

ALEXA & AMIRA

Dailies using Resolve 15.2

WORKFLOW GUIDELINE

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Version History

Version	Author	Change Note
2010-12-15	Martin	First document
2012_03_03	Martin	Update for Resolve 8.2 and ALEXA SUP 6.0/DNxHD
2012_09_28	Martin	Updated for Resolve 9
2014_02_04	Martin	Updated for Resolve 10
2016_06_08	Heugel	Update for Resolve 12.5
2018_11_16	Hübsch	Update for Resolve 15.2

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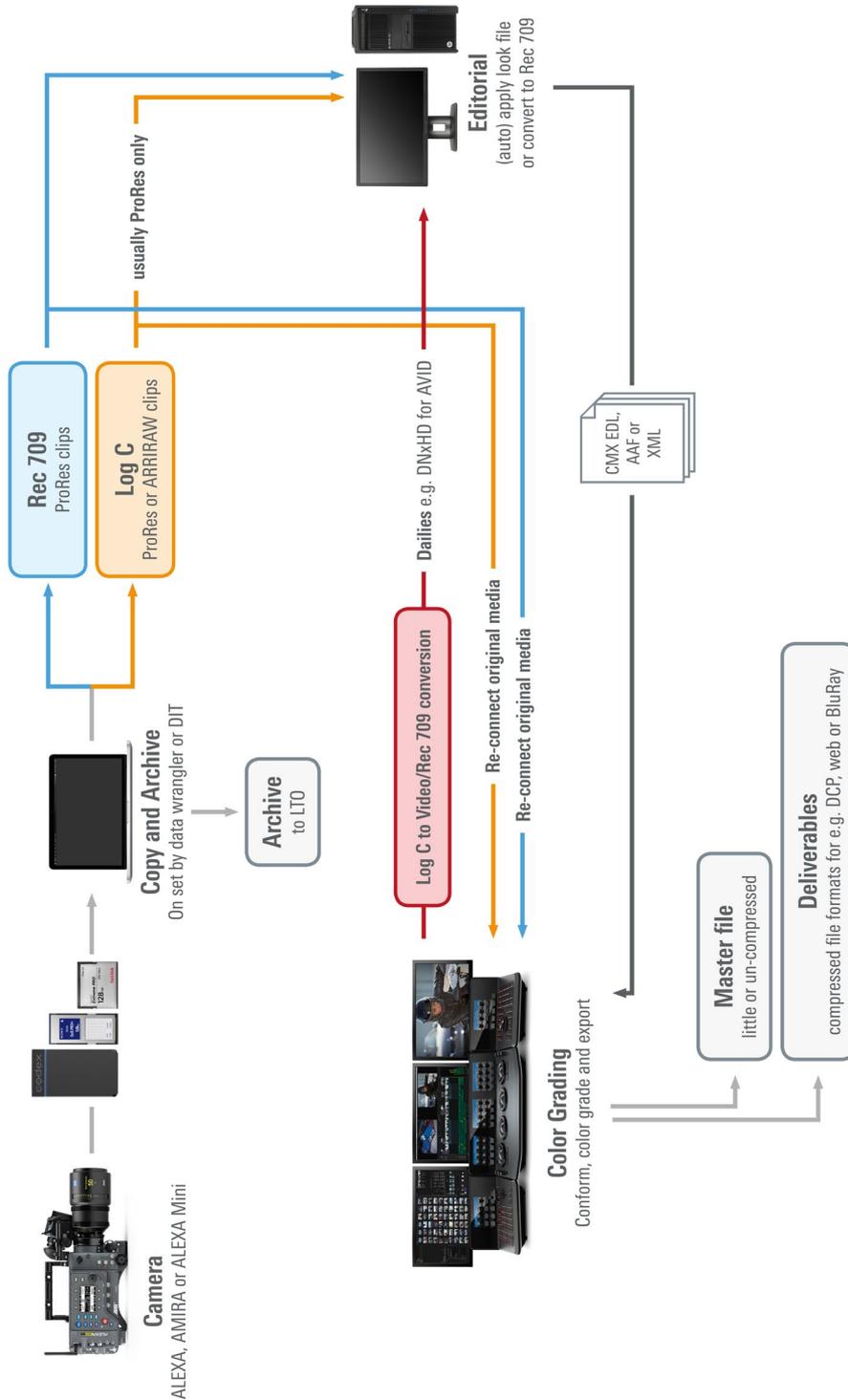
Introduction

Shooting QuickTime/ProRes or ARRIRAW files with the ARRI ALEXA or AMIRA camera usually requires dailies processed in REC 709 video color space. Blackmagic's Resolve for Mac can be an easy and fast solution to create color corrected or just delogged dailies. The available workflows include the possibility to use 3D-LUTs on all shots or different LUTs on single shots, primary grading with the possibility to export a CDL plus a full DI secondary grading environment.

A basic knowledge and understanding of the software DaVinci Resolve is a must for the described workflow below. If you have never used Resolve before, please refer to the “Getting Started” section of the DaVinci Resolve Manual.

