 8x16 bit
MPEG IMX	720x608	50i	Upper	MPEG-2 Intra	30, 40, 50 CBR	4x24 bit / 8x16 bit
Uncompressed	720x486	59.94i	Upper	Uncompressed	90 CBR	4x24 bit / 8x16 bit
Uncompressed	720x576	50i	Upper	Uncompressed	90 CBR	4x24 bit / 8x16 bit

HD format

Format	Frame Size	Pixel Aspect Ratio	Frame Rate	Video Codec	Bit Rate
MPEG HD	1280x720	1.0	50p, 59.94p	MPEG-2 Long GOP	25 CBR
MPEG HD	1280x720	1.0	50p, 59.94p	MPEG-2 Long GOP	35 VBR
MPEG HD	1280x720	1.0	50p, 59.94p	MPEG-2 Long GOP	50 CBR
MPEG HD	1440x1080	1.333	23.976p, 25p, 29.97p, 50i, 59.94i	MPEG-2 Long GOP	17.5 CBR
MPEG HD	1440x1080	1.333	23.976p, 25p, 29.97p, 50i, 59.94i	MPEG-2 Long GOP	25 CBR
MPEG HD	1440x1080	1.333	23.976p, 25p, 29.97p, 50i, 59.94i	MPEG-2 Long GOP	35 CBR
MPEG HD	1440x540	0.667	23.976p, 25p, 29.97p, Over Crank	MPEG-2 Long GOP	8.75 CBR

Format	Frame Size	Pixel Aspect Ratio	Frame Rate	Video Codec	Bit Rate
MPEG HD	1440x540	0.667	23.976p, 25p, 29.97p, Over Crank	MPEG-2 Long GOP	12.5 CBR
MPEG HD	1440x540	0.667	23.976p, 25p, 29.97p, Over Crank	MPEG-2 Long GOP	17.5 CBR
MPEG HD422	1920x1080	1.0	23.976p, 25p, 29.97p, 50i, 59.94i	MPEG-2 Long GOP	35 CBR, 50 CBR
MPEG HD422	1920x540	0.5	23.976p, 25p, 29.97p, Over Crank	MPEG-2 Long GOP	25 CBR

XDCAM EX

Format	Frame Size	Pixel Aspect Ratio	Frame Rate	Field Order	Video Codec	Audio Codec	Bit Rate
DV	720x480	0.9091	59.94p	Lower	DV	PCM, 48 kHz, 16 bit	25 CBR
DV	720x576	1.0926	50i	Lower	DV	PCM, 48 kHz, 16 bit	25 CBR
MPEG HD (EX-HQ)	1280x720	1.0	23.976p, 25p, 29.97p, 50p, 59.94p		MPEG-2 Long GOP	PCM, 48 kHz, 16 bit	35 VBR
MPEG HD (EX-SP)	1440x1080	1.333	50i, 59.94i		MPEG-2 Long GOP	PCM, 48 kHz, 16 bit	25 CBR
MPEG HD (EX-HQ)	1440x1080	1.333	23.976p, 25p, 29.97p, 50i, 59.94i		MPEG-2 Long GOP	PCM, 48 kHz, 16 bit	35 VBR
MPEG HD422 (EX-HQ)	1920x1080	1.0	23.976p, 25p, 29.97p, 50i, 59.94i		MPEG-2 Long GOP	PCM, 48 kHz, 16 bit	35 VBR

XAVC Intra

Format	Frame Size	Pixel Aspect Ratio	Frame Rate	Video Codec	Audio Channels (PCM, 48 kHz, 24 bit)	Bit Rate
XAVC Intra	1440x1080	1.333	50i, 59.94i, 23.976p, 25p, 29.97p	MPEG-4 AVC Intra	8	CBG 50
XAVC Intra	1920x1080	1.0	50i, 59.94i, 23.976p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Intra	8, 16	CBG 100
XAVC Intra	1920x1080	1.0	50i, 59.94i, 23.976p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Intra	8	CBG 200
XAVC Intra HFR	1920x1080	1.0	50p, 50i, 59.94p, 59.94i	MPEG-4 AVC Intra	0	CBG 100
XAVC Intra	2048x1080	1.0	23.976p, 24p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Intra	8	VBR
XAVC Intra	2048x1080	1.0	23.976p, 24p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Intra	8, 16	CBG 100
XAVC Intra	3840x2160	1.0	23.976p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Intra	8	VBR
XAVC Intra	3840x2160	1.0	23.976p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Intra	8, 16	CBG 300
XAVC Intra	4096x2160	1.0	23.976p, 24p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Intra	8	VBR
XAVC Intra	4096x2160	1.0	23.976p, 24p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Intra	8, 16	CBG 300

XAVC Long-GOP

Format	Frame Size	Pixel Aspect Ratio	Frame Rate	Video Codec	Audio	Bit Rate
XAVC Long	1280x720	1.0	50p, 59.94p	MPEG-4 AVC Long, High 422 Profile	4-channel PCM, 48 kHz, 24 bit	80 (Maximum)
XAVC Long	1920x1080	1.0	23.976p, 25p, 29.97p, 50p, 50i, 59.94p, 59.94i	MPEG-4 AVC Long, High 422 Profile	4-channel PCM, 48 kHz, 24 bit	80 (Maximum)
XAVC Long	3840x2160	1.0	23.976p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Long, High Profile	4-channel PCM, 48 kHz, 24 bit	200 (Maximum)
XAVC Long Proxy	480x270	1.0	23.976p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Long, High Profile	MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps	1 or .5 Mbps
					MPEG-4 AAC, 6 (5.1) channels, 48 kHz, 640 kbps	
XAVC Long Proxy	640x360	1.0	23.976p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Long, High Profile	MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps	3 Mbps
					MPEG-4 AAC, 6 (5.1)	

Format	Frame Size	Pixel Aspect Ratio	Frame Rate	Video Codec	Audio	Bit Rate
					channels, 48 kHz, 640 kbps	
XAVC Long Proxy	1280x720	1.0	23.976p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Long, High Profile	MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps MPEG-4 AAC, 6 (5.1) channels, 48 kHz, 640 kbps	9 Mbps

XAVC S

Format	Frame Size	Pixel Aspect Ratio	Frame Rate	Video Codec	Audio	Bit Rate
XAVC Long Proxy	480x270	1.0	23.976p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Long, High Profile	MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps	4
XAVC Long Proxy	640x360	1.0	23.976p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Long, High Profile	MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps	10
XAVC Long	1280x720	1.0	23.976p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Long, Main Profile or High Profile	2-channel PCM, 48 kHz, 16 bit 4-channel PCM, 48 kHz, 24 bit	40
XAVC Long Proxy	1280x720	1.0	23.976p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Long, High Profile	MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps	16
XAVC Long	1280x720	1.0	100p, 119.88p	MPEG-4 AVC Long, Main Profile or High Profile	2-channel PCM, 48 kHz, 16 bit 4-channel PCM, 48 kHz, 24 bit	80
XAVC Long	1440x1080	1.0	23.976p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Long, Main Profile or High Profile	2-channel PCM, 48 kHz, 16 bit 4-channel PCM, 48 kHz, 24 bit	80

Format	Frame Size	Pixel Aspect Ratio	Frame Rate	Video Codec	Audio	Bit Rate
XAVC Long	1920x1080	1.0	23.976p, 25p, 29.97p,	MPEG-4 AVC Long, Main Profile or High	2-channel PCM, 48 kHz, 16 bit	80
			50p, 59.94p	Profile	2/4-channel PCM, 48 kHz, 24 bit	
XAVC Long	1920x1080	1.0	100р, 119.88р	MPEG-4 AVC Long, Main Profile or High	2-channel PCM, 48 kHz, 16 bit	150
			Profile	2/4-channel PCM, 48 kHz, 24 bit		
XAVC Long Proxy	1920x1080	1.0	23.976p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Long, High Profile	MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps	25
XAVC Long	1920x1080	1.0	25р, 30р	AVC S Long 4:2:0 8-bit MP4	MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps	16 50
XAVC Long	1920x1080	1.0	50p, 60p	AVC S Long 4:2:0 8-bit MP4	MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps	25 50
XAVC Long	1920x1080	1.0	24p	AVC S Long 4:2:0 8 bit-MP4	MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps	50
XAVC Long	1920x1080	1.0	100р, 120р	AVC S Long 4:2:0 8 bit-MP4	MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps	60 100
XAVC Long	1920x1080	1.0	24p, 25p, 30p,50p, 60p	XAVC S Long 4:2:2 10-bit MP4	2-channel PCM, 48 kHz, 16 bit	50
					2/4-channel PCM, 48 kHz,	

Format	Frame Size	Pixel Aspect Ratio	Frame Rate	Video Codec	Audio	Bit Rate
					24 bit	
XAVC Intra	1920x1080	1.0	24p	XAVC S Intra 4:2:2 10-bit MP4	2-channel PCM, 48 kHz, 16 bit	89
					2/4-channel PCM, 48 kHz, 24 bit	
XAVC Intra	1920x1080	1.0	25p	XAVC S Intra 4:2:2 10-bit MP4	2-channel PCM, 48 kHz, 16 bit	93
					2/4-channel PCM, 48 kHz, 24 bit	
XAVC Intra	1920x1080	1.0	30p	XAVC S Intra 4:2:2 10-bit MP4	2-channel PCM, 48 kHz, 16 bit	111
					2/4-channel PCM, 48 kHz, 24 bit	
XAVC Intra	1920x1080	1.0	50p	XAVC S Intra 4:2:2 10-bit MP4	2-channel PCM, 48 kHz, 16 bit	185
					2/4-channel PCM, 48 kHz, 24 bit	
XAVC Intra	1920x1080	1.0	60p	XAVC S Intra 4:2:2 10-bit MP4	2-channel PCM, 48 kHz, 16 bit	222
					2/4-channel PCM, 48 kHz, 24 bit	
XAVC Long	3840x2160	1.0	23.976р,	MPEG-4 AVC	2-channel	188

Format	Frame Size	Pixel Aspect Ratio	Frame Rate	Video Codec	Audio	Bit Rate
			25p, 29.97p	Long, Main Profile or High	PCM, 48 kHz, 16 bit	
				Profile	2/4-channel PCM, 48 kHz, 24 bit	
XAVC Long	3840x2160	1.0	50p, 59.94p	MPEG-4 AVC Long, Main Profile or High	2-channel PCM, 48 kHz, 16 bit	200
				Profile	2/4-channel PCM, 48 kHz, 24 bit	
XAVC Long	3840x2160	1.0	100р, 119.88р	MPEG-4 AVC Long, Main Profile or High	2-channel PCM, 48 kHz, 16 bit	200
				Profile	2/4-channel PCM, 48 kHz, 24 bit	
XAVC Long	3840x2160	1.0	24р, 25р, 30р	XAVC S Long 4:2:0 8-bit MP4	2-channel PCM, 48 kHz, 16 bit	60 100
					2/4-channel PCM, 48 kHz, 24 bit	
XAVC Long	3840x2160	1.0	50p, 60p	XAVC S Long 4:2:0 8-bit MP4	2-channel PCM, 48 kHz, 16 bit	150
					2/4-channel PCM, 48 kHz, 24 bit	
XAVC Long	3840x2160	1.0	100р, 120р	XAVC S Long 4:2:0 8-bit MP4	2-channel PCM, 48 kHz, 16 bit	200

Format	Frame Size	Pixel Aspect Ratio	Frame Rate	Video Codec	Audio	Bit Rate
					2/4-channel PCM, 48 kHz, 24 bit	
XAVC Long	3840x2160	1.0	24p	XAVC S Long 4:2:2 10-bit MP4	2-channel PCM, 48 kHz, 16 bit	100
					2/4-channel PCM, 48 kHz, 24 bit	
XAVC Long	3840x2160	1.0	25р, 30р	XAVC S Long 4:2:2 10-bit MP4	2-channel PCM, 48 kHz, 16 bit	140
					2/4-channel PCM, 48 kHz, 24 bit	
XAVC Long	3840x2160	1.0	50p, 60p	XAVC S Long 4:2:2 10-bit MP4	2-channel PCM, 48 kHz, 16 bit	200
					2/4-channel PCM, 48 kHz, 24 bit	
XAVC Long	3840x2160	1.0	100р, 120р	XAVC S Long 4:2:2 10-bit MP4	2-channel PCM, 48 kHz, 16 bit	280
					2/4-channel PCM, 48 kHz, 24 bit	
XAVC Long	3840x2160	1.0	24p	XAVC S Long 4:2:2 10-bit MP4	2-channel PCM, 48 kHz, 16 bit	100
					2/4-channel PCM, 48 kHz, 24 bit	

Format	Frame Size	Pixel Aspect Ratio	Frame Rate	Video Codec	Audio	Bit Rate
XAVC Intra	3840x2160	1.0	24p	XAVC S Intra 4:2:2 10-bit MP4	2-channel PCM, 48 kHz, 16 bit	240
					2/4-channel PCM, 48 kHz, 24 bit	
XAVC Intra	3840x2160	1.0	25р	XAVC S Intra 4:2:2 10-bit MP4	2-channel PCM, 48 kHz, 16 bit	250
					2/4-channel PCM, 48 kHz, 24 bit	
XAVC Intra	3840x2160	1.0	30р	XAVC S Intra 4:2:2 10-bit MP4	2-channel PCM, 48 kHz, 16 bit	300
					2/4-channel PCM, 48 kHz, 24 bit	
XAVC Intra	3840x2160	1.0	50p	XAVC S Intra 4:2:2 10-bit MP4	2-channel PCM, 48 kHz, 16 bit	500
					2/4-channel PCM, 48 kHz, 24 bit	
XAVC Intra	3840x2160	1.0	60p	XAVC S Intra 4:2:2 10-bit MP4	2-channel PCM, 48 kHz, 16 bit	600
					2/4-channel PCM, 48 kHz, 24 bit	
XAVC Intra	4096x2160	1.0	24p	XAVC S Intra 4:2:2 10-bit MP4	2-channel PCM, 48 kHz, 16 bit	230

XAVC HS

Proxy 50p, 59,94, 100p, 119,98p 10-bit, 4:2:0 48 kHz, 16 bit or 24 bit HEVC 3840x2160 1.0 23.976p HEVC Long, 10-bit, 4:2:0 2/4-channel bit or 24 bit 3 HEVC 3840x2160 1.0 50p HEVC Long, 10-bit, 4:2:0 2/4-channel bit or 24 bit 4 HEVC 3840x2160 1.0 50p HEVC Long, 10-bit, 4:2:0 2/4-channel bit or 24 bit 7 HEVC 3840x2160 1.0 59.94p HEVC Long, 10-bit, 4:2:0 2/4-channel bit or 24 bit 7 HEVC 3840x2160 1.0 100p HEVC Long, 10-bit, 4:2:0 PCM, 48 kHz, 16 bit or 24 bit 7 HEVC 3840x2160 1.0 100p HEVC Long, 10-bit, 4:2:0 PCM, 48 kHz, 16 bit or 24 bit 7 HEVC 3840x2160 1.0 23.976p HEVC Long, 10-bit, 4:2:2 PCM, 48 kHz, 16 bit or 24 bit 7 HEVC 3840x2160 1.0 S0p HEVC Long, 10-bit, 4:2:2 PCM, 48 kHz, 16 bit or 24 bit 7 HEVC 3840x2160 1.0 S0p HEVC Long, 10-bit, 4:2:2	Format	Frame Size	Pixel Aspect Ratio	Frame Rate	Video Codec	Audio	Bit Rate
HEVC 3840x2160 1.0 50p HEVC Long, 2/4-channel 4 4 10-bit, 4:2:0 PCM, 48 kHz, 16 bit or 24 bit 9 9 9 4 HEVC 3840x2160 1.0 59,94p HEVC Long, 2/4-channel 7 7 HEVC 3840x2160 1.0 59,94p HEVC Long, 2/4-channel 7 7 HEVC 3840x2160 1.0 100p HEVC Long, 2/4-channel 2 7 HEVC 3840x2160 1.0 100p HEVC Long, 2/4-channel 2 7 HEVC 3840x2160 1.0 100p HEVC Long, 2/4-channel 2 7 HEVC 3840x2160 1.0 119.88p HEVC Long, 2/4-channel 2 7 HEVC 3840x2160 1.0 119.88p HEVC Long, 2/4-channel 2 7 HEVC 3840x2160 1.0 23.976p HEVC Long, 2/4-channel 6 7 HEVC 3840x2160 1.0 50p HEVC Long, 2/4-channel 2 7 HEVC 3840x2160 1.0 50p HEVC Long, 2/4-channel 2 7 HEVC 3840x2160 1.0 59.94p <t< td=""><td></td><td>1920x1080</td><td>1.0</td><td>50p, 59.94,</td><td>0</td><td>48 kHz, 16 bit or</td><td>16</td></t<>		1920x1080	1.0	50p, 59.94,	0	48 kHz, 16 bit or	16
HEVC 3840x2160 1.0 59.94p HEVC Long, 2/4-channel 50.00000000000000000000000000000000000	HEVC	3840x2160	1.0	23.976p	0	PCM, 48 kHz, 16	30
HEVC 3840x2160 1.0 100p HEVC Long, 2/4-channel 10-bit, 4:2:0 2/4-channel 210-bit, 4:2:2 2/4-channel 210-bit, 4:2:2	HEVC	3840x2160	1.0	50p	0	PCM, 48 kHz, 16	45
HEVC 3840x2160 1.0 119.88p HEVC Long, 2/4-channel bit or 24 bit 2 HEVC 3840x2160 1.0 119.88p HEVC Long, 2/4-channel bit or 24 bit 2 HEVC 3840x2160 1.0 23.976p HEVC Long, 2/4-channel bit or 24 bit 6 HEVC 3840x2160 1.0 23.976p HEVC Long, 2/4-channel bit or 24 bit 6 HEVC 3840x2160 1.0 50p HEVC Long, 2/4-channel bit or 24 bit 6 HEVC 3840x2160 1.0 50p HEVC Long, 2/4-channel bit or 24 bit 2 HEVC 3840x2160 1.0 50p HEVC Long, 2/4-channel bit or 24 bit 2 HEVC 3840x2160 1.0 59.94p HEVC Long, 2/4-channel bit or 24 bit 1 HEVC 3840x2160 1.0 100p HEVC Long, 2/4-channel bit or 24 bit 1 HEVC 3840x2160 1.0 100p HEVC Long, 2/4-channel bit or 24 bit 2 HEVC 3840x2160 1.0 100p HEVC Long, 2/4-channel bit or 24 bit 2	HEVC	3840x2160	1.0	59.94p	5	PCM, 48 kHz, 16	78
HEVC 3840x2160 1.0 23.976p HEVC Long, 2/4-channel 6 6 HEVC 3840x2160 1.0 23.976p HEVC Long, 2/4-channel 6 6 HEVC 3840x2160 1.0 50p HEVC Long, 2/4-channel 2 6 HEVC 3840x2160 1.0 50p HEVC Long, 2/4-channel 2 2 HEVC 3840x2160 1.0 50p HEVC Long, 2/4-channel 1 2 HEVC 3840x2160 1.0 59.94p HEVC Long, 2/4-channel 1 10-bit, 4:2:2 HEVC 3840x2160 1.0 100p HEVC Long, 2/4-channel 1 10-bit, 4:2:2 HEVC 3840x2160 1.0 100p HEVC Long, 2/4-channel 1 10-bit, 4:2:2 HEVC 3840x2160 1.0 100p HEVC Long, 2/4-channel 2 10-bit, 4:2:2 HEVC 3840x2160 1.0 100p HEVC Long, 10-bit, 4:2:2 PCM, 48 kHz, 16 10-bit or 24 bit	HEVC	3840x2160	1.0	100p	Ū.	PCM, 48 kHz, 16	200
HEVC 3840x2160 1.0 50p HEVC Long, 2/4-channel 2 2/4-channel 2 10-bit, 4:2:2 PCM, 48 kHz, 16 bit or 24 bit 2/4-channel 2 HEVC 3840x2160 1.0 59.94p HEVC Long, 2/4-channel 1 10-bit, 4:2:2 PCM, 48 kHz, 16 bit or 24 bit 1 HEVC 3840x2160 1.0 59.94p HEVC Long, 2/4-channel 1 1 10-bit, 4:2:2 PCM, 48 kHz, 16 bit or 24 bit 1 HEVC 3840x2160 1.0 100p HEVC Long, 2/4-channel 1 1 1 HEVC 3840x2160 1.0 100p HEVC Long, 2/4-channel 2 2 1 1 HEVC 3840x2160 1.0 100p HEVC Long, 2/4-channel 2 2 1	HEVC	3840x2160	1.0	119.88p	0	PCM, 48 kHz, 16	200
HEVC 3840x2160 1.0 59.94p HEVC Long, 2/4-channel 1 HEVC 3840x2160 1.0 59.94p HEVC Long, 2/4-channel 1 HEVC 3840x2160 1.0 100p HEVC Long, 2/4-channel 1 HEVC 3840x2160 1.0 100p HEVC Long, 2/4-channel 2 HEVC 10-bit, 4:2:2 PCM, 48 kHz, 16 bit or 24 bit 10-bit or 24 bit	HEVC	3840x2160	1.0	23.976p	0	PCM, 48 kHz, 16	60
10-bit, 4:2:2 PCM, 48 kHz, 16 bit or 24 bit HEVC 3840x2160 1.0 100p HEVC Long, 2/4-channel 2 10-bit, 4:2:2 PCM, 48 kHz, 16 bit or 24 bit 2 10-bit, 4:2:2 PCM, 48 kHz, 16 bit or 24 bit	HEVC	3840x2160	1.0	50p	5	PCM, 48 kHz, 16	200
10-bit, 4:2:2 PCM, 48 kHz, 16 bit or 24 bit	HEVC	3840x2160	1.0	59.94p	0	PCM, 48 kHz, 16	100
HEVC 3840x2160 1.0 119.88p HEVC Long 2/4-chappel 2	HEVC	3840x2160	1.0	100p	Ū.	PCM, 48 kHz, 16	280
	HEVC	3840x2160	1.0	119.88p	HEVC Long,	2/4-channel	280

