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Getting Started

Overview

Calibrated AVC-Intra Create is a QuickTime Codec (Encode Only) that enables you to encode Panasonic AVC-Intra .MOV files** from third party applications that support exporting .MOV files and has a Compressor, Avid and Adobe plugin that enables you to create P2 AVC-Intra MXF files or OP1a AVC-Intra MXF Files or OP1a XAVC Intra MXF Files from FCP X 10.1.3 (or greater), Compressor 3.5.3/4.1.3 (or greater), and Premiere Pro or AME (CS6, CC-CC2015) and Avid MC 8.4

IMPORTANT: This version of software (v2.0 or greater) will require a new Software License and an upgrade fee if you had purchased a Software License for a previous version.

Calibrated AVC-Intra Create supports creating the following AVC-Intra formats:

4096x2160p, 3840x2160p, 2048x1080p @ 59.94, 50fps, 29.97 fps or 25 fps or 23.976 fps
BitRates: 100Mb

1920x1080i @ 29.97 or 25 fps
BitRates: 200Mb, 100Mb, 50Mb

1920x1080p @ 59.94, 50fps, 29.97 fps or 25 fps or 23.976 fps
BitRates: 200Mb, 100Mb, 50Mb

1280x720p @ 59.94, 50, 29.97 fps or 25 fps or 23.976 fps
BitRates: 200Mb, 100Mb, 50Mb

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

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

AVC-Intra MOV files will use the Apple FourCC identifiers for AVC-Intra MOV files

Calibrated AVC-Intra Create supports creating the following XAVC Intra formats:

4096x2160p @ 59.94, 50fps, 29.97 fps or 24fps or 25 fps or 23.976 fps
BitRates: Class480 or Class300 as either VBR or CBG

3840x2160p @ 59.94, 50fps, 29.97 fps or 25 fps or 23.976 fps
BitRates: Class480 or Class300 as either VBR or CBG

2048x1080p @ 59.94, 50fps, 29.97 fps or 24fps or 25 fps or 23.976 fps
BitRates: Class100 as either VBR or CBG

1920x1080i @ 29.97 or 25 fps
BitRates: Class100, Class50

1920x1080p @ 29.97 fps or 25 fps or 23.976 fps
BitRates: Class100, Class50

1920x1080p @ 59.94fps or 50fps
BitRates: Class100

1280x720p @ 59.94fps or 50fps
BitRates: Class100

XAVC Intra OP1a MXF files will have 48Khz Uncompressed audio with 2-32 Channels at 24-bits.
DEMO MODE Limitation
Calibrated AVC-Intra Create will have watermarks of the Calibrated AVC-Intra 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-Intra 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-Intra Create codec:

- Calibrated AVC-Intra 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 2004 (see the Windows Requirements section).

- Calibrated AVC-Intra Create supports encoding from 10-bit YUV422 and 16-bit RGB(A) 444(4) colorspaces, thus preserving the full bit depth of AVC-Intra, HOWEVER it is up to the application using Calibrated AVC-Intra Create to send those colorspaces 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-Intra Create, and also see the Windows Applications Chapter or Mac OSX Applications Chapter to learn more about how to configure Calibrated AVC-Intra Create for popular applications.

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

- Encoding Sony XAVC MOV files is not supported by Calibrated AVC-Intra Create – only XAVC Intra .MXF files will be encoded by Calibrated AVC-Intra Create.

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

- Please make sure that you have selected the appropriate AVC-Intra ‘Compression Type’ to match the resolution 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-Intra Create for popular applications.

- Quicktime Framework cannot write files over 2GB to network volumes (AFP, SMB). Returns -1309 (fileBoundsErr).

- AVC-Intra 50 and Adobe products: In Adobe After Effects 10.0/10.5, Premiere Pro CS5.0/5.5, Adobe Media Encoder CS5.0/CS5.5 when encoding to AVC-Intra 50 compression types, you should set the resolution and PAR to match that of the AVC-Intra 50 format you are encoding to. This is because the Adobe software embeds a proprietary metadata tag in the MOV file. If you attempt to encode a AVC-Intra 50 MOV file using 1920x1080 or
1280x720 Square Pixels – the file would be encoded correctly and other non-Adobe software should import them correctly; however the Adobe software products ‘see’ the AVC-Intra 50 MOV file as 1440x1080 or 960x720 with a PAR of 1.00; instead of having a PAR of 1.333. This is because Adobe products would get the PAR information from their proprietary metadata tag in the MOV file and not from the MOV file wrapper itself. It is unknown but assumed that this would be present in other Adobe versions or Adobe products.

- To view or playback AVC-Intra .MOV files in applications that support QuickTime, on Windows Computers you need to have Calibrated{Q} AVC-Intra Decode installed on your computer and properly licensed and on Mac OS X Computers you need to have either FCP7, FCP X, or Calibrated{Q} AVC-Intra Decode installed on your computer and properly licensed. Avid Media Composer 5.5.1 or greater can import AVC-Intra .MOV files natively using AMA Linking. (earlier versions of Avid MC have not been tested)

- There appears to be a very very minor issue when directly exporting MOV files from Compressor (i.e. not exporting from a ‘Send to Compressor’ by FCP) when using a 1920x1080 interlaced source file and exporting to a 1440x1080 interlaced PAR 1.33 MOV file and then using the exported file in Adobe software. The exported 1440x1080 interlaced PAR1.33 MOV file will open in Adobe software with a PAR of 1.00 (not PAR 1.33). The issue can be easily addressed by right-clicking on the MOV file in the Adobe bin and adjusting the properties of the PAR of the file to 1.33. The exported 1440x1080 interlaced PAR1.33 MOV file opens with the correct PAR1.33 in all other Apple applications we tested. Also this problem does not appear dependent upon the type of video as we tested AVC-Intra and ProRes exporting and the issue was present in both. Also the issue is NOT present when exporting to a 1440x1080 progressive PAR 1.33 file

- 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.

