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## 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 2019.2

- Added support for stabilizing FX9 clips using metadata.
- Improved workflow for exporting clips.
- Added support for stitching multple clips to create a single continuous clip.
- Added support for as a sidecar file.
- The scale of the SDR gain control in Options > Color Management has been updated to use a range of -15.0 dB to 0 dB (including floating-point values). This change ensures consistent HDR-to-SDR conversion with the HDRC-4000 HDR Production Converter Unit.
- When formatting a disk for the PZW-4000, the XDROOT folder is no longer created by default.
- Added support for creating the XDROOT folder on a USB drive or SxS media. Select the drive in
   Organize mode, click the Tools button , and choose Create XDROOT folder from the menu.
- Added support for VENICE X-OCN 4K 2.39:1 files.
- Added support choosing a verification mode and hash type for copy verification.
- Improved application start-up times.

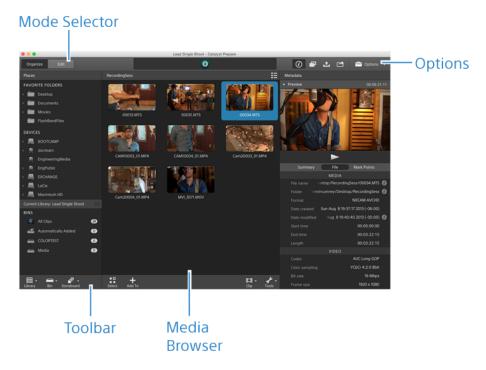
## The Catalyst Prepare window

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.

#### Media Browser mode



## Edit mode



## 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 **Media Browser** 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 Media Browser 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.



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 "Transcoding clips" on page 23.
  - 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 74.
- When no library is opened, storyboard support is not available. For more information, see "Working with storyboards" on page 80.
- When no library is opened, bin support is not available. For more information, see "Adding bins to a library" on page 16.
- 1. Click the Media Browser 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 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 **Media Browser** 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.

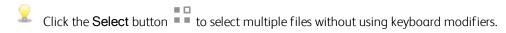


 $\Lambda$  Growing MXF files are displayed with the following icon:



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. Click the **Copy** button 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.



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 14.
  - $\Lambda$  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.
  - $\circ$   $\;$  Type a string in the  $\pmb{Suffix}$  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 <code>Commercial\_001\_Cameral.mxf</code>, you would type <code>Commercial\_</code> in the <code>Prefix</code> box, choose <code>3 digits</code> from the <code>Numbering</code> drop-down list, and type <code>Cameral</code> in the <code>Suffix</code> 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).
- 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 67.



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 67 or "Editing Catalyst Prepare options" on page 119.

h. Select the Close growing files check box if you want to close growing MXF files generated by Sony decks when copying is complete.



 $\Lambda$  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.
  - 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 the source or destination volume is a Professional Disc Drive unit or an FTP device.

• 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.



🔼 The Copy with verification controls are not available when the source or destination volume is an FTP device.

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 Media Browser 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 **Media Browser** 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. If the device you want to use is not displayed, click **Add source** and select the device.

- 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.

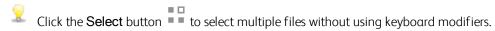


Growing MXF files are displayed with the following icon:



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.



 $\overline{\mathbb{Q}}$  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

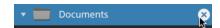
Organize mode allows you to view the clips on your computer's file system, attached devices, and libraries. Select a folder in the Places pane to view the clips in a folder or device.



To navigate guickly, 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 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 Xbutton:



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.



kolon 2 Click the button to toggle thumbnail kolon 2 and list kolon 2 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 at 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.

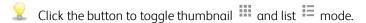
The dialog displays a list of clips that will be removed from the selected bin.

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 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.



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 67.

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 67 or "Editing Catalyst Prepare options" on page 119.

#### 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.



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 67.

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 67 or "Editing Catalyst Prepare options" on page 119.

#### 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.



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 67.

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 67 or "Editing" Catalyst Prepare options" on page 119.

#### 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 80.

#### 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.



 $\overline{\mathbb{Q}}$  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 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 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:. 4

#### 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.



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 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 **Media Browser** 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 Media Browser 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 "Previewing video" on page 62.
- For more information about logging mark in and out points, please see "Marking in and out points for playback" on page 67.
- For more information about applying color correction, please see "Applying color correction" on page 93.
- For more information about using the Inspector, please see "Viewing and editing metadata" on page 73.

## 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 Media Browser 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 67.
- 4. Click the **Create Subclip** button . 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 Media Browser 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.

#### 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 Media Browser 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  $\mathbb{H}$  (macOS) to select multiple files.



Click the **Select** button to select multiple files without using keyboard modifiers.



An 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 "Copying clips to a device" on page 29.

- 2. 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.
- 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, format, frame size, and frame rate of the selected clip.



Source metadata is not displayed when a storyboard or clip list is selected.

