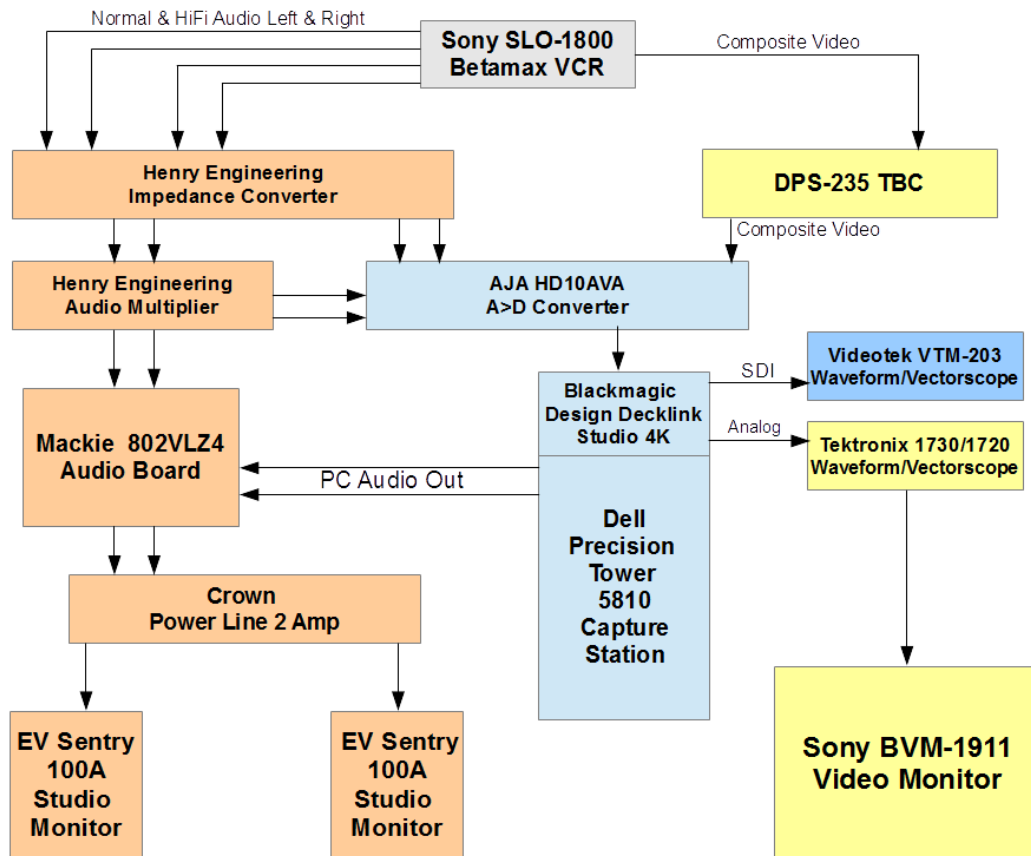


**IU Media Digitization Studios**  
**Betamax Signal Chain**  
 Date of last revision: 12/3/2020



Choose a Capture Station (1 or 2) and one of the DPS-235 Time Base Correctors (TBC 2 or 3) to use for digitization (for this example we will use Capture-1 and TBC 3).

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 Sony SLO-1800 Betamax VTR (Source 6) composite video source 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 video 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 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).

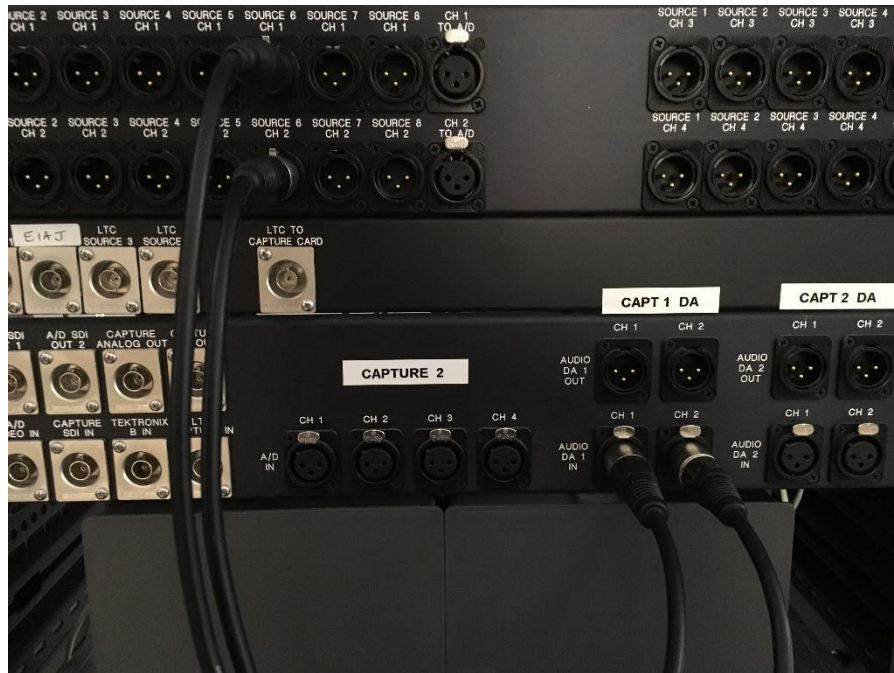


The Sony SLO-1800 Betamax VTR has unbalanced audio coming from the RCA outputs. The Henry Engineering Twinmatch Dual Stereo Level and Impedance Interface is patched in line upstream from the patch panel so that the Source 6 audio levels come out properly balanced at the patch panel.