- Avid support for exporting MXF files is currently BETA

- The Calibrated AVC-Intra Encode QuickTime Codec does not work in FCP X 10.4 or Compressor 4.4 or greater
Windows Requirements and Installation

Ensure your PC meets the following requirements prior to installing Calibrated AVC-Intra 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

- BETA Support for 32/64-bit Windows 8 & 10 - our software should work fine on Windows 8 & 10; however QuickTime Player does not officially support Windows 8 & 10 yet.

- QuickTime Player 7.6.6 or higher

- Virtual OS is NOT supported

- To view or playback AVC-Intra .MOV files in applications that support QuickTime, you need to have Calibrated(Q) AVC-Intra Decode installed on your computer and properly licensed. Avid Media Composer 5.5.1 or greater can import AVC-Intra .MOV files natively using AMA Linking. (earlier versions of Avid MC have not been tested)

- Calibrated AVC-Intra Create supports encoding from 10-bit YUV422 and 16-bit RGB(A) 444(4) colorspace, thus preserving the full bit depth of AVC-Intra, HOWEVER it is up to the application using Calibrated AVC-Intra Create to send those colorspace to the codec. If an application does not support those higher bit-depths then encoding will be done using 8-bit YUV422 or 8-bit RGB(A) 444(4). Please see the “Enable Colorspace Watermark” in the Options Chapter to learn how to see what colorspace an application is sending to Calibrated AVC-Intra Create, and also see the Windows Applications Chapter or Mac OSX Applications Chapter to learn more about how to configure Calibrated AVC-Intra Create for popular applications.
Installing on Windows
To install Calibrated AVC-Intra Create on a Windows Computer:

1. Quit any applications using QuickTime.
2. Run the Calibrated AVC-Intra 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-Intra Create Info application (CalibratedAVCIntraCreateInfo.exe), the Calibrated AVC-Intra Create User Guide, and a copy of the Calibrated AVC-Intra Create plugins
   b. The CalibratedAVCIntraEncodeQ.qtx will be auto-copied to the [System Drive]\Program Files\QuickTime\QTComponents directory. *
   c. ExpCalibratedAVCIntraOP1a.prm and ExpCalibratedXAVCIntraOP1a.prm and ExpCalibratedAVCIntra.prm will be auto-copied to the [System Drive]\Program Files\Adobe\Common\Plug-ins\7.0\MediaCore directory*.
   d. MSP_CalibratedMXFP2AVCIntra.avx and MSP_CalibratedMXFOP1aXAVCIntra.avx and MSP_CalibratedMXFOP1aAVCIntra.avx will be auto-copied to the [System Drive]\Program Files\Avid\AVX2_Plug-ins\AMA\CalibratedAVCIntraCreate directory*.
   e. SMDK-VC100-x64-4_13_0.dll and SMDK-VC110-x64-4_13_0.dll and SonyXAVCEncoder.dll and savcehpp.dll and savce.dll and hpr48.dll will be copied to the Windows System 64 folder.
3. Restart your computer

* For 64-bit Windows 7 or Vista, this will be the [System Drive]\Program Files (x86)\ directory

Uninstalling on Windows
To uninstall Calibrated AVC-Intra 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-Intra 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-Intra Create:

- MacIntel Computer Only; recommended at least Intel Core 2 Duo with two cores or two physical processors
- macOS 10.6.8 (Snow Leopard) or 10.7.5 (Lion) or 10.8.5 (Mountain Lion) or 10.9.4 (Mavericks) or 10.10 (Yosemite) or 10.11 (El Capitan) or 10.12 (Sierra). *(XAVC Support requires 10.9 or higher)*
- BETA Support ONLY for 10.13 (High Sierra)
- The Calibrated AVC-Intra Encode QuickTime Codec does not work in FCP X 10.4 or Compressor 4.4 or greater
- macOS 10.9 for CC-CC2018
- macOS 10.9 for Avid MC 8.4-8.9
- QuickTime Player 7.6.6 or higher
- To view or playback AVC-Intra .MOV files in applications that support QuickTime, you need to have either FCP7, FCP X, or Calibrated(Q) AVC-Intra Decode installed on your computer and properly licensed. Avid Media Composer 5.5.1 or greater can import AVC-Intra .MOV files natively using AMA Linking. (earlier versions of Avid MC have not been tested)
- Calibrated AVC-Intra Create supports encoding from 10-bit YUV422 and 16-bit RGB(A) 444(4) colorspace, thus preserving the full bit depth of AVC-Intra, HOWEVER it is up to the application using Calibrated AVC-Intra Create to send those colorspace to the codec. If an application does not support those higher bit-depths then encoding will be done using 8-bit YUV422 or 8-bit RGB(A) 444(4). Please see the “Enable Colorspace Watermark” in the Options Chapter to learn how to see what colorspace an application is sending to Calibrated AVC-Intra Create, and also see the Windows Applications Chapter or Mac OSX Applications Chapter to learn more about how to configure Calibrated AVC-Intra Create for popular applications.
**Installing on Mac OSX**

To install Calibrated AVC-Intra Create on a Mac Computer:

1. Quit any applications using QuickTime.

2. Run the Calibrated AVC-Intra Create Installer:
   
   a. A folder named **Calibrated** will be created in the `/Applications` directory. This **Calibrated** folder will contain the Calibrated AVC-Intra Create Info application (*CalibratedAVCIntraCreateInfo.app will be located in the `/Applications/Calibrated/Applications/Options` folder), the Calibrated AVC-Intra Create User Guide, a copy of the Calibrated AVC-Intra Create plugins.

   b. The CalibratedAVCIntraEncodeCodec.component will be auto-copied to the “/Library/QuickTime” directory.

   c. ExpCalibratedAVCIntraOP1a.prm and ExpCalibratedXAVCIntraOP1a.prm and ExpCalibratedAVCIntra.prm will be auto-copied to the `/Library/Application Support/Adobe/Common/Plug-ins/7.0/MediaCore` directory*.

   d. CalibratedAVCIntraPlugin.plugin and CalibratedAVCIntraOP1aPlugin.plugin and CalibratedXAVCIntraSonyOP1aPlugin.plugin will be auto-copied to the `/Library/Application Support/Apple Qmaster` directory*.

   e. MSP_Calibrated_AVCIntraCreateOP1a.avx and MSP_Calibrated_AVCIntraCreateP2.avx and MSP_Calibrated_XAVCIntraCreateOP1a.avx will be auto-copied to the `/Library/Application Support/Avid/AVX2_Plug-ins/ AMA` directory*.

3. Restart your computer
Uninstalling on Mac OSX
To uninstall Calibrated AVC-Intra Create on a Mac OSX Computer:

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/CalibratedAVCIntraCreateInfo.app
   b. /Applications/Calibrated/Plugins/PPro/ExpCalibratedAVCIntra.prm
   c. /Applications/Calibrated/Plugins/PPro/ExpCalibratedAVCIntraOP1a.prm
   d. /Applications/Calibrated/Plugins/PPro/ExpCalibratedXAVCIntraOP1a.prm
   e. /Applications/Calibrated/Plugins/Compressor/CalibratedAVCIntraPlugin.plugin
   f. /Applications/Calibrated/Plugins/Compressor/CalibratedAVCIntraOP1aPlugin.plugin
   g. /Applications/Calibrated/Plugins/Compressor/CalibratedXAVCIntraSonyOP1aPlugin.plugin
   h. /Applications/Calibrated/Plugins/Avid/MSP_Calibrated_AVCIntraCreateOP1a.avx
   i. /Applications/Calibrated/Plugins/Avid/MSP_Calibrated_XAVCIntraCreateOP1a.avx
   j. /Applications/Calibrated/Plugins/Avid/MSP_Calibrated_AVCIntraCreateP2.avx
   k. /Applications/Calibrated/Plugins/QuickTime/CalibratedAVCIntraEncodeCodec.component
   l. /Applications/Calibrated/Docs/Calibrated-AVC-Intra-Create-UserGuide.pdf

4. Delete the file:

   /Library/Application Support/Adobe/Common/Plug-ins/7.0/MediaCore/ExpCalibratedAVCIntra.prm
   /Library/Application Support/Adobe/Common/Plug-ins/7.0/MediaCore/ExpCalibratedAVCIntraOP1a.prm
   /Library/Application Support/Adobe/Common/Plug-ins/7.0/MediaCore/ExpCalibratedXAVCIntraOP1a.prm
   /Library/Application Support/Adobe/QuickTime/CalibratedAVCIntraEncodeCodec.component
   /Library/Application Support/Avid/AVX2_Plugin/Avideo/AMA/MSP_Calibrated_AVCIntraCreateOP1a.avx
   /Library/Application Support/Avid/AVX2_Plugin/Avideo/AMA/MSP_Calibrated_AVCIntraCreateP2.avx
   /Library/Application Support/Avid/AVX2_Plugin/Avideo/AMA/MSP_Calibrated_XAVCIntraCreateOP1a.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-Intra Create Info interface.

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

Info Interface
The Calibrated AVC-Intra 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-Intra Create will have watermarks of the Calibrated AVC-Intra 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-Intra 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-Intra Create Options interface.

Important Note: The stand-alone Calibrated AVC-Intra 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-Intra Create codec can only be set within the application using Calibrated AVC-Intra Create codec – look for a ‘settings’ or ‘options’ button in the application using the codec.

Options Interface
The Calibrated AVC-Intra Create Options interface contains the version number of the currently installed Calibrated AVC-Intra 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-Intra Create – look for a ‘settings’ or ‘options’ button in the application. You should always set the options of Calibrated AVC-Intra Create in the application BEFORE every encode, please see the ‘Windows Applications’ or ‘Mac OSX Applications’ chapter for more details.

**DEMO MODE Limitation - Calibrated AVC-Intra Create will have watermarks of the Calibrated AVC-Intra 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-Intra 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-Intra 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-Intra Create**
Calibrated AVC-Intra Create will have watermarks of the Calibrated AVC-Intra 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-Intra 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-Intra Create

**Important Note:** The options can only be set from within the application that is using Calibrated AVC-Intra Create – look for a 'settings' or 'options' button in the application. You may have to set the options of Calibrated AVC-Intra Create in the application BEFORE every encode depending on the application using the codec, please see the ‘Windows Applications’ or ‘Mac OSX Applications’ chapter for more details.
**SPS Encoding Options**

The parameter set data (SPS/PPS) is 512 bytes and stored in the first 512 bytes of the first frame. Checking this option will write the SPS/PP2 512 byte packet to the beginning of every encoded frame.

Please be sure to set the appropriate framearate (for informational purposes only in the SPS/PPS)

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**Encode Options**

*Quick Colorspace Setup*

These are the following quick setup options - please see the ‘Windows Applications’ or ‘Mac OSX Applications’ chapter to see which setup is best for your application. 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 colorspace.