- 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 .
  - 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 36.



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 119.

- 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** drop-down 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 "Choosing a color space for the video preview and external monitor" on page 122.



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.

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, select the **Create Sony Professional Disc partitions** or **Create segmented body partitions** check box. When the check box is cleared, the file will use a single body partition.



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.

- 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 "Editing clip settings" on page 71.
  - 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 Media Browser 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 89.
  - 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 76.

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 20.

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

For more information, see "Editing clip settings" on page 71.

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 90.

- I. 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 67.
- 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.

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  $\mathscr{T}$  in the Transcode Settings heading and choose Save transcode preset.

For more information, see "Transcoding presets" on page 36.

#### 8. 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.

#### 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 Media Browser 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.

 $\blacksquare$  Hold Ctrl (Windows) or  $\mathbb H$  (macOS) to select multiple files.



Click the **Select** button to select multiple files without using keyboard modifiers.



An 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 indicator is removed, and the clips are combined in a new clip that you can transcode. For more information, see "Transcoding clips" on page 23.

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. The Copy clips to box displays the path to the 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.
  - b. 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.



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

- 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).
- 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).



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 73.

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 67.



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 67 or "Editing Catalyst Prepare options" on page 119.

h. If you want to create a file with segmented body partitions, select the Create Sony Professional Disc partitions or Create segmented body partitions check box. When the check box is cleared, the file will use a single body partition.



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.

i. Select the **Use fast device-to-device copy** check box if you want to copy clips directly between Sony 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.
  - 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 the source or destination volume is a Professional Disc Drive unit or an FTP device.

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.



The Copy with verification controls are not available when the source or destination volume is an FTP device.

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.

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 at 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 23.
- 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 gueued, 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 at 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 23.
- 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 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 23.

#### 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 Media Browser 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.

5. 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.

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 23.

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 Media Browser 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 23.

#### 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 folders by default:

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

#### Importing transcode presets

Importing a preset allows you to browse to a preset file (.ctranscode) and add it to Catalyst Prepare.

After you load a preset, you can select it from the **Transcode preset** drop-down list in the Export pane.

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 folders by default:

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

- 1. Click the **Export** button at the top of the Catalyst Prepare window.
- 2. Click the **Transcode Tools** button in the Transcode Settings.
- 3. Click Import transcode preset in the Transcode Tools menu.
- 4. Browse to and select the .ctranscode file you want to use and click **OK**.

#### Saving transcoding presets

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

- 1. Click the **Export** button 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 "Transcoding clips" on page 23.
- 3. Click the **Transcode Tools** button 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.
  - ho Preset files are saved in the following folders by default:
    - 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 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 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.
- 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.



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 at 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.

# Finding media

Media Browser 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 14.



An  $^{ullet}$  on a thumbnail indicates that an error was detected with the clip.

A indicates a clip from an Optical Disc Archive volume.

An on a thumbnail indicates a clip that contains stabilization metedata. For more information, see "Stabilizing clips" on page 87.



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

An 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 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 23 or "Copying clips to a device" on page 29.

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

Click the **Tools** button in the Places pane and choose **Add remote server** to specify a server's

connection settings.

To disconnect from a server, select the server in the Places pane and click the  $\bigcirc$  button.

To reconnect to a server, click the server in the Remote Devices list.

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

#### Format a USB drive for PZW-4000

Select a USB drive in the Devices tab, click the **Tools** button , 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.

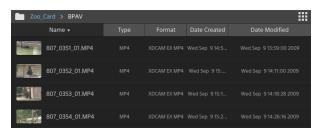
After formatting the drive, the drive will be treated as read-only media by the PZW-4000. Catalyst Prepare can write to the drive, and the PZW-4000 can import clips to its internal drive.

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

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

In list mode ( ), 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:



#### Searching for clips

- 1. Select the folder you want to search. Subfolders will be included in your search.
- 2. Click the **Search** button 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** to navigate to a clip's folder.

Click the **Close** button 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.

■ 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.



Click the **Select** button to select multiple files without using keyboard modifiers.

#### Showing source clips

- 1. Select a file.
- 2. Click the File/Clip button 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

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
MPEG HD	1440x540	0.667	23.976p, 25p, 29.97p, Over Crank	MPEG-2 Long GOP	12.5 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	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) 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	9 Mbps
					MPEG-4 AAC, 6 (5.1) channels, 48 kHz, 640 kbps	

# 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 or AAC, 48 kHz, 16 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 or AAC, 48 kHz, 16 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 or AAC, 48 kHz, 16 bit	80
XAVC Long	1920x1080	1.0	23.976p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Long, Main Profile or High Profile	2-channel PCM or AAC, 48 kHz, 16 bit	80
XAVC Long	1920x1080	1.0	100p, 119.88p	MPEG-4 AVC Long, Main Profile or High Profile	2-channel PCM or AAC, 48 kHz, 16 bit	150
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	3840x2160	1.0	23.976p, 25p, 29.97p	MPEG-4 AVC Long, Main Profile or High Profile	2-channel PCM or AAC, 48 kHz, 16 bit	188
XAVC Long	3840x2160	1.0	50p, 59.94p	MPEG-4 AVC Long, Main Profile or High Profile	2-channel PCM or AAC, 48 kHz, 16 bit	300

