

AJA Desktop Software Release Notes - v17.1

macOS v17.1 Drivers and Software for KONA, Io and T-TAP Pro

Introduction

AJA Desktop Software

This unified software, driver and firmware package contains everything needed in order to use AJA video I/O hardware.

The following AJA applications are installed:

- AJA Control Panel v17.1:
 - For setup and control of your AJA KONA, lo or T-TAP Pro product, including firmware updates.
- AJA Control Room v17.1:
 - For high quality capture, monitoring, playback and output.
- AJA System Test v17.1:
 - For testing storage to determine if it will be possible to sustain frame or data rates for a chosen format(s).
- AJA Multi-Channel Config v17.1:
 - For setting up video I/O for use with Telestream Wirecast.
- AJA NMOS v17.1:
 - Optional SMPTE ST 2110 application providing discovery, registration and control for AJA IP devices.

Operating System

This version of AJA Desktop Software supports Macs with both Intel processors and Apple silicon running macOS 13.x (Ventura) or later. It also supports older versions of macOS with Intel processors, from macOS 11.x (Big Sur).

• Before running this installer, best practice is to uninstall all previous versions of AJA Desktop software.

If presented with macOS / Thunderbolt security messages when installing AJA hardware, see "Known Issues, Limitations and Additional Details" near the end of this document for instructions and notes specific to macOS 13.x (Ventura), macOS 13.x (Monterey), and macOS 11.x (Big Sur).

IMPORTANT:

This release now utilizes the <u>Apple Core Media I/O framework</u> to enable support for custom camera devices in macOS. Note that if you are running a version of macOS prior to 13.x (Ventura) you will lose core media I/O functionality like the ability to properly run Apple Final Cut Pro or other media applications. If you need to run earlier versions of macOS, we recommend that you remain on AJA Desktop software version 17.0 or earlier.



Upon initial installation of this release, you will see the following message to enable the Core Media I/O extension:

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	i Analytics & Improvements	
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🛜 Wi-Fi	Security	
Bluetooth		
	software from the following developers was updated and	
VPN the syst	em needs to be restarted before it can be used.	
	JA Video Systems - Updated	
Sound	JACMIOInstaller	Details
Screen Time		
General	Cancel OK	
 Appearance Accessibility 		
Control Center	Others	
Siri & Spotlight	Extensions	
Privacy & Security	Profiles	
🗖 Desktop & Dock 🛞 Displays		

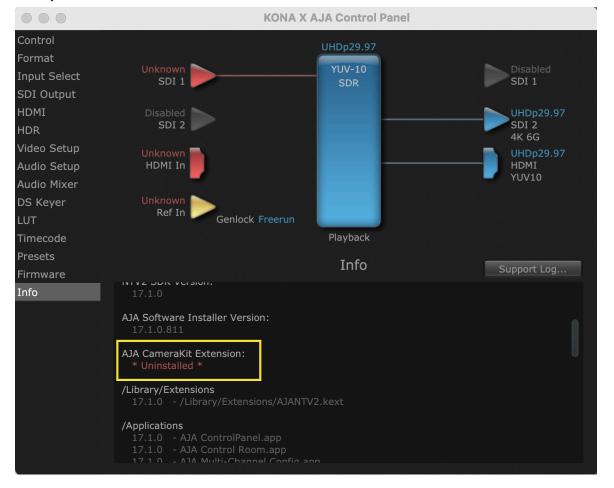
Select both options and click "OK"

Window		
Install Extension	Remove Extension)
Succeeded		

After installation you will briefly see the above notification, which indicates that the installation of the extension was successful. The window will close on its own when complete.

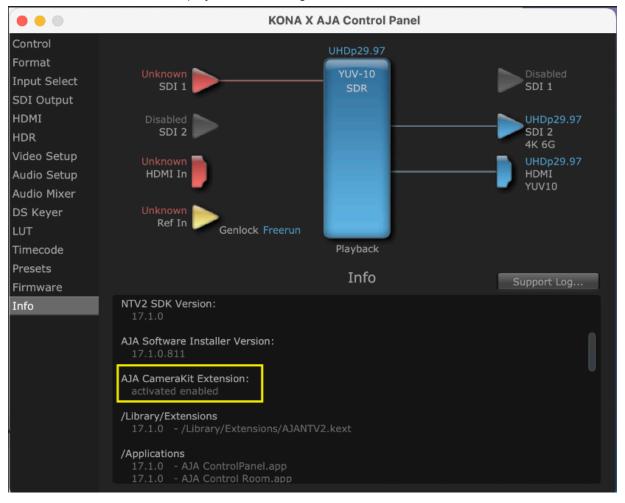


Note that if the extension is not installed, you will see the following information in AJA Control Panel – red text under /Library/LaunchedDaemons:





