SONY

CATALYST BROWSE™

User Manual

Notice to users

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Chapter 1

Introduction

Catalyst Browse is a powerful clip-management tool for the latest Sony camcorders and decks.

- The Media Browser pane allows you to browse the media files on drives and devices connected to your computer.

- The Video pane allows you to preview media files.

- The Inspector pane allows you to view metadata saved in media files.

- The Adjust Color workspace allows you to adjust the color content of your clips.

- Clip lists allow you to assemble clips when working with XDCAM media in an XD root folder ![XAVC icon], XAVC media in an XD root folder ![XAVC icon], and RAW media in an AxS folder ![AXS icon].

    ⚠ Catalyst Browse is designed to support clips from Sony cameras and devices. For expanded device support, please consider Catalyst Prepare.

    Need even more power? Go beyond browsing and viewing to a full-featured media preparation and logging tool with Catalyst Prepare.

    Compare the features of Catalyst Browse and Catalyst Prepare.

What's new in version 2021.1

- Improved 3D LUT export:

    - 3D LUT export is now available for any source color space.

    - Added support for exporting 3D LUT files in **3D LUT (NLE .cube)** format for DaVinci Resolve or Adobe Premiere Pro or **3D LUT (SDI/SMPTE .cube)** format for hardware LUT boxes.

    - When exporting a **3D LUT (NLE .cube)** format LUT, you can select the **Extend S-Log input range** check box and choose **IRIDAS/Adobe** or **DaVinci Resolve** to include information about the input range for your destination editor.

    - Added a **Precision** check box in the Export Color Settings dialog to allow you to save standard (33x33x33) or high-precision (65x65x65) LUTs.

- Enhanced essence mark format support in the Metadata pane in the Inspector.

- Added **OpenCL/OpenGL interoperability** controls in the Options pane. OpenCL/OpenGL interoperability allows OpenCL and OpenGL to share rendered frames and can improve playback performance, but it can cause instability with some hardware and drivers.

  - Select **Performance** to enable OpenCL and OpenGL interoperability. We recommend using this setting in most cases for optimum playback performance.

  - Select **Compatibility** to turn off interoperability if you notice artifacts or corruption in rendered frames.

- Added support for the AXS-AR3 AXS Memory Thunderbolt™ card reader.

- Improved the bit rate metadata display on the File tab of the Inspector to more accurately represent clip bit rates.

The Catalyst Browse window

The Catalyst Browse window can be displayed in two modes:

- In Media Browser mode, you can use the Media Browser to browse your computer for media files, work with clip lists, and transcode files.

- In View mode, you can preview media, log mark in and out points, and adjust colors.

Click the **Media Browser** or **View** button at the top of the Catalyst Browse window to change modes.

Media Browser mode

View mode

Mode Selector

Options

Inspector

Media Browser

Toolbar
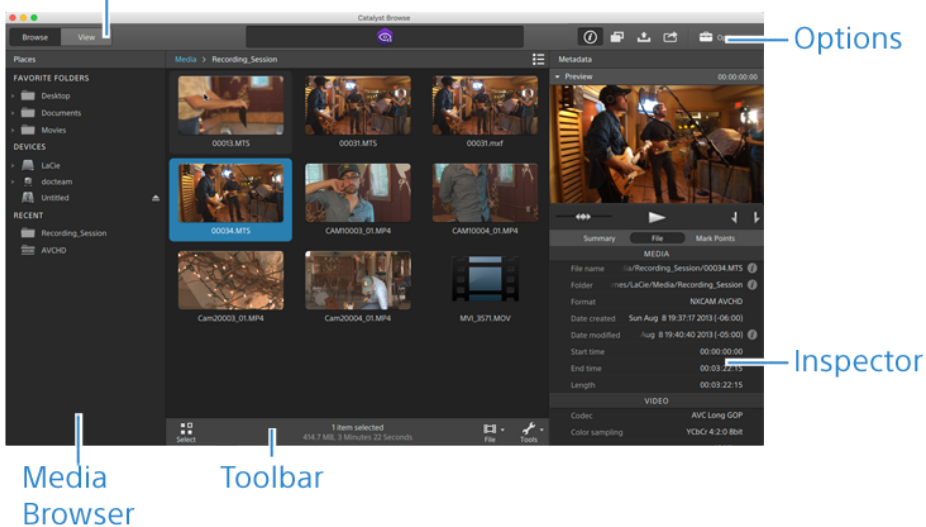
Feature comparison

With Catalyst Prepare, you can go beyond browsing and viewing to a full-featured media preparation and logging tool.

Feature	Catalyst Browse	Catalyst Prepare
Format		
XDCAM formats	✓	✓
XAVC Intra	✓	✓
XAVC Long GOP	✓	✓
XAVC Long 422 3840x2160 200 Mbps export		✓
XAVC S	✓	✓
X-OCN	✓	✓
Sony RAW	✓	✓
SStP	✓	✓
XAVC HS (read only)	✓	✓
DPX export	✓	✓

Feature	Catalyst Browse	Catalyst Prepare
DPX read		✓
OpenEXR export	✓	✓
OpenEXR read		✓
DNxHD		✓
ProRes (read only on Windows; read/export on macOS	✓	✓
H.264	✓	✓
WAV (export only)		✓
MP3 (export only)		✓
Organize		
View/edit clip lists	✓	✓
Storyboard creation		✓
Subclip creation		✓
Organize clips using libraries		✓
Media bins		✓
Copy clips with checksum verification		✓
Copy between mark in/out	✓ (MXF/EX)	✓ (Any file)*
Batch renaming with prefix, numbering, and suffix		✓
Manage audio channels in multichannel audio files		✓
Drag and drop to copy between folders (and bins in Prepare)		✓
Export		
Batch transcode	✓ (if same source settings)	✓
Transcode between in and out points	✓	✓

Feature	Catalyst Browse	Catalyst Prepare
Export with color settings	✓	✓
Load, save, and delete transcoding presets		✓
Convert SD and HD sources to modern progressive HD and UHD assets		✓
Burn in clip names, timecode, and watermarks		✓
Export storyboard as EDL (Catalyst Edit, Vegas, Final Cut, Premiere)		✓
Map audio channels during export		✓
Transcode using proxy as source clip		✓
Override start timecode during copy/export		✓
Crop aspect ratio during export	✓	✓
Transcode DPX to other formats	✓	✓
Transcode OpenEXR to other formats	✓	✓
Convert segmented body partitions for XDCAM	✓	✓
Full-volume backup with checksum verification		✓
Upload original clips to Ci	✓	✓
Upload clips to Ci in a transcoded format	✓	✓
Upload clips to Ci with color settings	✓	✓
Upload clips to Ci with burned-in timecode and/or clip name		✓
Upload clips to YouTube		✓
Color Grading		
Global color adjustments	✓	
Per-clip color adjustments		✓
Batch apply color presets and looks to a selection of clips		✓

Feature	Catalyst Browse	Catalyst Prepare
Sony device color space controls (S-Log & S-Gamut)	✓	✓
Support for reading and rendering HDR color spaces (S-Log3, HLG, and PQ)	✓	✓
Read SR Live settings from clip metadata and use clip settings or manual adjustments to convert between standard- and high-dynamic range content.		✓
SDR gain: convert between standard- and high-dynamic-range content	✓	✓
SDR knee curve: preserve midrange colors and highlights when exporting HDR content to an SDR format or displaying on an SDR display		✓
SDR knee saturation: compensate for decreased saturation around the knee curve when exporting HDR content to an SDR format or displaying on an SDR display		✓
SDR black level: adjust black levels when the working color space is set to Rec.2020/S-Log3 (HDR)		✓
Apply ASC-CDL to a selection of clips		✓
High-quality Sony RAW development	✓	✓
Three-wheel color grading	✓	✓
Curves grading	✓	✓
Import ASC-CDL (.cdl) color correction settings	✓	✓
Export color correction settings as ASC-CDL (.cdl) or 3D LUT (.3dl or .cube)	✓	✓
Tangent device support (Tk/Mf/Kb/Wave)	✓	✓

Feature	Catalyst Browse	Catalyst Prepare
Other		
Stabilize clips using metadata	✓	✓
Batch encoding in the Stabilize Clip workspace		✓
Support clip rotation metadata	✓	✓
External monitor via Blackmagic Design	✓ (1 device)	✓ (2 devices)
Stitch multiple clips to create a single continuous clip		✓
Anamorphic desqueeze	✓	✓
Flash band correction	✓	✓
Export custom metadata as a sidecar file		✓
Add, delete, or edit essence marks in MXF clips	✓	✓
Read mark in/out points from MXF metadata	✓	✓
Create non-realtime (NRT) metadata for discontinuous timecode and essence marks when creating new NRT metadata during MXF copy	✓	✓
Synchronize mark points between source clip and library		✓
Read and export clips on FTP devices	✓	✓
Fast device-to-device copy between Sony devices via FTP	✓	✓
Copy clips between Sony and non-Sony FTP devices.		✓
Copy growing MXF files via FTP/FTPS from Sony decks		✓
Close growing MXF files generated by Sony decks		✓
Write, rename, and delete clips to SxS	✓	✓

Feature	Catalyst Browse	Catalyst Prepare
media and USB storage via FTP on the PZW-4000		
Format USB drives for the Sony PZW-4000 deck		✓
Create the XDROOT folder on USB drives or SxS media		✓
Interoperability with Catalyst Edit		✓
Drag and drop to Catalyst Edit timeline		✓
GPS metadata	✓	✓
GPS metadata map display		✓
Display OK/NG/KEEP metadata flag; sort and filter by flag	✓	✓

*Partial copy in Prepare requires transcode for some formats

Chapter 2

Finding media

Media Browser mode allows you to browse the media files on drives and devices connected to your computer.

When you double-click a file in Media Browser view, the file is loaded in View mode, where you can preview it or edit it.

For more information, see "Playing media" on page 47, "Marking in and out points for playback" on page 53, "Applying color correction" on page 73, or "Viewing and editing metadata" on page 59.

⚠ Catalyst Browse is designed to support clips from Sony cameras and devices. For expanded device support, please consider Catalyst Prepare.

The Media Browser is not available when Catalyst Browse is started in view-only mode.

An ![error icon] on a thumbnail indicates that an error was detected with the clip.

A ![disc archive icon] indicates a clip from an Optical Disc Archive volume.

An ![stabilize icon] on a thumbnail indicates a clip that contains stabilization metadata. For more information, see "Stabilizing clips" on page 66.

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

An ![rotate icon] on a thumbnail indicates a rotated clip. For more information, see "Working with clips" on page 70.

