HDMI to USB Capture Device w/Loop Out
DL-HD2USB-CAP

LIBERTY AV SOLUTIONS

PRODUCT OVERVIEW

The Liberty DL-HD2USB-CAP is a commercial-grade, USB capture device designed to record uncompressed video and audio from an HDMI source such as a camera or media player, all while connected directly to a computer.

Being 100% USB compliant, the device is ideal to use with any HDMI-equipped camera, switcher, or other media equipment, its plug-and-play design requires no drivers or downloads to install. Stream from a HDMI source directly to YouTube, Facebook, or your favorite video conferencing software platform such as (Teams, Zoom, Workplace, and many others. In addition, Liberty's capture device supports mixed audio from an audio line input and HDMI audio stream, along with extracting audio from the HDMI source.

• **CAPTURE HDMI SIGNALS:** Using USB 3.0 technology, capture audio and video from an HDMI signal, recording up to 1080p @60Hz. Supports the latest HDMI technologies.

• **4K HDMI LOOPOUT:** Perfect for connecting to an existing system connection or route to a preview monitor without needing a distribution amplifier.

• **VIDEO RECORDING:** with H.264 software compression. Supports USB 3.0 (MJPG/YUY2) and USB 2.0 (MJPG). Compatible with USB video class (UVC 1.0). Low latency.

• **POWER:** Bus powered through USB 3.0 (USB 3.2, Gen 1) interface to computer.

• **VIDEO CAPTURE RESOLUTIONS:** 720 x 480 (60p), 720 x 576 (50p), 1280 x 720p (50p), 1280 x 720p(60p), 1920 x 1080 (50i), 1920 x 1080 (60i), 1920 x 1080 (24p), 1920 x 1080 (25p), 1920 x 1080 (30p), 1920 x 1080 (50p), 1920 x 1080 (60p).

• **VIDEO LOOPOUT RESOLUTIONS:** 720 x 480 (60p), 720 x 576 (50p), 1280 x 720p (50p), 1280 x 720p(60p), 1920 x 1080 (50i), 1920 x 1080 (60i), 1920 x 1080 (24p), 1920 x 1080 (25p), 1920 x 1080 (30p), 1920 x 1080 (50p), 1920 x 1080 (60p).3840x2160 (30/60p).

• **AUDIO INPUT:** Mixed audio from either the HDMI input and/or TRRS microphone will route to the USB output. The TRRS microphone can be used without HDMI being connected to the device.

• **AUDIO OUTPUTS:** HDMI, USB, and the TRRS port. Audio from the microphone input will not route to the HDMI output nor to the TRRS line output, just to USB.

• **COMPLIANCE:** Gen USB 3.x while being fully backwards compatible with USB 2.0.

• **CAPTURE/STREAMING SOFTWARE:** Compatible with most third-party software such as AMCap, OBS Studio (Windows, OS X); Windows Media Encoder (Windows); Adobe Flash Media Live - Encoder (Windows, OS X); Real Producer Plus (Windows); VLC (Windows, OS X, Linux); QuickTime Broadcaster (OS X); QuickTime Player (OS X); Wirecast (Windows,OS X); vMix (Windows); Potplayer (Windows).

• **PACKAGE INCLUDES:** Capture device, USB 3.0 cable, and user manual.

