

How to Create an ALF4 Look File

ALEXA 35

TECHNICAL NOTE

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Version History

Version	Author / Editor	Change Note
2022-02-10	Florian Martin	Version 1.0
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1. Introduction

This document is designed to help you to create a custom ALF4 look file to be used within the ALEXA 35 camera.

2. The new ARRI Look File ALF4

With the introduction of the ALEXA 35 camera in 2022, ARRI also introduced its new look file ALF4.

While the previous ARRI look files combine creative intent and a dedicated target color space conversion (aka “video rendering”), the new look files for the ALEXA 35 camera contain only the creative intent, without a conversion into a target color space. The new ALF4 look files are “Log to Log”, providing much greater flexibility in several areas (please also have a look at the diagrams in the next section):

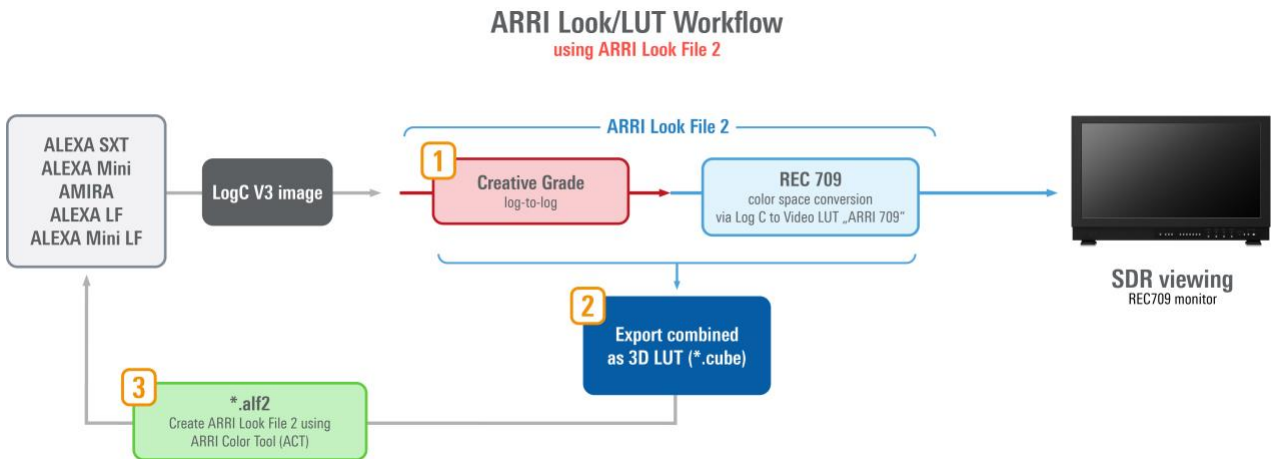
- In the camera a look can be chosen, and separately a transform into a target color space (like Rec 709 or Rec 2020) for the different SDI outputs. This means that the same look can be shown on one SDI output in SDR, and on another in HDR. This is a new, very useful and unique feature of the ALEXA 35 camera.
- During color grading in post, it is now much easier to use the look file stored in metadata as a starting point. Colorists can apply that look for multiple deliverables and different target color spaces (such as P3 or Rec 2100) with the click of a button.

Note: ALF-1 look files are used in ALEXA Classic and ALEXA XT. ALF-2 look files are used in AMIRA, ALEXA Mini, ALEXA SXT, ALEXA LF and ALEXA Mini LF. ALF4 files are used in the ALEXA 35 camera.