A successful installation will display as the following:



Third Party Software

AJA KONA, lo and T-TAP Pro hardware is used by many software and systems manufacturers, who provide their own software for user installation. The links below provide a guide to software support AJA is aware of, with additional software support being added frequently. Please contact the appropriate software vendor for information on whether AJA software or drivers are required when using their application. AJA recommends the latest released versions of 3rd party software for best performance:

https://www.aja.com/compatibility/kona https://www.aja.com/compatibility/io

4

AJA hardware also comes with out-of-the-box support for popular software from Adobe, Autodesk, Avid, OBS Project and Telestream on macOS as follows:

- Adobe Premiere Pro, After Effects, Photoshop, Character Animator, Audition 2024, 2023, 2022
- Apple Final Cut Pro 10.8x, 10.7x, 10.6.x, 10.5.x, 10.4.x
- Autodesk Flame, Flame Assist, Flare 2023.3 Update (macOS)



- Avid Media Composer 2024.x*, 2023.x* (note for both 2024.x and 2023.x: limited support, refer to known issues near the end of these release notes), 2022.x, 2021.x, 2020.x, 2019.x, Pro Tools 2023.x, 2022.x, 2021.x, 2020.x, 2019.x
- **OBS Project** OBS Studio 30, 29.1.3, 28.1.x, 27.2.x (note that there are known issue with 29.13 and 30 for KONA X)
- **Telestream** Wirecast 16.x, 15.x, 14.x, 13.x

In all cases, AJA recommends checking the system and OS requirements for 3rd party software packages with the software creator/vendor directly, to ensure compatibility.

Relevant Products

The following products benefit from this update:

- KONA X
- KONA 5
- KONA 4
- KONA 1
- KONA HDMI
- KONA LHi
- KONA LHe Plus
- T-TAP Pro
- Io 4K Plus
- lo X3
- Avid Artist DNxIV

Recommendations in v17.1

- AJA offers a comprehensive SDK for developers who are interested in doing more with KONA, Corvid, and lo
 products. We have recently moved repositories to Github at
 https://github.com/aja-video. Our Github site now offers access to both open source and pre-compiled code and
 tools that make developing applications that support our products much easier.
- Note that AJA Desktop Software v17.x still works with EOL products, including Io XT, Io 4K, KONA IP, Io IP, T-TAP, and DNxIP. However, releases after v16.2 were no longer qualified with end-of-life products. What this means is that issues affecting these EOL products may arise that are not caught during the testing phase for new software releases, and these issues may not be fixed. In some cases, AJA may elect to fix issues that affect EOL products, but that cannot be guaranteed.
- Note that "End-of-Life" products will continue to receive best effort SDK support, but the supported SDK version may be frozen to the version available when the device went "End-of-Sale."

5

• Note that Corvid HEVC (CORVID-HEVC-ATX6) is no longer being tested with new software releases.



Fixes and Improvements in v17.1

Note: Items below are identified against the main AJA products affected. These same issues may have also affected other AJA products that are not specifically called out.

New Feature – Control Room Metadata Support

- Version 17.1 introduces a new feature to AJA Control Room that is compatible with any AJA I/O device that supports caption metadata via SDI. This new feature is called the "Control Room Metadata Toolset", and it provides the ability for all ANC metadata present on the SDI input to be captured and played back in the AJA Control Room application. This feature supports SCTE-104 triggers, Dolby Vision metadata, Closed Captioning metadata, SMPTE time code and other RDD 8-2008 metadata types. Captured metadata is written to an .MKV file, which appears in the application BIN. This file can be played back for validation of captured metadata or can be used for other upstream metadata purposes. Refer to the v17.1 manual for AJA Control Room for operational information covering this new feature.
- This release now supports the <u>Apple Core Media I/O framework</u> to enable support for custom camera devices in macOS.

