ALEXA LF / ALEXA SXT / ALEXA 65 / AMIRA /ALEXA Mini

ARRI META Extract 3.5.3 (GUI)

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1. Introduction

ARRI META Extract (AME) 3.5.3 is a utility to retrieve the static and dynamic camera metadata from 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 Recommendations

-   Mac OS X 10.10, 10.11 and 10.12
-   64 bit WIN 7, 8, and 10
-   Linux, Ubuntu 12.04, 14.04, CentOS 6, 7 and rhel5

3. Supported Input Formats

-   ALEXA - QuickTime/ProRes
-   ALEXA - MXF/DNxHD
-   ALEXA LF, ALEXA & ALEXA 65 - ARRIRAW
-   DPX files rendered with ARRIRAW Converter 3.x and higher
-   AMIRA – QuickTime/ProRes
-   ALEXA Mini - QuickTime/ProRes
-   ALEXA Mini – MXF/ARRIRAW
-   ALEXA LF - QuickTime/ProRes
-   Open EXR files rendered with ARRIRAW Converter 3.x and higher
-   ProRes files rendered with ARRIRAW Converter 3.x and higher

4. Feature Overview

·   **New AME 3.5.3 features**

·   **Supporting of all ALEXA LF ARRIRAW recording formats**

With ALEXA LF ARRI introduced three new ARRIRAW recording formats:
for LF Open Gate: 4.5K ARRIRAW
for LF 16:9:   UHD ARRIRAW
for LF 2.39:1 :   4.5K ARRIRAW

·   **Supporting of all ALEXA LF ProRes recording formats**

With ALEXA LF ARRI introduced new ProRes recording formats:
for LF Open Gate: 4.5K ProRes
for LF 16:9:   UHD, 2K and HD ProRes
for LF 2.39:1 :   4.5K ProRes

Bugfixes

·   AML: Apply clip target color space when there is no LUT format given
·   Fixed: Occasionally missing AML output for RAW/MXF

- **New AME 3.5 features**

- **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.

- **Extracting 3D LUT from ARRI Look File 2 (ALF-2**

The embedded ALF-2 look can be extracted as 3D LUT in .cube format with sizes of 33^3 mesh points for all ARRIRAW, MXF/ARRIRAW and ProRes recording formats.

This feature is only for Mac and Windows AME 3.5 GUI versions available.

- **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**:

When CRC Check bottom is selected 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.

Please see in *Image Content Information* column:

Image Data Checksum (ICI42) and *Image Data CRC* (ICI43).

Bugfixes

- 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.

- **New AME 3.4.5 features**

- **Support of new input file formats:**

  – ARRIRAW 16by9 3.2 files recorded with ALEXA SXT SUP 1.0.

- **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 SXT ARRIRAW and ProRes files as .aml look file.

- **New metadata fields for ALEXA Mini files.**

    – Noise Reduction Mode (NRI03) in SXT ARRIRAW clips
    – Noise Reduction Strength (NRI04) in SXT ARRIRAW clips
    – Noise Reduction applied (NRI05) in SXT ARRIRAW and ProRes clips

- **New AME 3.4 features**

- **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 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)
    – 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
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- **AME 3.3 Release**

- **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 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)

5. Known Issues

   – 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 & Contact

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