- **Custom** – this setup enables you to
  - **10-bit YUV 422/Gamma (DEFAULT)** – this setup requests incoming video frames to be 10-bit YUV 422 with a 2.22 Gamma.
  - **8-bit YUV 422/Gamma** – 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 Colorspace

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 colorspace 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 colorspace 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 colorspace 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 colorspace Calibrated AVC-Intra 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-Intra 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-Intra 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.

The Calibrated AVC-Intra Encode QuickTime Codec does not work in FCPX 10.4 or Compressor 4.4 or greater

**Important Note:** The Calibrated AVC-Intra Create options page can only be accessed from within the application that is using Calibrated AVC-Intra Create – look for a ‘settings’ or ‘options’ button in the application - You may have to set the options of Calibrated AVC-Intra Create in the application before every encode.

When encoding, please select the AVC-Intra Compression Type that best matches your project/sequence settings:

- **2048x1080p @ 59.94, 29.97 fps or 25 fps or 23.976 fps**
  - BitRates: 100Mb

- **1920x1080i @ 29.97 or 25 fps**
  - BitRates: 200Mb, 100Mb, 50Mb

- **1920x1080p @ 59.94, 29.97 fps or 25 fps or 23.976 fps**
  - BitRates: 200Mb, 100Mb, 50Mb

- **1280x720p @ 59.94, 50, 29.97 fps or 25 fps or 23.976 fps**
  - BitRates: 200Mb, 100Mb, 50Mb

AVC-Intra MOV files will use the Apple FourCC identifiers for AVC-Intra MOV files.
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-Intra Create for Windows.

MOV Encoding - Other 3rd party applications

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

1. Even though Calibrated AVC-Intra Create supports encoding from 10-bit YUV422 and 16-bit RGB(A) 444(4) colorspace, it is up to the application using Calibrated AVC-Intra 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-Intra Create does not convert frames from interlaced to progressive or vice-versa, please make sure that you have selected the appropriate AVC-Intra ‘Compression Type’ to match the type of video frames you will be encoding from.

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

6. The Calibrated AVC-Intra Encode QuickTime Codec does not work in FCP X 10.4 or Compressor 4.4 or greater.
Overview
This chapter describes using Calibrated AVC-Intra Create in Adobe Applications.

Please note that

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

(b) Embedded XML Metadata in **AVC-Intra 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-CC2015

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-Intra 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. Make sure the ‘Quality’ slider is 100
   c. Make sure the Width/Height is set to either 1920x1080 or 1280x720 and PAR is at Square Pixels (1.0) for AVC-Intra 100 Encoding, **OR** 1440x1080 or 960x720 and PAR is at HD Anamorphic (1.333) for AVC-Intra 50 encoding - pick the Resolution/PAR that matches the AVC-Intra Compression Type you are encoding to.
   d. Press the ‘Codec Settings’ button and the Calibrated AVC-Intra 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’ and then press the ‘Ok’ button and the Calibrated AVC-Intra 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-CC2015

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-Intra 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 MOV 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-I Create/PPro

   **Windows 64-bit**: [System Drive]:\Program Files (x86)\Calibrated\Presets\AVC-I 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 MOV 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-Intra 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-Intra 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’ and then press the ‘Ok’ button and the Calibrated AVC-Intra Create Options window will close.
   c. Make sure the ‘Quality’ slider is 100
   d. Make sure the Width/Height are at either 1920x1080 or 1280x720 and PAR is at Square Pixels (1.0) for AVC-Intra 100 Encoding, OR 1440x1080 or 960x720 and PAR is at HD Anamorphic (1.33) for AVC-Intra 50 encoding - pick the Resolution/PAR that matches the AVC-Intra Compression Type you are encoding to.
   e. Make sure the Field Type matches the Calibrated AVC-Intra 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-Intra 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-Intra 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-CC2015

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-Intra Create ships with pre-configured Adobe Export Presets that can be used in Premiere Pro 5.0/5.5 or Adobe Media Encode 5.0/5.5. If you’d like to manually configure the export in AME, please go to the next section *Manually configuring for MOV 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 Selection](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.

   **Windows 64-bit**: [System Drive]\Program Files (x86)\Calibrated\Presets\AVC-I 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
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-Intra 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-Intra 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’ and then press the ‘Ok’ button and the Calibrated AVC-Intra Create Options window will close.
   c. Make sure the ‘Quality’ slider is 100
   d. Make sure the Width/Height are at either 1920x1080 or 1280x720 and PAR is at Square Pixels (1.0) for AVC-Intra 100 Encoding, OR 1440x1080 or 960x720 and PAR is at HD Anamorphic (1.33) for AVC-Intra 50 encoding - pick the Resolution/PAR that matches the AVC-Intra Compression Type you are encoding to.
   e. Make sure the Field Type matches the Calibrated AVC-Intra 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-Intra 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-Intra 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-CC2015 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-CC2015

Getting Started

1. **On Windows** - Please make sure you have ExpCalibratedAVCIntra.prm installed in the Adobe\Common\Plug-ins\7.0\ for CC-CC2015 support, and in the Adobe\Common\Plug-ins\6.0\MediaCore directory for CS6 support.

2. **On Mac OSX** - Please make sure you have ExpCalibratedAVCIntra.prm installed in the /Library/Application Support/Adobe/Common/Plug-ins/7.0/MediaCore for CC-CC2015 support, and in /Library/Application Support/Adobe/Common/Plug-ins/6.0/MediaCore directory for CS6 support.