An ![disc span icon] 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 ![link icon] on a thumbnail indicates a clip that spans multiple files due to file-size limitations but is displayed in Catalyst Browse 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 ![link icon] indicator is removed, and the clips are combined in a new clip that you can transcode. For more information, see "Saving and sharing clips" on page 102 or "Saving and sharing clips" on page 102.

An ![proxy icon] on a thumbnail indicates a proxy clip that does not have a full-resolution clip available.

Choosing a folder

Click the **Media Browser** button at the top of the Catalyst Browse window to view the Media Browser.

Use the Media Browser to browse your computer for video files.

The top of the Media Browser will display the current folder and its parent folder. You can click the link to the parent folder to navigate up one level.
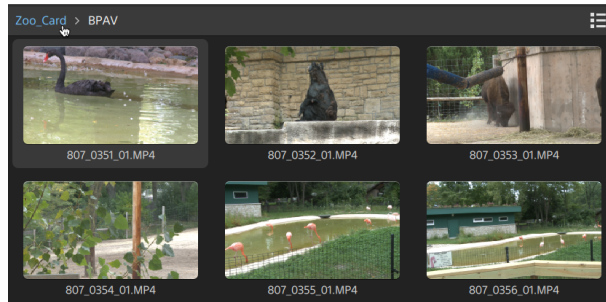
💡 To navigate quickly, click the **File** button ▤ at the bottom of the Media Browser and choose **Go to location**.

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

To remove a folder from the Favorite Folders list, select the folder in the Places pane and click the **X** button:
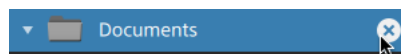
Connect to a device via FTP

You can use Catalyst Browse to work with clips on a remote server using FTP/FTPS in much the same way you work with clips on your computer's drives.
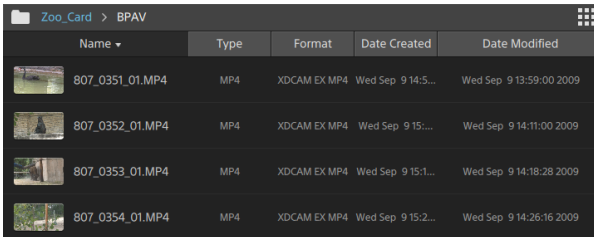
For more information, see "Working with FTP devices" on page 102.

Displaying files in a list or thumbnail mode

Click the button to toggle thumbnail ⊞ and list ☰ 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.
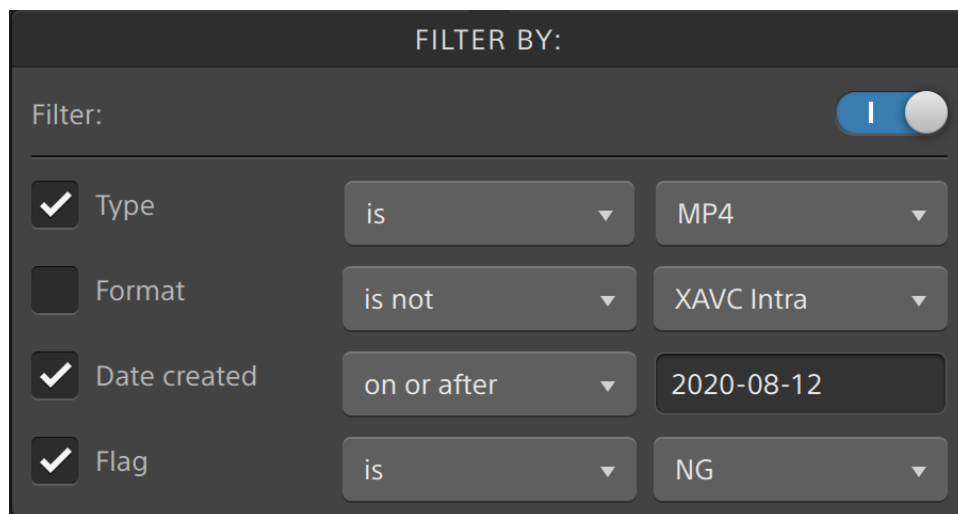
   Click the **Close** button ⊗ to close the Search bar and clear the search results from the Media Browser.

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

Filtering clips

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

1. Select the folder you want to view.

2. Click the **Filter** button ▼ to display the Filter By menu at the top of the Media Browser.

3. Enable the **Filter** switch at the top of the menu to enable the filter.

4. Select the check box for each filter you want to apply.

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

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

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

💡 Using filtering, you can quickly find and select clips that you had tagged **OK** during shooting and copy or transcode the filtered clips. For more information, see "Transcoding clips" on page 109 or "Copying clips" on page 113.

Selecting files

■ 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 Command (macOS) to select multiple files.

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

Copying files

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. For more information, see "Saving and sharing clips" on page 102.

Renaming files

1. Select a file.

2. Click the **File** button ▤ at the bottom of the Media Browser, choose **Rename**, and type a new name in the edit box.

💡 You can also press F2 to rename the selected file.

Renaming is not available for proxy clips or clips that are part of an AVCHD folder structure.

⚠️ Renaming is not available when Catalyst Browse is started in view-only mode.

Deleting files

1. Select a file.

2. Click the **File** button ▥ at the bottom of the Media Browser and choose **Delete**.

   💡 Deleting files from an AVCHD folder structure is not supported.

   ⚠️ Deleting is not available when Catalyst Browse is started in view-only mode.

Showing source clips

1. Select a file.

2. Click the **File** 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 for reading

Catalyst Browse 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

Format	Frame Size	Frame Rate	Field Order	Video Codec	Bit Rate	Audio Channels
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
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 MPEG-4 AAC, 6 (5.1) channels, 48 kHz, 640 kbps	1 or .5 Mbps
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 MPEG-4 AAC, 6 (5.1)	3 Mbps

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

Format	Frame Size	Pixel Aspect Ratio	Frame Rate	Video Codec	Audio	Bit Rate
XAVC Long	1920x1080	1.0	23.976p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Long, Main Profile or High Profile	2-channel PCM or AAC, 48 kHz, 16 bit 4-channel PCM or AAC, 48 kHz, 24 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 4-channel PCM or AAC, 48 kHz, 24 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 4-channel PCM or AAC, 48 kHz, 24 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 4-channel PCM or AAC, 48 kHz, 24 bit	200
XAVC Long	3840x2160	1.0	100p, 119.88p	MPEG-4 AVC Long, Main Profile or High Profile	2-channel PCM or AAC, 48 kHz, 16 bit 4-channel PCM or AAC, 48 kHz,	200

Format	Frame Size	Pixel Aspect Ratio	Frame Rate	Video Codec	Audio	Bit Rate
					24 bit	

XAVC HS

Format	Frame Size	Pixel Aspect Ratio	Frame Rate	Video Codec	Audio	Bit Rate
HEVC Proxy	1920x1080	1.0	23.976p, 30p, 50p, 59.94, 100p, 119,98p	HEVC Long, 10-bit, 4:2:0	2-channel PCM, 48 kHz, 16 bit or 24 bit	16
HEVC	3840x2160	1.0	23.976p	HEVC Long, 10-bit, 4:2:0	2-channel PCM, 48 kHz, 16 bit or 24 bit	30
					4-channel PCM, 48 kHz, 16 bit or 24 bit	
HEVC	3840x2160	1.0	50p	HEVC Long, 10-bit, 4:2:0	2-channel PCM, 48 kHz, 16 bit or 24 bit	45
					4-channel PCM, 48 kHz, 16 bit or 24 bit	
HEVC	3840x2160	1.0	59.94p	HEVC Long, 10-bit, 4:2:0	2-channel PCM, 48 kHz, 16 bit or 24 bit	78
					4-channel PCM, 48 kHz, 16 bit or 24 bit	
HEVC	3840x2160	1.0	100p	HEVC Long, 10-bit, 4:2:0	2-channel PCM, 48 kHz, 16 bit or 24 bit	200
					4-channel PCM, 48 kHz, 16 bit or 24 bit	
HEVC	3840x2160	1.0	119.88p	HEVC Long, 10-bit, 4:2:0	2-channel PCM, 48 kHz, 16 bit or 24 bit	200

Format	Frame Size	Pixel Aspect Ratio	Frame Rate	Video Codec	Audio	Bit Rate
					4-channel PCM, 48 kHz, 16 bit or 24 bit	
HEVC	3840x2160	1.0	23.976p	HEVC Long, 10-bit, 4:2:2	2-channel PCM, 48 kHz, 16 bit or 24 bit	60
					4-channel PCM, 48 kHz, 16 bit or 24 bit	
HEVC	3840x2160	1.0	50p	HEVC Long, 10-bit, 4:2:2	2-channel PCM, 48 kHz, 16 bit or 24 bit	200
					4-channel PCM, 48 kHz, 16 bit or 24 bit	
HEVC	3840x2160	1.0	59.94p	HEVC Long, 10-bit, 4:2:2	2-channel PCM, 48 kHz, 16 bit or 24 bit	100
					4-channel PCM, 48 kHz, 16 bit or 24 bit	
HEVC	3840x2160	1.0	100p	HEVC Long, 10-bit, 4:2:2	2-channel PCM, 48 kHz, 16 bit or 24 bit	280
					4-channel PCM, 48 kHz, 16 bit or 24 bit	
HEVC	3840x2160	1.0	119.88p	HEVC Long, 10-bit, 4:2:2	2-channel PCM, 48 kHz, 16 bit or 24 bit	280
					4-channel PCM, 48 kHz, 16 bit or 24 bit	

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

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	23.976p, 24p, 25p, 29.97p	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	23.976p, 24p, 25p, 29.97p,	LT, ST, XT

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

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

NXCAM

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

AVC H.264/MPEG-4

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

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

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

AS-11 DPP MXF

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

Avid DNxHD®

Container: MXF

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

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

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

Apple ProRes

Container: MOV

Audio Codec: PCM

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

HDV

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

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

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

DV

Container: AVI (Windows), MOV (macOS)

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

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

Supported video devices

Catalyst Browse supports the following video volumes and devices:

Folder Structure	Storage Media	Root Folder	Supported Format
XAVC-XD-Style	SxS memory card (exFAT) XQD memory card	XDROOT	XDCAM HD/HD422/IMX/DVCAM, SStP, XAVC Intra, XAVC Long
XAVC-M4-Style	SxS memory card (exFAT) XQD memory card SD card	M4ROOT	XAVC S, XAVC HS
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 SxS memory card (UDF)	Media root	XDCAM HD/HD422/IMX/DVCAM, XAVC Intra
BPAV-Style	SxS memory card (FAT32)	BPAV	XDCAM EX (MPEG HD, DVCAM)

Folder Structure	Storage Media	Root Folder	Supported Format
	SD card		
AVCHD structure	SD card	AVCHD/BDMV	AVCHD

Playing media

When you double-click a file in Media Browser mode, the file is loaded in View 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 "Finding media" on page 15.