# 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
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	23.976p, 24p, 25p	LT, ST, XT

#### **RAW**

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

# 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)
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	23.976р, 24р, 25р, 29.97р	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	23.976р, 24р, 25р, 29.97р	SQ(440)
SSTP	2048x1080	12	RGB 444	1.0	23.976p, 24p, 25p, 29.97p, 50p, 59.94p	HQ(880)

Format	Frame Size	Bits	Color Space	Pixel Aspect Ratio	Frame Rate	Compression (Mbps)
SSTP	2048x1556	10	RGB 444	1.0	23.976р, 24р, 25р	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	Mono, 48kHz, AAC compression w/ AGC	
H.264/MPEG- 4 AVC	1920x1080	16:9	24p, 25p, 30p, 48p, 50p, 60p	AVC	Mono, 48kHz, AAC compression w/ AGC	
H.264/MPEG- 4 AVC	1920x1440	4:3	24p, 25p, 30p, 48p	AVC	Mono, 48kHz, AAC compression w/ AGC	
H.264/MPEG- 4 AVC	3840x2160	16:9	23.97p. 24p, 25p, 29.97p, 50p, 59.94p	AVC	Mono, 48kHz, AAC compression w/ AGC	
H.264/MPEG- 4 AVC	4096x2160	17:9	12p	AVC	Mono, 48kHz, AAC compression w/ AGC	
H.264/MPEG- 4 AVC	2704x1524	16:9	25p, 30p	AVC	Mono, 48kHz, AAC compression w/ AGC	
H.264/MPEG- 4 AVC	2704x1440	17:9	24p	AVC	Mono, 48kHz, AAC compression w/ AGC	
H.264/MPEG- 4 AVC	1280x960	4:3	48p, 100p	AVC	Mono, 48kHz, AAC compression w/ AGC	
H.264/MPEG- 4 AVC	848x480	16:9	240p	AVC	Mono, 48kHz, AAC compression w/ AGC	
H.264/MPEG- 4 AVC	640x480	4:3	25p, 30p	AVC	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	240x180		25p, 29.97p	AVC	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG- 4 AVC	320x180		25p, 29.97p	AVC	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG- 4 AVC	320x240		25p, 29.97p	AVC	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG- 4 AVC	480x270		25p, 29.97p	AVC	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG- 4 AVC	640x480		25p, 29.97p	AVC	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG- 4 AVC	1280x720		50р, 60р, 100р,120р	AVC	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG- 4 AVC	1280x960		48p, 100p,120p	AVC	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG- 4 AVC	1920x1080		24p, 25p, 29.97p, 48p, 50p, 60p	AVC	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG- 4 AVC	1920x1440		24p, 25p, 29.97p, 48p	AVC	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG- 4 AVC	2704x1524		24p, 25p, 29.97p	AVC	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG- 4 AVC	3840x2160		23.97p. 24p, 25p, 29.97p, 50p, 59.94p	AVC	2 channels, 16 bit, AAC	

Format	Frame Size	Screen Aspect Ratio	Frame Rate	Video Codec	Audio Codec	Bit Rate
					compression w/ AGC	
H.264/MPEG- 4 AVC	4096x2160		12p	AVC	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG- 4 AVC (HVO)	720x480		59.94i	AVC	2 channels, 16 bit, AAC compression w/ AGC	
H.264/MPEG- 4 AVC (HVO)	720x576		50i	AVC	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
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
	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 Media Browser 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 Media Browser mode, please see "Organizing media in a library" on page 14.



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.

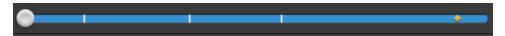
### Previewing video

When you double-click a file in Media Browser 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 Media Browser mode, please see "Organizing media in a library" on page 14.

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 119.



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:



A indicates a clip from an Optical Disc Archive volume.

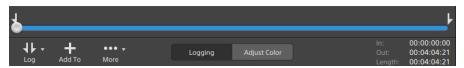
An on a thumbnail indicates that a clip spans multiple discs on an Optical Disc Archive volume. When you play a clip that spans discs, an indicator is displayed in the timeline to identify the point where the clip switches discs:



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 119.

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:



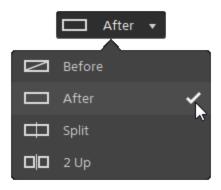


For information about flipping the video, enabling anamorphic desqueezing, and displaying safe zone and mask guides, please see "Editing clip settings" on page 71.

### 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 93.

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.