P2 AVC-Intra MXF Export in PPro/AME

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

2. **Click on the ‘Video’ Tab in the ‘Export Settings’** (see picture below)

   k. The ‘Video Codec’ should automatically be set to the Resolution and FrameRate that best matches your Sequence Settings.

   l. The ‘Video BitRate’ will be automatically set to 100Mb

   m. 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.

   n. 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.

   o. 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.

   p. 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-CC2015 - 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 Code: AVC-Intra 1080i 29.97fps
- Video BitRate: 100 Mbits
- # Rendering Proc: Maximum

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

- Audio Codec: Uncompressed
- Sample Rate: 48000 Hz
- Channels: Discrete – 2 Channel
- Sample Size: 16 bit
‘MetaData Tab’ in the ‘Export Settings’ for PPro/AME CC

![Screenshot of MetaData Tab]

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

- **P2 XML MetaData**
  - ShotMark
  - Creator: [Empty]
  - Program Name: [Empty]
  - Scene #: 0
  - Take #: 0
  - Reporter: [Empty]
  - Purpose: [Empty]
  - Object: [Empty]
  - Memo: [Empty]
OP1a MXF Export - Adobe AME/ PPro CS6 & CC-CC2015

Getting Started

1. **On Windows** - Please make sure you have ExpCalibratedAVCIntraOP1a.prm and ExpCalibratedXAVCIntraOP1a.prm installed in the Adobe/Common/Plug-ins/7.0/ for CC-CC2015 support, and in the Adobe/Common/Plug-ins/6.0/MediaCore directory for CS6 support.

2. **On Mac OSX** - Please make sure you have ExpCalibratedAVCIntraOP1a.prm and ExpCalibratedXAVCIntraOP1a.prm installed in the /Library/Application Support/Adobe/Common/Plug-ins/7.0/MediaCore directory for CC-CC2015 support, and in /Library/Application Support/Adobe/Common/Plug-ins/6.0/MediaCore directory for CS6 support.

OP1a AVC-Intra MXF Export in PPro/AME

1. In the ‘Export Settings’, please choose the format ‘Calibrated OP1a AVC-Intra 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 100Mb
   
   c. 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.
   
   d. **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.
   
   e. 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.
   
   f. 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-CC2015 - The **Channels** will be discrete audio and should be set to the number of channels that closest 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 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 **AVC-Intra 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
  - AVC-Intra 1080i 29.97fps
- Video BitRate: 100 Mbits
- # Rendering Proc: Maximum

‘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: Uncompressed

‘Basic Audio Settings’
- Sample Rate: 48000 Hz
- Channels: 2
- Sample Size: 16 bit
1. In the ‘Export Settings’, please choose the format ‘Calibrated OP1a XAVC Intra 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 Class100 for 2k or HD resolutions and Class300 for 4k and QFHD resolutions.
   c. For 2k and greater resolution the ‘Video BitRate Type’ will be automatically set CBG (Constant BitRate) but the user can change to VBR (Variable Bit Rate)
   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.
   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-CC2015 - The ‘Channels’ will be discrete audio and should be set to the number of channels that closest 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 Intra 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 Directory 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 Intra

![Video Tab Screenshot]

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

![Audio Tab Screenshot]
‘File Metadata Tab’ in the ‘Export Settings’ for PPro/AME CC for XAVC Intra
‘Disc Setup Tab’ in the ‘Export Settings’ for PPro/AME CC for XAVC Intra
Avid Applications

Overview
This chapter describes using Calibrated AVC-Intra 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-Intra MOV files will use the Apple FourCC identifiers for AVC-Intra MOV files

(b) Embedded AVC-Intra 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
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 appears to only export thru QuickTime using 8-bit RGB colorspace which will be converted to 8-bit YUV422 and then encoded to AVC-Intra in Calibrated AVC-Intra 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-Intra 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-Intra 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-Intra Create Options window will close.
   d. 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). If you are working in a 1440x1080 or 960x720 Project and you are exporting out to a AVC-Intra 50 compression then set the width/height to 1440x1080 or 960x720.
   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-Intra 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_CalibratedMXFP2AVCIntra.avx installed in the Avid\AVX2_Plug-ins\AMA\CalibratedAVCIntraCreate folder

2. **On Mac OSX** - Please make sure you have MSP_Calibrated_AVCIntraCreateP2.avx installed in the /Library/Application Support/Avid/AVX2_Plug-ins/ folder.

**P2 AVC-Intra MXF Export in Avid MC**

1. In the ‘AMA File Export’, please choose the format ‘Calibrated AVC-Intra 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 100Mb
   c. Make sure that ‘Render at Maximum Depth” is CHECKED if you want at 10-bit quality. When unchecked 8-bit is used.

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-Intra P2 'Export Settings' for Avid MC

- File Type: Calibrated AVC-Intra MXF P2
- Video Compression: AVC-Intra (P2 MXF)
- Video Format: 1920x1080 29.97
- Render at Maximum Depth: [ ]
- Video BitRate: 100Mps

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

[Save Profile] [Save] [Cancel]
BETA - OP1a MXF Export – Avid MC 8.4

Getting Started

1. **On Windows** - Please make sure you have MSP_CalibratedMXFOP1aAVCIntra.avx installed in the Avid\AVX2_Plug-ins\AMA\CalibratedAVCIntraCreate folder

2. **On Mac OSX** - Please make sure you have MSP_Calibrated_AVCIntraCreateOP1a.avx installed in the /Library/Application Support/Avid/AVX2_Plug-ins/ folder.