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

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

Previewing video

When you double-click a file in Media Browser mode, the file is loaded in View 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 "Finding media" on page 15.

You can also choose to display the video preview in a secondary window that you can position anywhere on your screen or on a secondary display. For more information, see "Editing Catalyst Browse options" on page 117.

💡 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:
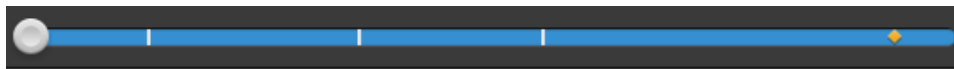
A indicates a clip from an Optical Disc Archive volume.

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 Browse options" on page 117.

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

You can click the trackbar below the transport controls to set the play position indicator:
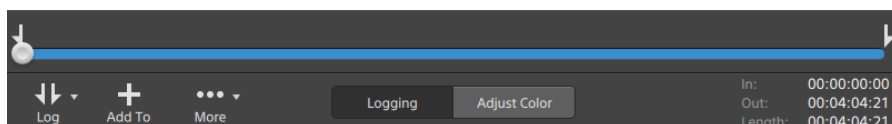
You can use the shuttle control on the transport toolbar to seek forward or backward or adjust the playback speed. For more information, see "Playing media" on page 52.

💡 For information about flipping and rotating video, enabling anamorphic desqueezing, and displaying safe zone and mask guides, please see "Playing media" on page 56.

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 73.

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.

  💡 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

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

Adjusting playback settings

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

Speed/Quality

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

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

Real Time/All Frames

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

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

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

- Real Time/Speed: ⏱
- Real Time/Quality: ⏱*
- All Frames/Speed: ▧
- All Frames/Quality: ▧*

Using the transport controls

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

Button		Description
◀	Go to Start	Moves the playback position indicator to the **Mark In** position. Click again to move to the beginning of the selected file.
◀‖	Previous Frame	Moves the playback position indicator one frame or field to the left.
▶	Play	Playback will start from the playback position indicator and continue until the **Mark Out** position or the end of the file.
‖▶	Next Frame	Moves the playback position indicator one frame or field to the right.
▶‖	Go to End	Moves the playback position indicator to the **Mark Out** position. Click again to move to the end of the selected file.
↻	Loop Playback	Plays only the area between the **Mark In** and **Mark Out** points in a continuous mode. For more information, see "Marking in and out points for playback" on page 53.

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 select the portion of the video you want to play.

1. Click the **Media Browser** button at the top of the Catalyst Browse window to view the Media Browser.

2. Double-click a file in Media Browser mode to load it in View 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 Browse window.

4. Click the trackbar below the transport controls to set the play position indicator:
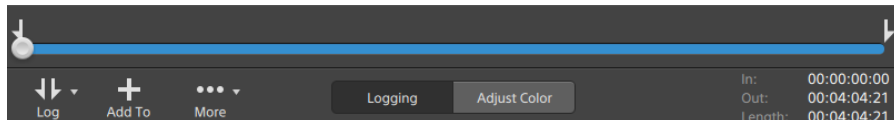
   If the current clip contains discontinuous timecode, an indicator is displayed in the timeline to identify the discontinuity:

5. Click the **Mark In** button.

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

7. Click the **Mark Out** button.

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

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

💡 You can quickly log mark in/out points by clicking the **In**, **Out**, and **Length** boxes at the bottom of the Catalyst Browse 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 59.

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 59.

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 Browse window to view the Media Browser.

2. Double-click a file in Media Browser mode to load it in View mode.

3. Click the trackbar below the transport controls to set the play position indicator:
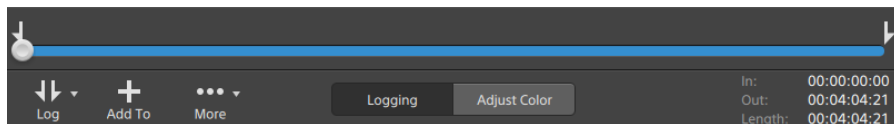
4. Click the **More** button and choose **Copy snapshot to clipboard**.

💡 Press Ctrl+C (Windows) or ⌘ -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 "Playing media" on page 47.

Saving a frame to a file

1. Click the **Media Browser** button at the top of the Catalyst Browse window to view the Media Browser.

2. Double-click a file in Media Browser mode to load it in View mode.

3. Click the trackbar below the transport controls to set the play position indicator:
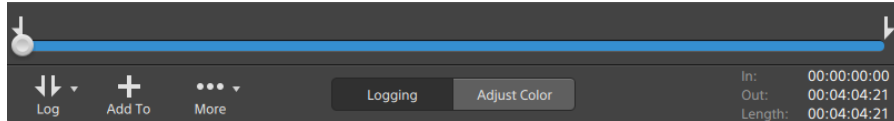
4. Click the **More** button and choose **Save snapshot**.

   💡 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 "Playing media" on page 47.

   You can save the location and format used for saving the file in Options. For more information, see "Editing Catalyst Browse options" on page 117.

Adjusting and monitoring audio levels

Click the speaker in the activity pane at the top of the Catalyst Browse window to display audio controls.
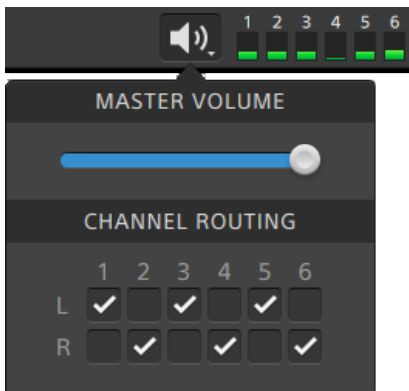
Drag the **Master Volume** fader to increase or decrease audio levels. During preview, the meters allow you to monitor the level of each audio channel.

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 Browse supports only stereo output devices.

Editing clip settings

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

CLIP SETTINGS					
Flip horizontal:					⚪ ○
Flip vertical:					⚪ ○
Rotate preview (degrees):		Auto	0	90	180	270
Anamorphic desqueeze:	Off	1.25x	1.3x	1.5x	1.8x	2x
CLIP OVERLAYS					
Show safe areas:					⚪ ○
Masking ratio:		None	16:9	17:9	2:1	2.39:1

Item	Description
Flip horizontal Flip vertical	Click the **Flip horizontal** or **Flip vertical** switch to flip the left-to-right or top-to-bottom orientation of the video frame. 💡 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 "Saving and sharing clips" on page 102.
Rotate preview (degrees)	Select a button to rotate the video preview image. Select **Auto** to use the clip-rotation metadata setting if available, or select **0**, **90**, **180**, or **270** to specify the desired clip rotation.
Anamorphic	Select a desqueeze button to apply anamorphic stretching to

Item	Description
desqueeze	widescreen video, or click **Off** to turn off stretching.
Show safe areas	Click the switch to enable safe area guides and a center point in the video preview.
	When **Show safe areas** is enabled, Catalyst Browse 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.
	💡 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 "Saving and sharing clips" on page 102.

Working with clips

Catalyst Browse gives you control over your individual media clips.

Viewing and editing metadata

When you're in Media Browser or View 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.

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

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:

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

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

📝 When a clip list is selected in Browse mode, the Metadata pane displays additional information about the currently selected clip list. When a clip list is open in View (Clip List or Clip) mode, the Metadata pane displays information about the selected subclip. For more information, see "Working with clip lists" on page 61.

⚠️ Editing metadata is not available when Catalyst Browse is started in view-only mode.

💡 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 " Copying files " on page 20.

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 .

Editing summary metadata

1. Click the Summary tab.

   Click the **Unlock** button 🔒 to enable editing summary information for the selected files.
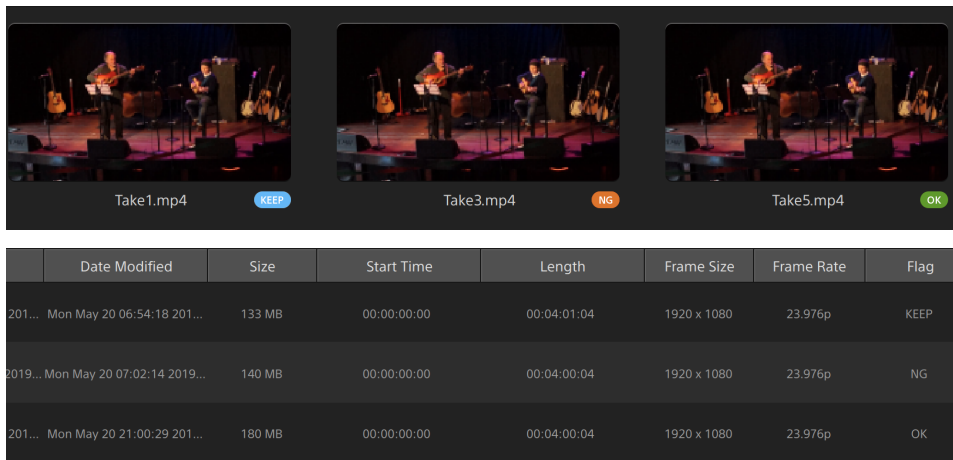
2. In the Logging section of the Summary tab, edit the **Flag**, **Title**, **Creator**, and **Description** settings as needed.

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

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

   📝 Not all media formats support summary metadata.

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

	Date Modified	Size	Start Time	Length	Frame Size	Frame Rate	Flag
201...	Mon May 20 06:54:18 201...	133 MB	00:00:00:00	00:04:01:04	1920 x 1080	23.976p	KEEP
2019...	Mon May 20 07:02:14 2019...	140 MB	00:00:00:00	00:04:00:04	1920 x 1080	23.976p	NG
201...	Mon May 20 21:00:29 201...	180 MB	00:00:00:00	00:04:00:04	1920 x 1080	23.976p	OK

   💡 You can also use **Flag** metadata to filter the contents of the Media Browser. For more information, see .

Editing essence marks

1. Select a clip to display its metadata.

2. Click the Mark Points tab.

3. Click an essence mark's label or timecode value to type a new value.

⚠️ Adding and editing essence marks is supported only for clips with non-realtime (NRT) metadata and requires write access to the volume.

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

Adding a mark point

1. Select a clip to display its metadata.

2. Click the Mark Points tab.

3. Click the trackbar below the video preview to set the cursor position where you want to add a mark point(or click the timecode display to move the cursor to a specific location).

4. Click the **Add Point** button or press E.

⚠️ Adding and editing essence marks is supported only for clips with non-realtime (NRT) metadata 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 🗑 .

