

How to Grade LogC4 Footage

ARRI ALEXA 35 Camera

TECHNICAL NOTE

Date: July 20, 2022

Version History

Version	Author/Editor	Change Note
2022-02-22	Florian Martin	Version 1.0
2022-03-01	Simon Duschl	Updated software
2022-07-20	Florian Martin	Screenshot update
2022-09-02	Simon Duschl	Added link to “Color workflows for mixing ARRI LogC3 and LogC4”

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1. Note

Please note that these instructions will be constantly updated with changes in partner postproduction software.

2. Introduction

This document is designed to help you import and setup ARRI ALEXA 35 footage for grading in Filmlight Baselight and DaVinci Resolve.

3. What's new

With the introduction of the ARRI ALEXA 35 camera in 2022, ARRI also introduced the completely new REVEAL Color Science, including a new debayer algorithm (ADA-7), new color engine (ACE4), new color space (AWG4) and a new logarithmic curve (LogC4).

REVEAL Color Science not only allows the storage of the great dynamic range of the ARRI ALEXA 35 camera into a logarithmic file, but also provides much better color reproduction with the ARRI ALEXA 35 camera for pleasing and natural skin tones, better color tracking across exposure levels as well as greatly improved reproduction of highly saturated colors like traffic lights, car brake lights, neon signs and tubes.

The new color space AWG4 was designed in cooperation with colorists for better grading results. Therefore it is the first camera color space which not only stores the captured colors of the camera efficiently, but also is designed for best grading results. This is achieved by having very little virtual colors inside and better placed RGB primaries for grading.

ARRI's Color Science REVEAL will also bring SDR and HDR grading deliveries much closer together and will save you time to work on trim passes for one or the other.

To make all this possible the new logarithmic curve (LogC4) is not backwards compatible with older versions e.g. LogC3. Therefore, it is very important to setup the workflow for ARRI S35 4K files according to this guide and not use existing LUTs or color management for other ARRI cameras. Using older LogC3 LUTs will make the image look underexposed and all colors will be off.

4. How to import ARRI ALEXA 35 footage into your software

Currently ARRI is working very closely with it's partners to enable a smooth workflow with ARRI ALEXA 35 ARRIRAW and ProRes files in all post production software. Please see the list with supporting software and versions on our website:

<https://www.arri.com/en/learn-help/learn-help-camera-system/alexa-35-workflows>

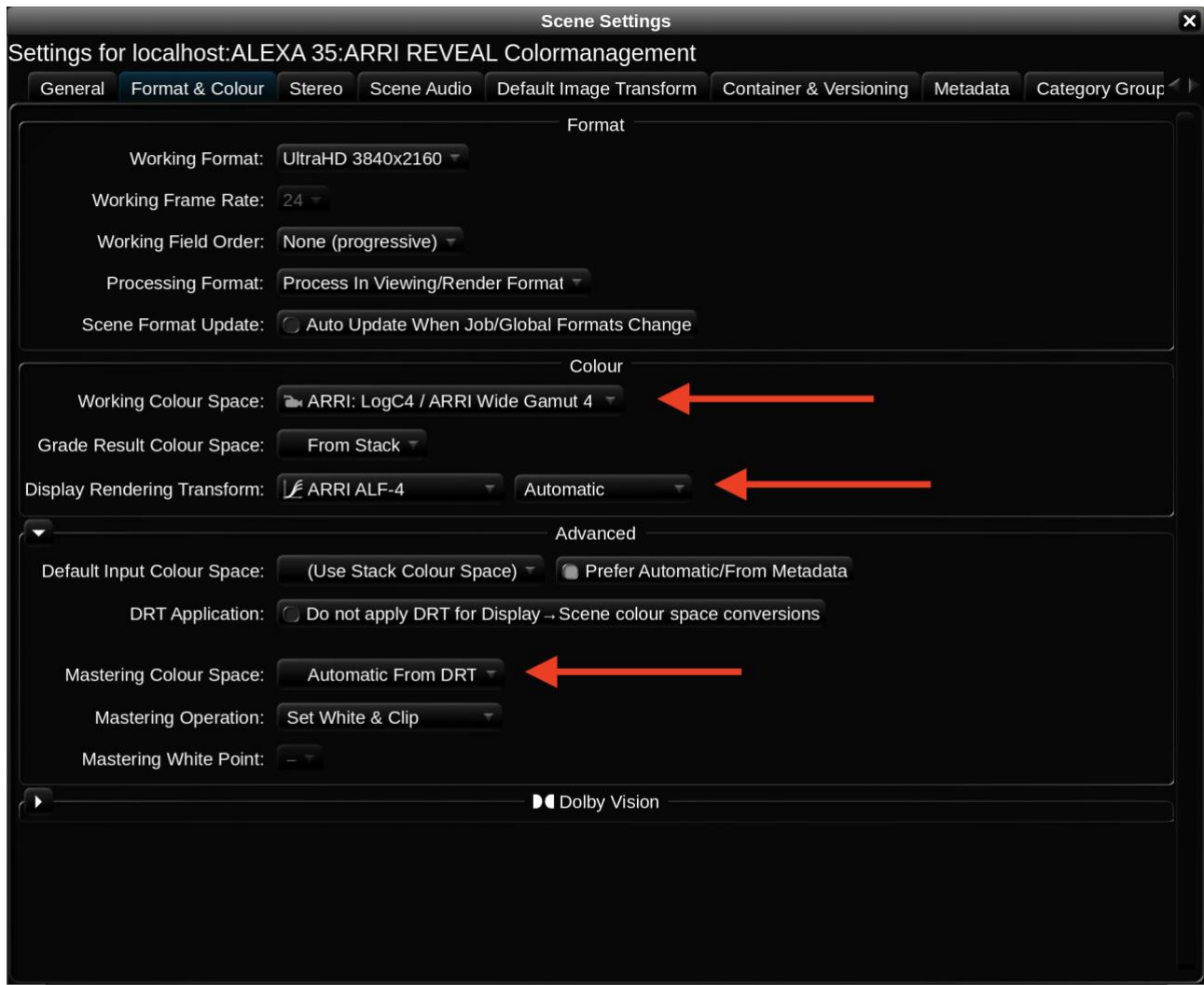
For sample projects and how to get mixed LogC3/LogC4 projects done, we refer to the "[ALEXA 35 – Color workflows for mixing LogC3 and LogC4 footage & Sample Projects](#)" document. Please check also our "[ALEXA 35 - Workflow & Post Guide](#)".