Other fixes and improvements

- Fixed issue of AJA KONA X not appearing as an available device for capture or output in OBS (Open Broadcast Software) application. Note that AJA has contributed the code to fix this issue it should be available upon the next public release of OBS for all supported platforms.
- Fixed an issue in which AJA Control Room would fail to display burn-in timecode for certain frame sizes.
- Fixed an issue in which Apple Final Cut Pro could not playback 8K 60fps content without dropping frames when using an AJA KONA 5.
- Fixed an issue where AJA Control Room was ignoring the selection to continue recording when the application was exited during recording.
- Fixed an issue in which AJA Control Room was not allowing bit-depth selection for ProRes 4444 on macOS systems.
- Fixed an issue in which OBS (Open Broadcaster Software) would report in use by Final Cut Pro even after quitting the application. This issue is fixed in AJA OBS 10.13-b131 and later.
- Fixed an issue in which Resolume Arena was not operating correctly with multiple supported AJA IO cards installed.
- Fixed an issue affecting Apple Final Cut Pro in which a secondary display that was enabled on startup would cause the application to hang on playback.
- Implemented the ability to route CSC1 Key YUV output to SDI2 for SDK users.
- Fixed an issue in which a memory leak was occurring in AJA Control Panel when selections such as HDR Options in the Test Pattern drop-down, etc. were made.
- Added the ability for SDK users to capture HDMI InfoFrames, and metadata such as Dolby audio and metadata in autocirculate.
- Fixed an issue affecting the AJA Io 4K Plus in which the RGB-12 SDI VPID passthrough information was incorrectly shown as RGB-10.



- Fixed an issue affecting the AJA Io X3 in which output 4K video would be corrupt via HDMI when the output was set to Multiview.
- Fixed an issue affecting Adobe Premiere in which the AJA Serial Device Control would not be available in the application for connected devices.

Known Issues, Limitations and Additional Details

General

- When installing AJA retail packages on macOS Ventura, if prompted, install Rosetta in order to continue installation.
- "System Sleep" or "Hibernation" should not be used with KONA and Io devices. All sleep and power efficiency modes should be disabled in the operating system settings.
- AJA Control Room captures can fall behind and may fail to retain the entirety of the recording when used with hard drives and SSDs that cannot maintain sufficient read/write speeds. Enabling deep buffers can improve the situation but may not prevent issues in all cases. Please use <u>AJA System Test</u> (free tool available on AJA web site also installed with the Desktop Software package) to measure disk performance to make sure your storage systems can handle the resolution, framerate, and bit depth of the recordings you wish to make.
- Captions in Adobe Premiere may be doubled and overlapped depending on the configuration of captions in Premiere. If this occurs, try toggling Premiere captions (overlay) on or off and also toggle SDI embedded captions on or off on preview or program monitors.
- Note that AJA Control Room cannot play clips in which "Time of Day" timecode was used, if the capture happened across the rollover of one "Day" to the next "Day" across 12:00AM.
- AJA Control Panel may become sluggish due to high CPU usage after detaching connected devices in certain cases. Avoid detaching devices while active, and if the condition occurs re-attach the device and restart Control Panel.

Known Issues

- Colors may appear washed out for some RGB formats on macOS systems, using FrameBuffer Inspector, switched to Image View Mode. This condition is covered in QT (GUI toolkit) bug QTBUG-68233 and QTBUG-71163.
- When connecting an AJA KONA or lo device, the progress bar which displays during the MicroBlaze startup may appear to freeze. The MicroBlaze startup is still occurring, but users should wait for the process to finish, which can take up to three minutes.
- Quitting AJA Control Panel from the macOS Dock terminates both Control Panel and the service. Avoid performing this action if you want the service to continue running.
- AJA Control Room may fail to initiate playback for current or subsequently added video when a device is attached during playback. It may be necessary to switch to another mode in order to recover.

7

• AJA Control Room may hang indefinitely when making a change to the Host Audio Monitor, and thus require a restart to recover.



