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LUT Naming Convention

LogC4 and LogC3

GUIDELINE

Version History

Version	Author	Change Note
2021-04-29	Simon Duschl	Update Namings & LUT Generator
2021-05-07	Florian Martin	Updated Namings
2022-08-25	Christian Grafwallner	Updated Namings
2022-09-15	Simon Duschl	Updated <tags>
2023-03-27	Simon Duschl	DRT and 3D-LUTs in ALEXA 35
2024-11-22	Simon Duschl	Minor changes

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Introduction

This Document shall give a overview for future Look Up Table (LUT) namings for different purposes.

When working with an ARRI Look File 4 with ARRI Color Management (*.alf4) the DRT (Display Render Transform) is fixed to our official DRTs/3D-LUTs, which are also available in our [ARRI LogC4 LUT Package](#). The user can select between four different DRTs for the SDI outputs.

The following table shows the naming of our in-camera DRT and its corresponding 3D-LUT from our [ARRI LogC4 LUT Package](#):

Naming in ARRI LogC4 LUT Package	Naming in ALEXA 35
ARRI_LogC4-to-Gamma24_Rec709-D65_v1	REC 709 (SDR)
ARRI_LogC4-to-Gamma24_Rec2020-D65_v1	REC 2020 (SDR)
ARRI_LogC4-to-St2084_1K_Rec2100-D65_DW100_v1	REC 2100 / PQ (HDR)
ARRI_LogC4-to-HLG_1K_Rec2100-D65_DW100_v1	REC 2100 / HLG (HDR)

Please note: With the introduction of the ARRI Look File 4c with Custom Color Management (*.alf4c) it is now possible using Custom Display Render Transforms. The ALF4c now offers the capability to users for loading custom DRTs for SDR and HDR. You can find more information about ALF4 and ALF4c files on our website: <https://www.arri.com/en/learn-help/learn-help-camera-system/image-science/look-files>

1 ARRI LUT Package Naming Convention

For a better distinction and better understanding our conversion LUTs for different purposes in post-production our suggestion is to use the following naming convention for ARRI LUTs. Before starting your project, please check which LUT package (ARRI LogC4 or ARRI LogC3) you need for your project. Each LUT shall have at least 33 or 65 mesh points.

Please note: Original Camera Footage (OCF) in ARRIRAW of all our legacy camera models, such as ALEXA Mini LF, ALEXA Mini or ALEXA 65, can also be debayered into LogC4 by using our ARRI Image SDK. Please check your post-productin pipeline for a correct processing with the correct LUT.

Naming Convention <tags>:

<Creator> _ <LogCVersion> -to- <GammaValue> _ <PeakWhite> _ <TargetColorSpace> - <WhitePoint> _ <DiffuseWhiteForHDR> _ <VideoRenderingVersion> - <MeshPoints>

<Creator>	=	ARRI	= official ARRI Look-Up-Tables (LUTs)
<LogCVersion>	=	LogC4	= LogC Version 4 (used in ALEXA 35 and newer)
		LogC3	= LogC Version 3 (used in ALEXA Mini LF/LF/SXT/Mini and AMIRA)
<GammaValue>	=	2.4	= Rec709
		2.6	= P3
		HLG	= Hybrid Log Gamma
		St2084	= PQ
<PeakWhite>	=	1K	= 1000 Nits. (only for HLG or PQ)
		2K	= 2000 Nits (only for HLG or PQ)
		4K	= 4000 Nits (only for HLG or PQ)
<TargetColorSpace>	=	Rec709	= BT.709 Color Space
		P3	= P3 Color Space
		Rec2020-P3lim	= P3 limited Color Space within Rec. 2020
		Rec2020	= Rec. 2020 Color Space
<WhitePoint>	=	D60	= 6000K White Point
		D65	= 6500K White Point
		DCI	= 6300K White Point
<DiffuseWhiteForHDR>	=	no value	= not present for SDR
		DW100	= Diffuse White 100 for HDR
		DW200	= Diffuse White 200 for HDR
<VideoRenderingVersion>=		beta09	= preview beta 0.9
		V1	= official released version 1.0
		V2	= future release version 2.0 (newer than version 1.0)
<MeshPoints>	=	17	= 17 Mesh points
		33	= 33 Mesh points
		65	= 65 Mesh points