5. Setup Baselight using ARRI's Colormangement REVEAL

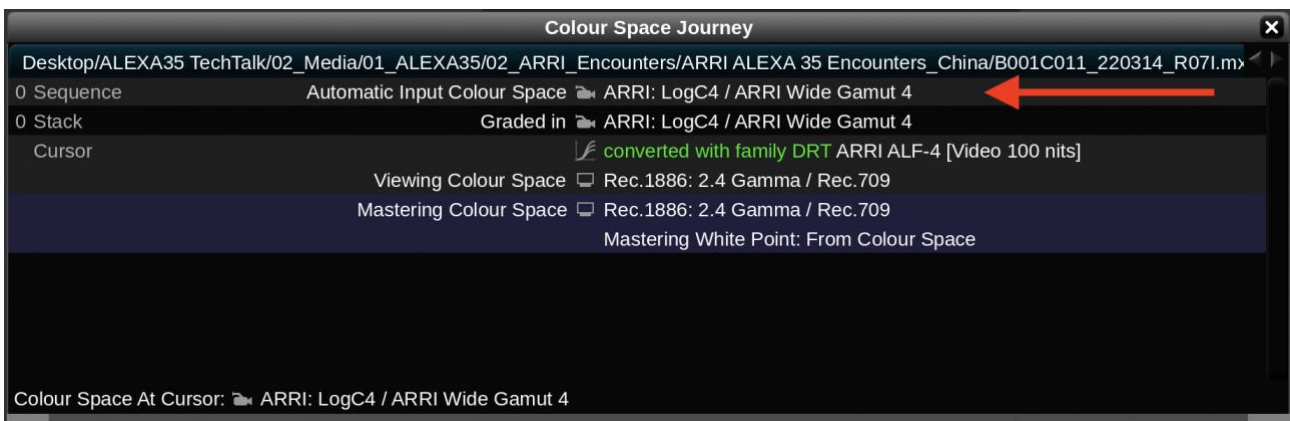
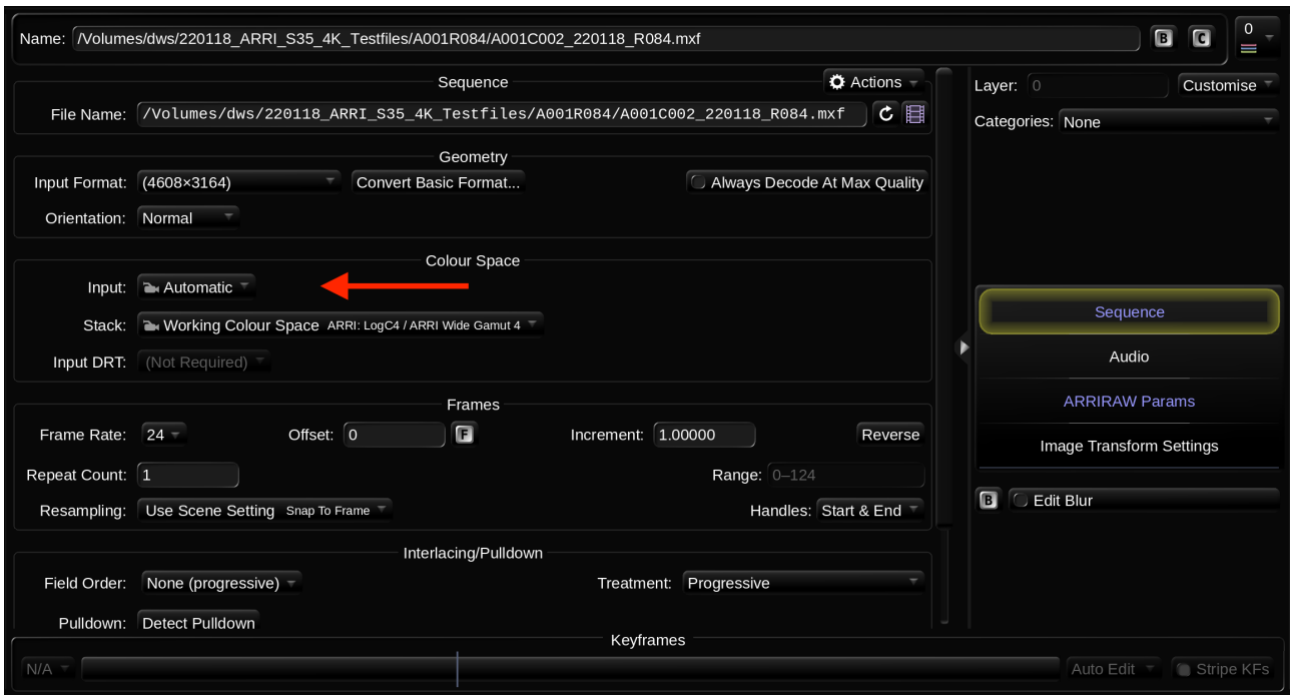
Step 1. Please make sure that you are using Baselight Version 5.3.16163 or later.

Step 2. Download ARRI's ODT family ARRI ALF-4 if not present in your Baselight installation.

Step 3. Setup the "Working Colour Space" and the "Display Rendering Transform" on the "Format & Colour" page of your "Scene Settings" as shown below:



Step 3. If you are using the "Automatic" option for the "Input Colour Space" of the ARRIRAW strip, please check that Baselight uses the "ARRI: LogC4 / ARRI Wide Gamut 4" colour space using your "Colour Space Journey"



Your resulting "Colour Space Journey" should look like this:

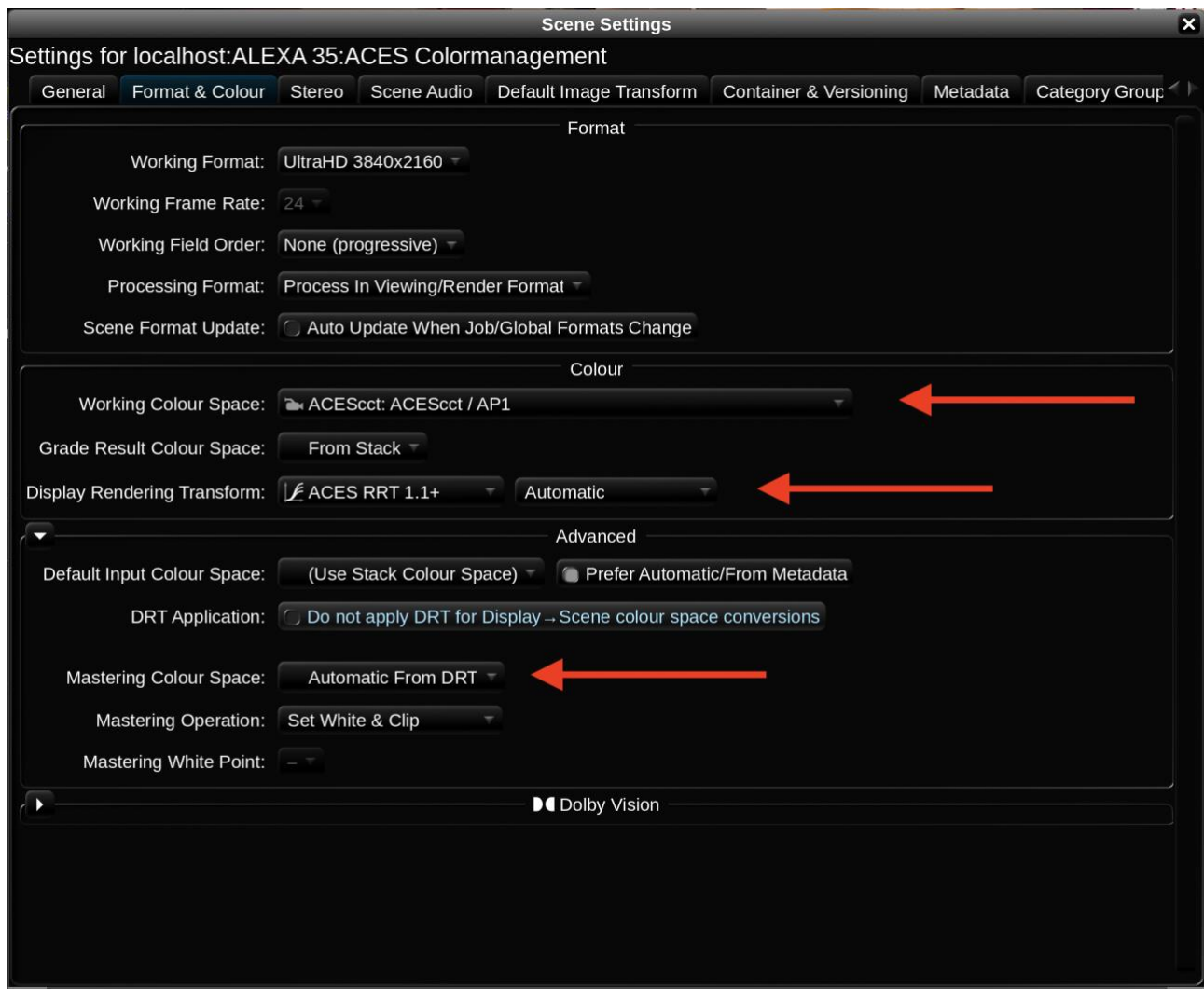


6. Setup Baselight using ACES Colormangement

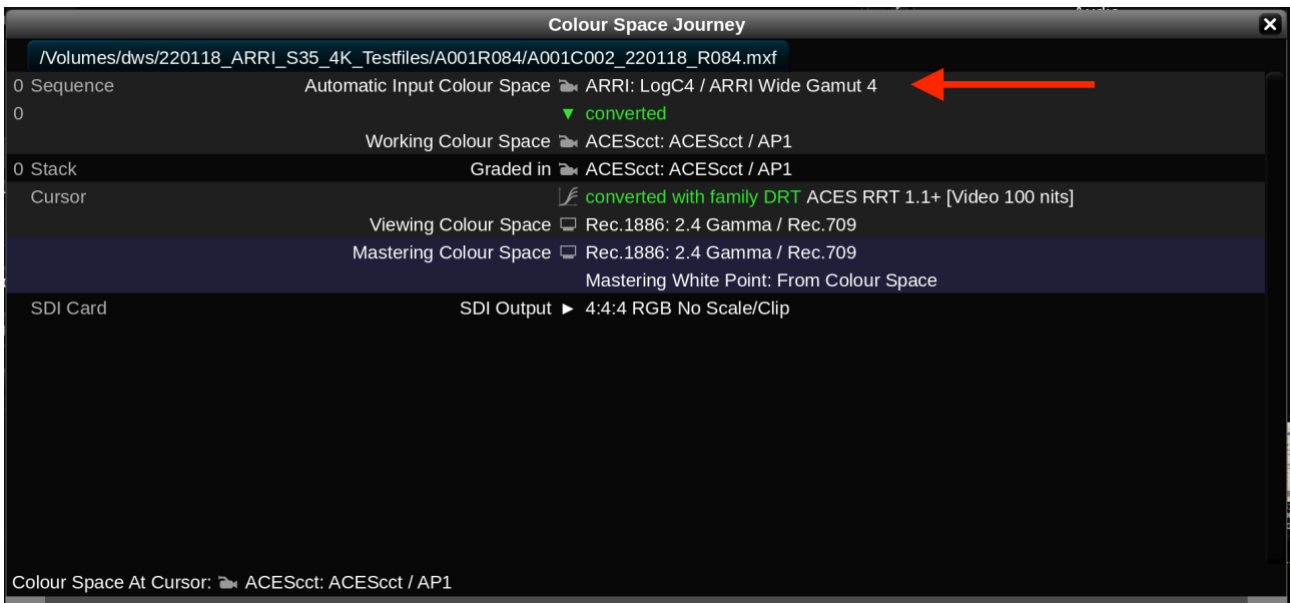
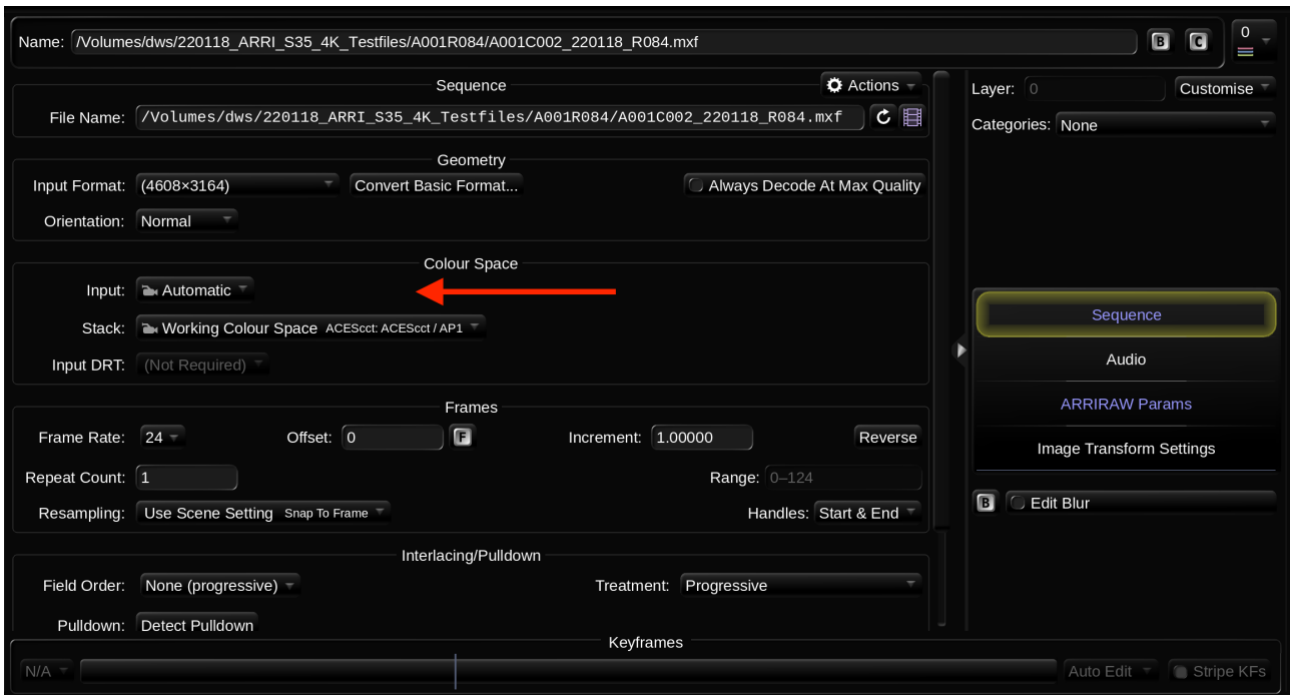
Using this workflow you will not get all the benefits of the REVEAL Color Science, since the image is not rendered using ARRI's REVEAL Color Science but ACES Color Science to the selected Output-Device.