Format	Frame Size	Pixel Aspect Ratio	Frame Rate	Video Codec	Audio	Bit Rate
				10-bit, 4:2:2	PCM, 48 kHz, 16 bit or 24 bit	
HEVC	3840x2160	1.0	24p	XAVC HS Long 4:2:0 10-bit MP4	2-channel PCM, 48 kHz, 16 bit 2/4-channel PCM, 48 kHz, 24 bit	30 50 100
HEVC	3840x2160	1.0	50p, 60p	XAVC HS Long 4:2:0 10-bit MP4	2-channel PCM, 48 kHz, 16 bit 2/4-channel PCM, 48 kHz, 24 bit	45 75 150
HEVC	3840x2160	1.0	100p, 120p	XAVC HS Long 4:2:0 10-bit MP4	2-channel PCM, 48 kHz, 16 bit 2/4-channel PCM, 48 kHz, 24 bit	200
HEVC	3840x2160	1.0	24p	XAVC HS Long 4:2:2 10-bit MP4	2-channel PCM, 48 kHz, 16 bit 2/4-channel PCM, 48 kHz, 24 bit	50 100
HEVC	3840x2160	1.0	50p, 60p	XAVC HS Long 4:2:2 10-bit MP4	2-channel PCM, 48 kHz, 16 bit 2/4-channel PCM, 48 kHz, 24 bit	100 200
HEVC	3840x2160	1.0	100р, 120р	XAVC HS Long 4:2:2 10-bit MP4	2-channel PCM, 48 kHz, 16 bit 2/4-channel PCM, 48 kHz, 24 bit	280

Format	Frame Size	Pixel Aspect Ratio	Frame Rate	Video Codec	Audio	Bit Rate
HEVC	7680x4320	1.0	23.976p, 25p, 29.97p	HEVC Long, 10-bit, 4:2:0	2/4-channel PCM, 48 kHz, 16 bit or 24 bit	204
HEVC	7680x4320	1.0	23.976p, 25p, 29.97p	HEVC Long, 10-bit, 4:2:2	2/4-channel PCM, 48 kHz, 16 bit or 24 bit	260, 520

XAVC Proxy

Format	Frame Size	Frame Rate	Video Codec	Audio	Bit Rate
XAVC Proxy	480x270	23.976p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Long, Main Profile	MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps	4
XAVC Proxy	640x360	23.976p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Long, Main Profile	MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps	10
XAVC Proxy	720x480	59.94i	MPEG-4 AVC Long, Main Profile	MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps	10
XAVC Proxy	720x576	50i	MPEG-4 AVC Long, Main Profile	MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps	10
XAVC Proxy	1280x720	23.976p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Long, Main Profile or High Profile	MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps	28
XAVC Proxy	1920x1080	50i, 59.94i, 23.976p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Long, Main Profile or High Profile	MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps	28

X-OCN

Format	Frame Size	Bits	Frame Rate	Quality
X-OCN	2048x1080	16	23.976p, 24p, 25p, 29.97p, 50p, 59.94p, HFR (max. 240)	LT, ST, XT
X-OCN	3840x2160	16	23.976p, 24p, 25p, 29.97p, 50p, 59.94p, HFR (max. 120p)	LT, ST, XT
X-OCN	4096x1716	16	23.976р, 24р, 25р, 29.97р	LT, ST, XT
X-OCN	4096x2160	16	23.976p, 24p, 25p, 29.97p, 50p, 59.94p, HFR (max. 120p)	LT, ST, XT
X-OCN	4096x3024	16	23.976р, 24р, 25р, 29.97р,	LT, ST, XT

Format	Frame Size	Bits	Frame Rate	Quality
X-OCN	4096x3432	16	23.976р, 24р, 25р, 29.97р	LT, ST, XT
X-OCN	6048x2534	16	23.976р, 24р, 25р, 29.97р	LT, ST, XT
X-OCN	6054x3192	16	23.976р, 24р, 25р, 29.97р	LT, ST, XT
X-OCN	5674x3192	16	23.976р, 24р, 25р, 29.97р	LT, ST, XT
X-OCN	6054x3272	16	23.976р, 24р, 25р, 29.97р	LT, ST, XT
X-OCN	6048x4032	16	23.976р, 24р, 25р	LT, ST, XT

RAW

Format	Frame Size	Pitc	Frame Rate	Comprossion
Format	FIGHTE SIZE	Bits		Compression
F5/F55RAW	2048x1080	16	23.976p, 24p, 25p, 29.97p, 50p, 59.94p,	SQ
			HFR (max. 240)	
F5/F55RAW	3840x2160	16	23.976p, 24p, 25p, 29.97p, 50p, 59.94p,	SQ
			HFR (max. 120p)	
F5/F55RAW	4096x2160	16	23.976p, 24p, 25p, 29.97p, 50p, 59.94p,	SQ
			HFR (max. 120p)	
F65RAW	4096x2160	16	23.976p, 24p, 25p, 29.97p, 50p, 59.94p,	Lite, SQ
			HFR (max. 120)	
FS700RAW	2048x1080	16	23.976p, 25p, 29.97p, 50p, 59.94p, HFR	SQ
			(max. 240)	
FS700RAW	4096x2160	16	23.976p, 25p, 29.97p, 50p, 59.94p, HFR	SQ
			(max. 120)	

HDCAM SR (SStP)

Format	Frame Size	Bits	Color Space	Pixel Aspect Ratio	Frame Rate	Compression (Mbps)
SSTP	1280x720	10	YUV 422	1.0	50p, 59.94p	Lite(220), SQ (440)
SSTP	1920x1080	10	YUV 422	1.0	50i, 59.94i, 23.976p, 24p, 25p, 29.97p, 50p, 59.94p	Lite(220), SQ (440)

Format	Frame Size	Bits	Color Space	Pixel Aspect Ratio	Frame Rate	Compression (Mbps)
SSTP	1920x1080	10	RGB 444	1.0	50i, 59.94i, 23.976p, 24p, 25p, 29.97p, 50p, 59.94p	SQ(440), HQ (880)
SSTP	1920x1080	12	RGB 444	1.0	50i, 59.94i, 23.976p, 24p, 25p, 29.97p, 50p, 59.94p	HQ(880)
SSTP	2048x1080	10	YUV 422	1.0	50p, 59.94p	Lite(220), SQ (440)
SSTP	2048x1080	10	RGB 444	1.0	50i, 59.94i, 23.976p, 24p, 25p, 29.97p	SQ(440)
SSTP	2048x1080	10	RGB 444	1.0	23.976p, 24p, 25p, 29.97p	HQ(880)
SSTP	2048x1080	12	RGB 444	1.0	50i, 59.94i, 23.976p, 24p, 25p, 29.97p	SQ(440)
SSTP	2048x1080	12	RGB 444	1.0	23.976p, 24p, 25p, 29.97p, 50p, 59.94p	HQ(880)
SSTP	2048x1080	12	RGB 444	1.0	23.976p, 24p, 25p, 29.97p	SQ(440)
SSTP	2048x1080	12	RGB 444	1.0	23.976p, 24p, 25p, 29.97p, 50p, 59.94p	HQ(880)
SSTP	2048x1556	10	RGB 444	1.0	23.976p, 24p, 25p	HQ(880)

NXCAM

Format	Frame Size	Pixel Aspect Ratio	Frame Rate	Video Codec	Audio Codec	Bit Rate
AVCHD	1920x1080	1.0	59.94p, 50p,	H.264/MPEG-4 AVC	Dolby AC-3 or PCM 2 channels, 48 kHz, 16 bit	28 Mbps
AVCHD	1920x1080	1.0	59.94i, 50i, 29.97p, 25p, 23.976p	H.264/MPEG-4 AVC	Dolby AC-3 or PCM 2 channels, 48 kHz, 16 bit	24 or 17 Mbps
AVCHD	1280x720	1.0	59.94p, 50p	H.264/MPEG-4 AVC	Dolby AC-3 or PCM 2 channels, 48 kHz, 16 bit	24 or 17 Mbps
AVCHD	1440x1080	1.333	59.94i, 50i	H.264/MPEG-4 AVC	Dolby AC-3 or PCM 2 channels, 48 kHz, 16 bit	9 or 5 Mbps
MPEG-2 SD	720x480	0.9091 or 1.2121	23.976p, 29.97p, 59.94i	MPEG-2	Dolby AC-3 2 channels, 48 kHz, 16 bit	9 Mbps
MPEG-2 SD	720x576	1.0926 or 1.4568	25p, 50i	MPEG-2	Dolby AC-3 2 channels, 48 kHz, 16 bit	9 Mbps

AVC H.264/MPEG-4

Format	Frame Size	Screen Aspect Ratio	Frame Rate	Video Codec	Audio Codec	Bit Rate
H.264/MPEG-4 AVC	1280x720	16:9	50p, 100p, 120p,	AVC, 8-bit, 4:2:0	Mono, 48kHz, AAC compression w/ AGC	
H.264/MPEG-4 AVC	1920x1080	16:9	24p, 25p, 30p, 48p, 50p, 60p	AVC, 8-bit, 4:2:0	Mono, 48kHz, AAC compression w/ AGC	
H.264/MPEG-4 AVC	1920x1440	4:3	24p, 25p, 30p, 48p	AVC, 8-bit, 4:2:0	Mono, 48kHz, AAC compression w/ AGC	
H.264/MPEG-4 AVC	3840x2160	16:9	23.97p. 24p, 25p, 29.97p, 50p, 59.94p	AVC, 8-bit, 4:2:0	Mono, 48kHz, AAC compression w/ AGC	
H.264/MPEG-4 AVC	4096x2160	17:9	12p	AVC, 8-bit, 4:2:0	Mono, 48kHz, AAC compression w/ AGC	
H.264/MPEG-4 AVC	2704x1524	16:9	25р, 30р	AVC, 8-bit, 4:2:0	Mono, 48kHz, AAC compression w/ AGC	
H.264/MPEG-4 AVC	2704x1440	17:9	24р	AVC, 8-bit, 4:2:0	Mono, 48kHz, AAC compression w/ AGC	
H.264/MPEG-4 AVC	1280x960	4:3	48p, 100p	AVC, 8-bit, 4:2:0	Mono, 48kHz, AAC compression w/ AGC	

Format	Frame Size	Screen Aspect Ratio	Frame Rate	Video Codec	Audio Codec	Bit Rate
H.264/MPEG-4 AVC	848x480	16:9	240p	AVC, 8-bit, 4:2:0	Mono, 48kHz, AAC compression w/ AGC	
H.264/MPEG-4 AVC	640x480	4:3	25p, 30p	AVC, 8-bit, 4:2:0	Mono, 48kHz, AAC compression w/ AGC	
H.264/MPEG-4 AVC	240x180		25p, 29.97p	AVC, 8-bit, 4:2:0	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG-4 AVC	320x180		25p, 29.97p	AVC, 8-bit, 4:2:0	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG-4 AVC	320x240		25p, 29.97p	AVC, 8-bit, 4:2:0	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG-4 AVC	480x270		25p, 29.97p	AVC, 8-bit, 4:2:0	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG-4 AVC	640x480		25p, 29.97p	AVC, 8-bit, 4:2:0	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG-4 AVC	1280x720		50p, 60p, 100p,120p	AVC, 8-bit, 4:2:0	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG-4 AVC	1280x960		48p, 100p,120p	AVC, 8-bit,	2 channels, 16 bit, AAC	

Format	Frame Size	Screen Aspect Ratio	Frame Rate	Video Codec	Audio Codec	Bit Rate
				4:2:0	compression w/ AGC	
H.264/MPEG-4 AVC	1920x1080		24p, 25p, 29.97p, 48p, 50p, 60p	AVC, 8-bit, 4:2:0	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG-4 AVC	1920x1440		24p, 25p, 29.97p, 48p	AVC, 8-bit, 4:2:0	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG-4 AVC	2704x1524		24p, 25p, 29.97p	AVC, 8-bit, 4:2:0	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG-4 AVC	3840x2160		23.97p. 24p, 25p, 29.97p, 50p, 59.94p	AVC, 8-bit, 4:2:0	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG-4 AVC	4096x2160		12p	AVC, 8-bit, 4:2:0	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG-4 AVC (HVO)	720x480		59.94i	AVC, 8-bit, 4:2:0	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG-4 AVC (HVO)	720x576		50i	AVC, 8-bit, 4:2:0	2 channels, 16 bit, AAC compression w/ AGC	

AS-11 DPP MXF

Format	Frame Size	Frame Rate	Video Codec	Audio Codec	Bit Rate
IMX-50	720x576	25	MPEG-2 Intra	PCM, 48 kHz, 24 bit	
XAVC Intra	1920x1080	25	MPEG-4 AVC Intra	PCM, 48 kHz, 24 bit	

Avid DNxHD®

Container: MOV or MXF

Audio Codec: PCM 44.1 kHz or 48 kHz, 16 bit or 24 bit

Frame Size	Family Name	Color Space/Bits	Frame Rate/Maximum Bit Rate
1920x1080	Avid DNxHD® 444	4:4:4 10 bit	29.97p @ 440 Mbps, 25p @ 365 Mbps, 24p @ 350 Mbps, 23.976p @ 350 Mbps
1920x1080	Avid DNxHD® 220x	4:2:2 10 bit	60p @ 440 Mbps, 59.94p @ 440 Mbps, 50p @ 365 Mbps, 59.94i @ 220 Mbps, 50i @ 185 Mbps, 29.97p @ 220 Mbps, 25p @ 185 Mbps, 24p @ 175 Mbps, 23.976p @ 175 Mbps
1920x1080	Avid DNxHD® 220	4:2:2 8 bit	60p @ 440 Mbps, 59.94p @ 440 Mbps, 50p @ 365 Mbps, 59.94i @ 220 Mbps, 50i @ 185 Mbps, 29.97p @ 220 Mbps, 25p @ 185 Mbps, 24p @ 175 Mbps, 23.976p @ 175 Mbps
1920x1080	Avid DNxHD® 145	4:2:2 8 bit	60p @ 290 Mbps, 59.94p @ 290 Mbps, 50p @ 240 Mbps, 59.94i @ 145 Mbps, 50i @ 120 Mbps, 29.97p @ 145 Mbps, 25p @ 120 Mbps, 24p @ 115 Mbps, 23.976p @ 115 Mbps
1920x1080	Avid DNxHD® 145 (subsampled to 1440x1080)	4:2:2 8 bit	59.94i @ 145 Mbps, 50i @ 120 Mbps
1920x1080	Avid DNxHD® 100 (subsampled to 1440x1080)	4:2:2 8 bit	59.94i @ 100 Mbps, 50i @ 85 Mbps, 29.97p @ 100 Mbps, 25p @ 85 Mbps, 24p @ 80 Mbps, 23.976p @ 80 Mbps
1920x1080	Avid DNxHD® 36	4:2:2 8 bit	60p @ 90 Mbps, 59.94p @ 90 Mbps, 50p @ 75 Mbps, 29.97p @ 45 Mbps, 25p @ 36 Mbps, 24p @ 36 Mbps, 23.976p @ 36 Mbps
1280x720	Avid DNxHD® 220x	4:2:2 10 bit	59.94p @ 220 Mbps, 50p @ 175 Mbps, 29.97p @ 110 Mbps, 25p @ 90 Mbps, 23.976p @ 90 Mbps
1280x720	Avid DNxHD® 220	4:2:2 8 bit	59.94p @ 220 Mbps, 50p @ 175 Mbps, 29.97p @ 110 Mbps, 25p @ 90 Mbps, 23.976p @ 90 Mbps

Frame Size	Family Name	Color Space/Bits	Frame Rate/Maximum Bit Rate
1280x720	Avid DNxHD® 145	4:2:2 8 bit	59.94p @ 145 Mbps, 50p @ 115 Mbps, 29.97p @ 75 Mbps, 25p @ 60 Mbps, 23.976p @ 60 Mbps
1280x720	Avid DNxHD® 100 (subsampled to 960x720)	4:2:2 8 bit	59.94p @ 100 Mbps, 50p @ 85 Mbps, 29.97p @ 50 Mbps, 25p @ 45 Mbps, 23.976p @ 50 Mbps

Apple ProRes

Container: MOV

Audio Codec: PCM

Format	Frame Size	Frame Rate	Video Codec
ProRes	720x486	59.94i, 30p, 29.97p, 24p, 23.976p	422 (proxy), 422 (LT), 422, 422 (HQ), 4444, 4444 XQ (Windows only)
ProRes	720x576	50i, 25p	422 (proxy), 422 (LT), 422, 422 (HQ), 4444, 4444 XQ (Windows only)
ProRes	960x720	60p, 59.94p, 50p, 30p,29.97p, 24p, 23.976p	422 (proxy), 422 (LT), 422, 422 (HQ), 4444, 4444 XQ (Windows only)
ProRes	1280x720	60p, 59.94p, 50p, 30p,29.97p, 24p, 23.976p	422 (proxy), 422 (LT), 422, 422 (HQ), 4444, 4444 XQ (Windows only)
ProRes	1280x1080	59.94i, 30p, 29.97p, 24p, 23.976p	422 (proxy), 422 (LT), 422, 422 (HQ), 4444, 4444 XQ (Windows only)
ProRes	1440x1080	59.94i, 50i, 30p, 29.97p, 25p, 24p, 23.976p	422 (proxy), 422 (LT), 422, 422 (HQ), 4444, 4444 XQ (Windows only)
ProRes	1920x1080	60p, 59.94p, 50p, 59.94i, 50i, 30p, 29.97p, 25p, 24p, 23.976p	422 (proxy), 422 (LT), 422, 422 (HQ), 4444, 4444 XQ (Windows only)
ProRes	2048x1080	60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.976p	422 (proxy), 422 (LT), 422, 422 (HQ), 4444, 4444 XQ (Windows only)
ProRes	2048x1556	60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.976p	422 (proxy), 422 (LT), 422, 422 (HQ), 4444, 4444 XQ (Windows only)
ProRes	3840x2160	60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.976p	422 (proxy), 422 (LT), 422, 422 (HQ), 4444, 4444 XQ (Windows only)
ProRes	4096x2160	60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.976p	422 (proxy), 422 (LT), 422, 422 (HQ), 4444, 4444 XQ (Windows only)
ProRes	5120x2160	60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.976p	422 (proxy), 422 (LT), 422, 422 (HQ), 4444 , 4444 XQ (Windows only)

HDV

Container: MPEG-2 Transport Stream (Windows), MOV (macOS)

Audio Codec: MPEG-1 Audio Layer-2 (Windows). 2 channels, 48 kHz, 16 bit

Format	Frame Size	Pixel Aspect Ratio	Frame Rate	Interlace	Video Codec
HDV	1440x1080	1.333	50i, 59.94i	Upper	MPEG-2 MP@H14

DV

Container: AVI (Windows), MOV (macOS)

Audio Codec: PCM, 2 channels, 32 kHz, 16 bit	
--	--

Format	Frame Size	Frame Rate	Field Order	Video Codec	Bit Rate	Audio Channels
DV (SD)	720x480	59.94i	Lower	DV	25 CBR	2 channels, 32 kHz, 16 bit
DV (SD)	720x576	50i	Lower	DV	25 CBR	2 channels, 32 kHz, 16 bit

DPX

Format	Frame Size	Frame Rate
Image Sequence	Any	Any

OpenEXR

Format	Frame Size	Frame Rate
Image Sequence	Any	Any

Supported video devices

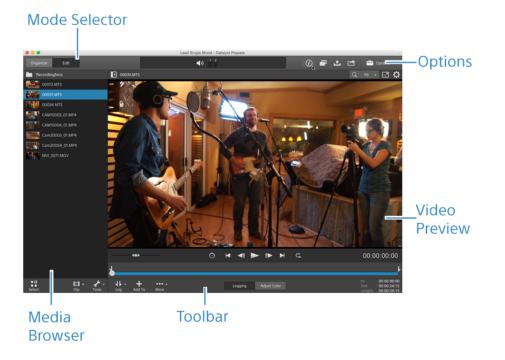
Catalyst Prepare supports the following video volumes and devices:

Folder Structure	Storage Media	Root Folder	Supported Format
XAVC-XD-Style	SxS memory card (exFAT)	XDROOT	XDCAM HD/HD422/IMX/DVCAM, SStP, XAVC Intra, XAVC Long
	XQD memory card		
XAVC-M4-Style	SxS memory card (exFAT)	M4ROOT	XAVC S, XAVC HS
	XQD memory card		
	SD card		
XAVC-PX-Style	SD card	PXROOT	XAVC Proxy
AXS-Style	AXS memory card	CINEROOT	F55RAW, F5RAW, FS700RAW, X-OCN
SRM-Style	SR memory card	Media root	F65RAW, SStP
XD-Style	Professional Disc	Media root	XDCAM HD/HD422/IMX/DVCAM,
	SxS memory card (UDF)		XAVC Intra
BPAV-Style	SxS memory card (FAT32)	BPAV	XDCAM EX (MPEG HD, DVCAM)
	SD card		
AVCHD structure	SD card	AVCHD/BDMV	AVCHD

Chapter 4

Playing media

When you double-click a file in Organize mode, the file is loaded in Edit mode, where you can preview the file, log mark in and mark out points, and apply color correction. For more information about using Organize mode, please see "Organizing media in a library" on page 15.



