



ARRI Reference Tool 1.7.0 (GUI)

ALEXA 35 & monochrome / ALEXA 265 / ALEXA Mini LF

including

ALEXA LF / ALEXA Mini / SXT / 65 & AMIRA

RELEASE NOTES

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1 Introduction

ARRI Reference Tool replaces the ARRIRAW Converter, ARRI Meta Extract and ARRI Color Tool and is designed to support the processing of all ARRIRAW and ProRes recording formats of legacy and the next generation ALEXA cameras.

1.1 ARRI Reference Tool 1.7.0

The following features for manipulating ALEXA 35, ALEXA 265 and legacy footage are included in this release:

1.1.1 View Room

- Playback of ALEXA 35 ARRIRAW material in LogC4 using the new ARRI Image SDK version 7.0.
- Playback of legacy ARRIRAW material in LogC3 using the new ARRI Image SDK version 7.0.
- Playback of ALEXA 35 Apple ProRes material in LogC4.
- Playback of legacy Apple ProRes material in LogC3.
- Conversion of LogC4 to all SDR and HDR video color spaces using the new color management for the ALEXA 35.
- Conversion of LogC3 to all SDR and HDR video color spaces using the existing color management for legacy material.
- Conversion of ALEXA LF or ALEXA Mini LF ARRIRAW material to LogC4 for combining with ALEXA 35 footage
- Display ALEXA 35 camera metadata according to the ARRI MXF specification in RDD 54/55.
- Display legacy camera metadata according to the ARRI MXF specification in RDD 54/55.
- "Quick Render Clip" to all Apple ProRes codecs as MXF with Apple RDD 44 and the new ARRI RDD 55.
- "Save Viewer Snapshot" as single image in TIFF or JPEG format.
- Create and export user pixel mask xml file for ALEXA 35.
- Image processing to LogC3/4 of ARRIRAW material from monochrome sensors of the following camera models: ALEXA Mini LF (automatic selection); ALEXA 65 (manually selection); ALEXA XT (manually selection)
- Add Reveal Color Science support for all ALEXA and AMIRA cameras.
- Add user pixel mask support for ALEXA Mini , ALEXA 65 and AMIRA cameras.
- Show LDS metadata in a timeline
- A new debayer mode "ADA7 SW" with a more sophisticated debayer algorithm for LogC 4 and 3 has been added.
- Support of HDE compression in an ARRI Legacy MXF wrapper for ALEXA MINI LF / ALEXA MINI / AMIRA cameras.
- Support new lens metadata for Ensō Prime lenses and Ensō Vintage Elements.
- Support of ALEXA 265 ARRIRAW material with its metadata-encoded manual filter sliders.
- Support of ALEXA 35 monochrome ARRIRAW material.

1.1.2 Look Room

- Create ALF-4 look files (.alf4).
- Create ALF-2 look files (.aml).
- Extract 3dLuts to file (.cube).
- Apply and display embedded log-to-log looks from ALEXA 35 footage.
- Apply and display embedded log-to-video looks from legacy footage.
- Provide the new ARRI Look Library for ALEXA 35. (LogC4/.alf4).
- Provide the existing ARRI Look Library for legacy footage. (LogC3/.aml).
- Show LogC3 or LogC4 reference image "Helen and John", if no clip is selected.
- Revision of the menus for Look file export, 3D LUT export and display of look information
- Look Information with LUT Curve Diagram
- Full support for Custom Color Management Looks (create, export and extract from clips)

1.1.3 Render Room

- Render to LogC4/LogC3 with or without applied looks:
 - to Apple ProRes MXF file according to Apple RDD 44 and the new ARRI MXF specification RDD 55.
 - to TIFF image sequences.
- Render to AWG4/AWG3 or ACES Scene Linear formats as OpenEXR image sequence.
- Export clip metadata in a new JSON schema.
- Export of ARRIRAW material from monochrome sensors to Apple ProRes MXF LogC3/4.
- Extend json metadata schema with frameId and schema versioning
- fixed Open EXR Metadata
 - removed "Aperture" (because correct values are missing)
 - use "nominalFocalLength" in mm instead of "focalLength" in microns
 - use "decoatedPupilOffset" in mm instead of microns
 - use "sensorOverallDimensions" instead of "sensorDimensions"
 - use "sensorPhotositePitch" instead of "sensorPixelPitch"
 - use "cameraCCTSetting" instead of "cct"
 - use "cameraTintSetting" instead of "tint" as it now contains the real tint value instead of the cct value

The range of functionality will be consistently expanded in future releases.

2 Supported Operating System

Mac:

- macOS Universal (macOS10.15 and higher)

Windows:

- 64 bit Windows 10 & 11

3 Feature Overview and Bug Fixes

3.1 New Release

Version	1.7.0
Additions	Nothing
Changes	Nothing
Fixed	<ul style="list-style-type: none">[BUG-9265] Invalid value for lens scale raw encoder source after rendering
Removed	Nothing

3.2 Past Changes

Version	1.7.0.0-rc3
Additions	Nothing
Changes	Nothing
Fixed	<ul style="list-style-type: none">[IS-8434] MXF hde errors[BUG-9179] ART 1.7.0.0-rc2 - ART crash when rendering ALEXA 265 footage
Removed	Nothing

