



ALEXA SXT / 65 / SXT W / LF
AMIRA & Mini / LF
ARRI META Extract 4.2.0.0 Beta (CMD)

RELEASE NOTES

Date: 3 August 2020

Table of Content

1 Introduction 3

2 System Requirements 3

3 Supported Input Formats 3

4 Feature Overview and Bug Fixes 4

 4.1 New Release 4

 4.2 Past Changes 4

5 Known Issues 7

6 Questions and Contact 7

1 Introduction

ARRI META Extract (AME) 4.1.0 is a utility to retrieve the static and dynamic camera metadata from ALEXA Mini LF SUP 6.0, ALEXA LF SUP 2.0, ALEXA SXT SUP 2.0, ALEXA XT SUP 11.0, ALEXA 65 SUP 2.0, AMIRA SUP 5.0, and ALEXA Mini SUP 5.0.

2 System Requirements

Mac Systems:

- OS X 10.11
- OS X 10.12
- OS X 10.13
- OS X 10.14

PC Systems:

- 64 bit Windows 7
- 64 bit Windows 8
- 64 bit Windows 10

Linux Systems:

- 64 bit Ubuntu 14.04
- 64 bit Ubuntu 16.04
- 64 bit Ubuntu 18.04
- 64 bit CentOS 6
- 64 bit CentOS 7
- 64 bit SLES 11

3 Supported Input Formats

- ALEXA - QuickTime/ProRes
- ALEXA - MXF/DNxHD
- ALEXA LF, ALEXA & ALEXA 65 - ARRIRAW
- DPX files rendered with the ARRIRAW Converter 3.x higher
- AMIRA – QuickTime/ProRes
- ALEXA Mini - QuickTime/ProRes
- ALEXA Mini – MXF/ARRIRAW
- ALEXA LF - QuickTime/ProRes
- OpenEXR files rendered with the ARRIRAW Converter 3.x and higher
- ProRes files rendered with the ARRIRAW Converter 3.x and higher
- .arx Codex HDE (High Density Encoding) format
- ALEXA Mini LF – MXF/ARRIRAW
- ALEXA Mini LF – MXF/ProRes

4 Feature Overview and Bug Fixes

4.1 New Release

Version	Changes	Bug fixes
4.2	Extracting additional metadata for ALEXA Mini (LF) and AMIRA cameras (ColorOrder, Sharpness)	Several bug fixes

4.2 Past Changes

Version	Changes	Bug fixes
4.1	- Support of all new ALEXA Mini LF MXF/ARRIRAW recording formats: - ALEXA Mini LF Open Gate: 4.5K MXF/ARRIRAW - ALEXA Mini LF 16:9: UHD MXF/ARRIRAW - ALEXA Mini LF 2.39:1: 4.5K MXF/ARRIRAW - Support of all new ALEXA Mini LF MXF/ProRes recording formats: - ALEXA Mini LF Open Gate: 4.5K MXF/ProRes - ALEXA Mini LF 2.39:1: 4.5K MXF/ProRes - ALEXA Mini LF 16:9: UHD, 2K and HD MXF/ProRes	Several bug fixes
4.0	- Creation of 3D LUT formats with OpenColorIO (OCIO) No further Python dependencies. Supported 3DLUT Formats with OCIO: - Autodesk - Autodesk Lustre - Cinespace - FilmLight - Houdini - Iridas - Metadata extraction for CODEX HDE format (High Density Encoding) Checks HDE packed .arx data with CRC checksum. - Console output for metadata: The -q command can be used to extract metadata to the console. - New output format XMP: The -o command can be used to extract metadata in XMP.xml format in addition to the.csv format	Drop Frame Time Code. Automatically detection of Drop Frame TC and Non Drop Frame TC.
3.5.3	- Supporting of all ALEXA LF ARRIRAW recording formats - Supporting of all ALEXA LF ProRes recording formats	- AML: Apply clip target color space when there is no LUT format given - Fixed: Occasionally missing AML output for RAW/MXF - Fixed table header for --range option /