### OP1a AVC-Intra MXF Export in Avid MC

1. In the ‘Export Settings’, please choose the format ‘Calibrated OP1a AVC-Intra 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 100Mb
   c. Make sure that ‘Render at Maximum Depth” is CHECKED if you want at 10-bit quality. When unchecked 8-bit is used.

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 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.
   b. 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-Intra MXF OP1a Embedded XML Metadata** in this User Guide for more information.

6. **In the Adobe MetaData Sections**
   a. 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
In the ‘Export Settings’, please choose the format ‘Calibrated OP1a XAVC Intra MXF’

2. In the Video Section
   a. The ‘Video BitRate’ will be automatically set to Class100 for 2k or HD resolutions and Class300 for 4k and QFHD resolutions.
   b. For 2k and greater resolution the ‘Video BitRateType’ will be automatically set CBG (Constant BitRate) but the user can change to VBR (Variable Bit Rate)
   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.

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 Intra MXF OP1a XML Metadata in this User Guide for more information.

6. In the ‘Disc Setup” section
   When you choose the Full XAVC Directory 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 Intra OP1a ‘Export Settings’ for Avid MC
Overview
This chapter describes using Calibrated AVC-Intra Create for OSX in a FCP 7, FCP X, and Compressor 3.5.3/4.1.3

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.

The Calibrated AVC-Intra Encode QuickTime Codec does not work in FCP X 10.4 or Compressor 4.4 or greater
MOV/MXF Export - Final Cut Pro X

Getting Started

1. Please make sure you have FCP X 10.1.2 installed

2. Please make sure that the Calibrated AVC-Intra Create Compressor 4 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-Intra 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.

5. The Calibrated AVC-Intra Encode QuickTime Codec does not work in FCP X 10.4 or Compressor 4.4 or greater

MOV/MXF Exporting in 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-Intra MOV, Cs AVC-Intra – P2 MXF, Cs AVC-Intra – OP1a MXF, and Cs XAVC Intra – OP1a 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
P2/OP1a 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-Intra Create Compressor presets are installed
   If the presets are NOT installed, you can use our presets installer to install them

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-Intra 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 - 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-Intra Create FCP7 presets are installed
   
   If the presets are NOT installed, you can use our presets installer to install them
   
   Please restart FCP7 if you had to manually install the presets.

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. You can then choose to either manually configure the export setting in FCP7, you can use one of our pre-built preset to configure the export settings in FCP7, or you can ‘Send to Compressor’ from FCP7. If you choose to ‘Send to Compressor’ please go to the section ‘Using a Preset Setting for exporting in Compressor’ in the ‘Compressor 3.5/4.0’ section in this User Guide after sending the job to Compressor on how to best setup the export.

5. IMPORTANT: FCP7 will automatically use Apple ProRes 422(HQ) as the Compressor when creating a FCP7 Sequence for editing AVC-Intra files. While you can use our AVC-Intra FCP7 Presets as the Compressor in a FCP7 Sequence when you are editing AVC-Intra files, we do NOT recommend that you do that. The reasons that we do not recommend that workflow are (a) we have not thoroughly tested our AVC-Intra Create codec when used as a FCP7 Sequence Compressor, and (b) the Apple ProRes 422(HQ) codec is heavily optimized by Apple for realtime effects within FCP7.

Using a Preset Setting for MOV Exporting in FCP7

1. Calibrated AVC-Intra Create ships with pre-configured Final Cut Pro Presets that can be used in Final Cut Pro 7.0.3. If you’d like to manually configure the export in FCP7, please go to the next section Manually configuring for exporting in FCP7

2. If you’ve already installed our AVC-Intra Create FCP7 Presets skip to step 3. If you haven’t installed the presets, please go to the above section ‘Getting Started’ to learn how to install our Calibrated AVC-Intra Create FCP7 presets.

3. In the ‘File->Export’ menu options, please choose ‘QuickTime Movie…’

4. In the ‘Save’ window that pops-up, go to the ‘Setting:’ menu at the bottom of the window and choose the Calibrated AVC-Intra Create 200Mb, 100Mb, or 50Mb preset that best matches your sequence resolution, frame rate, and field type.

5. And you’re ready to export
Manually configuring for MOV Exporting in FCP7

1. In the ‘File->Export’ menu options, please choose ‘QuickTime Movie…’

2. In the ‘Save’ window that pops-up, go to the ‘Setting:’ menu at the bottom of the window and choose ‘Custom…’

3. The ‘Sequence Preset Editor’ window will pop-up

4. Go to the ‘Video Processing’ tab in ‘Sequence Preset Editor’ window and 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

5. Go to the ‘General’ tab in ‘Sequence Preset Editor’ window
   a. In the ‘QuickTime Video Settings->Compressor’ menu, please choose the Calibrated AVC-Intra 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).* The default encoding colorspace of Calibrated AVC-Intra Create is ‘10-bit YUV422/Gamma’ so there isn’t a need to setup any of the advanced settings in Calibrated AVC-Intra Create for OSX.
   b. Make sure the ‘Quality’ slider is 100
   c. Make sure the Width/Height are at either 1920x1080 or 1280x720 and the Pixel Aspect Ratio is at Square Pixels for AVC-Intra 100 Encoding, OR make sure the Width/Height are at either1440x1080 or 960x720 and the Pixel Aspect Ratio is at HD (144x1080) or HD (960x720) for AVC-Intra 50 encoding - pick the Resolution/PAR that matches the AVC-Intra Compression Type you are encoding to.
   d. Make sure the Field Dominance matches the Calibrated AVC-Intra Compression Type you are exporting to - choose ‘Upper First’ for *interlaced compression types* or ‘Progressive’ for *progressive compression types.*
   e. Make sure the ‘Editing Timebase’ matches the Calibrated AVC-Intra 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-Intra Compression Types.