Version	1.7.0.0-rc2
Additions	<ul style="list-style-type: none">[IS-8309] Investigate in new vertical Lens squeeze factors lower than 1.0[IS-8324] Enable Reveal Color Management for ALEXA 35 monochrome[IS-8383] Integrate arri-mxf lib and new metadata[IS-8415] Integrate static ancillary device metadata to art
Changes	<ul style="list-style-type: none">[BUG-9161] Render ALEXA 265 files to ProRes forces error "Timeout waiting for cache"[BUG-8980] ALEXA265 - No Vertical desqueeze option in GUI[BUG-8722] Look Intensity applied differently in ART[BUG-8533] ND Filter Type shows just values instead of correct ND Filter Type values[BUG-8711] ARRIRAW MXF material has metadata displayed in the Finder incorrectly[IS-8081] Metadata for Scene Linear AWG4 and ACES in OpenEXR exports must be validated[IS-8166] Look file export use file path as file name[IS-8146] PIZ- and B44A-compression doesn't work for EXR rendering[IS-8399] ART crashes if rendering monochrome clips to exr[IS-8357] Rendered monochrome files cannot be viewed in ART[IS-8322] Alexa 65 classic render queue
Fixed	Nothing
Removed	Nothing

Version	1.7.0.0-rc1
Additions	<ul style="list-style-type: none">[IS-8255] Support Alexa 265
Changes	Nothing
Fixed	Nothing

Removed	Nothing
Version	1.6.0.0-rc1
Additions	Nothing
Changes	<ul style="list-style-type: none"> [IS-8072] Integrate arrimxf library 4.2.2 in ART
Fixed	<ul style="list-style-type: none"> [IS-8004] OpenExr metadata in ART [BUG-7874] CMT not applied correctly in Custom Color management when applying DRTs first [BUG-7877] Multiple crashes in Custom Color Management
Removed	Nothing
Version	1.5.0
Additions	Nothing
Changes	Nothing
Fixed	<ul style="list-style-type: none"> [BUG-7819] Intensity slider in ARRI Color Management without function
Removed	Nothing
Version	1.5.0.0-rc2
Additions	Nothing
Changes	Nothing
Fixed	<ul style="list-style-type: none"> [BUG-7732] ART Render from ProRes to openEXR not possible [IS-7759] Metadata adjustments in the OpenEXR
Removed	Nothing
Version	1.5.0.0-rc1
Additions	<ul style="list-style-type: none"> [IS-7860] ADA 7 SW selectable in Processing Setting for LogC3/4
Changes	<ul style="list-style-type: none"> [IS-7895] Update to Image SDK 8.2.0 release
Fixed	<ul style="list-style-type: none"> [IS-7793] ART 1.4.1 - ARRIRAWThumbnail & ARRIRAWPreview consuming and not releasing memory [BUG-7710] ART 1.4.1 Debayer mode ADA-7 HW is selected in ClipSettings panel for rendered Mxf/ProRes clips
Removed	Nothing
Version	1.4.1
Additions	Nothing
Changes	<ul style="list-style-type: none"> [BUG-7531] Custom Color Management identifier should be used in ART after recording clip with CCM Look
Fixed	<ul style="list-style-type: none"> [BUG-7389] Render ARRIRAW \(\ALEXA Classic\) to OpenEXR throws error "Target color space index was out of bounds" [BUG-7424] UPM "Import" crashes application [BUG-7427] Black image and wrong format when rendering OCF MXF/Apple ProRes to ProRes422 [BUG-7505] ART not writing custom color management identifier into alfc files [BUG-7532] ART displays error in viewer when switching look off and back on in CCM look with Rec 2020-D65 as target CS
Removed	Nothing

Version	1.4.0
Additions	Nothing
Changes	Nothing
Fixed	<ul style="list-style-type: none"> • [IS-7622] Metadata of rendered A35 ProRes Includes empty DRT LUT • [IS-7635] multiple crashes when rendering legacy footage to ProRes LogC • [BUG-7338] Can not extract ZIP file content of extracted ZIP file from Custom Color Management clip
Removed	Nothing
Version	1.4.0.0-rc6
Additions	Nothing
Changes	<ul style="list-style-type: none"> • [IS-6889] Create Gui List with ListItems that can display Tooltips for the Color Space Selection • [IS-7568] Update HDE Library to 5.2.0
Fixed	<ul style="list-style-type: none"> • [IS-7489] missing Lens Model metadata • [IS-7547] Can't view clip in render room after rendering openEXR • [IS-7559] Multiple problems when exporting LogC3 Luts with different color spaces as aml looks • [IS-7570] Pressing Enter cancels look CCM export • [IS-7580] Not possible to render the same clip with different processing in the same render queue • [IS-7584] Custom logC3 look is not applied after exporting it • [IS-7600] Look is still present in rendered ProRes Metadata after turning it off in RAW • [IS-7605] some issue rendering to LogC Prores • [IS-7612] Exported ccm luts should keep their lut filenames • [IS-7614] CMT get restored after resetting the Look and setting DRTs • [BUG-7246] ART 1.4.0.0-rc5 freezes when setting IN-Point
Removed	Nothing
Version	1.4.0.0-rc5
Additions	Nothing
Changes	<ul style="list-style-type: none"> • [IS-7473] Update File length limit text in info dialog for LUT load options • [IS-7475] Apply CMT on non-DRT cs • [IS-7487] Update message for missing CMT lut • [IS-7491] Limit LDS graphs to the in and out points • [IS-7537] Export Looks with CCM without CDL and original Meshpoints only • [IS-7555] re-enable CDL export for Looks with CCM
Fixed	<ul style="list-style-type: none"> • [IS-7483] 1.4.0.0-rc3 abnormal behavior when switching Custom DRT dropdown after wrong input value • [IS-7484] 1.4.0.0-rc3 - Intensity slider without function for ARRI Color Management • [IS-7516] Art 1.4.0.0-rc3 Thumbnail of Monochrome clip is red • [IS-7517] Render preflight option to create new file for clips with same name does not work anymore • [IS-7520] 3D Lut name is no longer displayed in look info • [IS-7521] Wrong formatting of Aspect ratio decimal in Metadata • [IS-7548] Json export is partly not schema valid • [BUG-6961] ARRI Color Management: Cannot select same Lut again after reset to embedded look • [BUG-7096] ART RC3 ARRIRAW files fail to import • [BUG-7149] ART can not load clips from PIA nightly SUP • [BUG-7160] Can't add DRT and export look in CCM when doing CDL first
Removed	Nothing
Version	1.4.0.0-rc4
Additions	<ul style="list-style-type: none"> • [IS-7314] Add color space tooltip to the sdr/hdr colorspaces in colorspace selector • [IS-7432] Welcome Dialog ART 1.4.0

