



# VHS Digitization Manual

# Steps to Digitizing VHS Tapes

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## Step 1: Preview your video using the CRT monitor and VHS player

**What to do with the CRT monitor** (small tv located on the A/V rack below the VHS player)

- Make sure the CRT monitor is powered on.
- Make sure the CRT monitor's knobs are set to the middle, except for Volume (far right knob), which should be set to low (counter clockwise) until you confirm that audio is working when you begin playing your tape. Once confirmed that audio is heard, the Volume should be set to off while playing and capturing, so that you do not disturb others in the lab.

**What to do with the VHS player**

- Make sure the VHS player is powered on (you will see a solid red light when power is on).
- Load your tape into the VHS player. Watch "[How to load VHS player](#)" if you need help! (\*\*If your tape is a VHS-C tape, do not load the tape into the VHS deck but ask staff for help to use the VHS-C adapter.)
- Press the "play" button (the green arrow on the VHS player's panel) and confirm that you can see the video playing on the CRT monitor.



## Step 2: Open BlackMagic Media Express

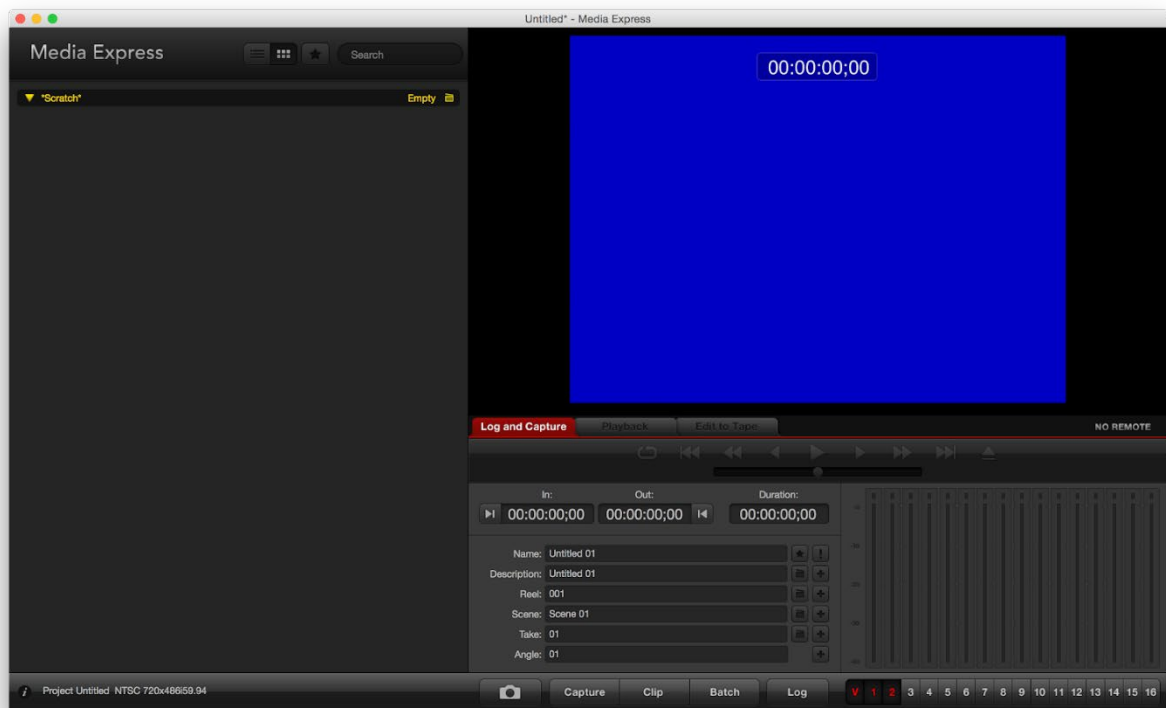
- On the Mac computer, double click the **BlackMagic Media Express** icon (see Toolbar at bottom of screen).

Note: If the icon is not there, search for "BlackMagic Media Express" and double click the icon that pops up.