		single frame output																																																																																																
3.5.0	- Supporting of ARRI Look File 2 (ALF-2) for HDR (High Dynamic Range) color spaces Since ALEXA Mini SUP 5.0 the ALF-2 Look can be defined for SDR and HDR Look Target Color Spaces. Therefore, are two new HDR color spaces Rec-2100 PQ and Rec-2100 HLG available. - These new HDR Look target color spaces can be extracted and stored as HDR .aml ALF-2 Look file from MXF/ARRIRAW and ProRes recording formats. Command – l [--look] extract look file - Extracting 3D LUT from ARRI Look File 2 (ALF-2): The embedded ALF-2 look can be extracted as 3D LUT in several LUT formats and mesh points sizes of all ARRIRAW, MXF/ARRIRAW and ProRes recording formats.This feature is only for Mac and Windows AME 3.5 CMD version available when Python 3.5 is installed. In the CMD version the 3D LUT export can be defined be additional 4 LUT parameters --lutformat arg > NAME MESHPOINTS COLORSPACE WITHCDL Two command samples for 3D LUT extraction: --lutformat Iridas 33 REC-709 false --lutformat "Blackmagic HDLink Pro" 17 REC-2020 true (LUT format Name with space characters in quotes) <table><thead><tr><th>NAME</th><th>MESHPOINTS</th><th>COLORSPACE</th><th>WITHCDL</th></tr></thead><tbody><tr><td>Adobe After Effects</td><td>16 17 32 33 64 65</td><td>P3-D60</td><td>true</td></tr><tr><td>Apple Color</td><td>17 33</td><td>P3-D65</td><td>false</td></tr><tr><td>Assimilate Scratch</td><td>16 17 32 33</td><td>P3-DCI</td><td></td></tr><tr><td>Autodesk</td><td>16 17 32 33</td><td>REC-2020</td><td></td></tr><tr><td>Autodesk Lustre</td><td>17 33 65</td><td>REC-2100-HLG</td><td></td></tr><tr><td>Blackmagic HDLink Pro</td><td>16 17 32 33</td><td>REC-2100-PQ</td><td></td></tr><tr><td>CORTEX Dailies</td><td>17 33 65</td><td>REC-709</td><td></td></tr><tr><td>Canon</td><td>9 17 33 65</td><td></td><td></td></tr><tr><td>Cine-tal</td><td>16 17 32 33</td><td></td><td></td></tr><tr><td>Codex Digital</td><td>17</td><td></td><td></td></tr><tr><td>Colorfront</td><td>17 33 65</td><td></td><td></td></tr><tr><td>DFT Luther</td><td>17 33 65</td><td></td><td></td></tr><tr><td>DVS Clipster</td><td>17</td><td></td><td></td></tr><tr><td>DaVinci Resolve</td><td>33</td><td></td><td></td></tr><tr><td>Digital Vision Nucoda</td><td>17 33 65</td><td></td><td></td></tr><tr><td>Eveon Fusion</td><td>33</td><td></td><td></td></tr><tr><td>FilmLight</td><td>16 32 64</td><td></td><td></td></tr><tr><td>Flanders</td><td>17</td><td></td><td></td></tr><tr><td>Foundry Nuke</td><td>16 17 32 33 64 65</td><td></td><td></td></tr><tr><td>Iridas</td><td>16 17 32 33 64 65</td><td></td><td></td></tr><tr><td>Pandora</td><td>17 33</td><td></td><td></td></tr><tr><td>Pomfort Silverstack</td><td>17 33 65</td><td></td><td></td></tr><tr><td>Quantel</td><td>17</td><td></td><td></td></tr></tbody></table> - Extracting of camera roll & tilt info for Alexa Mini and Amira clips. For clips recorded with SUP 5.0 and higher the roll and tilt camera movement can be extracted as dynamic metadata. - CRC Checksum calculation for MXF/ARRIRAW: With command -c [--crc] the checksum verification for MXF/ARRIRAW files will be calculated during the metadata extraction as well. The CRC checksum is available only for clips recorded with ALEXA Mini SUP 4.1 and higher	NAME	MESHPOINTS	COLORSPACE	WITHCDL	Adobe After Effects	16 17 32 33 64 65	P3-D60	true	Apple Color	17 33	P3-D65	false	Assimilate Scratch	16 17 32 33	P3-DCI		Autodesk	16 17 32 33	REC-2020		Autodesk Lustre	17 33 65	REC-2100-HLG		Blackmagic HDLink Pro	16 17 32 33	REC-2100-PQ		CORTEX Dailies	17 33 65	REC-709		Canon	9 17 33 65			Cine-tal	16 17 32 33			Codex Digital	17			Colorfront	17 33 65			DFT Luther	17 33 65			DVS Clipster	17			DaVinci Resolve	33			Digital Vision Nucoda	17 33 65			Eveon Fusion	33			FilmLight	16 32 64			Flanders	17			Foundry Nuke	16 17 32 33 64 65			Iridas	16 17 32 33 64 65			Pandora	17 33			Pomfort Silverstack	17 33 65			Quantel	17			- Calculation of LDS T-Stop value when no lens serial number is available. - LDS Lag Value is set to 0 when LDS offset is corrected. - Last frame of clip gets correct LDS value from overplus when extracting an image range.