• **COMPLETELY PLUG AND PLAY:** NO additional driver or software required to be recognized by the computer.
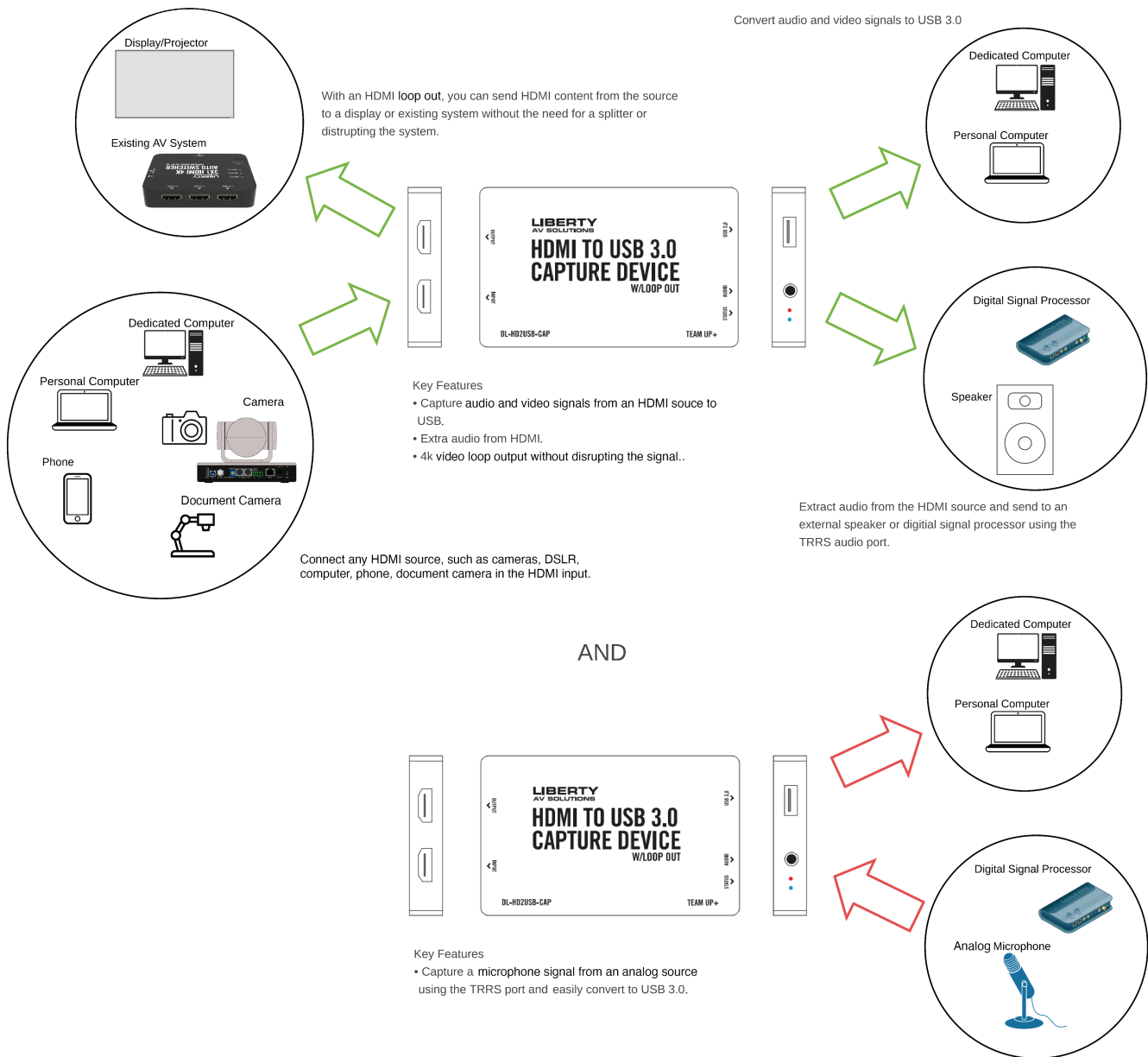
PRODUCT BREAKDOWN

1. INPUT: HDMI female port. Connect a video source using a HDMI cable.

2. OUTPUT : HDMI female port. Connect to display or existing system using a HDMI cable.

3. Output: USB 3.0 female A port. Connect to computer using a USB 3.0 cable.

4. INPUT/OUTPUT: TRRS female port. Connect a headset or other audio device to send a microphone.
   signal and route audio out from the HDMI source.

5. Blue LED: HDMI Status.

   Red LED: Power Status.

GETTING STARTED

1. Connect the capture card to your computer using the provided USB cable. The power indicator should illuminate red.

2. Connect the source that you want to capture into the HDMI input of the capture device.

3. Run the software you wish to use and select the capture device "LibAV HD Capture Card" as the default device for video and/or audio.

APPLICATION DIAGRAM

Convert audio and video signals to USB 3.0

Display/Projector

Existing AV System

With an HDMI loop out, you can send HDMI content from the source to a display or existing system without the need for a splitter or distrupting the system.

Dedicated Computer

Personal Computer

HDMI TO USB 3.0 CAPTURE DEVICE W/LOOP OUT
DL-HD2USB-CAP   TEAM UP+

Dedicated Computer

Personal Computer
Camera
Phone
Document Camera

Key Features
• Capture audio and video signals from an HDMI souce to USB.
• Extra audio from HDMI.
• 4k video loop output without disrupting the signal..

Digital Signal Processor

Speaker

Extract audio from the HDMI source and send to an external speaker or digitial signal processor using the TRRS audio port.

Connect any HDMI source, such as cameras, DSLR, computer, phone, document camera in the HDMI input.

AND

Dedicated Computer

Personal Computer

HDMI TO USB 3.0 CAPTURE DEVICE W/LOOP OUT
DL-HD2USB-CAP   TEAM UP+

Digital Signal Processor

Analog Microphone

Key Features
• Capture a microphone signal from an analog source using the TRRS port and easily convert to USB 3.0.

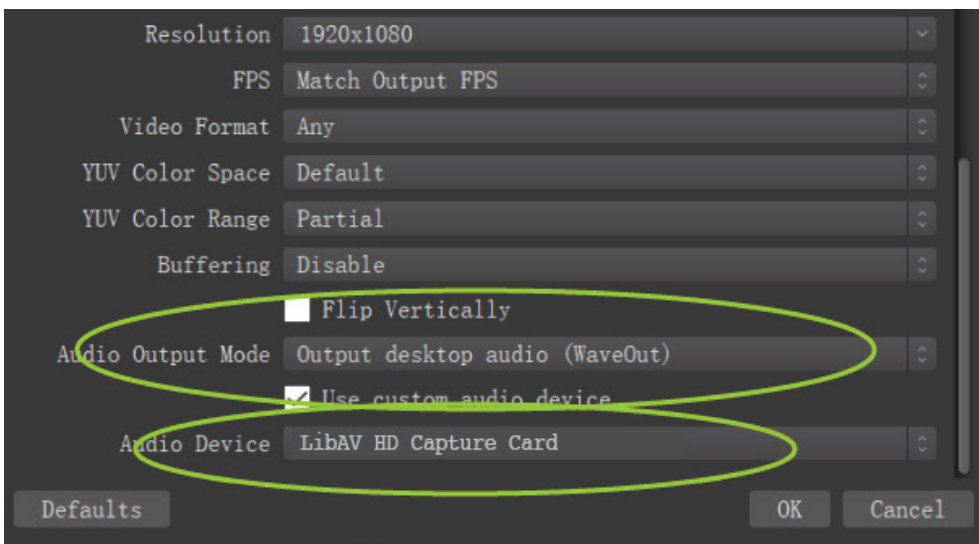# SETTING UP THIRD-PARTY SOFTWARE

When using OBS Studio:

Make sure you download the latest software from their website according to your computer's operating system, and install it on your computer. Connect the DL-HD2USB-CAP to computer using the provided USB 3.0 cable. Windows will install the driver automatically, and you will see "LibAV HD Capture Card" listing within your device manager.

Start the OBS Studio software and click the "+" icon under the "Sources" window, and select "Video Capture Device", then select "LibAV HDCapture Card" in the dropdown next to "Device":
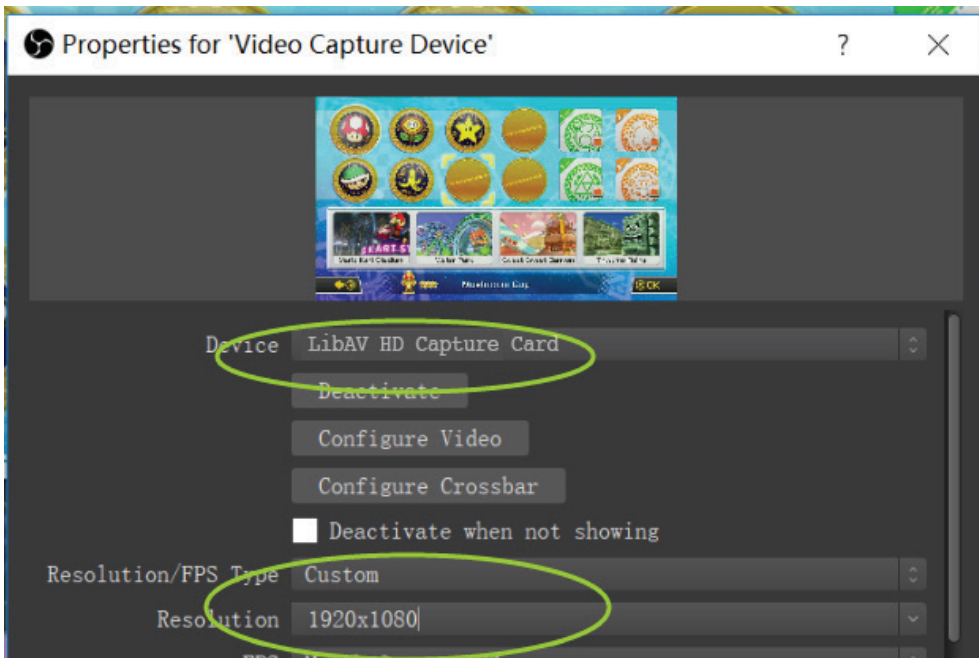
Scroll down and set the "Audio Output Mode" to "Output desktop audio (WaveOut), Audio Device to "LibAV HD Capture Card":

SETTING UP THIRD-PARTY SOFTWARE CONT.

When using QuickTime Player:

Run QuickTime Player, select "New Movie Recording":
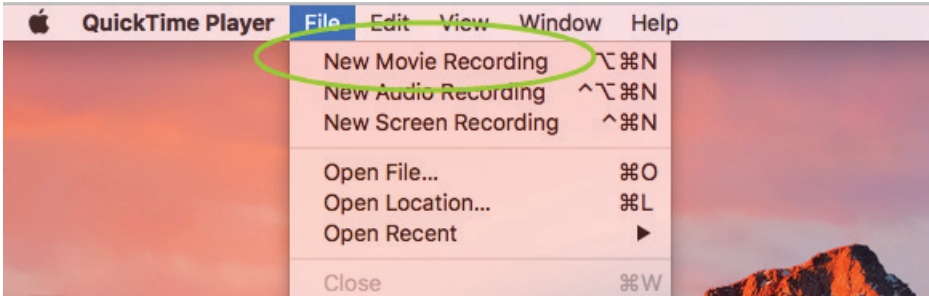
Choose "LibAV USB SDI Capture Card" under Camera and Microphone option:
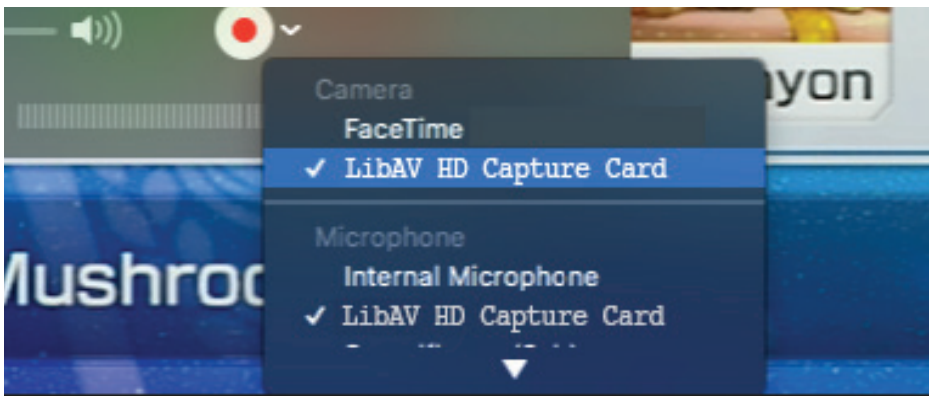
When using a Linux machine with OBS VLC (shows example for Ubuntu):
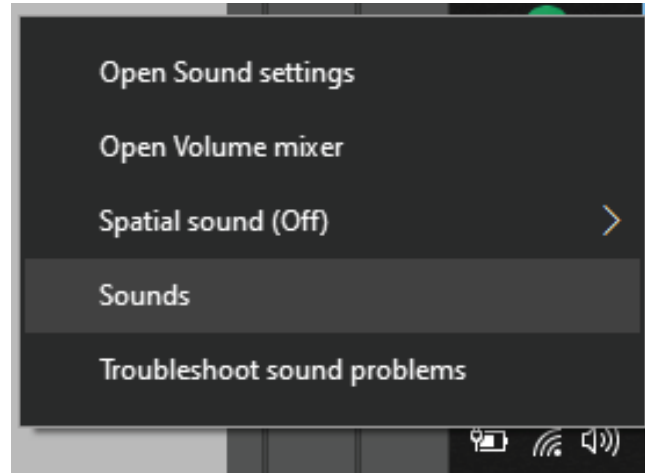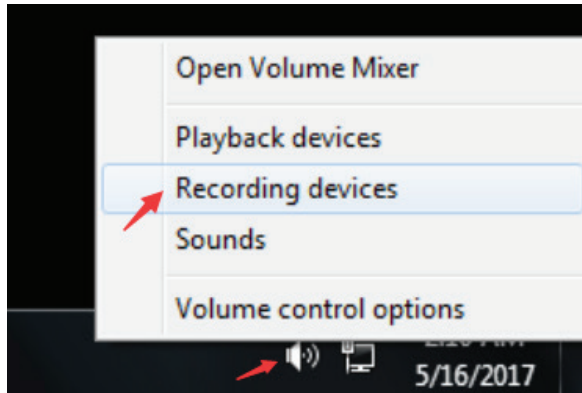
Right click on window; select "Open Capture Device":
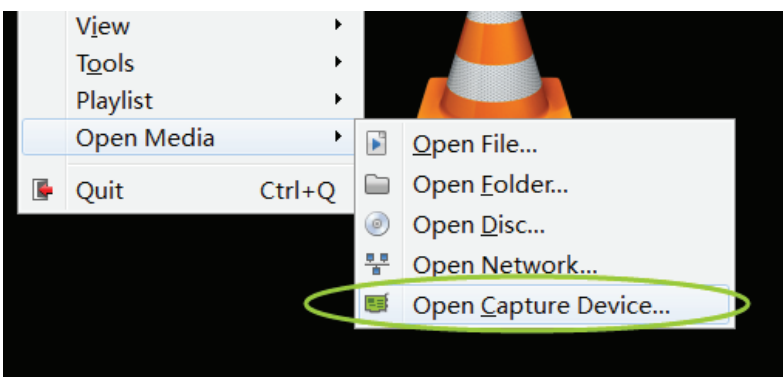

Choose "Video camera" ---"/dev/video0" then click "play"
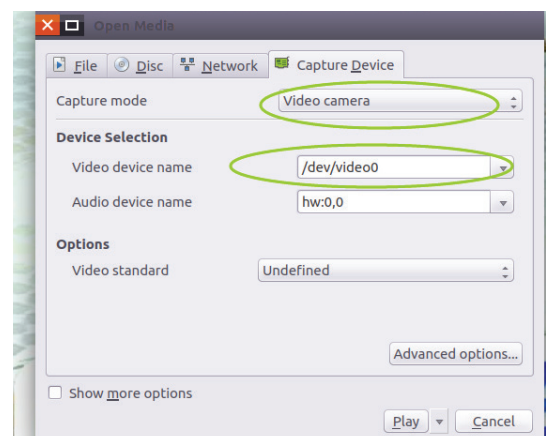
SYNCHRONIZING AUDIO WITH VIDEO

After connecting the device to your computer using the provided USB cable, right click on "Speaker" within the toolbar and choose "Recording devices" or "Sounds".

Within the pop-up window, click on the "Recording" tab and find "LibAV HD Capture Card". Double click on the device and then click the "Advanced" tab. The "Default format" will be shown; make sure that "2 channel 16 bit, 48000 Hz (DVD Quality)" is selected within the dropdown.