	<ul style="list-style-type: none"> • [IS-7434] update art 1.4.0 -version-data.xml • [IS-7494] Support dynamic Exposure index in Clips
Changes	<ul style="list-style-type: none"> • [IS-7524] Replace "Design Data" with "Metadata" at the LUT export dialog
Fixed	<ul style="list-style-type: none"> • [IS-6633] Checksum in MetadataTab don't get updated during playback • [IS-7449] Wrong format display for 4K 16:9 HD • [IS-7461] A65 HDE \(.arx\) Finder Preview • [IS-7481] Render Target numbers dissappear when rendering starts • [IS-7492] Crash after removing a render target
Removed	Nothing

Version	1.4.0.0-rc3
Additions	<ul style="list-style-type: none"> • [IS-7342] Show the number of active Render Targets next to the queue elements
Changes	<ul style="list-style-type: none"> • [IS-7349] Image Processing Tab should reflect values from ProRes • [IS-7376] Image Processing Tab should not show default values for missing metadata from ProRes mxf and mov • [IS-7377] Mark optional values in the "Save Look File" dialog as such • [IS-7308] REVEAL Icon "small" not used in ART GUI
Fixed	<ul style="list-style-type: none"> • [IS-7241] Legacy V3 Header ProRes Files Mini LF, Mini do not use cropping metadata \(\showing full container instead\) • [IS-7253] LDS panel shows wrong values near infinity for focus distance • [IS-7272] MILA - Aspect Ratio of new Format 4.5K LF 1.89:1 is shown as 1.44:1 in ART • [IS-7423] ARRI Color Management: Cannot select same Lut again after reset to embedded look • [IS-7424] Reset to embedded look does not reset to CCM after switching to ACM • [IS-7425] ART crashes when loading HDE clip in 3.3K or 3K 1:1 • [IS-7426] Look button is still active after deselecting look
Removed	Nothing

Version	1.4.0.0-rc2
Additions	Nothing
Changes	<ul style="list-style-type: none"> • [IS-6003] Clean up lens limits metadata on metadata panel • [IS-6984] LDS metadata loading step 2 - own thread
Fixed	<ul style="list-style-type: none"> • [IS-7249] ART crashes sometimes if custom look is saved with ask to save look dialog when switching between look files • [IS-7261] wrong LogC naming of exported 3Dluts of converted footage • [IS-7279] ART 1.3.1.3 3D Lut names not fully readable • [IS-7313] Display Lut filename instead of the Lut identifier in look info dialog • [IS-7315] Exported ccm luts should keep their filenames • [IS-7316] My looks panel: Labels for ccm looks are missing • [IS-7338] ART 1.4.0.0-rc1: Paths to selected LUTs shall stay in the file locator text fields until the look is saved - • [IS-7339] Replace question mark icons with info icons in color grading panel • [IS-7368] ART 1.4.0.0-rc1: Look button is still active if reset to clip without embedded look • [IS-7374] ART 1.4.0.0-rc1: Default clip switches to LogC4 if ccm mode is selected • [IS-7372] ART 1.4.0.0-rc1: Cdl values are not updated in rendered ProRes clips • [IS-7375] ART 1.4.0.0-rc1: CCM look gets not applied if a new lut filepath is selected • [IS-7380] ART 1.4.0.0-rc1: Custom cmt is not exported if drt luts are selected before cmt lut • [IS-7385] Exported look includes unity_33.cube lut even if no cmt lut was selected • [IS-7389] Cannot do CDL when in Custom Color Management with no look applied • [IS-7404] truncate too long lut filename on look export
Removed	Nothing

Version	1.4.0.0-rc1
Additions	<ul style="list-style-type: none"> • [IS-7247] Export custom 3D LUT design data

	<ul style="list-style-type: none"> • [IS-7142] Extend Look Export of CCM Looks with Custom 3D LUT Design Data
Changes	<ul style="list-style-type: none"> • [IS-6846] Adapt Look Information Panel for CCM - Add missing values • [IS-7196] Refactor clipHasEmbeddedLook function • [IS-7244] Minor updates to the Ask To Save Look Dialog and Export Look Dialogs for Custom Color Management • [IS-7251] Update to Image SDK 8.1.0 release • [IS-7252] Integrate arrimxf library 4.1.7 in ART
Fixed	<ul style="list-style-type: none"> • [IS-6147] Exporting look to other location then my looks - look library is not updated correctly • [IS-6234] Saving to external drive sometimes causes all but the Look home to disappear from MyLooks FileSystem • [IS-6868] ART's Metadata panel shows some incorrect information for the original ARRIRAW Legacy MXF files - • [IS-6959] ART 1.3.0.0-rc3 Start Timecode of rendered openEXR from newer PIA sups is wrong in resolve • [IS-7116] ART 1.3.1.0-rc1 Mac Finder Preview of ARRIRAW content not previewing image • [IS-7191] ART 1.3.1.2 Custom CM: Export look button is active when only CMT is applied • [IS-7199] ART 1.3.1.2 Remove Look info from rendered mxf/prores if a custom look was applied • [IS-7200] ART 1.3.1.2 Look file is still selected when changing ccm mode but not applied in viewer • [IS-7215] ART LUT diagram shows curve even if no LUT is present • [IS-7220] Reset clip to ccm look updates viewer twice • [IS-7222] ART CCM: Cannot apply 3D Lut to LogC3/AWG3 clip • [IS-7224] Look export is disabled for custom ARRI Look • [IS-7225] Custom ccm look target color space used from previous look • [IS-7226] ART CCM: LUT Identifier not displayed for SDR DRT in look info panel • [IS-7227] ART's json dump creates invalid json files • [IS-7229] If drt color space is selected, the look is not activated. • [IS-7230] Sdk error after selecting target color space from embedded ccm look • [IS-7232] Custom 3D LUT Design Data will be "invalid" and ignored if no filename is set • [IS-7234] Export LUT is active but clip has no embedded LUT • [IS-7245] LogC3 Placeholder clip changes to LogC4 if video cs selector is clicked • [IS-7248] Ask to save ccm look does not display loaded design data and Look filename is not transferred • [IS-7250] ART stays on the DRT tab after switching to an ACM clip • [IS-7275] 1.3.1.3 with CCM - Pressing Look Button after loading Custom DRTs forces ERROR • [IS-7276] CCM ART often crashes when viewing new CCM color clips in look room • [IS-7307] CCM ART uses design data from embedded clip when a look file is selected
Removed	Nothing