You can use the toolbar at the top of the pane to adjust and monitor audio levels, select audio channels for preview, scale the video preview, view metadata, and adjust clip settings.

You can use the transport toolbar below the video to choose the playback mode, scrub the video, and control playback.

Previewing video

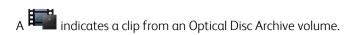
When you double-click a file in Organize mode, the file is loaded in Edit mode, where you can preview the file, log mark in and mark out points, and apply color correction. For more information about using Organize mode, please see "Organizing media in a library" on page 15.

You can also choose to display the video preview in a secondary window that you can position anywhere on your screen or on a secondary display. For more information, see "Editing Catalyst Prepare options" on page 163.

If you have multiple clips selected in the Media Browser on the left side of the window, the selected clips will play sequentially in the order they are displayed. The file name of the current file will be displayed above the video preview, and a vertical line in the timeline indicates where each selected clip begins:



If the current clip contains discontinuous timecode, an indicator is displayed in the timeline to identify the discontinuity:



An O on a thumbnail indicates that a clip spans multiple discs on an Optical Disc Archive volume. When you play a clip that spans discs, an indicator is displayed in the timeline to identify the point where the clip switches discs:



Enable the **Preview using proxy clips** switch in Options if you want to use proxy clips for playback if they are available. During playback, a **Proxy** indicator is displayed above the video preview. For more information, see "Editing Catalyst Prepare options" on page 163.

Click the **Play** button to start playing the current video. Playback will start from the playback position indicator and continue until the **Mark Out** position or the end of the file.

You can click the trackbar below the transport controls to set the play position indicator:



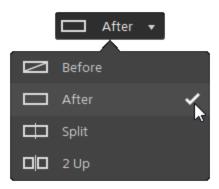
You can use the shuttle control on the transport toolbar to seek forward or backward or adjust the playback speed. For more information, see "Playing media" on page 94.

For information about flipping and rotating video, enabling anamorphic desqueezing, and displaying safe zone and mask guides, please see "Playing media" on page 99.

Changing the preview mode

When you're adjusting color correction, you can change the preview mode to allow you to compare adjusted clips to the original source. For more information, see "Editing Color Adjustments controls" on page 127.

Click the **Preview** button in the top-right corner of the video preview to choose a preview mode. Splitscreen previews allow you to split the video preview and waveform/histogram/vectorscope monitor so you can see your affected and unaffected video at the same time.



- Before: full-frame video is displayed in its original state.
- After: full-frame video is displayed in its color-corrected state.
- Split: a single frame is displayed in a split-screen view with the original video on the left and the color-corrected video on the right.

If you want to move the split location, hover over the preview frame. When the split point is displayed, you can drag the handles at the top of bottom of the screen to adjust where the preview is split:



• 2 Up: two full frames are displayed in a split-screen view with the original video on the left and the color-corrected video on the right.

Scaling the video preview

Click the magnifying glass to adjust the size of the video preview.



- Click **Fit** to scale the video to fill the Video pane.
- Click a preset to scale the video to a predefined magnification level.

When the level is below 100%, you can drag the blue rectangle to pan and adjust the visible portion of the frame.

- Drag the slider or click the and to buttons to choose a custom zoom level.
- Click the thumbnail and roll your mouse wheel to zoom in or out.

Toggling full-screen playback

K 2

Click ⊯ ≥ to display the Video pane in full-screen mode. Press Esc or click the **Close** button to exit full-screen mode.

Adjusting playback settings

Click the **Playback Settings** button to the left of the transport controls to display the Playback Settings controls.

Speed/Quality

Select **Speed** if you want decoding to be optimized to preserve the frame rate.

Select Quality if you want decoding to be optimized to preserve video quality.

- When using a device other than your CPU, high-quality deinterlacing and upscaling are applied to convert SD and HD sources to modern progressive HD and UHD assets.
 - High-quality deinterlacing is applied to interlaced source media when playback is paused, during transcoding, and during playback when the Playback Settings Speed/Quality setting is set to Quality.
 - Please note that some systems with limited GPU memory are not supported.

Real Time/All Frames

Select **Real Time** if you want to play the clip using its source frame rate. Audio is played at its recorded rate, and video frames are skipped if necessary to preserve the playback rate.

Select **All Frames** if you want to ensure that all video frames are played. The frame rate may be reduced if needed to ensure all frames are played. Audio is unavailable in this mode.

If XAVC S and XAVC HS playback is not smooth, we recommend using the **All Frames** playback setting.

- Real Time/Speed: 🙆
- Real Time/Quality:
- All Frames/Speed: Image: Image:
- All Frames/Quality:

Using the transport controls

The transport controls below the video preview allow you to control playback:

Button		Description
×	Go to Start	Moves the playback position indicator to the Mark In position. Click again to move to the beginning of the selected file.
	Previous Frame	Moves the playback position indicator one frame or field to the left.
	Play	Playback will start from the playback position indicator and continue until the Mark Out position or the end of the file.
	Next Frame	Moves the playback position indicator one frame or field to the right.
	Go to End	Moves the playback position indicator to the Mark Out position. Click again to move to the end of the selected file.
G	Loop Playback	Plays only the area between the Mark In and Mark Out points in a continuous mode.
		For more information, see "Marking in and out points for playback" on page 96.

Navigating the timeline

After you open a file in View mode, drag the shuttle control to seek forward or backward from the play position indicator to find an edit point. As you drag toward the ends of the shuttle control, playback speed increases. Release the shuttle control to stop playback:



You can also press the J, K, or L keys to use the keyboard as a shuttle control.

Press and hold K while pressing J or L to emulate a shuttle knob mode. Press K+J to scrub left or K+L to scrub right.

Item	Description
J	Scrub reverse mode. Press again to accelerate the playback rate.
К	Pause.
L	Scrub forward mode. Press again to accelerate the playback rate.

Marking in and out points for playback

If you want to play only a portion of a video, you can use the **Mark In** and **Mark Out** buttons to select the portion of the video you want to play.

5

If mark in and out points have been set in an MXF clip, Catalyst Prepare will read the mark in/out points from metadata. After you add a clip to the library, you can choose whether to synchronize mark in/out points with the source clip:

- If you want to save mark in and mark out points with the library, clear the Synchronize mark points with file check box on the Summary tab in the Inspector. For more information, see "Viewing and editing metadata" on page 101.
- When the Synchronize mark points with file check box is cleared, mark in and mark out points for MXF clips are saved back to the source media when you edit them in Catalyst Prepare, and your library will be updated if the mark in and out points are edited on disk.
- 1. Click the Organize button at the top of the Catalyst Prepare window to view the Media Browser.
- 2. Double-click a file in Organize mode to load it in Edit mode.
 - $\,\,\underline{\mathbb{Y}}\,$ You can also use the Preview pane in Organize mode to adjust mark points.
- 3. Click the Logging button at the bottom of the Catalyst Prepare window.
- 4. Click the trackbar below the transport controls to set the play position indicator:



If the current clip contains discontinuous timecode, an indicator is displayed in the timeline to identify the discontinuity:



- 5. Click the Mark In button.
- 6. Click the trackbar below the transport controls to set the play position indicator.
- 7. Click the Mark Out button.

When you click the **Play** button, playback will start from the playback position indicator and continue until the **Mark Out** position or the end of the file.

If you want to play the Mark In/Mark Out region in a continuous loop, select the **Loop Playback** button **G**.

You can quickly log mark in/out points by clicking the **In**, **Out**, and **Length** boxes at the bottom of the Catalyst Prepare window and typing new timecode values. (Not available for MXF proxy-only clips with embedded timecode.)

Type new values in the **Mark in** and **Mark out** boxes on the Summary tab in the Inspector to edit the clip's mark in and mark out points. (Not available for MXF proxy-only clips with embedded timecode.) For more information, see "Viewing and editing metadata" on page 101.

You can adjust mark in/out points by dragging the indicators above the trackbar.

To reset mark in/out points, click the More button and choose Reset mark in/out points.

If the current file contains essence marks, they will be displayed on the timeline as diamonds •. Essence marks are displayed in the Mark Points tab in metadata mode. For more information, see "Viewing and editing metadata" on page 101.

When browsing your library, an indicator is displayed to represent a clip's mark in/out points:



Creating a snapshot of a frame

If you want to create a snapshot of the current frame, click the **Snapshot** button ¹¹ and choose **Copy** snapshot to clipboard or Save snapshot.

Copying a frame to the clipboard

- 1. Click the **Organize** button at the top of the Catalyst Prepare window to view the Media Browser.
- 2. Double-click a file in Organize mode to load it in Edit mode.

3. Click the trackbar below the transport controls to set the play position indicator:



4. Click the **Snapshot** button and choose **Copy snapshot to clipboard** from the menu.

Press Ctrl+C (Windows) or **#** -C (macOS).

When the Catalyst Prepare window is resized, the snapshot commands are available in the **More Actions** menu.

The current frame is copied to the clipboard using the standard resolution that is closest to the preview resolution.

Saving a frame to a file

- 1. Click the Organize button at the top of the Catalyst Prepare window to view the Media Browser.
- 2. Double-click a file in Organize mode to load it in Edit mode.
- 3. Click the trackbar below the transport controls to set the play position indicator:

		1	F F		▶ ⊪►	▶ ⊊	Ø	00:00:0	2;32
-	,								
Create Subclip	Add To	●●● 、 More	C	Logging	Adjust Colo	¢		Out: 00:0	00:00;00 00:29;00 00:29;00

4. Click the Snapshot button 1997 and choose Save snapshot from the menu.

Press Shift+S.

The current frame is copied to the clipboard using the standard resolution that is closest to the preview resolution.

You can save the location and format used for saving the file in Options. Click the **Snapshot** button and choose **Snapshot options** from the menu. For more information, see "Editing Catalyst Prepare options" on page 163.

Adjusting and monitoring audio levels

Click the speaker in the activity pane at the top of the Catalyst Prepare window to display audio controls.



Drag the **Master Volume** fader to increase or decrease audio levels. During preview, the meters allow you to monitor the level of each audio channel.

If you want to choose which audio channels will be played, you can use the **Channel Routing** check boxes. In the example above, the 1st, 3rd, and 5th channels are played through the left speaker and the 2nd, 4th, and 6th channels are played through the right speaker.

📝 Catalyst Prepare supports only stereo output devices.

Editing clip settings

CLIP SETTINGS

Flip horizontal:

Flip vertical:

Rotate preview (degrees):

Auto

0

90

180

270

Anamorphic desqueeze:

Off

1.25x

1.3x

1.5x

1.8x

2x

CLIP OVERLAYS

Click the 🌣 button above the video preview to edit clip playback settings.

Select the Use flip, rotate, and desqueeze settings check box in the Export pane if you're working with video that was filmed with an anamorphic lens and want to preserve the Flip horizontal and Flip vertical, Rotate preview, and Anamorphic desqueeze settings when transcoding. When the check box is not selected, letterboxing will be applied.

For more information, see "Exporting media from a library" on page 24.

Item	Description				
Flip horizontal	Click the Flip horizontal or Flip vertical switch to flip the left-to-right				
Flip vertical	or top-to-bottom orientation of the video frame.				
Rotate preview	Select a button to rotate the video preview image.				
(degrees)	Select Auto to use the clip-rotation metadata setting if available, or select 0 , 90 , 180 , or 270 to specify the desired clip rotation.				
Anamorphic desqueeze	Select a desqueeze button to apply anamorphic stretching to widescreen video, or click Off to turn off stretching.				
Show safe areas	Click the switch to enable safe area guides and a center point in the video preview.				
	When Show safe areas is enabled, Catalyst Prepare displays rectangles marking 90% (action safe area) and 80% (title safe area) of the frame to serve as guidelines for framing.				
	9 Overlays are not displayed when using full-screen preview.				
Masking ratio	Choose a setting from the drop-down list to enable shading in the video preview to indicate how your content will appear.				
	2 Overlays are not displayed when using full-screen preview.				
	Aspect markers from Sony cameras are supported and preserved even when the clip is rotated.				
	Select Use masking ratio from the Crop type drop-down list in the Export pane if you want to preserve the selected masking ratio when transcoding.				
	For more information, see "Exporting media from a library" on page 24.				

Chapter 5

Working with clips

Catalyst Prepare gives you control over your individual media clips.

Viewing and editing metadata

When you're in Organize or Edit mode, click the **Inspector** button *i* in the toolbar to display metadata for the currently selected file in the Inspector pane.

Click the **Summary** tab to view summary information associated with the file or configure audio channels.

Click the **File** tab to view details about the source media and its metadata, including GPS information (if present).

When a file contains GPS metadata, you can click the **Latitude** and **Longitude** values to display a map using the map service selected in the **Open GPS links with** drop-down list in the Options menu. Links are not available when multiple clips are selected.

Click the Mark Points tab to view essence marks embedded in the file.

If the current file contains essence marks, they will be displayed on the timeline as a diamond \blacklozenge .

If the current clip contains discontinuous timecode, an indicator is displayed in the timeline to identify the discontinuity:

When Catalyst creates new non-realtime (NRT) metadata during MXF copy operations, metadata for discontinuous timecode and essence marks is created.

📝 New non-realtime metadata is not created when the source clip contains NRT metadata.

Setting the frame rate for a DPX or OpenEXR image sequence

- 1. Select a DPX or OpenEXR image sequence in the Media Browser.
- 2. Click the Summary tab.
- 3. Choose a value from the **Frame rate** drop-down list boxes to set the frame rate for playing the selected image sequence.

Editing mark in/out points

Click the Summary tab.

Type new values in the **Mark in** and **Mark out** boxes to edit the clip's mark in and mark out points. For more information, see "Marking in and out points for playback" on page 96.

If you want to save mark in and mark out points with the library, clear the **Synchronize mark** points with file check box.

When the **Synchronize mark points with file** check box is cleared, mark in and mark out points for MXF clips are saved back to the source media when you edit them in Catalyst Prepare, and your library will be updated if the mark in and out points are edited on disk.

Editing summary metadata

1. Click the Summary tab.

Click the **Unlock** button **I** to enable editing summary information for the selected files.

2. In the Logging section of the Summary tab, edit the Flag, Title, Creator, and Description settings as needed.

When editing metadata for multiple selected files, **(multiple values)** is displayed if the files' metadata does not match. Editing the value will replace the metadata for all selected files.

3. Click Save to save the edited metadata values, or click Revert 🖓 to discard your edits.

📝 Not all media formats support summary metadata.

When a clip has **Flag** metadata, an **OK**, **NG** (no good), or **Keep** indicator is displayed in Organize mode:

Take1.mp4	KEP	Take ³	3.mp4		Take5.mp4	СК СК
Date Modified	Size	Start Time	Length	Frame Size	Frame Rate	Flag
201 Mon May 20 06:54:18 201						
2019 Mon May 20 07:02:14 2019						
201 Mon May 20 21:00:29 201	180 MB	00:00:00:00	00:04:00:04	1920 x 1080	23.976p	ОК

You can also use **Flag** metadata to filter the contents of the Media Browser. For more information, see "Filtering clips" on page 57.

Assigning audio channels

Assigning audio channels allows you to set up your clips for use in Catalyst Edit.

A The Channel Assignment controls are not editable when multiple files with differing channel counts are selected.

Channel Assignment controls are not available when no library is opened. For more information, see "Working with libraries" on page 9.

Channel Assignment controls are not available when a spanned clip ${}^{\textcircled{}}$ is selected.

Channel Assignment controls are not available when editing a storyboard.

Click the speaker icon to turn a channel on ${}^{\blacktriangleleft \mathfrak{I}}$ or off $\overset{\bigstar}{\mathrel{\times}}$.

Click the **Mono/Stereo** button to indicate whether a channel is a mono channel or part of a stereo pair. Enabling **Stereo** will pair the channel with the next channel in the list.

Type a name in the edit box to identify the channel. For example, you might type Lav1 to identify audio from a lavalier microphone.

If you want to save the current channel configuration as a preset, click the Channel Tools icon
and choose Save preset from the menu.

If you want to apply a preset channel configuration to the selected file, as a preset, click the **Channel Tools** icon *P* and choose **Load preset** from the menu.

If you want to copy channel assignments between files, select the source file, click the **Channel Tools** icon *F*, and choose **Copy** from the menu. Next, select the destination files, click the **Channel Tools** icon *F*, and choose **Paste** from the menu.

If you want to set all of a clip's channels at once, click the **Channel Tools** button *s* and choose **Set all to mono**, **Set all to stereo**, or **Reset**.

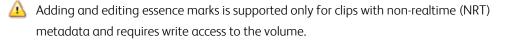
Editing essence marks

- 1. Select a clip to display its metadata.
- 2. Click the Mark Points tab.
- 3. Click an essence mark's label or timecode value to type a new value.
 - Adding and editing essence marks is supported only for clips with non-realtime (NRT) metadata and requires write access to the volume.

Editing essence marks is not available when FTP-based clips are selected.

Adding a mark point

- 1. Select a clip to display its metadata.
- 2. Click the Mark Points tab.
- 3. Click the trackbar below the video preview to set the cursor position where you want to add a mark point(or click the timecode display to move the cursor to a specific location).
- 4. Click the Add Point button or press E.



Deleting a mark point

- 1. Select a clip to display its metadata.
- 2. Click the Mark Points tab.
- 3. Click an essence mark's label or timecode to select it.
- Click the Delete button and then choose Delete to delete the selected mark point, or choose Delete All to delete all mark points.
 - ${}^{
 m \Delta}_{
 m A}\,$ The **Delete** command is not available when FTP-based clips are selected.