You will need to verify that your audio matches the video sample rate. If the video sample rate is set to 44100hz or 32000hz, then you need to adjust the audio to match to reduce the introduction of noise.
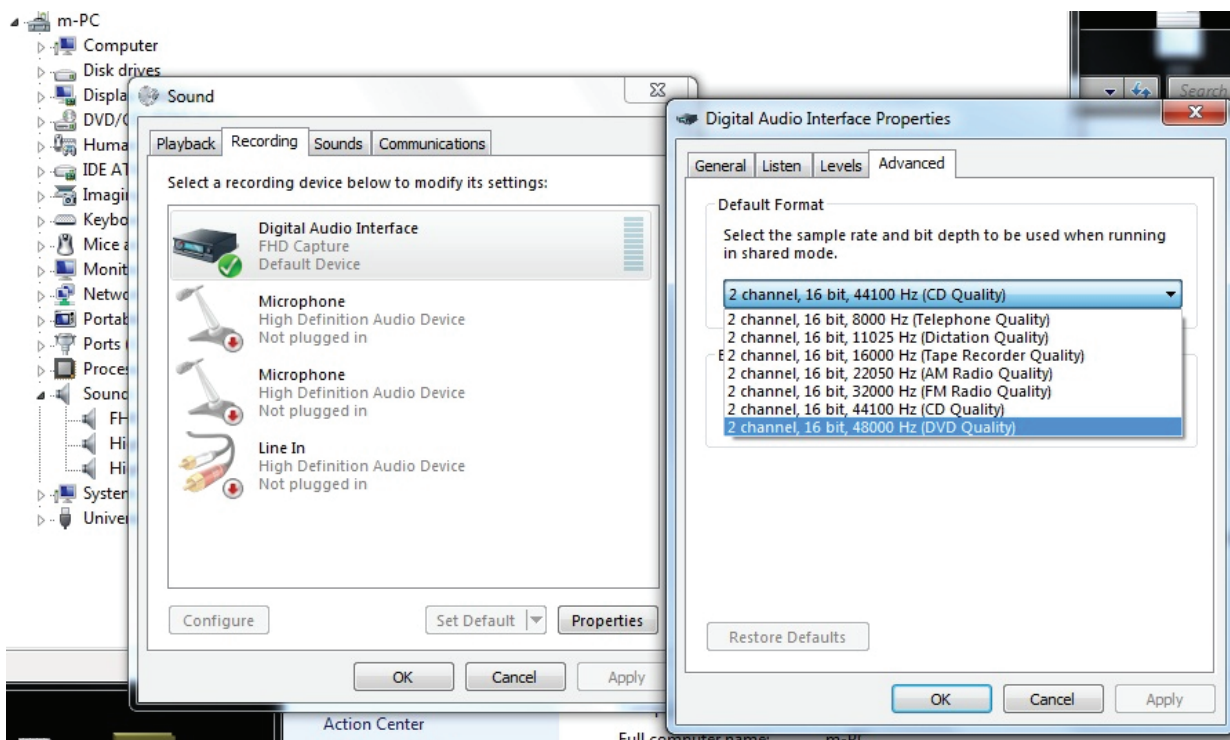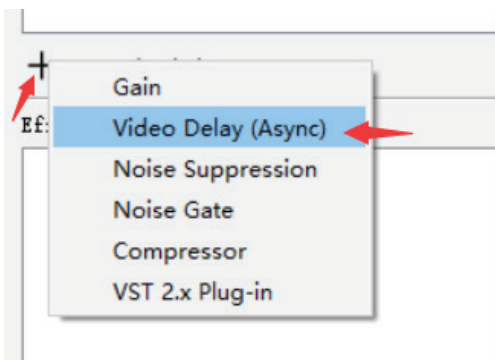
SYNCHRONIZING AUDIO WITH VIDEO CONT.

When setting up the software for video latency, you want to make sure the audio and video are synchronized:
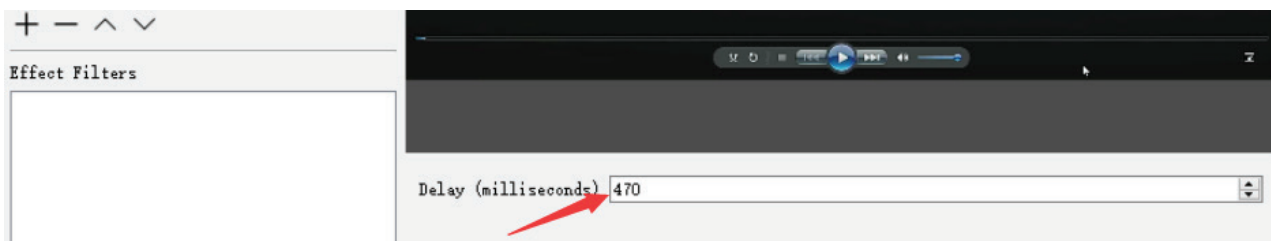
Using OBS Studio, right click on "Video Capture Device" then click "Filters":
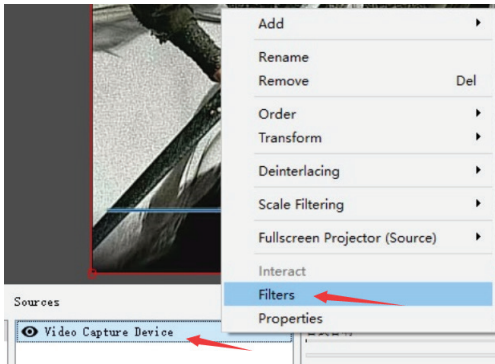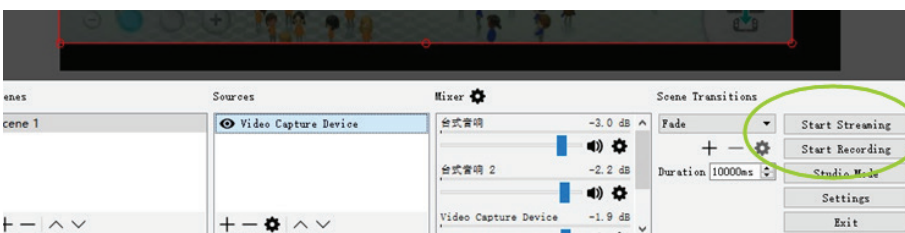