⚠️ The **Delete** command is not available when FTP-based clips are selected.

Working with clip lists

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

■ XDCAM media in an XD root folder 📁 .

■ XAVC media in an XD root folder 📁 .

■ RAW media in an AxS folder 📁 .

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

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

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

Creating a clip list

1. Click the **Media Browser** button at the top of the Catalyst Browse window to view the Media Browser.

2. Navigate to the root folder XAVC or AXS 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 Browse 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 Browse window and choose **New empty clip list** from the menu.

5. Type a name for the new clip list and click **OK**.

6. Catalyst Browse loads your new clip list in View mode.

Opening a clip list

1. Click the **Media Browser** button at the top of the Catalyst Browse window to view the Media Browser.

2. Navigate to the root folder XAVC or AXS 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 Browse 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.
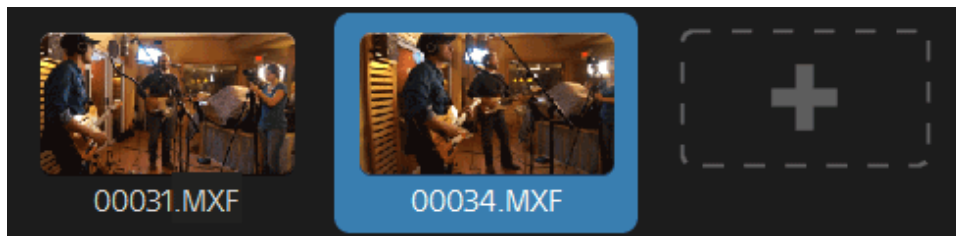
Adding clips

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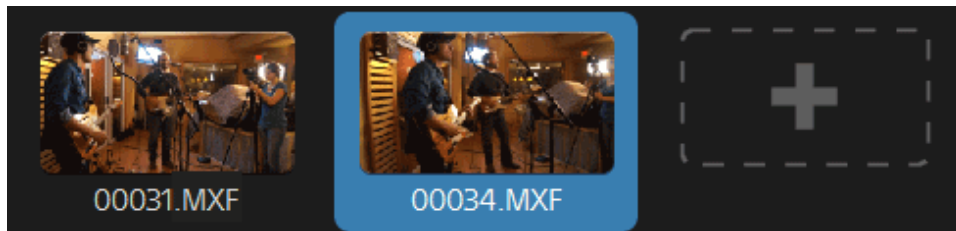
> You can click the **Add** button at the bottom of the Catalyst Browse window when you're in Clip List mode.

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 Browse window to switch to Clip List mode.

Select a clip and click the **Remove** button 🗑 at the bottom of the Catalyst Browse 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 Browse 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 53.

Viewing metadata for clip lists

When you're in Media Browser or View 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 59.

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 Browse window to write a clip list back to a device. For more information, see "Saving and sharing clips" on page 102.

Working with EDLs

You can use Catalyst Browse to import an EDL.

Importing an EDL

1. Click the **Tools** button ✎ at the bottom of the Catalyst Browse 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 ⊘ₓ . 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 Browse 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 "Saving and sharing clips" on page 102.

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 Browse window and choose **Combine relay clips**. The Combine Relay Clips dialog is displayed.

⚠️ 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 Browse 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 Browse streamlines the process of editing multicamera video in a nonlinear editor.

1. Select the MXF clips you want to synchronize.

2. Click the **Tools** button ✎ at the bottom of the Catalyst Browse 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 Browse allows you to use metadata from clips to stabilize the image.

1. Click the **Media Browser** button at the top of the Catalyst Browse window to view the Media Browser.

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

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

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

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

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

💡 The **Stabilize** button 🎬 is not available when multiple clips are selected.

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 53.

   b. Choose a **Stabilization mode** setting:

○ Select the **Auto** button in the Inspector to adjust stabilization automatically.

Item	Description
Stabilized crop resolution	Displays the dimensions of the stabilized frame after cropping is applied.
Minimum cropping ratio	Drag the slider to set the amount of cropping that can be applied to stabilize a clip.
	This setting is persisted when changing the selected clip or exiting the Stabilize Clip workspace.
	When stabilizing a clip using a **Minimum cropping ratio** setting that is too large, clips with significant camera shake may exhibit a black border around the frame. We recommend using a setting that is close to the default cropping ratio value in manual mode. To check the default manual cropping ratio, click the **Manual** button and double-click the **Cropping ratio** slider handle to reset the setting to its default.
Minimum stabilized crop resolution	Displays the minimum dimensions of the stabilized frame based on the **Minimum cropping ratio** setting.

○ Select the **Manual** button if you want to adjust stabilization settings:

Item	Description
Stabilized crop resolution	Displays the dimensions of the stabilized frame after cropping is applied.
Cropping ratio	Drag the slider to set the maximum amount of cropping that can be applied to stabilize a clip.
	This setting is persisted when changing the selected clip.

Item	Description
	📝 When stabilizing a clip using a **Cropping ratio** setting larger than the default value, clips with significant camera shake may exhibit a black border around the frame. We recommend using a **Cropping ratio** setting that is close to the default value. You can double-click the slider handle to reset the setting to its default.

1. Click the **Before/After** button at the top of the video preview to choose a preview mode so you can compare your original and stabilized video before applying the changes, and then use the transport controls below the timeline to preview the clip.

   - ▭ **Before**: the clip is displayed in its original state.

   - ▭ **After**: the cropped and stabilized clip is displayed.

   - ▢▯ **2 Up**: two full frames are displayed in a split-screen view with the original video on the left and the stabilized video on the right.

2. To save a clip with the stabilization settings, click the **Export** button ⬆ at the top of the Catalyst Browse window, and use the Export pane to choose a destination and format for your exported files. Click the **Export** button at the bottom of the Export pane to start exporting the selected clip.

   For more information about the controls, please see "Saving and sharing clips" on page 102.

Repairing flash bands

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

Catalyst Browse can detect and remove flash bands.

⚠ Flash-band repair is not available when Catalyst Browse is started in view-only mode.

1. Click the **Media Browser** button at the top of the Catalyst Browse 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 Browse 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 53.

b. Click the **Detect** button to scan the clip and mark flash bands automatically. A marker is added to the timeline, and an entry is created in the Inspector.

> Automatic flash band detection is available only for MXF clips. To mark a flash band manually, click the trackbar below the transport controls to set the play position indicator and click the **Add** button in the Inspector.
>
> Please note that automatic and manual flash-band repair can yield different results.
>
> To remove a flash band marker, select it in the Inspector and click the **Delete** button.

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

- **Before**: full-frame video is displayed in its original state.

- **After**: full-frame video is displayed in its repaired state.

1. Click **Repair**. The transcode dialog is displayed to allow you to choose settings for the repaired file.

   For more information, see "Saving and sharing clips" on page 102.

Working with rotated clips

When clips are recorded with camera-rotation metadata, you can choose how Catalyst Browse treats clip thumbnails and video previews.

> An on a thumbnail indicates a rotated clip. For more information, see "Finding media" on page 15.

Rotating clip thumbnail frames

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

2. Enable the **Automatically rotate thumbnails** switch to detect clip rotation and adjust thumbnail images in Media Browser mode:

0_Degrees.MP4

90_Degrees.MP4

180_Degrees.MP4

270_Degrees.MP4

When the switch is off, rotation metadata is ignored when displaying thumbnails:

0_Degrees.MP4

90_Degrees.MP4

180_Degrees.MP4

270_Degrees.MP4
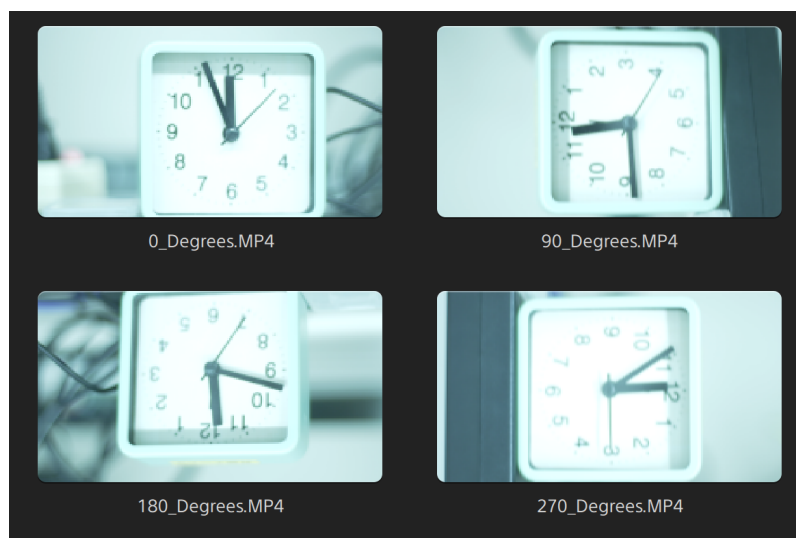
Rotating the video preview

1. Double-click a clip in Media Browser mode to preview it:

2. Click the ⚙ button above the video preview.

3. In Clip Settings, select a **Rotate preview (degrees)** button to rotate the video preview image.

    Select **Auto** to use the clip-rotation metadata setting if available, or select **0**, **90**, **180**, or **270** to specify the desired clip rotation.

    For more information, see "Playing media" on page 56.

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 applied globally to all clips. If you want to save your color-correction settings, you can transcode clips to create new files. For more information, see "Saving and sharing clips" on page 102.

⚠️ Color correction is not available when Catalyst Browse is started in view-only mode.

Editing Color Adjustments controls

You can use the Color Adjustments controls in the Inspector ⓘ to perform color grading that is applied globally to all clips. If you want to save your color-correction settings, you can transcode clips to create new files. For more information, see "Saving and sharing clips" on page 102.

⚠️ Color adjustments are not available when Catalyst Browse is started in view-only mode.

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 Browse window to view the Media Browser.

2. Double-click a clip or clip list in the Media Browser to load it.

   💡 Color adjustments are available only in View mode.

3. Click the **Adjust Color** button at the bottom of the Catalyst Browse window. In the Adjust Color workspace, Catalyst Browse 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 "Editing Catalyst Browse options" on page 117.

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

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

  You can use the buttons at the top of the waveform monitor to display overlaid (⬗) or separate (⌁) RGB waveforms and isolate colors ◯ ◯ ◯ ◯ .

Waveform settings

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

> 💡 The **Settings** button ⚙ is available only when the **Working color space** drop-down is set to **Rec-2020/S-Log3 (HDR)** and the **Preview color space** drop-down is set to **Rec.2020/S-Log3, Rec.2020/HLG, Rec.2020/HLG AIR Matching, Rec.2020/HLG (bypass OOTF), Rec.2020/PQ, Rec.2020/PQ AIR Matching,** or **Rec.2020/PQ (bypass OOTF)**.
>
> For more information, see "Color management settings" on page 119 or "Editing Catalyst Browse options" on page 117.