Exporting custom metadata

Catalyst Prepare allows you to include custom metadata when exporting clips.

Defining the metadata you want to export

To enable custom metadata export, you'll create a configuration file named customMetadataExport.json in the following folder:

- 1. Close Catalyst Prepare.
- 2. Using a text editor, create your configuration file. The file should be structured like the following example to include the key, value pairs that you want to make available as custom metadata. The key is the metadata item, and the value will be used as the default value:

```
{
  "Slug": "Election",
  "Type":"News",
  "Source": "",
  "Shot Date": ""
}
```

3. Save the file in the following folder:

Windows: C:\Users\<user>\Documents\Sony\Catalyst\

macOS:/Users/<user>/Documents/Sony/Catalyst

4. Start Catalyst Prepare. The application will detect the customMetadataExport.json file during startup and enable custom metadata export.

Exporting custom metadata

1. Select the clips you want to export in Organize or Edit mode.

The left pane allows you to navigate the folders in your library, and the middle pane displays the contents of the selected folder

- Click a file to select it.
- Hold Shift and click the first and last file you want to select to select a range of files.
- Hold Ctrl (Windows) or ¥ (macOS) to select multiple files.
 - Click the **Select** button to select multiple files without using keyboard modifiers.
- 2. Click the Export button 📫 at the top of the Catalyst Prepare window.
- 3. Enable the Use advanced settings switch in the Export pane.
- 4. Select the Add custom metadata check box. An edit box is displayed for each metadata item you defined in your customMetadataExport.json file.

Type the desired value for each metadata item that you want to include for the rendered file. Custom metadata is saved in a sidecar .json file.

Use the controls in the Export pane to choose a destination and format for your exported file. For more information about the controls, please see "Exporting media from a library" on page 24..

If the customMetadataExport.json file is empty or incorrectly formatted, the Add custom metadata check box is unavailable. Please see "Defining the metadata you want to export" on page 105.

Working with clip lists

You can create and edit clip lists for the following media types:

- XDCAM media in an XD root folder XXC
- XAVC media in an XD root folder XAVC.
- RAW media in an AxS folder

A clip list is a PD-EDL (.smi) file that allows you to create a video project that is comprised of multiple, shorter video clips.

Clip lists are a helpful part of a proxy workflow when working with limited bandwidth: copy the proxy clips to your computer, create a clip list using the proxy clips, and then copy the clip list back to the camera or deck. The deck will then play the clip list using your full-resolution source.

If you need to create a project for other media types and don't need to write back to a camera or device, you can create a storyboard. For more information, see "Working with storyboards" on page 110.

- When viewing a clip list, I indicates spanned clips from the same volume, and U indicates spanned clips from different volumes.
- Δ Clip lists and spanned clips are not supported in Catalyst Prepare libraries.

Creating a clip list

- 1. Click the Organize button at the top of the Catalyst Prepare window to view the Media Browser.
- 2. Navigate to the root folder wave or wave that contains the clips you want to use.
- 3. Select the files you want to include in your clip list. You can hold Shift or Control (Windows) / **#** (macOS) to select multiple files.
- 4. Click the **Tools** button *s* at the bottom of the Catalyst Prepare window and choose **New clip list** from selection from the menu.
 - If you want create a clip list without choosing clips, click the **Tools** button *s* at the bottom of the Catalyst Prepare window and choose **New empty clip list** from the menu.
- 5. Type a name for the new clip list and click OK.
- 6. Catalyst Prepare loads your new clip list in View mode.

Opening a clip list

- 1. Click the **Organize** button at the top of the Catalyst Prepare window to view the Media Browser.
- 2. Navigate to the root folder xave or xave that contains the clip list you want to open.
- 3. Double-click the clip list (.smi file) to open it.

Rearranging clips

In Clip List mode, you can add, remove, and arrange clips in the clip list. Click the **Clip List** button at the bottom of the Catalyst Prepare window to switch to Clip List mode.

You can drag clips within the clip list to rearrange them. Drag a clip and drop it to a new position on the clip list to change its position.



Adding clips

In Clip List mode, you can add, remove, and arrange clips in the clip list. Click the **Clip List** button at the bottom of the Catalyst Prepare window to switch to Clip List mode.

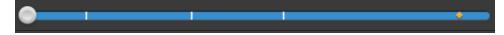
📝 You can only add clips from the folder where the clip list (.smi) file is saved.

Click the add button at the end of the clip list to display a media browser, where you can select additional clips for your clip list.



You can click the **Add** button at the bottom of the Catalyst Prepare window when you're in Clip List mode.

When you add a clip, a vertical line is added to the timeline to indicate where each clip begins:



Removing clips

In Clip List mode, you can add, remove, and arrange clips in the clip list. Click the **Clip List** button at the bottom of the Catalyst Prepare window to switch to Clip List mode.

Select a clip and click the **Remove** button 🛡 at the bottom of the Catalyst Prepare window.

Editing clips

In Clip mode, you can log mark in and out points for your clips.

- $\,\,\widetilde{\,}\,$ You cannot add, delete or rearrange clips in Clip mode. Use Clip List mode for clip list editing.
 - 1. Open the clip list you want to edit.
 - 2. Click the Clip button at the bottom of the Catalyst Prepare window to switch to Clip mode.

🏆 You can also double-click a clip in Clip List mode to switch to Clip mode.

- 3. Select the clip you want to edit.
- 4. Use the Mark In and Mark Out buttons to adjust the mark in and out points for the selected clip.

For more information, see "Marking in and out points for playback" on page 96.

Viewing metadata for clip lists

When you're in Organize or Edit mode, click the **Inspector** button \hat{U} in the toolbar to display metadata in the Inspector pane.

In Browse mode, the Metadata pane displays additional information about the currently selected clip list.

In View (Clip List or Clip) mode, the Metadata pane displays information about the selected subclip.

For more information, see "Viewing and editing metadata" on page 101.

Writing a clip list back to a device

Select a clip list in Organize mode and click the **Copy** button at the top of the Catalyst Prepare window to write a clip list back to a device. For more information, see "Exporting media from a library" on page 24.

Working with storyboards

You can create and edit storyboards to create a video project that is comprised of multiple, shorter video clips.



Storyboards are saved with the current media library.

When no library is opened, storyboard support is not available. For more information, see "Creating or opening a library" on page 9.

If you need to create a project that can be written back to a camera or device, you can create a PD-EDL clip list. For more information, see "Working with clip lists" on page 106.

Creating a storyboard

- 1. Click the **Organize** button at the top of the Catalyst Prepare window.
- 2. Navigate to the folder that contains the clips you want to use.
- 3. Select the files you want to include in your clip list. You can hold Shift or Control (Windows) / **#** (macOS) to select multiple files.
- 4. Click the Storyboard button at the bottom of the Catalyst Prepare window and choose Create from selection from the menu.
 - Δ The Create from selection command is not available when a clip list, spanned clip (@), or an

FTP-based clip is selected.

- If you want create a storyboard list without choosing clips, click the **Storyboard** button at the bottom of the Catalyst Prepare window and choose **Create empty** from the menu.
- 5. Type a name for the storyboard and click OK.

Opening a storyboard

- 1. Click the Organize button at the top of the Catalyst Prepare window.
- 2. Click a storyboard in the Storyboards section of the left pane. The storyboard's clips are displayed in the center pane.
- 3. Click the Edit button to load your storyboard in Edit mode.

When viewing a storyboard, indicates spanned clips from the same volume, and und indicates spanned clips from different volumes.

Rearranging clips

In Edit mode, you can add, remove, and arrange clips.

You can drag clips within the storyboard to rearrange them. Drag a clip and drop it to a new position to move it.



Adding clips

- 1. Click the Organize button at the top of the Catalyst Prepare window.
- 2. Click a storyboard in the Storyboards section of the left pane. The storyboard's clips are displayed in the center pane.
 - When the Add To button at the bottom of the Catalyst Prepare window is selected, you can quickly add a clip to the selected storyboard by selecting it and clicking the Add button (or pressing Enter). Use the Add clip to storyboard drop-down list to select a storyboard.

When you add a clip, a vertical line is added to the timeline to indicate where each clip begins:



You can also drag clips from the Organize pane to a bin or storyboard in the Places pane.

- 3. Click the Edit button to load your storyboard in Edit mode.
- 4. Click the add button at the end of the clip list or the Add button at the bottom of the Catalyst Prepare window to display a media browser, where you can select additional clips for your

storyboard.



Removing clips

- 1. Click the **Organize** button at the top of the Catalyst Prepare window.
- **2.** Click a storyboard in the Storyboards section of the left pane. The storyboard's clips are displayed in the center pane.
- 3. Click the Edit button to load your storyboard in Edit mode.

Select a clip and click the **Remove** button 🛡 at the bottom of the Catalyst Prepare window.

Editing clips

In Clip mode, you can log mark in and out points for your clips.

- You cannot add, delete, or rearrange clips in Clip or Adjust Color mode. Use Storyboard mode for clip list editing.
 - 1. Click the **Organize** button at the top of the Catalyst Prepare window.
 - **2.** Click a storyboard in the Storyboards section of the left pane. The storyboard's clips are displayed in the center pane.
 - 3. Click the Edit button to load your storyboard in Edit mode.
 - 4. Click the Clip button at the bottom of the Catalyst Prepare window to switch to Clip mode.
 - \mathbb{Y} You can also double-click a clip in Storyboard mode to switch to Clip mode.
 - 5. Select the clip you want to edit.
 - 6. Use the Mark In and Mark Out buttons to adjust the mark in and out points for the selected clip.

For more information, see "Marking in and out points for playback" on page 96.

Editing a storyboard clip's mark in and out points does not affect other storyboards that use the same clip.

Adjusting color correction for clips

In Adjust Color mode, you can adjust color correction settings for each clip in a storyboard.

- You cannot add, delete, or rearrange clips in Clip or Adjust Color mode. Use Storyboard mode for clip list editing.
 - 1. Click the Organize button at the top of the Catalyst Prepare window.
 - **2.** Click a storyboard in the Storyboards section of the left pane. The storyboard's clips are displayed in the center pane.
 - 3. Click the Edit button to load your storyboard in Edit mode.
 - 4. Click the Adjust Color button at the bottom of the Catalyst Prepare window to switch to Adjust Color mode. In this mode, Catalyst Prepare displays a waveform/histogram/vectorscope monitor, a video preview, and color controls that you can use to adjust the appearance of your video.
 - 5. Select the clip you want to edit.
 - 6. Click the **Inspector** button *i* in the toolbar to display the Inspector pane if it isn't already visible. In the Adjust Color workspace, the Inspector pane provides controls that you will use to adjust color-grading settings.

The waveform/histogram/vectorscope monitor and video preview window allow you to monitor your progress as you adjust color values. For more information, see "Editing Color Adjustments controls" on page 127.

Previewing storyboards

When you double-click a storyboard in Organize mode, the storyboard is loaded in Edit mode, where you can preview the file in the same way you preview other clips. For more information, see "Playing media" on page 89.

You can select a clip to set the starting point for playback, and the clip selection will follow the cursor during playback.

Exporting storyboards

When you select a storyboard in Organize mode, you can export the storyboard in one of three ways:

- You can render each of the storyboard's clips to a new format.
- You can render the storyboard as a single media file.
- You can export the storyboard as a project for use in another video editor.

For more information, see "Exporting media from a library" on page 24, "Exporting media from a library" on page 24, or "Exporting media from a library" on page 24.

Using Catalyst Prepare storyboards in Catalyst Edit

Catalyst Edit provides native support for Catalyst Prepare storyboards:

- 1. In the Catalyst Edit Media Browser, double-click a .cpreplib file (^{IIIII}). When you open a Catalyst Prepare library, the Media Browser displays all the media contained in that library sorted in bins.
 - The default location for .cpreplib files is C:\Users\<username>\Videos\ on Windows and /Users/<username>/Movies/ on macOS.
- 2. Drag a storyboard bin to the Catalyst Edit timeline to add it.

Viewing metadata for storyboards

Click the **Inspector** button *i* in the toolbar to display metadata in the Inspector pane. The Inspector pane displays information about the selected subclip.

For more information, see "Viewing and editing metadata" on page 101.

Renaming a storyboard

- 1. Click the **Organize** button at the top of the Catalyst Prepare window.
- 2. Click a storyboard in the Storyboards section of the left pane. The storyboard's clips are displayed in the center pane.
- 3. Click the **Storyboard** button at the bottom of the Catalyst Prepare window and choose **Rename** from the menu.
- 4. Type a name for the storyboard and click OK.

Deleting a storyboard

- 1. Click the **Organize** button at the top of the Catalyst Prepare window.
- 2. Click a storyboard in the Storyboards section of the left pane. The storyboard's clips are displayed in the center pane.
- 3. Click the **Storyboard** button at the bottom of the Catalyst Prepare window and choose **Delete** from the menu.

Working with EDLs

You can use Catalyst Prepare to import an EDL.

Importing an EDL

- Click the Tools button at the bottom of the Catalyst Prepare window and choose Import EDL. The Import EDL dialog is displayed.
- 2. Select the EDL you want to import.
- 3. Choose a setting from the Frames per second drop-down list to set the frame rate of the EDL.
- 4. Click Import. The EDL Import workspace is displayed with the contents of the EDL.

Linking and unlinking clips

After you import an EDL, you can use the EDL Import workspace to link and unlink clips.

To link your clips, select a clip, click the Link button O (or double-click an unlinked clip's thumbnail) and browse for the source media.

If other unlinked clips exist in the folder, they will be linked automatically. If you want to link only the selected clip, clear the **Automatically link clips** check box.

To unlink a clip, select it and click the **Unlink** button \textcircled{C}^{\times} . If you want to unlink all clips, click the **More** button and choose **Unlink all** from the menu.

Replacing clips

You can use the Replace media command to replace a clip in an EDL with a different media file.

- 1. Select a clip in the EDL.
- 2. Click the More button and choose Replace media from the menu.
- 3. Browse to the new clip and click OK.

Catalog export

Catalyst Prepare can export a PDF or CSV (comma-separated value) list of clips in a folder.

The Generate PDF catalog and Generate CSV catalog commands are not available for clips on FTP devices, XDCAM Station volumes via CIFS, XDCAM decks, XDCAM Drive units, or Optical Disc Archive volumes.

Generating a PDF catalog

- 1. Click the Organize button at the top of the Catalyst Prepare window to view the Media Browser.
- 2. Select the folder or clips you want to catalog.
- 3. Perform either of the following actions to generate a catalog from the selected folder:
 - Click the Tools button at the bottom of the Catalyst Prepare window and choose
 Generate PDF catalog from the menu.
 - Right-click the folder and choose Generate PDF catalog from the shortcut menu.

The Export Catalog dialog is displayed.

- 4. In the **Title** box, type a title to identify your catalog. This title will be displayed at the top of the generated catalog.
- 5. In the **Description** box, type a description of the catalog. The description will be displayed below the title in the generated catalog and can help you identify the clips in the catalog.

- 6. In the Export PDF to box, type the path to the folder where you want to save the generated catalog, or click Browse to choose a folder.
- 7. Select a Layout radio button to choose the appearance of the catalog:
 - Text with 1 thumbnail: Displays metadata text with a thumbnail of the first frame.
 - Text with 3 thumbnails: Displays metadata text with thumbnails of the first, middle and end frames.

The space below the radio buttons displays a sample of the selected layout.

8. In the **Metadata** list, select the check boxes for the metadata values you want to include in the catalog.

Click the **Tools** button *t* at the top of the Metadata list and choose **Reset to default** or **Clear all** to clear the current selection.

9. Click Export to generate the catalog with the selected content.

Generating a CSV catalog

- 1. Click the **Organize** button at the top of the Catalyst Prepare window to view the Media Browser.
- 2. Select the folder or clips you want to catalog.
- 3. Perform either of the following actions to generate a catalog from the selected folder:
 - Click the Tools button at the bottom of the Catalyst Prepare window and choose
 Generate CSV catalog from the menu.
 - Right-click the folder and choose Generate CSV catalog from the shortcut menu.

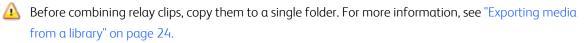
The Export Catalog dialog is displayed.

- 4. Navigate to the folder where you want to save the CSV file and type a file name in the File name box.
- 5. Click OK to generate the catalog with the selected content.

Combining relay clips

You can use Catalyst Prepare to combine AVCHD relay-recorded clips into a single clip.

A relay clip is a continuous recording that spans multiple media cards.



- 1. Select the clips you want to combine.
 - 📝 Clips must be of the same operating point and the timecode must be sequential.
- 2. Click the **Tools** button *F* at the bottom of the Catalyst Prepare window and choose **Combine** relay clips. The Combine Relay Clips dialog is displayed.

 ${
m \Delta}$ The Combine relay clips command is not available when FTP-based clips are selected.

- 3. In the Combined file name box, type the name you want to use for the new clip.
- 4. Click OK.

Synchronizing multicamera clips

You can use Catalyst Prepare to synchronize audio in clips from a multicamera shoot.

When you synchronize clips, the mark-in points of the selected clips are adjusted as needed to allow the clips to play in synchronization. Synchronizing your clips in Catalyst Prepare streamlines the process of editing multicamera video in a nonlinear editor.

- 1. Select the clips you want to synchronize.
- 2. Click the **Tools** button *s* at the bottom of the Catalyst Prepare window and choose **Synchronize multicam clips**.

Progress is displayed while the clips are analyzed and synchronized.

The Synchronize multicam clips command is not available when FTP-based clips are selected.

Stabilizing clips

Catalyst Prepare allows you to use metadata from clips to stabilize the image.

- 1. Click the Organize button at the top of the Catalyst Prepare window to view the Media Browser.
- 2. Select the clip you want to stabilize. An ⁽¹⁾ on a thumbnail indicates a clip that contains stabilization metadata.
 - The stabilize icon is not displayed for clips on FTP devices, XDCAM Station volumes via CIFS, XDCAM decks, XDCAM Drive units, or Optical Disc Archive volumes.

For information about camera settings for enabling stabilization using metadata, please see Information on Software Applications.

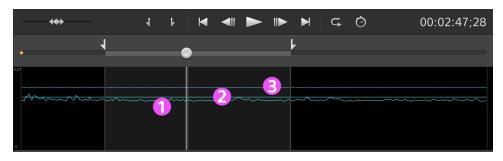
Clip stabilization is not supported when changing camera settings or detaching the lens during clip recording.

- 3. Perform any of the following actions to display the Correct clip workspace:
 - Click the Stabilize button ⁽¹⁾ at the bottom of the Catalyst Prepare window.
 - Right-click the clip in the Organize pane and choose Stabilize clip from the shortcut menu.
 - The **Stabilize** button $^{\#}$ is not available when multiple clips are selected.

When the Catalyst Prepare window is resized, the Adjust color \mathcal{G} , Lens breathing compensation \mathcal{G} , and Stabilize clip buttons are available in the Adjustments menu

- 4. Use the Correct clip workspace to preview and adjust stabilization settings for the selected clip:
 - a. Set the Mark In/Out points to indicate the portion of the clip you want to correct. For more information, see "Marking in and out points for playback" on page 96.
 - b. Choose a Stabilization mode setting:
 - ° Select the Auto button in the Inspector to adjust stabilization automatically.

The graph below the preview helps you visualize the stabilization. Please note that the graph is not displayed when multiple clips are selected.



 The curve (1) represents the amount of stabilization that is required based on clip analysis.

- The solid line (2) represents the Auto cropping amount after analysis.
- The dashed line (3) represents the Maximum cropping amount setting.

Slick the **Graph** button 🗠 to customize the display of the graph:

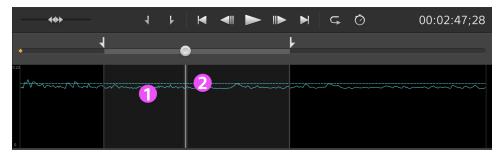
- Turn on the Scale graph to clip switch to adjust the vertical scale of the graph to match the current clip.
- When Scale graph to clip is off, you can drag the Graph scale slider to set the vertical scale of the graph.