Version	1.3.1.3
Additions	<ul style="list-style-type: none"> • [IS-6827] Custom Color Management - Custom 3D LUT Design Data extensions • [IS-6856] Display Source and Target Color Space in Look Library Preview for Looks with Custom Color Management • [IS-6948] Load CCM look from clip • [IS-7111] Look Export of CCM Looks
Changes	<ul style="list-style-type: none"> • [IS-6788] Show current 3D LUT DRT source in DRT tab for CCM • [IS-6972] Extend reset Look Button for CCM
Fixed	<ul style="list-style-type: none"> • [IS-6977] Selected Custom LUT doesn't get loaded sometimes • [IS-7009] Custom Look: DRT tab stays active when switching to clip with ARRI color management • [IS-7098] Custom Look is not applied for placeholder clips • [IS-7130] Clip with CCM look does not include lut3dDrtType in Custom 3D Lut Design Data • [IS-7131] Clips with CCM look include a not supported colorspace rec2020/d65/dci • [IS-7132] What should be set as data Key in Custom3DLutDesignData struct in CCM looks • [IS-7133] Selected video cs is not updated in the cs selector button and look is still enabled • [IS-7134] Deactivated look in ccm mode should switch to rec709 • [IS-7135] LogC Button is broken • [IS-7140] CS switches back to sdr CS selected if clip was changed • [IS-7141] Clips with big descriptive metadata sizes fail to load • [IS-7143] Load custom LUT error after changing target cs • [IS-7156] Clip with embedded ccm - Look export not possible bc wrong error msg pops up • [IS-7157] Exported ccm look name is cut • [IS-7160] ART crashes selecting a alexa mini if prores clip • [IS-7162] ART crashes if you click on cancel in Look export menu • [IS-7171] Change active colomanagement depending on the selected look file • [IS-7172] Loading ccm in color grading panel after reset -> second target color space is selected automatically • [IS-7174] Frame grab with embedded ccm look does not contain custom 3D LUT design data

	<ul style="list-style-type: none"> • [IS-7182] 1.3.1.2 - ART - LUT can't be saved when CDL parameters are not changed before • [IS-7187] ART 1.3.1.2 Look panel doesn't switch to myLooks after exporting a look • [IS-7188] ART 1.3.1.2 Look export from ARRI color management exports an .alf4c file • [IS-7189] ART 1.3.1.2 ARRI CM: Cannot switch default clip to LogC4 when CMT is applied • [IS-7190] ART 1.3.1.2 Custom CM: Clip switches to LogC when applying a CMT in CCM
Removed	Nothing
Version	1.3.1
Additions	Nothing
Changes	Nothing
Fixed	<ul style="list-style-type: none"> • [IS-7205] ART 1.3.1.0-rc3 Multi-select LogC conversion of mixed camera footage converts A35 clips to LogC3
Removed	Nothing
Version	1.3.1.0-rc3
Additions	Nothing
Changes	<ul style="list-style-type: none"> • [IS-7137] Update to Image SDK 8.0.1 • [IS-7146] Welcome Dialog ART 1.3.1
Fixed	<ul style="list-style-type: none"> • [IS-7095] ART 1.3.1.0-rc1 Multiple problems when reimporting REVEAL converted and rendered clips into the ART • [IS-7118] ART 1.3.1.0-rc1 Look files can be saved with unsupported characters • [IS-7147] ART 1.3.1.0-rc2 Cannot switch multiple clips to LogC anymore • [IS-7150] ART 1.3.1.0-rc2 Scene color encoding of converted and rendered clips with video cs burned in is still LogC3 • [IS-7152] ART 1.3.1.0-rc2 Circle of confusion 0.009 not shown • [IS-7175] ART 1.3.1.0-rc2 3D Luts exported as .zip are not always correct
Removed	Nothing
Version	1.3.1.2
Additions	<ul style="list-style-type: none"> • [IS-5967] Show Look Information Diagram • [IS-6784] Show image with custom color management 3D LUT DRT applied in viewer • [IS-6793] LDS metadata loading step 1 - analog to timeline • [IS-6847] Adapt Look Information Panel for CCM - adapt Diagram • [IS-6903] Add DRT LUT missing dialog for save look / export 3D-LUT
Changes	<ul style="list-style-type: none"> • [IS-6404] Implement new json output with frameId and schema versioning
Fixed	<ul style="list-style-type: none"> • [IS-6825] 1.3.0.0-rc2 Video color space selection dropdown doesn't work when loading logC3 clip with a look • [IS-6937] Multiple clip selection step backwards issue • [IS-6238] Fix file path formatting issues in FileSystem
Removed	Nothing
Version	1.3.1.0-rc2
Additions	Nothing
Changes	Nothing
Fixed	<ul style="list-style-type: none"> • [IS-7055] 1.3.0 - Playback of ALEXA 35 original camera Apple ProRes files is very slow • [IS-7082] ART 1.3.1.0-rc1 crashes sometimes happening when opening or creating new project • [IS-7092] ART 1.3.1.0-rc1 crashes when converting ALEXA classic footage to logC • [IS-7096] ART 1.3.1.0-rc1 No LogC3 colorspace in colorspace selector for placeholder clips