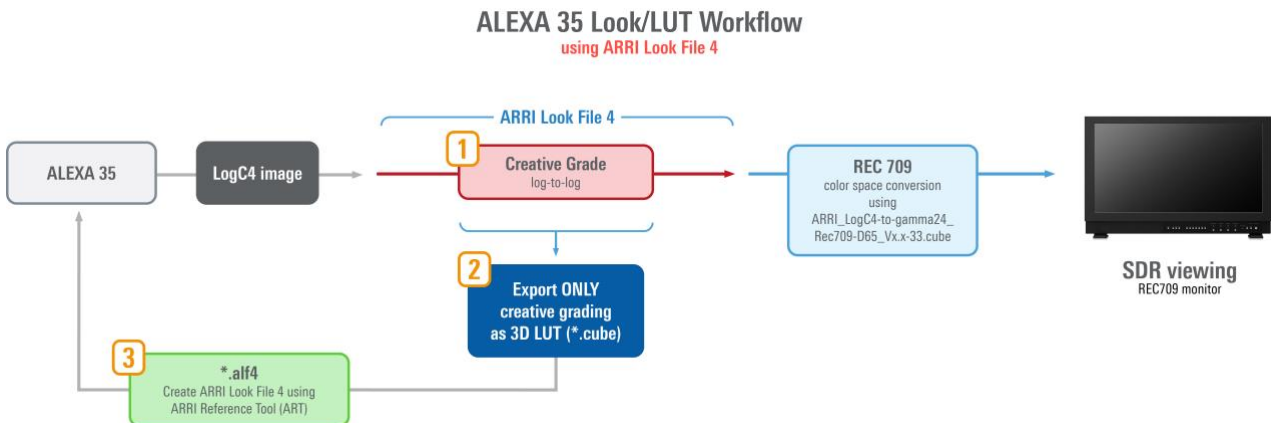
3. Differences between ALF-2 and ALF4

As mentioned above, an ALF-2 look file always incorporates the creative intent and a video rendering to a given color space. The new ALF4 look file on the other hand only incorporates the creative intent as a “Log to Log” transform and therefore can be used for multiple target color spaces.

The diagram below demonstrates the necessary steps to create an ALF-2 look file to be used with an ARRI ALEXA SXT, ALEXA Mini, AMIRA; ALEXA LF or ALEXA Mini LF:



The diagram below demonstrates the necessary steps to create a ALF4 look file for the ALEXA 35 camera. We will show this workflow inside DaVinci Resolve Studio in the next section:

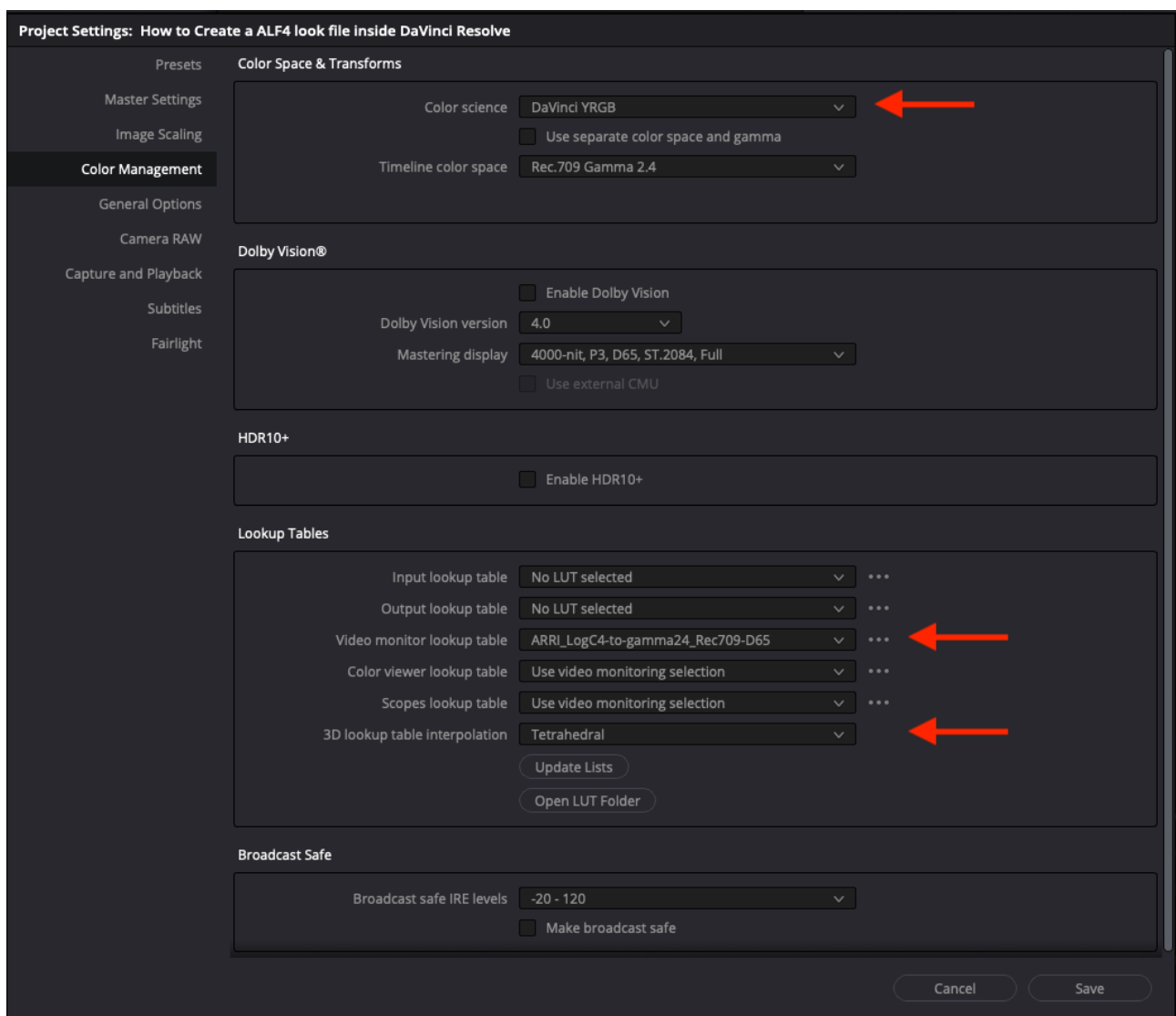


4. Workflow for creating an ALF4 look file inside DaVinci Resolve Studio

Step 1 Project Setup

- Please open a new project inside DaVinci Resolve Studio.
- Open up the “Project Settings” and go to the “Color Management” page and set the “Color science”, “Video monitor lookup table” and “3D lookup table interpolation” according to the screen shot below. (Resolve Version 17.4.3 was used for all screen shots.) We assume you are creating an ALF4 look file using a Rec 709 monitor on the SDI out of DaVinci Resolve Studio.

Note: By setting your video rendering as the “Video monitor lookup table” you will be able to see this on our SDI monitor but it will not be incorporated once you export your grading.

