Using the MOTU HDX-SDI with Media Composer

OVERVIEW

The MOTU Open I/O plug-in allows you to use MOTU's HDX-SDI PCI video interface with Media Composer 6 or later. This document explains how to install the plug-in and use the MOTU video interface hardware with your Media Composer system.

INSTALLATION

The Open I/O Plug-in is included in the latest complete software installer for the HDX-SDI, which can be downloaded from motu.com/video-download. Simply run the installer and follow the on-screen directions.

SETUP

Once you have run the installer, connect the HDX-SDI as explained in the manual. Run the MOTU Video Setup application to ensure that the software can successfully communicate with the hardware. Refer to the troubleshooting section of the manual, if needed.

USING MOTU VIDEO SETUP WITH MEDIA COMPOSER

The MOTU Video Setup application allows you to control HDX-SDI settings, and it can also provide useful troubleshooting information. Some of the controls in MOTU Video Setup have no effect when using Media Composer. (They are provided for other video editing applications.) This guide makes note of such controls.

You can open MOTU Video Setup from Media Composer in a number of ways:

- Choose *Hardware Setup* from the Tools menu.
- Click the Hardware Setup button in the Capture Tool or in the Hardware tab of Audio Project Settings.
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- Double-click *Video Input* or *Video Output* in the Settings tab of the Project window.
- Click the Monitor Volume button in the Timeline window.



Figure 1: MOTU Video Setup.

VIDEO FORMAT AND INPUT SOURCE

Use the Input Source menu (Figure 1) to choose the video input from which to capture. This input can also be used as timing reference for playback by setting *Playback Clock Source* to *Input Source*.

While Media Composer is running, the Video Format menu shows the current video format. It can also be used to choose between progressive (1080p) and progressive segmented frame (1080PsF) formats. Any other format changes must be made from within Media Composer (by opening a new project, or with the Project Type menu in the Format tab of the Project window).

STATUS AND TROUBLESHOOTING

The status area at the top of the window (Figure 1) provides helpful troubleshooting information. If video playback or capture isn't working, the status area will often tell you why. Media Composer will switch to playback mode when any window other than the Capture Tool is in front. If previewing for capture isn't working, open MOTU Video Setup, move the window if necessary so that it will not be covered by the Capture Tool, and then bring the Capture Tool to the front. This will allow you to see any diagnostic messages in the MOTU Video Setup window while in capture mode.

The Genlock indicator in the lower right of the MOTU Video Setup window and the Input Status in the lower left (Figure 1) are also useful for troubleshooting problems with connections and configuration. Troubleshooting tips:

• Unless there is a source of video sync (either house sync, or some sort of video input), the Playback Clock Source must be set to Internal.

• For 1080p Project Types, make sure to use the Video Format menu to choose 1080p or 1080PsF as appropriate.

• (For Mac users only) When using the serial port of the HDX-SDI for remote control of a deck, make sure the Timecode Source menu is set to Sony 9-pin.

SETUP PAGE

The Default Mode control (Figure 1) determines whether the HDX-SDI will be in Capture or Playback mode when not in use by any video application. It has no effect while using Media Composer.

The Capture Clock Source and Playback Clock Source menus (Figure 1) are used to set the timing reference used for video capture and playback. See the manual for details.

(For Mac users only) The Timecode Source menu (Figure 1) must be set to Sony 9-Pin when using the serial port of the HDX-SDI for remote control of a deck. The Timecode Destination and SDI Output Timecode Format menus have no effect when using Media Composer.

See the manual for information about the other settings on the Setup page.

Video Format Input Source Capture mode 1080i 29.97 SDI Interlace Pause Mode Field 1 Field 2 Full Frame Playback Timecode Offset Playback 29.97 fps Timecode 01:00:00:00 29.97 fps Drop Frame Color reset Lookup Table (CLUT) for 1.00 playback Input: 1080i 29.97 Setup Audio Genlock: On Playback Preview

Figure 2: The Playback tab settings.

PLAYBACK PAGE

The Playback Timecode Offset and Playback 29.97 fps Timecode controls (Figure 2) have no effect when using Media Composer.

See the HDX-SDI manual for information about the other settings on the Playback page.

AUDIO PAGE

Do not use the Sample Rate menu in MOTU Video Setup to change the sample rate when using Media Composer. The sample rate should only be changed by using the Sample Rate menu in the Main tab of Media Composer's Audio Project Settings.

(For Mac only) The Downmix to Output 1-2 on Capture button has no effect when using Media Composer.

Use the Inputs Bank A menu to choose which audio inputs will appear as the first eight inputs in Media Composer. The Bank B lets you choose an additional eight inputs, which will appear as inputs 9 through 16 in Media Composer. If Bank B is set to None, only 8 inputs will be available in Media Composer.

RS 422 DECK CONTROL

The RS 422 serial port on the HDX-SDI can be used with Media Composer on the Mac. It is not currently supported on Windows.

On the Mac, select the HDX-SDI's serial port in the Deck Configuration dialog by setting Channel Type to Direct and Port to HDX-SDI RS-422 Sony 9-Pin.

On Windows, use a separate USB-to-serial adapter for deck control. Avid recommends the Addenda RS-USB/4:

http://www.addenda.com/addenda-elect/products/rsUSB4.php

A NOTE ABOUT TIME CODE SUPPORT

As of Media Composer 6.0, Open I/O provides no support the following features of the HDX-SDI:

- Timecode input (LTC, VITC, or SDI embedded)
- Timecode output (LTC, VITC, or SDI embedded)
- Timecode display (except during batch capture or digital cut with the HDX-SDI's RS 422 serial port Mac only)

Notwithstanding this, Media Composer can do frameaccurate batch capture and digital cut with the HDX-SDI, using a deck connected with a USB-to-serial adapter, or (Mac only) using the HDX-SDI's RS 422 serial port.

Video Format 1080i 29.97		Captur	Capture mode		out Source
Sample I 48000	Rate	Oownmi	ix to Output 1-2 on (Capture	
					Analog Input Trims
Inputs	Bank A (1-8) Analog (TRS)	Bank B (9- SDI/HDMI	Bank B (9-16) SDI/HDMI		
Outputs					
Analog	1 2 3 4 5 6	7 8 9 10 11	12 13 14 15 16	Off	
AES/EBU	1 2 3 4 5 6	7 8 9 10 11	12 13 14 15 16	Off	
HDMI	1 2 3 4 5 6	7 8 9 10 11	12 13 14 15 16	Off	7 8
SDI	1 2 3 4 5 6	7 8 9 10 11	12 13 14 15 16	Off	
Input: 1080i 2	9.97 Setup	Playback	Preview	Audio	Genlock: On

Figure 2-1: Audio tab.