Item	Description	
Auto cropping amount	After the clip is analyzed, this indicator represents the amount of cropping that will be used to stabilize the clip.	
Maximum cropping amount	 Drag the slider — or the dashed line (3) in the graph — to set the amount of cropping that can be applied to stabilize a clip. If the automatic adjustment results in a clip that is larger than the maximum cropping amount, the Maximum cropping amount will be used. If the automatic adjustment results in a clip that is smaller than the Maximum cropping amount setting, the automatic adjustment results will be used. This setting is persisted when changing the selected clip or exiting the Correct clip workspace. When stabilizing a clip using a Maximum cropping amount setting that is too large, clips with significant camera shake may exhibit a black border around the frame. We recommend using a setting that is close to the default cropping size in manual mode. To check the default manual cropping amount slider handle to reset the setting to its default. 	
Source resolution	Displays the dimensions of the source media before cropping is applied.	
Corrected crop	Displays the dimensions of the stabilized frame after cropping is applied.	

Item	Description	
resolution		
Minimum	Displays the minimum dimensions of the stabilized frame based on	
crop	the Maximum cropping amount setting.	
resolution		

- If source clips captured with Active image stabilization mode exhibit blurring when using Auto mode, choose Manual mode and decrease the Cropping amount setting.
- Select the Manual button if you want to adjust stabilization settings:

The graph below the preview helps you visualize the stabilization. Please note that the graph is not displayed when multiple clips are selected.



- The curve (1) represents the amount of stabilization that is required based on clip analysis.
- The dashed line (2) represents the Cropping amount setting.
 - $\stackrel{\scriptstyle\bigvee}{\simeq}$ Click the **Graph** button $\stackrel{\scriptstyle\bigvee}{\simeq}$ to customize the display of the graph:
 - Turn on the Scale graph to clip switch to adjust the vertical scale of the graph to match the current clip.
 - When Scale graph to clip is off, you can drag the Graph scale slider to set the vertical scale of the graph.

Item	Description	
Cropping	Drag the slider — or the line (2) in the graph — to set the amount	
amount	of cropping that is applied to stabilize a clip.	

This setting is persisted when changing the selected clip.

Item	Description	
	When stabilizing a clip using a Cropping amount setting smaller than the default value, clips with significant camera shake may exhibit a black border around the frame. We recommend using a Cropping amount setting that is close to the default value. You can double-click the slider handle to reset the setting to its default.	
Source resolution	Displays the dimensions of the source media before cropping is applied.	
Corrected crop resolution	Displays the dimensions of the stabilized frame after cropping is applied.	

1. Click the **Analyze** button to analyze the selected clip and update the preview to show the stabilized clip.

After analysis, the Summary section of the Info panel displays the corrected crop resolution.

- If you change the selected clip, the preview will indicate that the clip has not been analyzed. Click the Analyze button at the bottom of the workspace to analyze the selected clip and update the preview to show the corrected clip.
- 2. Click the **Before**/After button at the top of the video preview to choose a preview mode so you can compare your original and stabilized video before applying the changes, and then use the transport controls above the timeline to preview the clip.
 - Before: the clip is displayed in its original state.
 - After: the cropped and stabilized clip is displayed.
 - **U** 2 Up: two full frames are displayed in a split-screen view with the original video on the left and the stabilized video on the right.
- 3. To save a clip with the stabilization settings, click the **Export** button at the top of the Catalyst Prepare window, and use the Export pane to choose a destination and format for your exported files. Click the **Export** button at the bottom of the Export pane to start exporting the selected clip.

If multiple clips are selected, the **Export** button at the bottom of the Export pane is displayed as **Batch Export**. Click to display a confirmation dialog that lists all selected clips. You can select or clear check boxes to add or remove clips from the selection. Click **OK** to begin exporting the selected clips using the current settings.

For more information about the controls, please see "Exporting media from a library" on page 24.

Stitching clips

Catalyst Prepare allows you to use combine several clips to create a single clip.

1. Select the clips you want to export in Organize or Edit mode.

The left pane allows you to navigate the folders in your library, and the middle pane displays the contents of the selected folder

- Click a file to select it.
- Hold Shift and click the first and last file you want to select to select a range of files.
- Hold Ctrl (Windows) or ¥ (macOS) to select multiple files.
 - $\stackrel{\scriptstyle \bigvee}{\scriptstyle \sim}$ Click the **Select** button $\stackrel{\scriptstyle \oplus}{\scriptstyle =}$ to select multiple files without using keyboard modifiers.
- 2. Click the Export button 📫 at the top of the Catalyst Prepare window.
- 3. Enable the Use advanced settings switch in the Export pane.
- 4. Select the **Stitch clips** check box to combine the selected clips into a single continuous clip. The order of the clips in the new clip will match the order they are displayed in Organize or Edit mode.

If you want the new clip to include continuous timecode based on the source clips' timecode, select the **Use continuous timecode** check box. Clip order will be adjusted as needed, and black frames will be added between clips to ensure the timecode in the new clip is not interrupted.

Use continuous timecode is not available if the selected clips contain overlapping timecode, if interlaced and progressive clips are selected, if clips with mixed frame sizes or frame rates are selected, or if clips with drop and non-drop timecode are selected.

Use continuous timecode can change the order of the selected clips. For example, assume you selected the following three clips:

- 1.mxf 00:00:10;00 00:00:20;00
- 2.mxf 00:00:40;00 00:00:50;00
- 3.mxf 00:00:30;00 00:00:40;00

When **Use continuous timecode** is not selected, the clips would be rendered in the following order: 1.mxf, 2.mxf, 3.mxf.

When **Use continuous timecode** is selected, the clips would be rendered in the following order: 1.mxf, 10 seconds of black frames, 3.mxf, 2.mxf.

Use the controls in the Export pane to choose a destination and format for your exported file. For more information about the controls, please see "Exporting media from a library" on page 24.

Repairing flash bands

When a camera flash is fired, it can create a band of light in your video.

Catalyst Prepare can detect and remove flash bands.

- 1. Click the Organize button at the top of the Catalyst Prepare window to view the Media Browser.
- 2. Select the clip you want to repair.
- 3. Click the **Tools** button at the bottom of the Catalyst Prepare window and choose **Repair flash bands**. The Flash Band workspace is displayed.
- 4. Use the Flash Band workspace to identify the flash bands you want to repair:
 - a. Set the Mark In/Out points to indicate the portion of the clip you want to scan. For more information, see "Marking in and out points for playback" on page 96.
 - b. Click the Detect button to scan the clip and mark flash bands automatically. A marker
 is added to the timeline, and an entry is created in the Inspector.

Automatic flash band detection is available only for MXF clips. To mark a flash band manually, click the trackbar below the transport controls to set the play position indicator and click the Add button + in the Inspector.

Please note that automatic and manual flash-band repair can yield different results.

To remove a flash band marker, select it in the Inspector and click the **Delete** button

Click the **Before/After** button in the top-right corner of the video preview to choose a preview mode so you can compare your original and repaired video before applying the changes.

- Before: full-frame video is displayed in its original state.
- After: full-frame video is displayed in its repaired state.
- 1. Click Repair. The transcode dialog is displayed to allow you to choose settings for the repaired file.

Chapter 6

Applying color correction

If you've used multiple cameras within a project or if the lighting varies between shots, the resulting clips can look noticeably different. You can use color correction to minimize the differences or to apply an artistic look to your clips.

 ${\mathbb Y}$ Color-correction settings are stored with each clip in the library and do not affect your source media.

When no library is opened, color adjustments are applied globally to all clips for previewing. If you want to save your color-correction settings, you can transcode clips to create new files. For more information, see "Exporting media from a library" on page 24.

Color adjustments to clip lists or spanned clips are not available when a library is open. For more information, see "Working with libraries" on page 9.

Editing Color Adjustments controls

You can use the Color Adjustments controls in the Inspector 🕐 to perform color grading for individual clips in your library.

 \mathbb{Y} After you edit a clip's color adjustments, those settings will be loaded each time you load the clip.

Loading a clip/clip list for color adjustments and configuring the waveform, histogram, and vectorscope monitors

- 1. Click the **Organize** button at the top of the Catalyst Prepare window to view the Media Browser.
- 2. Perform any of the following actions to display the Adjust color workspace:
 - Select a clip in the Organize pane, and click the Adjust color button at the bottom of the Catalyst Prepare window.

When the Catalyst Prepare window is resized, the Adjust color , Correct lens breathing , and Stabilize clip buttons are available in the Adjustments menu .

- Right-click the image in the Organize pane and choose Adjust color from the shortcut menu.
- Double-click a clip in the Media Browser to load the clip in Edit mode. When you load a clip, the color adjustments saved with the clip are loaded. Click the Adjust Color button at the bottom of the Catalyst Prepare window.

In the Adjust Color workspace, Catalyst Prepare displays a waveform/histogram/vectorscope monitor, a video preview, and color controls that you can use to adjust the appearance of your video.

3. The waveform/histogram/vectorscope monitor and video preview window allow you to monitor your adjustments as you edit color values.

The **Preview color space** setting in Options is also applied to the waveform, histogram, and vectorscope so you can to check your video using scopes. For more information, see "Editing Catalyst Prepare options" on page 163.

Click the Waveform button ** at the bottom of the window to toggle the waveform monitor.

The waveform monitor displays the luminance values (brightness or Y component) of your video signal. The monitor plots luminance values on the vertical axis and the width of the current frame on the horizontal axis.

You can use the buttons at the top of the waveform monitor to display overlaid (\sim) or

separate ($\uparrow \uparrow \uparrow \uparrow$) RGB waveforms and isolate colors \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc

Waveform settings

Click the **Settings** button to open the Waveform Settings menu. You can use the Waveform Settings menu to change the scale of the waveform monitor and enable AIR matching when grading HDR clips.

The Settings button is available only when the Working color space drop-down is set to Rec-2020/S-Log3 (HDR) and the Preview color space drop-down is set to Rec.2020/S-Log3, Rec.2020/HLG, Rec.2020/HLG AIR Matching, Rec.2020/HLG (bypass OOTF), Rec.2020/PQ, Rec.2020/PQ AIR Matching, or Rec.2020/PQ (bypass OOTF).

For more information, see "Color management settings" on page 165 or "Editing Catalyst Prepare options" on page 163.

You can click the % or Nits button to change the units displayed in the waveform.

When the **Preview color space** is set to **Rec.2020/HLG**, **Rec.2020/HLG** AIR **Matching**, or **Rec.2020/HLG (bypass OOTF)**, the **Nits** value is calculated for a peak luminance of 1000 cd/m².

When the **Preview color space** drop-down is set to **Rec.2020/S-Log3**, you can use the **AIR Matching** switch to toggle AIR (Artistic Intent Rendering) matching to achieve a consistent look between Rec.2020/S-Log3-based grading and a configured HLG (hybrid log-gamma) or PQ (perceptual quantizer) monitor.

- The AIR Matching switch is automatically turned on when the Preview color space drop-down is set to Rec.2020/HLG AIR Matching or Rec.2020/PQ AIR Matching.
- Click the **Histogram** button \sim at the bottom of the window to toggle the histogram monitor.

The histogram monitor displays the number of pixels that exist for each color intensity. The vertical axis represents the number of pixels, and the horizontal axis represents the RGB color range from 0 to 255.

You can use the buttons at the top of the histogram monitor to display overlaid (\sim) or

separate (() RGB histograms and isolate colors \bigcirc \bigcirc \bigcirc \bigcirc .

Click the Vectorscope button at the bottom of the window to toggle the vectorscope monitor.

The vectorscope monitor allows you to monitor the chroma values (color content) of your video signal. The monitor plots hue and saturation on a color wheel.

The vectorscope displays targets for broadcast-legal saturations of red (R), magenta (Mg), blue (B), cyan (Cy), green (G), and yellow (YI). Individual colors in your video signal are displayed as dots in the vectorscope. A dot's distance from the center of the scope

represents its saturation, and the angle of the line from the dot to the center of the scope represents its hue.

For example, if an image has a blue cast, the distribution of dots in the vectorscope will be concentrated toward the blue portion of the color wheel. If the image includes out-of-range blue values, the vectorscope display will extend beyond the blue target.

You can use the vectorscope to calibrate color between scenes. Without calibration, you may see noticeable color differences between scenes from multicamera shoots.

Click the **Settings** button $\textcircled{\parbox{\sc black}}$ to open the Vectorscope Settings menu.

The Vectorscope Settings menu allows you to toggle a monochrome view of the scope, change the scale of the scope, adjust the brightness of the colors displayed in the scope, and adjust the brightness of the scope's guide (graticule).

- Use the 75% Scale setting when your source media uses 75% color bars, or use the 100% setting your source media uses 100% color bars.
- The video preview window displays the current frame at the playback position indicator.

Click the **Preview** button in the top-right corner of the video preview to choose a preview mode. Split-screen previews allow you to split the video preview and waveform/histogram/vectorscope monitor so you can see your affected and unaffected video at the same time.

	After 🔻	
Ν	Before	
	After	~
□	Split	~
	2 Up	

- Before: full-frame video is displayed in its original state.
- After: full-frame video is displayed in its color-corrected state.
- Split: a single frame is displayed in a split-screen view with the original video on the left and the color-corrected video on the right.

If you want to move the split location, hover over the preview frame. When the split point is displayed, you can drag the handles at the top of bottom of the screen to adjust where the preview is split:



• 2 Up: two full frames are displayed in a split-screen view with the original video on the left and the color-corrected video on the right.

Adjusting the color wheels

In the Adjust Color workspace, the bottom of the Catalyst Prepare window provides color wheels for Lift, Gamma, and Gain. The wheels provide a visual representation of the current adjustments and allow you to adjust color quickly. As you adjust the controls, the waveform/histogram/vectorscope monitor and video preview will update in real time to allow you to check your adjustments.

The color wheels are used to edit ASC-CDL (American Society of Cinematographers Color Decision List) parameters.

Click the Wheels button 💿 to show or hide the color wheels.

Drag the point in the center of the color wheel to pick the hue and saturation you want to add to the video, or drag the slider on the side of the color wheel to increase luminance for all RGB components simultaneously. You can double-click the point to reset the color wheel or double-click the slider handle to reset the luminance.

You can also adjust color wheels with a Tangent control. For more information, see "Using a Tangent control" on page 141.



👷 When you drag the color correction controls, they move in fine increments. To move controls in larger increments, hold Shift while dragging.

Choosing a color space

Click the **Inspector** button **(**) in the toolbar to display the Inspector pane if it isn't already visible. In the Adjust Color workspace, the Color Space section in the Inspector pane provides color space controls that you can use to choose the source and conversion color spaces.

If the selected color space is not compatible with the source color space and cannot be exported, a warning is displayed to notify you.

Choosing a source color space

Click the **Unlock** button and choose a setting from the **Source** drop-down list to choose the color space that should be applied to the source media. When you choose a setting, the video preview is updated. The source color space should be detected automatically and does not need to be changed in most cases.

⁴ The Unlock button is not used when editing RAW or X-OCN video.

Click the **Reset** button at the bottom of the Inspector pane to reset the **Source** color space based on the clip's metadata or the selected SR Live metadata source. For more information, see "SR Live for HDR settings" on page 168.

Converting between HDR/wide color gamut color spaces

When an HDR or wide color gamut color space is selected in the **Source** drop-down list, you can choose a different HDR/WCG color space from the **Convert to** drop-down list to apply grading in the selected color space or apply a look profile that is available in the selected color space.

You can also convert HDR/WCG clips to Rec.709 by choosing **Convert to** > **709(800)**. The 709 (800) setting applies a 1D curve. If you want to use a 3D LUT to convert HDR/WCG clips, you can apply a look profile.

The Convert to drop-down is available only when the Working color space setting is Rec.709, Log, or ACES and you're working with S-Gamut, RAW, and X-OCN source media.

For more information, see "Applying a look profile" on page 136, "Grading with hypergamma conversion" on page 144, or "Applying color correction" on page 147.

Viewing the working color space

The **Working** box displays the color space that will be used for color grading. Click the **Options** button and choose a setting from the **Working color space** drop-down list to change the setting.

Viewing the color space for the video preview

The **Preview** box displays the color space that will be used for the Catalyst Prepare video preview window. Click the **Options** button and choose a setting from the **Preview color space** drop-down list to change the setting.

Viewing the color space for the external monitor

If an external monitor is enabled, the **External monitor** box displays the color space that will be used for the external monitor. Click the **Options** button and choose a setting from the **External monitor color space** drop-down list to change the setting.

If a second external monitor is connected, it will use the Preview color space.

Adjusting exposure, temperature, and tint

Click the **Inspector** button *i* in the toolbar to display the Inspector pane if it isn't already visible. In the Adjust Color workspace, the Source Settings section in the Inspector pane provides the **Exposure**, **Temperature**, and **Tint** sliders to adjust the color content of your clip.

🛃 Exposure, temperature, and tint are not available for all color spaces.

Exposure Index (EI)

When clip with a supported source color space is selected, the **EI mode** controls are displayed. Click an **EI mode** button to choose how you want to apply exposure index settings:

🧭 Files that include EI metadata display the EI on the File tab of the Inspector pane.

Mode	Description
Metadata	Choose Metadata to automatically apply exposure metadata based on camera settings. The Exposure bar (1) and EI indicator (2) display the EI value.
	This mode is selected by default when you choose a clip with EI metadata.
	Exposure:
	The ISO and EI values display the current frame values when playback is stopped.
Manual	Choose Manual to adjust exposure manually.
	This mode is selected by default when you choose an HDR clip that does not include supported EI metadata.
	The Exposure slider (1) will show the EI metadata value of the current frame as a black line, and an EI indicator (2) is displayed below the current value.
	Drag the slider to adjust the overall brightness of your video (a fixed value is applied to all frames).
	Exposure:
Off Choose Off to turn off exposure adjustment. The adjustment slider values are not displayed, and the original sensitivity is used.	

Temperature

Drag the **Temperature** slider to adjust the color temperature (in Kelvin) of your video. Adjusting the temperature modifies the red and blue gain by adding an offset to the temperature setting saved in a clip's metadata.

If your camera does not store color temperature metadata, Catalyst Prepare will use a default setting of 3200K.

Tint

Drag the **Tint** slider to adjust color balance of your video. Adjusting the tint allows you to modify the magenta and green gain to supplement the color temperature.

👷 Double-click a control to reset its value.

Applying a look profile

You can use the **Look** controls to apply a look profile/LUT to an HDR clip when the **Working color space** setting is **Rec.709** or **Log**.

Click the **Inspector** button *i* in the toolbar to display the Inspector pane if it isn't already visible. In the Adjust Color workspace, the Look section in the Inspector pane contains controls to apply a LUT automatically based on metadata, manually, or to turn off LUT processing.

For information about adding custom look profiles, see Manual mode in the following table.

Mode	Description	
Metadata	Choose Metadata to automatically apply LUT metadata based on camera settings. The Embedded LUT box displays the LUT metadata.	
	This mode is only available for clips with supported embedded metadata and is selected by default when you choose a clip with LUT metadata.	
	Files that include LUT metadata display a badge in the Organize pane and display the LUT on the File tab of the Inspector pane.	
Manual	Choose Manual to choose LUT settings manually:	
	 Convert to: Choose a setting from the drop-down list to convert the clip to a different color space. 	
	 Look profile: When Convert to is set to an HDR color space — such as S-Gamut3.Cine/S-Log3, S-Gamut3/S-Log3, Rec.2020/S-Log3, Rec.2020/HLG, Rec.2020/PQ, or Rec.709/HLG — you can choose the look profile you want to apply. 	

Click a **LUT mode** button to choose how you want to apply a look:

Mode	Description	
	2	To add look profiles (including .cube files) to Catalyst Prepare, save them in the following folder and then close and restart the application:
		Windows: C:\Users\ <user>\Documents\Sony\Catalyst\Color\Looks\</user>
		macOS: /Users/ <user>/Documents/Sony/Catalyst/Color/Looks/</user>
		• The sgamut-slog2 subfolder is used for S-Gamut/S-Log2 sources.
		• The sgamut3cine-slog3 subfolder is used for S-Gamut3.Cine/S- Log3 sources or Convert to choices.
		 The sgamut3-slog3 subfolder is used for S-Gamut3/S-Log3 sources or Convert to choices.
		• The rec709-h1g subfolder is used for Rec.709/HLG sources.
		• The rec2020-h1g subfolder is used for Rec.2020/HLG sources.
		• The rec2020-pq subfolder is used for Rec.2020/PQ sources.
		 The rec2020-slog3 subfolder is used for Rec.2020/S-Log3 sources.
	9	If you want to set a default look profile to be applied when no look profile is specified in a clip's metadata, click the Manual button, choose a setting from the Look profile drop-down list, click the Look Tools button <i>f</i> in
		the LOOK heading, and choose Make default.
		To replace the clip's current look profile with the default, click the Manual button, click the Look Tools button <i>H</i> , and choose Reset to default .
Off	Choose Off	to turn off Look settings.

