Rio 4K/8K

High performance online editing, color and finishing

Release Notes

Software Version v4.5.8 (June 2020)

Grass Valley® Product Support

For technical assistance, to check on the status of a question, or to report a new issue, contact Grass Valley Product Support via email.

Web Technical Support

To access support information on the web, visit the product support webpage on the Grass Valley website. You can download software or find solutions to problems by searching our Frequently Asked Questions (FAQ) database.

- World Wide Web: http://www.grassvalley.com/support/
- Worldwide Technical Support: Please use our online form

Software Release Details

Release Description	V4.5 is a feature release for Rio 8K, 4K & 2K, Rio Assist and Rio Connect only. Some of the following features do not apply to all products
Release Type	General release that includes Sony RAW, Red RAW and Grass Valley HQX support, with bug fixes
This version	V 4.5.8
Release Date	19 June, 2020
Other Notes	System Drivers – Please note that there are NO updates to drivers for this version over V4.3.0 except graphics driver. If upgrading from earlier versions, Please see page 4 for more information.
	Base, Desk and Dict folders are compatible with V4.3.0 and V3.1 rev 1. This database schema is NOT compatible with V3.0 rev 1 or earlier.

Product Overview

The Rio range offers a choice of software or turnkey high quality editing, color and finishing systems running on standard PC hardware. The Rio range provides SD, HD, 2K, 4K, 6K, 8K stereo3D and high-frame rate support.

The comprehensive integrated toolset includes conform, color, editing, effects, text, paint and multi-format versioning enabling Rios to complete a wide range of post production tasks. Rio efficiently handles today's digital capture formats such as RED, XAVC, Sony F65, SStP, Canon, Apple ProRes and easily integrates Into data-centric post pipelines.

Installation

Windows 10 64bit is required to run this software. An engineer may be required to do this upgrade.

You will need to run the installation program, setup.exe, and the software as administrator.

Required Software

Name	Description
DirectX	x64 application requires DirectX 11 to be installed… the installer will install if the system is found to be running an earlier version of DirectX
Internet Explorer	Internet Explorer 11 (even if not network connected) needs to be installed or else the software will not run up
DotNet Framework	Microsoft .NET Framework 3.5 or later
Adobe Acrobat Reader	Acrobat Reader DC 20.009.20067

Associated or optional software

Name	Description	Version
Dolby Vision CMU	Dolby Vision external unit	2.6 or later
Neo Workstations Server	GV software for Neo/Nano Workstation PC	V4.5.3
Media Trasformer	'deliver to' connectivity for sQ server systems	V5.4 rev 5
edlaaf.exe	CMX 3600 list converter to AAF	V54.0
aaf2edl.exe	AAF list converter to CMX 3600 format	V2.14
nclaaf.exe	Negative Cut List converter to AAF	V10.0
stlaaf.exe	Subtitle List Converter to AAF	V3.0
XMLDir.exe	QXMLNet clip bin query utility	X5.4.0
XMLTool.exe	QXMLNet clip combining utility	X5.4.0
XMLPut.exe	QXMLNet clip import utility	X5.4.0
XMLGet.exe	QXMLNet clip export utility	X5.4.0
XMLArchIn.exe	QXMLNet archive in utility	X5.4.0
XMLArchOut.exe	QXMLNet archive out utility	X5.4.0

Driver Requirements

Name	Version
Sentinel Driver	V7.6
nVidia Tesla driver (K, P series)	442.50-tesla-desktop-win10-64bit-international
nVidia GeForce GTX driver	442.50-desktop-win10-64bit-international-whql
nVidia Quadro driver (Quadro and M series)	442.50-quadro-desktop-notebook-win10-64bit-international-whql
AJA Corvid Ultra driver	ntv4driver-2.5.0.253.msi , Firmware v65
AJA Kona 3G driver	ntv2driver-12.3.7.85.msi , Firmware v124
AJA Kona 4 driver	ntv2driver-12.3.7.85.msi , Firmware v44
AJA Corvid 88 driver (4K and 8K Rio)	ntv2driver-12.1.4.146.msi , Firmware v25 (from v3.1 rev 1 installer)
eVidIO1 card driver	v17
PCi QLink driver	3.3.0.0
Wacom tablet driver	WacomTablet_6.3.9w3.exe – Windows Driver 6.3.39-1
Serial Card (VTR) driver	CDM 2.06.00 WHQL Certified.zip
RED Rocket-One driver	RED driver 2.1.23.0, Firmware 1.1.18.0
RED Rocket-X driver	RED driver 2.1.23.0, Firmware 1.4.1.16

IMPORTANT: On boot of the Rio software the user will be prompted to update the AJA output device driver and firmware if it has not already been done.