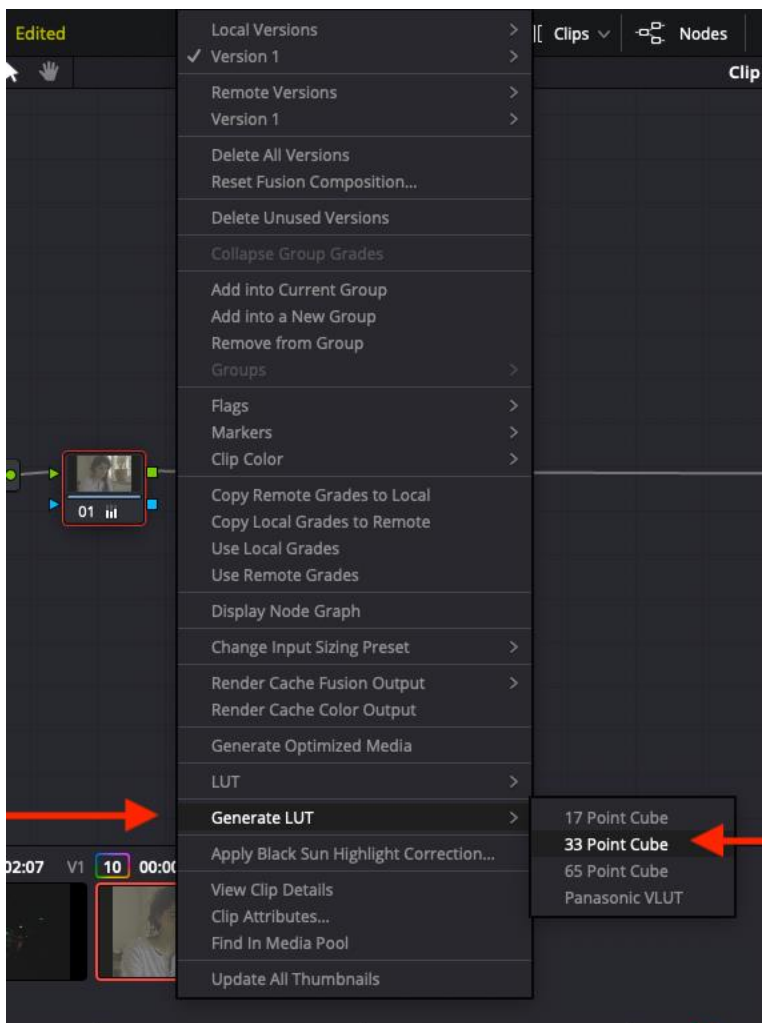


Step 1 Grade “Creative Intent”

- a. Load your footage into a timeline and
- b. Grade your desired custom look using all tools except spatial tools, since they can not be incorporated inside a 3D LUT (spatial tools are shapes, blurs, denoise, grain,...).

