

Digitizing VHS Tapes

MCPL MEMORY LAB


The Memory Lab is supported by the Institute of Museum and Library Services under the provisions of the Library Services and Technology Act as administered by the Missouri State Library, a division of the Office of the Secretary of State.

Getting Started

Welcome to the Memory Lab. Review the next few pages to introduce yourself to the equipment and software you will be using. Then, you will begin the do-it-yourself digitization process.

Before beginning, please make sure you brought everything you need:

- VHS tape
- Memory device such as a USB drive or external hard drive

This Memory Lab can only digitize VHS tapes.
They look like this. 

At this time, it cannot create digital files from other video formats such as VHS-C, Betamax, 8mm tapes, or DVDs.



Getting Started: Equipment and Software

VHS Deck: The VHS deck is where you insert your VHS tapes. It is connected to the computer, allowing your tapes to be captured and digitized.

BlackMagic Media Express: BlackMagic Media Express is the software you will use to convert your analog VHS tapes into a digital .MOV format. It looks like a stopwatch.



Handbrake: HandBrake is the software you will use to convert your files from .MOV to .MP4 files. This makes your files smaller and more manageable. HandBrake looks like a pineapple.



Finder: Finder is the file system for Mac. It looks like a white and blue smiley face. This is where you will find your videos after they are digitized.



VHS deck operating information and the desktop location of the programs is on the following pages.

Getting Started: VHS Deck Guide



Overview of Digitization Process

Now that you are aware of the equipment and software you will be using, you are now ready to digitize your VHS tape.

The digitization process is broken down into three parts:

1. Digitizing your tape: During these steps, you will insert your tape into the VHS deck and use BlackMagic Media Express to watch and record it. You may record the entire tape or individual sections.
2. Compressing and saving your files: Next, you will convert and compress your new files to make them more manageable. During the compression process, you will also save them to your storage device. You will do this using the Handbrake software.
3. Finishing up: During the final steps, you will have a chance to watch your new recordings. You will also remove your files from the Memory Lab computer so it is ready for the next user.

General Recommendations

Before you begin, please read the following recommendations to make the process as smooth as possible.

Capture Length – Capture your tape in shorter segments (around 15 minutes at a time). The longer your capture, the larger the file.

- Shorter videos can help make the compression process much quicker.
- Smaller files are more manageable when saving to your storage device.

Playback/Audio Test – Because you cannot hear the audio of the tape as you capture it, you may want to consider doing a short test capture first.

- Follow the steps outlined under the Digitizing Your Tape portion of this guide (page 8).
- When finished capturing a short video, right click on the video thumbnail in BlackMagic Media Express, select *Reveal in Finder* from the drop-down menu, and then click on the file thumbnail to play it and check the audio.
- Headphones can be borrowed from the front desk, if you didn't bring your own.

