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VERSION HISTORY ........................................................................................81
Calibrated AVC-LG Create is a QuickTime Encode codec, and Compressor and Adobe set of plugins that enables you to create P2 AVC-LongG MXF, OP1a AVC-LongG MXF files, OP1a XAVC Long GOP MXF Files, and AVC-LongG MOV files from FCP X, Compressor 4.1.3, Avid MC 8.4, and Premiere Pro or AME (CS6, CC-CC2018).

Calibrated AVC-LG Create supports creating the following AVC-LongG formats:

1920x1080i @ 29.97 or 25 fps  
BitRates: 50Mb, 25Mb, 12Mb, 6Mb

1920x1080p @ 59.94 or 50  
BitRates: 25Mb, 12Mb, 6Mb

1920x1080p @ 29.97 fps or 25 fps or 23.976 fps  
BitRates: 50Mb, 25Mb, 12Mb, 6Mb

1280x720p @ 59.94 or 50 fps  
BitRates: 50Mb, 25Mb, 12Mb, 6Mb

P2 MXF Files will have 48Khz Uncompressed audio with 2, 4, or 8 Channels at either 16-bits or 24-bits.

OP1a MXF files will have 48Khz Uncompressed audio with 0- 32 Channels at either 16-bits or 24-bits.

AVC-LongG 420 MOV files will use the standard Apple H264 MOV file identification

AVC-LongG 422 MOV files will use the FCP X FourCC identifier for AVC-LongG 422 MOV files

Calibrated AVC-LG Create supports creating the following XAVC Long GOP formats:

3840x2160p @ 59.94 or 50 fps  
BitRates: 200Mb (4:2:2), 140Mb (4:2:2), 150Mb (4:2:0)

3840x2160p @ 29.97 fps or 25 fps or 23.976 fps  
BitRates: 200Mb (4:2:2), 140Mb (4:2:2), 100Mb (4:2:2), 100Mb (4:2:0), 60Mb (4:2:0)

1920x1080i @ 29.97 or 25 fps  
BitRates: 50Mb, 35Mb, or 25Mb

1920x1080p @ 29.97 fps or 25 fps or 23.976 fps  
BitRates: 50Mb, 35Mb, or 25Mb

1920x1080p @ 59.94fps or 50fps  
BitRates: 50Mb or 35Mb

1280x720p @ 59.94fps or 50fps  
BitRates: 50Mb

XAVC Long GOP OP1a MXF files will have 48Khz Uncompressed audio with 0-16 Channels at 24-bits.
**DEMO MODE Limitation**

Calibrated AVC-LG Create will have watermarks of the Calibrated AVC-LG Create Logo burned into any encoded video when running in DEMO MODE. This is the only DEMO MODE limitation — everything else is fully functional. **The burned in DEMO MODE watermarks cannot be removed from the encoded video. After ordering and licensing Calibrated AVC-LG Create you will have to re-encode any files that you had created while running the software in DEMO MODE.** Using the software in DEMO MODE is for testing only and should not be used for commercial purposes.

Please note that if you are rendering using multiple render nodes (i.e. different computers) then each computer would need its own separate license.
Known Issues and Limitations
The following known issues and limitations are associated with Calibrated AVC-LG Create codec:

- Avid support for exporting MXF files is currently BETA
- For reasons unknown, on Mac OSX – the Calibrated XAVC Long GOP Export plugin for Avid MC will not work properly with QFHD exporting and hang on exporting when the Sony AMA Plugin is installed. This is being investigated. If the Sony AMA Plugin is installed then the Calibrated XAVC Long GOP Export plugin will be disabled QFHD exporting.
- Calibrated AVC-LG Create for Windows will crash if run on a computer system that does not support SSE3 instructions which were introduced in Pentium 4 processors circa 2005 (see the Windows Requirements section).
- Calibrated AVC-LG Create is for creating P2 AVC-LongG MXF, OP1a AVC-LongG MXF files, XAVC Long GOP OP1a MXF Files, and AVC-LongG MOV files only. To view or playback, you would need an application that supports that format for playback.
- AVC-LongG 420 MOV files will import into Adobe applications with the fps of the MOV file reported as half its actual fps. This happens also with AVC-LongG 6Mb MOV files created by the P2 camera so presumably this is an Adobe bug.
- Embedded XML Metadata in AVC-LongG MXF OP1a files is currently only supported in Calibrated(Q) MXF Import 3.0.1 or greater.
- Exporting only two frames (i.e. duration = 2) will result in an I,B frame encoded when it should be I,Br frame encoded. Exported files should be greater than one second in duration. Files less than one second may or may not be valid.
- A Scene Change at the last frame could result in an invalid frame for the last frame. Please have at least two frames for any scene change.
- IMPORTANT FOR COMRESSOR – always remember to set the ‘Field Version’ in the Options settings for the version of Compressor that you are using if you are creating your own custom preset.
- Exporting directly from Final Cut Pro 7 does not work – please use Compressor 3.5.3 to export from FCP 7
- XAVC Export in Compressor 4.1.3 or greater only
- Quicktime Framework cannot write files over 2GB to network volumes (AFP, SMB). Returns -1309 (fileBoundsErr).
- Calibrated AVC-LG Create does not convert frames from interlaced to progressive or vise-versa, please make sure that you have selected the appropriate AVC-LongG ‘Compression Type’ to match the type of video frames you will be encoding from.
- Calibrated AVC-LG Create does not convert the frame rate of video, please make sure that you have selected the appropriate AVC-LongG ‘Compression Type’ to match the frame rate of the video you will be encoding from.
- If you get a ‘codec error’ or ‘encode failure’ message when trying to encode from an application – usually that means that the application you are encoding from does not support the colorspace you are trying to encode to (i.e most likely 10-bit YUV422 or 16-bit RGB colorspaces), please see the Windows Application Chapter or the Mac OSX Application chapter to see how to properly setup the Encode Options for different applications.
- Various applications reading/writing from QuickTime can treat QuickTime Gamma differently (which can make video seem brighter or darker) – please see the Windows Applications Chapter or Mac OSX Applications Chapter to learn more about how to configure Calibrated AVC-LG Create for popular applications
- Calibrated AVC-LG Create supports encoding from 10-bit YUV422 and 16-bit RGB(A) 444(4) colorspaces, thus preserving the full bit depth of AVC-LongG, HOWEVER it is up to the application using Calibrated AVC-LG Create
to send those colorspace to the codec. Please see the “Enable Colorspace Watermark” in the Options Chapter to learn how to see what colorspace an application is sending to Calibrated AVC-LG Create, and also see the Windows Applications Chapter or Mac OSX Applications Chapter to learn more about how to configure Calibrated AVC-LG Create for popular applications.

- AVC-LongG 420 MOV files will use the standard Apple H264 MOV file identification
Windows Requirements and Installation

Ensure your PC meets the following requirements prior to installing Calibrated AVC-LG Create:

- Pentium 4 processor with SSE3 support or greater; recommended at least Intel Core 2 Duo with two cores or two physical processors
- 64-bit Windows 7/10 for Adobe CC or greater
- 32/64-bit Windows 7
- Virtual OS is NOT supported

Installing on Windows

To install Calibrated AVC-LG Create on a Windows Computer:

1. Quit all applications.
2. Run the Calibrated AVC-LG Create Installer:
   a. A folder named Calibrated will be created in the [System Drive]\Program Files (x86) directory. This Calibrated folder will contain the Calibrated AVC-LG Create Info application (CalibratedAVCLongGCreateInfo.exe), the Calibrated AVC-LG Create User Guide, and a copy of the Calibrated AVC-LG Create plugins
   b. ExpCalibratedAVCLong GOP1a.prm and ExpCalibratedAVCLong OP1a.prm and ExpCalibratedAVCLongG.prm will be auto-copied to the [System Drive]\Program Files\Adobe\Common\Plug-ins\7.0\MediaCore directory*
   c. CalibratedAVCLongGEncodeQ.qtx will be auto-copied to the [System Drive]\Program Files (x86)\QuickTime\QTComponents directory.
   d. MSP_CalibratedMXFP2AVCLongG.avx and MSP_CalibratedMXFOP1aAVCLongG.avx and MSP_CalibratedMXFOP1aAVCLongGOP.avx will be auto-copied to the [System Drive]\Program Files Avid\AVX2_Plug-ins\AMA\CalibratedAVCLongGCreate directory*.
   e. SMDK-VC100-x64-4_13_0.dll and SMDK-VC110-x64-4_13_0.dll and SonyXAVCEncoder.dll and savcempc.dll and savcehpp.dll and savce.dll and hpr48.dll will be copied to the Windows System 64 folder.
3. Restart your computer

*Please note that the plugin will install to the latest version of PPro/AME so you must manually copy the plugin to the Adobe\Common\Plug-ins\6.0\MediaCore directory for PPro/AME CS6 support if you also have PPro/AME CC-CC2018 installed on the same computer.
Uninstalling on Windows
To uninstall Calibrated AVC-LG Create on a Windows Computer:

1. If LICENSED, please use the Calibrated License Manager to DEACTIVATE your Software License before uninstalling
2. Go to the Control Panel>Add/Remove Programs.
3. Select and uninstall Calibrated AVC-LG Create from the list of programs.
4. Restart your computer.
MAC OSX Requirements and Installation

Ensure your Mac meets the following requirements prior to installing Calibrated AVC-LG Create:

- Mac Intel Computer Only; recommended at least Intel Core 2 Duo with two cores or two physical processors
- macOS 10.9 or greater for Compressor 3.5.3 (XAVC only works in Compressor 4.1.3 or greater)
- macOS 10.9 for Compressor 4 or greater
- macOS 10.9 for CC-CC2018
- macOS 10.9 for Avid MC 8.4-8.9

Installing on Mac OSX

1. Quit all applications.

2. Run the Calibrated AVC-LG Create Installer:
   a. A folder named Calibrated will be created in the /Applications directory. This Calibrated folder will contain the Calibrated AVC-LG Create Info application (CalibratedAVCLongGCreateInfo.app will be located in the /Applications/Calibrated/Applications/Options folder), the Calibrated AVC-LG Create User Guide, a copy of the Calibrated AVC-LG Create plugins
   b. ExpCalibratedAVCLong GOP1a.prm and ExpCalibratedXAVCLong OP1a.prm and ExpCalibratedAVCLongG.prm will be auto-copied to the /Library/Application Support/Adobe/Common/Plugins/7.0/MediaCore directory*
   c. CalibratedAVCLongGPPlugin.plugin and CalibratedXAVCLongGOPSonyOP1aPlugin.plugin and CalibratedAVCLong GOP1aPlugin.plugin will be auto-copied to the /Library/Application Support/Apple Qmaster directory.
   d. CalibratedAVCLongGEncodeCodec.component will be auto-copied to /Library/QuickTime directory
   e. MSP_Calibrated_AVCLongGCreateOP1a.avx and MSP_Calibrated_AVCLongGCreateP2.avx and MSP_Calibrated_XAVCLongGOPCreateOP1a.avx will be auto-copied to the /Applications/Calibrated/Plugins/Avid/ directory.

3. Restart your computer
Uninstalling on Mac OSX

1. **If LICENSED**, please use the Calibrated License Manager to **DEACTIVATE** your Software License before uninstalling.

2. If no other Calibrated Software is installed, then delete the directory:

   /Applications/Calibrated

   then skip Step 2 and go to Step 3

3. If other Calibrated Software is installed, then only delete:
   a. /Applications/Calibrated/Applications/Options/ CalibratedAVCLongGCreateInfo.app
   b. /Applications/Calibrated/Plugins/PPro/ ExpCalibratedAVCLongG.prm
   c. /Applications/Calibrated/Plugins/PPpro/ ExpCalibratedAVCLong GOP1a.prm
   d. /Applications/Calibrated/Plugins/PPpro/ ExpCalibratedXAVCLongOP1a.prm
   e. /Applications/Calibrated/Plugins/Compressor/ CalibratedAVCLongGPlugin.plugin
   f. /Applications/Calibrated/Plugins/Compressor/ CalibratedXAVCLongGOPSonyOP1aPlugin.plugin
   g. /Applications/Calibrated/Plugins/Compressor/ CalibratedAVCLong GOP1aPlugin.plugin
   h. /Applications/Calibrated/Plugins/Avid/ MSP_Calibrated_AVCLongGCreateOP1a.avx
   i. /Applications/Calibrated/Plugins/Avid/ MSP_Calibrated_AVCLongGCreateP2.avx
   j. /Applications/Calibrated/Plugins/Avid/ MSP_Calibrated_XAVCLongGOPCreateOP1a.avx
   k. /Applications/Calibrated/Plugins /QuickTime/CalibratedAVCLongGEncodeCodec.component

4. Delete the file:

   /Library/Application Support/Adobe/Common/Plug-ins/7.0/MediaCore/ExpCalibratedAVCLongG.prm

   /Library/Application Support/Adobe/Common/Plug-ins/7.0/MediaCore/ExpCalibratedAVCLongGOP1a.prm

   /Library/Application Support/Adobe/Common/Plug-ins/7.0/MediaCore/ExpCalibratedXAVCLongOP1a.prm

   /Library/Application Support/Apple Qmaster/CalibratedAVCLongGPlugin.plugin

   /Library/Application Support/Apple Qmaster/CalibratedXAVCLongGOPSonyOP1aPlugin.plugin

   /Library/Application Support/Apple Qmaster/CalibratedAVCLong GOP1aPlugin.plugin

   /Library/ QuickTime/CalibratedAVCLongGEncodeCodec.component

   /Library/Application Support/Avid/AVX2_Plug-ins/ MSP_Calibrated_AVCLongGCreateOP1a.avx

   /Library/Application Support/Avid/AVX2_Plug-ins/ MSP_Calibrated_AVCLongGCreateP2.avx

   /Library/Application Support/Avid/AVX2_Plug-ins/ MSP_Calibrated_XAVCLongGOPCreateOP1a.avx

**IMPORTANT** - that’s the Library folder on the Main Harddrive (i.e. the root folder) **NOT** the Library folder in your User Directory – and you must manually go to this folder and delete the component as Spotlight may not index System Folders.