- AJA Control Room can perform destructive resizing under certain conditions when scaling video without GPU acceleration. When users perform the following steps: Launch Control Room, Go to Preferences Viewer, Disable GPU Acceleration, Add a video and send to the Viewer, Resize the Viewer either independently or by changing application dimensions, Repeat the last step more than once Each resize is scaled from the previous Viewer image rather than from the original source.
- Cross Dissolve performed In or Out in Adobe Premiere do not always output to an AJA KONA, Corvid or lo device.
- AJA Control Room does not properly handle "Click and Drag" within Time Fields for certain video files.
- Occasionally, when using an AJA KONA X, if you play out video (1080i 59) from Premiere (version 2024.2.1) audio playout will cease to function. This may require a system reboot to fix.
- When using Adobe After Effects, in the 2022 version, the After Effects sequence frame rate would match the frame
 rate of the active clip. In the 2023 version, the sequence frame rate matches the rate that was present when the
 application was launched. The workaround if this is encountered is to set the desired frame rate on AJA Control
 Panel prior to launching After Effects.
- AJA Control Room may hold displayed captions when moving the play head forward or back. The previously displayed captions will remain on both canvas and output indefinitely.
- The AJA KONA LHi is not detecting RP188 timecode.
- When using the AJA to 4K Plus, AJA Control Room SDI and HDMI output may be corrupted after moving between certain video formats, for example from UHDp23.98 to 720p50.
- AJA Control Room may fail to update position in the viewer when the play head is moved during a frame drop condition.
- AJA Control Room alerts may fail to display during playback mode when No Device is selected.
- AJA Control Room improperly allows device switching during Capture, when at least two devices are available to the system.
- AJA Control Room may crash when switching clips during playback of clips that cause frame drops.
- AJA Control Panel RGB Range dropdown selection is not always accurate to what is being output on Frame Buffer or SDI output.
- AJA Control Room fails to insert a standard color space when writing DNxHR.
- AJA Control Panel outputs BGRA test pattern on the wire with a zero alpha channel resulting in the Alpha channel component being set to zero.
- AJA Control Room may crash when ending a capture during a frame drop condition.
- AJA Control Panel may become sluggish and CPU load runs high after detaching devices.
- Occasionally AJA Control Room will fail to play a video immediately after a device is attached to the system. If this occurs, switch the application to a different mode and reinitiate the playback.
- Issue with AJA Control Room affecting Apple M1 Studio: SD ProRes 422 captures with 8-bit buffer setting may exhibit scrambled video. The workaround is to use 10-bit v210 buffers.
- AJA Control Room may crash when a "Reserve Buffer Size" setting is entered.
- AJA Control Room may exhibit a memory leak when playing H.264 at increased playback speeds. This memory leak can eventually lead to a program hang, or a crash requiring a restart.
- AJA Control Panel window may fail to show when clicking the Dock icon or app icon in Finder. Workaround: Click on the menu bar (tray) icon.
- Issue with "Duplicate" or "Stale Frames" with Avid Media Composer 2023.x during playback. Avid is aware of this issue and is working on a resolution.



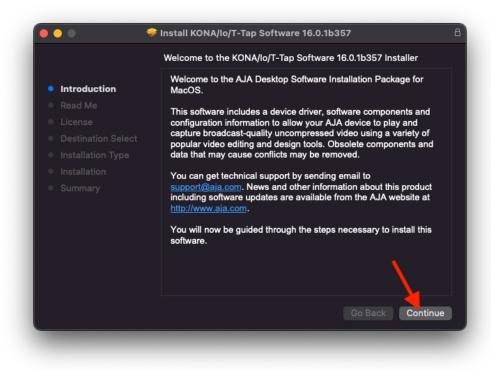
- There is an intermittent issue in AJA Control Room in which captions captured from AJA FS1 frame synchronizer can produce bad or empty sidecar files.
- AJA Control Room may display captions from previous captures, and these may remain on the canvas until the application is restarted.

Important macOS Monterey installation information

- Starting with macOS 12.0 (Monterey), new installations of AJA's Desktop Software must be v16.2 or later.
- In some cases, you may be asked to allow driver in security settings and this may happen more than once.
- AJA shortcuts are automatically deleted from Dock upon uninstall starting in macOS 11.2.
- Follow the images below to navigate the security and installation dialogs in the successful order.

	Welcome to the KONA/lo/T-Tap Software 16.0.1b357 Installer	
 Introduction Read Me License Destination Select Installation Type Installation Summary 	This package will run a program to determine if the software can be installed. To keep your computer secure, you should only run programs or install software from a trusted source. If you're not sure about this software's source, click Cancel to stop the program and the installation. Cancel Allow	tallation Package for ware components and device to play and ideo using a variety of solete components and wed. smail to tion about this product om the AJA website at recessary to install this