Step 1. Please make sure that you are using Baselight Version 5.3.16163 or later.

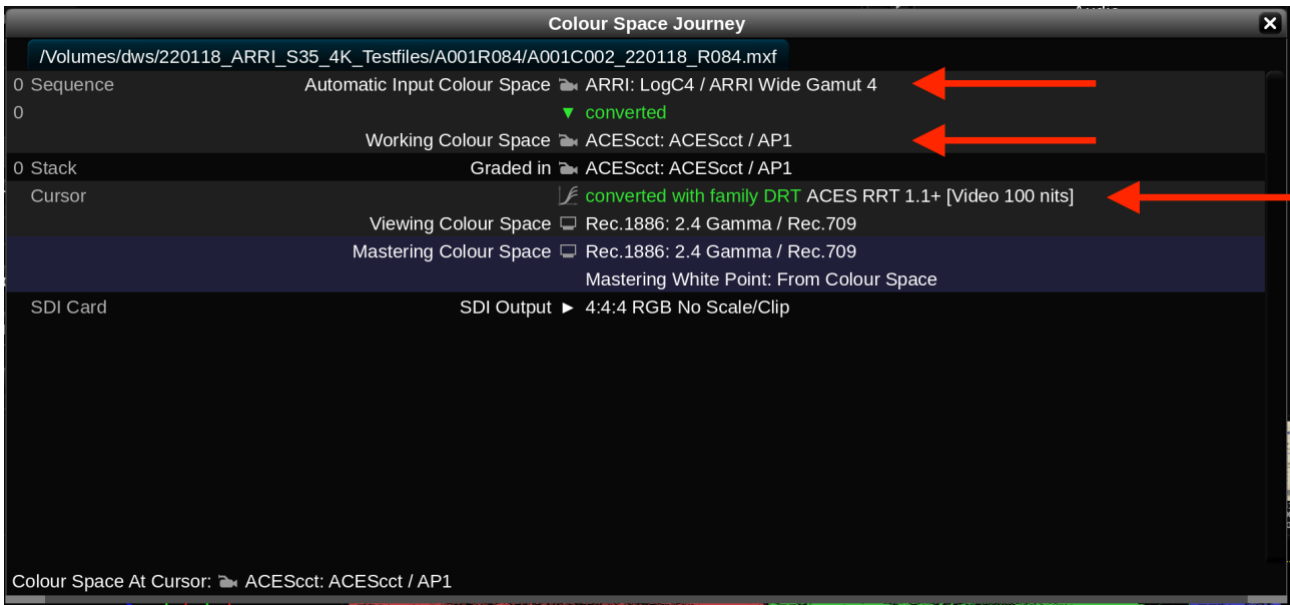
Step 2. Setup the "Working Colour Space" and the "Display Rendering Transform" on the "Format & Colour" page of your "Scene Settings" as shown below:



Step 3. If you are using the "Automatic" option for the "Input Colour Space" of the ARRIRAW strip, please check that Baselight uses the "ARRI: LogC4 / ARRI Wide Gamut 4" color space using your "Colour Space Journey"



Your resulting “Colour Space Journey” should look like this:

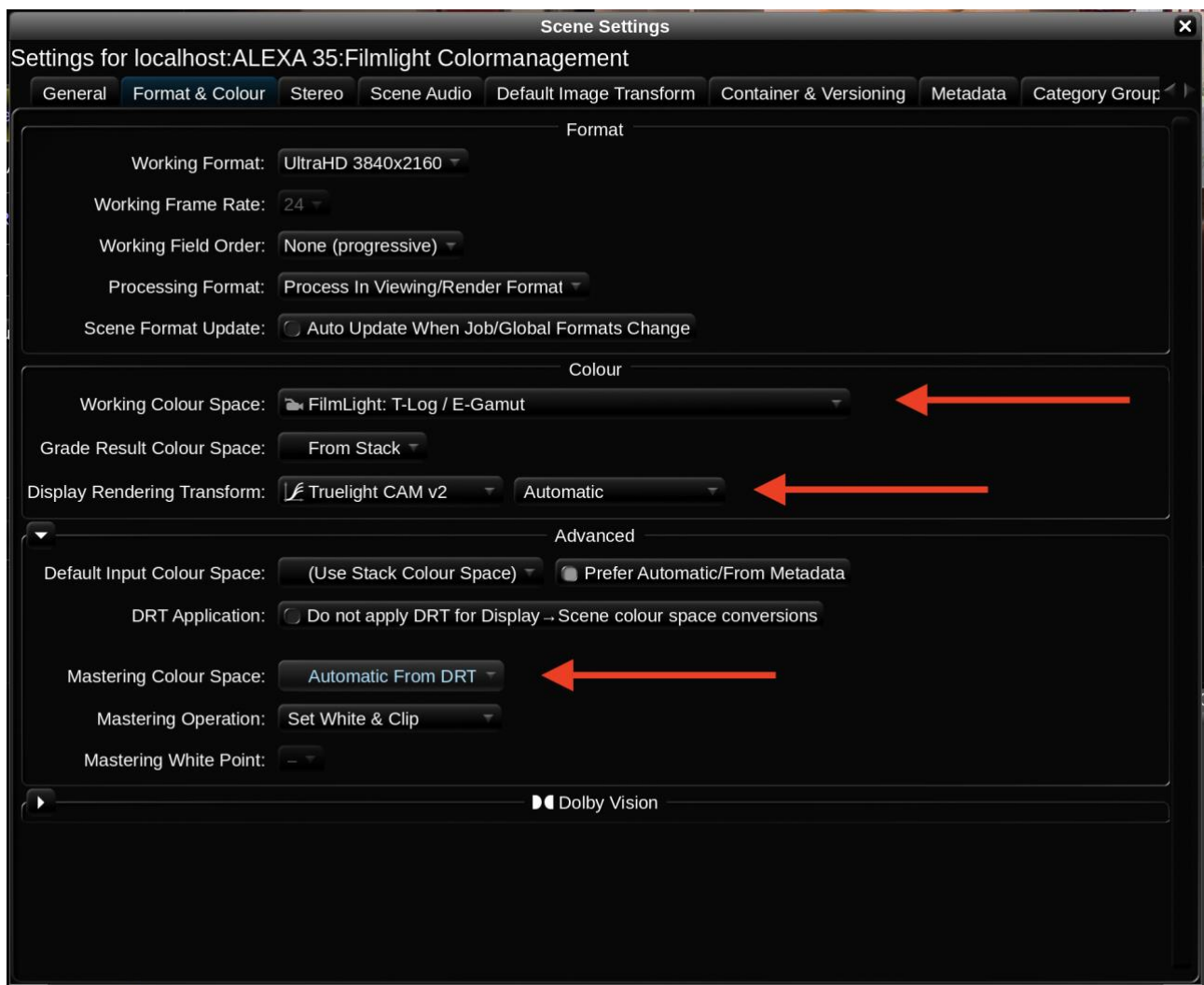


7. Setup Baselight using Filmlight's Colormangement

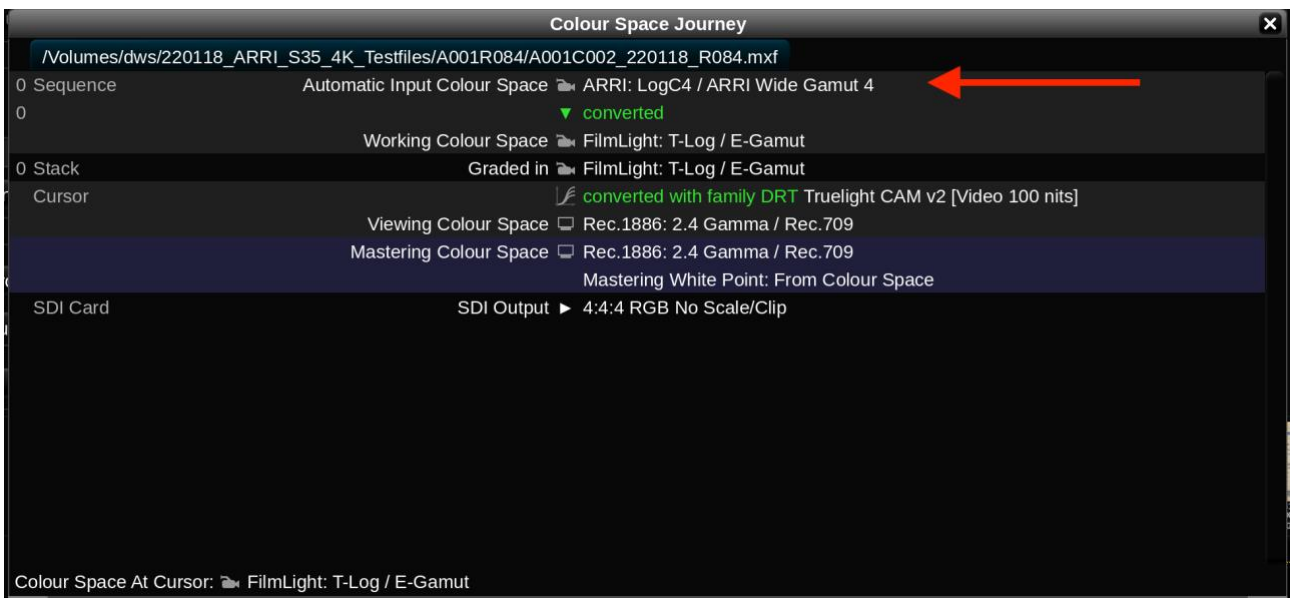
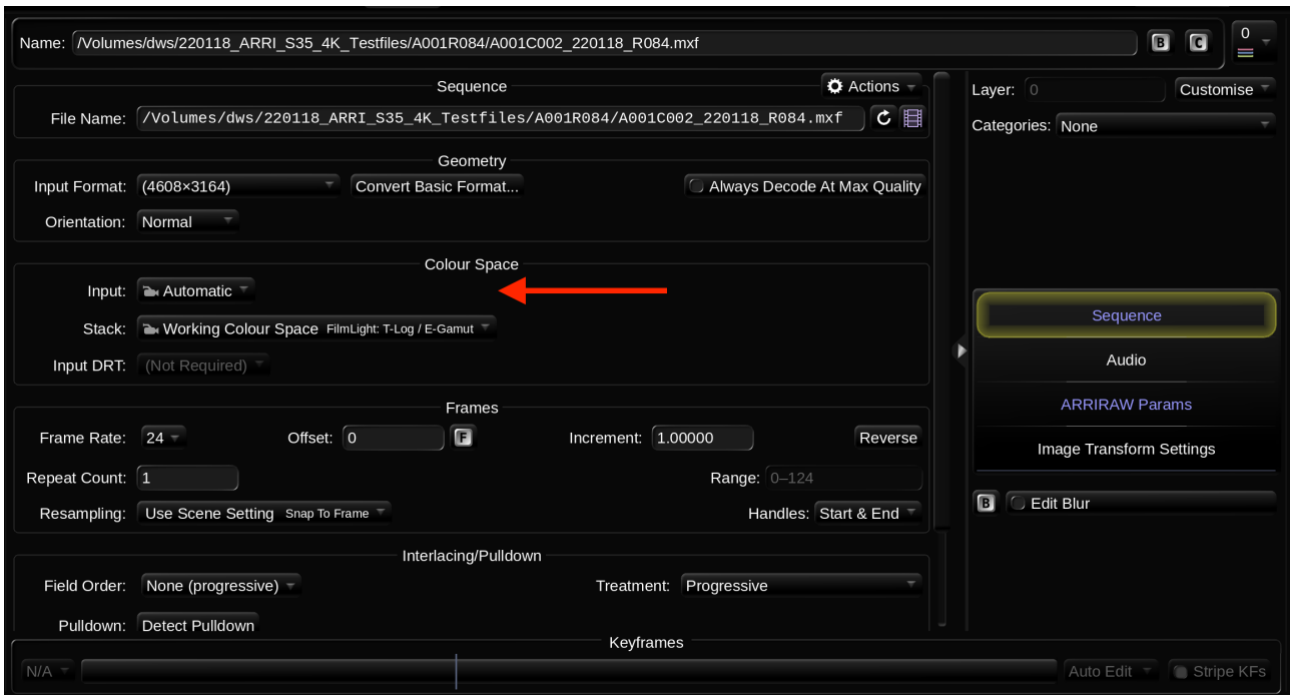
Using this workflow, you will not get all the benefits of the REVEAL Color Science, since the image is not rendered using ARRI's REVEAL Color Science but Filmlight's Color Science to the selected Output-Device.

