

## Digital to Film Recorder Handbook and Notes

The basic Idea behind DigiFilm is to transfer digital images to film, either 35mm or 16mm film, one at a time.

Basic steps to using this system are:

1. Test system
2. Align the monitor/camera
3. Load the film
4. Choose your frames or movie file
5. Set options for color bars and other useful images
6. Commit to shooting and let it happen

### STEP 1

1. Turn on the camera system
2. If not in the proper position, the camera should advance to it
3. Start up DigiFilm and shoot a frame or two **without** film (you can even go through the last few steps and load your images or movie to make sure they work)
4. Hit the "**ESC**" key or **stop button** at any time to stop shooting (this is just to make sure that everything is working properly; if the camera runs wild or you get an error from DigiFilm, please seek professional help)

### STEP 2

**Please note:** When shooting either format it is wise to not over shoot the screen. If you over shoot the screen, you run the risk of seeing the monitor during projection. Not all projectors are the same and often projector masks are forgotten. With 35mm, remember that the audio track is on the left of the screen and it is acceptable to let it fall off the edge.

1. Your first step is to **turn the camera off**
2. Remove the gate and install the prism
3. Replace the gate
4. Load in an alignment clip (remember head is down and audio is at the back of the camera)
5. Advance the camera by hand so that the shutter is open (is the variable shutter open?)
6. Put the light in front of the prism so that the camera becomes a projector
7. Set the f-stop at its lowest number (wide open)

**Please note:** If shooting 16mm, the lens should be pushed away from the operator until it hits the stops; if shooting 35mm, the lens should be toward the operator. While shooting 16mm the center of the lens is in the center of the film, but with 35mm there is an offset center due to the audio track (the aforementioned action compensates for that). Most alignment clips (35mm) have a small vertical hash mark on the left of the marked center. This vertical mark is the 16mm or "true center."

1. Under the "Window → Show" menu choose: "Reg Image"
2. Move the camera and adjust focus until proper alignment is reached
3. You should not need to move the monitor, but if so, it's okay
4. If things are proper, the monitor should be in roughly the center left to right on the table
5. Check for level and for where the image falls off the screen, a piece of paper makes it easier to see

**Please note:** Focusing this way is highly accurate, especially at lower f-stops. As you stop down, your focus only gets better. If you would like to look through the camera, you would need to load a white or sanded leader so that the image falls on it. If you were to use a clear leader or standard alignment clip, then you would not be looking at the focal plane but instead you would be looking right through it.

### **SET YOUR F-STOP**

Remove the prism and light *gently!*

### STEP 3

**Please note:** Film should be daylight balanced and slow. 7245 or 5245 are very nice.

1. Load the film
2. Take up any slack in the mags by rotating the motors
3. Turn the camera power back on (it will advance to a closed shutter position)
4. Turn up the mag tension on the dial (I usually leave the take-up cover off the mag until I am sure it is working properly)
5. **SET YOUR F-STOP**
6. Run off some black, about 5 feet is good (16mm = 40 frames per ft, 35mm = 16 frames per ft)

### STEP 4

1. Click on either "Shoot stills" or "Shoot movie"
2. A dialog box will appear
3. If stills, select all the files you wish to shoot
4. If movie, select the movie file (it must have a ".mov" extension)
5. There is no provision for starting a movie on a frame number other than the first
6. In the next screen you can see the order that the images will shoot in and if you want to hold the first frame for longer (custom slate) you can enter a number here
7. You also have the option of removing files from the list; to do so click on the offensive file and click "Remove a file"
8. When you are happy, click "Next"
9. There may be a delay when loading large images or any QT but you should just wait it out (if it is more than a few minutes then it is bad and you should seek professional help)

### STEP 5

1. The next screen will give you the option to shoot a McBeth, grayscale, registration image, and/or slate.
2. You can shoot these for any number of frames at the head and/or tail of your film
3. It is highly recommended to shoot these because if your film comes back

- from the lab looking weird these images will help in determining what went wrong
4. The small box in the lower left allows you to enter whatever text you would like to appear on the slate (such as your name and contact information, f-stop, film-stock, etc.)
  5. When your happy, click "Next"

## **STEP 6**

1. Double check your f-stop, variable shutter, mag tension, etc.
2. If you are ready, click "Shoot"
3. Wait for a while to make sure all is well, then you can leave the room

## **Extra notes on DigiFilm**

The program will shoot almost any standard image type and even mix during a shoot. However, I have found that PDF files can cause multiple frames to be shot.

Only movies with the extension ".mov" will be recognized. Movies that don't have frames will not be shot correctly, such as QTVR.

DigiFilm shoots movies by transferring one to one. If your Quicktime is one frame per second and 12 seconds long, when transferred to film it will be 10 frames with a running time of 1/2 second. DigiFilm will not do a pull up or down!

The time it takes to complete a sequence varies based on the size and resolution of the images.

**Exposure time is variable from 1/8th to 5 seconds. MAKE SURE YOU CHECK IT!**

DigiFilm does not, and will not, change the size of your image. All images will be centered in the screen. Images smaller than the screen resolution will be surrounded by black. For example, if your image is 32 X 32 pixels, it will look like a small speck surrounded by black. If your images are 60,000 X 60,000 pixels, you will only see a very small portion of it and the rest will be off the screen.

You can mix image sizes for effect during a shoot. Images are displayed at their native resolution centered in the screen. If they are smaller than the screen resolution, they will be surrounded by black.

The general rule of thumb is to make your images slightly bigger than the monitor resolution.

Images are shot in alphanumeric order, just like the Mac Finder lists them. If you want them ordered differently you will have to rename them. I usually use a simple naming convention such as "MyScen.0001.pct." The nuttier your file names get the more likely there will be a problem with their order.

No provision is made for reversing a sequence or for skip printing.

The camera only shoots forward. If it goes the wrong way something bad has happened. The bi-pack and variable shutter are available and could be used for interesting technique.

If you have two monitors, the shooting takes place on the monitor **without** the Apple menu.

DigiFilm can run in the background, but do not tax the computer anymore.

**The computer should be set so that the screen will not fall asleep!!!!**

Reference lines on the registration image are designed to fit within the monitor space. They are automatically created based on the monitor resolution. Once again, for safety purposes, I would create my images so they fill the screen, but feel free to use your own judgment.

To clear the setup images from the screen click the mouse. Pressing the "ESC" key or "Stop" button at any time will stop the shooting process very hard!