### Step 3: Preview your video on BlackMagic Media Express



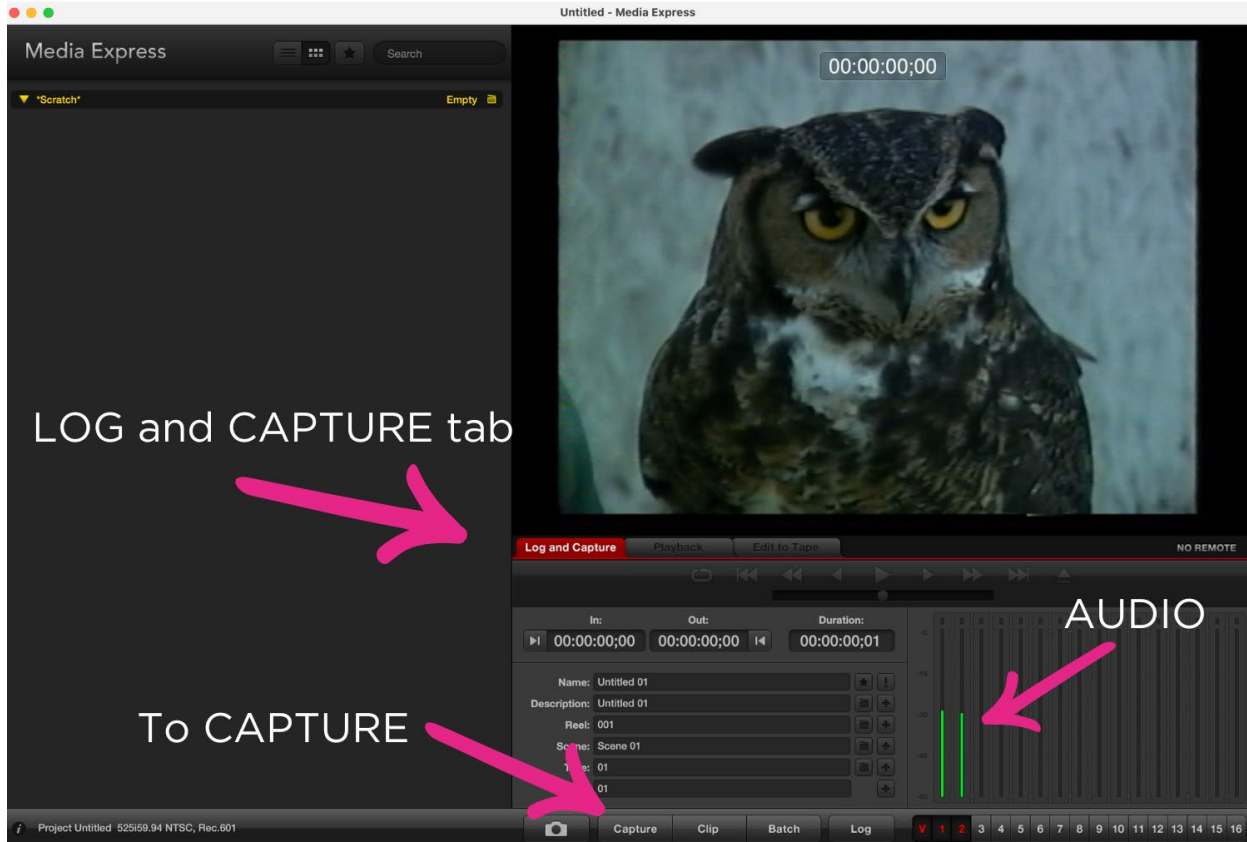
- Confirm that the “**Log and Capture**” tab is selected.
- When selected, the tab will appear red as shown in the screenshot below and either a blank screen or your image should pop up.
- Don't worry about naming your file at this point: You will be able to do so later.