Click on "Video Delay (Async)"

Within the dropdown, start off with 470ms and adjust accordingly in small amounts until the video and audio are synched.
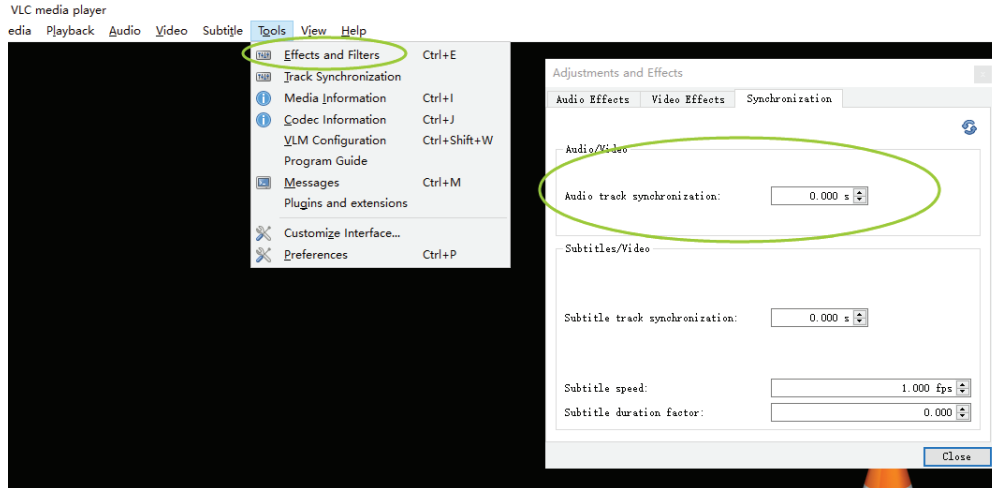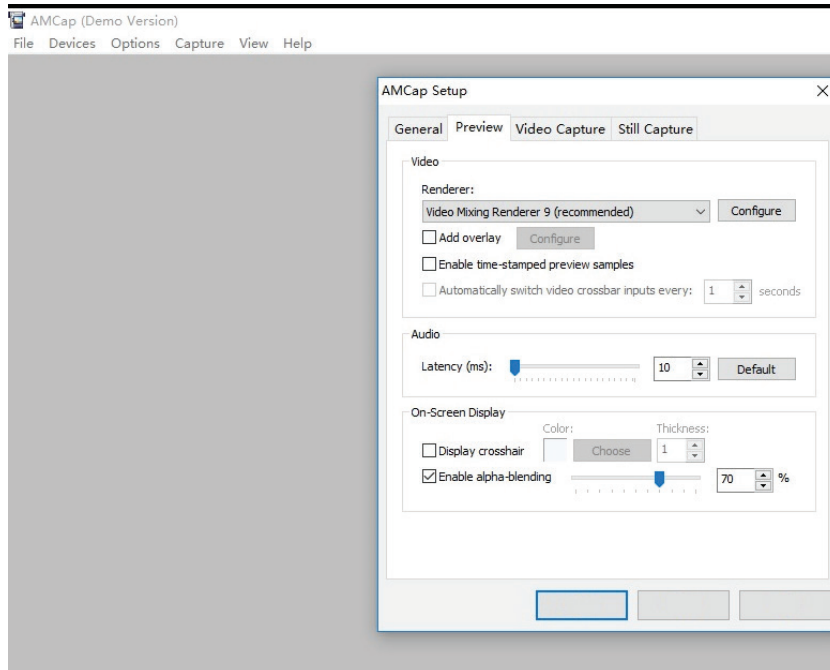

Start Recording/Streaming

SYNCHRONIZING AUDIO WITH VIDEO CONT.

When using VLC: Click on Tools>Effects and Filters-Synchronization then adjust the delay value of audio track synchronization, until the audio and video are in synch.