Workflow Overview

Graph



The ALEXA Reel-Name

Naming convention

The ALEXA camera records both ProRes and DNxHD files in the following naming-convention:

- A001C003_160611_R1K4 - filename

- A001C003_160611_R1K4 - camera index/unit
- A001C003_160611_R1K4 - reel counter
- A001C003_160611_R1K4 - clip index
- A001C003_160611_R1K4 - clip counter
- A001C003_160611_R1K4 - shooting date yymmdd
- A001C003_160611_R1K4 - eye index (L or R)
- A001C003_160611_R1K4 - unique camera ID

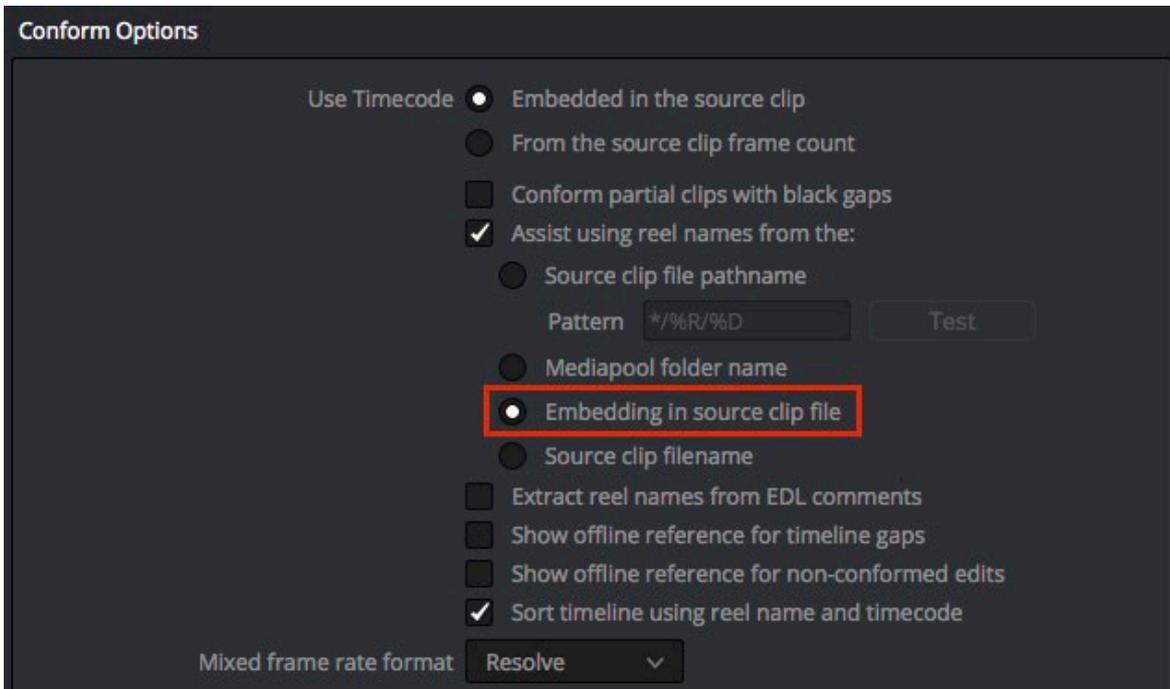
Reel-Name

The file header holds the „Reel-Name“ of each shot. For our example file mentioned above this would be:

- A001R1K4 - Reel-Name

The “Reel-Name” is generated from the camera index, reel counter and camera ID. To keep the “Reel-Name” in any render generated from Resolve we need to tell Resolve where to find the “Reel-Name”.

Go to the *Project Settings*, choose *General Options* from the list on the left and activate the following option in the *Conform Options*: Assist using reel numbers from the: **Embedding in source clip file**



After this option has been selected, all camera original files (ARRIRAW, ProRes or DNxHD) will import with the correct "Reel-Name".

File Name	Reel Name	Start TC	End TC	Duration
A010C016_150326_R00H.mov	A010R00H	13:18:31:11	13:19:14:11	00:00:43
A010C002_150326_R00H.mov	A010R00H	11:15:10:11	11:17:13:22	00:02:03
A010C020_150326_R00H.mov	A010R00H	13:30:22:06	13:32:19:20	00:01:53
A010C008_150326_R00H.mov	A010R00H	11:44:18:13	11:47:03:06	00:02:45
A010C007_150326_R00H.mov	A010R00H	11:40:28:22	11:44:09:01	00:03:39
A010C011_150326_R00H.mov	A010R00H	12:56:21:01	12:57:19:14	00:00:58
A010C015_150326_R00H.mov	A010R00H	13:17:09:04	13:18:52:19	00:01:45
A010C018_150326_R00H.mov	A010R00H	13:26:19:03	13:27:28:22	00:01:09
A010C017_150326_R00H.mov	A010R00H	13:23:47:11	13:25:07:14	00:01:20

Applying 3D-LUTs to your timeline

To convert all your shots from Log C to Video color space you need to apply a 3D-LUT. DaVinci Resolve 9 and above already ship with the standard ALEXA Rec709 LUT named "Arri Alexa LogC to Rec709". For all other LUTs regarding the ALEXA, ALEXA XT/SXT, AMIRA or ALEXA Mini camera, please go to our online LUT Generator using the following link:

http://www.arri.com/camera/alexatools/lut_generator/

Note: We're always working on improvements on all fields, so make sure you check for new changes in color science on our website (sub page of the respective camera).

Please download 3D-LUTs in the „DaVinci Resolve“ format.

While ARRIRAW, ProRes and DNxHD are legal range encoded, the LUTs are applied to RGB images in the software and these are full range. So please download LUTs as following for Log C to Rec709 conversion:

Source: Log C – Full Range

Destination: Video – Full Range

ColorSpace - Rec 709

Scaling - Photometric Video

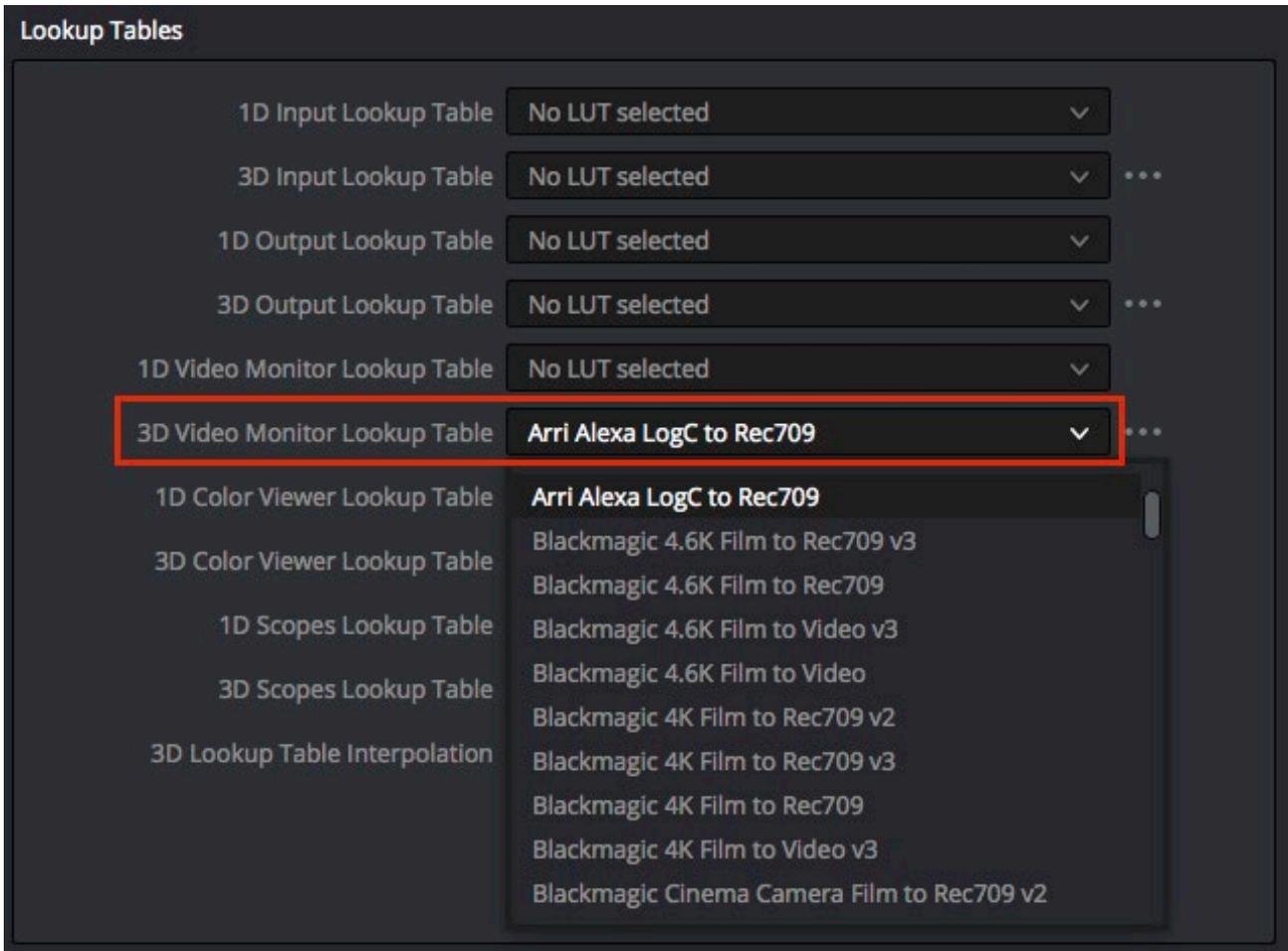
This will result in a 3D-LUT named:

ALEXA_K1S1_LogC2Video_Rec709_EE_davinci3d.cube

Place the LUT in Resolves LUT folder:

/Library/Application Support/Blackmagic Design/DaVinci Resolve/LUT/Arri

To activate newly imported LUTs go to the *Color Management* page in your *Project Settings* and press the **Update Lists** button.



If you want to grade your dailies in LogC color space you should load the LUT in the *3D Video Monitor Lookup Table* section. This will first apply your grading to the image and second the 3D-LUT.

If you prefer to grade in video color space use the LUT in *3D Input Lookup Table*. This will first apply the 3D-LUT to your image and second your grading.

Rendering your footage for editing

Open the *DELIVER* page and activate the following options:

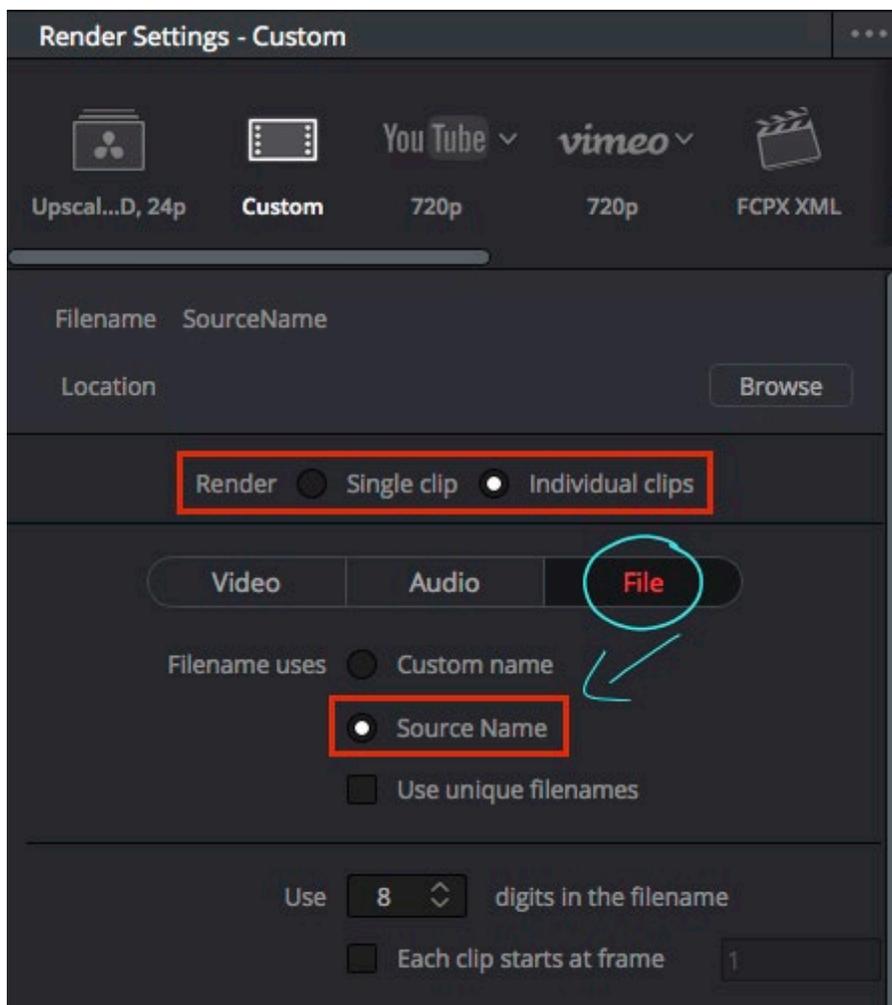
First, please choose your rendering format. A good balance between file size and image quality for editing is ProRes LT for Final Cut Pro or DNxHD 36 for AVID Media Composer, which gives you very small files in full HD resolution. Later in the project you can relink or conform to the original camera files and get the best possible image quality for grading.