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^2.

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 ◯ ◯ ◯ .
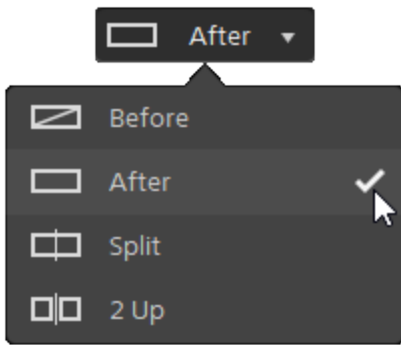
- Click the **Vectorscope** button ⊕ at the bottom of the window to toggle the vectorscope monitor.

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

  The vectorscope displays targets for broadcast-legal saturations of red (R), magenta (Mg), blue (B), cyan (Cy), green (G), and yellow (Yl). 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.

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

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

Choosing a source color space

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

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

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

Converting between HDR/wide color gamut color spaces

When an HDR or wide color gamut color space is selected 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 80, "Grading with hypergamma conversion" on page 87,or "Applying color correction" on page 91.

Viewing the working color space

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

Viewing the color space for the video preview

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

Viewing the color space for the external monitor

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

Adjusting exposure, temperature, and tint

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

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

- 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.

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

- 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 if it isn't already visible. 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 🔧 , and choose **Make default**.

To replace the clip's current look profile with the default, click the **Look Tools** button 🔧 , and 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.

💡 To add look profiles (including .cube files) to Catalyst Browse, 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 if it isn't already visible. In the Adjust Color workspace, the Tone Curve section in the Inspector pane contains a color curve you can use to adjust the red, green, and blue channels graphically. As you adjust the controls, the

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

💡 For precise control, you can hold Ctrl (Windows) or ⌘ (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 Browse window and choose **Save preset** from the menu to preserve **Brightness** and **Contrast** settings.

For more information, see "Exporting color-correction settings" on page 95 and "Applying color correction" on page 82.

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 Browse window to load color presets or ASC-CDL (American Society of Cinematographers Color Decision List) files to exchange color-grading information.

⚠️ Color correction is not available when Catalyst Browse is started in view-only mode.

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 73.

1. Click the **Media Browser** button at the top of the Catalyst Browse window to view the Media Browser.

2. Double-click a clip in the Media Browser to load it.

   💡 Color correction is available only in View mode.

3. Click the **Adjust Color** button at the bottom of the Catalyst Browse window.

4. Click the **Inspector** button ⓘ in the toolbar to display the Inspector pane if it isn't already visible.

5. Click the **Tools** button 🔧 at the bottom of the Catalyst Browse 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 all clips that you open.

Applying an ASC-CDL file

1. Click the **Media Browser** button at the top of the Catalyst Browse window to view the Media Browser.

2. Double-click a clip in the Media Browser to load it.

   💡 Color correction is available only in View mode.

3. Click the **Adjust Color** button at the bottom of the Catalyst Browse window.

4. Click the **Inspector** button 🛈 in the toolbar to display the Inspector pane if it isn't already visible.

5. Click the **Tools** button 🔧 at the bottom of the Catalyst Browse 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 all clips that you open.

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 Browse 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.

You can use the Color Adjustments controls in the Inspector 🛈 to perform color grading that is applied globally to all clips. If you want to save your color-correction settings, you can transcode clips to create new files. For more information, see "Saving and sharing clips" on page 102.

Grading with Rec.709 gamma

1. Click the **Media Browser** button at the top of the Catalyst Browse window to view the Media Browser.

2. Double-click a clip in the Media Browser to load it.

   💡 Color correction is available only in View mode.

3. Click the **Adjust Color** button at the bottom of the Catalyst Browse window. In this mode, Catalyst Browse 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 73.

4. Click the **Inspector** button 🛈 in the toolbar to display the Inspector pane if it isn't already visible. In the Adjust Color workspace, the Inspector pane provides controls that you will use to adjust 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 73.

8. If your source video is set to **S-Gamut/S-Log2**, **S-Gamut3.Cine/S-Log3**, or **S-Gamut3/S-Log3**, 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).

   💡 To add look profiles (including .cube files) to Catalyst Browse, 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.

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 73.

10. Click the **Tools** button 🔧 at the bottom of the Catalyst Browse 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

1. Click the **Media Browser** button at the top of the Catalyst Browse window to view the Media Browser.

2. Double-click a clip in the Media Browser to load it.

   💡 Color correction is available only in View mode.

3. Click the **Adjust Color** button at the bottom of the Catalyst Browse window. In this mode, Catalyst Browse 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 73.

4. Click the **Inspector** button 🛈 in the toolbar to display the Inspector pane if it isn't already visible. In the Adjust Color workspace, the Inspector pane provides controls that you will use to adjust 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.

8. If your source video is set to **S-Gamut/S-Log2**, **S-Gamut3.Cine/S-Log3**, **S-Gamut3/S-Log3**, **Rec.2020/S-Log3**, **Rec.2020/HLG**, or **Rec.2020/PQ**, you can use the Source Settings controls to adjust the **Exposure**, **Temperature**, and **Tint** of your clip. For more information, see "Editing Color Adjustments controls" on page 73.

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 73.

10. Click the **Tools** button 🔧 at the bottom of the Catalyst Browse window and choose **Export color settings** from the menu if you want to export your settings as a 3D LUT file. For more information, see "Exporting color-correction settings" on page 95.

Log (cinematic) color grading

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

You can use the Color Adjustments controls in the Inspector 🛈 to perform color grading that is applied globally to all clips. If you want to save your color-correction settings, you can transcode clips to create new files. For more information, see "Saving and sharing clips" on page 102.

1. Click the **Media Browser** button at the top of the Catalyst Browse window to view the Media Browser.

2. Double-click a clip in the Media Browser to load it.

    💡 Color correction is available only in View mode.

3. Click the **Adjust Color** button at the bottom of the Catalyst Browse window. In this mode, Catalyst Browse 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 73.

4. Click the **Inspector** button 🛈 in the toolbar to display the Inspector pane if it isn't already visible. In the Adjust Color workspace, the Inspector pane provides controls that you will use to adjust color-grading settings.

5. The **Source** drop-down list displays the color space that is applied to your source media. Click the

   Unlock button ![lock icon] 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** ![options icon] 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 73.

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 73.

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.

   ![tip icon] To add look profiles (including .cube files) to Catalyst Browse, 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 ![tools icon] at the bottom of the Catalyst Browse window and choose **Export color settings** from the menu if you want to export your settings as a 3D LUT file. For more information, see "Exporting color-correction settings" on page 95.

Advanced cinematic (ACES) color grading

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

You can use the Color Adjustments controls in the Inspector 𝒊 to perform color grading that is applied globally to all clips. If you want to save your color-correction settings, you can transcode clips to create new files. For more information, see "Saving and sharing clips" on page 102.

1. Click the **Media Browser** button at the top of the Catalyst Browse window to view the Media Browser.

2. Double-click a clip in the Media Browser to load it.

   💡 Color correction is available only in View mode.

3. Click the **Adjust Color** button at the bottom of the Catalyst Browse window. In this mode, Catalyst Browse 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 73.

4. Click the **Inspector** button 𝒊 in the toolbar to display the Inspector pane if it isn't already visible. In the Adjust Color workspace, the Inspector pane provides controls that you will use to adjust color-grading settings.

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

   - Choose **S-Gamut/S-Log2** for S-Log2, RAW, or X-OCN sources.

   - Choose **S-Gamut3.Cine/S-Log3** or **S-Gamut3/S-Log3** for S-Log3, RAW, or X-OCN sources.

6. The **Working** box displays the color space that should be applied to color grading adjustments. Click the **Options** 🧰 button and choose **ACES** from the **Working color space** drop-down list to change the setting if necessary.

7. If your source video is set to **S-Gamut/S-Log2**, **S-Gamut3.Cine/S-Log3**, or **S-Gamut3/S-Log3**, you can use the Source Settings controls to adjust the **Exposure**, **Temperature**, and **Tint** of your clip. For more information, see "Editing Color Adjustments controls" on page 73.

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 73.

9. Click the **Tools** button ![wrench] at the bottom of the Catalyst Browse window and choose **Export color settings** from the menu if you want to export your settings as a 3D LUT file.

   Output will be Rec.709 (full).

   For more information, see "Exporting color-correction settings" on page 95.

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.

You can use the Color Adjustments controls in the Inspector ![info icon] to perform color grading that is applied globally to all clips. If you want to save your color-correction settings, you can transcode clips to create new files. For more information, see "Saving and sharing clips" on page 102.

1. Adjust Catalyst Browse options for HDR color grading:

   a. Click the Options button ![options icon] .

   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** switch to convert between standard- and high-dynamic-range content:

      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.

c. From the **Preview color space** drop-down list, choose the color space for the Catalyst Browse 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 73.

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

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

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

Sony BVM-X300 version 2.0 monitor settings:

- ○ Color Space: ITU-R BT.2020

- ○ EOTF: S-Log3 (Live HDR)

- ○ Transfer Matrix: ITU-R BT.2020

- ○ In the Catalyst Browse 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 Browse 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 control to choose the gain 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 Browse window to view the Media Browser.

3. Double-click a clip in the Media Browser to load it.

💡   Color correction is available only in View mode.

4. Click the **Adjust Color** button at the bottom of the Catalyst Browse window. In this mode, Catalyst Browse 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 73.

5. Click the **Inspector** button 𝒊 in the toolbar to display the Inspector pane if it isn't already visible. In the Adjust Color workspace, the Inspector pane provides controls that you will use to adjust 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 73.

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

   For more information, see "Exporting color-correction settings" on page 95.

Exporting color-correction settings

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

⚠ Color correction is not available when Catalyst Browse is started in view-only mode.

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 73.

1. Click the **Media Browser** button at the top of the Catalyst Browse window to view the Media Browser.

2. Double-click a clip in the Media Browser to load it.

   💡 Color correction is available only in View mode.

3. Click the **Adjust Color** button at the bottom of the Catalyst Browse window.

4. Click the **Inspector** button ⓘ in the toolbar to display the Inspector pane if it isn't already visible.

5. Click the **Tools** button ⚒ at the bottom of the Catalyst Browse 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

1. Click the **Media Browser** button at the top of the Catalyst Browse window to view the Media Browser.

2. Double-click a clip in the Media Browser to load it.

   💡 Color correction is available only in View mode.