Driver and matched firmware for each software build can be found in...

    C:\Data\ {Product}\DLL_Data\Quantel\AVIO3PCardDriver

Install instructions for Driver and Firmware can be found in the above folder (readme.txt)...

NOTE: Corvid 88 driver ntv2driver – 12.3.7.85 and Firmware v32 has an issue with horizontal line noise – GENQ-22773

Therefore we advise that all Corvid 88 installations are DOWNGRADED to driver ntv2driver-12.1.4.146 and Firmware v25.

The above 'downgrade' version is not included in V4.5.7 software.

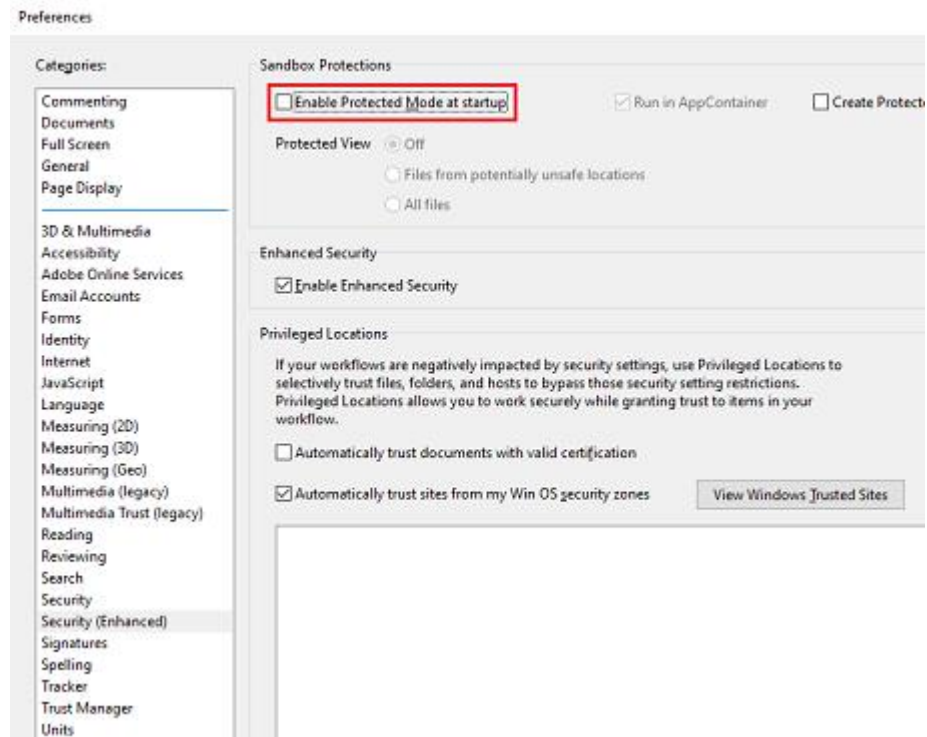Driver and firmware must been installed from V3.1 or 3.0 software.

(this issue ONLY affects AJA Corvid 88 hardware)

Change Acrobat Reader DC option

Once the Rio upgraded including required driver / software upgrade, follow the below steps to change Acrobat Reader DC option.

1) Run Acrobat Reader DC

2) Select Edit > Preferences

3) Select "Security (Enhanced)" of Categories

4) Uncheck "Enable Protected Mode At Startup."