- 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.
  - 9

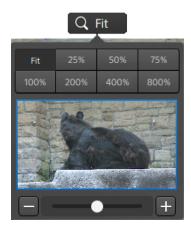
If you want to move the split location, hover over the preview frame. When the split point is displayed, you can drag the handles at the top of bottom of the screen to adjust where the preview is split:



■ 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 ➡ 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 Z

Click  $\checkmark$  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.

- Real Time/Speed: 

  O
- Real Time/Quality: 🌣
- All Frames/Speed: ■
- All Frames/Quality:

#### Using the transport controls

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

Button		Description
M	Go to Start	Moves the playback position indicator to the <b>Mark In</b> 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 <b>Mark Out</b> 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 <b>Mark Out</b> position. Click again to move to the end of the selected file.
<b>G</b>	Loop Playback	Plays only the area between the <b>Mark In</b> and <b>Mark Out</b> points in a continuous mode.
		For more information, see "Marking in and out points for playback" on page 67.

# 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.	
K	Pause.	
L	Scrub forward mode. Press again to accelerate the playback rate.	

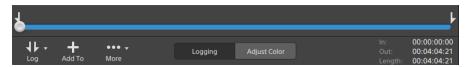
## Marking in and out points for playback

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.



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 73.
- 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 **Media Browser** button at the top of the Catalyst Prepare window to view the Media Browser.
- 2. Double-click a file in Media Browser mode to load it in Edit mode.
  - You can also use the Preview pane in Media Browser 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.



The Mark In and Mark Out buttons are displayed under a Log button when the Catalyst Prepare window is too narrow to display the full toolbar.

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 .



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 73.

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 73.

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



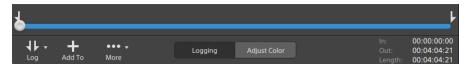
# Creating a snapshot of a frame

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

#### Copying a frame to the clipboard

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

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



4. Click the More button and choose Copy snapshot to clipboard.

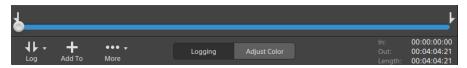


 $\mathbb{R}$  Press Ctrl+C (Windows) or  $\mathbb{H}$  -C (macOS).

The current frame is copied to the clipboard at its current resolution. For example, if you want to copy a full-resolution frame, set your zoom level to 100%. You can change the size of the image using the magnifying glass button above the video preview. For more information, see "Previewing video" on page 62.

#### Saving a frame to a file

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



4. Click the More button and choose Save snapshot.



Press Shift+S.

The current frame is saved at its current resolution. For example, if you want to save a full-resolution frame, set your zoom level to 100%.

You can change the size of the image using the magnifying glass button above the video preview. For more information, see "Previewing video" on page 62.

You can save the location and format used for saving the file in Options. For more information, see "Editing Catalyst Prepare options" on page 119.

# 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.

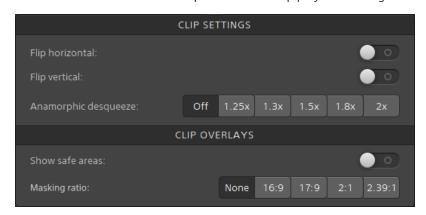
If you want to choose which audio channels will be played, you can use the **Channel Routing** check boxes. In the example above, the 1st, 3rd, and 5th channels are played through the left speaker and the 2nd, 4th, and 6th channels are played through the right speaker.



Catalyst Prepare supports only stereo output devices.

# Editing clip settings

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



Item	Description
Flip horizontal	Click the <b>Flip horizontal</b> or <b>Flip vertical</b> switch to flip the left-to-right or top-to-bottom orientation of the video frame.
Flip vertical	Select the Use flip 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, 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 23.
Anamorphic desqueeze	Select a desqueeze button to apply anamorphic stretching to widescreen video, or click <b>Off</b> to turn off stretching.
Show safe areas	Click the switch to enable safe area guides and a center point in the video preview.
	When <b>Show safe areas</b> 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.
	Overlays are not displayed when using full-screen preview.
Masking ratio	Select a masking button to enable shading in the video preview to indicate how your content will appear.

#### Item Description



Overlays are not displayed when using full-screen preview.

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 23.

# Working with clips

## Exporting custom metadata

## Viewing and editing metadata

When you're in Media Browser or Edit mode, click the **Inspector** button 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, the 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 .

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



#### 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 67.

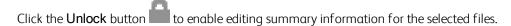


🦞 If you want to save mark in and mark out points with the library, clear the Synchronize mark points with file check box.

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.



2. Edit the Status, 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.

#### Assigning audio channels

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



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 "Closing the library" on page 10.

Channel Assignment controls are not available when a spanned clip is selected.

Channel Assignment controls are not available when editing a storyboard.

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.



 $\bigcirc$  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 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 , and choose **Copy** from the menu. Next, select the destination files, click the Channel Tools icon , and choose Paste from the menu.

If you want to set all of a clip's channels at once, click the **Channel Tools** button on 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.