## Step 4: Capture your video



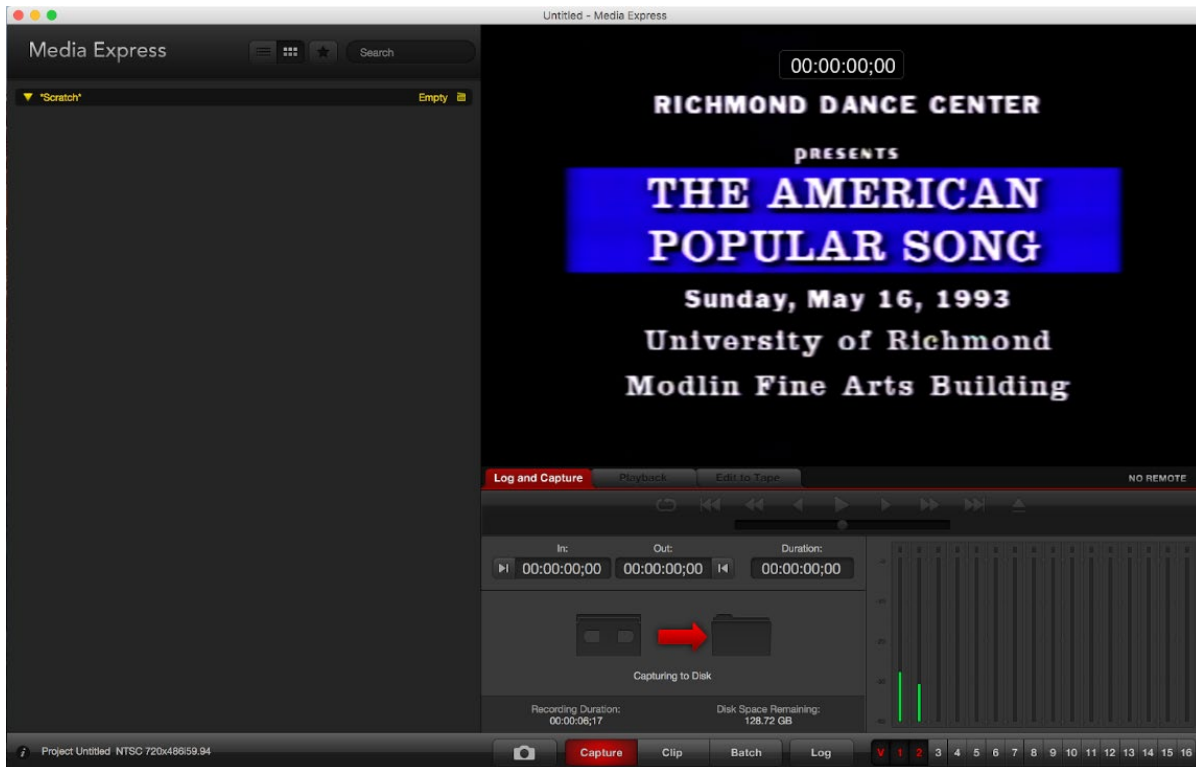
- Make sure you rewind your tape in the VHS player all the way to the beginning.



- When you want to start recording, press the **Capture** button at the bottom of the BlackMagic window first.



- Then hit the **Play** button on the VHS player.



- You can tell that capture has begun because the Capture button turns red and a red arrow appears on the screen.

*Note: The video image should be playing in the upper right of the window. The green bars below are your audio. If you cannot see the green bars, then you are not capturing audio.*

- Make sure the 1 and 2 on the bottom of the green bars are selected (or blacked out, as pictured), otherwise the audio will not be captured.
- When you want to stop recording, press the **Capture** button again.



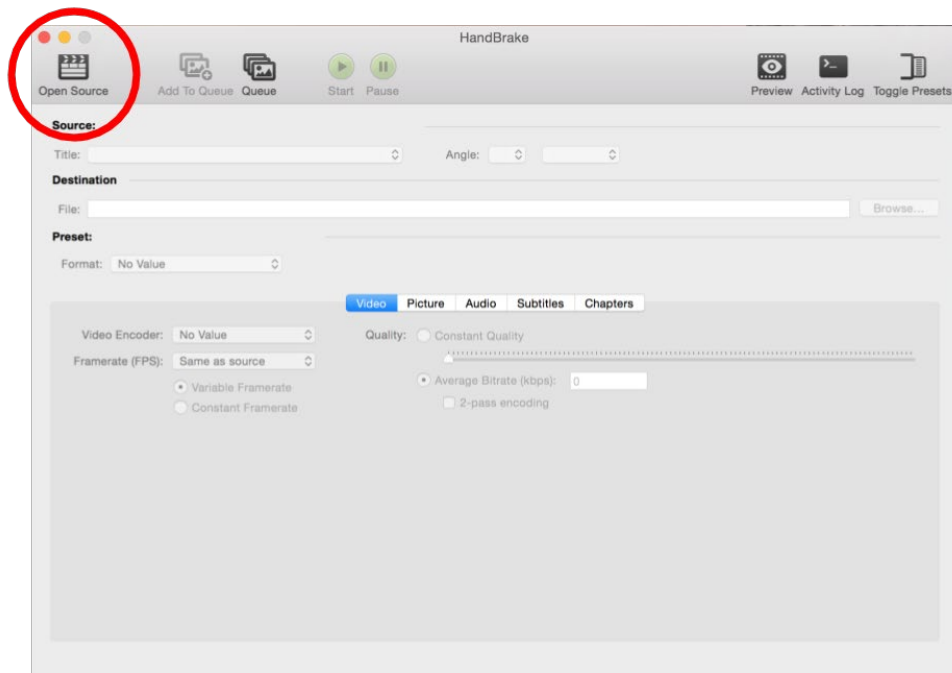
- Then hit the **Stop** button on the VHS player.
- Your movie will automatically save as a .MOV file. The file will be displayed on the left side of the window with the name "Untitled."