Step 1. Please make sure that you are using Baselight Version 5.3.16163 or later.

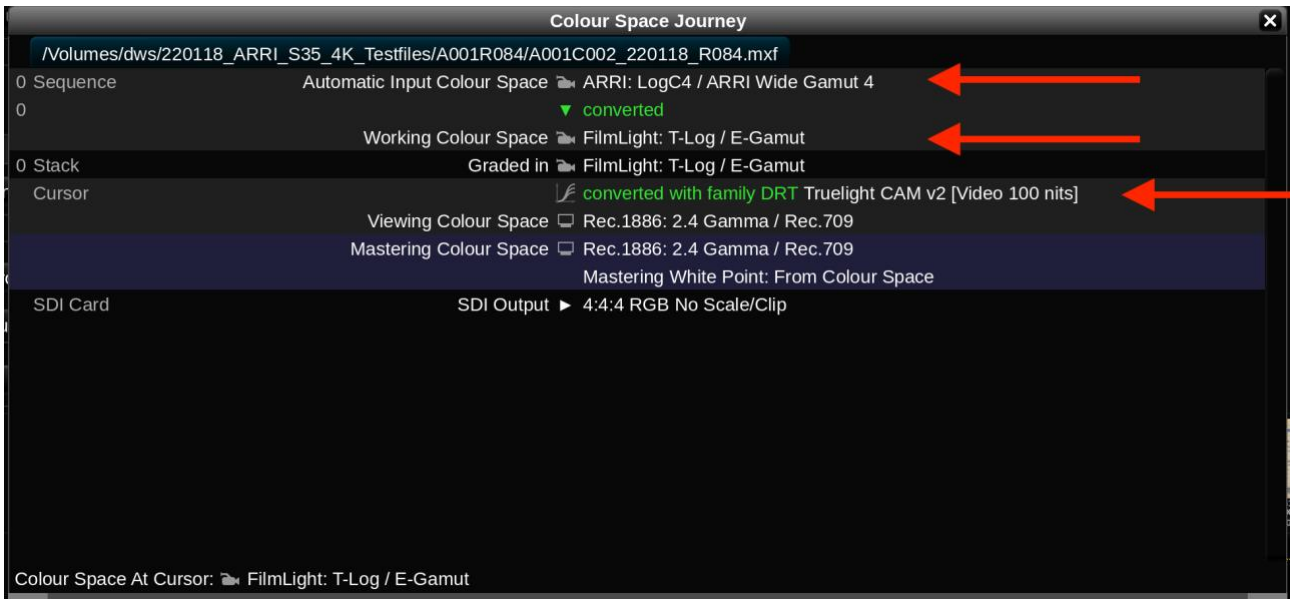
Step 2. Setup the "Working Colour Space" and the "Display Rendering Transform" on the "Format & Colour" page of your "Scene Settings" as shown below:



Step 3. If you are using the "Automatic" option for the "Input Colour Space" of the ARRIRAW strip, please check that Baselight uses the "ARRI: LogC4 / ARRI Wide Gamut 4" color space using your "Colour Space Journey"