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

4. Click the **Inspector** button 🛈 in the toolbar to display the Inspector pane if it isn't already visible and adjust your color settings as needed. For more information, see "Editing Color Adjustments controls" on page 73.

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

   ⚠️ Brightness and contrast are not saved explicitly with ASC-CDL files. When exporting an ASC-CDL file, the **Brightness** and **Contrast** settings are incorporated with the other 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 Browse window and choose **Save preset** from the menu to preserve **Brightness** and **Contrast** settings.

   For more information, see "Exporting color-correction settings" on page 95 and "Applying color correction" on page 82.

5. Click the **Tools** button 🔧 at the bottom of the Catalyst Browse 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

Exporting a 3D LUT (look-up table) captures your color settings — including the application of SR Live metadata — that can be applied in nonlinear editing software or a hardware LUT box

1. Click the **Media Browser** button at the top of the Catalyst Browse window to view the Media Browser.

2. Double-click a clip in the Media Browser to load it.

   💡 Color correction is available only in View mode.

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

4. Click the **Inspector** button 🛈 in the toolbar to display the Inspector pane if it isn't already visible and adjust your color settings as needed. For more information, see "Editing Color Adjustments controls" on page 73.

5. Click the **Tools** button 🔧 at the bottom of the Catalyst Browse window and choose **Export color settings** from the menu.

6. Use the Export As dialog box to specify the folder, file name, and settings you want to export:

   a. Use the browser to select the folder where you want to save your file.

   b. In the **File name** box, type the file name you want to use to save your 3D LUT.

      📝 When **SR Live metadata source** is set to **External file** in Options, the base name of the selected SRM file is provided by default. For more information, see "SR Live for HDR settings" on page 122.

   c. Choose a setting from the **Format** drop-down list to choose the type of 3D LUT you want to create:

      ○ Choose **3D LUT (NLE .cube)** to create a 3D LUT you can use with an NLE such as Blackmagic Design DaVinci Resolve or Adobe Premiere Pro.
         For more information, see "Applying a 3D LUT in Adobe Premiere Pro" on page 101 or "Applying a 3D LUT in Blackmagic Design DaVinci Resolve" on page 100.

- Choose **3D LUT (SDI/SMPTE .cube)** to create a 3D LUT you can use with a hardware LUT box.

d. If the input color space is S-Log2 or S-Log3 and the **Format** is set to **3D LUT (NLE .cube)**, you can select the **Extended S-Log input range** check box and choose a setting from the **Type** drop-down list to specify an extended input range.

- Choose **IRIDAS/Adobe** to create a 3D LUT you can use with Adobe Premiere Pro.

- Choose **DaVinci Resolve** to create a 3D LUT you can use with DaVinci Resolve.

💡 The **Extended S-Log input range** check box is used to correct for cases where an NLE treats files that use full range (such as S-Log3) as legal range. If the NLE has an input range setting, such as newer versions of Resolve, you do not need to select the **Extended S-Log input range** check box.

e. Choose a setting from the **Input color space** drop-down list to specify the color space that will be used as the input of the LUT.

f. Choose a setting from the **Output color space** drop-down list to specify the color space that will be used as the output of the LUT.

📝 Output color space is available only when the **Working color space** is set to **Rec.2020/S-Log3 (HDR)**. For more information, see "Applying color correction" on page 91.

g. Choose a setting from the **Precision** drop-down list box to choose a standard (33x33x33) or high-precision (65x65x65) LUT.

h. Select the **Source settings** check box if you want to include exposure, temperature, and tint settings with your LUT.

i. Select the **Convert to setting** check box if you want to export your LUT using the Hypergamma setting selected in the **Convert to** drop-down list in the Inspector.

📝 The **Convert to setting** check box is available only when the **Working color space** in Options is set to **Rec.709** and the **Convert to** drop-down in the Inspector pane is set to a Hypergamma conversion choice, such as **709(800)** or **HG8009G33**.

j. Select the **Look profile** check box if you want to include the selected look profile from the Inspector in your LUT.

The **Look profile** check box is displayed below the **Convert to** drop-down list when the **Working color space** in Options is set to **Rec.709** and the **Convert to** drop-down in the Inspector pane is not set to a Hypergamma conversion choice.

The **Look profile** check box is displayed below the **Color correction** check box when the **Working color space** in Options is set to **Log**.

k. Select the **Tone curve** check box if you want to include the tone curve from the Inspector in your LUT.

l. Select the **Color correction** check box if you want to include the color correction adjustments from the Inspector in your LUT.

7. Click **Export**. The LUT file will be saved in the folder you selected in step 6a.

Applying a 3D LUT in Blackmagic Design DaVinci Resolve

1. Follow the instructions in to save your 3D LUT file in **3D LUT (NLE .cube)** format.

2. Save the 3D LUT file in the following folder:

   - Windows: `C:\ProgramData\Blackmagic Design\DaVinci Resolve\Support\LUT\Sony`

   - macOS: `/macOS/Library/Application Support/Blackmagic Design/DaVinci Resolve/LUT/Sony`

     💡 Tips:

     - To locate the LUT folder, choose **File > Project Settings** in Resolve, and then click the **Open LUT Folder** button on the Color Management tab.

     - Use the **3D Lookup Table Interpolation** drop-down list to set 3D LUT interpolation to be **Trilinear** or **Tetrahedral**.

3. Ensure your project is set to use the intended output color space (typically Rec.709) on the timeline:

   a. In Resolve, choose **File > Project Settings**.

   b. Click the Color Management tab.

   c. From the **Color science** drop-down list, choose **DaVinci YRGB**.

   d. From the **Timeline color space** drop-down list, choose a Rec.709 color space, such as **Rec.709 (Scene)**.

   e. Click **Save**.

4. To apply the LUT to a clip, right-click the media thumbnail, choose **LUT** from the shortcut menu, choose **Sony**, and then choose the 3D LUT you want to use:

   If the source media color space uses Legal range (such as HLG XAVC), no further actions are required.

   If the source media color space uses Full range (such as S-Log3, for example), you must tell Resolve not to stretch the media range: right-click the media thumbnail, choose **Clip Attributes**, and then change **Data Levels** to **Full**.

Applying a 3D LUT in Adobe Premiere Pro

1. Follow the instructions in to save your 3D LUT file in **3D LUT (NLE .cube)** format.

2. Ensure your sequence is set to use the intended output color space (typically Rec.709) as its working color space.

   a. In Premiere Pro, choose **Sequence > Sequence Settings**.

   b. From the **Working Color Space** drop-down list, choose **Rec.709**.

   c. Click **OK**.

3. Right-click the media in the Premiere Pro media window, choose **Modify** from the shortcut menu, and then choose **Interpret Footage**.

4. In the Color Management section, open the **Input LUT** selector.

5. Select the 3D LUT file you want to use:

   - To use an existing 3D LUT, choose it from the selector.

   - To add a new 3D LUT, choose **Add LUTs** and browse to the folder where you've saved the 3D LUT you want to use.

6. Set the **Color Space Override** selector to match the output color space of the LUT (typically **Rec.709**).

Saving and sharing clips

Catalyst Browse allows you to convert clips to another format or copy them in their source format.

Working with FTP devices

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

Connect to an FTP device

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

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

Disconnecting from or reconnecting to a server

To disconnect from a server, select the server in the Places pane and click the ⬤ button:
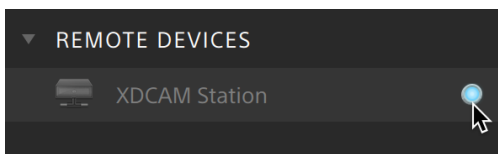
To reconnect to a server, select the server in the Places pane and click the button:
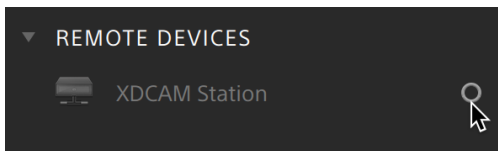
Editing a server's settings

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

Removing a server

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

Browsing the contents of an FTP device

1. Connect to the FTP device. For more information, see

2. In the Places pane, select your FTP device. The contents of the device are displayed in the center pane.
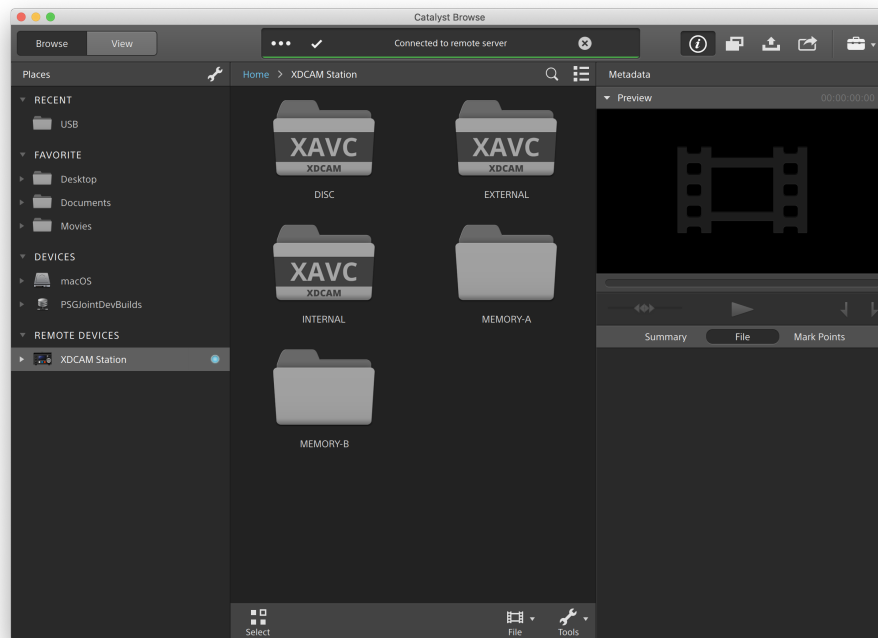
3. In the center pane, select a clip.

   ■ You can use the Inspector pane to view the selected clip's metadata. For more information, see

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

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

- Right-click the selected clip and choose **Delete** to remove the selected clip from the device.