## Step 5: Make your access copy using HandBrake

- What you now have is a very large .MOV file! You will need to compress it to create a more manageable .MP4 file.

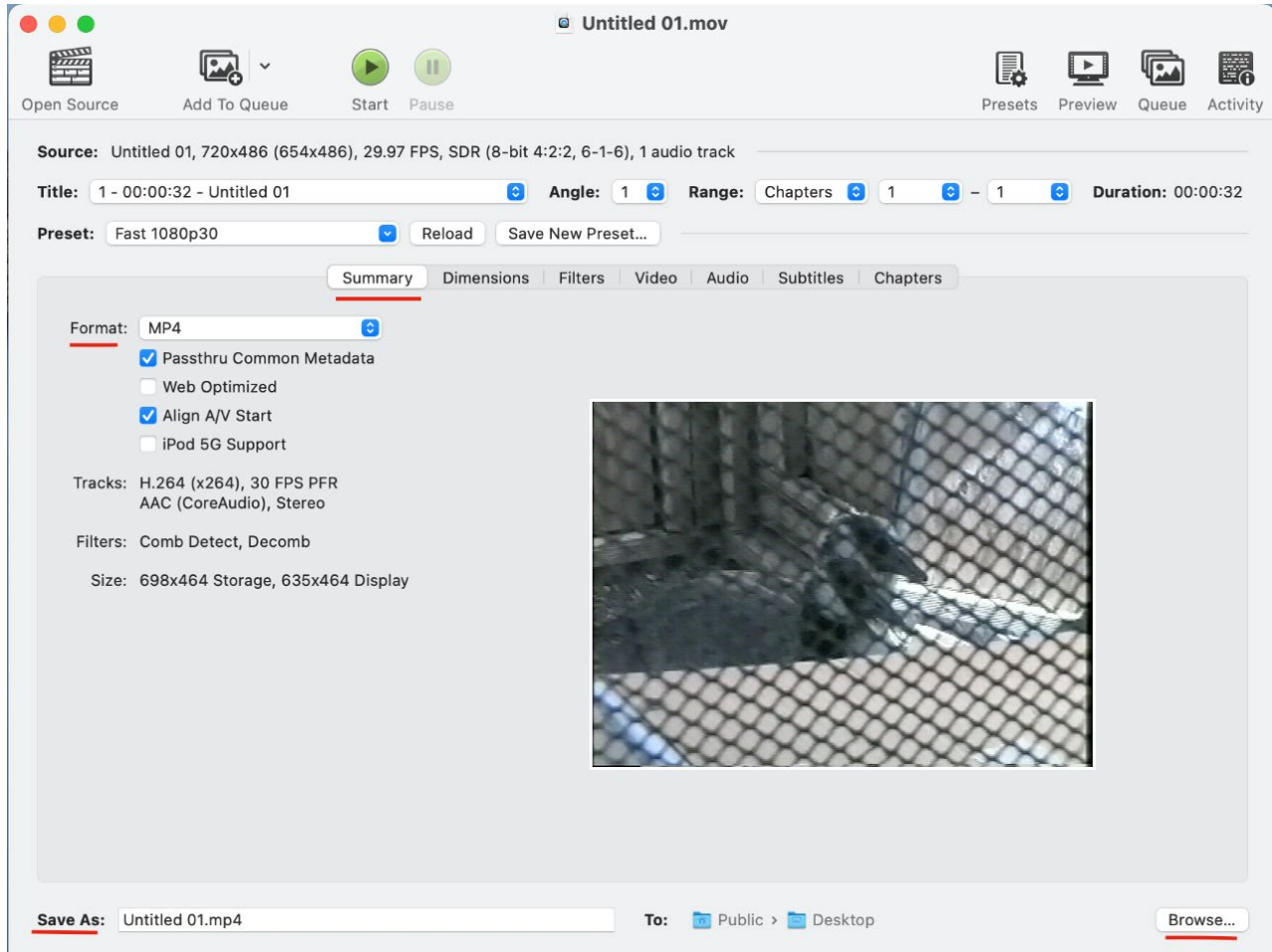


- Open the **HandBrake** icon from the toolbar at the bottom of the screen. Note: If the icon is not there, search for "HandBrake" and double click the icon.
- HandBrake will ask you what video file you want to encode. If not, go to **OPEN SOURCE** and find your .MOV file.