When using Amcap: Click on Capture>Setup>Preview; set the audio latency to your preference which is normally set to 10ms:
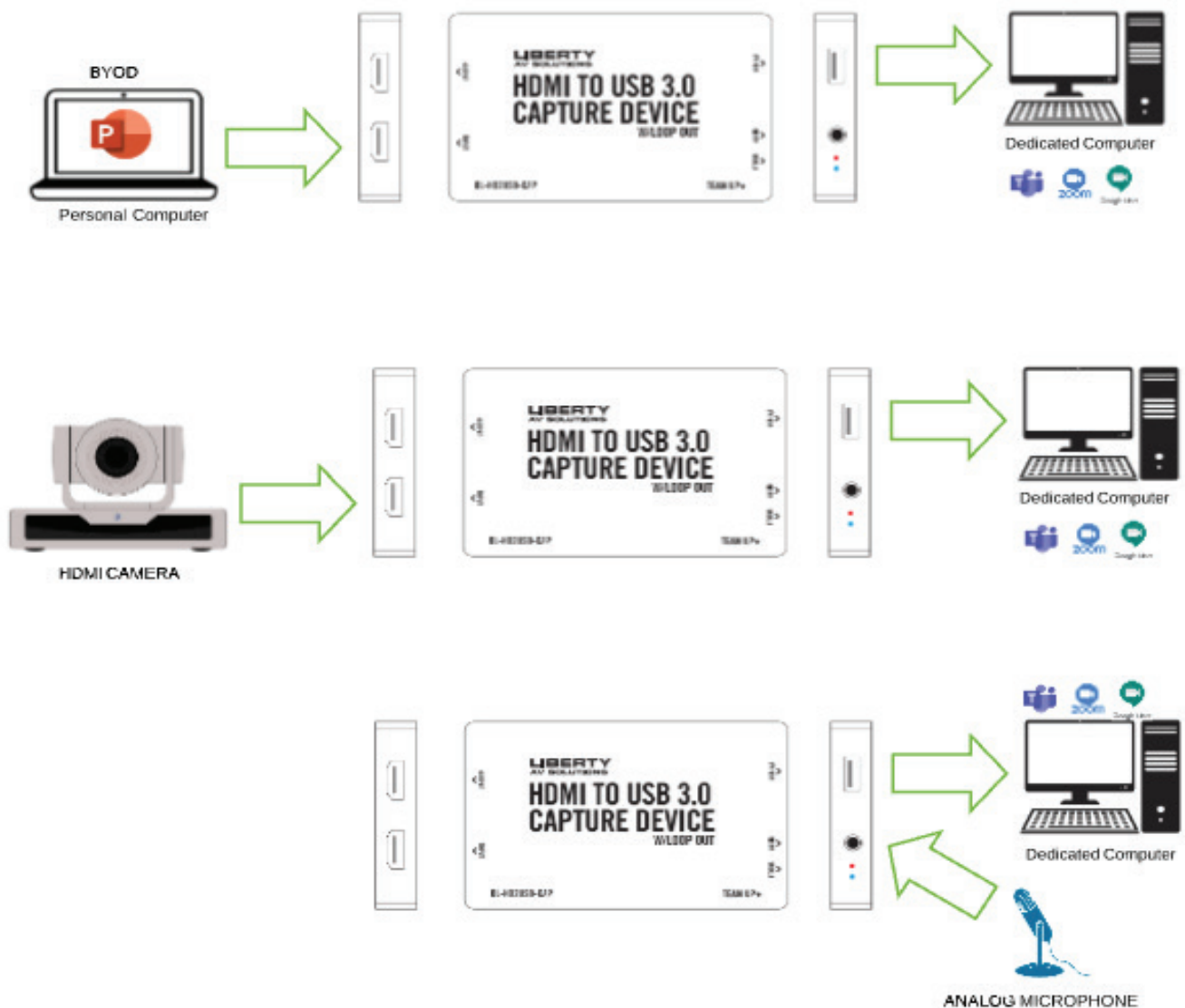
ONLINE MEETINGS

With the Liberty HD capture card you can convert any digital camera to a web camera for making video calls with just a computer, a camera, and a video capture device.

First, connect a camera with an HDMI, Micro HDMI, USB-C, or another HD video output port, which includes a DSLR camera.

Within the online meeting software settings, select the "LibAV HD Capture Card" as the default camera.

The same goes for converting analog microphones into USB and selecting the "LibAV HD Capture Card" as the default microphone.

In some instances, using certain online meeting software, you can share the content from a laptop into the meeting by connecting the content laptop into the "LibAV HD Capture Card" and the "LibAV HD Capture Card" into the computer running the software.
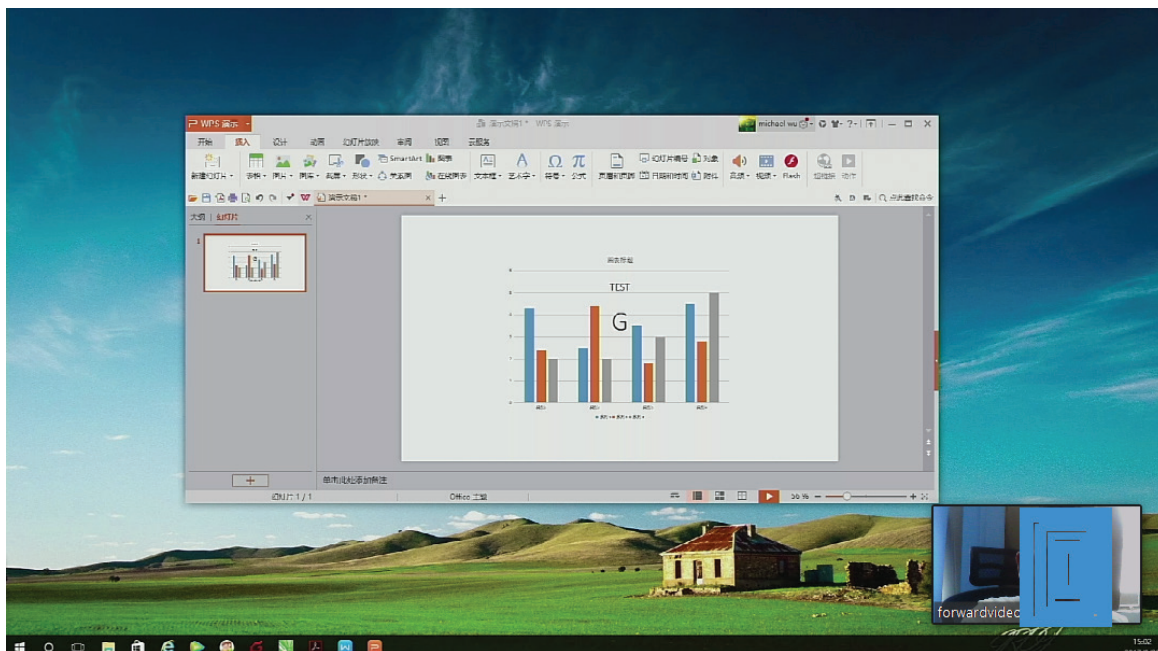
ONLINE MEETINGS