5. Restart your computer.
Overview
This chapter describes the settings available in the Calibrated AVC-LG Create Info interface.

Important Note: The stand-alone Calibrated AVC-LG Create Info application is used only to see the version and if it’s licensed or in demo mode.

Info Interface
The Calibrated AVC-LG Create Info interface has one screen: about.

The about page contains links to download the latest version, view online tutorials or purchase a license, and it also indicates whether the software is running in DEMO MODE** or LICENSED MODE. Please note that you can only license the software thru the stand-alone Calibrated License Manager application.

**DEMO MODE Limitation - Calibrated AVC-LG Create will have watermarks of the Calibrated AVC-LG Create Logo burned into any encoded video when running in DEMO MODE. This is the only DEMO MODE limitation – everything else is fully functional. The burned in DEMO MODE watermarks cannot be removed from the encoded video. After ordering and licensing Calibrated AVC-LG Create you will have to re-encode any files that you had created while running the software in DEMO MODE. Using the software in DEMO MODE is for testing only and should not be used for commercial purposes.
Overview
This chapter describes the settings available in the Calibrated AVC-LG Create Options interface.

**Important Note:** The stand-alone Calibrated AVC-LG Create Info application is used to let you know whether the software is running in DEMO MODE or LICENSED and where to download the latest version – all of the encoding options for Calibrated AVC-LG Create QuickTime Encode codec can only be set within the application using Calibrated AVC-LG Create codec – look for a ‘settings’ or ‘options’ button in the application using the codec.

Options Interface
The Calibrated AVC-LG Create Options interface contains the version number of the currently installed Calibrated AVC-LG Create and indicates whether the codec is running in DEMO MODE or LICENSED MODE, and where to download the latest version.

Please note that the encode options are not global but local to the specific application and instance of when you are using the codec. **Important Note:** The options can only be set from within the application that is using Calibrated AVC-LG Create – look for a ‘settings’ or ‘options’ button in the application. **You should always set the options of Calibrated AVC-LG Create in the application BEFORE every encode.**

**DEMO MODE Limitation** - Calibrated AVC-LG Create will have watermarks of the Calibrated AVC-LG Create Logo burned into any encoded video when running in DEMO MODE. This is the only DEMO MODE limitation – everything else is fully functional. The burned in DEMO MODE watermarks cannot be removed from the encoded video. After ordering and licensing Calibrated AVC-LG Create you will have to re-encode any files that you had created while running the software in DEMO MODE. Using the software in DEMO MODE is for testing only and should not be used for commercial purposes.
**Version**
The version box shows the version of Calibrated AVC-LG Create you are running and it display a webpage link of where to download the latest version.

**License**
The license box is where you see your Software License status. It will display a green LICENSED if you are properly licensed. *Please note that the stand-alone Calibrated License Manager application is used to license the software.* Please see the ‘Software License’ chapter in this User Guide for more information.

**DEMO MODE Limitation** - Calibrated AVC-LG Create will have watermarks of the Calibrated AVC-LG Create Logo burned into any encoded video when running in DEMO MODE. This is the only DEMO MODE limitation – everything else is fully functional. *The burned in DEMO MODE watermarks cannot be removed from the encoded video.* After ordering and licensing Calibrated AVC-LG Create you will have to re-encode any files that you had created while running the software in DEMO MODE. Using the software in DEMO MODE is for testing only and should not be used for commercial purposes.

The following encode options are available for Calibrated AVC-LG Create

*Important Note:* The options can only be set from within the application that is using Calibrated AVC-LG Create – look for a ‘settings’ or ‘options’ button in the application. *You may have to set the options of Calibrated AVC-LG Create in the application BEFORE every encode depending on the application using the codec.*
**AVC-LongG Encoding Options**

You can use the quality slider to set the bitrate to 50Mb or 25Mb for AVC-LongG 422 or 12Mb or 6Mb for AVC-LongG 420 encoding, or you can set this option to manually set the bitrate.

For AVC-LongG 422 encoding – when using the quality slider – quality above 50 will be encoded at 50Mb and quality below 50 will be encoded at 25Mb

For AVC-LongG 420 encoding – when using the quality slider – quality above 50 will be encoded at 12Mb and quality below 50 will be encoded at 6Mb

Closed GOP (BETA) – When checked this will make all I-frame as Closed GOP I-frames

Encode settings for compression quality and number of threads used for encoding.

*Please note that 50Mb 1080p50/59.94 AVC-LongG 422 encoding is not supported – only 25Mb encoding is support for 1080p50/59.94 AVC-LongG 422 encoding*

**Encode Color Options**

*Quick Colorspace Setup*

These are the following quick setup options - *Some applications may not export and give a codec error if a Colorspace is selected that the application does not support – usually this happens with 10-bit YUV422 or 16-bit RGB colorspaces.*

- **Custom** – this setup enables you to
  - **10-bit YUV 422/Gamma (DEFAULT for 422 AVC-LongG)** – this setup requests incoming video frames to be 10-bit YUV 422 with a 2.22 Gamma.
  - **8-bit YUV 422/Gamma (DEFAULT for 420 AVC-LongG)** – this setup requests incoming video frames to be 8-bit YUV 422 with a 2.22 Gamma.
  - **10-bit YUV 422** – this setup requests incoming video frames to be 10-bit YUV 422 with Source Gamma (i.e. disregards Gamma).
  - **8-bit YUV 422** – this setup requests incoming video frames to be 8-bit YUV 422 with a Source Gamma (i.e disregards Gamma).
  - **16-bit RGB/FULL/GAMMA** – this setup requests incoming video frames to be 16-bit RGB with a 2.22 Gamma – the 16-bit RGB->10-bit YUV conversion is done using the 709 FULL RANGE Matrix.
  - **8-bit RGB/FULL/GAMMA** – this setup requests incoming video frames to be 8-bit RGB with a 2.22 Gamma – the 8-bit RGB->8-bit YUV conversion is done using the 709 FULL RANGE Matrix.
  - **16-bit RGB/FULL** – this setup requests incoming video frames to be 16-bit RGB with a Source Gamma (i.e. disregards Gamma) – the 16-bit RGB->10-bit YUV conversion is done using the 709 FULL RANGE Matrix.
  - **8-bit RGB/FULL** - this setup requests incoming video frames to be 8-bit RGB with a Source Gamma (i.e. disregards Gamma) – the 8-bit RGB->8-bit YUV conversion is done using the 709 FULL RANGE Matrix.
  - **16-bit RGB/SMPTE** – this setup requests incoming video frames to be 16-bit RGB with a Source Gamma (i.e. disregards Gamma) – the 16-bit RGB->10-bit YUV conversion is done using the 709 SMPTE RANGE Matrix.
  - **8-bit RGB/SMPTE** - this setup requests incoming video frames to be 8-bit RGB with a Source Gamma (i.e. disregards Gamma) – the 8-bit RGB->8-bit YUV conversion is done using the 709 SMPTE RANGE Matrix.
**Supported Colorspaces**

There are five Colorspace options:

- **"All Supported"** – 10-bit YUV422, 16-bit RGB(A) 444(4), 8-bit YUV422, and 8-bit RGB(A) 444(4) are requested colorspace – please note though that when requesting all supported colorspaces that this can cause an application to report a 'codec error' if that application does not support 10-bit YUV422 exporting.

- **"10bit YUV & 16bit RGB"** – 10-bit YUV422 and 16-bit RGB(A) 444(4) are requested colorspace – please note though that when requesting these colorspaces that this can cause an application to report a 'codec error' if that application does not support 10-bit YUV422 exporting.

- **"16bit RGB"** – 16-bit RGB(A) 444(4) is the requested colorspace – please note though that when requesting this colorspace that this can cause an application to report a 'codec error' if that application does not support 16-bit RGB(A) 444(4) exporting.

- **"8bit YUV & 8bit RGB"** – 8-bit YUV422 and 8-bit RGB(A) 444(4) are requested colorspace – please note though that when requesting these colorspaces that this can cause QuickTime to internally convert 8-bit RGB to 8-bit YUV422 if an application sends 8-bit RGB video frames – the internal RGB->YUV conversion by QuickTime may introduce unintended Gamma changes/corrections (this may vary from application to application and also depends on the RGB to YUV Gamma Correction setting too).

- **"8bit RGB"** – 8-bit RGB(A) 444(4) is the requested colorspace.

**RGB to YUV Matrix**

Setting the YUV Matrix enables you to control how RGB is converted to YUV.

There are four RGB to YUV Matrix options:

- 601 SMPTE (16,235)
- 601 Full (0,255)
- 709 SMPTE (16,235)
- 709 Full (0,255) (DEFAULT)

Generally, 601 equations are used for SD video and 709 equations are used for HD video.

The Full option (the default value) converts RGB, which has black-white levels of 0-255 (0-65536 for 16-bit RGB), to YUV with black-white levels of 16-235 (64-940 for 10-bit YUV). The SMPTE option will convert RGB to YUV with black-white levels of 16-235 (64-940 for 10-bit YUV). The Full option is usually the preferred workflow option since RGB is viewed at having a black/white level of 0-255 for 8-bit RGB material (0-65536 for 16-bit RGB) in most applications. Using the SMPTE option, users can preserve the super black/white values of YUV data when converting from RGB, but this option should only be used for specific workflows where you are working with RGB data in the SMPTE range.

**Important Note:** The RGB to YUV Matrix setting will ONLY be used if an application sends RGB data to the code. If an application sends YUV data for a video frame then the RGB to YUV Matrix setting will have no effect on the YUV data being handed to the codec for encoding.
444 to 422 Chroma Sampling

There are two options:

- Duplicate Values
- Average Next Neighbors (DEFAULT)

This controls how chroma is interpolated when converting from RGB 444 -> YUV 422. ‘Average Neighbors’ will produce smoother colors when converting; 'Duplicate Values' was added to essentially 'turn off' the averaging.

Important Note: The 444 to 422 Chroma Sampling setting will ONLY be used if an application sends RGB data to the code. If an application sends YUV data for a video frame then the 444 to 422 Chroma Sampling setting will have no effect on the YUV data being handed to the codec for encoding.

RGB to YUV Gamma Correction

This settings enables you to control how Gamma is handled when converting RGB to YUV.

There are four options:

- **Off** – all Gamma Correction is turned off and the Source Gamma is used from the incoming frame.
- **CVBuffer Tag '2.22'** – The video buffer is ‘tagged’ with 2.22 – this means that QuickTime will auto-correct incoming video frames to 2.22 Gamma.
- **CPU Gamma 1.8->2.22** – Source Gamma is requested from the incoming RGB Video Frame; however when converting from RGB->YUV via CPU a 1.8 to 2.22 Gamma Correction is applied. (1.8 is QuickTime Apple Platform Gamma for RGB)
- **CPU Gamma 2.5->2.22** – Source Gamma is requested from the incoming RGB Video Frame; however when converting from RGB->YUV via CPU a 2.5 to 2.22 Gamma Correction is applied. (2.5 is QuickTime Windows Platform Gamma for RGB)

Watermark (For Color Testing)

This option watermarks the video in the almost-top-left corner (the watermark is adjusted about 400 pixels in from the left side so that it is not covered up by watermarks from our Decode codecs) – it is IMPORTANT to disable this option when doing real work as the watermark will be a part of the encoded video – this option is just meant for quick checks for the user to see what color space Calibrated AVC-LG Create is being handed by the calling application. The watermark is a black rectangle. The top text will either be 8 or 10-bit YUV422 – this indicates what the AVC-LongG video was encoded as. The bottom text will either say Received 8-bit YUV422, Received 10-bit YUV422, Received 8-bit RGB444, Received 8-bit RGBA4444, Received 16-bit RGB444, or Received 16-bit RGBA4444 – this indicates the colorspace of the video frame that the calling application is sending to be encoded.
Overview
This chapter describes using Calibrated AVC-LG Create in different third-party applications that support. For use of our software in Adobe or FCP/Compressor – please see those chapters in this User Guide.

Please note that AVC-LongG 420 MOV files will use the standard Apple H264 MOV file identification and encoded using 8-bit YUV420

AVC-LongG 422 MOV files use the ‘avlg’ Apple MOV file identification for AVC-LongG 422 and encoded using 8-bit YUV 422 or 10-bit YUV 422.
**MOV Encoding - QuickTime Player Pro 7.6/7.7**

To export to any format you need to have QuickTime Player Pro 7.6/7.7 from Apple – HOWEVER – due to differences in how QuickTime Gamma is handled with different QuickTime codecs it is **RECOMMENDED** that you do NOT use QuickTime Player Pro 7.6/7.7 for exporting using Calibrated AVC-LG Create for Windows.

**MOV Encoding - Other 3rd party applications**

When encoding AVC-LongG MOV files from other applications, please be aware of the following:

1. Even though Calibrated AVC-LG Create supports encoding from 10-bit YUV422 and 16-bit RGB(A) 444(4) colorspaces, it is up to the application using Calibrated AVC-LG Create to send those colorspace to the codec. From our research, many applications only support 8-bit RGB(A) colorspace when encoding to a MOV file. If you get a ‘codec error’ or ‘encode failure’ message when trying to encode from an application – usually that means that the application you are encoding from does not support the colorspace you are trying to encode to (i.e most likely 10-bit YUV422 or 16-bit RGB colorspace).