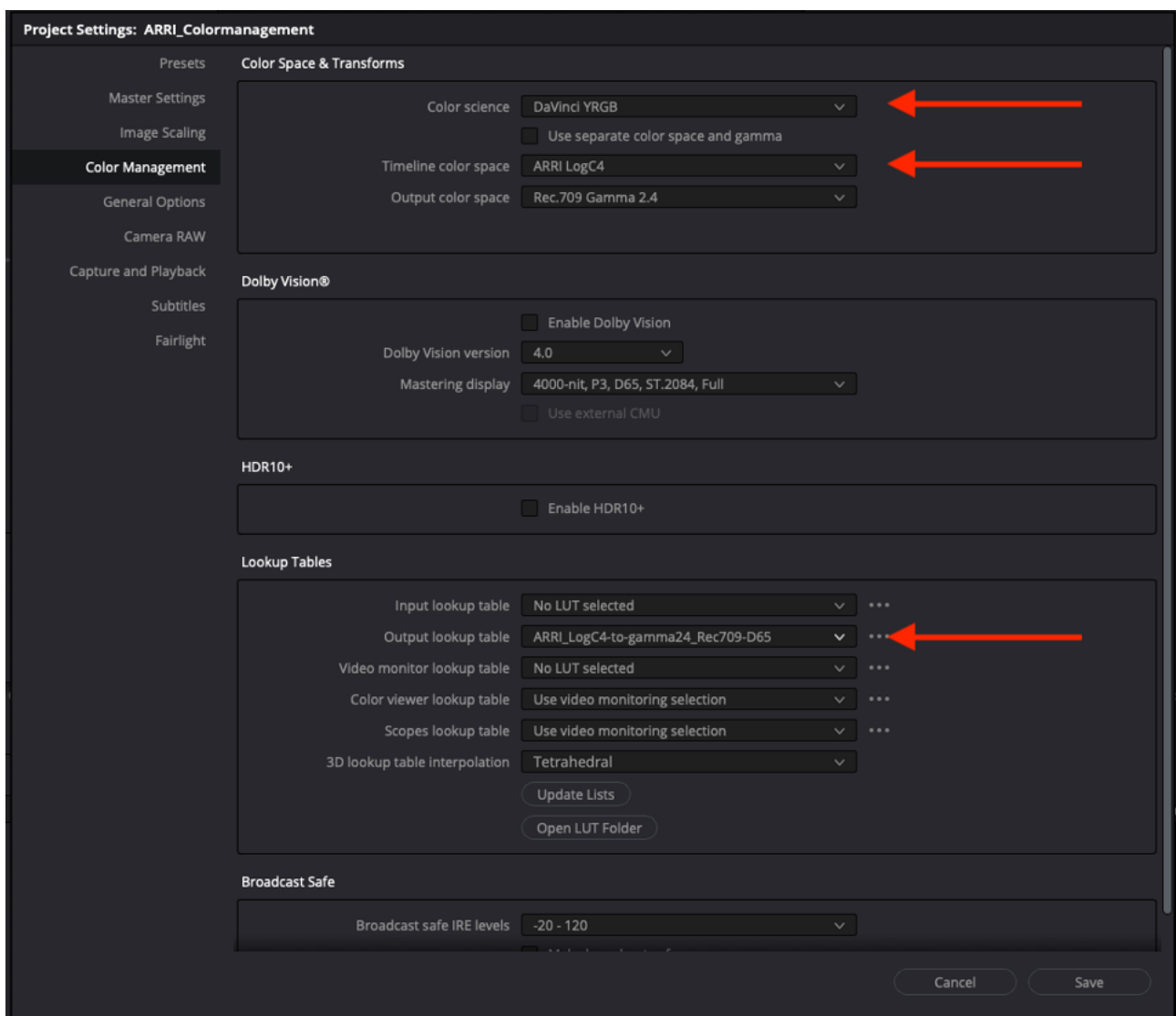
Your resulting “Colour Space Journey” should look like this:



8. Setup DaVinci Resolve using ARRI's Colormangement REVEAL

Step 1. Please make sure that you are using DaVinci Resolve Version 17.4.7 or later.

Step 2. Setup the "Color science" option to "DaVinci YRGB" and select the right Output lookup table for your grading monitor you are using on the "Color Management" page in your "Project Settings". This will ensure that all grade settings are applied in the LogC4/AWG4 color space and the image is rendered as a last step using ARRI's Color Science REVEAL.