 $ilde{m{\Lambda}}$  Adding and editing essence marks is supported only for XDCAM MXF clips 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.



Adding and editing essence marks is supported only for XDCAM MXF clips and requires write access to the volume.

#### 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.

4. Click the **Delete** button , and then choose **Delete** to delete the selected mark point, or choose **Delete** All to delete all mark points.



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 Media Browser 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.

 $\blacksquare$  Hold Ctrl (Windows) or  $\mathbb{H}$  (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 customMetadatαExport.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 "Transcoding clips" on page 23..

## Working with clip lists

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

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

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 80.



When viewing a clip list, indicates spanned clips from the same volume, and indicates spanned clips from different volumes.



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

#### Creating a clip list

- 1. Click the **Media Browser** button at the top of the Catalyst Prepare window to view the Media Browser.
- 2. Navigate to the root folder xavc or xaxs 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 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 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

- Click the Media Browser button at the top of the Catalyst Prepare window to view the Media Browser.
- 2. Navigate to the root folder xavc or xxx 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.

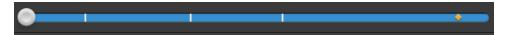
Click the add button at the end of the clip list to display a media browser, where you can select additional clips for your clip list.





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.



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 67.

## Viewing metadata for clip lists

When you're in Media Browser or Edit mode, click the **Inspector** button 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 73.

#### Writing a clip list back to a device

Select a clip list in Media Browser 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 "Copying clips to a device" on page 29.

## 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.

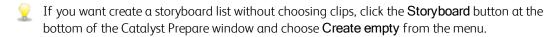


When no library is opened, storyboard support is not available. For more information, see "Creating or opening a library" on page 9.

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 77.

#### Creating a storyboard

- 1. Click the Media Browser 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)  $/ \Re$  (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.
  - △
- The **Create from selection** command is not available when a clip list, spanned clip ( ), or an FTP-based clip is selected.



5. Type a name for the storyboard and click **OK**.

## Opening a storyboard

- 1. Click the **Media Browser** 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, extstyle extstyindicates 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.



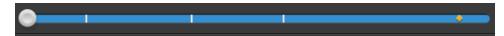
#### Adding clips

- 1. Click the Media Browser 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 **Media Browser** 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 Media Browser 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.
  - 🦞 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 67.
  - 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 Media Browser 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 in the toolbar to display the Inspector pane. 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 93.

#### Previewing storyboards

When you double-click a storyboard in Media Browser 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 "Previewing video" on page 62.

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 Media Browser 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 "Rendering a storyboard as separate files" on page 33, "Rendering a storyboard as a single clip" on page 33, or "Exporting a storyboard to another editor" on page 34.

## 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 ( ). 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 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 73.

## Renaming a storyboard

- 1. Click the Media Browser 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 Media Browser 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

- 1. 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 (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 . 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**.

## 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.



Before combining relay clips, copy them to a single folder. For more information, see "Copying clips to a device" on page 29.

- 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 at the bottom of the Catalyst Prepare window and choose **Combine** relay clips. The Combine Relay Clips dialog is displayed.
  - 1 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 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 **Media Browser** button at the top of the Catalyst Prepare window to view the Media Browser.

2. Select the clip you want to stabilize. An on a thumbnail indicates a clip that contains stabilization metedata.



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

3. Click the **Tools** button at the bottom of the Catalyst Prepare window and choose **Stabilize clip**. The clip is analyzed, and the Stabilize Clip workspace is displayed.

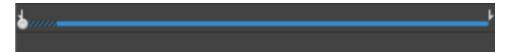


If you cancel analysis, click **Stabilize** at the bottom of the workspace to analyze the clip.

- 4. Use the Stabilize 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 scan. For more information, see "Marking in and out points for playback" on page 67.



If stabilization metadata is not available, it will be indicated by cross-hatching in the timeline.



- b. Choose a **Stabilization mode** setting:
  - Select the **Auto** button in the Inspector to adjust stabilization automatically.
  - Select the **Manual** button if you want to adjust stabilization settings:

Item	Description
Cropping ratio	Drag the slider to set the maximum amount of cropping that can be applied to stabilize a clip.
	When stabilizing a clip using a <b>Cropping ratio</b> setting larger than the default value, clips with significant camera shake may exhibit a black border around the frame. We recommend using a <b>Cropping ratio</b> setting that is close to the default value. You can double-click the slider handle to reset the setting to its default.

- 3. 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 stabilized video before applying the changes, and then use the transport controls below the timeline to preview the clip.
  - Before: the clip is displayed in its original state.
  - After: the cropped and stabilized clip is displayed.
- 4. 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.

For more information about the controls, please see "Transcoding clips" on page 23.

# 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 Media Browser 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  $\mathbb{H}$  (macOS) to select multiple files.



- 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 Media Browser 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 "Transcoding clips" on page 23.

## 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 **Media Browser** 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 67.
  - 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.
- 5. 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.