2. Various applications reading/writing from QuickTime can treat QuickTime Gamma differently (which can make video seem brighter or darker).

3. Calibrated AVC-LG Create does not convert frames from interlaced to progressive or vise-versa, please make sure that you have selected the appropriate AVC-LongG ‘Compression Type’ to match the type of video frames you will be encoding from.

4. Calibrated AVC-LG Create does not convert the frame rate of video, please make sure that you have selected the appropriate AVC-LongG ‘Compression Type’ to match the frame rate of the video you will be encoding from.

5. Always make sure that you have selected the appropriate AVC-LongG ‘Compression Type’ to match the resolution of the video you will be encoding from.

6. You can use the quality slider to set the bitrate to 50Mb or 25Mb for AVC-LongG 422 or 12Mb or 6Mb for AVC-LongG 420 encoding, or you can set this option to manually set the bitrate.

   For AVC-LongG 422 encoding – when using the quality slider – quality above 50 will be encoded at 50Mb and quality below 50 will be encoded at 25Mb

   For AVC-LongG 420 encoding – when using the quality slider – quality above 50 will be encoded at 12Mb and quality below 50 will be encoded at 6Mb

   Please note that 50Mb 1080p50/59.94 AVC-LongG 422 encoding is not supported – only 25Mb encoding is support for 1080p50/59.94 AVC-LongG 422 encoding
Overview
This chapter describes using Calibrated AVC-LG Create in Adobe Applications.

Please note that

(a) AVC-LongG 420 MOV files will use the standard Apple H264 MOV file identification

(b) AVC-LongG 422 MOV files use the ‘avlg’ Apple MOV file identification for AVC-LongG 422

(c) AVC-LongG 422 will be encoded from 8-bit YUV 422 or 10-bit YUV 422, and AVC-LongG 420 will be encoded from 8-bit YUV420

(d) Embedded XML Metadata in AVC-LongG OP1a MXF files is only currently supported by Calibrated(Q) MXF Import or Calibrated(Q) Import Assist.
MOV Export - Adobe After Effects 10.0/10.5, & CC-CC2018

Getting Started

1. Please make sure you have QuickTime Player 7.6 or 7.7 installed

2. Please make sure you have the Adobe CS Performance booster installed: This modified Adobe XML file is necessary to export at 8/10-bit YUV422. You can learn more and download it by clicking here.

3. To preserve the maximum bit depth, please make sure you have the ‘Depth’ in the After Effects ‘Project Settings’ to either 16 or 32-bits per channel.

4. To preserve the maximum bit depth, please make sure you have the ‘Preview’ in the After Effects ‘Composition Settings’ to UNCHECKED.

Output Module Settings for MOV Export in AE

1. [Optional] – if you are working with an interlaced project and exporting to an interlaced compression type, please be sure to set the ‘Field Render’ properly in the ‘Render Settings’ of the Render Queue in AE

2. In the ‘Output Module Settings’, please choose ‘QuickTime’ for the format

3. Make sure the Depth is set to ‘Millions of Colors’

4. Click on the ‘Format Options’ button and the ‘QuickTime Options’ window will pop-up

   a. Choose the Calibrated AVC-LG Create Compression Type that best matches your Composition Settings in the ‘Video Codec’ drop down menu. (Please see the ‘Overview’ section at the beginning of this chapter to see what Compression Type matches best with your Composition Settings)

   b. You can use the quality slider to set the bitrate to 50Mb or 25Mb for AVC-LongG 422 or 12Mb or 6Mb for AVC-LongG 420 encoding, or you can set this option to manually set the bitrate.

      For AVC-LongG 422 encoding – when using the quality slider – quality above 50 will be encoded at 50Mb and quality below 50 will be encoded at 25Mb

      For AVC-LongG 420 encoding – when using the quality slider – quality above 50 will be encoded at 12Mb and quality below 50 will be encoded at 6Mb

      Please note that 50Mb 1080p50/59.94 AVC-LongG 422 encoding is not supported – only 25Mb encoding is support for 1080p50/59.94 AVC-LongG 422 encoding

   c. Make sure the Width/Height is set to either 1920x1080 or 1280x720 and PAR is at Square Pixels (1.0) for AVC-LongG Encoding

   d. Press the ‘Codec Settings’ button and the Calibrated AVC-LG Create Options window will pop-up, click on the word ‘options’ in the window and make sure ‘10-bit YUV422/Gamma’ is selected for the ‘Quick Colorspace Setup’ for AVC-LongG422 or ‘8-bit YUV422/Gamma’ is selected for the ‘Quick Colorspace Setup’ for AVC-LongG420 and then press the ‘Ok’ button and the Calibrated AVC-LG Create Options window will close.

   e. Press the ‘Ok’ button in the ‘QuickTime Options’ window and the window will close

5. And you’re ready to render
MOV Export - Adobe Premiere Pro 5.0/5.5/6.0, & CC-CC2018

Getting Started

1. Please make sure you have QuickTime Player 7.6 or 7.7 installed

2. Please make sure you have the Adobe CS Performance booster installed: This modified Adobe XML file is necessary to export at 8/10-bit YUV422. You can learn more and download it by clicking here.

3. To preserve the maximum bit depth, please make sure you have the ‘Maximum Bit Depth’ and ‘Maximum Render Quality’ CHECKED in the Premiere Pro ‘Sequence Settings’.

4. You can then choose to either manually configure the export setting or you can use one of our pre-built preset to configure the export settings.

Using a Preset Setting for MOV Export in PPro

1. Calibrated AVC-LG Create ships with pre-configured Adobe Export Presets that can be used in Premiere Pro or Adobe Media Encode. If you’d like to manually configure the export in PPro, please go to the next section Manually configuring for Export in PPro.

2. In the ‘Export Settings’, please choose ‘QuickTime’ for the format.

3. If you’ve already installed the preset that you want to use just choose it from the ‘Preset’ drop-down menu and skip to step 5. If you haven’t installed the preset you want to use please go to step 4 on how to import a preset.

4. To import the preset you want to use - press the ‘Import Preset’ button on the Adobe Export Panel - the ‘Import Preset’ button is circled in red in the picture below.

   ![Import Preset Button](image)

   In the window that pops-up, please go to the below folder and choose the preset best matches your Sequence Settings. There is also ReadMe PDF in the below folders that describes the presets to help you better choose.

   Mac OSX: /Applications/Calibrated/Presets/AVC-LG Create/PPro

   Windows 64-bit*: [System Drive]\Program Files (x86)\Calibrated\Presets\AVC-LG Create\PPro

   *on Windows 32-bit OS use the ‘Program Files’ folder

5. Click on the ‘Video’ Tab in the ‘Export Settings’
   a. Make sure that ‘Use Maximum Render Quality’ is CHECKED
   b. Make sure that ‘Use Previews’ is NOT CHECKED

6. And you’re ready to export
**Manually configuring for Export in PPro**

1. **In the ‘Export Settings’, please choose ‘QuickTime’ for the format**

2. **Click on the ‘Video’ Tab in the ‘Export Settings’**
   
   a. Choose the Calibrated AVC-LG Create Compression Type that best matches your Sequence Settings in the ‘Video Codec’ drop down menu.
   
   b. Press the ‘Codec Settings’ button and the Calibrated AVC-LG Create Options window will pop-up, click on the word ‘options’ in the window and make sure ‘10-bit YUV422/Gamma’ (for AVC-LongG 422) or ‘8-bit YUV422/Gamma’ (for AVC-LongG 420) is selected for the ‘Quick Colorspace Setup’ and then press the ‘Ok’ button and the Calibrated AVC-LG Create Options window will close.
   
   c. You can use the quality slider to set the bitrate to 50Mb or 25Mb for AVC-LongG 422 or 12Mb or 6Mb for AVC-LongG 420 encoding, or you can set this option to manually set the bitrate.
      
      For AVC-LongG 422 encoding – when using the quality slider – quality above 50 will be encoded at 50Mb and quality below 50 will be encoded at 25Mb
      
      For AVC-LongG 420 encoding – when using the quality slider – quality above 50 will be encoded at 12Mb and quality below 50 will be encoded at 6Mb
      
      Please note that 50Mb 1080p50/59.94 AVC-LongG 422 encoding is not supported – only 25Mb encoding is support for 1080p50/59.94 AVC-LongG 422 encoding
   
   d. **Make sure the Width/Height are at either 1920x1080 or 1280x720 and PAR is at Square Pixels (1.0)**
   
   e. Make sure the Field Type matches the Calibrated AVC-LongG Compression Type you are exporting to - choose ‘Upper First’ for interlaced compression types or ‘Progressive’ for progressive compression types.
   
   f. Make sure the ‘Frame Rate’ matches the Calibrated AVC-LongG Compression Type you are exporting to – please see the ‘Overview’ section at the beginning of this chapter to see the proper frame rates for the different AVC-LongG Compression Types.
   
   g. Make sure that ‘Render at Maximum Depth’ is CHECKED
   
   h. Make sure that the Bit Depth is set to ‘24 bit’ (bit depth needs to be 24 are you will get a render error)
   
   i. Make sure that ‘Use Maximum Render Quality’ is CHECKED
   
   j. Make sure that ‘Use Previews’ is **NOT** CHECKED

3. And you’re ready to export
MOV Export - Adobe Media Encoder 5.0/5.5/6.0, & CC-CC2018

Getting Started

1. Please make sure you have QuickTime Player 7.6 or 7.7 installed

2. Please make sure you have the Adobe CS Performance booster installed: This modified Adobe XML file is necessary to export at 8/10-bit YUV422. You can learn more and download it by clicking here.

3. Exporting an Adobe Premiere Pro Project or Sequence from AME: To preserve the maximum bit depth, please make sure you have the ‘Maximum Bit Depth’ and ‘Maximum Render Quality’ CHECKED in the Premiere Pro ‘Sequence Settings’ for any sequence in the Premiere Pro Project.

4. Exporting an After Effects Project from AME: To preserve the maximum bit depth, please make sure you have the ‘Depth’ in the After Effects ‘Project Settings’ to either 16 or 32-bits per channel.

5. Exporting an After Effects Composition from AME: To preserve the maximum bit depth, please make sure you have the ‘Preview’ in the After Effects ‘Composition Settings’ to UNCHECKED.

6. You can then choose to either manually configure the export setting or you can use one of our pre-built preset to configure the export settings.

Using a Preset Setting for MOV Export in AME

1. Calibrated AVC-LG Create ships with pre-configured Adobe Export Presets that can be used in Premiere Pro or Adobe Media Encode. If you’d like to manually configure the export in AME, please go to the next section Manually configuring for Export in AME

2. In the ‘Export Settings’, please choose ‘QuickTime’ for the format

3. If you’ve already installed the preset that you want to use just choose it from the ‘Preset’ drop-down menu and skip to step 6. If you haven’t installed the preset you want to use please go to step 4 on how to import a preset.

4. Right-click on the source you are exporting from AME and from the drop-down menu choose’ Export Settings’ for the Adobe Export Panel window to appear. To import the preset you want to use - press the ‘Import Preset’ button on the Adobe Export Panel - the ‘Import Preset’ button is circled in red in the picture below.

   ![Preset button](image)

In the window that pops up, please go to the below folder and choose the preset best matches your Sequence Settings. There is a ReadMe PDF in the below folders that describes the presets to help you better choose.

   Mac OSX: /Applications/Calibrated/Presets/AVC-LG Create/PPro

   Windows 64-bit*: [System Drive]\Program Files (x86)\Calibrated\Presets\AVC-LG Create\PPro

   *on Windows 32-bit OS use the ‘Program Files’ folder

5. Click on the ‘Video’ Tab in the ‘Export Settings’
   a. Make sure that ‘Use Maximum Render Quality’ is CHECKED
   b. Make sure that ‘Use Previews’ is NOT CHECKED

6. And you’re ready to export
Manually configuring for Export in AME

1. **Right-click on the source you are exporting from AME and from the drop-down menu choose ‘Export Settings’** for the Adobe Export Panel window to appear. In the ‘Export Settings’, please choose ‘QuickTime’ for the format

2. **Click on the ‘Video’ Tab in the ‘Export Settings’**
   
a. Choose the Calibrated AVC-LG Create Compression Type that best matches your Sequence Settings in the ‘Video Codec’ drop down menu. *(Please see the ‘Overview’ section at the beginning of this chapter to see what Compression Type matches best with your Sequence Settings)*
   
b. Press the ‘Codec Settings’ button and the Calibrated AVC-LG Create Options window will pop-up, click on the word ‘options’ in the window and make sure ‘10-bit YUV422/Gamma’ (for AVC-LongG 422) or ‘8-bit YUV422/Gamma’ (for AVC-LongG 420) is selected for the ‘Quick Colorspace Setup’ and then press the ‘Ok’ button and the Calibrated AVC-LG Create Options window will close.
   
c. You can use the quality slider to set the bitrate to 50Mb or 25Mb for AVC-LongG 422 or 12Mb or 6Mb for AVC-LongG 420 encoding, or you can set this option to manually set the bitrate.
      