	<ul style="list-style-type: none"> • [IS-7104] 1.3.1.0-rc1 Can't convert the default clip to LogC3 anymore
Fixed	Nothing
Removed	Nothing

Version	1.3.1.1
Additions	<ul style="list-style-type: none"> • [IS-6946] Extend clip settings with CCM look states, cmt and cld
Changes	Nothing
Fixed	<ul style="list-style-type: none"> • [IS-6978] ART crashes when a Look File is selected and a custom DRT was active before
Removed	Nothing

	1.3.1.0-rc1
Additions	<ul style="list-style-type: none"> • [IS-7003] integrate Reveal Color Science Logo • [IS-6135] Create libzip conan package • [IS-6104] Create Zip File including all exported LUT files
Changes	<ul style="list-style-type: none"> • [IS-4918] Resolve Sample Target Path • [IS-6969] Update to Image SDK 8.x for ART 1.3.1 • [IS-7014] Add UPM offsets for all Cameras (except Alexa) without acquisition rect
Fixed	<ul style="list-style-type: none"> • [IS-5251] Opening from Mac-Finder with double-click - Project file selection doesn't match viewer • [IS-6912] ART 1.3.0.0-rc3 Wrong file name suggestions when saving looks • [IS-6958] ART 1.3.0.0-rc3 Start timecode of trimmed ProRes is wrong • [IS-6966] ART 1.3.0 Thumbnail for clips with '#' in filename can't be displayed • [IS-6976] ART 1.3.0 Clicking on an empty sequence crashes the ART • [IS-7057] ART 1.3.0.3 Files transcoded from ARRIRAW to AppleProRes are tagged as "Full Range" = Wrong
Removed	Nothing

Version	1.3.0.4
Additions	Nothing
Changes	<ul style="list-style-type: none"> • [IS-6794] Add Custom DRT - SDR / HDR to color space selection in viewer • [IS-6845] Adapt Look Information Panel for CCM - Update existing Infos • [IS-6860] Update DRT 3D LUT Info - [IS-6861] Save Look Dialog for Custom Color Management • [IS-6863] Ask To Save Look Dialog for Custom Color Management • [IS-6864] Info Dialog for Save Look Dialog for Custom Color Management • [IS-6913] Update CMT Info Text - [IS-6924] Update for Save Look Dialog • [IS-6960] Update to Image SDK 8.1.0-2
Fixed	<ul style="list-style-type: none"> • [IS-6858] ART 1.3.0.2 Save look dialog appears after logC3 clip was saved • [IS-6871] ART 1.3.0.0-rc2 Rendered video color space clips not disabled in look room when coming from render room • [IS-6898] Master: Adding a folder to project adds the parent folder • [IS-6936] Master - Look file is not applied if custom look was don't saved • [IS-6939] Master - Warning signs display error • [IS-6945] Master: Ask to save look is triggered if colorspace selector is clicked with look disabled
Removed	Nothing

Version	1.3.0.3
Additions	<ul style="list-style-type: none"> • [IS-6780] Add functionality to DRT tab for SDR/ HDR 3D LUT DRT

Changes	<ul style="list-style-type: none"> • [IS-6110] Enable flattening curves in LDS Graph • [IS-6696] Change hardcoded path delimiters "/" and "\" to boost::preferred_separator or use ifdefs • [IS-6814] Use YUV from SDK to render to ProRes • [IS-6817] Read YUV from ProRes and use the SDK to apply looks • [IS-6881] Update arriimagesdk to support CCM
Fixed	<ul style="list-style-type: none"> • [IS-6853] Build bug on Intel Mac • [IS-6855] ART 1.3.0.2 Color grading panel not shown when navigating with double click • [IS-6877] Master: Image is updated two times when changing the output size
Removed	Nothing

Version	1.3.0.0-rc3
Additions	<ul style="list-style-type: none"> • [IS-6645] Add metadata Circle of Confusion
Changes	<ul style="list-style-type: none"> • [IS-6459] Metadata change for Camera Software Name • [IS-6872] Update to Image SDK 7.1.2
Fixed	<ul style="list-style-type: none"> • [IS-6297] Strange effective focal length metadata in ALEXA MINI and Mini LF clips • [IS-6385] Incorrect Horizontal and Vertical Subsampling values in ProRes MXF files • [IS-6708] ART 1.3.0.0-rc1 Weird behavior of the "Ask to save look" dialog • [IS-6712] ART 1.3.0.0-rc1 CDL grading wheels and image processing sliders operate significantly slower than in the 1.2.0 ART on Mac • [IS-6748] Switch clips inside a sequence causes error • [IS-6753] Master: Reset button not working if 3D LUT loaded for LogC3 clips • [IS-6769] ART 1.2.0 and 1.3.0.0-rc2 Frame lines for a special clip not displayed • [IS-6783] ART-1.3.0.0-rc2 various look room bugs • [IS-6791] ART 1.2.0.1 Open project with custom Look -> "Don't save" is not applied • [IS-6804] ART 1.3.0.0-rc2 "Ask to save look" dialog appears after modifying and overwriting custom look • [IS-6805] ART-1.3.0.0-rc2 Loaded LUT info label is not precise enough • [IS-6809] ART-1.2.0 Timecode of non-integer project speeds wrongly displayed • [IS-6813] ART 1.3.0.0-rc2 File name is not suggested when saving a look • [IS-6815] ART 1.3.0.0-rc2 rendered MINI LF ProRes isn't disabled in render room and for color space and look selection • [IS-6842] invalid targetHeight in ARRIRAW preview
Removed	Nothing

