Using Avid Products with AJA Products

Information in This Bulletin is Subject to Change

November 14, 2011

Bulletin

Because it matters.

AJA®

VIDEO SYSTEMS

Trademarks

AJA®, KONA®, and XENA® are registered trademarks of AJA Video, Inc. Ki Pro™, Io Express™, Io HD™, Io Express™, Io™ and Because it Matters™ are trademarks of AJA Video, Inc. Apple, the Apple logo, AppleShare, AppleTalk, FireWire, iPod, iPod Touch, Mac, and Macintosh are registered trademarks of Apple Computer, Inc. Final Cut Pro, QuickTime and the QuickTime Logo are trademarks of Apple Computer, Inc. All other trademarks are the property of their respective holders.

Notice

Contacting Support

To contact AJA Video for sales or support, use any of the following methods:
Telephone: 800.251.4224 or 530.274.2048
Fax: 530.274.9442
Web: http://www.aja.com
Support Email: support@aja.com
Sales Email: sales@aja.com

Using Avid Products with AJA Products

Introduction

AJA has long partnered with Avid to provide solutions for Avid users and professionals that need to connect with Avid workflows. AJA provided the first mobile Media Composer solution with its Io Express and now works with the latest versions of Avid Newscutter, Symphony and Media Composer across the entire current line of KONA, Io Express and (coming soon) Io XT I/O devices. The technology is Open I/O, and allows AJA devices to work with Avid software through the use of AJA Version 10 drivers and Open I/O Plug-ins.

Ki Pro and Ki Pro Mini can also happily be used in an Avid Workflow via the native Apple ProRes files that Ki Pro products record. Apple ProRes files can be brought into Avid Media Composer via the Avid Media Access (AMA) architecture. This interaction is made possible through AMA, provided free with every Media Composer and Symphony installation. AMA is a plug-in architecture that greatly accelerates tapeless video workflows, including RED, QuickTime and others.

AJA has also announced future support for Avid DNxHD® codec support in Ki Pro Mini (coming in a future firmware release); users will be able to record and playback Apple ProRes or DNxHD® files.

The intent of this document is to help you understand the use of AJA Version 10 drivers and Open I/O Plug-ins when using Avid Software with these supported AJA products:

- KONA 3G
- KONA 3
- KONA LHi
- KONA LHe Plus
- Io Express
- Io XT (coming soon)

Where to Find AJA Drivers and Open I/O Plug In Support for Avid Software

AJA Drivers and Open I/O Plug Ins for use with Avid software can be found at:

http://www.aja.com/support/avid/index.php

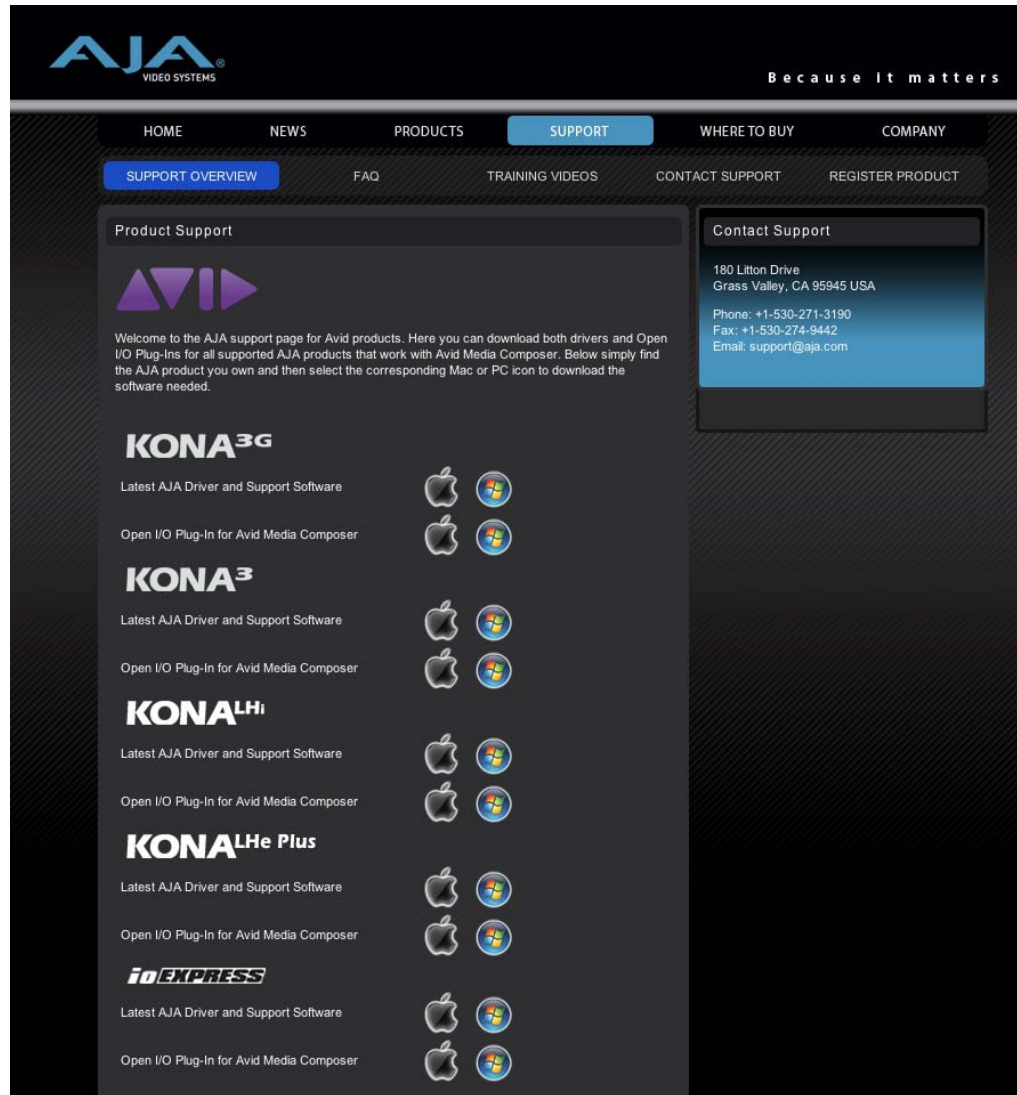## How do I use Avid Software with AJA KONA Cards and Portable Io Products?