      For AVC-LongG 422 encoding – when using the quality slider – quality above 50 will be encoded at 50Mb and quality below 50 will be encoded at 25Mb
      
      For AVC-LongG 420 encoding – when using the quality slider – quality above 50 will be encoded at 12Mb and quality below 50 will be encoded at 6Mb
      
      Please note that 50Mb 1080p50/59.94 AVC-LongG 422 encoding is not supported – only 25Mb encoding is support for 1080p50/59.94 AVC-LongG 422 encoding
   
d. Make sure the Width/Height are at either 1920x1080 or 1280x720 and PAR is at Square Pixels (1.0)
   
e. Make sure the Field Type matches the Calibrated AVC-LongG Compression Type you are exporting to - choose ‘Upper First’ for interlaced compression types or ‘Progressive’ for progressive compression types.
   
f. Make sure the ‘Frame Rate’ matches the Calibrated AVC-LongG Compression Type you are exporting to – please see the ‘Overview’ section at the beginning of this chapter to see the proper frame rates for the different AVC-LongG Compression Types.
   
g. Make sure that ‘Render at Maximum Depth’ is CHECKED
   
h. Make sure that the Bit Depth is set to ‘24 bit’ *(bit depth needs to be 24 are you will get a render error)*
   
i. Make sure that ‘Use Maximum Render Quality’ is CHECKED
   
j. Make sure that ‘Use Previews’ is **NOT** CHECKED

3. And you’re ready to export
Getting Started

1. Please make sure you have AME CC-CC2018 is installed. (Exporting from AE CS6 is not supported)

Exporting

1. When exporting from an AE Composition, please choose the ‘Add to Adobe Media Encoder Queue…’

2. See the AME section for rest of details on exporting
P2 MXF Export - Adobe AME/Premiere Pro CS6, & CC-CC2018

Getting Started

1. **On Windows** - Please make sure you have ExpCalibratedAVCLongG.prm installed in the Adobe\Common\Plug-ins\7.0\ for CC-CC2018 support, and in the Adobe\Common\Plug-ins\6.0\MediaCore directory for CS6 support.

2. **On Mac OSX** - Please make sure you have ExpCalibratedAVCLongG.prm installed in the /Library/Application Support/Adobe/Common/Plug-ins/7.0/MediaCore for CC-CC2018 support, and in /Library/Application Support/Adobe/Common/Plug-ins/6.0/MediaCore directory for CS6 support.

P2 AVC-LongG MXF Export in PPro/AME

1. In the ‘Export Settings’, please choose the format ‘Calibrated P2 AVC-LongG MXF’

2. **Click on the ‘Video’ Tab in the ‘Export Settings’ (see picture below)**
   a. The ‘Video Codec’ should automatically be set to the Resolution and FrameRate that best matches your Sequence Settings.

   b. The ‘Video BitRate’ will be automatically set to the highest BitRate for the ‘Video Codec’ Resolution and FrameRate that is selected (either 50Mb or 25Mb depending on the Resolution and FrameRate).

   c. Encode settings - Compression quality and number of threads used for encoding.

   d. Closed GOP (BETA) – When checked this will make all I-frame as Closed GOP I-frames

   e. Make sure the # Rendering Procs is set to ‘Maximum’ - this means our plugin will use all processors on the computer for encoding. When set to ‘Medium’ then our plugin will use half the number of processors and when set to ‘Minimum’ then our plugin will use 2 processors.

   f. By Default - ‘Render at Maximum Depth’ is CHECKED – this means that our plugin will render at 10-bit YUV422. If you UNCHECK this, then our plugin will render at 8-bit YUV422.

   g. Make sure that ‘Use Maximum Render Quality’ is CHECKED if you want the best render quality from Adobe; however exports could take a little longer.

   h. Make sure that ‘Use Previews’ is NOT CHECKED if you want the best render quality from Adobe; however exports could take a little longer.

3. **Click on the ‘Audio’ Tab in the ‘Export Settings’ (see picture below)**
   a. The ‘Audio Codec’ should automatically be set to Uncompressed

   b. The ‘Sample Rate’ should be set to 48000 Hz

   c. In CC-CC2018 - The ‘Channels’ should be set to the number of channels that closet matches your Sequence Settings (either 2, 4 or 8). IMPORTANT: For CS6, the number of channels always defaults to 2.

   d. The ‘Sample Size’ will always default to 16-bit audio. Please choose ’24-bit’ for 24 bit audio.

4. **Click on the ‘MetaData Tab in the ‘Export Settings’ (see picture below)**
   a. In the ‘TimeCode’ section you can override the TimeCode that the plugin will use for the exported file. By default, the plugin will use the TimeCode given to it by PPro/AME, but you can CHECK the ‘Override Sequence TimeCode’ to enter in a new TimeCode to use.

   b. The ‘P2 XML MetaData’ section will enable you to enter in MetaData for the MXF file. By default, the values of [Empty] or 0 mean not to use that MetaData. The UserClipName will be the ‘Output Name’ for the MXF file.

5. And you’re ready to export
‘Video Tab’ in the ‘Export Settings’ for PPro/AME CC

- **Video Codec**
  - Video Codec: AVC-LongG 1080i 29.97fps
  - Video BitRate: 50 Mbits
  - Closed GOP?
  - Encode settings: Highest Quality, Maximum Threading

- **Basic Video Settings**
  - Width: 1,920
  - Height: 1,080
  - Pixel Aspect Ratio: Square pixels (1:1)
  - Frame Rate: 29.97
  - Field Order: Upper Field
  - Deinterlace Video: Off
  - Render at Maximum Depth

‘Audio Tab’ in the ‘Export Settings’ for PPro/AME CC

- **Audio Codec**
  - Audio Codec: Uncompressed

- **Basic Audio Settings**
  - Sample Rate: 48000 Hz
  - Channels: Discrete - 2 Channel
  - Sample Size: 16 bit
‘MetaData Tab’ in the ‘Export Settings’ for PPro/AME CC
OP1a MXF Export - Adobe AME/PPro CS6, & CC-CC2018

Getting Started

1. **On Windows** - Please make sure you have ExpCalibratedAVCLong GOP1a.prm and ExpCalibratedXAVCLongOP1a.prm installed in the Adobe\Common\Plug-ins\7.0\ for CC-CC2018 support, and in the Adobe\Common\Plug-ins\6.0\MediaCore directory for CS6 support.

2. **On Mac OSX** - Please make sure you have ExpCalibratedAVCLong GOP1a.prm and ExpCalibratedXAVCLongOP1a.prm installed in the /Library/Application Support/Adobe/Common/Plug-ins/7.0/MediaCore for CC-CC2018 support, and in /Library/Application Support/Adobe/Common/Plug-ins/6.0/MediaCore directory for CS6 support.

**OP1a AVC-LongG MXF Export in PPro/AME**

1. In the ‘Export Settings’, please choose the format ‘Calibrated OP1a AVC-LongG MXF’

2. **Click on the ‘Video’ Tab in the ‘Export Settings’** (see picture below)
   a. The ‘Video Codec’ should automatically be set to the Resolution and FrameRate that best matches your Sequence Settings.
   b. The ‘Video BitRate’ will be automatically set to the highest BitRate for the ‘Video Codec’ Resolution and FrameRate that is selected (either 50Mb or 25Mb depending on the Resolution and FrameRate).
   c. Closed GOP (BETA) – When checked this will make all I-frame as Closed GOP I-frames
   d. Encode settings - Compression quality and number of threads used for encoding.
   e. Make sure the # Rendering Procs is set to ‘Maximum’ - this means our plugin will use all processors on the computer for encoding. When set to ‘Medium’ then our plugin will use half the number of processors and when set to ‘Minimum’ then our plugin will use 2 processors.
   f. By Default - ‘Render at Maximum Depth’ is CHECKED – this means that our plugin will render at 10-bit YUV422. If you UNCHECK this, then our plugin will render at 8-bit YUV422.
   g. Make sure that ‘Use Maximum Render Quality’ is CHECKED if you want the best render quality from Adobe; however exports could take a little longer.
   h. Make sure that ‘Use Previews’ is **NOT** CHECKED if you want the best render quality from Adobe; however exports could take a little longer.

3. **Click on the ‘Audio’ Tab in the ‘Export Settings’** (see picture below)
   a. The ‘Audio Codec’ should automatically be set to Uncompressed
   b. The ‘Sample Rate’ should be set to 48000 Hz
   c. In CC-CC2018 - The ‘Channels’ should be set to the number of channels that closet matches your Sequence Settings (either 0 - 32 ). **IMPORTANT:** **For CS6, the number of channels always defaults to 2.**
   d. The ‘Sample Size’ will always default to 16-bit audio. Please choose ‘24-bit’ for 24 bit audio.
4. Click on the ‘MetaData Tab in the ‘Export Settings’ (see picture below)
   a. In the ‘TimeCode’ section you can override the TimeCode that the plugin will use for the exported file. By default, the plugin will use the TimeCode given to it by PPro/AME, but you can CHECK the ‘Override Sequence TimeCode’ to enter in a new TimeCode to use.
   b. The ‘MXF MetaData’ section you can set the MXF file Source Package Name.
   c. The ‘Cs – FCP X Embedded Camera/Studio MetaData’ section and ‘Cs – FCP X Embedded Share MetaData’ section will enable you to enter in embedded XML Metadata into the MXF OP1a file. Please see the chapter **MXF OP1a Embedded XML Metadata** in this User Guide for more information.

5. And you’re ready to export
‘Video Tab’ in the ‘Export Settings’ for PPro/AME CC

- **Video Codec**
  - Video Codec: AVC-LongG 1080i 29.97fps
  - Video BitRate: 50 Mbits
  - Closed GOP?
  - Encode settings: Highest Quality, Maximum Threading

- **Basic Video Settings**
  - Width: 1,920
  - Height: 1,080
  - Pixel Aspect Ratio: Square pixels (1.0)
  - Frame Rate: 29.97
  - Field Order: Upper Field
  - Deinterlace Video: Off
  - Render at Maximum Depth

‘Audio Tab’ in the ‘Export Settings’ for PPro/AME CC

- **Audio Codec**
  - Audio Codec: Uncompressed

- **Basic Audio Settings**
  - Sample Rate: 48000 Hz
  - Channels: Discrete – 2 Channel
  - Sample Size: 16 bit

‘MetaData Tab’ in the ‘Export Settings’ for PPro/AME CC

**TimeCode**
- Override Sequence TimeCode
  - Enter New TimeCode: 00:00:00:00
  - Override TimeCode Value: 00:00:00:00, 30fps - NDF

**MXF MetaData**
- Source Package Name: [Empty]

**Cs - FCP X Embedded Camera/Studio MetaData**
- Is Good?
  - Title: [Empty]
  - Creator: [Empty]
  - ReelName: [Empty]
  - LogNote: [Empty]
  - Program Name: [Empty]
  - Scene: [Empty]
  - Take: [Empty]
  - Memo Author: [Empty]
  - Memo: [Empty]
  - Location: [Empty]
  - Shooter: [Empty]
  - Camera Name: [Empty]
  - Camera ID: [Empty]
  - Camera Angle: [Empty]
  - Reporter: [Empty]
  - Purpose: [Empty]
  - Object: [Empty]

**Cs - FCP X Embedded Share MetaData**
- Actor: [Empty]
- Category: [Empty]
- Copyright: [Empty]
1. In the ‘Export Settings’, please choose the format ‘Calibrated OP1a XAVC Long GOP MXF’

2. Click on the ‘Video’ Tab in the ‘Export Settings’ (see picture below)
   a. The ‘Video Codec’ should automatically be set to the Resolution and FrameRate that best matches your Sequence Settings.
   b. The ‘Video BitRate’ will be automatically set to the highest supported bitrate for that resolution
   c. Enable Multi-Pass Encoding: Checking this enables multi-pass encoding which can make increase the quality of exports but encoding will be slower.
   d. Make sure to set the “XAVC Format Settings” - the default is that only a MXF file is exported with embedded XML Metadata. Users can select to also export a sidecar XML file with metadata along with the MXF file or they can select to export in the fully Sony BPAV Folder structure. When choosing the Sony BPAV Folder structure option – you can also choose metadata from the “Disc Setup”;
   e. By Default - ‘Render at Maximum Depth’ is CHECKED – this means that our plugin will render at 10-bit YUV422. If you UNCHECK this, then our plugin will render at 8-bit YUV422. QFHD exporting will always render at 8-bit since it is an 8-bit format.
   f. Make sure that ‘Use Maximum Render Quality’ is CHECKED if you want the best render quality from Adobe; however exports could take a little longer.
   g. Make sure that ‘Use Previews’ is NOT CHECKED if you want the best render quality from Adobe; however exports could take a little longer.

3. Click on the ‘Audio’ Tab in the ‘Export Settings’ (see picture below)
   a. The ‘Audio Codec’ should automatically be set to Uncompressed
   b. The ‘Sample Rate’ should be set to 48000 Hz
   c. In CC-CC2018 - The ‘Channels’ will be discrete audio and should be set to the number of channels that closet matches your Sequence Settings (either 0 to 32 ). IMPORTANT: For CS6, the number of channels always defaults to 2.
   d. The ‘Sample Size’ will always be 24-bit audio.

4. Click on the ‘File MetaData Tab in the ‘Export Settings’ (see picture below)
   a. In the ‘TimeCode’ section you can override the TimeCode that the plugin will use for the exported file. By default, the plugin will use the TimeCode given to it by PPro/AME, but you can CHECK the ‘Override Sequence TimeCode’ to enter in a new TimeCode to use.
   b. The ‘MXF MetaData’ section you can set the MXF file Source Package Name.
   c. The ‘General Non-Real Time Metadata” section, “Descriptive Non-Real Time Metadata”, and “User Defined Descriptive Non-Real Time Metadata” section will enable you to enter in embedded XML Metadata for the MXF OP1a file. Please see the chapter XAVC Long GOP MXF OP1a XML Metadata in this User Guide for more information.

5. Click on the ‘Disc Setup” Tab in the ‘Export Settings’ (see picture below)
   When you choose the Full XAVC Disc Structure option in “XAVC Format Settings” then the ‘Disc Setup’ tab will allow you to enter in disc metadata and name the clip.