⚠ Copying, renaming, or deleting clip lists to SxS media and USB storage on the PZW-4000 is not supported.
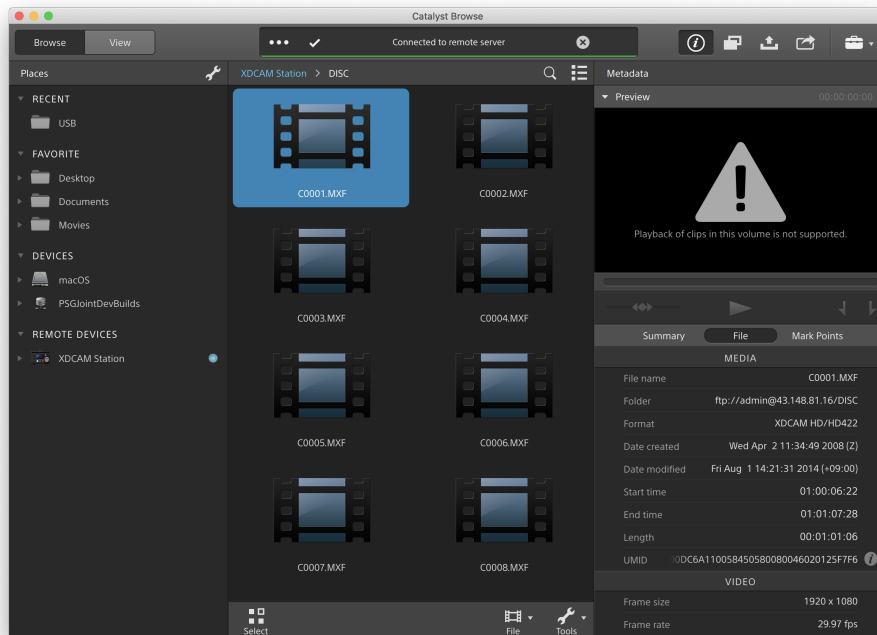
Copying clips from an FTP device to your computer

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

1. Connect to the FTP device. For more information, see

2. In the Places pane, select your FTP device. The contents of the device are displayed in the center pane.
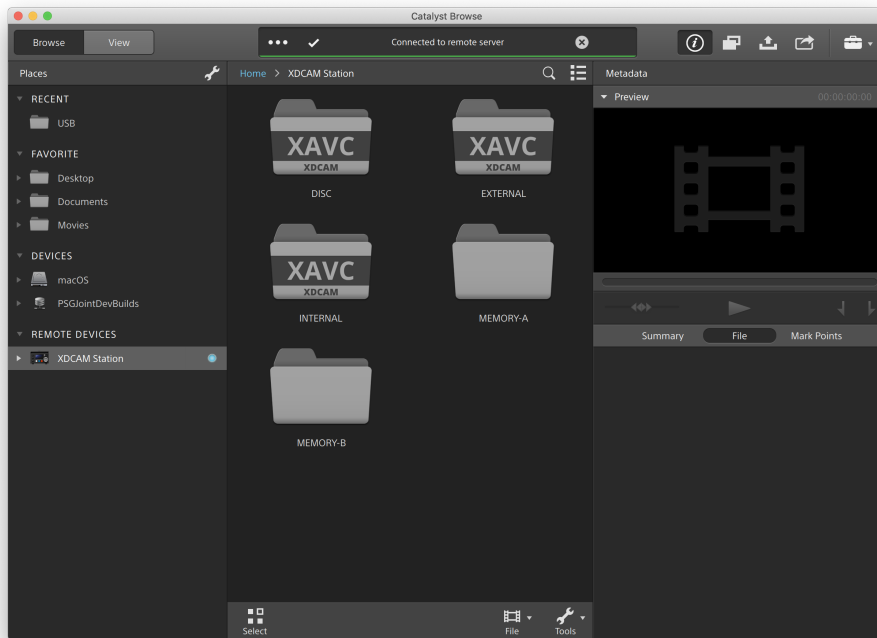
3.   In the center pane, select the clip you want to copy to your library computer.

⚠️   Audio and video preview are not available over FTP connections.
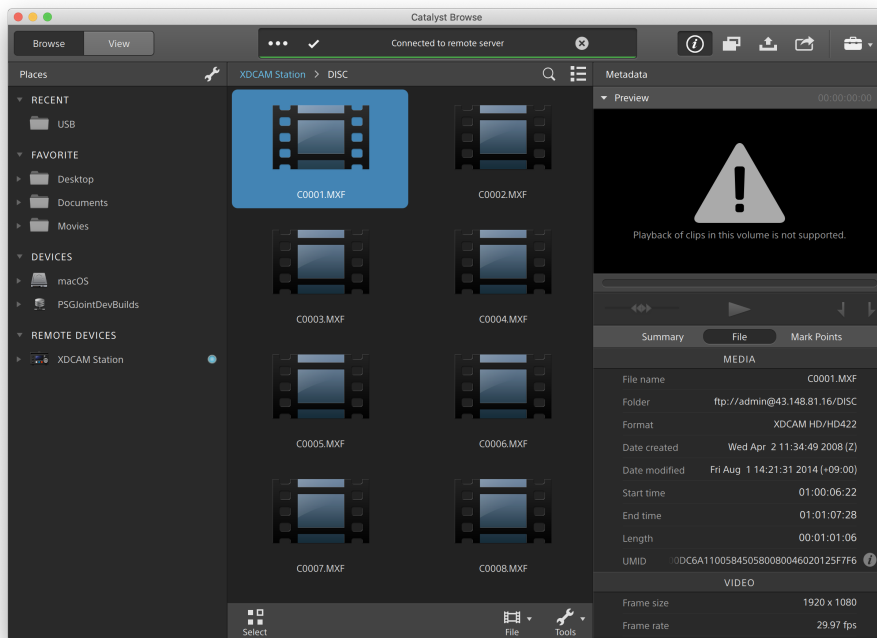
4. Click the **Copy** button at the top of the Catalyst Browse window.

5. Use the Copy pane to choose a destination for your files.

   Choose a folder from the **Copy files to** drop-down list or choose **Browse** to browse to another folder.

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

   For more information about the controls in the Copy pane, please see "Copying clips" on page 113.

Copy clips to a Sony FTP device

1. Connect to the FTP device where you want to copy the clips. If your source clips are also on an FTP device, also connect to the source FTP device. For more information, see "Connect to an FTP device" on page 102.

2. In the Places pane, select the source device from which you want to copy clips. The contents of the device are displayed in the center pane.

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

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

4. Click the **Copy** button ![copy icon] at the top of the Catalyst Browse window.

5. Use the Copy pane to choose a destination for your files.

   Choose the destination FTP device from the **Copy files to** drop-down list.

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

   For more information about the controls in the Copy pane, please see "Copying clips" on page 113.

   ![notes icon] Notes:

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

Copy clips to a non-Sony FTP device

1. Connect to the FTP device where you want to copy the clips. If your source clips are also on an FTP device, also connect to the source FTP device. For more information, see "Connect to an FTP device" on page 102.

2. In the Places pane, select the source device from which you want to copy clips. The contents of the device are displayed in the center pane.
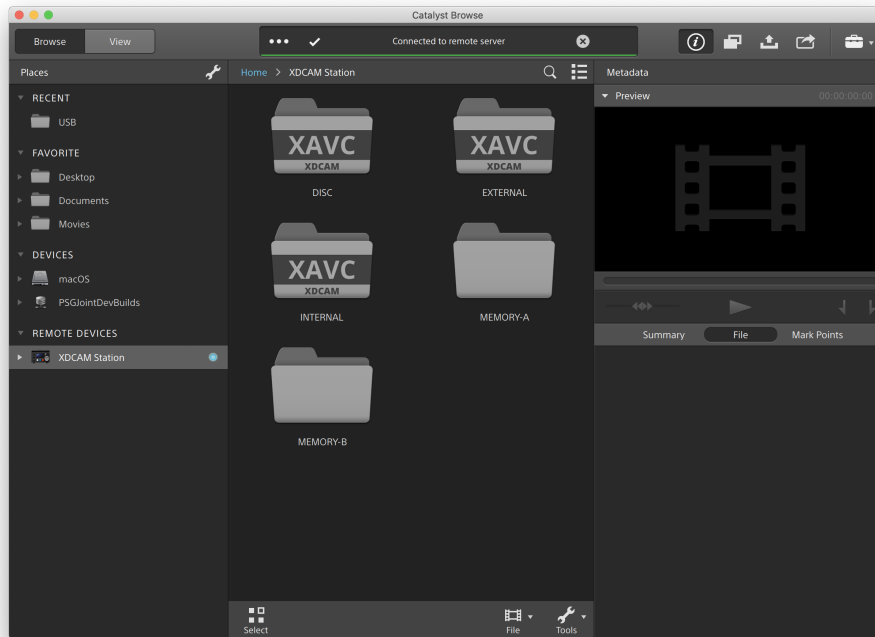
📝 The source must be a Sony device.

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

⚠️ Audio and video preview are not available over FTP connections.
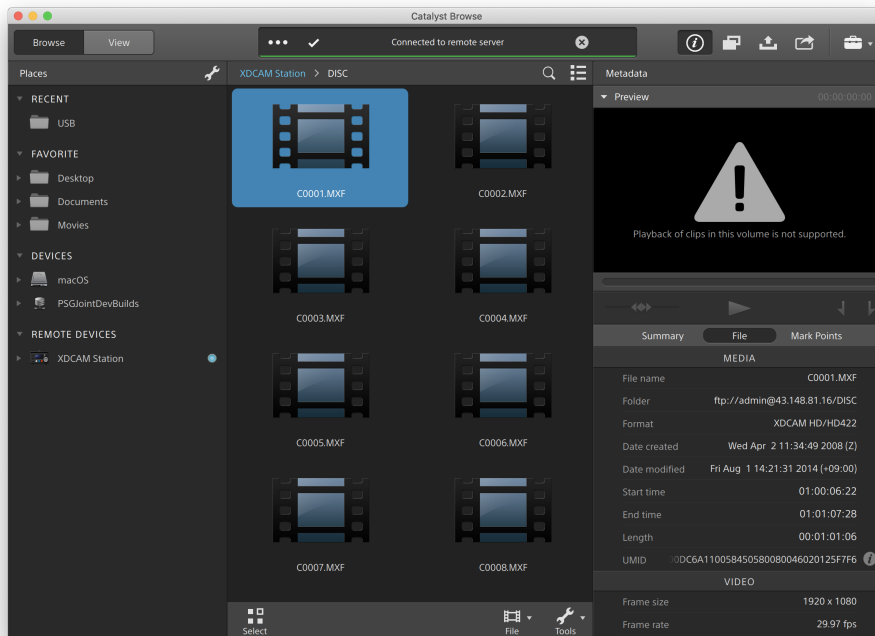
4. Click the **Copy** button at the top of the Catalyst Browse window.

5. Use the Copy pane to choose a destination for your files.

   Choose the destination FTP device from the **Copy files to** drop-down list.

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

   For more information about the controls in the Copy pane, please see "Copying clips" on page 113.

    Notes:

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

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, and the middle pane displays the contents of the selected folder

   - Click a file to select it.