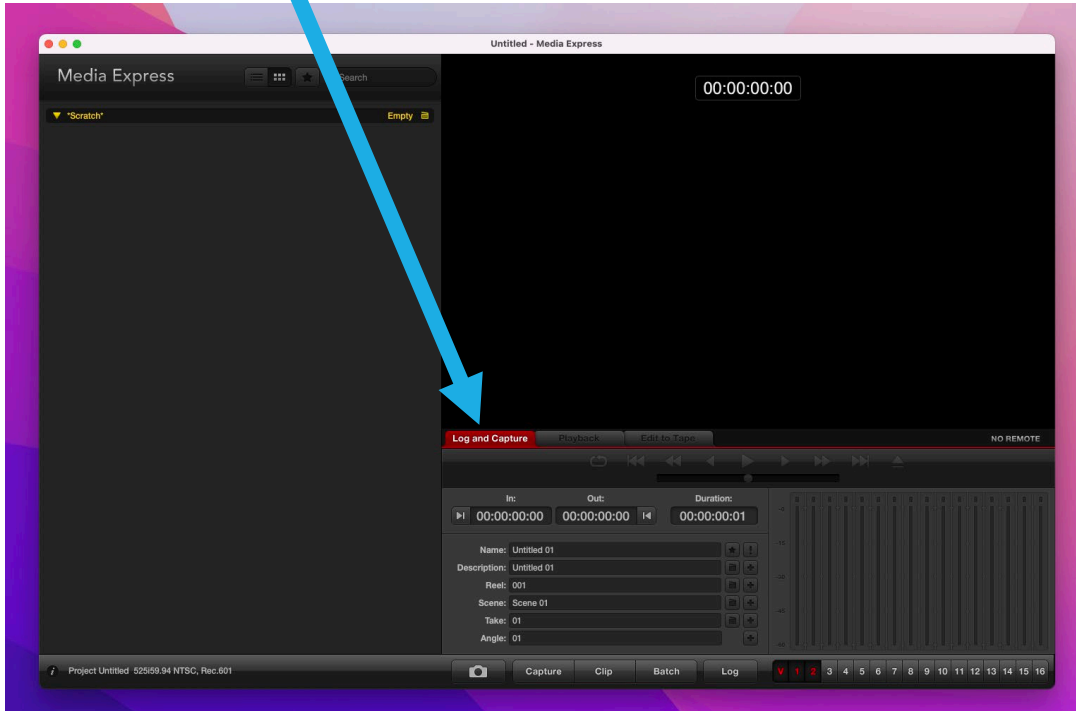
Digitizing Your Tape

It is now time to digitize your VHS tape. You will use the VHS deck and BlackMagic Media Express to watch your tape, decide which portions you want digitized, and save your analog tape in a digital format.

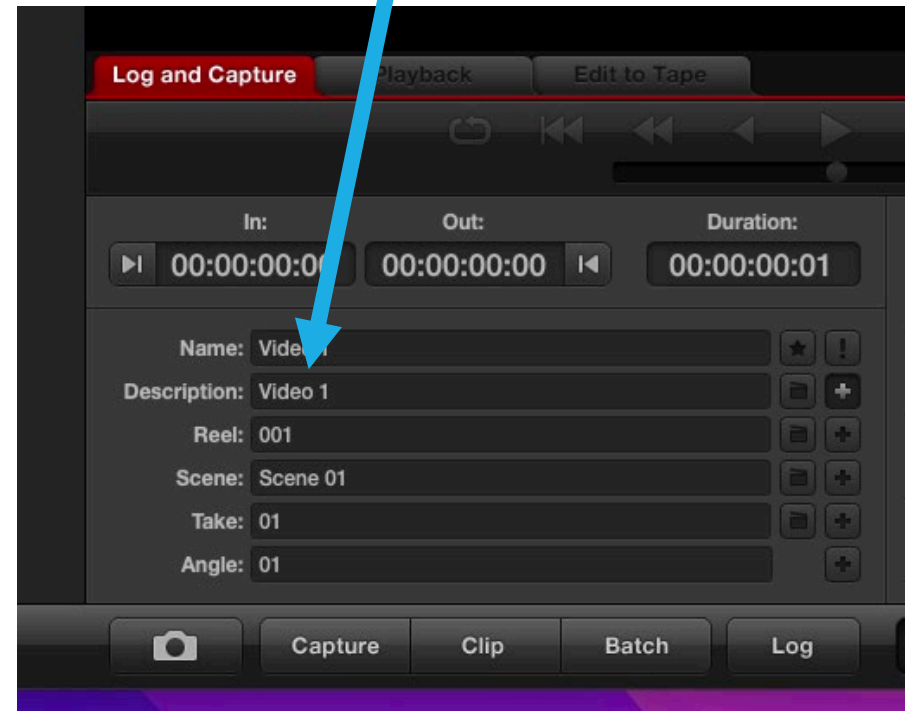
1. Turn on the VHS deck.
2. Load your VHS tape into the deck.
3. Open BlackMagic Media Express by clicking on the program's icon toward the right of the desktop tray. It looks like a stopwatch.