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 "Transcoding clips" on page 23.

Color adjustments to clip lists or spanned clips are not available when a library is open. For more information, see "Closing the library" on page 10.

## **Editing Color Adjustments controls**

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



🦞 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 Media Browser 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 adjustments saved with the clip are loaded.



Color adjustments are available only in Edit mode.

3. 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.

The waveform/histogram/vectorscope monitor and video preview window allow you to monitor your progress as you adjust 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 "Choosing a color space for the video preview and external monitor" on page 122.

■ Click the **Waveform** button <sup>↑↑</sup> 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.

#### 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 "Choose a setting from the Working color space drop-down list to choose the color space that will be used for color grading." on page 120 or "Choosing a color space for the video preview and external monitor" on page 122.

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/m<sup>2</sup>.

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 ^ 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 0,0,0 to 0,0,255.

You can use the buttons at the top of the histogram monitor to display overlaid ( ) or separate ( ) RGB histograms and isolate colors

Click the Vectorscope button 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 to open the Vectorscope Settings menu.

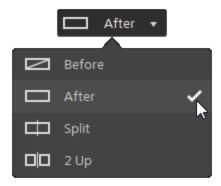
The Vectorscope Settings menu allows you to toggle a monochrome view of the scope, change the scale of the scope, adjust the brightness of the colors displayed in the scope, and adjust the brightness of the scope's guide (graticule).



Use the 75% **Scale** setting when performing color correction for broadcast, or use the 100% setting when performing color correction for film or Web distribution with a wider color gamut.

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.



- Before: full-frame video is displayed in its original state.
- $\Box$  **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 levels 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 progress.

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.



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. 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.



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

#### 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 will need to 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 99, "Grading with hypergamma conversion" on page 106, or "High Dynamic Range (HDR) color grading" on page 110.

#### 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.





Click the **Reset** button 4 at the bottom of the Inspector pane to reset the **Source** and Convert to color space based on the clip's metadata.

#### 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** dropdown 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.

#### Adjusting exposure, temperature, and tint

Click the **Inspector** button in the toolbar to display the Inspector pane. 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.

- Drag the Exposure slider to adjust the overall brightness of your video.
- 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.
- 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 setting by adding an offset to the tint setting saved in a clip's metadata.



Double-click a control to reset its value.

## Applying a look profile

You can use the **Look profile** drop-down list to apply a look profile/LUT to a clip.

Click the **Inspector** button in the toolbar to display the Inspector pane. In the Adjust Color workspace, the Look section in the Inspector pane contains the Look profile drop-down list.

The Look profile drop-down is available only when the Source Color Space Convert to drop-down list is set to S-Gamut/S-Log2 or S-Gamut3. Cine/S-Log3 and the Working color space drop-down list set to Rec. 709.



💡 If you want to set a default look profile to be applied when no look profile is specified in a clip's metadata, choose a setting from the **Look profile** drop-down list, click the **Look Tools** button **5**, and choose Make default.

To replace the clip's current look profile with the default, click the  $\operatorname{Look}$  Tools button  ${}^{\hspace{-1pt} \hspace{-1pt} \hspace{$ choose Reset to default.

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

9

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\

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

- 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.

#### Adjusting the tone curve

Click the **Inspector** button in the toolbar to display the Inspector pane. 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 progress.

The tone curve controls are used to edit look-up tables (LUTs).

- Select the channel you want to adjust by clicking the Red, Green, or Blue button below the color curve
   o o, or click the White button to adjust all RGB components simultaneously.
- 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 progress. Click **Delete Point** to remove the selected control point.
- Click the **Reset** button at the bottom of the Inspector pane to remove all control points.

## Adjusting the color correction sliders

Click the Inspector button in the toolbar to display the Inspector pane. 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 the values of the red, green, and blue channels. As you adjust the controls, the waveform/histogram/vectorscope monitor and video preview will update in real time to allow you to check your progress.

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



 $_{orall}$  For precise control, you can hold Ctrl (Windows) or  ${\mathbb H}$  (macOS) 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 113 and "Applying colorcorrection settings" on page 102.

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.



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 at the bottom of the Inspector pane to reset all color correction.

# Applying color-correction settings

You can use the **Tools** button at 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 93.

- 1. Click the **Media Browser** 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.
  - 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.
- 5. Click the **Tools** button 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.
  - Presets 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 Load.

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

#### Applying an ASC-CDL file

- Click the Media Browser 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.
- 5. Click the **Tools** button 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 Media Browser 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 93.
- 4. Click the **Inspector** button in the toolbar to display the Inspector pane. In the Adjust Color workspace, the Inspector pane provides controls that you will use to adjust color-grading 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 93.

8. If your source video is set to S-Gamut/S-Log2, S-Gamut3.Cine/S-Log3, or S-Gamut3/S-Log3, choose α setting from the Look profile drop-down list to choose the profile that is applied to convert your video to Rec.709 (full).