Click the **Reset** button C at the bottom of the Inspector pane to reset the **Look profile** based on the clip's metadata.

Adjusting the tone curve

Click the **Inspector** button *i* in the toolbar to display the Inspector pane if it isn't already visible. In the Adjust Color workspace, the Tone Curve section in the Inspector pane contains a color curve you can

use to adjust the red, green, and blue channels graphically. As you adjust the controls, the waveform/histogram/vectorscope monitor and video preview will update in real time to allow you to check your adjustments.

- Select the channel you want to adjust by clicking the Red, Green, or Blue button below the color curve
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- Click the curve to add a control point.
- Select a control point and drag it to adjust it.
- As you adjust the controls, the waveform/histogram/vectorscope monitor and video preview will update in real time to allow you to check your adjustments. Click **Delete Point** to remove the selected control point.
- Click the Reset button C at the bottom of the Inspector pane to remove all control points.

Adjusting the color correction sliders

Click the **Inspector** button *i* in the toolbar to display the Inspector pane if it isn't already visible. In the Adjust Color workspace, the Color Correction section in the Inspector pane provides **Brightness**, **Contrast, Saturation, Lift, Gamma**, and **Gain** sliders you can use to adjust video levels. As you adjust the controls, the waveform/histogram/vectorscope monitor and video preview will update in real time to allow you to check your adjustments.

The sliders are used to edit ASC-CDL (American Society of Cinematographers Color Decision List) parameters.

For precise control, you can hold Ctrl (Windows) or # (macOS) while dragging or click the numeric value to type a new value.

Drag the Brightness slider to adjust the overall lightness of your video.

Drag the Contrast slider to adjust the overall contrast of your video.

Brightness and contrast are not saved explicitly with ASC-CDL files. When exporting an ASC-CDL file, the Brightness and Contrast settings are incorporated with the other color-correction values. When you reload an exported ASC-CDL file, the Brightness and Contrast settings will be set to 0.

When exchanging color settings with Catalyst Browse and Catalyst Prepare, click the **Tools** button at the bottom of the Catalyst Prepare window and choose **Save preset** from the menu to preserve **Brightness** and **Contrast** settings.

For more information, see "Exporting color-correction settings" on page 156 and "Applying color

correction" on page 139.

Drag the **Saturation** slider to adjust the overall intensity of the color in your video.

To adjust lift, gamma, and gain, drag the **R**, **G**, **B** sliders to adjust the red, green, and blue components of the each parameter, or drag the **Y** slider to adjust luminance for all RGB components simultaneously.

2 Double-click a control to reset its value.

Click the **Undo** and **Redo** buttons to step forward or backward through your recent edits.

Click the **Reset** button **C** at the bottom of the Inspector pane to reset all color correction.

Applying color-correction settings

You can use the **Tools** button of the bottom of the Catalyst Prepare window to load color presets or ASC-CDL (American Society of Cinematographers Color Decision List) files to exchange color-grading information.

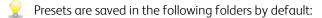
Applying a color preset

Color presets include the source settings (exposure, temperature, and tint), look profile, tone curve, and ASC-CDL settings. For more information, see "Editing Color Adjustments controls" on page 127.

- 1. Click the Organize button at the top of the Catalyst Prepare window to view the Media Browser.
- 2. Double-click a clip in the Media Browser to load the clip you want to edit. When you load a clip, the color-correction settings saved with the clip are loaded.
 - If you want to apply color correction to multiple clips, select the clips, click the **Tools** button at the bottom-left of the Catalyst Prepare window, and choose **Apply color preset** from the menu.

A The Apply color preset command is not available when a clip list or spanned clip (@) is selected.

- 3. Click the Adjust Color button at the bottom of the Catalyst Prepare window.
- 4. Click the Inspector button 🕖 in the toolbar to display the Inspector pane if it isn't already visible.
- 5. Click the **Tools** button *C* at the bottom of the Catalyst Prepare window and choose **Load preset** from the menu.
- 6. In the Load Preset dialog, choose a Catalyst color (.ccolor) file.



Windows: C:\Users\<user>\Documents\Sony\Catalyst\Color\

macOS: /Users/<user>/Documents/Sony/Catalyst/Color

7. Click Load.

The selected color settings are loaded and applied to the current clip.

Applying an ASC-CDL file

- 1. Click the Organize button at the top of the Catalyst Prepare window to view the Media Browser.
- 2. Double-click a clip in the Media Browser to load the clip you want to edit. When you load a clip, the color-correction settings saved with the clip are loaded.
 - If you want to apply color correction to multiple clips, select the clips, click the **Tools** button at the bottom-left of the Catalyst Prepare window, and choose **Apply ASC-CDL** from the menu.
 - The Apply ASC-CDL command is not available when a clip list or spanned clip (@) is selected.
- 3. Click the Adjust Color button at the bottom of the Catalyst Prepare window.
- 4. Click the Inspector button 🕖 in the toolbar to display the Inspector pane if it isn't already visible.
- 5. Click the **Tools** button *f* at the bottom of the Catalyst Prepare window and choose **Load ASC**-**CDL** from the menu.
- 6. In the Load ASC-CDL dialog, choose a *.cdl file.
- 7. Click Load.

The selected color settings are loaded and applied to the current clip.

Using a Tangent control

You can use Tangent Element Tk, Kb, Bt, Mf, Vs, or Tangent Wave control panels to adjust color circles and other parameters.

Tangent Element panels must be connected to your computer via USB. When using Tangent Element-Vs on a tablet, your tablet and the computer running Catalyst Prepare must be connected to the same network.

To enable control, Tangent Hub must be installed on the computer.

For more information about using and configuring Tangent hardware and software, please refer to the Tangent documentation.

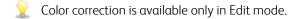
For information about control mappings, please see the control's display or use the Tangent Mapper application.

Video-style (Rec.709) color grading

Use the following workflow when adjusting color grading for video sources.

Grading with Rec.709 gamma

- 1. Click the **Organize** button at the top of the Catalyst Prepare window to view the Media Browser.
- 2. Double-click a clip in the Media Browser to load the clip you want to edit. When you load a clip, the color-correction settings saved with the clip are loaded.



3. Click the Adjust Color button at the bottom of the Catalyst Prepare window. In this mode, Catalyst Prepare displays a waveform/histogram/vectorscope monitor, a video preview, and color controls that you can use to adjust the appearance of your video.

The waveform/histogram/vectorscope monitor and video preview window allow you to monitor your progress as you adjust color values. For more information, see "Editing Color Adjustments controls" on page 127.

- 4. Click the **Inspector** button in the toolbar to display the Inspector pane if it isn't already visible. In the Adjust Color workspace, the Inspector pane provides controls that you will use to adjust colorgrading settings.
- 5. The **Source** drop-down list displays the color space that is applied to your source media. Click the **Unlock** button and choose a setting from the **Source** drop-down list to choose the color space that should be applied to the source media. When you choose a setting, the video preview is updated.
 - The source color space should be detected automatically and does not need to be changed in most cases.
 - Choose S-Gamut/S-Log2 for S-Log2, RAW, or X-OCN sources.
 - Choose S-Gamut3.Cine/S-Log3 or S-Gamut3/S-Log3 for S-Log3, RAW, or X-OCN sources.
- 6. The Working box displays the color space that should be applied to color grading adjustments. Click the **Options** button and choose **Rec.709** from the **Working color space** drop-down list to change the setting if necessary.
- 7. If your source video is set to S-Gamut/S-Log2, S-Gamut3.Cine/S-Log3, S-Gamut3/S-Log3, Rec.2020/S-Log3, Rec.2020/HLG, or Rec.2020/PQ, you can use the Source Settings controls to

adjust the **Exposure**, **Temperature**, and **Tint** of your clip. For more information, see "Editing Color Adjustments controls" on page 127.

- 8. You can use the Look controls to convert an HDR clip to Rec.709 (full). For more information, see "Applying a look profile" on page 136.
- **9.** Use the color wheels and controls in the Inspector pane to adjust your colors as needed. For more information, see "Editing Color Adjustments controls" on page 127.
- 10. Click the **Tools** button *settings* from the menu if you want to export your settings as a 3D LUT file.
 - 3D LUT export is available only when the Source drop-down list is set to an S-Log, RAW, or X-OCN format.

Grading with hypergamma conversion

- 1. Click the **Organize** button at the top of the Catalyst Prepare window to view the Media Browser.
- 2. Double-click a clip in the Media Browser to load the clip you want to edit. When you load a clip, the color-correction settings saved with the clip are loaded.
 - Color correction is available only in Edit mode.
- 3. Click the **Adjust Color** button at the bottom of the Catalyst Prepare window. In this mode, Catalyst Prepare displays a waveform/histogram/vectorscope monitor, a video preview, and color controls that you can use to adjust the appearance of your video.

The waveform/histogram/vectorscope monitor and video preview window allow you to monitor your progress as you adjust color values. For more information, see "Editing Color Adjustments controls" on page 127.

- 4. Click the Inspector button in the toolbar to display the Inspector pane if it isn't already visible. In the Adjust Color workspace, the Inspector pane provides controls that you will use to adjust colorgrading settings.
- 5. The Source drop-down list displays the color space that is applied to your source media. Click the

Unlock button and choose a setting from the **Source** drop-down list to choose the color space that should be applied to the source media. When you choose a setting, the video preview is updated.

- The source color space should be detected automatically and does not need to be changed in most cases.
 - Choose S-Gamut/S-Log2 for S-Log2, RAW, or X-OCN sources.
 - Choose S-Gamut3.Cine/S-Log3 or S-Gamut3/S-Log3 for S-Log3, RAW, or X-OCN sources.
- 6. The Working box displays the color space that should be applied to color grading adjustments. Click the **Options** button and choose **Rec.709** from the **Working color space** drop-down list to change the setting if necessary.
- You can use the Look controls to choose conversion settings to 709(800), HG8009G33, or HG8009G40. For more information, see "Applying a look profile" on page 136.
- 8. If your source video is set to S-Gamut/S-Log2, S-Gamut3.Cine/S-Log3, S-Gamut3/S-Log3, Rec.2020/S-Log3, Rec.2020/HLG, or Rec.2020/PQ, you can use the Source Settings controls to

adjust the **Exposure**, **Temperature**, and **Tint** of your clip. For more information, see "Editing Color Adjustments controls" on page 127.

- **9.** Use the color wheels and controls in the Inspector pane to adjust your colors as needed. For more information, see "Editing Color Adjustments controls" on page 127.
- 10. Click the **Tools** button *C* at the bottom of the Catalyst Prepare window and choose **Export color settings** from the menu if you want to export your settings as a 3D LUT file. For more information, see "Exporting color-correction settings" on page 156.

Log (cinematic) color grading

Use the following workflow when adjusting color grading for Log sources.

- 1. Click the Organize button at the top of the Catalyst Prepare window to view the Media Browser.
- 2. Double-click a clip in the Media Browser to load the clip you want to edit. When you load a clip, the color-correction settings saved with the clip are loaded.
 - 🔀 Color correction is available only in Edit mode.
- 3. Click the Adjust Color button at the bottom of the Catalyst Prepare window. In this mode, Catalyst Prepare displays a waveform/histogram/vectorscope monitor, a video preview, and color controls that you can use to adjust the appearance of your video.

The waveform/histogram/vectorscope monitor and video preview window allow you to monitor your progress as you adjust color values. For more information, see "Editing Color Adjustments controls" on page 127.

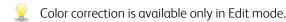
- 4. Click the Inspector button in the toolbar to display the Inspector pane if it isn't already visible. In the Adjust Color workspace, the Inspector pane provides controls that you will use to adjust colorgrading settings.
- 5. The **Source** drop-down list displays the color space that is applied to your source media. Click the **Unlock** button and choose a setting from the **Source** drop-down list to choose the color space that should be applied to the source media. When you choose a setting, the video preview is updated.

- Choose S-Gamut/S-Log2 for S-Log2, RAW, or X-OCN sources.
- Choose S-Gamut3.Cine/S-Log3 or S-Gamut3/S-Log3 for S-Log3, RAW, or X-OCN sources.
- 6. The Working box displays the color space that should be applied to color grading adjustments. Click the **Options** button and choose **Log** from the **Working color space** drop-down list to change the setting if necessary.
- 7. If your source video is set to S-Gamut/S-Log2, S-Gamut3.Cine/S-Log3, or S-Gamut3/S-Log3, you can use the Source Settings controls to adjust the Exposure, Temperature, and Tint of your clip. For more information, see "Editing Color Adjustments controls" on page 127.
- **8.** Use the color wheels and controls in the Inspector pane to adjust your colors as needed. For more information, see "Editing Color Adjustments controls" on page 127.
- 9. You can use the Look controls to convert an HDR clip to Rec.709 (full). For more information, see "Applying a look profile" on page 136.
- 10. Click the **Tools** button at the bottom of the Catalyst Prepare window and choose **Export color settings** from the menu if you want to export your settings as a 3D LUT file. For more information, see "Exporting color-correction settings" on page 156.

Advanced cinematic (ACES) color grading

Use the following workflow when adjusting color grading in the Academy Color Encoding System (ACES) color space.

- 1. Click the Organize button at the top of the Catalyst Prepare window to view the Media Browser.
- 2. Double-click a clip in the Media Browser to load the clip you want to edit. When you load a clip, the color-correction settings saved with the clip are loaded.



3. Click the **Adjust Color** button at the bottom of the Catalyst Prepare window. In this mode, Catalyst Prepare displays a waveform/histogram/vectorscope monitor, a video preview, and color controls that you can use to adjust the appearance of your video.

The waveform/histogram/vectorscope monitor and video preview window allow you to monitor your progress as you adjust color values. For more information, see "Editing Color Adjustments controls" on page 127.

- 4. Click the Inspector button in the toolbar to display the Inspector pane if it isn't already visible. In the Adjust Color workspace, the Inspector pane provides controls that you will use to adjust colorgrading settings.
- 5. The **Source** drop-down list displays the color space that is applied to your source media. Click the **Unlock** button and choose a setting from the **Source** drop-down list to choose the color space that should be applied to the source media. When you choose a setting, the video preview is updated.
 - Choose S-Gamut/S-Log2 for S-Log2, RAW, or X-OCN sources.
 - Choose S-Gamut3.Cine/S-Log3 or S-Gamut3/S-Log3 for S-Log3, RAW, or X-OCN sources.
- 6. The Working box displays the color space that should be applied to color grading adjustments. Click the **Options** button and choose **ACES** from the **Working color space** drop-down list to change the setting if necessary.
- 7. If your source video is set to S-Gamut/S-Log2, S-Gamut3.Cine/S-Log3, or S-Gamut3/S-Log3, you can use the Source Settings controls to adjust the Exposure, Temperature, and Tint of your clip. For more information, see "Editing Color Adjustments controls" on page 127.
- 8. Use the color wheels and controls in the Inspector pane to adjust your colors as needed. For more information, see "Editing Color Adjustments controls" on page 127.
- 9. Click the **Tools** button f at the bottom of the Catalyst Prepare window and choose **Export color** settings from the menu if you want to export your settings as a 3D LUT file.

Output will be Rec.709 (full).

For more information, see "Exporting color-correction settings" on page 156.

High Dynamic Range (HDR) color grading

Use the following workflow to adjust color grading in the Rec.2020/S-Log3 color space and then convert to high dynamic range (Rec.2020/S-Log3, Rec.2020/HLG, or Rec.2020/PQ) or standard dynamic range (Rec.2020 or Rec.709) color spaces for distribution.

- 1. Adjust Catalyst Prepare options for HDR color grading:
 - a. Click the Options button .
 - b. From the Working color space drop-down list, choose Rec.2020/S-Log3 (HDR).

When you choose **Rec.2020/S-Log3** from the **Working color space** drop-down list, the SR Live for HDR controls are displayed to allow you to convert between standard- and high-dynamic-range content:

SR Live metadata source

Choose a setting from the **SR Live metadata source** drop-down list to choose how SR Live metedata processing is performed:

- When SR Live metadata source is set to None and Adjust SR Live settings manually is off, no SR Live processing is performed.
- When SR Live metadata source is set to None and Adjust SR Live settings manually is on, SR Live processing is performed only for the visible controls.
- When SR Live metadata source is set to Clip and Adjust SR Live settings manually is off, metadata settings from the current clip are used when converting between standard- and high-dynamic-range content.
- When SR Live metadata source is set to Clip and Adjust SR Live settings manually is on, metadata settings from the current clip and manual control settings are used when converting between standard- and high-dynamic-range content. For more information, see "Adjust SR Live settings manually" on page 149.
- When SR Live metadata source is set to External file and Adjust SR Live settings manually is off, metadata settings from an external .srm file are used when converting between standard- and high-dynamic-range content.
- When SR Live metadata source is set to External file and Adjust SR Live settings manually is on, metadata settings from an external .srm file and manual control settings are used when converting between standard- and high-dynamicrange content. For more information, see "Adjust SR Live settings manually" on page 149.
 - When **SR Live metadata source** is set to **Clip** or **External file**, Catalyst Prepare uses recommended SR Live values for clips generated by Sony devices even if SR Live metadata values are not present in the clip.

When **SR Live metadata source** is set to **External file**, the selected file's values are used as SR Live default values.

Adjust SR Live settings manually

Enable the Adjust SR Live settings manually switch to enable the SDR gain, SDR knee, and Black adjustment switches to manually control settings for converting between standard- and high-dynamic-range content.

When SR Live metadata source is set to Clip or External file and Adjust SR Live settings manually is on, clip metadata and manual control settings are used for conversion.

Click the **Load** button to load settings from the selected clip and set the **SDR gain**, **SDR knee**, and **Black adjustment** controls to match the clip settings. You can then finetune the settings manually, and the manual adjustments will be used for conversion.

You can double-click a control to reset it to the default value. When **SR Live metadata source** is set to **External file**, the selected file's values are used as SR Live default values.

SR Live settings are applied in the following cases:

- When exporting Rec.2020/S-Log3, S-Gamut3/S-Log3, S-Gamut3.Cine/S-Log3, or Sony RAW/X-OCN source clips to Rec.2020/S-Log3, Rec.2020/HLG, Rec.2020/PQ, or SDR formats when the Output color space drop-down is set to Same as preview or Same as external monitor.
- When exporting Rec.2020/HLG clips to Rec.2020/HLG or SDR formats when the Output color space drop-down is set to Same as preview or Same as external monitor.
- When exporting Rec.2020/PQ clips to Rec.2020/PQ or SDR formats when the **Output** color space drop-down is set to **Same as preview** or **Same as external monitor**.
- When exporting SDR clips to Rec.2020/S-Log3, Rec.2020/HLG, Rec.2020/PQ, or SDR formats when the Output color space drop-down is set to Same as preview or Same as external monitor.
- When Use SR Live metadata is off and Adjust SR Live settings manually is off, color management uses default settings, and no SR Live processing is performed.

When Output color space is set to Rec.2020/HLG AIR Matching, Rec.2020/HLG (bypass OOTF), Rec.2020/PQ AIR Matching, or Rec.2020/PQ (bypass OOTF) in Options, no SR Live processing is performed.

Conversion mode

When **External file** is selected in the **SR Live metadata source** drop-down list, the Conversion mode section displays conversion settings for the selected external .srm file:

- ° Conversion mode displays the file's HDR/SDR conversion mode.
- HDR look displays the file's look setting for source HDR content.
- HDR black compression indicates whether black compression is enabled to improve the appearance of low-luminance levels.

SDR gain

When the switch is enabled, you can drag the **Gain** slider to choose the gain that is applied when reading SDR content or when exporting to an SDR format or displaying on an SDR display.