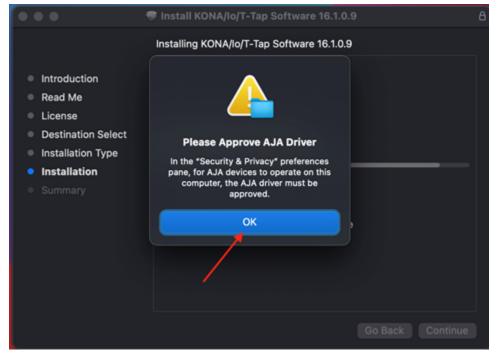
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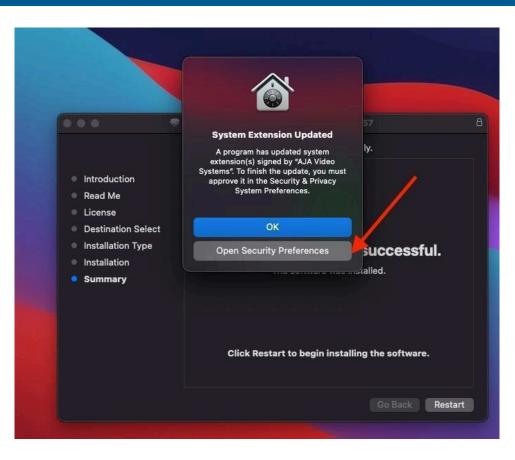
	Install KONA/lo/T-Tap Software 16.0.1b357	
	Standard Install on "Big Sur"	
 Introduction Read Me License Destination Select Installation Type Installation Summary 	This will take 888.7 MB of space on your computer. Click Install to perform a standard installation of this software for all users of this computer. All users of this computer will be able to use this software.	
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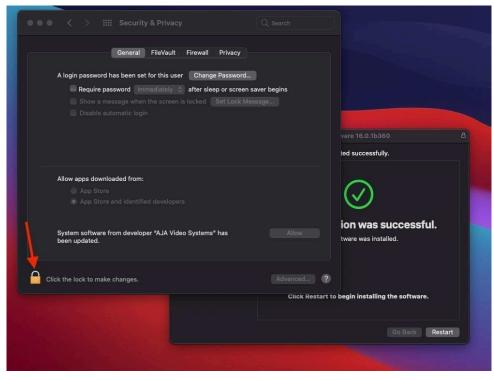


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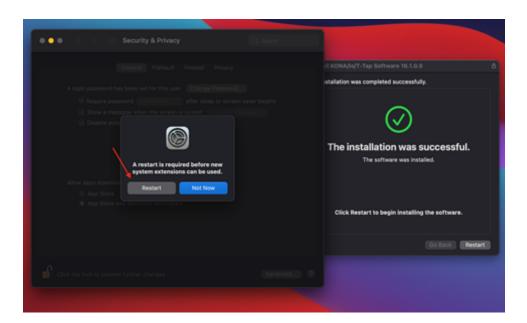


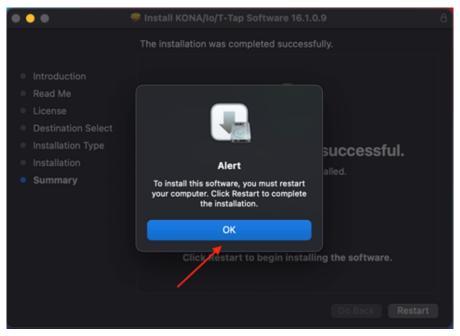














12-bit RGB support (4K/UHD)

• For working with 4K/UHD RGB 4:4:4 12-bit, use KONA 5 with the "KONA 5 (12bit)" firmware for the greatest flexibility via 12G-SDI and HDMI 2.0. 12-bit RGB functionality also exists with T-TAP Pro, Io 4K Plus and Avid DNxIV, but to a



lesser extent. 12-bit RGB via HDMI from KONA or lo will deliver 12-bit to the downstream (sink) device provided it is capable, otherwise the bit depth can be down-rated based on the capabilities of the monitor or other sink (communicated to KONA via sink device's EDID):

- In AJA Control Panel "Auto Detect" will put out the signal that works with the receiving monitor.
- In AJA Control Panel "Auto-Set" will use what the Frame Buffer is set to.

AV Sync

• For highest accuracy, always use the Video and Audio coming from your AJA device for monitoring. Using an AJA device for Video monitoring, but using the host for Audio monitoring, may result in AV sync or drift issues. If these issues arise it is a function of your host system/OS, and AJA recommends monitoring Audio via AJA device.

KONA 5

- Note that recently purchased (2023) KONA 5 cards will need to be used with AJA Desktop software version 16.2.6 or later.
- KONA 5 bitfile:
 - There are three KONA 5 bitfiles, each tuned to harness the capabilities of the KONA 5 hardware in different ways "KONA 5", "KONA 5 (12bit)" and "KONA 5 (8K)".
- "KONA 5" bitfile supports:
 - Up to 4K I/O YCbCr & RGB (including Color Space Conversion)
 - AJA Control Panel (including AJA Audio-Mixer)
 - AJA Control Room
 - Adobe Premiere Pro
 - Apple Final Cut Pro
 - Avid Media Composer
 - OBS Studio
 - Telestream Wirecast
 - Video Mixer/Keyer up to HD 60p
- "KONA 5 (12bit)" bitfile supports:
 - Up to 4K I/O RGB (including 12-bit LUT support)
 - AJA Control Panel (including AJA Audio-Mixer)
 - AJA Control Room
 - Adobe Premiere Pro
 - Apple Final Cut Pro
 - Avid Media Composer
 - OBS Studio
 - Telestream WireCast
 - Video Mixer/Keyer up to HD 60p
- "KONA 5 (8K)" bitfile supports:
 - Up to 8K I/O YCbCr *or* RGB (no Color Space Conversion)
 - Full 2SI path for the 8K raster (in addition to a Square Division presentation of 4x 4K 2SI)
 - 8K to 4K subsample via HDMI 2.0 out