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

- 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-Gαmut3/S-Log3 sources or Convert to choices.
- 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 93.
- 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.



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

- Click the Media Browser 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 93.
- 4. Click the **Inspector** button in the toolbar to display the Inspector pane. In the Adjust Color workspace, the Inspector pane provides controls that you will use to adjust color-grading 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. From the Convert to drop-down list, choose 709(800), HG8009G33, or HG8009G40.
  - When you select **None**, output will be S-Log. When you select **HG8009G33**, or **HG8009G40**, output will be Rec.709 full.
    - 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,
- 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 93.

- 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 93.
- 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.
  - 3D LUT export is available only when the Source drop-down list is set to an S-Log, RAW, or X-OCN format.

# Log (cinematic) color grading

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

- 1. Click the **Media Browser** 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 93.
- 4. Click the **Inspector** button in the toolbar to display the Inspector pane. In the Adjust Color workspace, the Inspector pane provides controls that you will use to adjust color-grading 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 93.

- 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 93.
- 9. Choose a setting from the **Look profile** drop-down list to choose the profile that is applied to convert your video to Rec.709 (full).

When you choose **None** from the **Look profile** drop-down list, the output will be S-Log.



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\

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

- 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.
- 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.



3D LUT export is available only when the **Source** drop-down list is set to an S-Log, RAW, or X-OCN format.

# 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 **Media Browser** 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.
  - 9

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 93.
- 4. Click the **Inspector** button in the toolbar to display the Inspector pane. In the Adjust Color workspace, the Inspector pane provides controls that you will use to adjust color-grading 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-Loq3, 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 93.
- 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 93.
- 9. 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.

Output will be Rec. 709 (full).

7

3D LUT export is available only when the **Source** drop-down list is set to an S-Log, RAW, or X-OCN format.

## 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, you can enable the SDR gain, SDR knee, and Black adjustment switches to convert between standard- and high-dynamic-range content.

#### Adjusting 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.

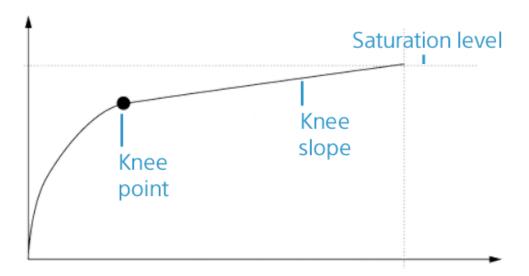
#### Applying an SDR knee curve

Select the **SDR knee** switch to apply a knee curve to the 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.



#### Adjusting black levels

Select 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.



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**.

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 93.

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:

o 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:

o Color Space: ITU-R BT.2020

∘ EOTF: S-Log3 (HDR)

o 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 Media Browser 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 93.
- 5. Click the **Inspector** button in the toolbar to display the Inspector pane. In the Adjust Color workspace, the Inspector pane provides controls that you will use to adjust color-grading 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 93.
- 7. 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.
  - Output will use the External monitor color space drop-down list in the External Monitor section of the Options menu (selected in step 1d above).
- 3D LUT export is available only when the **Source** drop-down list is set to an S-Log, RAW, or X-OCN format.

## 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 93.

- Click the Media Browser 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.
  - 9

Color correction is available only in Edit mode.

- 3. Click the **Adjust Color** button at the bottom of the Catalyst Prepare window.
- 4. Click the **Inspector** button *i* in the toolbar to display the Inspector pane.
- 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.



Presets 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

- Click the Media Browser 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 *i* in the toolbar to display the Inspector pane and adjust your color settings as needed. For more information, see "Editing Color Adjustments controls" on page 93.



Saturation and color wheel/slider settings are saved with ASC-CDL files. Tone curve settings are not saved.



A 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 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 113 and "Applying" color-correction settings" on page 102.

- 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 for Resolve or HDLink

When the source is Sony RAW, X-OCN, S-Gamut/S-Log2, S-Gamut3.Cine/S-Log3, or S-Gamut3/S-Log3, you can export a 3D LUT in Resolve or HDLink format.

- Click the Media Browser 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.
  - 9

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 and adjust your color settings as needed. For more information, see "Editing Color Adjustments controls" on page 93.
- 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 save your color-correction settings.
  - c. Choose 3D LUT Resolve or 3D LUT HDLink from the Format drop-down list.
  - d. Choose a setting from the **Input color space** drop-down list to specify the color space of your source media.
  - e. 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** color space to Rec.2020/S-Log3 (HDR). For more information, see "High Dynamic Range (HDR) color grading" on page 110.
  - f. Select the **Source settings** check box if you want to include exposure, temperature, and tint settings with your LUT.
  - g. Select the **Convert to setting** check box if you want to export your LUT using the color space selected in the **Convert to** drop-down list in the Inspector.
    - The Tone curve and Color correction check boxes are available only when Convert to setting is selected.
  - h. 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 curve from the Inspector in your LUT.
  - j. Select the **Look profile** check box if you want to include the selected look profile from the Inspector in your LUT. The LUT file will be saved in the folder you selected in step 6a.
    - The Look profile check box is available only when the grading color space is Rec.709.
- 7. Click Export.