Interaction with AJA's hardware in the new Avid products is simple. Using Media Composer 6.0 as an example:

Installation Order

It is important to install the Avid application first, then the AJA drivers, and then install the AJA Open I/O plug-ins.

Note: if the AJA driver or Open I/O Plug In is installed before the Avid software, the Avid software may not be able to identify the AJA product for use from within the application.

1. Install Avid software first
2. Install the appropriate AJA version 10 driver software for the AJA KONA card or Io product you have (see the list of supported AJA products provided at the beginning). AJA software for use with Avid can be found here for all AJA products:
    http://www.aja.com/support/avid/index.php
3. Install AJA Open I/O software last. This software can also be found at:
   http://www.aja.com/support/avid/index.php

Once these steps have been completed, you can use the AJA hardware with the Avid software.

Note: if for any reason this is not the order you install the software—or the Avid software does not recognize the AJA hardware, simply uninstall the AJA software using the provided AJA Uninstaller application found in the Applications>AJA Utilities folder and then reinstall the AJA software.

Accessing the AJA Control Panel

It is important to install the Avid editing application first and then install the AJA plug-ins. The plug-in will not install properly if the editing application is not already installed.

1. Open the Media Composer settings window

2. Select Video Input or Output

3. The AJA Control Panel will open automatically; you can now see at a glance how the hardware is configured and the formats selected.
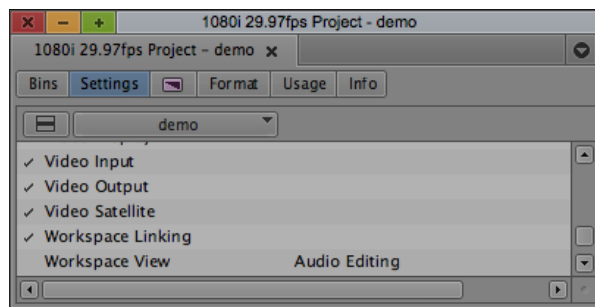
Note: once the Avid software is launched and running, the AJA Control Panel may be locked out from making some changes (such as input format), however viewing it allows you to see the workflow at a glance.
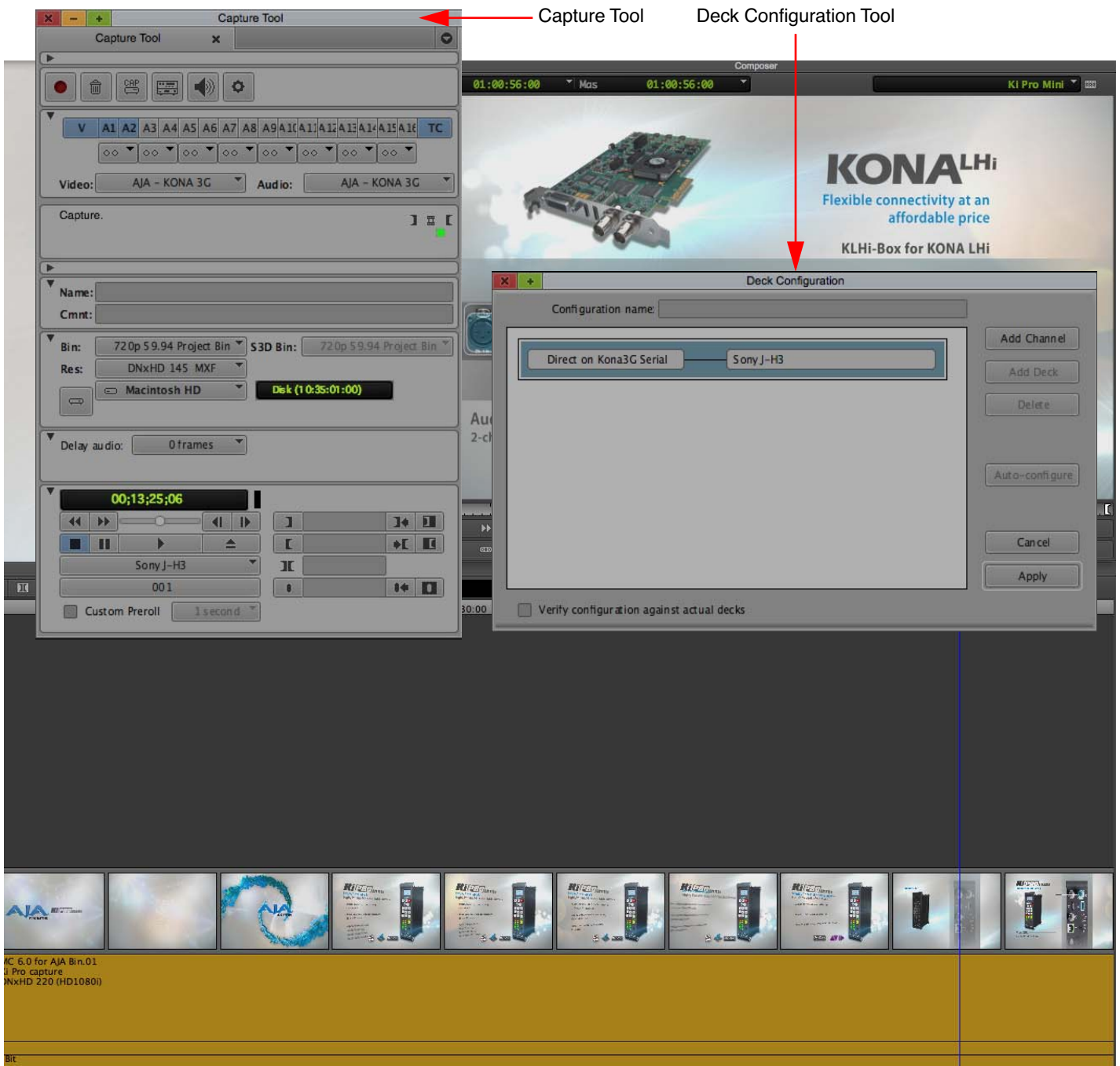
4. Simply close the AJA Control Panel when done
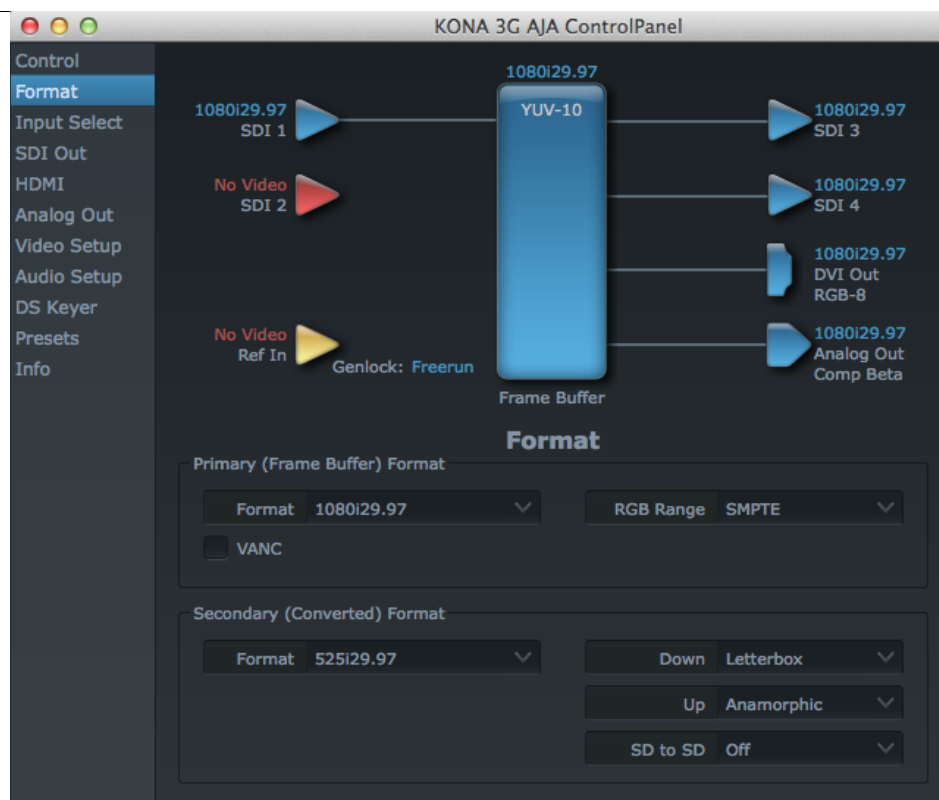
Using the Avid Capture Tool