For example, if you set the slider to -6.0 dB, a linear gain of +6.0 dB (2.0x) is applied when reading SDR content, and a linear gain of -6.0 dB (0.5x) is applied when exporting to an SDR format or displaying on an SDR display.

Black adjustment

Enable the **Black adjustment** switch to adjust black levels:

- ° Drag the Master black slider to adjust the master black level.
- Drag the HDR black offset slider to apply an offset to the Master black value for HDR content.
 - A The Master black and HDR black offset values should match the settings on the HDRC-4000 HDR Production Converter Unit.

On the HDRC-4000, the SETTING MODE should be set to SONY SYSTEM CAMERA, and the ABS mode should be set to enabled.

Gamma settings

When **External file** is selected in the **SR Live metadata source** drop-down list, the Gamma section displays gamma settings for the selected external .srm file:

• Table displays the file's gamma table.

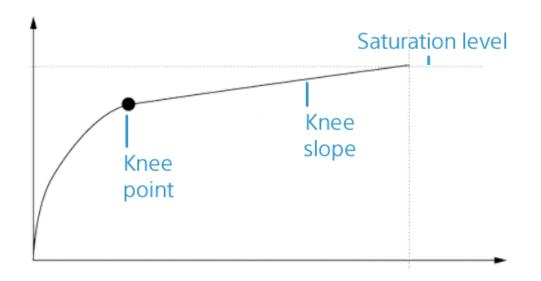
When a hypergamma value is selected, you must adjust the **SDR gain** value manually:

- Hyper 1: Increase SDR gain by 5.0 dB. For example, if your clip's original SDR gain value is -6.0 dB, you will need to increase SDR gain by 5.0 dB for an SDR gain value of -1.0 dB.
- Hyper 2: Increase SDR gain by 8.0 dB. For example, if your clip's original SDR gain value is -6.0 dB, you will need to increase SDR gain by 8.0 dB for an SDR gain value of 2.0 dB.
- Hyper 3: Increase SDR gain by 3.0 dB. For example, if your clip's original SDR gain value is -6.0 dB, you will need to increase SDR gain by 3.0 dB for an SDR gain value of -3.0 dB.
- Hyper 4: Increase SDR gain by 6.0 dB. For example, if your clip's original SDR gain value is -6.0 dB, you will need to increase SDR gain by 6.0 dB for an SDR gain value of 0.0 dB.
- Step indicates the gamma strength in steps (0.35 to 0.90).
- Level indicates the gamma strength in analog values from -100 to 100.

SDR knee

Select the **SDR knee** switch to apply a knee curve to the RGB output gain when exporting HDR content to an SDR format or displaying on an SDR display. While the **SDR gain** setting applies a linear gain, a knee curve can help preserve midrange colors and highlights.

- When using knee parameters on the Sony HDRC-4000 HDR Production Converter Unit, please enable ABS mode and confirm the R, G, B values in the HDRC-4000. Adjust the values in Catalyst Prepare to match. Using different R, G, B values is not supported.
 - ° Drag the **Point** slider to adjust the position of the knee point in the curve.
 - ° Drag the **Slope** slider to adjust the slope of the curve above the knee point.
 - To adjust the color intensity in the output image, select the SDR knee saturation switch and drag the Level slider. Increasing the saturation can help compensate for decreased saturation around the knee curve.



White clip

When **External file** is selected in the **SR Live metadata source** drop-down list, the White clip section displays the white clip settings for the selected external .srm file:

White clip indicates whether the white clip level is used when exporting HDR content to an SDR format or displaying on an SDR display.

Level indicates the white clip level: 0 is the default setting; lower settings decrease the white clip level, and higher settings increase the clip level.

The File tab in the Inspector displays the SDR White Clip and SDR White Clip Level settings for the selected clip.

HDR knee

When External file is selected in the SR Live metadata source drop-down list, the HDR knee section displays information about the HDR knee curve for the selected external .srm file. The HDR knee curve is applied to the luminance (Y) when exporting HDR content to an SDR format or displaying on an SDR display. The HDR knee value adjusts brightness to conform to SDR output.

When using knee parameters on the Sony HDRC-4000 HDR Production Converter Unit, please enable ABS mode and confirm the R, G, B values in the HDRC-4000. Adjust the values in Catalyst Prepare to match. Using different R, G, B values is not supported.

- Point indicates the position of the knee point in the curve.
- ° Slope indicates the slope of the curve above the knee point.

c. From the **Preview color space** drop-down list, choose the color space for the Catalyst Prepare video preview window.

In most cases, choose **Rec. 709** for your computer monitor, or you can choose other settings to check your video using scopes. For more information, see "Loading a clip/clip list for color adjustments and configuring the waveform, histogram, and vectorscope monitors" on page 127.

d. From the **External monitor color space** drop-down list, choose the setting that matches the EOTF (electro-optical transfer function) setting on your external monitor.

You can use the AIR Matching (Artistic Intent Rendering) or bypass OOTF settings to achieve a consistent look between external-monitor previews and rendered clips.

Using AIR Matching to monitor using the S-Log3 (Live HDR) EOTF

Sony BVM-X300 version 2.0 monitor settings:

- ° Color Space: ITU-R BT.2020
- EOTF: S-Log3 (Live HDR)
- ° Transfer Matrix: ITU-R BT.2020
- In the Catalyst Prepare Options menu, choose **Rec.2020/S-Log3** from the **External monitor color space** drop-down list.

Content mastered using these settings and rendered to HLG or PQ with AIR Matching should have the same look on HLG or PQ monitors or televisions.

Using bypass OOTF to monitor using the S-Log3 (HDR) EOTF

Sony BVM-X300 version 2.0 monitor settings:

- Color Space: ITU-R BT.2020
- ° EOTF: S-Log3 (HDR)
- ° Transfer Matrix: ITU-R BT.2020
- In the Catalyst Prepare Options menu, choose Rec.2020/S-Log3 from the External monitor color space drop-down list.

Content mastered using these settings and rendered to HLG or PQ with bypass OOTF should have the same look on HLG or PQ monitors or televisions.

Converting HDR media to SDR color spaces

When converting HDR media to standard dynamic range color spaces, use the following settings to preserve your Rec.2020/S-Log3 grading (the dynamic range of the HDR color space will be clamped to the BT.709 gamma curve):

- In Options, set the Working color space to Rec.2020/S-Log3 (HDR).
 - In Options, enable the **SDR gain** and **SDR knee** switches and adjust the controls to choose the gain and knee curve that will be applied when exporting to an SDR format or displaying on an SDR display.
 - In Options, set the Preview color space for the video preview to Rec.709 or Rec.2020.

When converting HDR media to standard dynamic range color spaces, use the following settings to preserve more of the dynamic range of the original HDR media:

- In Options, set the Working color space to Rec.709.
- In the Inspector, set the **Convert to** color space to **709(800)**, **HG8009G33**, or **HG8009G40**.
- e. From the External monitor device drop-down list, choose the device where you've connected a monitor that supports the Rec.2020 color gamut and an HDR luminance curve, such as the Sony BVM-X300.
- f. From the **Monitor resolution** drop-down list, choose the appropriate resolution for your external monitor.
- 2. Click the Organize button at the top of the Catalyst Prepare window to view the Media Browser.
- 3. Double-click a clip in the Media Browser to load the clip you want to edit. When you load a clip, the color-correction settings saved with the clip are loaded.

🝸 Color correction is available only in Edit mode.

4. Click the Adjust Color button at the bottom of the Catalyst Prepare window. In this mode, Catalyst Prepare displays a waveform/histogram/vectorscope monitor, a video preview, and color controls that you can use to adjust the appearance of your video.

The waveform/histogram/vectorscope monitor and video preview window allow you to monitor your progress as you adjust color values. For more information, see "Editing Color Adjustments controls" on page 127.

- 5. Click the **Inspector** button *i* in the toolbar to display the Inspector pane if it isn't already visible. In the Adjust Color workspace, the Inspector pane provides controls that you will use to adjust colorgrading settings.
- 6. Use the color wheels and controls in the Inspector pane to adjust your colors as needed. For more information, see "Editing Color Adjustments controls" on page 127.

 Click the Tools button at the bottom of the Catalyst Prepare window and choose Export color settings from the menu if you want to export your settings as a 3D LUT file.

For more information, see "Exporting color-correction settings" on page 156.

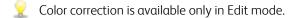
Exporting color-correction settings

You can use the **Tools** button at the bottom of the Catalyst Prepare window to export color-correction settings to cameras for on-set monitoring or to a nonlinear editor (NLE) for color grading.

Saving a color preset

Color presets include the source settings (exposure, temperature, and tint), look profile, tone curve, and ASC-CDL settings. For more information, see "Editing Color Adjustments controls" on page 127.

- 1. Click the Organize button at the top of the Catalyst Prepare window to view the Media Browser.
- 2. Double-click a clip in the Media Browser to load the clip you want to edit. When you load a clip, the color-correction settings saved with the clip are loaded.



- 3. Click the Adjust Color button at the bottom of the Catalyst Prepare window.
- 4. Click the Inspector button 🕖 in the toolbar to display the Inspector pane if it isn't already visible.
- 5. Click the **Tools** button at the bottom of the Catalyst Prepare window and choose **Save preset** from the menu.
- 6. In the Save Preset dialog, type a file name to identify your Catalyst color (.ccolor) file.
 - Yresets are saved in the following folders by default:

Windows: C:\Users\<user>\Documents\Sony\Catalyst\Color\

macOS: /Users/<user>/Documents/Sony/Catalyst/Color

7. Click OK.

Exporting an ASC-CDL file

- 1. Click the Organize button at the top of the Catalyst Prepare window to view the Media Browser.
- 2. Double-click a clip in the Media Browser to load the clip you want to edit. When you load a clip, the color-correction settings saved with the clip are loaded.
 - 👷 Color correction is available only in Edit mode.
- 3. Click the **Adjust Color** button at the bottom of the Catalyst Prepare window. In this mode, Catalyst Prepare displays a waveform/histogram/vectorscope monitor, a video preview, and color controls that you can use to adjust the appearance of your video.
- 4. Click the Inspector button 🕐 in the toolbar to display the Inspector pane if it isn't already visible and adjust your color settings as needed. For more information, see "Editing Color Adjustments controls" on page 127.
 - Saturation and color wheel/slider settings are saved with ASC-CDL files. Tone curve settings are not saved.
 - Brightness and contrast are not saved explicitly with ASC-CDL files. When exporting an ASC-CDL file, the **Brightness** and **Contrast** settings are incorporated with the other colorcorrection values. When you reload an exported ASC-CDL file, the **Brightness** and **Contrast** settings will be set to 0.

When exchanging color settings with Catalyst Browse and Catalyst Prepare, click the **Tools** button *settings* at the bottom of the Catalyst Prepare window and choose **Save preset** from the menu to preserve **Brightness** and **Contrast** settings.

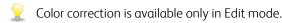
For more information, see "Exporting color-correction settings" on page 156 and "Applying color correction" on page 139.

- 5. Click the **Tools** button at the bottom of the Catalyst Prepare window and choose **Export color** settings from the menu.
- 6. Use the Export As dialog box to specify the folder, file name, and settings you want to export:
 - a. Use the browser to select the folder where you want to save your file.
 - **b.** In the **File name** box, type the path and file name you want to save your color-correction settings.
 - c. Choose ASC-CDL from the Format drop-down list.
- 7. Click Export.

Exporting a 3D LUT

When the **Working color space** in Options is set to **Rec.2020/S-Log3 (HDR)**, you can export a 3D LUT (look-up table) to capture your color settings — including the application of SR Live metadata — that can be applied in nonlinear editing software or a hardware LUT box.

- 1. Click the **Organize** button at the top of the Catalyst Prepare window to view the Media Browser.
- 2. Double-click a clip in the Media Browser to load the clip you want to edit. When you load a clip, the color-correction settings saved with the clip are loaded.



- 3. Click the Adjust Color button at the bottom of the Catalyst Prepare window. In this mode, Catalyst Prepare displays a waveform/histogram/vectorscope monitor, a video preview, and color controls that you can use to adjust the appearance of your video.
- 4. Click the **Inspector** button **O** in the toolbar to display the Inspector pane if it isn't already visible and adjust your color settings as needed. For more information, see "Editing Color Adjustments controls" on page 127.
- 5. Click the **Tools** button at the bottom of the Catalyst Prepare window and choose **Export color** settings from the menu.
- 6. Use the Export As dialog box to specify the folder, file name, and settings you want to export:
 - a. Use the browser to select the folder where you want to save your file.
 - b. In the File name box, type the file name you want to use to save your 3D LUT.
 - When SR Live metadata source is set to External file in Options, the base name of the selected SRM file is provided by default. For more information, see "SR Live for HDR settings" on page 168.
 - c. Choose a setting from the **Format** drop-down list to choose the type of 3D LUT you want to create:
 - Choose 3D LUT (NLE .cube) to create a 3D LUT you can use with an NLE such as Blackmagic Design DaVinci Resolve or Adobe Premiere Pro.
 For more information, see "Applying a 3D LUT in Adobe Premiere Pro" on page 162 or "Applying a 3D LUT in Blackmagic Design DaVinci Resolve" on page 161.

- Choose 3D LUT (SDI/SMPTE .cube) to create a 3D LUT you can use with a hardware LUT box.
- d. If the input color space is S-Log2 or S-Log3 and the Format is set to 3D LUT (NLE .cube), you can select the Extended S-Log input range check box and choose a setting from the Type drop-down list to specify an extended input range.
 - ° Choose IRIDAS/Adobe to create a 3D LUT you can use with Adobe Premiere Pro.
 - ° Choose DaVinci Resolve to create a 3D LUT you can use with DaVinci Resolve.
 - The Extended S-Log input range check box is used to correct for cases where an NLE treats files that use full range (such as S-Log3) as legal range. If the NLE has an input range setting, such as newer versions of Resolve, you do not need to select the Extended S-Log input range check box.
- e. Choose a setting from the **Input color space** drop-down list to specify the color space that will be used as the input of the LUT.
- f. Choose a setting from the **Output color space** drop-down list to specify the color space that will be used as the output of the LUT.
 - Output color space is available only when the Working color space is set to Rec.2020/S-Log3 (HDR). For more information, see "Applying color correction" on page 147.
- g. Choose a setting from the **Precision** drop-down list box to choose a standard (33x33x33) or high-precision (65x65x65) LUT.
- h. Select the **Source settings** check box if you want to include exposure, temperature, and tint settings with your LUT.
- i. Select the **Convert to setting** check box if you want to export your LUT using the Hypergamma setting selected in the **Convert to** drop-down list in the Inspector.
 - The **Convert to setting** check box is available only when the **Working color space** in Options is set to **Rec.709** and the **Convert to** drop-down in the Inspector pane is set to a Hypergamma conversion choice, such as **709(800)** or **HG8009G33**.
- j. Select the **Look profile** check box if you want to include the selected look profile from the Inspector in your LUT.

The Look profile check box is displayed below the Convert to drop-down list when the Working color space in Options is set to Rec.709 and the Convert to drop-down in the Inspector pane is not set to a Hypergamma conversion choice.

The **Look profile** check box is displayed below the **Color correction** check box when the **Working color space** in Options is set to **Log**.

- k. Select the **Tone curve** check box if you want to include the tone curve from the Inspector in your LUT.
- I. Select the **Color correction** check box if you want to include the color correction adjustments from the Inspector in your LUT.
- 7. Click Export. The LUT file will be saved in the folder you selected in step 6a.

Applying a 3D LUT in Blackmagic Design DaVinci Resolve

- 1. Follow the instructions in "Exporting a 3D LUT" on page 158 to save your 3D LUT file in **3D LUT** (NLE .cube) format.
- 2. Save the 3D LUT file in the following folder:
 - Windows: C:\ProgramData\Blackmagic Design\DaVinci Resolve\Support\LUT\Sony
 - macOS:/macOS/Library/Application Support/Blackmagic Design/DaVinci Resolve/LUT/Sony

🔶 Tips:

- To locate the LUT folder, choose File > Project Settings in Resolve, and then click the Open LUT Folder button on the Color Management tab.
- Use the **3D Lookup Table Interpolation** drop-down list to set 3D LUT interpolation to be **Trilinear** or **Tetrahedral**.
- 3. Ensure your project is set to use the intended output color space (typically Rec.709) on the timeline:
 - a. In Resolve, choose File > Project Settings.
 - b. Click the Color Management tab.
 - c. From the Color science drop-down list, choose DaVinci YRGB.
 - From the Timeline color space drop-down list, choose a Rec.709 color space, such as Rec.709 (Scene).
 - e. Click Save.
- 4. To apply the LUT to a clip, right-click the media thumbnail, choose LUT from the shortcut menu, choose Sony, and then choose the 3D LUT you want to use:

If the source media color space uses Legal range (such as HLG XAVC), no further actions are required.

If the source media color space uses Full range (such as S-Log3, for example), you must tell Resolve not to stretch the media range: right-click the media thumbnail, choose **Clip Attributes**, and then change **Data Levels** to **Full**.

Applying a 3D LUT in Adobe Premiere Pro

- 1. Follow the instructions in "Exporting a 3D LUT" on page 158 to save your 3D LUT file in **3D LUT** (NLE .cube) format.
- 2. Ensure your sequence is set to use the intended output color space (typically Rec.709) as its working color space.
 - a. In Premiere Pro, choose Sequence > Sequence Settings.
 - b. From the Working Color Space drop-down list, choose Rec.709.
 - c. Click OK.
- 3. Right-click the media in the Premiere Pro media window, choose **Modify** from the shortcut menu, and then choose **Interpret Footage**.
 - When working with S-Log3 and/or HLG files containing SR Live metadata in Premiere Pro 2022, you can skip steps 3-6 if you want to convert from S-Log3/HLG to Rec.709. If you want to use a specific 3D LUT in Premiere Pro 2022, please perform steps 3-6 and refer to the Premiere Pro documentation for specific usage information.
- 4. In the Color Management section, open the Input LUT selector.
- 5. Select the 3D LUT file you want to use:
 - To use an existing 3D LUT, choose it from the selector.
 - To add a new 3D LUT, choose Add LUTs and browse to the folder where you've saved the 3D LUT you want to use.
- Set the Color Space Override selector to match the output color space of the LUT (typically Rec.709).

Chapter 7

Editing Catalyst Prepare options

Click the **Options** button to edit your application options.

Y If you need to reset all Catalyst Prepare options to their default values, hold Control + Shift when starting the application.

Application settings

Choosing a video processing device

Choose a setting from the **Video processing device** drop-down list to enable or bypass GPUaccelerated video playback and transcoding.

Choose **CPU** if you want to turn off GPU acceleration, or choose a device from the list to enable GPUaccelerated playback.

A The optimal GPU device is automatically selected. Changing this value is intended for advanced users and may be useful for troubleshooting technical problems.

Computers equipped with CPUs that utilize Intel's Quick Sync Video (QSV) technology see improved processing performance for decoding H.264/AVC/MPEG-4 video files.

When using a device other than your CPU, high-quality deinterlacing and upscaling are applied to convert SD and HD sources to modern progressive HD and UHD assets. Please note that some systems with limited GPU memory are not supported.

- High-quality deinterlacing is applied to interlaced source media when playback is paused, during transcoding, and during playback when the Playback Settings Speed/Quality setting is set to Quality.
- High-quality upscaling is applied during transcoding when you choose an HD or UHD render preset.

Enabling OpenCL/OpenGL interoperability

OpenCL/OpenGL interoperability allows OpenCL and OpenGL to share rendered frames and can improve playback performance, but it can cause instability with some hardware and drivers.

- Select Performance to enable OpenCL and OpenGL interoperability. We recommend using this setting in most cases for optimum playback performance.
- Select Compatibility to turn off interoperability if you notice artifacts or corruption in rendered frames.
 - After changing the OpenCL/OpenGL interoperability setting, please restart Catalyst Prepare for the change to take effect.

Choosing a default transcoding format

Choose a setting from the **Default transcode format** drop-down list to choose the format that will be used when copying partial clips that cannot be copied in their source format or when uploading to Ci.

For more information, see "Exporting media from a library" on page 24 or "Organizing media in a library" on page 15.

Choosing a map service for GPS links

Choose a setting from the **Open GPS links with** drop-down list to choose the map service that will be used to display maps when you click GPS links in a clip's metadata.

