



# Digital Mastering Instructions

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Please read the following instructions carefully before completing the Digital Mastering Form. These instructions contain full explanations of the questions that make up the Digital Mastering Form. Transfers consist of Digital Mastering and Format. Prep and Clean is also required, and is included when you purchase a package.

## **Question 1: Chose Your Scanner**

**This question asks which machine you would like your film scanned on.** Pro8mm has 2 distinct flying spot scanning systems with daVinci color correction and we can accommodate the widest range of client needs for both quality and economy. We charge by the labor hour based on which scanning room you are occupying for your transfer.

Option 1 is for high definition scanning on our Millennium II High Definition Scanner.

Option 2 is for standard definition scanning on our Millennium II High Definition Scanner. This option must be used when a client wants a standard definition transfer to PAL or wants the highest quality SD scan.

Option 3 is for standard definition scanning on our Y-Front Ursa Diamond Scanner. It can only accommodate NTSC.

## **Question 2: Chose Your Scan Rate**

**The scan rate refers to the frames per second rate you want your film scanned at.**

**For SD**, you must scan at the speed the film was shot at. Typically home movie transfers are shot at 18fps, and industrial/professional film is shot at 24fps. With regular 8, some film was shot at 16fps.

**For HD**, most professionals scan at 23.98fps (24fps for NTSC or 25fps for PAL.) This frame for frame rate is film for digit. After the scan, you can adjust the speed for play-outs or for editing. The other option is to scan the film at the rate it was shot at. This works the same as SD, but it is 4x the digital space. If you are unsure, select natural time and the colorist will judge the speed of the film and scan it as close to normal speed as possible.

## **Question 3: Chose Your Scan Method:**

**Your scan method refers to the color timing. A scene-to-scene transfer** takes significantly longer than a one-light transfer because in this case, the colorist color-corrects the footage at every cut so that the color and exposure are adjusted and looks as good as it can be. This option is ideal especially if the roll of film was shot under various lighting and exposure conditions. It takes 30 minutes of machine time to transfer 10 minutes of footage with this method (3:1 scan ratio).

When film is transferred using the **one-light method**, the settings for color correction are set according to what looks best for the average of the reel. This means that the colorist doing the transfer does not color-correct every single scene. The transfer starts with an initial color and exposure correction from the first shot and that color and contrast are toned down to allow for inconsistencies in other shots. The film is then run through to the end with limited further adjustments to the color exposure, contrast, focus, etc. One-light transfers are entirely at the customer's own risk that underexposed and / or overexposed shots will not be adjusted. It takes 15 minutes of machine time to transfer 10 minutes of footage with this method (1.5:1 scan ratio).

## **Question 4: Choose Your Framing:**

**Your framing refers to how your film will be framed on the screen.** Pro8mm offers a variety of framing setup options. You can refer to the Framing Setup Form for photo references for different framing setups.

**Standard 4x3 (SD)** (1.33) T.V setup. This is the correct framing for Reg 8mm, Super 8mm, 16mm film. It will cause side cropping for Super 16mm, Max 8 and Max 16 setups. This is a standard Definition Choice.

**Overscan (SD)** allows you to see the full film image raw, without framing within the 4x3 ratio, including the top and bottom of the frames. It allows you to do the framing yourself.

**16x9 (HD)** allows the frame for wide screen formats and high definition. This is the correct framing for Super 16mm, Max 8, and Max 16 set up. It will cause cropping for Regular 8mm, Super 8mm, and 16mm on the top and bottom of the frame.

**Overscan (HD)** allows you to see the full film image raw, without framing within the 16x9 ratio, including the top and bottom of the frames. It allows you to do the framing yourself.

**Question 5: Chose Your Standard:**

**Your standard refers to the broadcast television standard you want your film scanned to.** NTSC is the American Standard and PAL is the European Standard if you are scanning to standard definition. If you are scanning to high definition, your choices for the American Standard are 1080p or 1080i. If you are scanning to PAL in high definition, select 1080p 25 PAL.

**Question 6: Choose Your Digital Mastering Format to Hard Drive:**

**Choosing your digital mastering format refers to picking the file format type that is encoded for storage on your hard drive.** Different file format options handle data differently. Footage transferred at a higher quality format will take up a significantly larger amount of hard drive space than footage transferred at a lower quality format. It might be tempting to go for the best, uncompressed option, but this means that every minute of footage will take up around 12 GB of space. Most prosumer computers are not currently able to handle this high rate of data in real time, so it is best to make sure that your system can handle the data rate you choose otherwise you won't be able to play the footage. Most jobs we do are transferred using the 422 ProRes HQ option. Some go to ProRes 4444 RGB. ProRes HQ is a very high-quality, visually lossless format that is within the threshold of what most up-to-date computers can handle. Most of the format options are best suited for Mac computers with the appropriate codecs. They work great with Final Cut Pro. These files will also work on PCs as long as the appropriate codecs are available for reading the files. Make sure to check your editing system for the codecs it can handle and select your format accordingly.

**Question 7: Please Select your Hard Drive Formatting:**

**Your hard drive formatting refers to which type of computer your files will be played on.** A hard drive has to be formatted for Mac or PC. Mac formatted hard drives are not readable on a PC and will not play the files. Conversely a PC formatted hard drive may have difficulty on a Mac. You must indicate which type of computer you will be playing the files on. You can also go to a data disc if your job is 4.5 gigs of space or less. If you want to play Mac files from a hard drive on your PC, can you purchase a software bridge.

**Question 8: Tape Stock**

In addition to formatting your digital files to a hard drive, Pro8mm can put your files on a tape deck. We have 3 SD options (DV-Cam, MiniDV, or Beta SP) and 1 HD option (HD-Cam) for additional tape stock files.

**Question 9: Optional Playout formats from a digital master.**

While having a master digital file on a hard drive is going to be the best in terms of future storage, trying to play your movies directly from uncompressed 10 bit files is often frustrating and not necessary. Too many things must be synced, coded and compatible with one another. For a small fee, it is far easier to have your file made specifically for your **playout** and get a master on a hard drive so that you can change it at any time. We can create a specific playout file to DVDs, Blu-Ray, or Apple TV. These file formats are in addition to your master format to hard drive.

**Question 10: Optional Film Transfers with Audio**

While Super 8 film is no longer manufactured with sound, we can still transfer old films that have the sound stripe. There is an additional setup fee to transfer film with sound. These prices are in addition to hourly labor rate for scanning to the M2 or Y-Front scanner.