1. Open the Capture Tool from the Tools menu

2. Set Video Input to AJA

3. Set Deck Configuration to: AJA hardware serial

4. Edit your captured clips and view on your professional broadcast monitor as you work

Edit as normal, the broadcast playout will occur through whichever connection you have chosen for your monitor to be fed from.

Capture Tool   Deck Configuration Tool

Operational Notes for AJA Hardware/Software When Used with Avid Software

AJA hardware can be configured for a variety of tasks using the AJA Control Panel application (installed with the driver for your product). The AJA Control Panel can be used to select the audio and video input, up/down/crossconversions, etc. You may find it easiest to configure these items in the AJA Control Panel prior to launching the Avid software. Once the Avid software is launched, it will take control of the AJA hardware and you will not be able to make changes to some parameters such as the Primary Format in the Format tab of the AJA Control Panel application. Configuring inputs and conversions prior to launching Avid software is recommended.
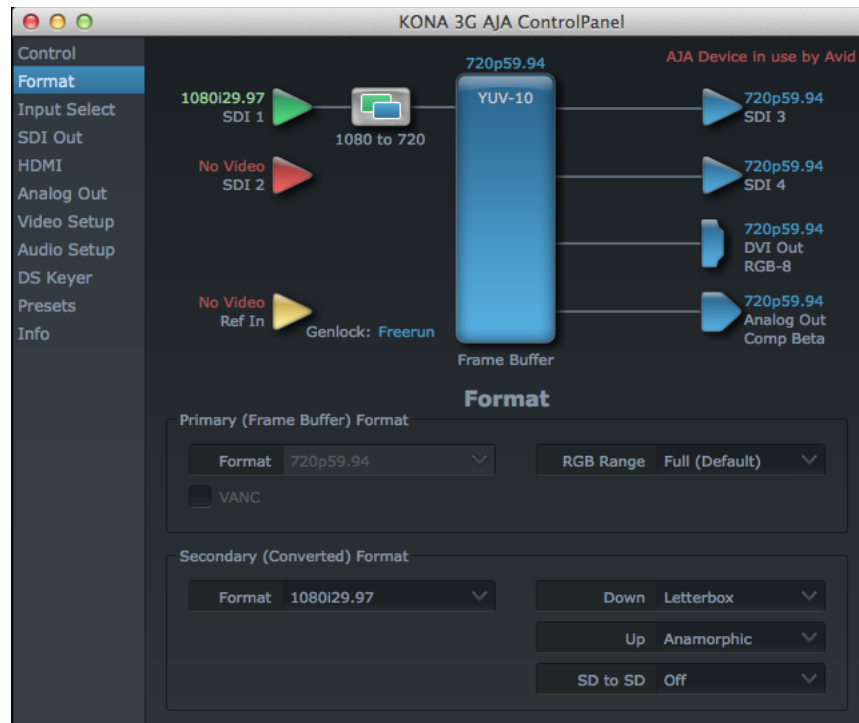
Configuring Conversions

