

ALEXA SXT / 65 / SXT W / LF AMIRA & Mini / LF ARRIRAW Converter 4.3.0.0 (CMD)

RELEASE NOTES

Date: 3 August 2020

Table of Content

1	Introduction	Ċ
2	System Requirements	3
3	Features Overview and Bug Fixes	3
	3.1 New Release	4
	3.2 Past Changes	4
4	Questions and Contact	Ę
5	External Libraries	Ę

1 Introduction

The ARRIRAW Converter CMD (also referred to as "ARC CMD") is a command line tool using the ARRIRAW SDK to convert ARRIRAW images into different file formats. Using a XML based configuration file (the so called short settings), parameters affecting the rendering output can be set.

The settings are explained in more detail in the ARC CMD user manual.

2 System Requirements

Mac Systems:

- OS X 10.11
- OS X 10.12
- OS X 10.13
- OS X 10.14
- OS X 10.15

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

For GPU or CUDA processing:

- AMD/ATI or NVIDIA graphics adapter with at least 2048 MB of RAM. If processing ALEXA65 footage, 3072
 MB of VRAM are recommended
- Latest AMD/ATI or NVIDIA GPU driver installed

ARRI recommends updating ARC version 3.5.0 or lower to version 3.5.3 or higher when rendering footage of the new ALEXA LF.

3 Features Overview and Bug Fixes

3.1 New Release

Version	Changes	Bug fixes
4.3.0.0	 An extended sharpening range from -5 to +5 and now up to +35 provides a stronger resharpening possibility. Introduced with ALEXA MINI SUP 6.1 for multi-camera productions. 	fixed export for file format OpenEXR

3.2 Past Changes

Version	Changes	Bug fixes
4.2.3.0	Using ArriRawSDK 6.2.2.0	 Fixed pixel aspect ratio metadatum in exr rendering Several other bug fixes
4.2.1.0	Using ArriRawSDK 6.2.1.	Several bug fixes
4.1. Beta	 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 the CODEX HDE (High Density Encoding) file format .arx, which was created with the Codex Device Manager 5.0 and higher. 	Several bug fixes
4.0 Beta	 Using ArriRawSDK 6.1.1.0 Default lookMode now "CDL LogC" New geometry interface New scaling filters and algorithms. Due to this, result images with same settings may differ from results of previous versions New detail parameter to have more control over frequency handling in the scaler. See Texture Control white paper for details: https://www.arri.com/service/search/en/49664?query=texture%20white Parameterization and behaviour of the half size proxy (proxy factor 2) has changed: the output image size is now exactly the size as set in the Scaling Geometry. For increased performance it is further recommended to reduce the output resolution as far as possible. Due to the underlying processing algorithms, we recommend using proxy factor 1 for images larger than half the input dimensions. To get an image identical to previous processing, please set half the resolution (e.g. width 960px height 540px instead of HD_FROM_xxxxxpx). 	 Fixes in denoising for ALEXA MINI, ALEXA65, and ALEXA LF. Several other bug fixes

4 Questions and Contact

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

5 External Libraries

This software uses the following external libraries:

Library	URL	License
Libtiff	www.libtiff.org	Copyright (c) 1988-1997 Sam Leffler Copyright (c) 1991-1997 Silicon Graphics, Inc. Permission to use, copy, modify, distribute, and sell this software and its documentation for any purpose is hereby granted without fee, provided that (i) the above copyright notices and this permission notice appear in all copies of the software and related documentation, and (ii) the names of Sam Leffler and Silicon Graphics may not be used in any advertising or publicity relating to the software without the specific, prior written permission of Sam Leffler and Silicon Graphics. THE SOFTWARE IS PROVIDED "ASIS" AND WITHOUT WARRANTY OF ANY KIND, EXPRESS, IMPLIED OR OTHERWISE, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL SAM LEFFLER OR SILICON GRAPHICS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY KIND, OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER OR NOT ADVISED OF THE POSSIBILITY OF DAMAGE, AND ON ANY THEORY OF LIABILITY, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.
Ibjpeg	www.jpeg.org	This software is based in part on the work of the Independent JPEG Group
libzlib	www.zlib.net	Interface of the 'zlib' general purpose compression library version 1.2.7, May 2nd, 2012 Copyright (C) 1995-2012 Jean-loup Gailly and Mark Adler This software is provided 'as-is', without any express or implied warranty. In no event will the authors be held liable for any damages arising from the use of this software. Permission is granted to anyone to use this software for any purpose, including commercial applications, and to alter it and redistribute it freely, subject to the following restrictions: 1. The origin of this software must not be misrepresented; you must not claim that you wrote the original software. If you use this software in a product, an acknowledgment in the product documentation would be appreciated but is not required. 2. Altered source versions must be plainly marked as such, and must not be misrepresented as being the original software. 3. This notice may not be removed or altered from any source distribution. Jean-loup Gailly: jloup@gzip.org Mark Adler: madler@alumni.caltech.edu
		This program, "bzip2", the associated library "libbzip2", and all documentation, are copyright (C) 1996-2010 Julian R Seward. All rights

reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1.Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. The origin of this software must not be misrepresented; you must not claim that you wrote the original software. If you use this software in a product, an acknowledgment in the product documentation would be appreciated but is not required.
- 3.Altered source versions must be plainly marked as such, and must not be misrepresented as being the original software.
- 4. The name of the author may not be used to endorse or promote products derived from this software without specific prior written permission. THIS SOFTWARE IS PROVIDED BY THE AUTHOR "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ARRIRAW Converter 4.0.0.0 Beta CMD - Release Notes Page 5 of 7 ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Julian Seward: jseward@bzip.org

bzip2/libbzip2 version 1.0.6 of 6 September 2010

Boost www.boost.org

Software License - Version 1.0 - August 17th, 2003

Permission is hereby granted, free of charge, to any person or organization obtaining a copy of the software and accompanying documentation covered by this license (the "Software") to use, reproduce, display, distribute, execute, and transmit the Software, and to prepare derivative works of the Software, and to permit third-parties to whom the Software is furnished to do so, all subject to the following:

The copyright notices in the Software and this entire statement, including the above license grant, this restriction and the following disclaimer, must be included in all copies of the Software, in whole or in part, and all derivative works of the Software, unless such copies or derivative works are solely in the form of machine-executable object code generated by a source language processor. THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE AND NON-INFRINGEMENT. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR ANYONE DISTRIBUTING THE SOFTWARE BE LIABLE FOR ANY DAMAGES OR OTHER LIABILITY, WHETHER IN CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Tinyxml

www.grinninglizard.com/

www.sourceforge.net/projects/tinyxml

Original code (2.0 and earlier)copyright (c) 2000-2006 Lee Thomason (www.grinninglizard.com) This software is provided 'as-is', without any express or implied warranty. In no event will the authors be held liable for

any damages arising from the use of this software. Permission is granted to anyone to use this software for any purpose, including commercial applications, and to alter it and redistribute it freely, subject to the following restrictions: 1. The origin of this software must not be misrepresented; you must not claim that you wrote the original software. If you use this software in a product, an acknowledgment in the product documentation would be appreciated but is not required. 2. Altered source versions must be plainly marked as such, and must not be misrepresented as being the original software. 3. This notice may not be removed or altered from any source distribution. Glew glew.sourceforge.net The OpenGL Extension Wrangler Library Copyright (C) 2002-2008, Milan Ikits <milan ikits[]ieee org> Copyright (C) 2002-2008, Marcelo E. Magallon <mmagallo[]debian org> Copyright (C) 2002, Lev Povalahev All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: 1.Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. 3. The name of the author may be used to endorse or promote products derived from this software without specific prior written permission. THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. Mesa 3-D / Copyright (C) 1999-2007 Brian Paul All Rights Reserved. Permission is hereby granted, free of charge, to any person obtaining acopy of this graphics library software and associated documentation files (the "Software"), to deal in the Version: Software without restriction, including without limitation the rights to use, 7.0 copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions: The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software. THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL BRIAN PAUL BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE

OR THE USE OR OTHER DEALINGS IN THE SOFTWARE. Copyright (c) 2007 The Khronos Group Inc.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and/or associated documentation files (the "Materials"), to deal in the Materials without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Materials, and to permit persons to whom the Materials are furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Materials.

THE MATERIALS ARE PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN ARRIRAW Converter 4.0.0.0 Beta CMD – Release Notes Page 7 of 7 AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE MATERIALS OR THE USE OR OTHER DEALINGS IN THE MATERIALS.

OpenEXR www.openexr.com

Modified BSD License: Copyright (c) 2002-2011, Industrial Light & Magic, a division of Lucasfilm Entertainment Company Ltd. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. Neither the name of Industrial Light & Magic nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSEARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.