Next activate the following settings:

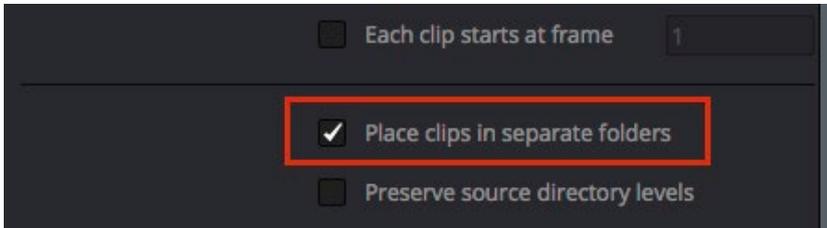
Render as: Individual clips

Filename uses: Source Name

This will keep the naming of your render files consistent to the original files and will render each Reel into a separate directory.



If you are pursuing a complex workflow the option to Place clips in separate folders, might be handy: “[...] when the filenames of clips coming from the same source media file may cause them to overwrite one another. This option is also commonly used when rendering VFX shots for additional postproduction work, allowing the VFX department to identify clips quickly and distribute the work accordingly.” (Blackmagic Resolve 15.2 Manual, p. 2523).

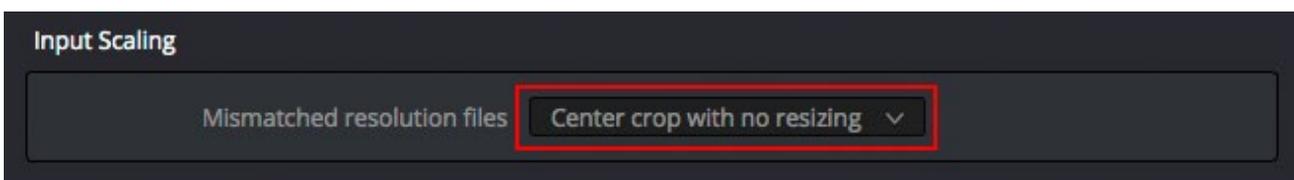
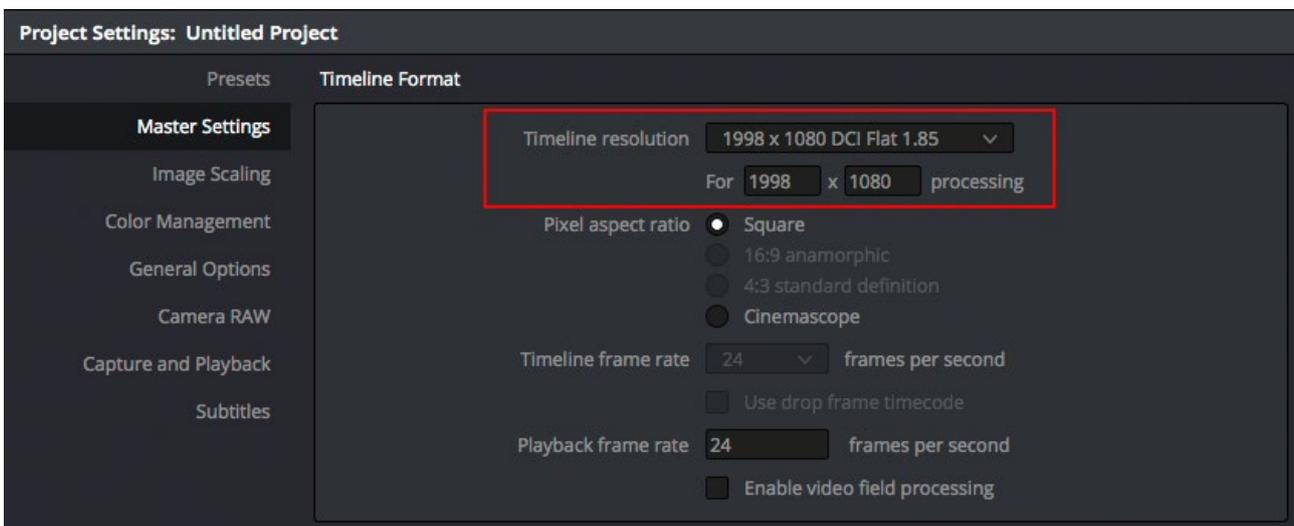


Resizing 2k ProRes files for a DCP finish

Re-format 2K 16:9 to 1.85:1 US Widescreen DCP (cropped)

Create a new timeline with a frame size of 1998 x 1080 pixels using the “2k DCI Flat 1.85” preset option. On the *Image Scaling* settings page, make sure that the *Input Scaling Preset* is set to *Center crop with no resizing*.