1.1 LogC4

The 3D LUTs for ARRI LogC4 can be used for Original Camera Footage from:

- ALEXA 35
- ALEXA 265
- All legacy camera models, if ARRIRAW is being debayered into ARRI LogC4

1.1.1 LogC4 version 1.0 for Standard Dynamic Range (SDR)

- ARRI_LogC4-to-Gamma24_Rec709-D65_v1-33.cube
- ARRI_LogC4-to-Gamma24_Rec709-D65_v1-65.cube
- ARRI_LogC4-to-Gamma24_Rec2020-D65_v1-33.cube
- ARRI_LogC4-to-Gamma24_Rec2020-D65_v1-65.cube
- ARRI_LogC4-to-Gamma26_P3-D65_v1-33.cube
- ARRI_LogC4-to-Gamma26_P3-D65_v1-65.cube
- ARRI_LogC4-to-Gamma26_P3-DCI_v1-33.cube

1.1.2 LogC4 version 1.0 for High Dynamic Range (HDR)

- ARRI_LogC4-to-HLG_1K_Rec2100-D65_DW100_v1_33.cube
- ARRI_LogC4-to-HLG_1K_Rec2100-D65_DW100_v1_65.cube
- ARRI_LogC4-to-HLG_1K_Rec2100-P3lim-D65_DW100_v1_33.cube
- ARRI_LogC4-to-HLG_1K_Rec2100-P3lim-D65_DW100_v1_65.cube
- ARRI_LogC4-to-HLG-1K_P3-D65_DW100_v1-33.cube
- ARRI_LogC4-to-HLG-1K_P3-D65_DW100_v1-65.cube
- ARRI_LogC4-to-St2084_1K_Rec2100-D65_DW100_v1_33.cube
- ARRI_LogC4-to-St2084_1K_Rec2100-D65_DW100_v1_65.cube
- ARRI_LogC4-to-St2084_1K_Rec2100-P3lim-D65_DW100_v1_33.cube
- ARRI_LogC4-to-St2084_1K_Rec2100-P3lim-D65_DW100_v1_65.cube
- ARRI_LogC4-to-St2084-1K_P3-D65_DW100_v1-33.cube
- ARRI_LogC4-to-St2084-1K_P3-D65_DW100_v1-65.cube

1.2 LogC3

The 3D LUTs for LogC3 can be used for Original Camera Footage from:

- ALEXA Mini LF
- ALEXA LF
- ALEXA SXT
- ALEXA Mini
- ALEXA 65
- AMIRA
- ALEXA XT
- ALEXA Classic

1.2.1 LogC3 version 1.0 for Standard Dynamic Range (SDR)

- ARRI_LogC3-to-Gamma24_Rec709_D65-Classic_33.cube
- ARRI_LogC3-to-Gamma24_Rec709_D65-v1_33.cube
- ARRI_LogC3-to-Gamma24_Rec2020_D65-v1_33.cube
- ARRI_LogC3-to-Gamma26_P3_D60-v1_33.cube
- ARRI_LogC3-to-Gamma26_P3_D65-v1_33.cube
- ARRI_LogC3-to-Gamma26_P3_DCI-v1_33.cube

