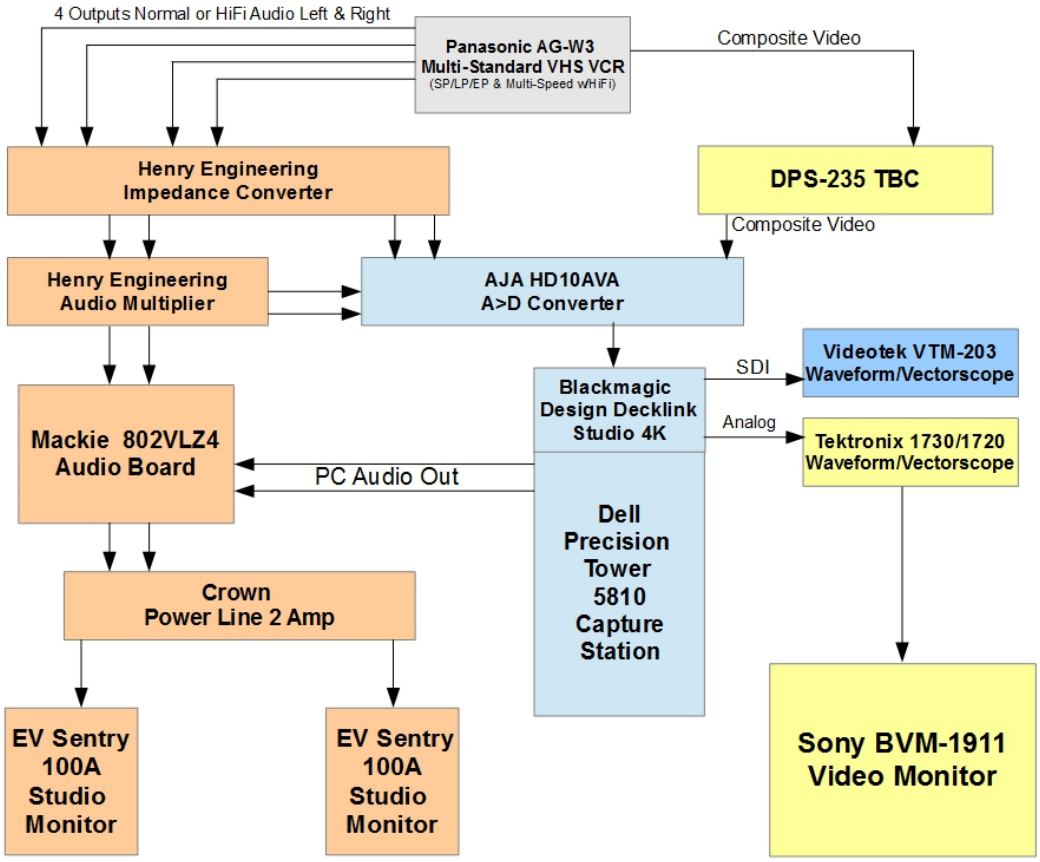
IU Media Digitization Studios
VHS videotape Signal Chain
(Applies to VHS; SP/LP/EP or mixed speeds, with or without HiFi)
Date of last revision: 12/4/2020



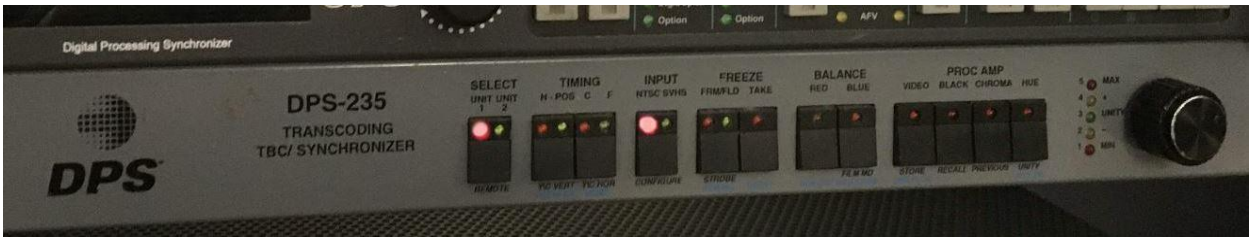
Choose a Capture Station (1 or 2) and DPS-235 (TBC 2 or 3) for digitization (for this example we will use Capture-1 with the DPS-235 labeled as TBC 3 on the patch panel).

The Panasonic AG-W3 deck can play tapes of all 3 VHS speeds; standard play (SP), long play (LP) and extended play (EP). It cannot play S-VHS tapes. It can play both normal and HiFi audio tracks but there are limitations. The deck has 4 separate RCA audio outputs, but they are controlled by the remote control's audio setting; either normal or HiFi audio can be played but not both simultaneously.

The AG-W3 does not have S-VHS capability, just composite video only. Although MDPI does not currently use it, the AG-W3 can also play and convert videotapes from other television standards such as PAL and SECAM.