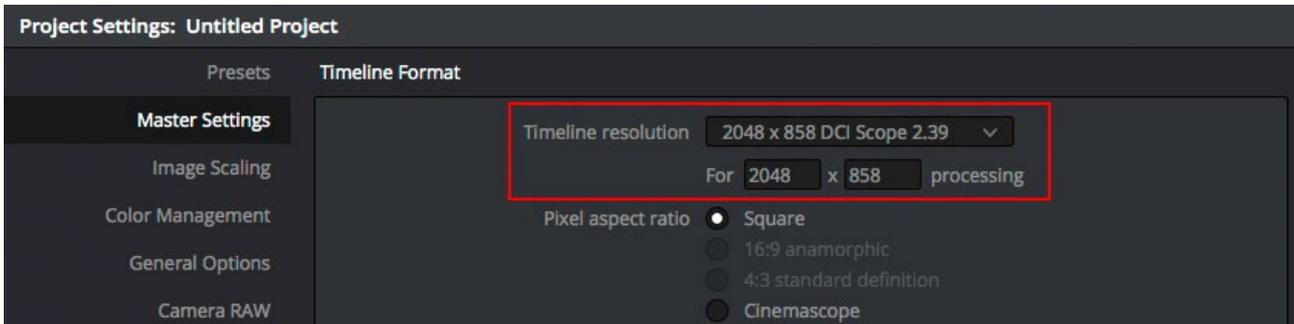
All clips added to the sequence will automatically be center-cropped to the 1.85:1 aspect ratio with the correct field of view. The individual clips can be re-framed by moving them within the sequence frame.



Re-format 2K 16:9 (flat) to DCP 2.39 Widescreen

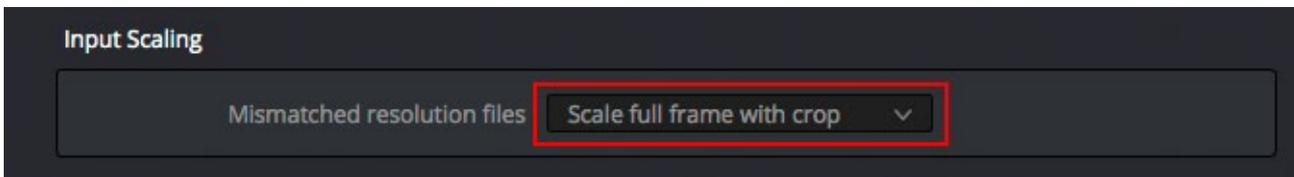
Create a new timeline with a frame size of 2048 x 858 pixels using the “2K DCI Scope 2.39” preset option. On the *Image Scaling* settings page, make sure that the *Input Scaling Preset* is set to *Center crop with no resizing* (as above).

All clips added to the sequence will automatically be center-cropped to the 2.39:1 aspect ratio with the correct field of view. The individual clips can be re-framed by moving them within the sequence frame.

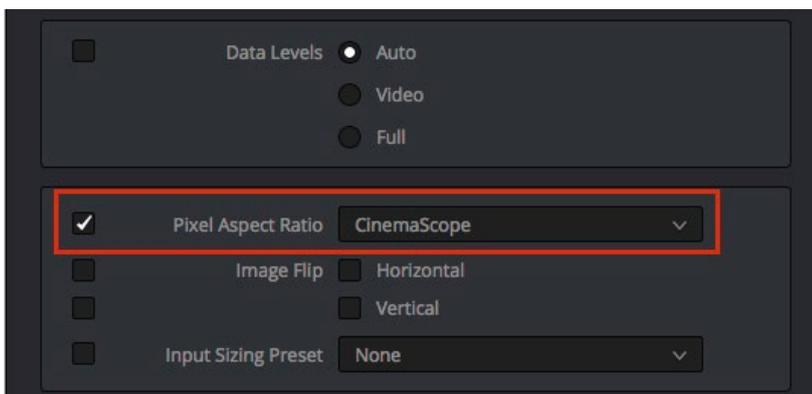


Re-format 2K 4:3 anamorphic to DCP 2.39 Widescreen

Create a new timeline with a frame size of 2048 x 858 pixels using the “2K DCI Scope 2.39” preset option. On the *Image Scaling* settings page, make sure that the *Input Scaling Preset* is set to *Scale full frame with crop*.



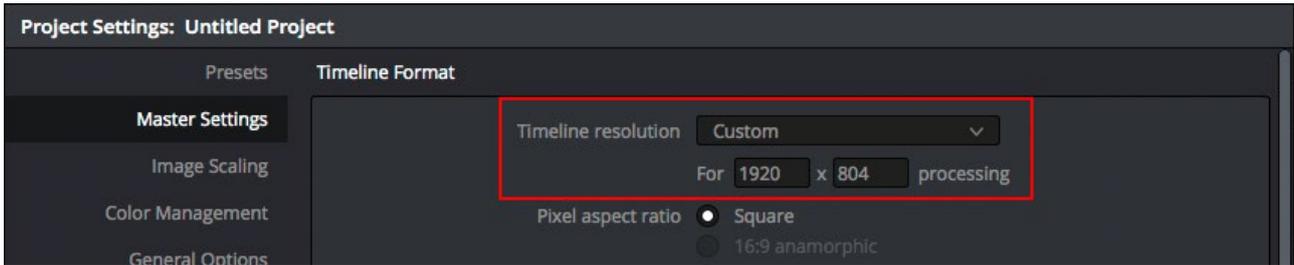
Set all imported clips to have a *Cinemascope Pixel Aspect Ratio* by right clicking on the selected media files and choosing the *clip attributes* option and setting the appropriate option in the *Video* options page.