Version	1.3.0.0-rc2
Additions	Nothing
Changes	<ul style="list-style-type: none"> • [IS-6363] Fix ImageSDK configuration problems before a new SDK (> 7.1.1) is released
Fixed	<ul style="list-style-type: none"> • [IS-5783] reset look does not refresh cdl params in color grading panel • [IS-6196] ART 1.1.1.0 rc-2 ANR1 intensity slider not working • [IS-6246] AMIRA and MINI .movs can be added to the render queue • [IS-6458] No matching SDK output capability when switching between logC3 to logC4 clip • [IS-6465] ART 1.2.0.1 crashes when importing a 3D Lut and trying to export it again • [IS-6467] ART-1.2.0.1 crashes when switching default logC3 clip with alf4 look back to logC3 • [IS-6469] ART 1.2.0.1 New project from look room with active clip crashes or freezes the ART • [IS-6475] ART 1.2.0.1 Look save confirmation overlays project save dialog but can't be clicked • [IS-6634] ART - 1.1.1.0-rc3 - only 1 of 3 frame lines shown in Metadata panel • [IS-6682] ART 1.1.1 Cannot render A35 ProRes to ProRes LogC on Mac

	<ul style="list-style-type: none"> • [IS-6687] ART 1.2.0 Cannot render ProRes to TIFF in LogC • [IS-6702] ART 1.2.0 Frame line panel overlays user pixel mask panel • [IS-6707] ART 1.3.0.0-rc1 colorspace of Mini LF ProRes can't be switched • [IS-6713] ART-1.3.0.0-rc1 CDL parameters are not reset when switching clips and not saving the look • [IS-6732] ART master Detail slider not working • [IS-6742] Selected sequence does not load the first clip • [IS-6750] Image Processing section shows controls on wrong position on startup • [IS-6751] 3D LUT of LogC3 clip, shows up on other LogC4 clip, when reset • [IS-6754] ART-1.3.0.0-rc2 Target color space selection in 3D LUT broken • [IS-6756] View Room switch between project icon and a clip - clip is not displayed
Removed	Nothing

Version	1.3.0.0-rc1
Additions	Nothing
Changes	Nothing
Fixed	[IS-6184] Quick Render preflight check dose not show write access errors [IS-6579] Superfluous comma in DM json sets
Removed	Nothing

Version	1.2.0.2
Additions	<ul style="list-style-type: none"> • [IS-6163] Integrate new Quick Look plugin into the build
Changes	Nothing
Fixed	<ul style="list-style-type: none"> • [IS-6180] Load Project in look room. Current clip is not updated correctly. • [IS-6204] Remove active LUT Button (trash icon) behaves weirdly in combination with color grading
Removed	Nothing

Version	1.2.0
Additions	Nothing
Changes	Nothing
Fixed	Nothing
Removed	Nothing

Version	1.2.0.0-rc5
Additions	Nothing
Changes	Nothing
Fixed	<ul style="list-style-type: none"> • [IS-6631] ART_1.2.0.0-rc4 "Unknown error for noiseReductionStrength • [IS-6635] ART - 1.2.0.0-rc4 - wrong field name for timeCode in rendered openEXR

	<ul style="list-style-type: none"> [IS-6636] Integrate HDE library 4.0.3 in ART
Removed	Nothing
Version	1.2.0.0-rc4
Additions	Nothing
Changes	Nothing
Fixed	<ul style="list-style-type: none"> [IS-6502] ART-1.2.0.0-rc3 Error in viewer when applying CDL after applying and resetting a look [IS-6503] ART-1.1.0.2-rc3 LUT export dialog from look-overhaul is already active but target color space has no function [IS-6501] ART-1.2.0.0-rc3 CDL isn't applied to default clip after freshly starting the ART
Removed	Nothing
Version	1.2.0.0-rc3
Additions	<ul style="list-style-type: none"> [IS-6434] Deactivate Clips in the Look Room for Monochrome Processing
Changes	<ul style="list-style-type: none"> [IS-6315] Integrate arrimxf library 4.1.1 in ART [IS-6391] monochrome Support clean up
Fixed	<ul style="list-style-type: none"> [IS-6435] Color picker doesn't work correctly when applied to a clip that is monochrome [IS-6472] B&W switching to color mode [IS-6447] ART-1.2.0.0-rc2 LogC is not correctly preserved when switching clips ,Bug [IS-6448] ART-1.2.0.0-rc2 Cannot render clips with audio to TIFF and openEXR simultaneously,Bug [IS-6473] ART-1.2.0.0-rc3 exception thrown at ART shutdown if BW clip is shown in look room,Bug
Removed	Nothing
Version	1.2.0.0-rc2
Additions	<ul style="list-style-type: none"> [IS-6162] Create Universal Binary for MAC including x86_64 and arm64 [IS-6329] render monochrome to ProRes [IS-6377] monochrome Support for LogC only
Changes	<ul style="list-style-type: none"> [IS-6106] Re-Activate function for processing of Monochrome ARRIRAW footage
Fixed	<ul style="list-style-type: none"> [IS-6264] Render TIFF colorspace dropdown has no effect [IS-6348] ART 1.2.0.0-rc1 Metadata render of official A35 clips is slow or freezes the ART [IS-6351] Detail is inactive for all legacy ARRIRAW clips [IS-6364] wrong exposure Index for cameras before Alexa 35 [IS-6370] unable to render anything else after OpenEXR was selected [IS-6378] copy "Location & Naming" function overrides every render settings
Removed	Nothing
Version	1.2.0.0-rc1