On the XLR audio patch panel, patch VTR Source 6 channels 1 and 2 into Capture 1 Audio DA IN channels 1 and 2 (this sends the balanced audio into the Henry Engineering Patchbox II Output Multiplier, where the signal is sent to the Mackie audio board for monitoring during digitization).



Patch DA1 channels 1 and 2 OUT into channels 1 and 2 IN of the Capture station (this sends the analog audio to the AJA HD10AVA to be embedded with the video into an SDI signal).



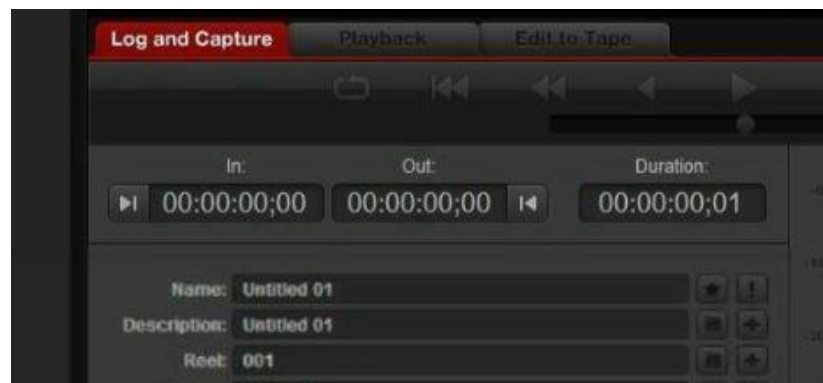
If a Betamax tape has both normal and Hi-Fi audio, all 4 tracks will need to be digitized. Special cabling will be required to access the additional channels. RCA cables out of the SLO-1800 Hi-Fi outputs will need to be patched through the other two available channels of the Henry Engineering TwinMatch impedance converter to provide balanced audio to accompany the normal channels. The Hi-Fi tracks will be patched to channels 3 and 4 into the Capture station (this sends the analog audio to the AJA HD10AVA to be embedded with the video into an SDI signal).



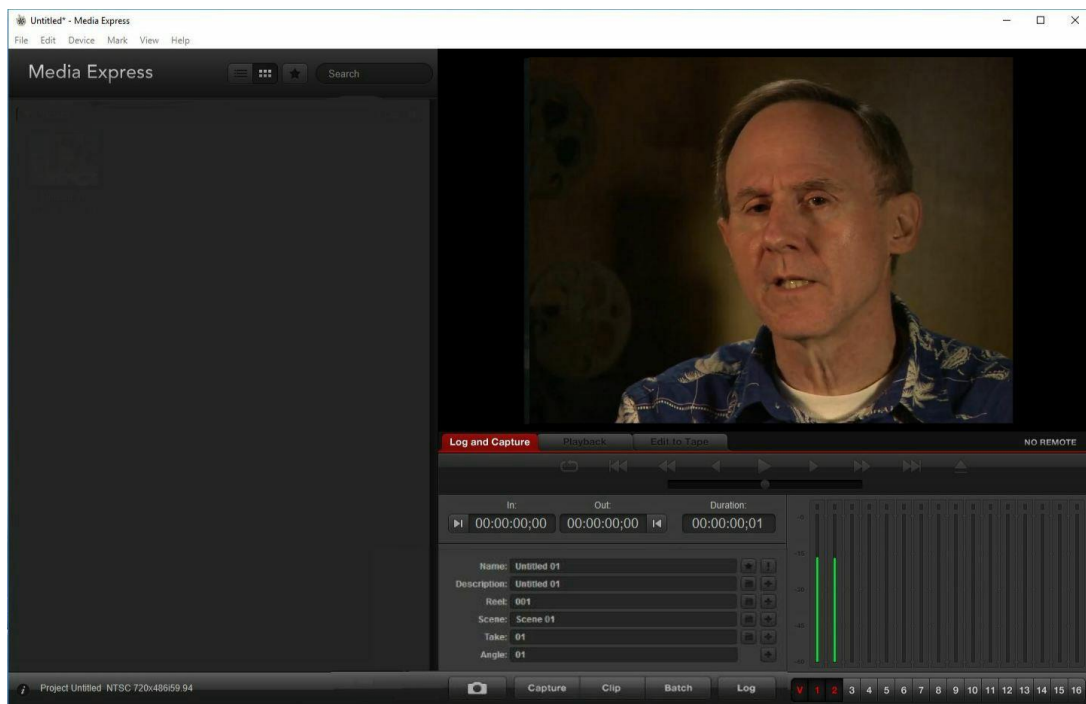
To see the video and audio levels through the capture system, launch the “Blackmagic Media Express” tool from the start menu of the Capture workstation



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.