Example: you want to perform a cross conversion from 1080i 29.97fps (1080i/59.94) to 720p 59.94 (720p/59.94). Before launching the Avid software, launch the AJA Control Panel application. In the pictured example, the incoming video is 1080i 29.97. In the Format tab of the AJA Control Panel, set the Primary format to 720p 59.94 since that is the desired format and the Secondary Format is set to 1080i 29.97; this is the format that is being received from the SDI input and is to be cross converted to 720p 59.94.
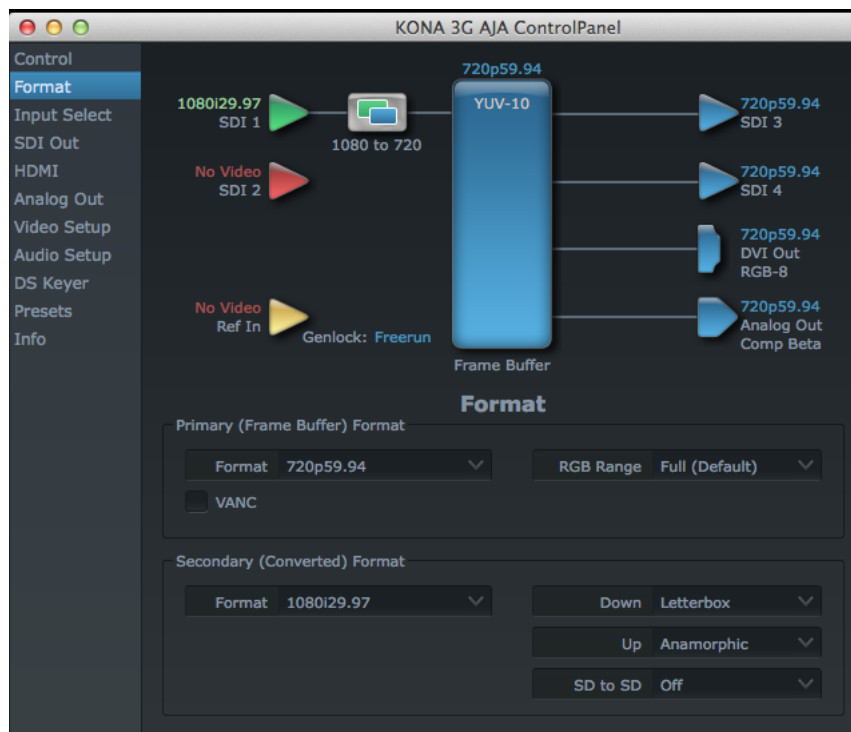

Note that an icon to denote the conversion is present between the SDI input and the Frame Buffer. If you configure this prior to launching Avid software, you will be able to capture video at 720p 59.94 (if an Avid Project with Format: 720p/59.94 is selected).

The Control Panel will look like this once the Avid software has been launched. It reports that the "AJA Device is in use by App (AVID)".

Once you have configured the AJA Control Panel and have seen that the desired inputs and conversions (if any) have been applied, you may close the application; the settings will be retained for the hardware even with the application closed. You may wish to close the application to make more room on your desktop for the Avid software user interface. If you want to continue running the AJA Control Panel while operating the Avid software, you may do so, arranging your windows in a configuration such as the one pictured below:
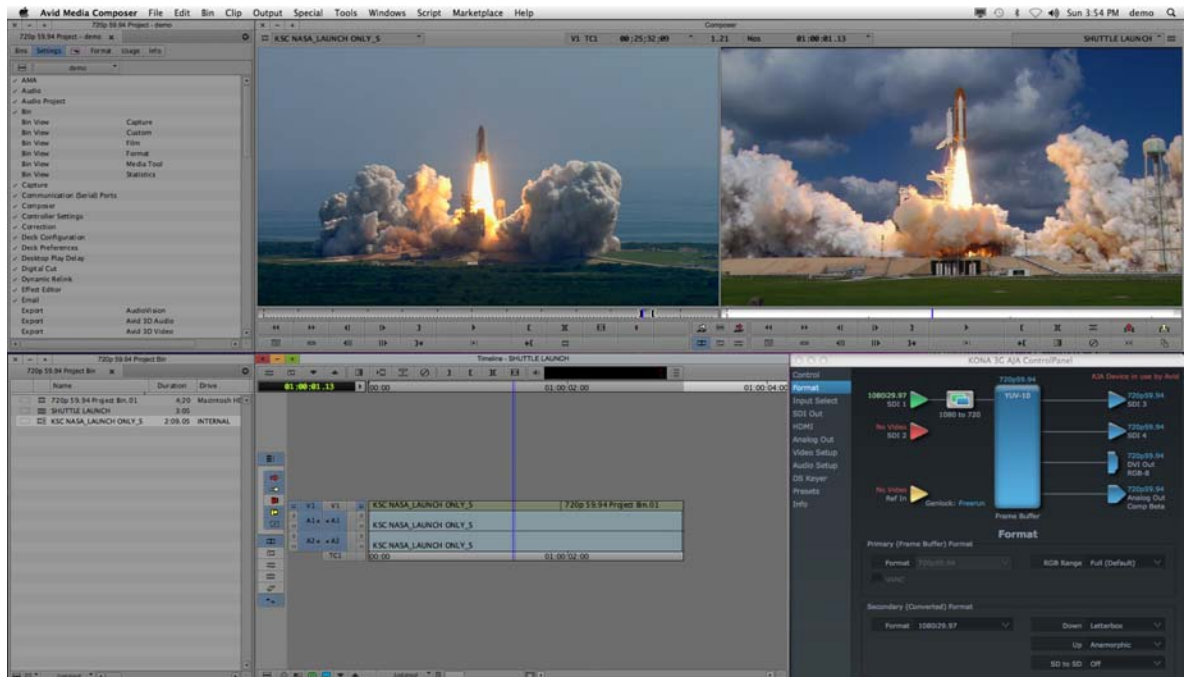
Using Other Applications and the AJA Control Panel