Additions	Nothing
Changes	<ul style="list-style-type: none"> [IS-6101] Update to Image SDK 7.1.0 for monochrome support
Fixed	<ul style="list-style-type: none"> [IS-6263] Exception thrown on old file in view room [IS-6242] ART 1.1.1.0-rc3 Rendering metadata of multiple clips at once produces only one output file
Removed	Nothing
Version	1.1.1.
Additions	Nothing
Changes	Nothing
Fixed	Nothing
Removed	Nothing
Version	1.1.1.0-rc3
Additions	Nothing
Changes	<ul style="list-style-type: none"> [IS-6049] Integrate arrimxf library 4.0.46 in ART
Fixed	<ul style="list-style-type: none"> [IS-6019] Public MXF ProRes Sample clip not supported [IS-59499] ART 1.1.0.0 indicates wrong look
Removed	Nothing
Version	1.1.1.0-rc2
Additions	Nothing
Changes	Nothing
Fixed	<ul style="list-style-type: none"> [IS-5997] ART deadlock, if the Look room is selected directly after launching [IS-5941] ART crash in look room exporting a look [IS-6042] Wrong default sharpness for ALEXA Mini LF
Removed	Nothing
Version	1.1.1.0-rc1
Additions	Nothing
Changes	Nothing
Fixed	<ul style="list-style-type: none"> [IS-5905] New Project crashes on Mac [IS-5910] Subfolders are not added if a folder is moved to Project File [IS-5912] Crashes on windows when loading specific clip [IS-5770] ALEXA LF Footage can't be converted to LogC4
Removed	Nothing
Version	1.1.0.0

Additions	<ul style="list-style-type: none"> [IS-5131] Add audio data to rendered MXF/ProRes if available [IS-5800] Enable UDP correction in file rendering
Changes	<ul style="list-style-type: none"> [IS-5826] Swap Tilt & Roll in View Metadata [IS-4176] Update and test consumers of RawImageMetadata and V3 Header [IS-5276] review and improve result feedback to user after 3dLut export [IS-5091] MXF/ProRes rendered metadata update
Fixed	<ul style="list-style-type: none"> [IS-5657] Correct color order for legacy ALEXA 65 footage [IS-5709] Width calculation of Gui::Font is misleading [IS-5250] Bottom Panel edges frame cut off [IS-5601] Wrong state in Renderroom after aborting rendering [IS-5860] Wrong state of the look button at the placeholder images/can't change Video Codec on the LogC3 placeholder image [IS-5790] Don't crash when loading invalid input files named .ari [IS-5250] Bottom Panel edges frame cut off [IS-5656] Loading the "My Looks" tab in ART, hangs on (old) Mac [IS-5672] Bug 122999 - Random crashes in Look Room [IS-5861] Frameline panel is not updated after adding new input
Removed	Nothing
Version	1.0.0.5
Additions	<ul style="list-style-type: none"> [IS-5791] Show placeholder image, if no clip was selected [IS-5706] ART should be able to create and load a UPM xml file [IS-5708] ART should be able to apply an UPM and display the corrected image [IS-5811] Delete Presets for Render Target Tabs
Changes	Nothing
Fixed	<ul style="list-style-type: none"> [IS-5812] Render Target Filename is not reset when applying settings [IS-5687] Error when viewing overridden Clip [IS-5816] ART version 1.0.0.3 crash when load ProRes render clips in ART viewer [IS-5553] ART crashes opening D21 footage [IS-5771] Detail and Sharpness are inactive for all ARRIRAW clips [IS-5760] Crash when Noise Reduction Mode ANR 1 is set in camera [IS-5819] ART version 1.0.0.2 cannot load ProRes .mov clips in ART viewer [IS-5822] Problem decoding ProRes files with VideoToolbox [IS-5828] ART 1.0.0.3 - cannot open *.ARI stills from ALEXA LF [IS-5829] ART Version 1.0.0.4 cannot render to ProRes on Mac [IS-5792] reset button on ADA-5 fine tuning settings doesn't work
Removed	Nothing
Version	1.0.0.4
Additions	<ul style="list-style-type: none"> [IS-5002] Presets for Render Target Tabs [IS-5706] ART is able to create and load a user dead pixel mask xml file [IS-5708] ART is able to apply an user dead pixel mask and display the corrected imag
Changes	<ul style="list-style-type: none"> [IS-5750] Hide preferences for Monochrome Sensor Type
Fixed	<ul style="list-style-type: none"> [IS-5767] ART 1.0.0.0-hotfix - METADATA "Optic" sounds like Filser-English [IS-5766] ART 1.0.0.0-hotfix - METADATA notation of resolution inconsistent to camera

	<ul style="list-style-type: none"> • [IS-5765] ART 1.0.0.0-hotfix - METADATA all but "All" (sic!): Scrollbar suggests more information to come • [IS-5796] ART crashes if decoder settings are copied • [IS-5687] View rerendered Clip isn't possible • [IS-5762] Failed to create viewer snapshot because of wrong jpeg lib version • [IS-5660] Outpoint cannot be edited / Inpoint can be edited in Render Room • [IS 5682] Unable to scroll by mouse at the look room • [IS 5822] Problem with decoding ProRes files with VideoToolbox • [IS-5816] ART crashes when loading ProRes render clips in ART viewer • [IS-5825] COLOR GRADING in ProRes crashes ART
Removed	Nothing
Version	1.0.0.3
Additions	<ul style="list-style-type: none"> • [IS-4717] ProRes Encoder using AVFoundation lib • [IS-4718] ProRes Encoder using AVFoundation lib • [IS-5751] Look Library preview image in LogC4 "Helen & John" • [IS-5752] Look Library preview image in LogC3 "Helen & John" • [IS-5649] implement some mechanism that allows signalling "interested parties" when render queue has started or stopped • [IS-5781] implement (sub?)class of GlyphIconButton that allows changing the icon depending on selection state
Changes	<ul style="list-style-type: none"> • [IS-5749] Change metadata display for Texture Gen1 and Gen 2.
Fixed	<ul style="list-style-type: none"> • [IS-5744] Save Look for 3D LUT only (cube file) disabled • [IS-5640] Viewer shows Error on Multi Vendor, Multi GPU Platforms • [IS-5688] 3D LUT Design and LUT Identifier metadata • [IS-5757] ART crashes when changing color space in viewer • [IS-5686] Wrong "Sample Target Path" for ProRes/mxf at the RenderRoom
Removed	Nothing
Version	1.0.0.2
Additions	<ul style="list-style-type: none"> • [IS-5690] Frameline metadata in metadata tab • [IS-5135] Visualize audio metadata in metadata panel
Changes	<ul style="list-style-type: none"> • [IS-5681] Clean console output • [IS-5609] Retrieve version of ARRI MXF Library for about-dialog
Fixed	<ul style="list-style-type: none"> • [IS-5551] Handling of Intensity value • [IS-5662] Filename exceeds cliprange in Viewer Timeline • [IS-5663] Preview file path exceeds panel size in Render Targets Panel • [IS-5569] Not possible to render legacy anamorph ARRIRAW • [IS-3537] macOS software name in dock needs spaces
Removed	<ul style="list-style-type: none"> • [IS-5605] Render Room colorspace options for ProRes and TIFF
Version	1.0.0.1
Additions	Nothing
Changes	<ul style="list-style-type: none"> • [IS-3537] Added spaces for software name in macOS dock • [IS-5521] Update of arrimxf package to 4.0.39
Fixed	