## Step 5 continued: Using HandBrake

- Select your settings for your access copy (.MP4 file). We suggest the following settings:  
In the Summary tab, check these settings:
  - **Format:** MP4 file



- **Save As:** You can now change the name of your file. Make sure the file extension (.mp4) is part of the file name.
  - For example, file name should be XMAS1990.mp4, not XMAS1990.  
If the file extension, including the dot, is not in the file name, the video will not play on all platforms.



- Click **Browse**. Find and **highlight your personal storage device** as the location where the .mp4 file will be saved, and click **“Choose.”**



## Step 5 continued: Using HandBrake

In the Video tab (to the right of Summary tab, check these settings):

- **Video Encoder:** H.264 (x264)
- **Framerate:** 29.97 (NTSC Video)

The screenshot shows the HandBrake application window titled "Untitled 01.mov". The interface includes a top toolbar with icons for "Open Source", "Add To Queue", "Start", "Pause", "Presets", "Preview", "Queue", and "Activity". Below the toolbar, the source information is displayed: "Source: Untitled 01, 720x486 (654x486), 29.97 FPS, SDR (8-bit 4:2:2, 6-1-6), 1 audio track". The title is "1 - 00:00:32 - Untitled 01", the angle is "1", the range is "Chapters 1 - 1", and the duration is "00:00:32". The preset is "Fast 1080p30".

The "Video" tab is selected, showing the following settings:

- Video Encoder:** H.264 (x264)
- Quality:** Constant Quality (RF 22)
- Framerate (FPS):** 30
- Peak Framerate (VFR):** Selected
- Average Bitrate (kbps):** 6000
- 2-pass encoding:** Checked
- Turbo first pass:** Checked

Encoder Options:

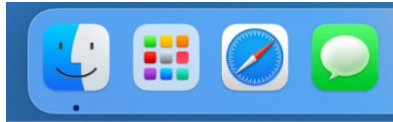
- Preset:** Slider set to "fast"
- Tune:** none
- Fast Decode:** Unchecked
- Profile:** main
- Level:** 4.0
- Additional Options:** (Empty text box)

The command line output is: `x264 Unparse: level=4.0:ref=2:8x8dct=0:weightp=1:subme=6:vbv-bufsize=25000:vbv-maxrate=20000:rc-lookahead=30`

At the bottom, the "Save As:" field is "Untitled 01.mp4" and the "To:" field is "Public > Desktop".

## Step 5 continued: Using HandBrake

- Return to the Summary tab. Press the **Start** button (green button with arrow at the top) to begin encoding. This might take a while depending on how long (and big) your file is. You can watch the progress in the status bar at the bottom of the window. **When the status message disappears, your .mp4 file has been created.**
- Now might be a good time to open your personal storage device and watch and listen with headphones to your digitized video.
  - Select the Finder icon at the bottom of the Desktop.



- In the left menu, under **Locations**, you will see your personal storage device. Click on the name of your storage device and find your .mp4 file. Right click on the .mp4 file and choose **“Open with”** and scroll down and select **“VLC Player.”**

## Step 6: Add descriptive information to your .mp4 file (This is an optional step if you would like to add descriptive information to your video file. If not, skip ahead to Step 7.)

- Don't let all this hard work go to waste. Adding descriptive information to your video will ensure that you have it for years to come!
- Right click on your .mp4 file, scroll to **Properties**
- Select the **Details tab** and Click into the empty space next to the fields (**Title, Subtitle, Tags, Comments, Year**) and enter information in the text box that appears. For example, you can add the names of people who appear in the video or the location, setting or date of the event. Then click, **“Ok”** to save the information you have added.

## Step 7: Eject your hard drive/USB and remove the VHS tape

- **Safely eject your personal storage device** from the computer by right clicking on its icon on the Desktop and selecting “Eject.”
- **Remember to “Eject” your VHS tape from the VHS player.**
- Notify a staff member that you are finished using the lab.