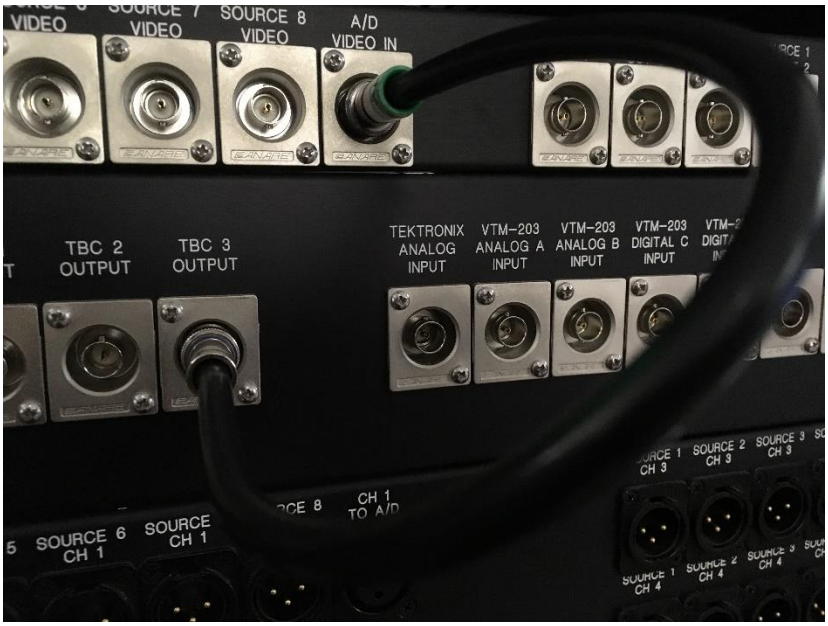
On the front of the DPS-235 TBC unit:

Press the “Select” button until “Unit1” is illuminated.
Press the “Input” button until “NTSC” is illuminated.



On the BNC video patch panel, patch the AG-W3 (Source 5) composite video out into TBC 3 INPUT.

Patch TBC 3 OUTPUT into A/D VIDEO IN (this sends the output of the DPS-235 TBC into the AJA HD10AVA converting the signal from analog to digital SDI).



Patch the A/D VIDEO OUT 1 into the SDI CAPTURE CARD for capture station 1 (this sends the converted SDI signal into the Blackmagic Design capture card in the PC).

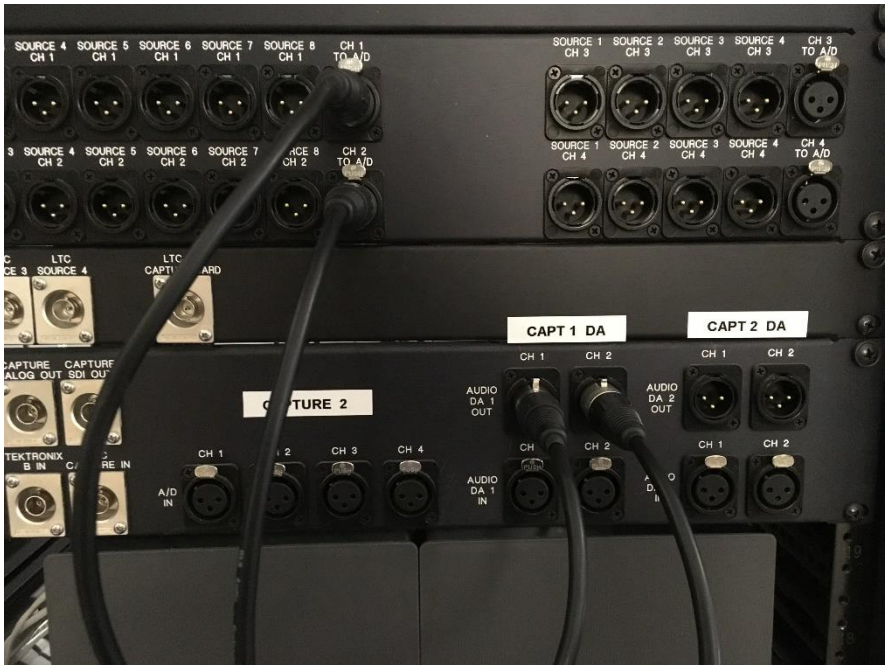
Patch the CAPTURE SDI OUTPUT into the VTM-203 DIGITAL C INPUT (this sends the SDI output of the capture card into the Videotek VTM-203 Waveform/Vectorscope which feeds the Dell monitor display on the console for signal monitoring and setup).

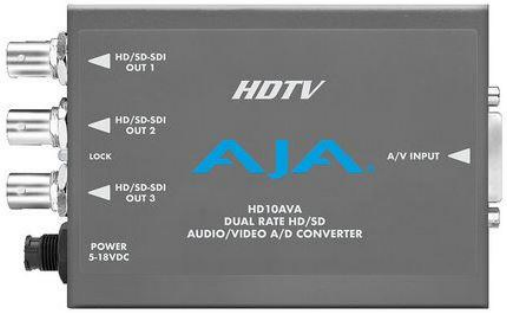
Patch the CAPTURE ANALOG OUTPUT to the TEKTRONIX ANALOG INPUT (this sends the analog output of the capture card to the rack mounted analog Tektronix 1730 Waveform Monitor and Tektronix 1720 Vectorscope)

The AG-W3 has unbalanced audio coming from the RCA outputs. The Henry Engineering Twinmatch Dual Stereo Level and Impedance Interface is patched in line upstream from the patch panel so that the audio levels come out properly balanced at the patch panel.