NAME	MESHPOINTS	COLORSPACE	WITHCDL																																																																																															
Adobe After Effects	16 17 32 33 64 65	P3-D60	true																																																																																															
Apple Color	17 33	P3-D65	false																																																																																															
Assimilate Scratch	16 17 32 33	P3-DCI																																																																																																
Autodesk	16 17 32 33	REC-2020																																																																																																
Autodesk Lustre	17 33 65	REC-2100-HLG																																																																																																
Blackmagic HDLink Pro	16 17 32 33	REC-2100-PQ																																																																																																
CORTEX Dailies	17 33 65	REC-709																																																																																																
Canon	9 17 33 65																																																																																																	
Cine-tal	16 17 32 33																																																																																																	
Codex Digital	17																																																																																																	
Colorfront	17 33 65																																																																																																	
DFT Luther	17 33 65																																																																																																	
DVS Clipster	17																																																																																																	
DaVinci Resolve	33																																																																																																	
Digital Vision Nucoda	17 33 65																																																																																																	
Eveon Fusion	33																																																																																																	
FilmLight	16 32 64																																																																																																	
Flanders	17																																																																																																	
Foundry Nuke	16 17 32 33 64 65																																																																																																	
Iridas	16 17 32 33 64 65																																																																																																	
Pandora	17 33																																																																																																	
Pomfort Silverstack	17 33 65																																																																																																	
Quantel	17																																																																																																	
3.4.0	- Support of new input file formats: - MXF/ARRIRAW files recorded with ALEXA Mini SUP 4.0 and higher - ProRes files rendered with ARRIRAW Converter 3.4 and higher - Open EXR files rendered with ARRIRAW Converter 3.4 and higher. OpenEXR files and ProRes clips rendered with ARC GUI or CMD version 3.4 containing the original ARRIRAW camera metadata information as well as ALF-2 Look information. - Extracting ARRI Look File 2 (ALF-2) The new ALF-2 Look file format (3D LUT with CDL grading values) can be extracted from ALEXA Mini ProRes and MXF/ARRIRAW files and AMIRA ProRes files as .aml look file. - Extracting of audio wave files from MXF/ARRIRAW clips with audio tracks - New metadata fields for ALEXA Mini files: - Recorder Type (CDI30) only for MXF/ARRIRAW clips - Active Image Left offset (IDI06-1)	Several bug fixes																																																																																																