6. And you’re ready to export
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-Intra 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-Intra 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-Intra 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-Intra Create.

Using a Preset Setting for exporting in Compressor

1. If you’ve already installed our AVC-Intra 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-Intra 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-Intra – MOV’, please look under this folder for the presets. The presets are organized by AVC-Intra 200Mb, 100Mb, or 50Mb and under those folders you can find the presets for 1080i, 1080p 0r 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

Minor issue with Adobe software

There appears to be a **very very minor** issue when directly exporting from Compressor (i.e. not exporting from a ‘Send to Compressor’ by FCP) when using a 1920x1080 interlaced source file and exporting to a 1440x1080 interlaced PAR 1.33 MOV file and then using the exported file in Adobe software.

The exported 1440x1080 interlaced PAR1.33 MOV file will open in Adobe software with a PAR of 1.00 (not PAR 1.33). The issue can be easily addressed by right-clicking on the MOV file in the Adobe bin and adjusting the properties of the PAR of the file to 1.33.

The exported 1440x1080 interlaced PAR1.33 MOV file opens with the correct PAR1.33 in all other Apple applications we tested.

Also the above problem does not appear dependent upon the type of video as we tested AVC-Intra and ProRes exporting and the issue was present in both. Also the issue is NOT present when exporting to a 1440x1080 **progressive** PAR 1.33 file.
**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. Other versions of Compressor have not been tested.

2. Please make sure that the Calibrated AVC-Intra 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-Intra 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-Intra 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-Intra 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 default to 100Mb
   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-Intra MXF’ in the drop-down menu.

This will add a new ‘Untitled Calibrated P2 AVC-Intra 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-Intra MXF’ from the list of formats.

This will add a new ‘Untitled Calibrated P2 AVC-Intra 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-Intra Create supports creating the following Panasonic P2 AVC-Intra MXF files:

1920x1080i @ 29.97 or 25 fps
BitRates: 200Mb, 100Mb or 50Mb

1920x1080p @ 59.94 or 50 fps or 29.97 fps or 25 fps or 23.976 fps
BitRates: 200Mb, 100Mb or 50Mb

4096x2160p, 3840x2160p, 2048x1080p @ 59.94 or 50 fps or 29.97 fps or 25 fps or 23.976 fps
BitRates: 100Mb

1280x720p @ 59.94 or 50 fps or 29.97fps or 25fps or 23.976fps
BitRates: 200Mb, 100Mb or 50Mb

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. **Field Version**: IMPORTANT – you must set this for the version of Compressor that you are using
   
   d. **Colorspaces**:
      
      (i) The ‘Enable All Colorspaces’ option tells Compressor that the plugin can accept 10-bit and 8-bit colors for encoding. This can speed up encoding by slightly lowering the source video bit-depth
   
      (ii) The ‘All w/o Advanced YUV/RGB’ option tells Compressor that the plugin can only accept 8-bit colors for encoding. This can speed up encoding by slightly lowering the source video bit-depth
   
   e. **# 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-Intra 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 installed. Other versions of Compressor have not been tested.

2. Please make sure that the Calibrated AVC-Intra 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-Intra Create.

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

1. If you’ve already installed our AVC-Intra 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-Intra 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 16-bit 48Khz uncompressed audio with either 0-32 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 an AVC-Intra 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-Intra MXF’ in the drop-down menu.

This will add a new ‘Untitled Calibrated OP1a AVC-Intra 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-Intra 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-Intra MXF’ from the list of formats.

This will add a new ‘Untitled Calibrated OP1a AVC-Intra 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-Intra OP1a MXF Options Panel in Compressor 3.5.3/4.1.3

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

1920x1080i @ 29.97 or 25 fps  
BitRates: 200Mb, 100Mb or 50Mb

1920x1080p @ 59.94 or 50 fps or 29.97 fps or 25 fps or 23.976 fps 
BitRates: 200Mb, 100Mb or 50Mb

4096x2160p, 3840x2160p, 2048x1080p @ 59.94 or 50 fps or 29.97 fps or 25 fps or 23.976 fps  
BitRates: 100Mb

1280x720p @ 59.94 or 50 fps or 29.97fps or 25fps or 23.976fps  
BitRates: 200Mb, 100Mb or 50Mb

48Khz Uncompressed audio with 0-32 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. **Field Version**: IMPORTANT – you must set this for the version of Compressor that you are using
   d. **Colors**:
      (i) The ‘Enable All Colorspaces’ option tells Compressor that the plugin can accept 10-bit and 8-bit colors for encoding. This can speed up encoding by slightly lowering the source video bit-depth
      (ii) The ‘All w/o Advanced YUV/RGB’ option tells Compressor that the plugin can only accept 8-bit colors for encoding. This can speed up encoding by slightly lowering the source video bit-depth
   e. **# 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.
      
      (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 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. Calibrated(Q) MXF Import can read this XML Metadata. The Adobe XMP Metadata will be added as a sidecar file. Please see the chapter *AVC-Intra MXF OP1a Embedded XML Metadata*. 
**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-Intra 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-Intra Create.

**Using a Pre-made Preset for XAVC Intra OP1a MXF Exporting in Compressor 4.1.3**

1. If you’ve already installed our AVC-Intra 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-Intra 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:**
   - **Video**: The video bitrate will be set to what the description of the presets states.
   - **Audio**: The default audio will be 24-bit 48Khz uncompressed audio with either 2-32 discrete audio channels (depending on number of audio channels in source).
   - **TimeCode**: The default TimeCode will be to use the Start TimeCode from the source (if possible).
   - **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 Intra 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 Intra MXF’ from the list of formats.