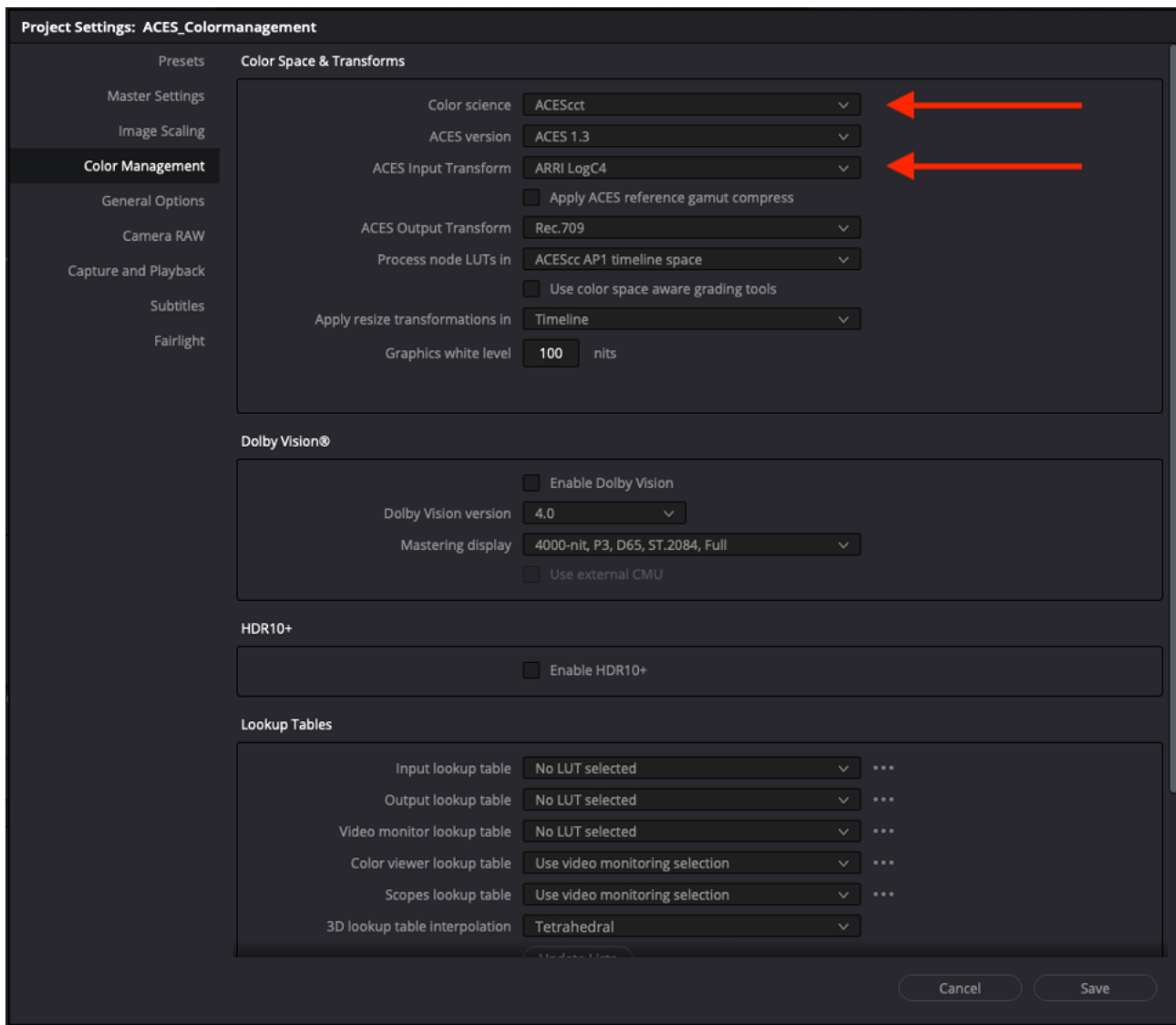


9. Setup DaVinci Resolve using ACES Colormangement

Using this workflow you will not get all the benefits of the REVEAL Color Science, since the image is not rendered using ARRI's REVEAL Color Science but ACES Color Science to the selected Output-Device.

Step 1. Please make sure that you are using DaVinci Resolve Version 17.4.7 or later.

Step 2. Setup the "Color science" option to "ACEScc" or "ACEScct" and select "ARRI LogC4/AWG4" for the "ACES Input Transform".

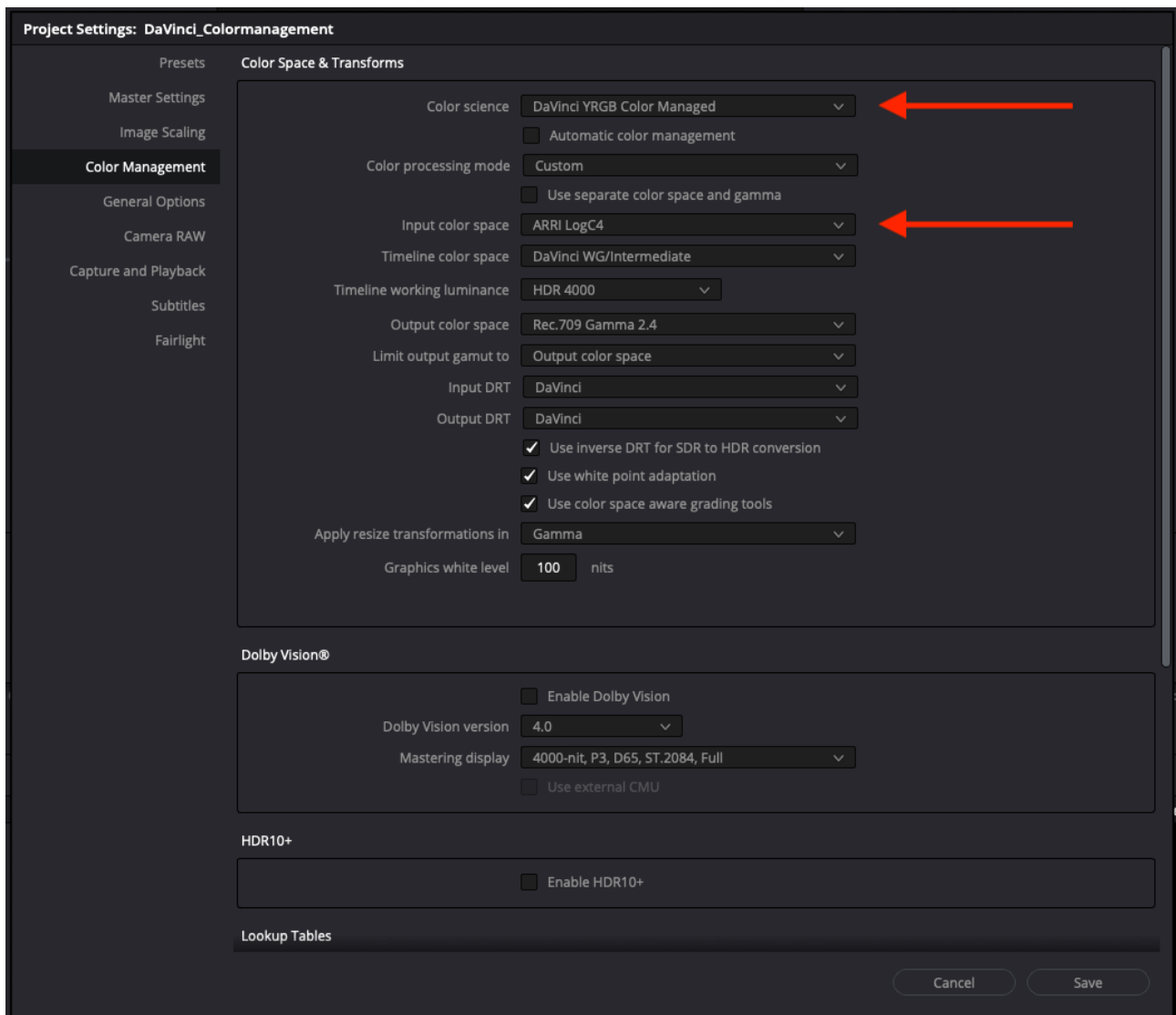


10. Setup DaVinci Resolve using DaVinci's Colormanagement

Using this workflow you will not get all the benefits of the REVEAL Color Science, since the image is not rendered using ARRI's REVEAL Color Science but Blackmagic's Color Science to the selected Output-Device.

Step 1. Please make sure that you are using DaVinci Resolve Version 17.4.7 or later.

Step 2. Setup the "Color science" option to "DaVinci YRGB Color Managed" and select "ARRI LogC4" for the "Input color space".



11. Contact

In case you have questions or recommendations, please contact the Digital Workflow Solutions group within ARRI via email: digitalworkflow@arri.de