6. And you’re ready to export
‘Video Tab’ in the ‘Export Settings’ for PPro/AME CC for XAVC Long GOP

![Video Tab Screenshot]

‘Audio Tab’ in the ‘Export Settings’ for PPro/AME CC for XAVC Long GOP

![Audio Tab Screenshot]
‘File Metadata Tab’ in the ‘Export Settings’ for PPro/AME CC for XAVC Long GOP

![Image of File Metadata settings in PPro/AME CC]

**TimeCode**
- Override Sequence TimeCode
  - Enter New TimeCode: 00:00:00:00
  - Override TimeCode Value: 00:00:00:00 , 30fps - NDF

**HXF Metadata**
- Source Package Name: [Empty]

**General Non-Real Time Metadata**
- Status: None
- Title (ASCII): [Empty]
- Title Alias: [Empty]
- Creator: [Empty]
- Description: [Empty]

**Descriptive Non-Real Time Metadata**
- Circle: [Empty]
- Project: [Empty]
- Director: [Empty]
- Cinematographer: [Empty]
- Production: [Empty]
- Camera Index: [Empty]
‘Disc Setup Tab’ in the ‘Export Settings’ for PPro/AME CC for XAVC Long GOP

Disc Clipname
- Default Filename: Clip0001

Disc XML Metadata
- Main Title (ASCII): [Empty]
- Main Title Alias: [Empty]
- Alternative Title (ASCII): [Empty]
- Alternative Title Alias: [Empty]
- Description: [Empty]
- Purpose: [Empty]
Overview
This chapter describes using Calibrated AVC-LG Create in Avid Applications. For MXF Exporting – please make sure that you are using Avid Media Composer 8.4 or greater.

Please note that

(a) AVC-LongG MOV files will use the Apple FourCC identifiers for AVC-LongG MOV files

(b) Embedded AVC-LongG XML Metadata in OP1a MXF files is only currently supported by Calibrated(Q) MXF Import or Calibrated(Q) Import Assist.

(c) MXF Export from Avid MC is BETA

(d) For reasons unknown, on Mac OSX – the Calibrated XAVC Long GOP Export plugin for Avid MC will not work properly with QFHD exporting and hang on exporting when the Sony AMA Plugin is installed. This is being investigated. If the Sony AMA Plugin is installed then the Calibrated XAVC Long GOP Export plugin will be disabled QFHD exporting.
MOV Encoding - Avid Media Composer

Getting Started

1. Please make sure you have QuickTime Player 7.6 or 7.7 installed

2. IMPORTANT: Please note that Avid Media Composer to only export thru QuickTime using 8-bit RGB colorspace which will be converted to 8-bit or 10-bit YUV422 and then encoded to AVC-LongG in Calibrated AVC-LG Create.

Export Settings

1. In the ‘Export As’, please choose ‘QuickTime Movie’ for the format

2. Click on the ‘Custom’ Option and then press the ‘Format Options…’ button
   a. The QuickTime ‘Movie Settings’ window will pop-up – press the ‘Settings…’ button in the Video section and the ‘Standard Video Compression Settings’ window will pop-up
   b. Choose the Calibrated AVC-LG Create Compression Type that best matches your Sequence Settings in the ‘Compression Type’ drop down menu. (Please see the ‘Overview’ section at the beginning of this chapter to see what Compression Type matches best with your Sequence Settings)
   c. Press the ‘Codec Settings’ button and the Calibrated AVC-LG Create Options window will pop-up, click on the word ‘options’ in the window and make sure the EITHER ‘8-bit RGB/FULL’ OR ‘8-bit RGB/SMPTE’ (please see 3.c below) is selected for the ‘Quick Colorspace Setup’ and then press the ‘Ok’ button and the Calibrated AVC-LG Create Options window will close.
   d. You can use the quality slider to set the bitrate to 50Mb or 25Mb for AVC-LongG 422 or 12Mb or 6Mb for AVC-LongG 420 encoding, or you can set this option to manually set the bitrate.

   For AVC-LongG 422 encoding – when using the quality slider – quality above 50 will be encoded at 50Mb and quality below 50 will be encoded at 25Mb

   For AVC-LongG 420 encoding – when using the quality slider – quality above 50 will be encoded at 12Mb and quality below 50 will be encoded at 6Mb

   Please note that 50Mb 1080p50/59.94 AVC-LongG 422 encoding is not supported – only 25Mb encoding is support for 1080p50/59.94 AVC-LongG 422 encoding

   e. Click the OK button on both the ‘Standard Video Compression Settings’ window and the ‘Movie Settings’ window for them to close.

3. In the Video Format Settings:
   a. Make sure the Width/Height are at either 1920x1080 or 1280x720 (please pick the resolution that matches your Compression Type).
   
   b. Make sure that the ‘Display Aspect Ratio’ is set to ‘Native Dimensions’

   c. For Interlaced Projects - Make sure the File Field Order matches the Calibrated AVC-LongG Compression Type you are exporting to - choose ‘Odd (Upper Field First)’ for interlaced compression types

   d. COLOR LEVELS – if you selected ‘8-bit RGB/FULL’ in 2.c above please choose ‘RGB’ for your Color Level – if you selected ‘8-bit RGB/SMPTE’ in 2.c above please choose ‘601/709’ for your Color Level.

4. And you’re ready to export
BETA - P2 MXF Export – Avid MC 8.4

Getting Started

1. **On Windows** - Please make sure you have MSP_CalibratedMXFP2AVCLongG.avx installed in the Avid\AVX2_Plug-ins\AMA\CalibratedAVCLongGCreate folder

2. **On Mac OSX** - Please make sure you have MSP_Calibrated_AVCLongGCreateP2.avx installed in the /Library/Application Support/Avid/AVX2_Plug-ins/ folder.

P2 AVC-LongG MXF Export in Avid MC

1. In the ‘AMA File Export’, please choose the format ‘Calibrated AVC-LongG MXF P2’

2. **In the Video Section**
   a. The ‘Video Codec’ should automatically be set to the Resolution and FrameRate that best matches your Project Settings.
   b. The ‘Video BitRate’ will be automatically set to 50Mb
   c. Make sure that ‘Render at Maximum Depth” is CHECKED if you want at 10-bit quality. When unchecked 8-bit is used. For 12Mb and 8Mb encoding, 8-bit is always used.
   d. Closed GOP (BETA) – When checked this will make all I-frame as Closed GOP I-frames
   e. Encode settings - Compression quality and number of threads used for encoding.

3. **In the Audio Section**
   a. The ‘Audio Codec’ should automatically be set to Uncompressed
   b. The ‘Sample Rate’ should be set to 48000 Hz
   c. The ‘Audio Mix’ should be set to the number of channels that closet matches your Projects Settings (either 2, 4 or 8). Please note that for any Audio Mix – the first 2, 4, or 8 audio channels will be selected.
   d. The ‘Sample Size’ will always default to 16-bit audio. Please choose ’24-bit’ for 24 bit audio.

4. **In the TimeCode MetaData section**
   a. You can CHECK the ‘Manually Set TimeCode’ to enter in a new TimeCode to use.

5. In the ‘P2 XML MetaData’ section will enable you to enter in MetaData for the MXF file. By default, the values of [Empty] or 0 mean not to use that MetaData. The UserClipName will be the ‘Output Name’ for the MXF file.

6. And you’re ready to export
AVC-LongG P2 ‘Export Settings’ for Avid MC

**AMA File Export**

- File Type: Calibrated AVC-LongG MXF P2
- Use Marks
- Use Selected Tracks
- Include Inactive Audio Tracks

Set Directory: C:\Users\Greg\Desktop

**File Name:**

**Video**

- Video Compression: AVC-LongG (P2 MXF)
- Video Format: 1920x1080 29.97
- Video BitRate: 50Mb
- Set Closed GOP
- Video Encode Settings: Highest Quality, Maximum Threading
- Render at Maximum Bit Depth

**Audio**

- Audio Format: Uncompressed PCM 48kHz
- Audio Bit Depth: 16
- Audio Mix: Stereo

**TimeCode**

- Manually Set TimeCode
- Set TimeCode: 00:00:00:00

**P2 XML MetaData**

- Is Good?
- Creator: [Empty]
- Program Name: [Empty]
- Scene Number: 0
- Take Number: 0
- Memo: [Empty]
- Reporter: [Empty]
- Purpose: [Empty]
- Object: [Empty]
Getting Started

1. **On Windows** - Please make sure you have MSP_CalibratedMXFOP1aAVCLongG.avx and MSP_CalibratedMXFOP1aXAVCLongGOP.avx installed in the Avid\AVX2_Plug-ins\AMA\CalibratedAVCLongGCreate folder.

2. **On Mac OSX** - Please make sure you have MSP_Calibrated_AVCLongGCreateOP1a.avx and MSP_Calibrated_XAVCLongGOPCreateOP1a.avx installed in the /Library/Application Support/Avid/AVX2_Plug-ins/ folder.

**OP1a AVC-LongG MXF Export in Avid MC**

1. In the ‘Export Settings’, please choose the format ‘Calibrated OP1a AVC-LongG MXF’

2. **In the Video Section**
   a. The ‘Video Codec’ should automatically be set to the Resolution and FrameRate that best matches your Sequence Settings.
   b. The ‘Video BitRate’ will be automatically set to 50Mb
   c. Make sure that ‘Render at Maximum Depth’ is CHECKED if you want at 10-bit quality. When unchecked 8-bit is used. For 12Mb and 8Mb 420 encoding – 8-bit is always used.
   d. Closed GOP (BETA) – When checked this will make all I-frame as Closed GOP I-frames
   e. Encode settings - Compression quality and number of threads used for encoding.

3. **In the Audio Section**
   a. The ‘Audio Codec’ should automatically be set to Uncompressed
   b. The ‘Sample Rate’ should be set to 48000 Hz
   c. The ‘Audio Mix’ should be set to the number of channels that closet matches your Projects Settings. Please note that for any Audio Mix – the least amount of audio channels is 0 and the most is 96.
   d. The ‘Sample Size’ will always default to 16-bit audio. Please choose ‘24-bit’ for 24 bit audio.

4. **In the ‘TimeCode and MXF SourceName” MetaData Section**
   a. You can CHECK the ‘Manually Set TimeCode’ to enter in a new TimeCode to use.
   a. The ‘MXF MetaData’ section you can set the MXF file Source Package Name.

5. **In the CS – FCP X MetaData Sections**
   a. The ‘Cs – FCP X Embedded Camera/Studio MetaData’ section and ‘Cs – FCP X Embedded Share MetaData’ section will enable you to enter in embedded XML Metadata into the MXF OP1a file. Please see the chapter **AVC-LongG MXF OP1a Embedded XML Metadata** in this User Guide for more information.

6. **In the Adobe MetaData Sections**
   b. The Adobe MetaData sections will enable you to enter in Metadata to write to a ‘sidecar’ Adobe XMP metadata file.

7. And you’re ready to export
AVC-LongG OP1a 'Export Settings' for Avid MC

File Type: Calibrated AVC-LongG OP1a MIF
Video Compression: AVC-LongG (OP1a MIF)
Video Format: 1920x1080 29.97
Set Bit Rate: 2500
Set GOP: 50
Video Encode Settings: Highest Quality, Maximum Threading
Render at Maximum Bit Depth: On

Audio Format: Uncompressed PCM 48kHz
Audio Bit Depth: 16
Audio Mix: Stereo

Manually Set Timecode: On
Set Timecode: 00:00:00:00
Set MIF Source Package Name: Empty

Is Good?: Empty
Title: Empty
Creator: Empty
Reel Name: Empty
Log Date: Empty
Program Name: Empty
Scene: Empty
Take: Empty
Memo Author: Empty
Memo: Empty
Location: Empty
Shooter: Empty
Camera Name: Empty
Camera ID: Empty
Camera Angle: Empty
Reporter: Empty
Purpose: Empty
Object: Empty

Adobe XMP DC MetaData
Adobe XMP DN MetaData
Adobe XMP Script MetaData
OP1a XAVC Long GOP MXF Export in Avid MC

For reasons unknown, on Mac OSX – the Calibrated XAVC Long GOP Export plugin for Avid MC will not work properly with QFHD exporting and hang on exporting when the Sony AMA Plugin is installed. This is being investigated. If the Sony AMA Plugin is installed then the Calibrated XAVC Long GOP Export plugin will be disabled QFHD exporting.

1. In the ‘Export Settings’, please choose the format ‘Calibrated OP1a XAVC Long GOP MXF’

2. In the Video Section
   a. The ‘Video BitRate’ will be automatically set to the highest bitrate for that resolution
   b. Enable Multi-Pass Encoding: Checking this enables multi-pass encoding which can make increase the quality of exports but encoding will be slower.
   c. Make sure to set the “XAVC Format Settings” - the default is that only a MXF file is exported with embedded XML Metadata. Users can select to also export a sidecar XML file with metadata along with the MXF file or they can select to export in the fully Sony BPAV Folder structure. When choosing the Sony BPAV Folder structure option – you can also choose metadata from the “Disc Setup”,
   d. Make sure that ‘Render at Maximum Depth” is CHECKED if you want at 10-bit quality. When unchecked 8-bit is used. QFHD exporting will always render at 8-bit since it is an 8-bit format.

3. In the Audio Section
   a. The ‘Audio Codec’ should automatically be set to Uncompressed
   b. The ‘Sample Rate’ should be set to 48000 Hz
   c. The ‘Audio Mix’ should be set to the number of channels that closest matches your Projects Settings. Please note that for any Audio Mix – the least amount of audio channels is 0 and the most is 96.
   d. The ‘Sample Size’ will always be ‘24-bit’ for 24 bit audio.

4. In the ‘TimeCode and MXF SourceName” MetaData Section
   a. You can CHECK the ‘Manually Set TimeCode’ to enter in a new TimeCode to use.
   b. The ‘MXF MetaData’ section you can set the MXF file Source Package Name.