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

   - Hold Ctrl (Windows) or ⌘ (macOS) to select multiple files.

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

     ⚠ When transcoding multiple files, all files must use the same source settings.

     ⚠ An 🔗 on a thumbnail indicates a clip that spans multiple files due to file-size limitations but is displayed in Catalyst Browse 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 109.

2. Click the **Export** button ⬆ at the top of the Catalyst Browse 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 file-naming requirements, you can use the **Rename files** controls to ensure your exported files are compliant with your editor's requirements.

5. The Source Metadata section shows you the file name, color space format, frame size, and frame rate of the selected clip.

📝 Source metadata is not displayed when a clip list is selected.

💡 Click the **Reset** button 🔄 in the Source Metadata heading in the Inspector pane to reset the **Color Space** based on the clip's metadata.

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. 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 "Editing Catalyst Browse options" on page 117.

   💡 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.

   b. 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.

c. 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.

d. 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.

e. 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 Browse 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.

f. If you want to create a file with segmented body partitions from a single body partition, select the **Create Sony Professional Disc partitions** or **Create segmented body partitions** check box. When the check box is cleared, body partitions are not modified.

The **Create Sony Professional Disc partitions** check box is available only when XDCAM is selected in the **Format** drop-down list. **Create segmented body partitions** is available only when XAVC Intra or XAVC Long is selected in the **Format** drop-down list.

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

7. Enable the **Use advanced settings** switch if you need to adjust additional transcoding settings.

a. Choose a setting from the **Crop type** drop-down list to choose the aspect ratio for your transcoded file:

○ **None (letterbox/pillarbox)**: if the source frame is wider than the destination frame, black bars are displayed at the top and bottom (letterbox). If the source frame is narrower than the destination frame, black bars are displayed on the

sides of the frame (pillarbox).

- ◦ **Center crop (cut edges)**: if the source frame does not match the output frame, the frame is centered, and the edges are cropped as needed.

- ◦ **Use masking ratio**: crops the frame to the masking ratio selected in the Clip Settings menu. For more information, see "Playing media" on page 56.

b. Choose a setting from the **Encode mode** drop-down list to choose whether you want to optimize image quality or transcoding speed.

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

For more information, see "Playing media" on page 56.

d. 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 69.

e. 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 53.

f. 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.

8. Click **Export**.

Progress is displayed in the activity pane at the top of the Catalyst Browse 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

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.

💡 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 on your computer, and the middle pane displays the contents of the selected folder

   - Click a file to select it.

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

   - Hold Ctrl (Windows) or ⌘ (macOS) to select multiple files.

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

     An 🔗 on a thumbnail indicates a clip that spans multiple files due to file-size limitations but is displayed in Catalyst Browse 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 109.

2. Click the **Copy** button ▱ at the top of the Catalyst Browse window.

3. Use the Copy pane to choose a destination for your files.

   a. The **Copy files to** box displays the path to the folder where the selected files will be copied. You can type a path in the box or choose **Browse** from the drop-down list to choose a folder.

      Click **Go to folder** 📁 to swap the source and destination folders: the **Copy files to** folder will be displayed in the Media Browser, and the previous Media Browser folder will be used in the **Copy files to** box.

      Copying to an AVCHD folder structure is not supported.

   b. 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).

      Only the **Copy all related media** option is available when the destination volume is a Sony device.

⚠ If you need to copy all files from a volume, you can use the **Back Up Source** command in Catalyst Prepare. For more information, please see "Backing up a volume" in Catalyst Prepare .

💡 For more information about working with FTP devices, please see "Working with FTP devices" on page 102.

c. 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 59.

d. 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 53.

   📝 The **Copy only between mark points** check box is available only when copying MXF clips

   ⚠ **Copy only between mark points** is not available when copying to or from an FTP device.

e. If you want to create a file with segmented body partitions from a single body partition, select the **Create Sony Professional Disc partitions** or **Create segmented body partitions** check box. When the check box is cleared, body partitions are not modified.

   ⚠ The **Create Sony Professional Disc partitions** / **Create segmented body partitions** check box is not available during FTP copy.

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

f. 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.

g. 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 Browse 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.

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 Browse 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 109.

6. Click **Upload**.

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

Editing Catalyst Browse options

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

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

Application settings

Choosing a video processing device

Choose a setting from the **Video processing device** drop-down list to enable or bypass 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.

Enabling OpenCL/OpenGL interoperability

OpenCL/OpenGL interoperability allows OpenCL and OpenGL to share rendered frames and can improve playback performance, but it can cause instability with some hardware and drivers.

- Select **Performance** to enable OpenCL and OpenGL interoperability. We recommend using this setting in most cases for optimum playback performance.

- Select **Compatibility** to turn off interoperability if you notice artifacts or corruption in rendered frames.

  💡 After changing the **OpenCL/OpenGL interoperability** setting, please restart Catalyst Browse for the change to take effect.

Enabling the secondary window

Enable the **Secondary preview window** switch if you want to show the video preview in a secondary window that you can position anywhere on your screen or on a secondary monitor.

Enable proxy clip playback

Enable the **Preview using proxy clips** switch if you want to use proxy clips for playback if they are available.

If you're working on a system with limited processing power, creating a proxy file will allow you to preview your media more efficiently.

📝 Video proxy files are used for playback only.

Enable half-step timecode for 50p/60p sources

Enable the **50p/60p half-step timecode display** switch if you want to display half-step timecode for each field in 50p/60p sources. The timecode for field two will be displayed with an asterisk appended:

Field 1: `01:00:17:17`

Field 2: `01:00:17:17*`

Show or hide thumbnail frames

Enable the **Show thumbnails** switch if you want to display thumbnail images in the Media Browser. Turning off the switch can improve performance on some slower storage devices.

Automatically rotate thumbnail frames

Enable the **Automatically rotate thumbnails** switch to detect clip rotation and adjust thumbnail images in Media Browser mode.

For more information, see "Working with clips" on page 70.

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 54.

Color management settings

Working color space

Choose a setting from the **Working color space** drop-down list to choose the color space that will be used for color grading.

For more information, see "Applying color correction" on page 73.

When you choose **Rec.2020/S-Log3** from the **Working color space** drop-down list, you can enable the **SDR gain** switch to convert between standard- and high-dynamic-range content. For more information, see "SR Live for HDR settings" on page 122.

Video preview color space

From the **Preview color space** drop-down list, choose the color space for the Catalyst Browse 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 73.

For more information, see "Applying color correction" on page 73.

External monitor color space

Choose a setting from the **External monitor color space** drop-down list to choose the color space that matches the EOTF (electro-optical transfer function) setting on your external monitor.

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

External monitor color space in Catalyst Browse	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

External monitor color space in Catalyst Browse	Color Space	EOTF	Transfer Matrix
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-Log3 (HDR)** is selected from the **Working color space** drop-down list, you can use the AIR Matching (Artistic Intent Rendering) or bypass OOTF settings to achieve a consistent look between external-monitor previews and rendered clips.

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

Sony BVM-X300 version 2.0 monitor settings:

- Color Space: ITU-R BT.2020

- EOTF: S-Log3 (Live HDR)

- Transfer Matrix: ITU-R BT.2020

- In the Catalyst Browse 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 Browse 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

SR Live for HDR settings

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

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.

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.

Chapter 7

Keyboard shortcuts

Shortcut keys can help streamline your work with Catalyst Browse 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, ⌘-F, or Control-⌘-F
Switch between Media Browser/View workspaces	Alt+W	Option-W
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	⌘-A
Deselect all files	Ctrl+D	⌘-D
Delete selected files	Delete	Delete or fn+Delete
Load file and start/pause playback	Spacebar	Spacebar
Load file into Video pane 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 End	Home End
Move selection up/down one page	Page Up Page Down	Page Up Page Down

Editing

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

Command	Windows Shortcut	macOS Shortcut
Switch Logging/Clip List/Clip/Adjust Colors	` ~	` ~
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	1/2/3/4	1/2/3/4

Command	Windows Shortcut	macOS Shortcut
Adjust Color mode.		
Show/hide the Media Browser in View mode	Ctrl+B	⌘ -B

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	⌘ -Up Arrow
		Fn- Left Arrow
Go to end	Ctrl+End	⌘ -End
	Ctrl+Down Arrow	⌘ -Down Arrow
	End	Fn- Right Arrow
Go to previous frame	Left Arrow	Left Arrow
Go to next frame	Right Arrow	Right Arrow
Go to previous clip	[	[
Go to next clip	]	]
Start/pause playback	Spacebar	Spacebar
Shuttle playback	J/K/L	
	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 times for 4x playback.	
	Press K to pause playback.	
	Press and hold K while pressing J or L to emulate a shuttle knob mode: press K+J to turn the knob to the left or K+L to turn the knob to the right.	
Toggle looped playback	Q	Q
	Ctrl+L	⌘ -L
Set Mark In point	I	I

Command	Windows Shortcut	macOS Shortcut
Set Mark Out point	O	O
Add shot mark (to supported file types)	E	E
Go to Mark In point	Shift+I	Shift-I
	Home	Home
Go to Mark Out point	Shift+O	Shift-O
	End	End
Save a snapshot of the current frame to a file.	Shift+S	Shift-S
Reset Mark In/Out points	Shift+R	Shift-R
Go to previous marker (including Mark In/Out)	Ctrl+Left Arrow	⌘ -Left Arrow
Go to next marker (including Mark In/Out)	Ctrl+Right Arrow	⌘ -Right Arrow
Copy current frame to clipboard	Ctrl+C	⌘ -C
Enter full-screen playback	F11	⌘ -F
	Ctrl+F	Control-⌘ -F
Show/hide the secondary window	Alt+V	Option-V
Zoom to fit	Ctrl+0	⌘ -0
Zoom to 100%	Ctrl+1	⌘ -1
Zoom in	Ctrl++	⌘ -+
Zoom out	Ctrl+-	⌘ --
Show/hide the Media Browser in View mode	Ctrl+B	⌘ -B

Gestures

Media Browser pane

Gesture	Result
Tap	Selects and loads a file.
Double-tap	Opens a file in the Video pane.
One-finger drag (touchscreen) Two-finger drag (trackpad)	Scrolls the list vertically.
One-finger flick (touchscreen) Two-finger flick (trackpad)	Scrolls the list with inertia.

Video pane

Gesture	Result
Double-tap	Toggles the zoom level between **100%** and **Fit**.
One-finger drag (touchscreen) Two-finger drag (trackpad)	Pans the image.
One-finger flick (touchscreen) Two-finger flick (trackpad)	Pans the image with inertia.
Pinch	Zooms the image in and out.

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