- AJA Control Panel (not including AJA Audio-Mixer)
- AJA Control Room
- Adobe Premiere Pro
- Apple Final Cut Pro
- Avid Media Composer
- Video Mixer/Keyer not supported

KONA HDMI

- Audio channel configurations differ between Ports 1 and 2, vs. Ports 3 and 4.
 - AJA Control Panel has an audio channel swap feature to ensure compatibility.
- Some SD sources do not work correctly when using channels 1 and 2. Please use channels 3 and/or 4 for SD ingest.

Occasionally, HDMI sources do not work correctly. Please contact AJA Support to report this issue if you encounter it.

lo X3

• Some units were shipped from AJA with incorrect Thunderbolt firmware. This manifests as an issue whereby the "host" Thunderbolt 3 port is not recognized when a laptop host is running on battery power only (no laptop power supply in use). The workaround is to use the secondary "downstream" Thunderbolt 3 port or apply power to the laptop host. For a permanent fix to this issue, please contact AJA Technical Support who may be able to solve this remotely.

KONA LHi

- RP188 LTC playback on macOS is not currently functional. RP188 LTC capture is functional. RP188 LTC pass through is not a feature of the card.
- When using level A 1080p50/59.94/60 YUV input to an RGB frame buffer for capture, the image is scrambled or non-working for various NLEs. In Adobe Premiere Pro, this issue causes the app to become unresponsive when using an RGB10 framebuffer/capture codec. Note that Level B works correctly with all supported NLEs.
- KONA LHi has only one audio system and is limited to capturing or outputting one channel at a time with audio. In
 applications where multiple video inputs and outputs can be used at the same time, the SDI input will have audio
 and the HDMI input will not. Additionally, if both input and output are used simultaneously and independently (as
 opposed to output passed through from input) only one channel will have audio.

KONA LHe Plus

- KONA LHe Plus is not compatible with 2019 Mac Pro via PCIe slots.
- KONA LHe Plus is compatible with 2019 Mac Pro via Thunderbolt (i.e. PCIe card in a Thunderbolt chassis)

AJA Control Panel

• AJA agent stops running following an unplug of a Thunderbolt device. This manifests itself most clearly when running more than one AJA device on the same host at the same time.



- Workarounds for macOS:
 - Re-plug the Thunderbolt device, and the agent will restart.
 - Otherwise, on macOS "Warning Text" will show in AJA Control Panel ("restart Agent") and the agent can be restarted by clicking this menu item.

AJA Control Room

- H.264 and H.265 capture and playback (supported from v16.2 and later):
 - Create or playback HD media with Timecode, Closed Captioning and HDR metadata support.
 - YCbCr 4:2:0, 8-bit video.
 - AAC audio encoding for multiple tracks of Stereo and/or Mono.
 - All H.264 and H.265 encoding/decoding is courtesy of hardware acceleration on the host system.
 - For macOS based systems, Control Room will seek VideoToolbox resources.
 - For Apple silicon systems
 - built-in Apple Metal GPU
 - For Apple Intel-based systems:
 - NVIDIA
 - In each case, if the resource being sought is not found, the next resource possibility will be tried. If none of these resources are located on the system, then capture/playback of H.264 and H.265 will not be possible.
 - Notes:

- You must be using the latest NVIDIA, AMD or Intel drivers. In some situations, you may need to disable using a resource in order to update its driver version, and then re-enable.
- H.264 and H.265 can behave differently as compared with uncompressed media or I-frame codecs, especially during scrubbing and looping operations. This is to be expected with Long-GOP media.
- Interlaced material will be captured as progressive, this is as designed.
- When the Deep Buffer feature is being used for playback protection, note that changes to settings may take some time to be reflected. For example, muting an audio channel can take many seconds between the mouse click and the desired result. This is normal when using the Deep Buffer feature.
- MXF OP-1A capture in AJA Control Room does not support the following formats: 720p60, 1080i30, 1080p30, 1080p60.