This will add a new ‘Untitled Calibrated OP1a XAVC Intra 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.
Calibrated AVC-Intra Create supports creating the following Sony OP1a XAVC Intra MXF files:

4096x2160p @ 59.94, 29.97 fps or 24fps or 25 fps or 23.976 fps
BitRates: Class480 or Class300 as either VBR or CBG

3840x2160p @ 59.94, 29.97 fps or 25 fps or 23.976 fps
BitRates: Class480 or Class300 as either VBR or CBG

2048x1080p @ 59.94, 29.97 fps or 24fps or 25 fps or 23.976 fps
BitRates: Class100 as either VBR or CBG

1920x1080i @ 29.97 or 25 fps
BitRates: Class100, Class50

1920x1080p @ 29.97 fps or 25 fps or 23.976 fps
BitRates: Class100, 50Mb

1920x1080p @ 59.94fps or 50fps
BitRates: Class100

1280x720p @ 59.94fps or 50fps
BitRates: Class100

48Khz Uncompressed audio with 2-32 Channels at 24-bits.

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

![Compressor Options Panel]

5. **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. **Video BitRate Type:** This lets you set either Constant BitRate or Variable BitRate for 2k and greater resolutions

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.
   
   (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
6. **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 0-32 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 0-32 channel discrete configuration.

7. **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

8. **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 Intra MXF OP1a XML Metadata*. 
AVC-Intra MXF OP1a Embedded XML Metadata

Overview
This metadata will be stored as an embedded XML file within the **AVC-Intra MXF OP1a file**. When the MXF file is opened up with Calibrated(Q) MXF 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 Intra 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
IMPORTANT: This version of software (v2.0 or greater) will require a new Software License and an upgrade fee if you had purchased a Software License for a previous version.

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 here.
Troubleshooting

General Questions

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

   Calibrated AVC-Intra Create may not be properly installed:

   On Mac OSX, please make sure that the CalibratedAVCIntraEncodeCodec.component is in the /Library/QuickTime folder (that’s the Library folder on the Main Harddrive NOT the Library folder in the User directory)

   On Windows, make sure QuickTime Player 7.6.6 or greater is installed, and that the CalibratedAVCIntraEncodeQ.qtx component is in the [System Drive]/Program Files/QuickTime/QTComponents folder (on Windows 64-bit systems it would be the Program Files (x86) folder)

   And make sure you have restarted your computer after installing.

DEMO MODE watermark still visible after licensing

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-Intra 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-Intra Create Options applications should say LICENSED in green.
Version History

**Version 2.4.1**
- Added Color Tag for XAVC exporting
- Updated Licensing SDK
- BETA Support 10.13 (High Sierra)
- Minimum macOS support 10.9 for XAVC
- Removed Compressor 3.5.3 support for XAVC
- The Calibrated AVC-Intra QuickTime Encode codec does not work FCP X 10.4 or Compressor 4.4 or greater

**Version 2.4.0**
- Added 4k and QFHD export for AVC-Intra OP1a MXF and P2 AVC-Intra MXF

**Version 2.3.5**
- Updated Sony XAVC Intra Encode codec

**Version 2.3.1**
- Fixed issue where the Calibrated Avid XAVC Intra plugin would not export when Sony Avid AMA Plugin is installed
- Fixed issue with FCP X not being able to use the Calibrated XAVC Intra Export plugin Compressor Settings in 'Share'
- Minor bug fixes

**Version 2.3.0**
- Added XAVC Intra exporting for Premiere Pro, Avid Media Composer, and Compressor (BETA)
- Minor bug fixes

**Version 2.2.1**
- Bug fix for exporting 0 audio channels in Adobe plugin
- Slight encoding speed improvements

**Version 2.2.0**
- Added 2k AVC-Intra YUV422 P2 MXF Export for Premiere Pro, Compressor, Avid
- Added BETA Avid MC 8.4 export plugins for OP1a & P2 AVC-Intra MXF Export
- Added setting 0-32 audio channels in Premiere Pro OP1a Export

**Version 2.1.0**
- Added 200Mb 1920x1080 and 1280x720 encoding
- Added 2048x1080 AVC-Intra 100Mb export for MOV and OP1a MXF. 2k P2 MXF exporting is not currently enabled but will be sometime in 2015
- Added an Adobe Premiere Pro/AME AVC-Intra OP1a MXF Export plugin
- Added a Compressor 3.5.3/4.1.3 AVC-Intra OP1a MXF Export

**Version 2.0.0**
- **Added** New Software Licensing and Software License Agreement
- Changed name to Calibrated AVC-Intra Create
- Updated User Guide
- Updated GUI
- Removed Post-Encode Metadata feature
- Added support to export P2 AVC-Intra 100Mb/50Mb MXF files from PPro/AME CS6/CC/CC2014 and Compressor 3.5.3/4.1.1
- **IMPORTANT:** This version of software (v2.0 or greater) will require a new Software License and an upgrade fee if you had purchased a Software License for a previous version.

**Version 1.3.0**
- Added option to write SPS/PPS to every frame

**Version 1.2.0**
- BETA Only Support for 10.9 (Mavericks)

**Version 1.1.0**
- Encoding speed increase

**Version 1.0.1**
- [Mac OS X] Fixed possible issue with sandboxing of license file in some applications on OSX 10.8 (Mountain Lion)

**Version 1.0.0**
- Released