## **Editing Catalyst Prepare options**

Click the **Options** button to edit your application options.



If you need to reset all Catalyst Prepare options to their default values, hold Control + Shift when starting the application.

#### Choosing a video processing device

Choose a setting from the **Video processing device** drop-down list to enable or bypass GPU-accelerated video playback and transcoding.

Choose **CPU** if you want to turn off GPU acceleration, or choose a device from the list to enable GPU-accelerated playback.



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.

## 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 23 or "Organizing media in a library" on page 14.

## 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 73.

#### 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.

#### 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 68.

## Choosing color management settings

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 93.

When you choose Rec.2020/S-Log3 from the Working color space drop-down list, you can enable the SDR gain, SDR knee, and Black adjustment switches to convert between standard- and high-dynamic-range content.

#### Adjusting 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.

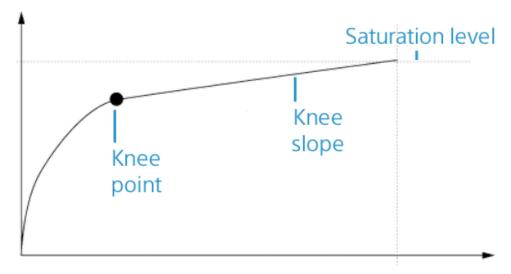
#### Applying an SDR knee curve

Select the **SDR** knee switch to apply a knee curve to the 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.



#### Adjusting black levels

Select 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.



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**.

#### Choosing a color space for the video preview and external monitor

#### Video preview

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 93.

For more information, see "Applying color correction" on page 93.

#### External monitor

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.

When using the Sony BVM-X300 version 2.0, please use the following monitor settings:

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 Rec.2020/S-Log (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 "High Dynamic Range (HDR) color grading" on page 110.

#### 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.

# 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	∺-F or Control- ∺-F
Exit full-screen preview/playback	Esc, F11, or Ctrl+F	Esc, 光-F, or Control-光-F
Switch between Media Browser/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 Shortcut	macOS Shortcut
Navigate files/folders	Up, Down, Left, or Right Arrow	Up, Down, Left, or Right Arrow
Open/close folder in tree view	Right/Left Arrow	Right/Left Arrow
Select all files	Ctrl+A	<b></b>
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 Arrow	Return or ∺- Down Arrow
Navigate up one level	Backspace	₩-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	₩-0
New library	Ctrl+N	₩-N

## Editing

The following keyboard shortcuts are available when the Edit pane has focus.

Command	Windows Shortcut	macOS Shortcut
Switch Logging/Storyboard/Clip/Adjust Colors	`	
	~	~
Load previous/next file in Edit mode.	[]	[]

Go to previous/next clip in Storyboard mode.

Command	Windows Shortcut	macOS Shortcut
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 the clip.	Shift+R	Shift-R
Switch between Before/After/Split/2 Up video preview in Adjust Color mode.	1/2/3/4	1/2/3/4
Show/hide the Media Browser in View mode	Ctrl+B	₩-B
Create subclip from selection in Logging mode.	S	S
Add clip to selected storyboard (when the Add To bar is visible).	Enter	Return
Undo color correction	Ctrl+Z	<b>ℋ-Z</b>
Redo color correction	Ctrl+Shift+Z	Shift-ℋ-Z
	Ctrl+Y	

## Playback and preview

The following keyboard shortcuts are available when the Video pane has focus.

Command	Windows Shortcut	macOS Shortcut	
Go to start	Ctrl+Home	∺-Home	
	Ctrl+Up Arrow	<b> H</b> -Up Arrow	
		Fn- Left Arrow	
Go to end	Ctrl+End	∺-End	
	Ctrl+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 for	Press J or L once for 1x playback.	
	Press J or L twice for 1.5x playback.		
	Press J or L three times for 2x playback.		
	Press J or L four tir	Press J or L four times for 4x playback.	
	Press K to pause p	ayback.	
Toggle looped playback	Q	Q	
	Ctrl+L	₩-L	
Set Mark In point	I	I	
Set Mark Out point	0	0	
Add mark point	E	E	



Adding and editing essence marks is supported only for XDCAM MXF clips and requires write access to the volume.

Command	Windows Shortcut	macOS Shortcut
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	<b>ℋ-</b> C
Enter full-screen playback	F11	<b>H</b> -F
	Ctrl+F	Control-ℋ-F
Show/hide the secondary window	Alt+V	Option-V
Zoom to fit	Ctrl+0	₩-0
Zoom to 100%	Ctrl+1	H-1
Zoom in	Ctrl++	H-+
Zoom out	Ctrl+-	H

# 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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