	• Active Image Top offset (IDI06-2) • Active Image Width (IDI06-3) • Active Image Height (IDI06-4) • Full Image Width (IDI07-3) • Full Image Height (IDI07-4) • Lens Squeeze (ICI18) • Look Modified (ICI38-3) • Look Target Color Space (ICI34-10) • ND Filter Type (LDI07-1) • Frame Line File 1 (FLI03) • Frame Line Rectangle Frame Line 1A (FLI05) struct • Frame Line Rectangle Frame Line 1B (FLI06) struct • Frame Line Rectangle Frame Line 1C (FLI07) struct • New command option to select a frame range for extraction command -r a range of frames can be defined which should be extracted. > for first frame -r last > for last frame -r 5-17 > for selecting frame range 5 to 17	With -r first
3.3.1	• Extract metadata info from ALEXA Mini ProRes files • Extract metadata info from ALEXA 65 ARRIRAW files New metadata fields for ALEXA image data checksum: When CRC Check bottom is ticked the checksum will be verified during the metadata extraction. Image Data CRC = OK > A checksum is available (only in SUP 11 with ALEXA XT) and verification was successful. • Image Data Checksum (ICI42) • Image Data CRC (ICI43) • New metadata fields for ALEXA Frame Lines: In SUP 11 is it possible to store the metadata from up to 6 frame lines in the file header of ARRIRAW, QT and MXF ALEXA files. As frame line can be used the camera internal frame lines (ARRI 1.33 / ARRI 1.66/) or the frame line .xml files from the new ARRI Frame Line Composer 3. (AFLC 3) http://www.arri.com/camera/alexa/tools/alexa_frameline_composer/ One frame line xml from the AFLC 3 can keep up to three different frame line aspect ratios (Format A/B/C). When the xml file is loaded into the ALEXA camera as Frame Line 1 (FLI03) it creates Frame Line 1A/1B/1C and loaded as Frame Line 2 (FLI04) it creates Frame Line 2A/2B/2C. In the Frame Line Type (FLI05-1) the Frame Line 1A (FLI05) is tagged as "Master" Frame Line. • Version (FLI02) • Frame Line File 1 (FLI03) • Frame Line File 2 (FLI0A) • Frame Line Rectangle Frame Line 1A (FLI05) struct • Frame Line Rectangle Frame Line 1B (FLI06) struct • Frame Line Rectangle Frame Line 1C (FLI07) struct • Frame Line Rectangle Frame Line 2A (FLI08) struct • Frame Line Rectangle Frame Line 2B (FLI09) struct • Frame Line Rectangle Frame Line 2C (FLI20) struct Struct for every Frame Line rectangle: • Frame Line 1A Type (FLI05-1) struct for 1A/1B/1C/2A/2B/2C • Frame Line 1A Name (FLI05-2) struct for 1A/1B/1C/2A/2B/2C • Frame Line 1A Left (FLI05-3) struct for 1A/1B/1C/2A/2B/2C • Frame Line 1A Top (FLI05-4) struct for 1A/1B/1C/2A/2B/2C • Frame Line 1A Width (FLI05-5) struct for 1A/1B/1C/2A/2B/2C • Frame Line 1A Height (FLI05-6) struct for 1A/1B/1C/2A/2B/2C • New metadata fields for AMIRA UTC offset and DST (day light saving time): The	Several bug fixes

	camera System Image Time is UTC ± UTC offset (- 12:00h to +14:00h) + DST (+1:00h) • System Image Time Zone Offset (CDI09-1) • System Image Time Zone DST (CDI09-2) • System Image Time Zone Offset (CDI09-1) • System Image Time Zone DST (CDI09-2)	
--	---	--

5 Known Issues

- Extracting metadata values to the console with the -q command is not always consistent, sometimes displaying more metadata than requested.
- GUI and CMD Windows AME versions will not support checksum validation, is available only Mac OS and Linux.
- No ALF-2 Look Custom LUT name available for ARC 3.4.0 processed DPX and OpenEXR files.

6 Questions and Contact

If you have any questions about the application, please contact us via digitalworkflow@arri.de.