5. In the Non-Real Time Metadata Sections (see picture below)
   a. The ‘General Non-Real Time Metadata” section, “Descriptive Non-Real Time Metadata”, and “User Defined Descriptive Non-Real Time Metadata” section will enable you to enter in embedded XML Metadata for the MXF OP1a file. Please see the chapter XAVC Long GOP MXF OP1a XML Metadata in this User Guide for more information.

6. In the “Disc Setup” section
   When you choose the Full XAVC Disc Structure option in “XAVC Format Settings” then the ‘Disc Setup' tab will allow you to enter in disc metadata and name the clip.

7. And you’re ready to export
### XAVC Long GOP OP1a ‘Export Settings’ for Avid MC

#### AMA File Export
- **File Type:** Calibrated XAVC Long GOP MXF OP1a
- **Video Compression:** XAVC Long GOP (OP1a MXF)
- **Video Format:** 1920x1080 29.97p
- **Video BitRate:** 50Mb
- **Use Multi-Pass Encoding:**
- **Render at Maximum Depth:**
- **XAVC Format Settings:** Non-Real Time XML Metadata Internal

#### Audio
- **Audio Format:** Uncompressed PCM 48kHz
- **Audio Bit Depth:** 24
- **Audio Mix:** Stereo

#### TimeCode and MXF SourceName
- **Manually Set TimeCode:**
  - **Set TimeCode:** 00:00:00:00
  - **Set MXF Source Package Name:** [Empty]

#### General Non-Real Time Metadata
- **Status:** None
- **Title (ASCII):** [Empty]
- **Title Alias:** [Empty]
- **Creator:** [Empty]
- **Description:** [Empty]

#### Descriptive Non-Real Time Metadata
- **Circle:** [Empty]
- **Project:** [Empty]
- **Director:** [Empty]
- **Cinematographer:** [Empty]
- **Production:** [Empty]
- **Camera Index:** [Empty]
- **Reel:** [Empty]
- **Scene:** [Empty]
- **Cut:** [Empty]
- **Take:** [Empty]
- **Shot:** [Empty]

#### User-Defined Descriptive Non-Real Time Metadata

#### Disc Setup
- **Clip Filename:** Clip0001
- **Main Title (ASCII):** [Empty]
- **Main Title Alias:** [Empty]
- **Alternative Title (ASCII):** [Empty]
- **Alternative Title Alias:** [Empty]
- **Description:** [Empty]
- **Purpose:** [Empty]
Overview
This chapter describes using Calibrated AVC-LG Create for OSX in a FCP 7, FCP X, and Compressor 3.5.3/4.1.3 (XAVC is only 4.1.3 or greater)

IMPORTANT FOR COMPRESSOR – always remember to set the ‘Field Version’ in the Options settings for the version of Compressor that you are using if you are creating your own custom preset.
MOV/MXF Export - Final Cut Pro X

Getting Started

1. Please make sure you have FCP X 10.1.2 or greater installed

2. Please make sure that the Calibrated AVC-LG Create Compressor 4.1.3 presets are installed

   If the presets are NOT installed, you can use our presets installer to install them

3. Please note that if you are rendering using multiple render nodes (i.e. different computers) then each computer would need it’s own separate license of Calibrated AVC-LG Create.

4. IMPORTANT: When exporting from FCP, if the number of output audio channels is smaller than the number of FCP audio channels then each output audio channel is a mix of all FCP audio channels.

MOV/MXF Exporting from FCP X

1. In FCP X, you can choose to export from FCP X using the ‘Share’ option, or you can choose to ‘Send to Compressor’ and export using Compressor. If you choose to ‘Send to Compressor’ please go to the ‘Compressor 3.5.3/4.1.3’ chapter on how to export from Compressor. For using the ‘Share’ option from FCP X, please continue to step 2.

2. After choosing the ‘Share’ option, please choose the ‘Add Destination…’ and the ‘Destinations’ window will pop-up. Click on the ‘Compressor Settings’ button and under the ‘Custom’ folder will be the Cs AVC-LongG MOV, Cs AVC-LongG – P2 MXF, and Cs AVC-LongG – P2 MXF presets. The presets are organized by resolution, field type and framerate. Choose the preset that best matches your source resolution, frame rate, and field

3. Preset Defaults:

   Please go to the Compressor 3.5.3/4.1.3 section to learn the preset defaults

4. You can also create your own presets in Compressor. Please go to the Compressor 3.5.3/4.1.3 section to learn how to create your own presets.

5. And you’re ready to export
MOV/MXF Export - Final Cut Pro 7

Getting Started

1. Please make sure you have FCP7.0.3 installed (earlier versions of FCP have not been tested)

2. Please make sure that the Calibrated AVC-LG Create Compressor presets are installed
   If the presets are NOT installed, you can use our presets installer to install them
   Please restart your computer after installing.

3. To preserve the maximum bit depth, please make sure you have the ‘Render 10-bit material in high-precision YUV’ selected OR ‘Render all YUV material in high-precision YUV selected in your FCP ‘Sequence Settings’.

4. IMPORTANT: When exporting from FCP, if the number of output audio channels is smaller than the number of FCP audio channels then each output audio channel is a mix of all FCP audio channels.

5. IMPORTANT: FCP7 cannot import AVC-LongG MXF files.

Using a Preset Setting for exporting in FCP7

1. In the ‘File->Send To’ menu options, please choose ‘Compressor’ option

2. And you’re ready to export – please go to the Compressor 3.5.3/4.1.3 chapter on how to export from Compressor 3.5.3 by using one of our ready-made presets or by creating your own preset.
MOV Export - Compressor 3.5.3/4.1.3

Getting Started

1. If you are using Compressor 3.5, please make sure you have Compressor 3.5.3 installed, and if you are using Compressor 4, please make sure you have Compressor 4.1.3 installed. Earlier versions of Compressor have not been tested.

2. Please make sure that the Calibrated AVC-LG Create Compressor presets are installed
   
   If the presets are NOT installed, you can use our presets installer to install them
   
   Please **restart your computer** if you had to manually install the presets.

3. **For FCP7 Sequences:** To preserve the maximum bit depth, please make sure you have the ‘Render 10-bit material in high-precision YUV’ selected OR ‘Render all YUV material in high-precision YUV selected in your FCP7 ‘Sequence Settings’ if you send a sequence to Compressor 3.5.3.

4. Please note that in the Calibrated AVC-LG Create Compressor 3.5 Presets the ‘Frame Controls’ are turned OFF for Compressor. This means that the proper field dominance (Upper Field First or Progressive) is assumed to match the Calibrated AVC-LG Create Compression Type you are encoding into.

5. Please note that if you are rendering using multiple render nodes (i.e. different computers) then each computer would need it’s own separate license of Calibrated AVC-LG Create.

Using a Preset Setting for exporting in Compressor

1. If you’ve already installed our AVC-LG Create Compressor Presets skip to step 2. If you haven’t installed the presets, please go to the above section ‘Getting Started’ to learn how to install our Calibrated AVC-LG Create Compressor presets.

2. In the Compressor ‘Settings’ window, please open the ‘Settings’ tab and navigate to the ‘Custom’ folder.

3. Under the ‘Custom’ folder will be the folder ‘Cs AVC-LongG– MOV’, please look under this folder for the presets. The presets are organized by AVC-LongG 10-Bit 422 or 8-bit 420, and under those folders you can find the presets for 1080i, 1080p or 720p. Choose the preset that best matches your resolution, frame rate, and field type that you want to encode into.

4. And you’re ready to export
**Getting Started**

1. If you are using Compressor 3.5, please make sure you have Compressor 3.5.3 installed, and if you are using Compressor 4, please make sure you have Compressor 4.1.3 (or greater) installed. Other versions of Compressor have not been tested.

2. Please make sure that the Calibrated AVC-LG Create Compressor presets are installed
   
   If the presets are NOT installed, you can use our presets installer to install them

   Please **restart your computer** after installing.

3. **For FCP7 Sequences:** To preserve the maximum bit depth, please make sure you have the ‘Render 10-bit material in high-precision YUV’ selected OR ‘Render all YUV material in high-precision YUV selected in your FCP7 ‘Sequence Settings’ if you send a sequence to Compressor 3.5.3.

4. Please note that if you are rendering using multiple render nodes (i.e. different computers) then each computer would need its own separate license of Calibrated AVC-LG Create.

**Using a Pre-made Preset for P2 MXF Exporting in Compressor 3.5.3/4.1.3**

1. If you’ve already installed our AVC-LG Create Compressor Presets skip to step 2. If you haven’t installed the presets, please go to the above section ‘Getting Started’ to learn how to install our Calibrated AVC-LG Create Compressor presets.

2. In the Compressor ‘Settings’ window, please open the ‘Settings’ tab and navigate to the ‘Custom’ folder.

3. The presets are organized by resolution, field type, compression depth (8-bit or 10-bit) and framerate. Choose the preset that best matches your source resolution, frame rate, and field

4. **Preset Defaults:**

   a. **Video:** The video bitrate will be the maximum bitrate for that resolution/framerate (either 50Mb or 25Mb for 10-bit and 12Mb for 8-bit).

   b. **Audio:** The default audio will be 16-bit 48Khz uncompressed audio with either 2, 4, 6, or 8 discrete audio channels. (If the export is for 6 audio channels then 8 audio channels will be exports with the last two channels filled with silence)

   c. **TimeCode:** The default TimeCode will be to use the Start TimeCode from the source (if possible)

   d. **MetaData:** The default MetaData will be as follows:

      (i) **P2 User Clip Name** will default to the ‘**Exported FileName**’
      
      (ii) **P2 Creator** will default to the ‘**Author**’ from the Compressor Job Annotation
      
      (iii) **P2 Program Name** will default to the ‘**Album**’ in the Compressor Job Annotation
      
      (iv) **P2 News Reporter** will default to the ‘**Artist**’ in the Compressor Job Annotation
      
      (v) **P2 News Purpose** will default to the ‘**Keywords**’ in the Compressor Job Annotation
      
      (vi) **P2 News Object** will default to the ‘**Producer**’ in the Compressor Job Annotation
      
      (vii) **P2 Memo** will default to the ‘**Description**’ in the Compressor Job Annotation

5. You can also create your own presets in Compressor. Please go to the section to learn how to create your own presets.
Creating a P2 MXF Preset in Compressor 3.5.3

IMPORTANT – always remember to set the ‘Field Version’ in the Options settings for the version of Compressor that you are using

First select the ‘+’ button in the Settings window and choose ‘Calibrated P2 AVC-LongG MXF’ in the drop-down menu

This will add a new ‘Untitled Calibrated P2 AVC-LongG MXF’ preset in the Settings window. Make sure that this new preset is highlighted and then press the ‘Options’ button to open the preset options.

By pressing the ‘Option’ button you will bring up the ‘Options’ panel to configure the preset. See the section below:

Options Panel in Compressor 3.5.3/4.1.3 for setting the different options in your new preset.
Creating a P2 MXF Preset in Compressor 4.1.3

IMPORTANT – always remember to set the ‘Field Version’ in the Options settings for the version of Compressor that you are using

First select the ‘+’ button in the Settings window and choose ‘New Setting…’ in the drop-down menu

In the window that pops-up, choose ‘Calibrated P2 AVC-LongG MXF’ from the last of formats

This will add a new ‘Untitled Calibrated P2 AVC-LongG MXF’ preset in the Settings window. Make sure that this new preset is highlighted and then press the ‘Configure’ button to open the preset options panel.
By pressing the 'Configure' button you will bring up the 'Options' panel to configure the preset. See the section below:

**Options Panel in Compressor 3.5.3/4.1.3**

for setting the different options in your new preset.
Calibrated AVC-LG Create supports creating the following Panasonic P2 AVC-LongG MXF files:

1920x1080i @ 29.97 or 25 fps  
BitRates: 50Mb, 25Mb, 12Mb

1920x1080p @ 59.94 or 50 fps  
BitRates: 25Mb, 12Mb

1920x1080p @ 29.97 fps or 25 fps or 23.976 fps  
BitRates: 50Mb, 25Mb, 12Mb

1280x720p @ 59.94 or 50 fps  
BitRates: 50Mb, 25Mb, 12Mb

48Khz Uncompressed audio with 2,4,or 8 Channels at either 16-bits or 24-bits.

*(continued next page)*
The below Options panel can help you configure your preset in Compressor

1. **Video Options**
   a. **Video Codec**: This lets you set the resolution, framerate, and field type that you wish to encode into.
   b. **Video BitRate**: This lets you set the bitrate of the encoded video.
   c. **Closed GOP (BETA)** – When checked this will make all I-frame as Closed GOP I-frames.
   d. **Encode settings** - Compression quality and number of threads used for encoding.
   e. **Field Version**: IMPORTANT – you must set this for the version of Compressor that you are using.
   f. **Colors spaces**: 
      (i) The ‘Enable All Colorspace’ option tells Compressor that the plugin can accept 10-bit and 8-bit colorspace for encoding. 
      (ii) The ‘All w/o Advanced YUV/RGB’ option tells Compressor that the plugin can only accept 8-bit colorspace for encoding. This can speed up encoding by slightly lowering the source video bit-depth.
   g. **# of CPU’s for Encoding**: This lets you set the amount of CPU’s used for the encoding.
      (i) Max = all available CPU’s up to 10.
      (ii) Med = half of all available CPU’s up to 10.
      (iii) Min=1 or 2 CPU’s (depending on computer).
2. **Audio Options** - **IMPORTANT:** When exporting from FCP, if the number of output audio channels is smaller than the number of FCP audio channels then each output audio channel is a mix of all FCP audio channels.

   a. Audio Rate: Always set to 48 kHz
   
   b. Audio BitRate: 16-bits or 24-bits (default is 16-bits)
   
   c. Audio Auto: The below options will let the preset tell Compressor the Audio Layout that the plugin wants to receive. Please note that no matter which Audio Layout option is selected – the exported media will only store audio in a 2, 4, or 8 channel discrete configuration.
      