4. BlackMagic Media Express will open, and the Playback tab will be selected in green. Switch to the Log and Capture tab by clicking it. It is the tab to the left of Playback. When selected, the tab will appear red and a blank screen or your video will appear.



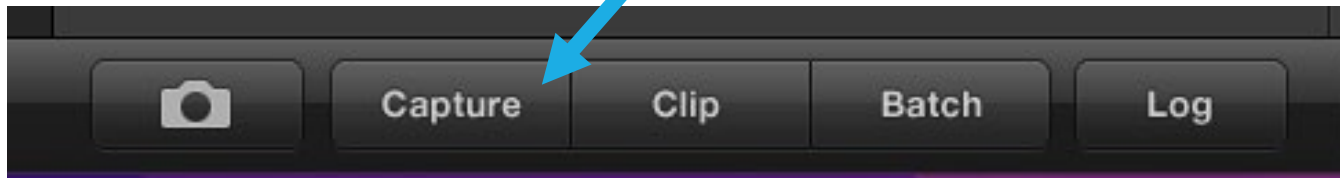
5. Type the desired name of your file in the Description box and click the plus sign to the right of the box.



6. Make sure you rewind your tape all the way to the beginning using the knob on the right of the VHS deck. You can also fast forward using this knob.

7. To watch your video, hit the play button on the VHS deck. The video will start playing in the BlackMagic Media Express window. If you want to hear the audio of the tape, plug the headphones into the headphone jack on the lower left of the VHS deck.