5) Click [OK] button

6) Exit Acrobat Reader DC

Enable option for Wacom Pen Display

If you use Wacom Ciintiq Pro series Pen Display, run the Rio settings then enable required option:

1) Quit Rio software if running

2) Choose Start Grass Valley > Quantel Rio V4.5.8 Settings

3) Tick 'Enable embedded LCD tablet mode' option

4) Click [Apply] then [OK] button

5) Start Rio software

Changes this Release

New Features and Enhancements in V4.5.8

- ARRI RAW MXF file support
- ARRI ALEXA LF camera clip support
- Support ACES Color Workflow
- Support for temporal effects in OpenFX filters
- Support ACES debayering for RED clip
- ARRI ProRes MXF file support
- Support Wacom Cintiq Pro series pen display
- Support stretch feature on MLT
- Support of MP4 / MOV export with color space metadata for iPad preview
- Support alpha channel in EXR file
- Support ASC CDL for ACES workflow

Resolved issues

- Line noise appears once gain increased (SFDC00655334)
- Color space exported XAVC MXF file wrong Rec.2020 becomes BT.709 (SFDC00697589)
- Going from MLT FX to Effect then going Edit, the original clip is replaced by another clip (SFDC00696908)
- Exported MOV clip doesn't have correct source timecode (SFDC00667693)
- Auto balance unexpectedly clips highlights if render format changed (SFDC00685890, 00695938)
- Imported clip by ffmpeg importer has no audio with ProRes 4ch or more audio channels
- Import error with ffmpeg avi NVIDIA H264
- Playout becomes stutter by imported ffmpeg uncompressed QT4444
- YUV Log clip is imported with incorrect color
- Video frame is randomly shuffled in exported HQ/HQX MXF clip
- Paint brush does not draw smooth line
- Rio crashes while exporting to ProRes MOV clip with ffmpeg
- Attributes modification not applied when importing MOV clip
- Link to PDF manuals are not available
- 3 layer ProRes 4444 16bit QT Files Imported & Combined Have Bad Aliasing (SFDC00713707)
- Rio incorrectly detects certain 10bit DNxHD clip for import (SFDC00714194)
- Imported ProRes 4444 MOV with alpha has bad aliasing (SFDC00713707)
- Rio does not handle color space of ProRes MOV clip
- Interlaced clip imported as Progressive clip

- Support for "Ignore Alpha" for ProRes 4444 import

- Exported clip doesn't have correct color space info by mov ffmpeg

- Highlight works incorrectly in HLG 2020 grading workflow (SFDC00720478)

- A clip that has 16 ch PCM audio is not handled correctly by ffmpeg importer

- The W/B level is not handled by ffmpeg importer

- The resize feature of ffmpeg importer doesn't work

- Imported clip by ffmpeg importer has no audio with ProRes 3ch or more audio channels (SFDC00719646)

- No resize on import/conform (SFDC00718261)

- Rio crashes when conforming AAF/EDL with 'Ignore matte' option

- Rio ignores alpha key embedded into DNxHR clip

- The border of preview is blurred when zooming

- Rio slowly plays softmount MOV clip that has 4 or more PCM audio tracks

- Rio import progress does not work expectedly (SFDC00727892)

- Huge memory leak occurs while importing ProRes MOV files (SFDC00727897)

- Resize feature doesn't work well when importing as softmount clip

- Resize feature doesn't work well when importing as localize clip

- Remount ProRes clip no longer works (SFDC00732604)

- Corrupt black image appears every 4 minutes at a certain UHD DNxHR clip (SFDC00733695)

- Rio crashes when exporting using "mov ffmpeg" (SFDC00731442)

- Unable to import a long duration ProRes MOV clip

- After changing the original color space of Raw to Rec.2020 and turn on Highlight mode, the screen turns black

- Rio does not import certain EXR files correctly

- Boris Silhouette for OFX does not work

- Rio fails to import certain resolution H.264 MP4 clip (SFDC00737497)

- Width of Imported ProRes HQ files have alignment violation if their resolution is 1998x1080 (SFDC00739660)

- Left edge of imported image is bad if the source is ProRes HQ 1998x1080 MOV files (SFDC00739756)

- Rio is unable to play certain ProRes 4444 clip (SFDC00744075)

- In v4.5.7, rendering works very slowly just after importing (SFDC00744891)

- ProRes MOV 4444XQ export is missing (SFDC00745704)

- Rio incorrectly plays a MOV file that has start offset of video

Known issues and limitations

Known issues

- I/O Export, alpha channel image is burned to exported fill video by HQHQX

- "Module jpeg2000 - bpno became negative" error message appears in log when loading an mp4 JPEG2000 file

Design Limitation

Restrictions after Uninstallation of QuickTime for Windows

The following file import support will be lost if QuickTime is uninstalled:

.aif, .aiff : Audio Interchange File Format

.dv : DV video and audio files

.gif : GIF graphic files

.mp2, .mp3 : MPEG-1/2 audio