      (i) The ‘Use # of Audio Channels From Source (if possible)’ option is the default option and this option will tell Compressor to send the exact number of source audio channels in as discrete audio channels.
      
      (ii) The ‘Use Audio Layout From Source (if possible)’ option will tell Compressor to send the exact number of source audio channels in the source audio layout.
      
      (iii) The ‘Manually set Audio Layout’ option will let you manually set the audio layout to tell Compressor to send to the plugin
   
   d. Audio Layout: This is where you would manually set the ‘Audio Layout’ if the ‘Audio Auto’ option is set to ‘Manually set Audio Layout’. Please note that no matter which Audio Layout is manually selected – the exported media will only store audio in a 2, 4, or 8 channel discrete configuration.

3. **TimeCode Options**

   a. Use Start TimeCode From Source (if possible) – by default the preset is set to use the start timecode from the source media for the exported media. By unchecking this option the user can manually add in a new start timecode for the exported media
   
   b. Enter Start TimeCode – this is where you would manually enter in the new start timecode for the exported media if the ‘Use Start TimeCode From Source’ is UNCHECKED

4. **MetaData Options** – The default MetaData mapping is described below. The user can adjust how the metadata is mapped (or set) by either (i) selecting a different Compressor MetaData mapping for the P2 MetaData field or (ii) the user can UNCHECKED the box next to the MetaData field to manually enter in metadata.

   a. **P2 User Clip Name** will default to the ‘Exported FileName’
   
   b. **P2 Creator** will default to the ‘Author’ from the Compressor Job Annotation or ‘Creator’ from FCP X ‘Share’ MetaData
   
   c. **P2 Program Name** will default to the ‘Album’ in the Compressor Job Annotation or ‘Show’ from FCP X ‘Share’ MetaData
   
   d. **P2 Scene** will default to the ‘Episode ID’ from FCP X ‘Share’ MetaData (Please note that the default mapping applies to FCP X only and that the P2 Scene MetaData can only store a number value)
   
   e. **P2 Take** will default to the ‘Episode Number’ from FCP X ‘Share’ MetaData (Please note that the default mapping applies to FCP X only and that the P2 Scene MetaData can only store a number value)
   
   f. **P2 News Reporter** will default to the ‘Artist’ in the Compressor Job Annotation or ‘Actors’ from FCP X ‘Share’ MetaData
   
   g. **P2 News Purpose** will default to the ‘Keywords’ in the Compressor Job Annotation or ‘Tags’ from FCP X ‘Share’ MetaData
   
   h. **P2 News Object** will default to the ‘Producer’ in the Compressor Job Annotation and FCP X ‘Share’ MetaData
   
   i. **P2 Memo** will default to the ‘Description’ in the Compressor Job Annotation and FCP X ‘Share’ MetaData
AVC-LongG OP1a MXF Export - Compressor 3.5.3/4.1.3

Getting Started

1. If you are using Compressor 3.5, please make sure you have Compressor 3.5.3 installed, and if you are using Compressor 4, please make sure you have Compressor 4.1.3 (or greater) installed. Other versions of Compressor have not been tested.

2. Please make sure that the Calibrated AVC-LG Create Compressor presets are installed

   If the presets are NOT installed, you can use our presets installer to install them

   Please restart your computer after installing.

3. **For FCP7 Sequences:** To preserve the maximum bit depth, please make sure you have the ‘Render 10-bit material in high-precision YUV’ selected OR ‘Render all YUV material in high-precision YUV selected in your FCP7 ‘Sequence Settings’ if you send a sequence to Compressor 3.5.3.

4. Please note that if you are rendering using multiple render nodes (i.e. different computers) then each computer would need its own separate license of Calibrated AVC-LG Create.

Using a Pre-made Preset for AVC-LongG OP1a MXF Exporting in Compressor 3.5.3/4.1.3

1. If you’ve already installed our AVC-LG Create Compressor Presets skip to step 2. If you haven’t installed the presets, please go to the above section ‘Getting Started’ to learn how to install our Calibrated AVC-LG Create Compressor presets.

2. In the Compressor ‘Settings’ window, please open the ‘Settings’ tab and navigate to the ‘Custom’ folder.

3. The presets are organized by resolution, field type, compression depth (8-bit or 10-bit) and framerate. Choose

   the preset that best matches your source resolution, frame rate, and field

4. **Preset Defaults:**

   a. **Video:** The video bitrate will be the maximum bitrate for that resolution/framerate (either 50Mb or 25Mb for 10-bit and 12Mb for 8-bit).

   b. **Audio:** The default audio will be 16-bit 48Khz uncompressed audio with either 2, 4, 6, 8, 10, 14, 16, 24 or 32 discrete audio channels.

   c. **TimeCode:** The default TimeCode will be to use the Start TimeCode from the source (if possible)

   d. **MetaData:** The default MetaData will be [Empty] (no metadata) for all metadata fields

5. You can also create your own presets in Compressor. Please go to the section to learn how to create your own presets.
Creating an AVC-LongG OP1a MXF Preset in Compressor 3.5.3

IMPORTANT – always remember to set the ‘Field Version’ in the Options settings for the version of Compressor that you are using

First select the ‘+’ button in the Settings window and choose ‘Calibrated OP1a AVC-LongG MXF’ in the drop-down menu.

This will add a new ‘Untitled Calibrated OP1a AVC-LongG MXF’ preset in the Settings window. Make sure that this new preset is highlighted and then press the ‘Options’ button to open the preset options.

By pressing the ‘Option’ button you will bring up the ‘Options’ panel to configure the preset. See the section below:

Options Panel in Compressor 3.5.3/4.1.3

for setting the different options in your new preset.
**Creating an AVC-LongG OP1a MXF Preset in Compressor 4.1.3**

**IMPORTANT** – always remember to set the ‘Field Version’ in the Options settings for the version of Compressor that you are using.

First select the ‘+’ button in the Settings window and choose ‘New Setting…’ in the drop-down menu.

In the window that pops-up, choose ‘Calibrated OP1a AVC-LongG MXF’ from the last of formats.

This will add a new ‘Untitled Calibrated OP1a AVC-LongG MXF’ preset in the Settings window. Make sure that this new preset is highlighted and then press the ‘Configure’ button to open the preset options panel.
By pressing the ‘Configure’ button you will bring up the ‘Options’ panel to configure the preset. See the section below:

**Options Panel in Compressor 3.5.3/4.1.3**

for setting the different options in your new preset.
AVC-LongG OP1a MXF Options Panel in Compressor 3.5.3/4.1.3

Calibrated AVC-LG Create supports creating the following Panasonic OP1a AVC-LongG MXF files:

1920x1080i @ 29.97 or 25 fps
BitRates: 50Mb, 25Mb, 12Mb, 6Mb

1920x1080p @ 59.94 or 50 fps
BitRates: 50Mb, 25Mb, 12Mb, 6Mb

1920x1080p @ 29.97 fps or 25 fps or 23.976 fps
BitRates: 50Mb, 25Mb, 12Mb, 6Mb

1280x720p @ 59.94 or 50 fps
BitRates: 50Mb, 25Mb, 12Mb, 6Mb

48Khz Uncompressed audio with 2, 4, or 8 Channels at either 16-bits or 24-bits.

(continued next page)
The below Options panel can help you configure your preset in Compressor

1. **Video Options**
   
a. **Video Codec**: This lets you set the resolution, framerate, and field type that you wish to encode into

b. **Video BitRate**: This lets you set the bitrate of the encoded video

c. **Closed GOP (BETA)** – When checked this will make all I-frame as Closed GOP I-frames

d. **Encode settings** - Compression quality and number of threads used for encoding.

e. **Field Version**: IMPORTANT – you must set this for the version of Compressor that you are using

f. **Colorspaces**:

   (i) The ‘Enable All Colorspaces’ option tells Compressor that the plugin can accept 10-bit and 8-bit colorspaces for encoding.

   (ii) The ‘All w/o Advanced YUV/RGB’ option tells Compressor that the plugin can only accept 8-bit colorspaces for encoding. This can speed up encoding by slightly lowering the source video bit-depth

g. **# of CPU’s for Encoding**: This lets you set the amount of CPU’s used for the encoding.

   (i) Max = all available CPU’s up to 10.

   (ii) Med = half of all available CPU’s up to 10

   (iii) Min=1 or 2 CPU’s (depending on computer)

2. **Audio Options** - IMPORTANT: When exporting from FCP, if the number of output audio channels is smaller than the number of FCP audio channels then each output audio channel is a mix of all FCP audio channels.

   a. **Audio Rate**: Always set to 48 kHz

   b. **Audio BitRate**: 16-bits or 24-bits (default is 16-bits)

   c. **Audio Auto**: The below options will let the preset tell Compressor the Audio Layout that the plugin wants to receive. Please note that no matter which Audio Layout option is selected – the exported media will only store audio in a 0-32 channel discrete configuration.
The ‘Use # of Audio Channels From Source (if possible)’ option is the default option and this option will tell Compressor to send the exact number of source audio channels in as discrete audio channels.

The ‘Use Audio Layout From Source (if possible)’ option will tell Compressor to send the exact number of source audio channels in the source audio layout.

The ‘Manually set Audio Layout’ option will let you manually set the audio layout to tell Compressor to send to the plugin.

d. Audio Layout: This is where you would manually set the ‘Audio Layout’ if the ‘Audio Auto’ option is set to ‘Manually set Audio Layout’. Please note that no matter which Audio Layout is manually selected – the exported media will only store audio in a 0-32 channel discrete configuration.

3. TimeCode Options

a. Use Start TimeCode From Source (if possible) – by default the preset is set to use the start timecode from the source media for the exported media. By unchecking this option the user can manually add in a new start timecode for the exported media.

b. Enter Start TimeCode – this is where you would manually enter in the new start timecode for the exported media if the ‘Use Start TimeCode From Source’ is UNCHECKED

4. MetaData Options – The default MetaData mapping is described below. The user can adjust how the metadata is mapped (or set) by either (i) selecting a different Compressor MetaData mapping for the MetaData field or (ii) the user can manually enter in metadata. FCP X Metadata is embedded in a XML inside the MXF file. MXF Import can read this XML Metadata. The Adobe XMP Metadata will be added as a sidecar file. Please see the chapter AVC-LongG MXF OP1a Embedded XML Metadata.
XAVC Long GOP OP1a MXF Export - Compressor 4.1.3

Getting Started

1. If you are using Compressor 4, please make sure you have Compressor 4.1.3 installed. Other versions of Compressor have not been tested.

2. Please make sure that the Calibrated AVC-LG Create Compressor presets are installed
   If the presets are NOT installed, you can use our presets installer to install them
   Please **restart your computer** after installing.

3. Please note that if you are rendering using multiple render nodes (i.e. different computers) then each computer would need its own separate license of Calibrated AVC-LG Create.

Using a Pre-made Preset for XAVC Long GOP OP1a MXF Exporting in Compressor 4.1.3

1. If you’ve already installed our AVC-LG Create Compressor Presets skip to step 2. If you haven’t installed the presets, please go to the above section ‘Getting Started’ to learn how to install our Calibrated AVC-LG Create Compressor presets.

2. In the Compressor ‘Settings’ window, please open the ‘Settings’ tab and navigate to the ‘Custom’ folder.

3. The presets are organized by resolution, field type and framerate. Choose the preset that best matches your source resolution, frame rate, and field

4. **Preset Defaults:**
   a. **Video:** The video bitrate will be set to what the description of the presets states
   b. **Audio:** The default audio will be 24-bit 48Khz uncompressed audio with either 2-16 discrete audio channels (depending on number of audio channels in source).
   c. **TimeCode:** The default TimeCode will be to use the Start TimeCode from the source (if possible)
   d. **MetaData:** The default MetaData will be [Empty] (no metadata) for all metadata fields

5. You can also create your own presets in Compressor. Please go to the section to learn how to create your own presets.
Creating a XAVC Long GOP OP1a MXF Preset in Compressor 4.1.3

**IMPORTANT** – always remember to set the ‘Field Version’ in the Options settings for the version of Compressor that you are using

First select the ‘+’ button in the Settings window and choose ‘New Setting…’ in the drop-down menu.

In the window that pops-up, choose ‘*Calibrated OP1a XAVC Long GOP MXF*’ from the list of formats.

This will add a new ‘*Untitled Calibrated OP1a XAVC Long GOP MXF*’ preset in the Settings window. Make sure that this new preset is highlighted and then press the ‘*Configure*’ button to open the preset options panel.
By pressing the ‘Configure’ button you will bring up the ‘Options’ panel to configure the preset. See the section below:

**Options Panel in Compressor 4.1.3**

for setting the different options in your new preset.
Please note that Compressor 3.5 only support HD Resolutions

Calibrated AVC-LG Create supports creating the following Sony OP1a XAVC Long GOP MXF files:

<table>
<thead>
<tr>
<th>Resolution</th>
<th>BitRate Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>3840x2160p @ 59.94 or 50 fps</td>
<td>200Mb (4:2:2), 140Mb (4:2:2), 150Mb (4:2:0)</td>
</tr>
<tr>
<td>3840x2160p @ 29.97 fps or 25 fps or 23.976 fps</td>
<td>200Mb (4:2:2), 140Mb (4:2:2), 100Mb (4:2:2), 100Mb (4:2:0), 60Mb (4:2:0)</td>
</tr>
<tr>
<td>1920x1080i @ 29.97 or 25 fps</td>
<td>50Mb, 35Mb, or 25Mb</td>
</tr>
<tr>
<td>1920x1080p @ 29.97 fps or 25 fps or 23.976 fps</td>
<td>50Mb, 35Mb, or 25Mb</td>
</tr>
<tr>
<td>1920x1080p @ 59.94fps or 50fps</td>
<td>50Mb or 35Mb</td>
</tr>
<tr>
<td>1280x720p @ 59.94fps or 50fps</td>
<td>50Mb</td>
</tr>
</tbody>
</table>

48Khz Uncompressed audio with 2-16 Channels at 24-bits.