Adobe Applications

- Note that Adobe removed support for tape-based workflows as of Premiere Pro 2023. AJA Control Room can provide limited support for some of this functionality but is not a direct replacement. Bad HDR output over HDMI and SDI with Apple silicon using Adobe Premiere Pro 22.4.0.
- When editing with 1080i25 clips/sequences in Adobe Premiere Pro, and with Sequence Settings > Video > Fields > Interlaced selected, then on pause interlaced artifacts are visible in the desktop (GUI) viewers, although the AJA hardware video output is unaffected. To remedy this, go to Sequence Settings > Video > Fields > and choose "No Fields (Progressive Scan)".
- Adobe Premiere Pro running natively on Apple silicon does not currently support capture. Instead, use AJA Control Room to capture material which can then be used for editing within Premiere Pro.



- Capture remains fully supported when using Adobe Premiere Pro under Rosetta.
- The first version of Adobe Premiere Pro to natively support Mac M1 (July 2021) will not support capture. Instead, use AJA Control Room to capture material which can then be used for editing within Premiere Pro.
- With rasters above HD/2K, Adobe After Effects may struggle to deliver frames in real time. AJA hardware will buffer as much as possible, but if frame rates get very slow, it will be impossible to sustain smooth real-time playback on the reference monitor.
- Audio output from AJA devices can be compromised when sequence frame rates do not match hardware frame rates.
 - This can occur when working in 720p formats other than 720p-50, 59.94, 60.
 - To work around this limitation, go to Premiere Pro Playback preferences, and set the AJA video device to 'Match Control Panel'. Then set up a cross-conversion to output 1080 format. For example, if using a 720p-23.98 project, set the AJA Control Panel to cross-convert to 1080PsF-23.98, which is a valid SDI output.
- Timecode is not stored in crash captured clips when the timecode source is RS-422. If this is required, use embedded timecode instead of RS-422 timecode.
- Variable frame rates (VFR) with pull down added are not adjusted for timecode.
- 'Crash Capture' and 'Print to Video' will work on Varicam frame rates over HD-SDI, but 'Insert Edit', 'In/Out. Capture', and 'Batch Capture' will not.
- When insert editing on Panasonic decks, destructive edits may occur too early on the tape. In order to avoid this, be sure that menu item 202 "ID SEL" is set to "OTHER".
- Preroll shorter than 4 seconds is not recommended for use with any deck, for capture or layback.
- Premiere Pro defaults to 'Display First Field' in its monitor wing menus. If interlacing issues appear on the output of AJA hardware, try changing this setting to 'Display Both Fields'.
- When changing from a DF tape to an NDF tape on the same deck, with the Premiere Pro capture window open, the NDF/DF status may not be picked up correctly. If this happens, the timecode values seen in the Premiere Pro capture window may be incorrect.
 - This Issue will NOT affect users unless they are changing between DF and NDF tapes on the same deck, in the same Premiere Pro Capture session.
 - To avoid this always give the new tape a new name in the 'Tape Name' dialog that appears when changing tapes and be sure to let the new tape spool up all the way before clicking the 'OK' button on the dialog.
 - To fix this close the Premiere Pro capture window and reopen it.
- When capturing from or exporting to a Panasonic D5 deck, the timecode source setting in the AJA Premiere Pro Device Control plug-in must be LTC+VITC.
- MXF OP-1A capture in Adobe Premiere Pro does not support the following formats: 720p60, 1080i30, 1080p30, 1080p60.

Apple Final Cut Pro

• Currently in Final Cut Pro, scrubbing an audio only clip when in the "organize" workspace results in Final Cut Pro and the AJA device temporarily losing contact with each other. Switching back to a timeline should reinstate (acquire) the hardware smoothly, however, this should not occur when the A/V Output is turned on in the Window menu.



Avid Media Composer

- Support for HDR via Media Composer arrived with AJA Desktop software v16.0. One known limitation is when linking to HDR media, the Media Composer Source Setting Adapters may get mis-generated. Deleting them will resolve issues viewing HDR correctly.
- Version 15.5.3 and later, using Io 4K Plus or Avid DNxIV provides for smoother and faster transitioning between Capture and Playback. Note that there are recommended combinations of settings covering both Capture and Playback, please consult the manual for more detail.
 - Note: If a recommended settings combination is not chosen, then lock-up operations may take several seconds when engaging/disengaging the capture tool. This could occur for example, when External Ref is set for Capture but not for Playback, or vice versa.
- AJA hardware does not control for, legalize or clamp video according to broadcast legal values. Use the tools in Media Composer to achieve legal broadcast levels. Note that AJA does prevent illegal levels according to the SDI specification, but this is not the same as the broadcast legal controls available inside Media Composer.
- For HDR, there may be some inconsistency in the state of AJA Control Panel when changing projects. Recommended best practice is to check your HDR settings in AJA Control Panel after switching Avid projects.
- For HDR with Media Composer 2019.11 and after, with AJA KONA 5, KONA 4, and Io 4K Plus can drive AJA Control Panel directly, so adjusting HDR parameters manually in AJA Control Panel should not be necessary.
- Avid Media Composer may occasionally take up to 15 seconds to quit. This is not an indicator of a problem.
- For the AJA device to be selectable for audio-only capture in the Capture Tool, it must first be selected in the Capture Tool:
 - Open the Capture Tool
 - Select both the Video Input and Audio Input as AJA KONA or AJA Io
 - Initiate your audio only capture
 - For the AJA device to be selectable in the Audio Punch-In Tool, it must first be selected in the Capture Tool
 - Open the Capture Tool
 - Select the Video Input as AJA KONA or AJA lo
 - Close the Capture Tool
 - Open the Audio Punch-In Tool
 - Select the Input Device as AJA KONA or AJA Io
- Indefinite looping of the timeline with Open I/O plug-in installed may cause Avid applications to stop playback and give an error message.
- Occasionally analog video input will not be detected correctly in the Media Composer Capture Tool. As a workaround, play the source video when you start up Media Composer.