8. When you want to start recording, click the **Capture** button at the bottom of the BlackMagic window.

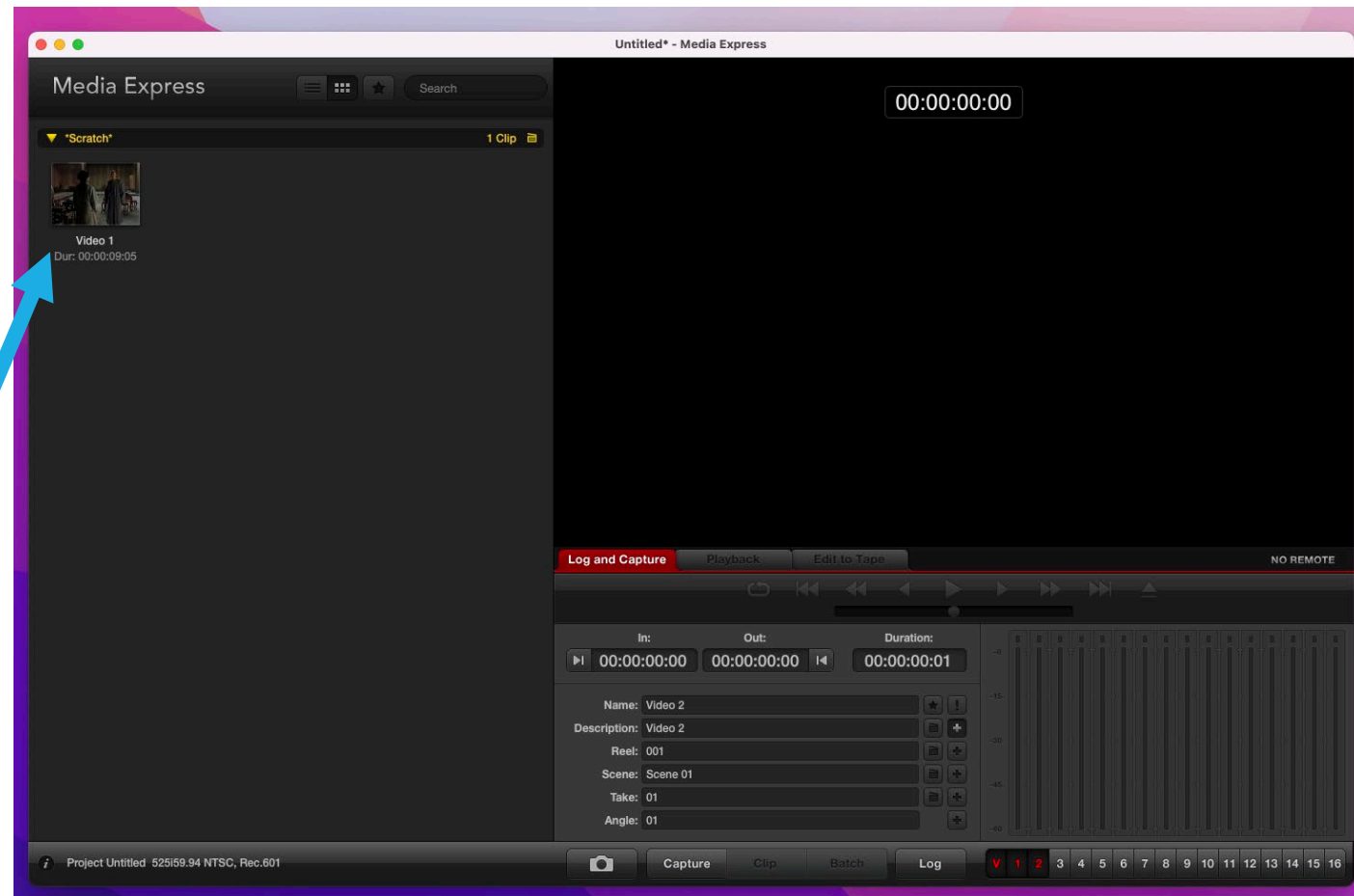


Note: If you start capturing while the tape is already playing, you may experience audio issues. To troubleshoot this, stop the VCR playback where you want to begin capturing, click the Capture button, and then press play to begin playback.

9. When you are ready to stop digitizing, click the Capture button again. This will create a digitized clip.

10. Hit the stop button on the VHS deck.

11. Your movie will save as a .MOV file. The file will be displayed on the left side of the window. To watch your clip back, double click on its thumbnail.



Compressing and Saving Your Files

After you have digitized your videos, it is now time to make them more manageable. You will do this by compressing them into .MP4 files. The program you will use to compress your files is called HandBrake.

The compression process in Handbrake will take time depending on how long your video capture is. It is not an instant process. For example, thirty minutes of video will take about three minutes to compress.