All clips added to the sequence will automatically be center-cropped to the 2.39:1 aspect ratio with the correct field of view with more image content left and right. The individual clips can be re-framed by moving them within the sequence frame.

Re-format 2K 4:3 anamorphic for HD 2.39 Widescreen dailies

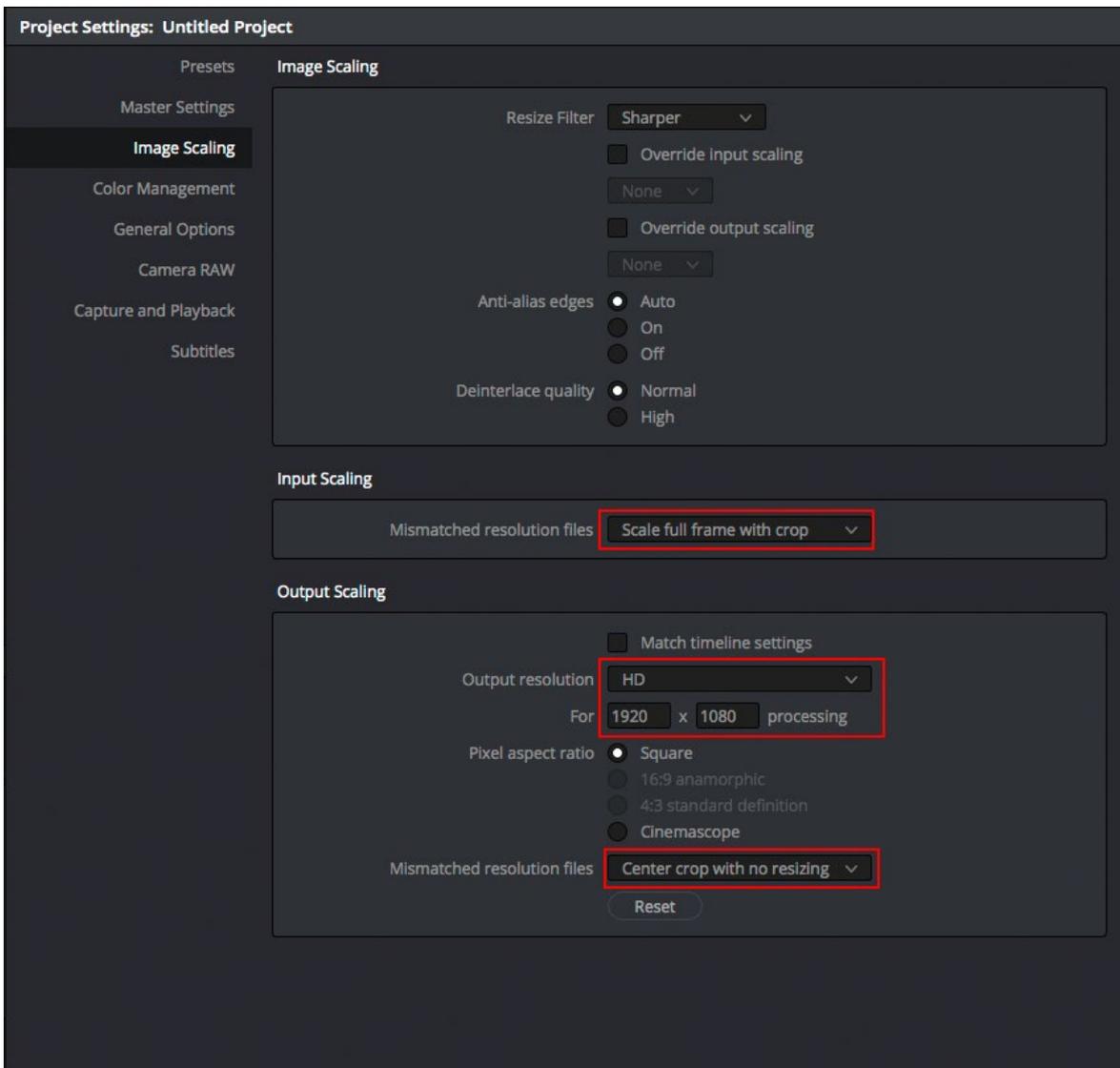
Create a new timeline with a custom frame size of 1920 x 804 pixels.



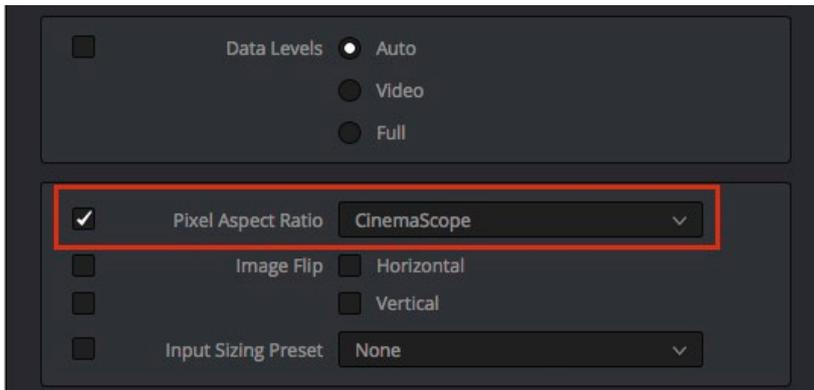
On the *Image Scaling* settings page set the following options:

Set the *Input Scaling Preset* to *Scale full frame with crop*.

Set the *Output Scaling Preset* to HD with 1920x1080 pixels by unchecking the *Match Timeline settings* option and choosing the HD preset option and setting the *Center crop with no resizing* option.



Set all imported clips to have a *Cinemascope Pixel Aspect Ratio* by right clicking on the selected media files and choosing the *clip attributes* option and setting the appropriate option in the *Video* options page.