*(continued next page)*
The below Options panel can help you configure your preset in Compressor

<table>
<thead>
<tr>
<th>XAVC Format Settings:</th>
<th>Field Version: v4.1.2 OR GREATER VERSIONS.</th>
<th>Video Codec: XAVC LongGOP HD 1080i 29.97fps</th>
<th>Audio Rate: 48 kHz</th>
<th>Audio BitRate: 24 bits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video BitRate: 50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enable Multi-Pass Encoding</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum Render Bit Depth: 10-bit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audio Auto: Use # of Audio Channels From Source...</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audio Layout: Discrete → 2 Channel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MXF Source Package Name: Custom</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use Start TimeCode From Source (if possible)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enter Start Timecode: 00:00:00:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. **Video Options**
   a. **XAVC Format Settings:**
      (i) the default is that only a MXF file is exported with embedded XML Metadata
      (ii) Users can select to also export a sidecar XML file with metadata along with the MXF file
      (iii) Users can select to export in the fully Sony BPAV Folder structure. When choosing the Sony BPAV Folder structure option – you can also choose metadata from the “Disc Setup”
   
   b. **Video Codec:** This lets you set the resolution, framerate, and field type that you wish to encode into
   
   c. **Video BitRate:** This lets you set the bitrate of the encoded video
   
   d. **Enable Multi-Pass Encoding:** Checking this enables multi-pass encoding which can make increase the quality of exports but encoding will be slower.
   
   e. **Field Version:** IMPORTANT – you must set this for the version of Compressor that you are using
   
   f. **Maximum Render BitDepth:**
      (i) The ’10-bit’ option tells Compressor that the plugin can accept 10-bit and 8-bit colorspaces for encoding. **QFHD exporting will always render at 8-bit since it is an 8-bit format.**
      (ii) The ’8-bit’ option tells Compressor that the plugin can only accept 8-bit colorspaces for encoding. This can speed up encoding by slightly lowering the source video bit-depth
2. **Audio Options** - IMPORTANT: When exporting from FCP, if the number of output audio channels is smaller than the number of FCP audio channels then each output audio channel is a mix of all FCP audio channels.

a. Audio Rate: Always set to 48 kHz

b. Audio BitRate: 24-bits

c. Audio Auto: The below options will let the preset tell Compressor the Audio Layout that the plugin wants to receive. Please note that no matter which Audio Layout option is selected – the exported media will only store audio in a 2-16 channel discrete configuration.

   (i) The ‘Use # of Audio Channels From Source (if possible)’ option is the default option and this option will tell Compressor to send the exact number of source audio channels in as discrete audio channels.

   (ii) The ‘Use Audio Layout From Source (if possible)’ option will tell Compressor to send the exact number of source audio channels in the source audio layout.

   (iii) The ‘Manually set Audio Layout’ option will let you manually set the audio layout to tell Compressor to send to the plugin

d. Audio Layout: This is where you would manually set the ‘Audio Layout’ if the ‘Audio Auto’ option is set to ‘Manually set Audio Layout’. Please note that no matter which Audio Layout is manually selected – the exported media will only store audio in a 2-16 channel discrete configuration.

3. **TimeCode Options**

a. Use Start TimeCode From Source (if possible) – by default the preset is set to use the start timecode from the source media for the exported media. By unchecking this option the user can manually add in a new start timecode for the exported media

b. Enter Start TimeCode – this is where you would manually enter in the new start timecode for the exported media if the ‘Use Start TimeCode From Source’ is UNCHECKED

4. **MetaData Options** – The default MetaData mapping is described below. The user can adjust how the metadata is mapped (or set) by either (i) selecting a different Compressor MetaData mapping for the MetaData field or (ii) the user can manually enter in metadata. Please see the chapter **XAVC Long GOP MXF OP1a XML Metadata**.
Overview
This metadata will be stored as an embedded XML file within the **AVC-LongG MXF OP1a file**. When the MXF file is opened up with CalibratedMXF Import – the metadata can be viewed and read as QuickTime Metadata tags and seen by applications that use MXF Import to open MXF files like FCP X.

Cs – FCP X Embedded Camera/Studio MetaData

**Is Good?**

"com.apple.proapps.isGood"

"com.panasonic.professionalplugin.p2.clipmetadata.shotmark"

**Title**

"com.apple.proapps.clipFileName"

"com.panasonic.professionalplugin.p2.clipmetadata.userclipname"

**Creator**

" com.apple.proapps.creator"

"com.panasonic.professionalplugin.p2.clipmetadata.access.creator"

**ReelName**

"com.apple.proapps.reel"

**LogNote**

"com.apple.proapps.logNote"

**Program Name**

"com.panasonic.professionalplugin.p2.clipmetadata.scenario.programname"

**Scene**

"com.apple.proapps.scene"

"com.panasonic.professionalplugin.p2.clipmetadata.scenario.sceneno" -
Take
"com.apple.proapps.shot"
"com.panasonic.professionalplugin.p2.clipmetadata.scenario.takeno"

Memo
"com.panasonic.professionalplugin.p2.clipmetadata.memo.text"

Memo Author
"com.panasonic.professionalplugin.p2.clipmetadata.memo.person"

Location
"com.panasonic.professionalplugin.p2.clipmetadata.shoot.location.placename"

Shooter
"com.panasonic.professionalplugin.p2.clipmetadata.shoot.shooter"

Camera Angle
"com.apple.proapps.angle"

Camera Name
"com.apple.proapps.cameraName" – Camera Name

Camera ID
"com.apple.proapps.cameraID" – Camera ID

Reporter
"com.panasonic.professionalplugin.p2.clipmetadata.news.reporter"

Purpose
"com.panasonic.professionalplugin.p2.clipmetadata.news.purpose"

Object
"com.panasonic.professionalplugin.p2.clipmetadata.news.object"
Cs – FCP X Embedded Share MetaData

**Actors**
“com.apple.quicktime.artist”

**Category**
“com.apple.proapps.share.category”

**Copyright**
“com.apple.quicktime.copyright”

**Creator**
“com.apple.quicktime.author”

**Description**
com.apple.quicktime.description”

**Director**
“com.apple.quicktime.director”

**Episode ID**
“com.apple.proapps.share.episodeID”

**Episode Number**
“com.apple.proapps.share.episodeNumber”

**Genre**
“com.apple.quicktime.genre”

**Media Kind**
“com.apple.proapps.share.mediaKind”

**Producer**
“com.apple.quicktime.producer”

**ScreenWriter**
“com.apple.proapps.share.screenWriter”

**Season Number**
“com.apple.proapps.share.seasonNumber”

**Show**
“com.apple.quicktime.album”

**Tags**
“com.apple.quicktime.keywords”

**Title**
“com.apple.quicktime.title”

**TV Network**
“com.apple.proapps.share.tvNetwork”

**US Rating**
“com.apple.quicktime.rating.user”
Overview
This metadata will be stored as a XML metadata within the XAVC Long GOP MXF OP1a file and optionally within the XML Sidecard file and/or the XML metadata in the Full Disc Structure.

General Non-Real Time MetaData
The User can define the metadata title, status, creator, and description of the file.

Descriptive Non-Real Time MetaData
The User can enter in descriptive metadata about the file using the 11(eleven) defined Sony reserve metadata names.

User Defined Non-Real Time MetaData
The User can define up to 10 of their own Descriptive Metadata values. Please note that both the Name of the Value and the Data of the Value must be defined.

For example:

Name #1: Location
Data #1: Japan

Disc XML MetaData
This is used when exporting in the Full Disc Structure. The User can enter in descriptive metadata about the disc structure and set the default name of the exported clip (the default name is Clip0001).
Software License Agreement

By downloading, installing, ordering, or using the software - you are agreeing to the Software License Agreement. You can download or view the Software License Agreement on our website:

http://www.calibratedsoftware.com/SoftwareLicenseAgreement.php

After Purchase - Software License Instructions

After payment is received for your order, you will be able to use an Activation Key to license the software to a computer using the Calibrated License Manager application. Please see the Calibrated License Manager User Guide for details:


A single Software License for the software can only be used on a single partition on a single physical computer system ONLY. A single Software License for the software will remove the DEMO MODE limitation(s) of the SOFTWARE for that single partition on a single physical computer system that the Software License is licensed to.

Refund Policy

A refund for the purchase price of an order may only be given if you have NOT generated a Software License for your order or used an Activation Key to license the software to a computer, AND the refund request is within 30 days of the order purchase date. For more details, please see our official refund policy.
General Questions

1. I cannot see any of the ‘Calibrated AVC-LongG’ Compression Types when trying to export from my application?

   Calibrated AVC-LG Create plugins may not be properly installed – please check the installation per below and make sure you have restarted your computer after installing.

**On Mac OS X:**

For PPro/AME CC/CC204 support, please make sure the ExpCalibratedAVCLongG.prm and ExpCalibratedAVCLong GOP1a.prm and ExpCalibratedXAVCLongOP1a.prm is in the folder

/Library/Application Support/Adobe/Common/Plug-ins/7.0/MediaCore

For PPro/AME CS6 support, please make sure the ExpCalibratedAVCLongG.prm and ExpCalibratedAVCLong GOP1a.prm and ExpCalibratedXAVCLongOP1a.prm is in the folder

/Library/Application Support/Adobe/Common/Plug-ins/6.0/MediaCore

For Compressor 3.5.3/4.1.3 support, please make sure the CalibratedAVCLongGPlugin.plugin and CalibratedAVCLong GOP1aPlugin.plugin is in the folder

/Library/Application Support/Apple Qmaster directory

For QuickTime MOV Export support, please make sure the CalibratedAVCLongGEncodeCodec.component is in the folder

/Library/QuickTime/

**On Windows:**

For PPro/AME CC/CC204 support, please make sure the ExpCalibratedAVCLongG.prm and ExpCalibratedAVCLong GOP1a.prm and ExpCalibratedXAVCLongOP1a.prm is in the folder

[System Drive]\Program Files\Adobe\Common\Plug-ins\7.0\MediaCore e

For PPro/AME CS6 support, please make sure the ExpCalibratedAVCLongG.prm and ExpCalibratedAVCLong GOP1a.prm and ExpCalibratedXAVCLongOP1a.prm is in the folder

[System Drive]\Program Files\Adobe\Common\Plug-ins\6.0\MediaCore

For QuickTime MOV Export support, please make sure the CalibratedAVCLongGEncodeQ.qtx is in the folder

[System Drive]\Program Files (x86)\QuickTime\QTComponents directory
1. Did you restart your computer after licensing?
   If you haven’t, then please restart

2. Did you re-export the files from your application?
   The burned in DEMO MODE watermarks cannot be removed from video encoded while in DEMO MODE. After ordering and licensing Calibrated AVC-LG Create you will have to re-encode any files that you had created while running the software in DEMO MODE.

3. Did you generate and enter in your Software License?
   If not, please see the ‘Software License’ chapter in this User Guide on how to generate and enter in your Software License after purchase. If you are properly licensed, then the ‘about’ page of the Calibrated AVC-LG Create Info applications should say LICENSED in green.
Version History

Version 1.4.1
- Added Color Tag for XAVC exporting
- Updated Licensing SDK
- BETA Support 10.13 (High Sierra)
- Minimum macOS support 10.9
- Removed Compressor 3.5.3 support for XAVC

Version 1.4.0
- Added more bitrate options for exporting QFHD XAVC Long GOP in Premiere Pro, Avid Media Composer, and Compressor
- Minor bug fixes

Version 1.3.5
- Added more bitrate options for exporting QFHD XAVC Long GOP in Premiere Pro, Avid Media Composer, and Compressor
- Minor bug fixes

Version 1.3.5
- Updated Sony XAVC Long GOP Encode codec

Version 1.3.1
- Fixed issue where the Calibrated Avid XAVC Long GOP plugin would not export when Sony Avid AMA Plugin is installed (Please note this fix only applies to HD exporting – 3k exporting will not work when Sony Avid AMA Plugin is installed)
- Fixed issue where the Calibrated Avid XAVC Long GOP plugin would not work correctly with Multi-Pass encoding enabled
- Fixed issue with FCP X not being able to use the Calibrated XAVC Long GOP Export plugin Compressor Settings in ‘Share’
- Minor bug fixes

Version 1.3.0
- Added XAVC Long GOP exporting for Premiere Pro, Avid Media Composer, and Compressor (BETA)
- Minor bug fixes
Version 1.2.5
- Bug fix for exporting 0 audio channels in Adobe plugin
- Slight encoding speed improvements
- Added Encode Quality setting for plugins

Version 1.2.0
- Added Closed GOP IDR Support for AVC-LongG
- Added BETA Avid MC 8.4 export plugins for OP1a & P2 AVC-LongG MXF Export
- Added setting 0-32 audio channels in Premiere Pro OP1a Export
- Fixed issue where interlaced AVC-LongG OP1a MXF files were mis-tagged as ‘Progressive’ in the MXF file wrapper (but the video content was still encoded as interlaced)

Version 1.1.0
- Added support for 12Mb, and 6Mb encoding for all formats
- Added an AVC-LongG QuickTime Encode codec
- Added an Adobe Premiere Pro/AME AVC-LongG OP1a MXF Export plugin
- Added a Compressor 3.5.3/4.1.3 AVC-LongG OP1a MXF Export

Version 1.0.0
- Released