It is important to remember that when the Avid software is being used that the AJA hardware is not accessible by other applications. In order to use the AJA hardware with other software applications, you will need to quit the Avid software and wait for the AJA Control Panel to no longer report "AJA Device in use by App (AVID)".

Ways in Which Avid Software Can Impact the AJA Control Panel

The Avid software may have controls for the video output that will impact the AJA Control Panel Frame Buffer. With Avid Media Composer 6, you may elect to set the Video Quality Menu to Draft Quality (yellow/green icon), this will be displayed in the AJA Control Panel as a red typeface in the Frame Buffer "YUV-8". You may select Full Quality (green icon) and this will be displayed in the AJA Control Panel as a white typeface in the Frame Buffer "YUV-8". Finally, you may elect to set the quality to Full Quality 10-bit and this will be displayed in the AJA Control Panel as a white typeface in the Frame Buffer "YUV-10". For more information regarding Avid Media Composer "Video Quality Options for Playback", consult the Avid Media Composer Editing Guide document, pages 506 and 507.
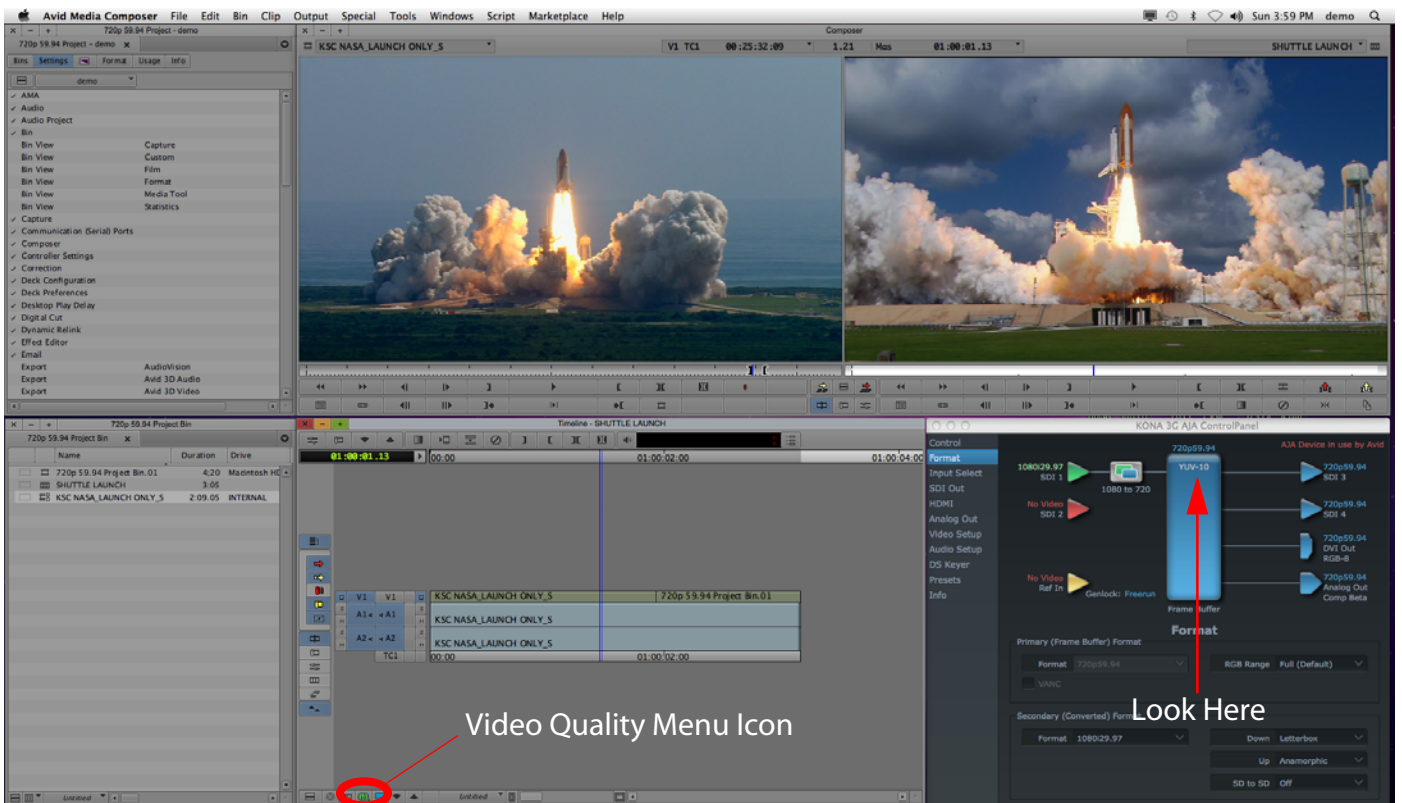
Examples of each of these Video Quality Options for Playback are pictured below:
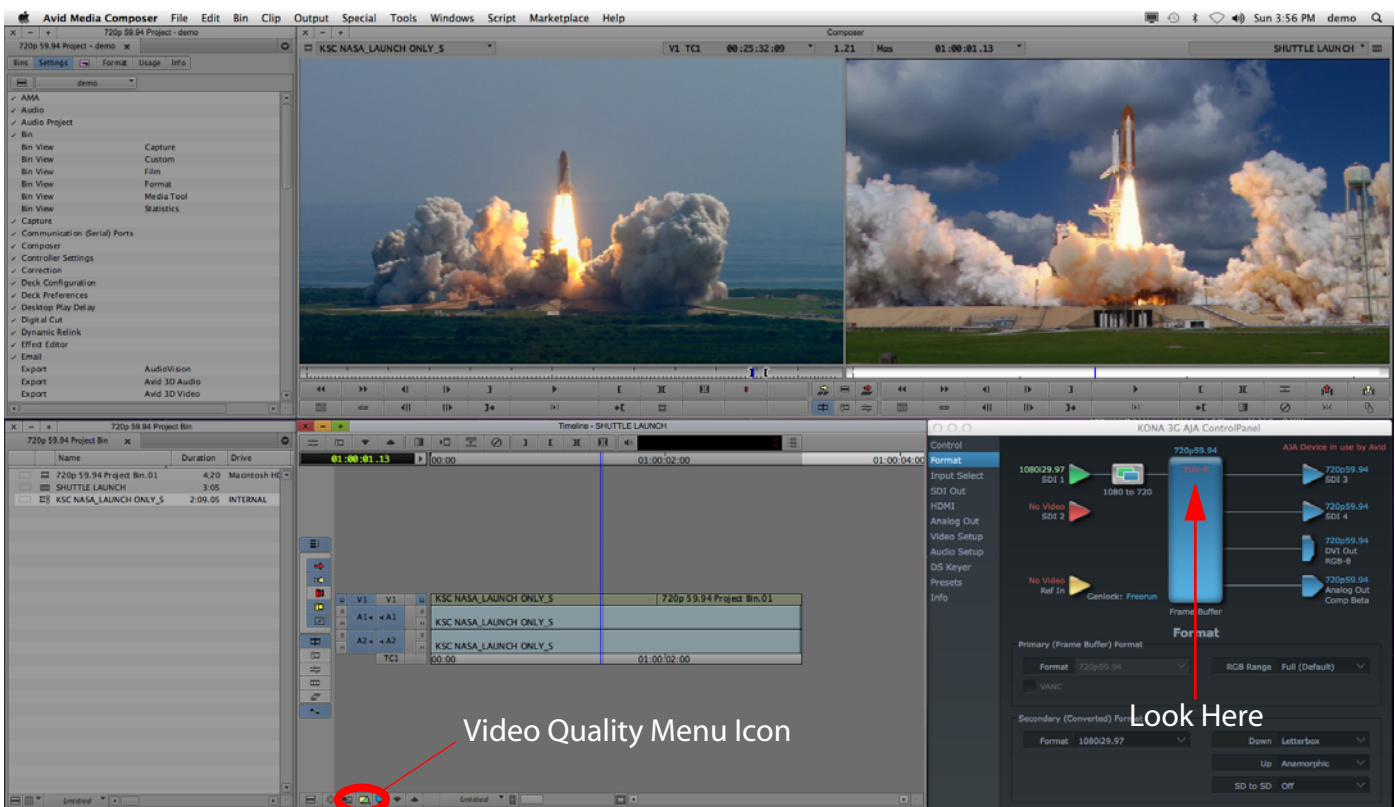
Draft Video Quality, YUV-8 (shown in Red)
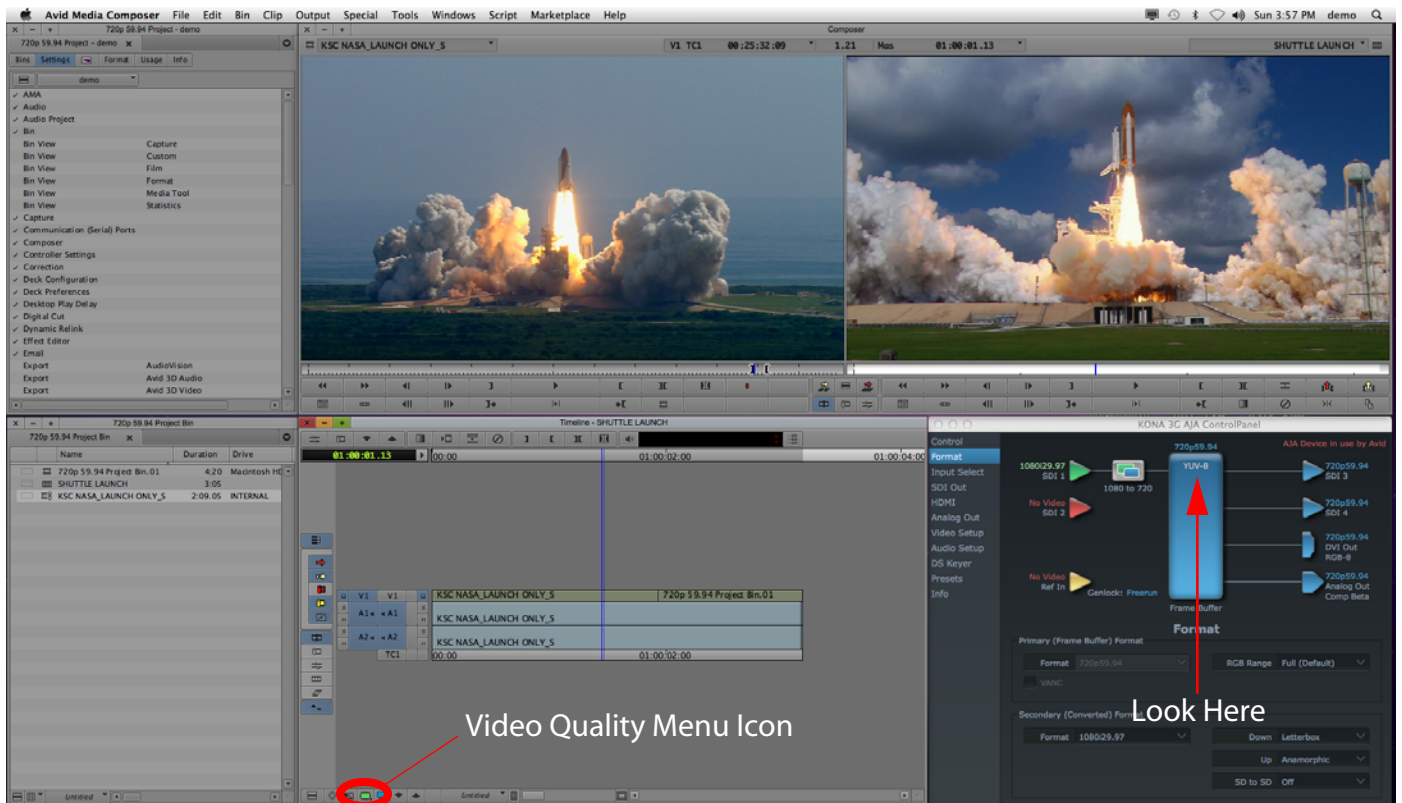
Full Video Quality, YUV-8 (shown in White)

10-bit Video Quality, YUV-10 (shown in White)

Known Restrictions

- When working with RGB material, you may see distortion in the Avid Media Composer desktop video display. However, the video output from the AJA product should not show this distortion.

- During conversions—such as up/down/crossconversions configured in the AJA Control Panel—Digital Cut outputs will have an offset of 1 frame. In some cases, the first frame of the output will also produce a distorted image. As a general guideline, Digital Cut should not be used with up/down/crossconversions.

Open IO Restrictions

As is normal with a new release and initiative, there may be restrictions to be aware of with the initial release of Open IO. Upon release certain workflows may not be enabled. Please check your Avid software readme for details and complete information.

Getting Help

If you have questions beyond the scope of this brief overview, please feel free to call our Support Engineers for further information.

Telephone: 800.251.4224 or 530.274.2048

http://www.aja.com/support/contact-support.php

Support Email: support@aja.com

If you have questions regarding the Avid software, contact Avid:

http://www.avid.com/US/support