All clips added to the sequence will automatically be center-cropped to the 2.39:1 aspect ratio within the HD image with more image content left and right and letterboxes top and bottom. The individual clips can be re-framed by moving them within the sequence frame.

Creating EDLs to conform original footage

With Resolve you can conform Final Cut Pro XML or AVID AAF files. Most often EDLs are still used in an offline/online workflow. Therefore we provide all necessary information regarding ALEXA files in this section. For conforming Final Cut Pro XML and AVID AAF please refer to the Resolve User Guide.

AVID Media Composer 5.0 or higher

Editing ProRes/DNxHD files in Avid Media Composer differs from editing in Final Cut Pro in terms of Quicktime Header metadata. The "Reel-Name" is not imported from the ProRes/DNxHD files using AMA, but can be easily added into any EDL using the method below:

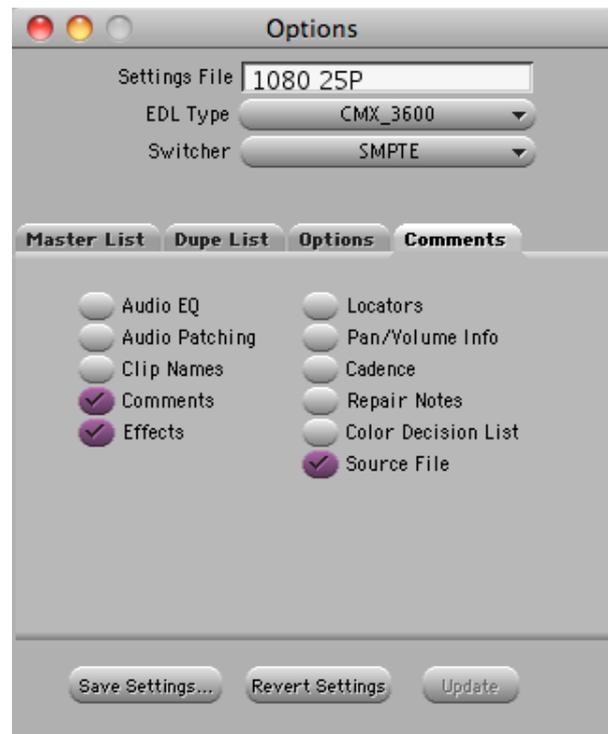
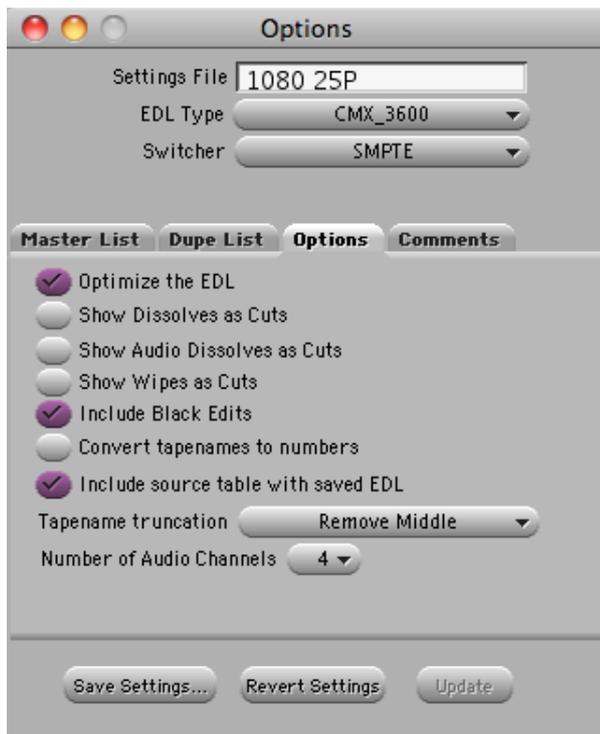
Open your sequences in the AVID EDL Manager (version 27.0.3.1 and higher) and use following configuration in the options menu.

EDL Type: CMX 3600

In Master List menu > Reel ID Type: Tape or File Name

In Options menu > Tape name truncation: Remove Middle

In Comment menu > choose: Source File (original file name)



Example:

```
001 A001R1K4 V C 01:00:18:00 01:00:18:05 01:00:00:00 01:00:00:05
* FROM CLIP NAME: SHOT_003
* SOURCE FILE: A001C003_101111_R1K4
```

The EDL example includes all necessary metadata of the original ProRes/DNxHD file to conform by:

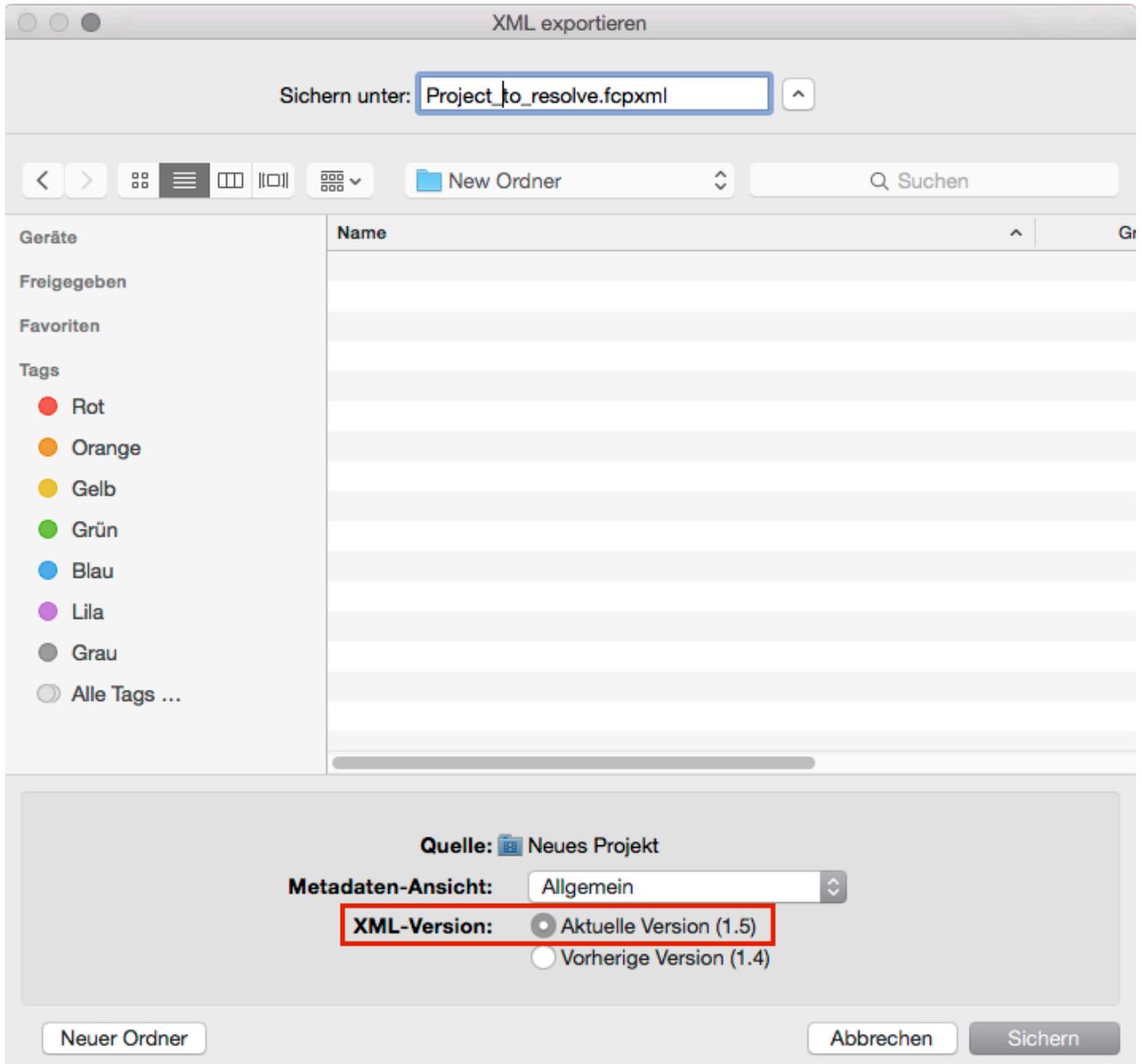
Tape Name

Source Time Code

Original File Name

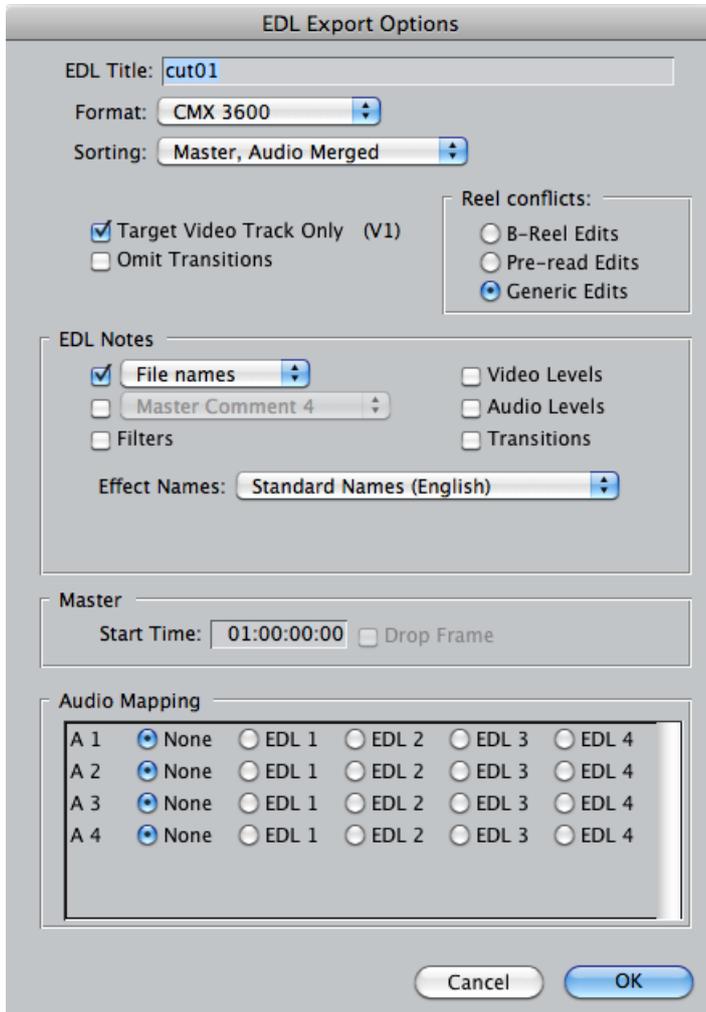
Final Cut Pro X

Exchanging Information between Final Cut and Resolve is an easy process. To export an XML (or * .fcpxml) with Resolve activate the timeline (CMD + 2) and choose File > Export XML...



Final Cut Pro 7

To export an EDL from your sequence in Final Cut Pro, please choose the Menu Item File > Export > EDL. In the dialog choose the following options:



Example:

```
TITLE: CUT01
FCM: NON-DROP FRAME
001 A001R1K4 V    C      01:00:18:00 01:00:18:05 01:00:00:00 01:00:00:05
* FROM CLIP NAME: A001C003_101111_R1K4
```

The EDL example includes all necessary metadata of the original ProRes/DNxHD file to conform by:

Tape Name

Source Time Code

Original File Name

Contact

In case you have questions or recommendations, please contact our Workflow Group via email at: digitalworkflow@arri.de.