	<ul style="list-style-type: none"> • [IS-5093] Mac ART App Symbol is displayed larger compared to other Mac Apps • [IS-5566] Export look with an invalid file locator path must be handled correctly • [IS-5679] ART crashes when switching project with custom look and clicking on "save"/"don't save"
Removed	Nothing
Version	1.0.0.0
Additions	<ul style="list-style-type: none"> • [IS-5515] Implement conversion from LogcV3 to V4 in render (to file) pipeline • [IS-5517] Implement handling of clips that can be converted from LogcV3 to V4 in gui at large
Changes	<ul style="list-style-type: none"> • [IS-5622] Force user to select color space in toolbar, if they want to apply a look with logcV4 • [IS-4396] Review and update feature description in the Welcome dialog for final release • [IS-4727] Update Metadata from rendered file with the applied 3D LUT • [IS-5474] Collection of minor issues for Viewer Toolbar • [IS-5521] Update of arrimxf package to 4.0.37 • [IS-5611] Handle embedded look correctly for if LogC3 to LogC4 transform was applied
Fixed	<ul style="list-style-type: none"> • [IS-5613] Look preview metadata shows "none" for cube file names on .aml files • [IS-5388] Strange viewer behaviour showing 'old' (cached?) clips • [IS-5431] Metadata Pre-Selection "Basic" does not match requirements • [IS-5433] Open tasks for metadata tab adaption • [IS-5559] OpenEXR rendered image is far too bright • [IS-5570] Not possible to render legacy ARRIRAW to openEXR • [IS-5574] Not possible to render HDE/arx to openexr • [IS-5581] Non-standard Aspect Ratios can't be displayed/decoded for ProRes • [IS-5586] Rendering LogC4/ARRIRAW to ProRes/LogC4 the look is applied twice in rendered clip • [IS-5610] Missing metadata - verify Lens Data and Lens Converter metadata is visible • [IS-5614] ART viewer displays sdk error after switching logC • [IS-5618] Fix clip name and clip number • [IS-5632] All buttons in ViewerToolbar are not selected • [IS-5633] Avoid frame update cascade in viewer • [IS-5634] For logC3 clip + look active it is not possible to switch video colorspace • [IS-5636] Imperial and Metric Focus Distance Max Value should be displayed as ∞ • [IS-5637] Reset look does not behave correctly when reset look button is clicked • [IS-5638] 3D Lut tab was not updated to logC4 processing after logC3 to logC4 conversion • [IS-5642] Some Metadata values aren't converted to human readable values • [IS-5645] ART crashes if intensity slider was moved • [IS-5646] High CPU load from MediaCache::threadLoop • [IS-5647] 3D Lut Export of Library Item causes crash with different meshpoints • [IS-5650] Export 3D LUT always exports LUT from embedded look • [IS-5652] Preflight thread falsely reports mismatched target cs with look on converted legacy clips • [IS-5653] Rendering legacy clip in logcV3 without embedded look applied + non rec709 cs yields warning and incorrect output • [IS-5654] Connect save look process to new SDK impl which now supports creating alf2/aml content • [IS-5658] Crashes with legacy ALEXA Mini sample footage
Removed	Nothing

4 Known Issues

- BUG-9264: [ART-GUI] The rendering speed drops significantly and stops for large ARRIRAW clips
- BUG-9101 [ART-GUI] 1.7.0.0-rc2 - A35 Mono - Looks not supported by ART
- BUG-7968 [ART-GUI] ProRes render to P3 color space causes faulty clip
- BUG-7838 [ART-GUI] OpenEXR render of anamorphic images with wrong aspect ratio
- IS-6387 [ART-GUI] ART cannot apply aml look to AMIRA and Mini .mov footage
- IS-5597 [ART GUI] Missing metadata - verify "variant" metadata is visible
- IS-5505 [ART-GUI] Revise image orientation (flip/flop) handling for ProRes footage
- IS-4296 [ART GUI] Scaling (from Zoom level) Artifacts in Viewer
- IS-4945 [ART GUI] Metadata name cut off without quick possibility to show full name
- IS-4434 [ART GUI] Low resolution GUI elements and text (especially visible when OS uses scaled display resolution)
- IS-3922 [ART GUI] Pixelated menus on Mac
- IS-3921 [ART GUI] No file loading indication in viewer
- IS-3060 [ART GUI] Deleting from sequence shows "remove from project files" in the right click menu
- IS-3049 [ART GUI] Image Sequence behavior not matching to requirement on broken sequences (frame drop)

5 Questions and Contact

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

6 External Libraries

This software uses the following external libraries:

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