

## Using time code in video production.

### ***What is time code and why would you want to use it?***

One of the great things about digital video formats like miniDV is that you can pinpoint any frame of video with a distinct numerical identifier called time code.

Back in the old days of VHS, you'd try to describe where a shot was on the tape in terms of how many minutes and seconds from the start of the tape (ie. 47:25 – close-up pouring coffee). So you'd rewind, zero the counter, then fast forward and hope you were close. Different VCRs started counting from different places so you could never be sure you had the exact spot.

With time code, the number is recorded in the interval between each frame of video and it's absolute. The moment when the coffee first hits the cup (47:25;16) stays the same no matter how many times you rewind, fast forward, or take the tape out and put it back in. If I tell the editor the shot starts at 47:25;16, it will start exactly there. Time code shows hours, minutes, seconds and frames. There are 30 frames per second. The semi-colon (;) indicates drop-frame format. (technical detail you don't need to worry about at this point)

### ***What is a time code burn?***

It's generally a bad idea to do a lot of fast forwarding, rewinding, and pausing on your original footage tapes. The more time they spend in a VCR, the more likely they are to develop drop-outs (glitches) in crucial sections of the video. What professionals do is to copy the original footage tapes to some other format that can be abused, then discarded. But they copy in such a way that the time code from the original tape is visible on the screen. This is called a time code burn. You can watch the copy and write down the exact time code numbers for the shots you want. Then when you want to edit, you go back to the original tapes and pull out just the segments you need. This process saves a lot of wear, preserves the quality of the original footage, and allows you to use cheaper equipment for the many hours of viewing and shot selection. In the old days this was called off-line editing.

### ***Create a footage log from your time code burn.***

Having a complete list of what's on your tapes is called a footage log. It's a useful tool for knowing what you have to work with. When you want a particular shot, instead of fast forwarding through several tapes searching for something that looks familiar, you can look up the shot on a sheet of paper, pop in the correct tape and go directly to that time code number. You create a footage log by writing down the time code and a brief description for each shot on each tape. For this process you don't need frame accuracy, within a couple seconds is close enough. You can make notes about which take is better. Be sure to indicate what tape the times refer to.

#### Tape 1

0:05 wide shot building  
0:48 man walks in front door  
1:12 man walks in door – trips (no good)  
1:23 walks in door – faster  
2:11 tree falls in forest- wide shot  
2:56 tree falls – low angle  
3:14 out of focus – no good  
3:38 reverse angle tree falls away from camera

If there is a break in the time code and it starts over in the middle of a tape, you treat it as a new tape on your footage log.

(Normally the time code on a tape is continuous even when you start and stop recording hundreds of times. Sometimes when the camera operator takes the tape out of the camera and puts it back in, the tape advances a few millimeters and there's a gap with no signal recorded. The camera then starts recording time code from zero again).

Tape 1b

0:16 man falls out window  
1:27 man falls out window screaming  
2:14 tilt down as man falls  
3:06 rooftop pov – man falls

### ***The paper edit.***

Using your footage log, locate the best take of each shot and write that time code number on your script. The editor will work from this document to pull in the correct shots and assemble them in the correct order. Indicate which tape if necessary.

Video

CU pouring coffee  
Tape 1 47:25;16

Audio

sound of pouring coffee  
v/o: it started early one morning ...

Ext. walks out door  
Tape 2 11:16;04

v/o: I was on my way to ...

If you discover a shot doesn't work, or you need some extra footage, go back to your footage log and locate something that might work.

### ***Capturing and Editing***

Higher end video editing software preserves time code information for each clip as part of the capture. Consumer level software often doesn't. In either case it's good practice to mark your footage log and your paper edit with the file name you give the clip when you capture it onto the computer. A well marked footage log makes it easy to find shots that haven't already been used somewhere else in the production.