Avid Pro Tools with T-TAP Pro

For Avid Pro Tools users, the following is helpful to bear in mind regarding AV Sync when using AJA T-TAP Pro for video monitoring:

• T-TAP Pro provides silent, high quality, stable and smooth playback. Since there is no reference, the A/V sync can be off by half a frame from the start of playback (expected behavior). This smooth and tight playback is courtesy of Pro Tools "slewing behavior" (since Pro Tools 11). When Pro Tools detects that the connected audio OR video



interface are not both locked to some kind of incoming external clock, Pro Tools engages its slewing algorithm. As long as the offset doesn't exceed 0.5 frames, all will play normally. Once the AV offset is above 0.5 frames Pro Tools will accommodate by dropping or duplicating a frame to keep in time. This is not intended as a frequent occurrence, for example it may take up to 20 minutes for clocks to drift far enough to drop a single frame.

Note: Slewing does not account for start position offsets. Without a Pro Tools Sync HD/X to align the Pro Tools audio engine start position to a frame boundary, and instead with a video interface with a valid video reference, play starts will vary by up to a frame in either direction, and it will be different between each playback pass. This is fixed and known behavior. Slewing may drop its first frame immediately as a result, but then it will be a while before it would be needed again.

Avid Pro Tools with KONA / Io

For Avid Pro Tools users, the following is helpful to bear in mind regarding AV Sync when using AJA KONA and lo products, for video monitoring:

- KONA and Io devices with a reference input (including Avid Artist DNxIV) will achieve synchronous, stable and smooth playback when:
 - (a) Pro Tools Audio Hardware has reference connected
 - (b) Pro Tools Session "Video Ref" has been set to external reference
 - (c) AJA KONA or lo device has reference connected
 - (d) AJA Control panel is set to use external reference
- Note: The Pro Tools Session Setup always defaults to "Internal/VSO" when creating a new session. The Pro Tools user must take the extra step of setting the Sync HD's Clock Reference to "Video Ref" manually each time a new Session is created. Failure to do so can result in skipped frames during playback.

Microsoft Teams

• Recent changes in Microsoft Teams has resulted in intermittent or non-functional operation with AJA capture devices. AJA is working with Microsoft to address these issues.

OBS Studio

- Support beginning with Desktop Software v16.2 and OBS v.27.2.
 - Io X3, Io 4K Plus, T-TAP Pro, KONA 5, KONA 4, KONA HDMI
 - 2K/HD up to 60p
 - 4K/UHD up to 30p
- Avoid manipulating the output settings when engaged in critical streaming applications (e.g. live show), as this can cause OBS to crash. Make sure to set up outputs ahead of time.
- Unplugging the Thunderbolt cable connecting Io X3, Io 4K Plus or Io IP to the host system while capturing with said device, will cause OBS to crash.
- Analog Audio Output option is currently unavailable with KONA 4.

Telestream Wirecast



When configuring a multi-channel card such as Io 4K Plus, KONA X, KONA 5, KONA 4, and/or KONA HDMI the
inputs must be configured first (using AJA Multi-Channel Config application), if you plan to use the live program
output feature. This will set the master clock for the card (either NTSC or PAL), otherwise the card will be set to
1080i-29.97 by default and could cause the card to attempt a mix of PAL and NTSC clocks. Be sure to configure all
of your inputs and outputs in AJA Multi-Channel Config prior to launching Wirecast.

Technical Support

AJA Technical Support is free and available to help you answer questions or resolve issues with any of your AJA products.

To contact AJA Technical Support:

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