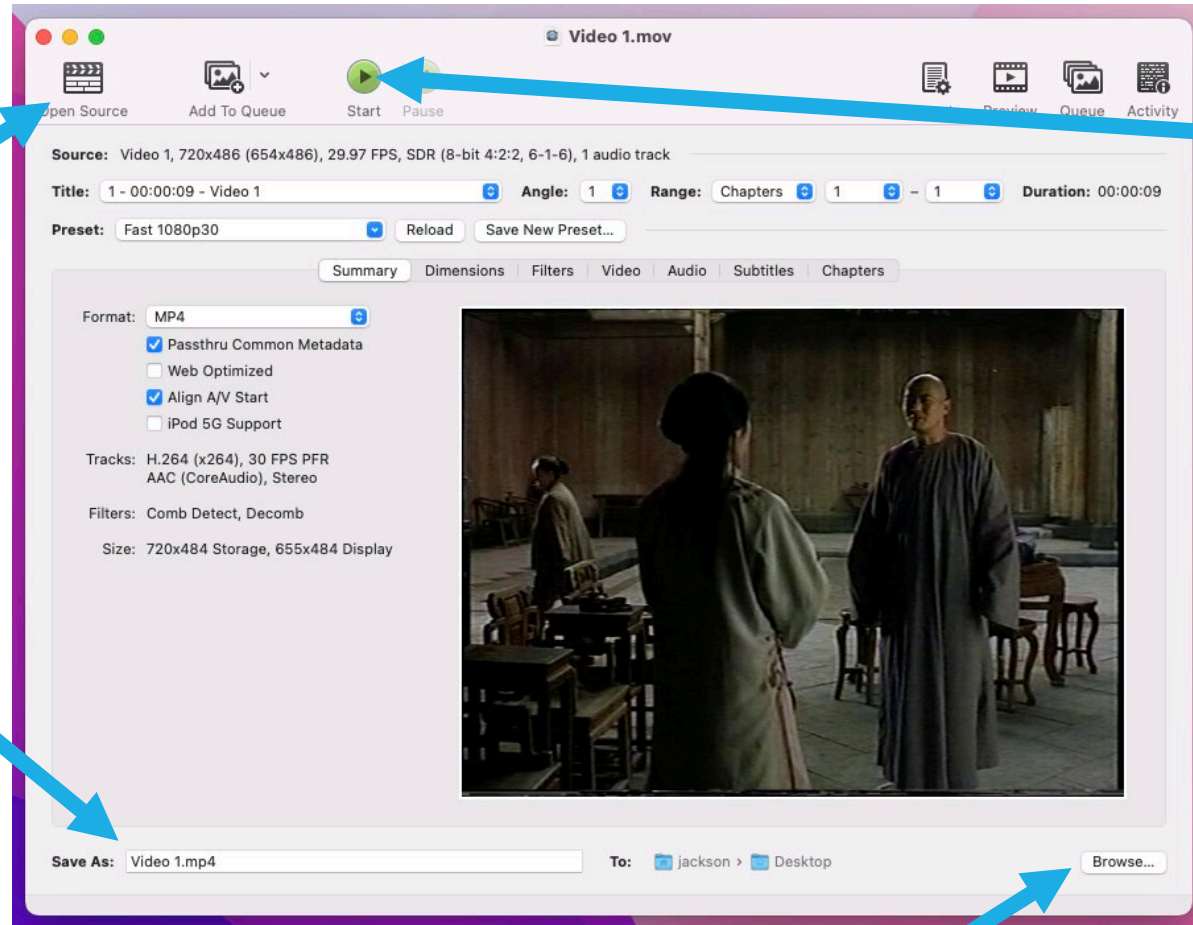
1. Open HandBrake by clicking on the program's icon toward the right of the desktop tray. It looks like a pineapple. If you have problems opening this program, please let staff know.



2. The first time you open HandBrake it will bring you right to a screen with the .MOV clip you just made. Double click on it and it will place this video in the middle of the HandBrake software window.

3. If the file finder does not pop up, click on the Open Source button at the top left of the HandBrake window. Find your video file and double click to select it.

4. To change the name of your file, type the new name into the Save As box. Make sure you leave the .mp4 file extension at the end.



6. Click on the green Start arrow. Watch the progress on the pineapple icon as your file converts to MP4 format.

5. Choose where to save your file. Click Browse and choose your storage device. (Note: If you are using cloud storage, save to the Desktop).

Finishing Up

Once your files have been converted in HandBrake, you are almost finished with the digitization process. You can now view your video by locating it in Finder and delete your files off the Memory Lab computer.

1. First, close Handbrake by clicking the red button at the top left of the window.

2. To view your MP4 video, locate it on the computer by clicking on the “Finder” icon on the far left of the bottom row. It looks like a blue and white smiley face.



3. Double click on the file name to open your video. Click the arrow to play the video. The sound for this video will come through the Mac computer, not the headphones. You can control the volume by using the speaker icon on the top right of the screen.

4. Navigate back to Black Magic Media Express. Click on your clips to highlight them with the yellow line. Right click, then delete the clip. Do this for each of your video clips.

5. After all your files are deleted, you can close Handbrake by clicking the red button at the top left of the window.

6. Make sure your VHS has stopped playing and eject your tape from the deck.

7. Turn off the VHS deck by pushing the power button.

8. Safely eject your storage device by locating it in Finder or near the top right of the desktop. Right click on its name and click Eject.