1.2.2 LogC3 version 1.0 for High Dynamic Range (HDR)

- ARRI_LogC3-to-HLG_1K_P3-D65_DW100_v2_33.cube
- ARRI_LogC3-to-HLG_1K_P3-D65_DW100_v2_65.cube
- ARRI_LogC3-to-HLG_1K_P3-D65_DW200_v2_33.cube
- ARRI_LogC3-to-HLG_1K_P3-D65_DW200_v2_65.cube
- ARRI_LogC3-to-HLG_1K_Rec2100-D65_DW100_v1_33.cube
- ARRI_LogC3-to-HLG_1K_Rec2100-D65_DW100_v2_33.cube
- ARRI_LogC3-to-HLG_1K_Rec2100-D65_DW100_v2_65.cube
- ARRI_LogC3-to-HLG_1K_Rec2100-D65_DW200_v1_33.cube
- ARRI_LogC3-to-HLG_1K_Rec2100-D65_DW200_v2_33.cube
- ARRI_LogC3-to-HLG_1K_Rec2100-D65_DW200_v2_65.cube
- ARRI_LogC3-to-St2084_1K_P3-D65_DW100_v2_33.cube
- ARRI_LogC3-to-St2084_1K_P3-D65_DW100_v2_65.cube
- ARRI_LogC3-to-St2084_1K_P3-D65_DW200_v2_33.cube
- ARRI_LogC3-to-St2084_1K_P3-D65_DW200_v2_65.cube
- ARRI_LogC3-to-St2084_1K_Rec2100-D65_DW100_v1_33.cube
- ARRI_LogC3-to-St2084_1K_Rec2100-D65_DW100_v2_33.cube
- ARRI_LogC3-to-St2084_1K_Rec2100-D65_DW100_v2_65.cube
- ARRI_LogC3-to-St2084_1K_Rec2100-D65_DW200_v1_33.cube
- ARRI_LogC3-to-St2084_1K_Rec2100-D65_DW200_v2_33.cube
- ARRI_LogC3-to-St2084_1K_Rec2100-D65_DW200_v2_65.cube
- ARRI_LogC3-to-St2084_2K_P3-D65_DW100_v2_33.cube
- ARRI_LogC3-to-St2084_2K_P3-D65_DW100_v2_65.cube
- ARRI_LogC3-to-St2084_2K_P3-D65_DW200_v2_33.cube
- ARRI_LogC3-to-St2084_2K_P3-D65_DW200_v2_65.cube
- ARRI_LogC3-to-St2084_2K_Rec2100-D65_DW100_v1_33.cube
- ARRI_LogC3-to-St2084_2K_Rec2100-D65_DW100_v2_33.cube
- ARRI_LogC3-to-St2084_2K_Rec2100-D65_DW100_v2_65.cube
- ARRI_LogC3-to-St2084_2K_Rec2100-D65_DW200_v1_33.cube
- ARRI_LogC3-to-St2084_2K_Rec2100-D65_DW200_v2_33.cube
- ARRI_LogC3-to-St2084_2K_Rec2100-D65_DW200_v2_65.cube
- ARRI_LogC3-to-St2084_4K_P3-D65_DW100_v2_33.cube
- ARRI_LogC3-to-St2084_4K_P3-D65_DW100_v2_65.cube
- ARRI_LogC3-to-St2084_4K_P3-D65_DW200_v2_33.cube

- ARRI_LogC3-to-St2084_4K_P3-D65_DW200_v2_65.cube
- ARRI_LogC3-to-St2084_4K_Rec2100-D65_DW100_v1_33.cube
- ARRI_LogC3-to-St2084_4K_Rec2100-D65_DW100_v2_33.cube
- ARRI_LogC3-to-St2084_4K_Rec2100-D65_DW100_v2_65.cube
- ARRI_LogC3-to-St2084_4K_Rec2100-D65_DW200_v1_33.cube
- ARRI_LogC3-to-St2084_4K_Rec2100-D65_DW200_v2_33.cube
- ARRI_LogC3-to-St2084_4K_Rec2100-D65_DW200_v2_65.cube
- ARRI_LogC3-to-St2084_108_P3-D65_DW34_v2_33.cube
- ARRI_LogC3-to-St2084_108_P3-D65_DW34_v2_65.cube

2 Downloads

You will find our official LUT packages online on our website.

2.1 LogC4

You can download the [ARRI LogC4 LUT Package here](#).

2.2 LogC3

The LogC3 LUTs can be configured by using our ARRI LUT Generator on our website:

<https://www.arri.com/en/learn-help/learn-help-camera-system/tools/lut-generator>

In addition, you can download the [ARRI LogC3 LUT Package here](#).

3 Contact

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