On the XLR audio patch panel, patch VCR Source 5 channels 1 and 2 into Capture 1 Audio DA IN channels 1 and 2 (this sends the audio into the Henry Engineering Patchbox II Output Multiplier, where the signal is sent to the Mackie audio board for monitoring during digitization).

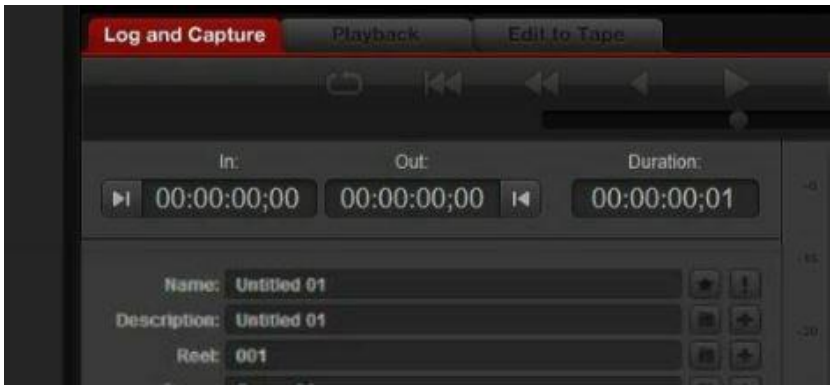
Patch Capture 1 Audio DA OUT channels 1 and 2 into A/D IN channels 1 and 2. (this sends the analog audio to the AJA HD10AVA to be embedded with the video into an SDI signal)



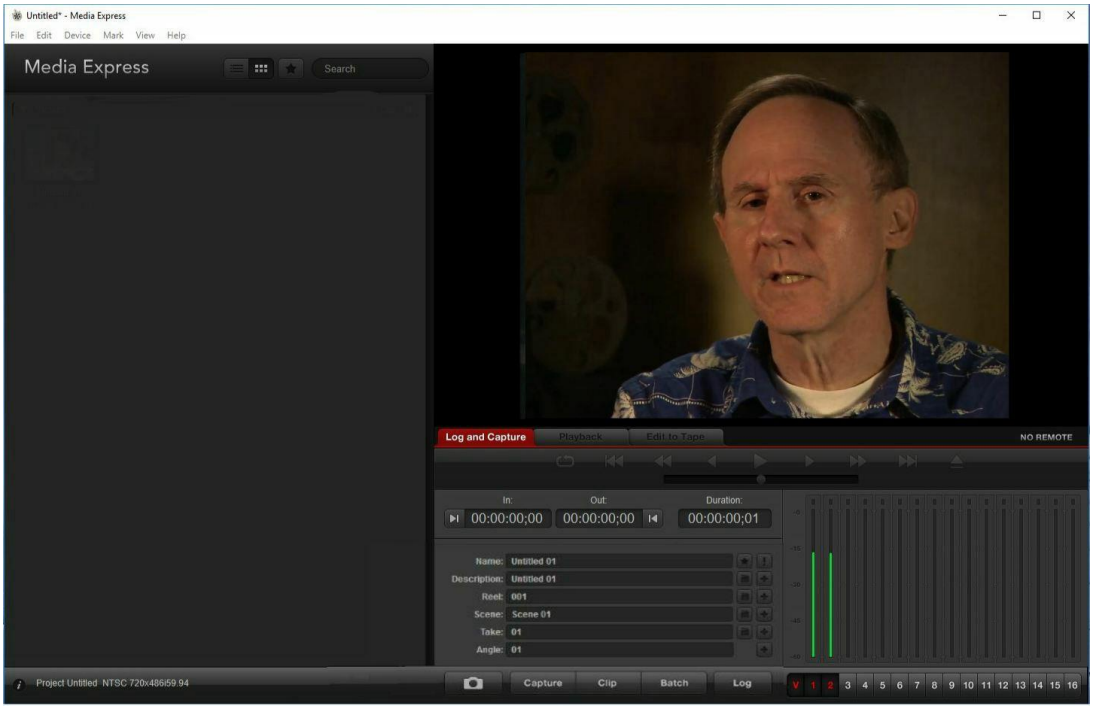


To see the video and audio levels through the capture system, launch the “Blackmagic Media Express” tool from the start menu of the Capture work station

Press the “Log and Capture” tab.



With the source tape in play, you should now see video passing and audio levels visible on the meters. Confirm that all tracks are present.



Confirm that audio content is audible through the first two faders of the Mackie 802 VLZ4 audio board.