Step 2 Export a 3D LUT

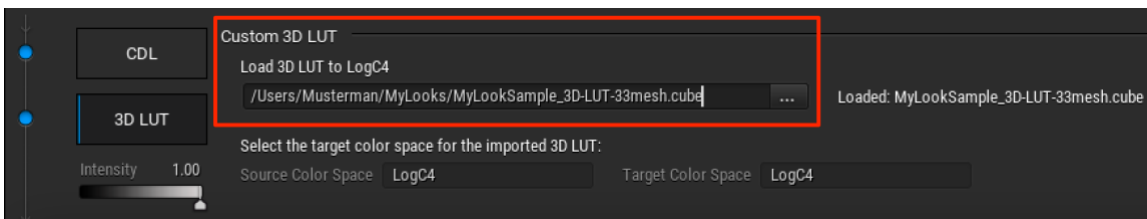
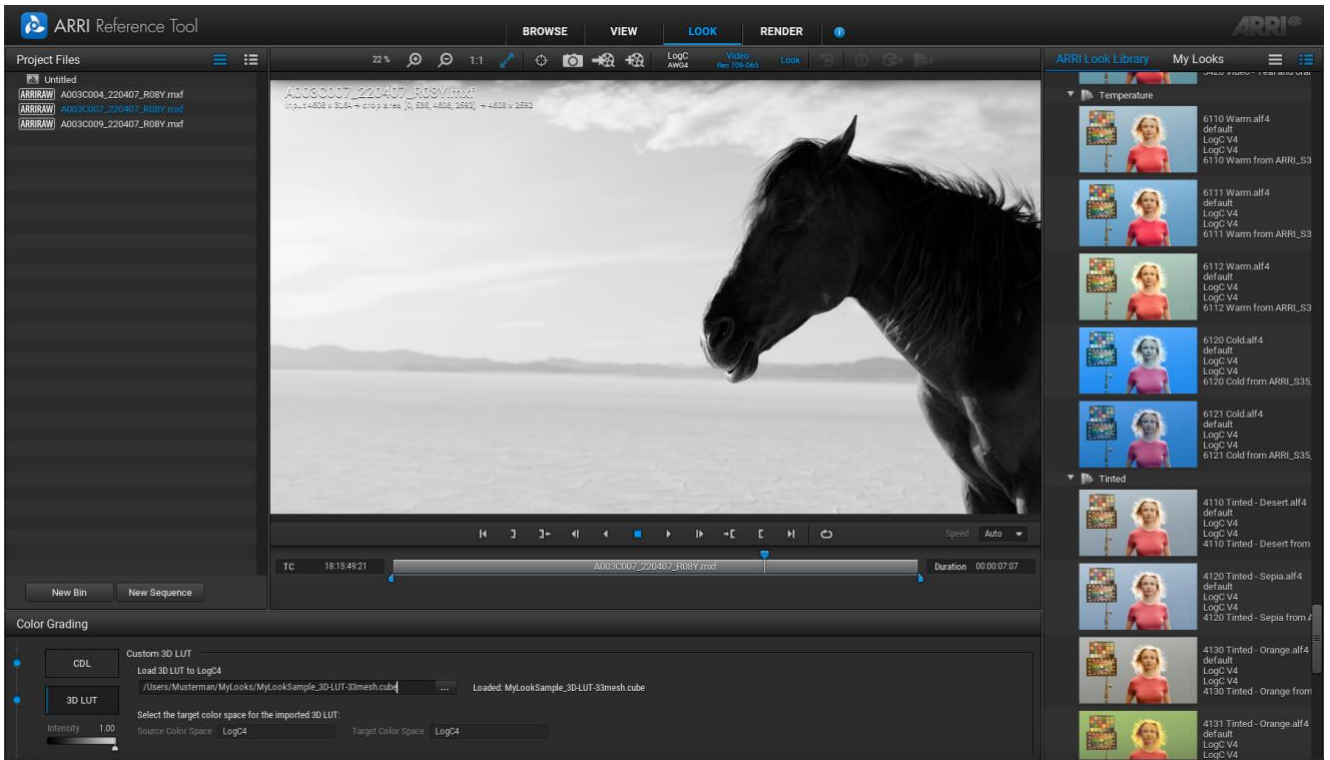
- a. Right click on the clip in the thumbnail timeline you wish to export and choose “Generate LUT” and “33 Point Cube”.



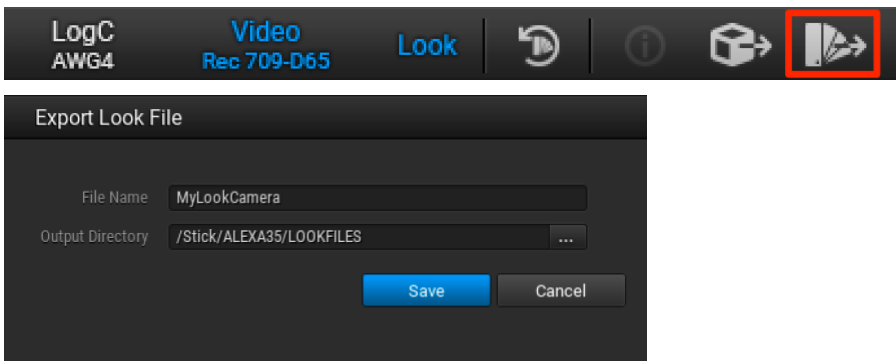
- b. Name your 3D LUT.

Step 3 Convert the 3D LUT file into a ALF4 file using the ARRI Reference Tool (ART) Software

- a. Load the 3D LUT you saved in the previous step into ART.



- b. Save a ALF4 look file by using the menu ...



Step 4 Load your custom ALF4 look file into the ALEXA 35 camera

- a. Place the ALF4 look file on a USB stick you formatted inside the camera.
- b. Save the look file on your USB stick //ALEXA35/LOOKFILES/
- c. Load and select look file in camera
- d. The selected look will be saved in the file header of each captured file

5. Contact

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