For more information, see "Viewing and editing metadata" on page 101.

Enabling the secondary window

Enable the **Secondary preview window** switch if you want to show the video preview in a secondary window that you can position anywhere on your screen or on a secondary monitor.

Enable proxy clip playback

Enable the **Preview using proxy clips** switch if you want to use proxy clips for playback if they are available.

If you're working on a system with limited processing power, creating a proxy file will allow you to preview your media more efficiently.

🦷 Video proxy files are used for playback only.

Enable half-step timecode for 50p/60p sources

Enable the **50p/60p half-step timecode display** switch if you want to display half-step timecode for each field in 50p/60p sources. The timecode for field two will be displayed with an asterisk appended:

Field 1:01:00:17:17

Field 2: 01:00:17:17*

Show or hide thumbnail frames

Enable the **Show thumbnails** switch if you want to display thumbnail images in the Media Browser. Turning off the switch can improve performance on some slower storage devices.

Automatically rotate thumbnail frames

Enable the **Automatically rotate thumbnails** switch to detect clip rotation and adjust thumbnail images in Organize mode.

For more information, see "Working with rotated clips."

Choosing snapshot settings

The **Save snapshots to** box displays the path to the folder where the files will be saved when you save a snapshot of the current frame. You can type a path in the box or click the **Browse** button to choose a folder.

Choose a setting from the **Snapshot image format** drop-down list to choose the file format that will be used for snapshots.

For more information, see "Creating a snapshot of a frame" on page 97.

Color management settings

Working color space

Choose a setting from the **Working color space** drop-down list to choose the color space that will be used for color grading.

For more information, see "Applying color correction" on page 127.

When you choose **Rec.2020/S-Log3** from the **Working color space** drop-down list, the SR Live for HDR controls are displayed to allow you to convert between standard- and high-dynamic-range content. For more information, see "SR Live for HDR settings" on page 168.

Video preview color space

From the **Preview color space** drop-down list, choose the color space for the Catalyst Prepare video preview window.

In most cases, choose **Rec.709** for your computer monitor, or you can choose other settings to check your video using scopes. For more information, see "Loading a clip/clip list for color adjustments and configuring the waveform, histogram, and vectorscope monitors" on page 127.

For more information, see "Applying color correction" on page 127.

External monitor color space

Choose a setting from the **External monitor color space** drop-down list to choose the color space that matches the EOTF (electro-optical transfer function) setting on your external monitor.

External monitor color space in Catalyst Prepare	Color Space	EOTF	Transfer Matrix
Rec.709	ITU-R BT.709	i.e. 2.4	ITU-R BT.709
Rec.2020	ITU-R BT.2020	i.e. 2.4	ITU-R BT.2020
Rec.2020/S-Log-3	ITU-R BT.2020	S-Log3(Live HDR) or S-Log3(HDR)	ITU-R BT.2020
Rec.2020/HLG, Rec.2020/HLG AIR Matching, or Rec.2020/HLG (bypass OOTF)	ITU-R BT.2020	HLG SG Variable(HDR), HLG System Gamma 1.2	ITU-R BT.2020
Rec.2020/PQ, Rec.2020/PQ AIR Matching, or Rec.2020/PQ (bypass OOTF)	ITU-R BT.2020	SMPTE ST 2084(HDR)	ITU-R BT.2020

When using the Sony BVM-X300 version 2.0, please use the following monitor settings:

When **Rec.2020/S-Log3 (HDR)** is selected from the **Working color space** drop-down list, you can use the AIR Matching (Artistic Intent Rendering) or bypass OOTF settings to achieve a consistent look between external-monitor previews and rendered clips.

Using AIR Matching to monitor using the S-Log3 (Live HDR) EOTF

Sony BVM-X300 version 2.0 monitor settings:

- Color Space: ITU-R BT.2020
- EOTF: S-Log3 (Live HDR)
- Transfer Matrix: ITU-R BT.2020
- In the Catalyst Prepare Options menu, choose Rec.2020/S-Log3 from the External monitor color space drop-down list.

Content mastered using these settings and rendered to HLG or PQ with AIR Matching should have the same look on HLG or PQ monitors or televisions.

Using bypass OOTF to monitor using the S-Log3 (HDR) EOTF

Sony BVM-X300 version 2.0 monitor settings:

- Color Space: ITU-R BT.2020
- EOTF: S-Log3 (HDR)
- Transfer Matrix: ITU-R BT.2020
- In the Catalyst Prepare Options menu, choose Rec.2020/S-Log3 from the External monitor color space drop-down list.

Content mastered using these settings and rendered to HLG or PQ with bypass OOTF should have the same look on HLG or PQ monitors or televisions.

Converting HDR media to SDR color spaces

When converting HDR media to standard dynamic range color spaces, use the following settings to preserve your Rec.2020/S-Log3 grading (the dynamic range of the HDR color space will be clamped to the BT.709 gamma curve):

- In Options, set the Working color space to Rec.2020/S-Log3 (HDR).
- In Options, enable the SDR gain switch and adjust the Gain slider to choose the gain that will be applied when exporting to an SDR format or displaying on an SDR display.
- In Options, set the Preview color space to Rec.709 or Rec.2020.

When converting HDR media to standard dynamic range color spaces, use the following settings to preserve more of the dynamic range of the original HDR media:

- In Options, set the Working color space to Rec.709.
- In the Inspector, set the Convert to color space to 709(800), HG8009G33, or HG8009G40.

For more information, see "Applying color correction" on page 147.

SR Live for HDR settings

When you choose **Rec.2020/S-Log3** from the **Working color space** drop-down list, the SR Live for HDR controls are displayed to allow you to convert between standard- and high-dynamic-range content:

SR Live metadata source

Choose a setting from the **SR Live metadata source** drop-down list to choose how SR Live metedata processing is performed:

- When SR Live metadata source is set to None and Adjust SR Live settings manually is off, no SR Live processing is performed.
- When SR Live metadata source is set to None and Adjust SR Live settings manually is on, SR Live processing is performed only for the visible controls.
- When SR Live metadata source is set to Clip and Adjust SR Live settings manually is off, metadata settings from the current clip are used when converting between standard- and highdynamic-range content.
- When SR Live metadata source is set to Clip and Adjust SR Live settings manually is on, metadata settings from the current clip and manual control settings are used when converting between standard- and high-dynamic-range content. For more information, see "Adjust SR Live settings manually" on page 169.
- When SR Live metadata source is set to External file and Adjust SR Live settings manually is off, metadata settings from an external .srm file are used when converting between standardand high-dynamic-range content.
- When SR Live metadata source is set to External file and Adjust SR Live settings manually is on, metadata settings from an external .srm file and manual control settings are used when converting between standard- and high-dynamic-range content. For more information, see "Adjust SR Live settings manually" on page 169.

When **SR Live metadata source** is set to **Clip** or **External file**, Catalyst Prepare uses recommended SR Live values for clips generated by Sony devices even if SR Live metadata values are not present in the clip.

When **SR Live metadata source** is set to **External file**, the selected file's values are used as SR Live default values.

Adjust SR Live settings manually

Enable the Adjust SR Live settings manually switch to enable the SDR gain, SDR knee, and Black adjustment switches to manually control settings for converting between standard- and high-dynamic-range content.

When **SR Live metadata source** is set to **Clip** or **External file** and **Adjust SR Live settings manually** is on, clip metadata and manual control settings are used for conversion.

Click the **Load** button to load settings from the selected clip and set the **SDR gain**, **SDR knee**, and **Black adjustment** controls to match the clip settings. You can then fine-tune the settings manually, and the manual adjustments will be used for conversion.

You can double-click a control to reset it to the default value. When **SR Live metadata source** is set to **External file**, the selected file's values are used as SR Live default values.

SR Live settings are applied in the following cases:

- When exporting Rec.2020/S-Log3, S-Gamut3/S-Log3, S-Gamut3.Cine/S-Log3, or Sony RAW/X-OCN source clips to Rec.2020/S-Log3, Rec.2020/HLG, Rec.2020/PQ, or SDR formats when the Output color space drop-down is set to Same as preview or Same as external monitor.
- When exporting Rec.2020/HLG clips to Rec.2020/HLG or SDR formats when the Output color space drop-down is set to Same as preview or Same as external monitor.
- When exporting Rec.2020/PQ clips to Rec.2020/PQ or SDR formats when the Output color space drop-down is set to Same as preview or Same as external monitor.
- When exporting SDR clips to Rec.2020/S-Log3, Rec.2020/HLG, Rec.2020/PQ, or SDR formats when the Output color space drop-down is set to Same as preview or Same as external monitor.
- When Use SR Live metadata is off and Adjust SR Live settings manually is off, color management uses default settings, and no SR Live processing is performed.

When Output color space is set to Rec.2020/HLG AIR Matching, Rec.2020/HLG (bypass OOTF), Rec.2020/PQ AIR Matching, or Rec.2020/PQ (bypass OOTF) in Options, no SR Live processing is performed.

Conversion mode

When **External file** is selected in the **SR Live metadata source** drop-down list, the Conversion mode section displays conversion settings for the selected external .srm file:

- Conversion mode displays the file's HDR/SDR conversion mode.
- HDR look displays the file's look setting for source HDR content.
- HDR black compression indicates whether black compression is enabled to improve the appearance of low-luminance levels.

SDR gain

When the switch is enabled, you can drag the **Gain** slider to choose the gain that is applied when reading SDR content or when exporting to an SDR format or displaying on an SDR display.

For example, if you set the slider to -6.0 dB, a linear gain of +6.0 dB (2.0x) is applied when reading SDR content, and a linear gain of -6.0 dB (0.5x) is applied when exporting to an SDR format or displaying on an SDR display.

Black adjustment

Enable the **Black adjustment** switch to adjust black levels:

- Drag the Master black slider to adjust the master black level.
- Drag the HDR black offset slider to apply an offset to the Master black value for HDR content.
 - A The Master black and HDR black offset values should match the settings on the HDRC-4000 HDR Production Converter Unit.

On the HDRC-4000, the **SETTING MODE** should be set to **SONY SYSTEM CAMERA**, and the **ABS mode** should be set to **enabled**.

Gamma settings

When **External file** is selected in the **SR Live metadata source** drop-down list, the Gamma section displays gamma settings for the selected external .srm file:

Table displays the file's gamma table.

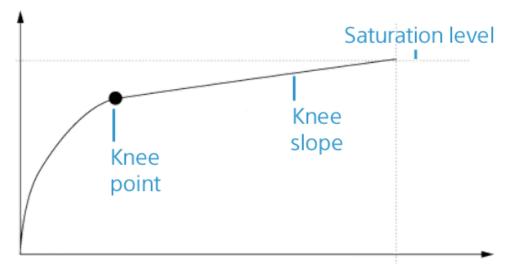
When a hypergamma value is selected, you must adjust the SDR gain value manually:

- Hyper 1: Increase SDR gain by 5.0 dB. For example, if your clip's original SDR gain value is -6.0 dB, you will need to increase SDR gain by 5.0 dB for an SDR gain value of -1.0 dB.
- Hyper 2: Increase SDR gain by 8.0 dB. For example, if your clip's original SDR gain value is -6.0 dB, you will need to increase SDR gain by 8.0 dB for an SDR gain value of 2.0 dB.
- Hyper 3: Increase SDR gain by 3.0 dB. For example, if your clip's original SDR gain value is -6.0 dB, you will need to increase SDR gain by 3.0 dB for an SDR gain value of -3.0 dB.
- Hyper 4: Increase SDR gain by 6.0 dB. For example, if your clip's original SDR gain value is -6.0 dB, you will need to increase SDR gain by 6.0 dB for an SDR gain value of 0.0 dB.
- Step indicates the gamma strength in steps (0.35 to 0.90).
- Level indicates the gamma strength in analog values from -100 to 100.

SDR knee

Select the **SDR knee** switch to apply a knee curve to the RGB output gain when exporting HDR content to an SDR format or displaying on an SDR display. While the **SDR gain** setting applies a linear gain, a knee curve can help preserve midrange colors and highlights.

- When using knee parameters on the Sony HDRC-4000 HDR Production Converter Unit, please enable ABS mode and confirm the R, G, B values in the HDRC-4000. Adjust the values in Catalyst Prepare to match. Using different R, G, B values is not supported.
 - Drag the **Point** slider to adjust the position of the knee point in the curve.
 - Drag the Slope slider to adjust the slope of the curve above the knee point.
 - To adjust the color intensity in the output image, select the SDR knee saturation switch and drag the Level slider. Increasing the saturation can help compensate for decreased saturation around the knee curve.



White clip

When External file is selected in the SR Live metadata source drop-down list, the White clip section displays the white clip settings for the selected external .srm file:

White clip indicates whether the white clip level is used when exporting HDR content to an SDR format or displaying on an SDR display.

Level indicates the white clip level: 0 is the default setting; lower settings decrease the white clip level, and higher settings increase the clip level.

The File tab in the Inspector displays the SDR White Clip and SDR White Clip Level settings for the selected clip.

HDR knee

When **External file** is selected in the **SR Live metadata source** drop-down list, the HDR knee section displays information about the HDR knee curve for the selected external .srm file. The HDR knee curve is applied to the luminance (Y) when exporting HDR content to an SDR format or displaying on an SDR display. The HDR knee value adjusts brightness to conform to SDR output.

When using knee parameters on the Sony HDRC-4000 HDR Production Converter Unit, please enable ABS mode and confirm the R, G, B values in the HDRC-4000. Adjust the values in Catalyst Prepare to match. Using different R, G, B values is not supported.

- Point indicates the position of the knee point in the curve.
- Slope indicates the slope of the curve above the knee point.

Choosing an external video monitor device and resolution

Choose a setting from the **External monitor device** drop-down list to display your video preview on an external monitor via a Blackmagic Design device:

- DeckLink 4K Extreme 12G, 4K Pro, 4K Extreme, Studio 4K, SDI 4K, HD Extreme, Extreme 3D, and Mini Monitor.
- Intensity Shuttle, Pro 4K, and Pro.
- UltraStudio 4K Extreme, 4K, Pro, SDI, Express, and Mini Monitor.

Choose a setting from the **Monitor resolution** drop-down list to choose the display resolution for your monitor.

- If you have a Blackmagic Design device that supports multiple displays (or have multiple Blackmagic Design devices), you can enable two external monitors, allowing you to monitor SDR and HDR output simultaneously.
 - You can set the display resolution for each display independently.
 - The first external monitor will use the External monitor color space setting, and the second external monitor will use the Preview color space setting.

Chapter 8

Keyboard shortcuts

Shortcut keys can help streamline your work with Catalyst Prepare software. The available shortcut keys are arranged in tables according to function.

Global shortcuts

The following keyboard shortcuts are available when the Video or Media Browser pane has focus.

Command	Windows Shortcut	macOS Shortcut
Enter full-screen preview/playback	F11 or Ctrl+F	ж -F or Control- ж -F
Exit full-screen preview/playback	Esc, F11, or Ctrl+F	Esc, ¥ -F, or Control-¥ -F
Switch between Organize/Edit workspaces	Alt+W	Option-W
Show/hide the Inspector/Copy/Export/Share pane	Ctrl+I	¥ -I
Show/hide the Inspector pane	Alt+1	Option-1
Show/hide the Copy pane	Alt+2	Option-2
Show/hide the Export pane	Alt+3	Option-3
Show/hide the Share pane	Alt+4	Option-4
Show/hide the secondary window	Alt+V	Option-V
Open application help	F1	Fn-F1 (F1 if the Use all F1, F2, etc. keys as standard function keys setting is selected)

Media Browser

The following keyboard shortcuts are available when the Media Browser pane has focus.

Command	Windows	macOS
	Shortcut	Shortcut
Navigate files/folders	Up, Down, Left, or	Up, Down, Left, or
	Right Arrow	Right Arrow
Open/close folder in tree view	Right/Left Arrow	Right/Left Arrow
Select all files	Ctrl+A	ж -А
Deselect all files	Ctrl+D	₩-D
Delete selected files	Delete	Delete or
		fn+Delete
Load file and start/pause playback	Spacebar	Spacebar
Open selected folder	Enter or Ctrl+Down	Return or ¥ -Down
	Arrow	Arrow
Navigate up one level	Backspace	ដ -Up Arrow
Go to start/end of list	Home	Home
	End	End
Move selection up/down one page	Page Up	Page Up
	Page Down	Page Down
Rename	F2	Fn-F2 (F2 if the
		Use all F1, F2,
		etc. keys as
		standard function
		keys setting is
		selected)
Open library	Ctrl+O	ж -О
New library	Ctrl+N	¥ -N

Editing

The following keyboard shortcuts are available when the Edit pane has focus.

Command	Windows	macOS Shortcut
	Shortcut	Shortcut
Switch Logging/Storyboard/Clip/Adjust Colors		
	~	~
Load previous/next file in Edit mode.	[]	[]
Go to previous/next clip in Storyboard mode.		
Save a snapshot of the current frame to a file.	Shift+S	Shift-S
Reset mark in and mark out points to the beginning and end of	Shift+R	Shift-R
the clip.		
Switch between Before/After/Split/2 Up video preview in	1/2/3/4	1/2/3/4
Adjust Color mode.		
Show/hide the Media Browser in View mode	Ctrl+B	ж -В
Create subclip from selection in Logging mode.	S	S
Add clip to selected storyboard (when the Add To bar is	Enter	Return
visible).		
Undo color correction	Ctrl+Z	ж -Z
Redo color correction	Ctrl+Shift+Z	Shift-೫ -Z
	Ctrl+Y	

Playback and preview

The following keyboard shortcuts are available when the Video pane has focus.

Command	Windows	macOS	
	Shortcut	Shortcut	
Go to start	Ctrl+Home	# -Home	
	Ctrl+Up Arrow	₩ -Up Arrow	
		Fn- Left Arrow	
Go to end	Ctrl+End	¥ -End	
	Ctrl+Down Arrow	# -Down Arrow	
	End	Fn- Right Arrow	
Go to previous frame	Left Arrow	Left Arrow	
Go to next frame	Right Arrow	Right Arrow	
Go to previous clip	[[
Go to next clip]]	
Start/pause playback	Spacebar	Spacebar	
Start/stop playback	Enter	Return	
Shuttle playback	J/K/L		
	Press J or L once fo	or 1x playback.	
	Press J or L twice for 1.5x playback.		
	Press J or L three ti	Press J or L three times for 2x playback.	
	Press J or L four times for 4x playback.		
	Press K to pause pl	Press K to pause playback.	
Toggle looped playback	Q	Q	
	Ctrl+L	¥ -L	

Command	Windows Shortcut	macOS Shortcut
Set Mark In point	I	I
Set Mark Out point	0	0
Add mark point	E	E
Go to Mark In point	Shift+I	Shift-I
	Home	Home
Go to Mark Out point	Shift+O	Shift-O
	End	End
Save a snapshot of the current frame to a file.	Shift+S	Shift-S
Reset Mark In/Out points	Shift+R	Shift-R
Go to previous marker (including Mark In/Out)	Ctrl+Left Arrow	¥ -Left Arrow
Go to next marker (including Mark In/Out)	Ctrl+Right Arrow	¥ -Right Arrow
Copy current frame to clipboard	Ctrl+C	ж-С
Enter full-screen playback	F11	ж-F
	Ctrl+F	Control- # -F
Show/hide the secondary window	Alt+V	Option-V
Zoom to fit	Ctrl+0	ж -0
Zoom to 100%	Ctrl+1	¥ -1
Zoom in	Ctrl++	¥ -+
Zoom out	Ctrl+-	¥

Chapter 9

Gestures

Media Browser pane

Gesture	Result
Тар	Selects and loads a file.
Double-tap	Opens a file in the Video pane.
One-finger drag (touchscreen)	Scrolls the list vertically.
Two-finger drag (trackpad)	
One-finger flick (touchscreen)	Scrolls the list with inertia.
Two-finger flick (trackpad)	

Video pane

Gesture	Result
Double-tap	Toggles the zoom level between 100% and Fit.
One-finger drag (touchscreen)	Pans the image.
Two-finger drag (trackpad)	
One-finger flick (touchscreen)	Pans the image with inertia.
Two-finger flick (trackpad)	
Pinch	Zooms the image in and out.

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