Screensharing using the desktop application and the DL-HD2USB-CAP device.
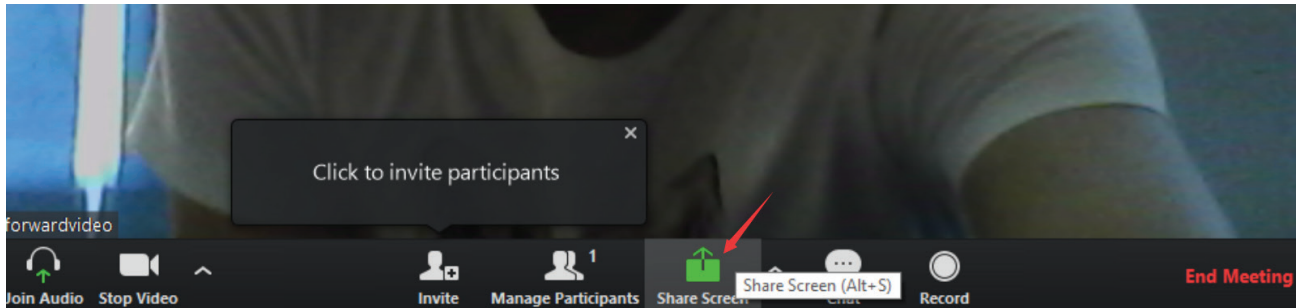
Select "VLC Media Player" (or other application), then click "Share Screen":

The presenter and your content will show at the same time.

TECHNICAL SPECIFICATIONS

USB Capture Device	
Case Material	Industrial-grade metal chassis
Supported Transfer Rates	Transfer rate of 5Gbps/1.5/12/480 Mbps
Power Protection	Over current, over voltage, short circuit protection
USB Specifications	Fully compatible with USB 2.0/3.0/1.0 specification. Fully backwards compatible with USB 2.0/1.1 specification.
LED Indicator	Blue LED: Status for USB peripheral Red LED: Status for power from USB host
Compatibility	
Operating System	Windows®7 (1080p and under only), Windows 8.1, Windows 10 or higher MacOS™ 10.10 or higher Google™ Chromebook™ Version 29.0.1547.70 or higher Linux.
USB Communication Protocol	UVC 1.1
Video Resolution	720 x 480 (60p), 720 x 576 (50p), 1280 x 720p (50p), 1280 x 720p(60p), 1920 x 1080 (50i), 1920 x 1080 (60i), 1920 x 1080 (24p), 1920 x 1080 (25p), 1920 x 1080 (30p), 1920 x 1080 (50p), 1920 x 1080 (60p), 3840*2160(30/60p for input and loop output.
Software	OBS Studio (Windows,OS X); Windows Media Encoder (Windows); Adobe Flash Media Live -Encoder (Windows, OS X); Real Producer Plus (Windows); VLC (Windows, OS X, Linux); QuickTime Broadcaster (OS X); QuickTime Player (OS X); Wirecast (Windows,OS X); vMix(Windows); Potplayer (Windows) and etc.
USB Recording Resolution	1080P 60flps
Input/Output Interface	
USB Interface	1x USB-B 3.0 Upstream Port
Support on Upstream Port	SuperSpeed (SS), HighSpeed (HS) and FullSpeed (FS) traffic. Note: Transfer rates are device and USB host controller dependent.
Video Input	1x HDMI female port
Video Output	1x HDMI female port
Audio Input	1x HDMI female port, 1x TRRS audio jack for microphone signal
Audio Output	1x HDMI female port, 1x TRRS audio jack for line level audio *audio from TRRS will not route to HDMI loop output * audio from TRRS can be converted to USB without the need for an HDMI connection.
Physical Parameter	
Power	From USB bus power
Dimension (WxHxD)	117(L) x 72(W) x 15.5(H) mm
Net Weight	168 grams
Certification	CE, FCC, RoHS

Thank you for your purchase.

For technical support please call our
toll-free number at 800-530-8998
or email us at supportlibav@libav.com