Shooting DV: Getting Better Footage

This primer is based on numerous tips from film industry professionals and personal explorations in shooting DV.

Physical Aspects of Cinematography

At its most basic level, cinematography entails knowing more than what your camera's buttons do. You need to know how to handle it according to the desired situation and scene. With this in mind, here are some essentials for getting the footage you're after:

Steady Your Shot

While a little shakiness is forgivable (and sometimes unavoidable) in a documentary-style film or in an action sequence, for most of your filming you'll want to keep the camera frame as smooth and steady as you can. Otherwise your audience is thinking about the camera- and not the scene. To improve on this important aspect:

- 1) When holding the camera, always use both hands.
- 2) Get close to the subject- by standing far away and using the zoom you increase the angle of shakiness.
- 3) Use a solid surface (desk, chair, etc.) or, best of all, a tripod when you know you subject isn't going anywhere.
- 4) Try holding the camera against your sternum instead of your shoulder*
- 5) Sit or lay down with the camera*
- 6) If you need to move the camera smoothly with the scene, try using a wheelchair or skateboard (someone should be pulling or pushing you) for tracking shots.

(*note: this can steady a shot but this lower angle can also change the dramatic sense of the frame- see Composition)

Record More Than You Think You'll Need

When shooting video, you really need to keep video editing in mind. Basically, you want to give yourself options. As such, you want to be sure that you have more than enough material to work with when editing (as re-shooting footage is often difficult and sometimes impossible). Moreover, you need to always remember that there is a slight delay between the moment you press the record button recording- and the moment when the camera actually is recording. So to better insure that you get your Oscar winning footage the very first time:

- 1) Say "action" well after you actually hit the record button- otherwise you might cut of the beginning of your scene. Remember: there old saying was "lights, CAMERA, [and then] action."
- 2) When doing any pan shots (across a room, valley, etc.): A) start with the camera still, B) hit record, count to 3, C) then slowly pan across, D) hold still at the end and count to 3, E) hit the record button off. You've just given yourself 3 shots to work with and insured that you got a complete pan.
- 3) When filming dialogue- consider shooting the scene from, a variety of angles. 5 times from 5 different POVs (e.g., for a conversation between 2 people consider filming: a 2 shot, a subject A bust shot, and a subject b bust shot, an over the shoulder shot of subject A and an over the should shot of subject

B. By shooting in this manner you not only insure more varied and interesting editing scenarios but also a better chance of getting quality audio (you'll have 5 clips to sample from).

Technical Aspects of Cinematography

Ok, so you're almost ready to go- but first you should know what all the bells and whistles on the camera are and what they do. For starting out, you probably don't need to do anything but set the camera to the auto-everything mode and record away. However, once you're comfortable with the feel of the camera's basics, here's how to get that extra nice look from your camera (note: this is a pretty comprehensive list. You will probably only need to do 2 or 3 of these things for a given shot.)

Set and Check Your Audio

Audio is just as important and video. As proof, imagine watching a TV with the sound off versus listening to a TV from another room. Chances are-you'll have a better understanding of what's happening with only the audio (remember: for decades, millions of people were enthralled by radio programs). So once you're ready to shoot, the first thing to check is you're audio level. Have your subject do a dry run and say a few lines or just recite the ABC's- and make sure your getting good audio. Some fundamentals for audio:

- 1) Make sure the audio is set for 16, not 12 bit audio. Long story short- 16 bit means considerably better quality sound.
- 2) For breezy outdoor conditions, try the camera's windscreen option or you can buy a mic cover.
- 3) For loud settings where you need to get clear dialogue, be sure to use a shotgun mic or boom mic if possible.
- 4) In highly reflective environments (e.g., bathrooms) throw some blankets, foam, etc. around the room (outside the shot, of course) to serve as sound absorbers.

Set the White Balance

This will keep your colors looking right and your whites from getting green, red, etc. Some cameras have a pretty good auto setting for white balancing via default settings (indoor, outdoor, etc.) but . . . to get it just right, set the white balance manually. Here are the steps:

- 1) Set your white balance to manual.
- 2) Put a well lit piece of white paper in front of the camera.
- 3) Press the white balance button- and blamo, no more funky colors.

*remember: this white balancing is scene specific- when you change locations; you'll need to do it again.

Run that Zebra

Scan the entire area that you will be filming (i.e. for a pan shot) with the zebra function on. This will help you determine any "hot" areas that are that are too bright in the shot and might cause "whiteout" or "blooming" (loss of detail in bright areas). If there are a lot of zebra spots- consider

changing the camera's direction, lowering the exposure, raising the f-stop, or raising the shutter speed (see below).

Shuffling the Shutter Speed

Playing with different shutter speed options allow you to minimize or maximize motion blur. This can be very important for capturing high speed action or creating surreal motion effects. However, note that the higher the shutter speed, the less light that you're allowing into the camera per second (i.e. with a high shutter speeds [+1000] you need a LOT of light). A few standard shutter speed recommendations for DV: 60 for normal action and dialogue, 200 for high speed action, 15 for surreal dream-like blurred footage.

Go Deep with Depth of Field

By opening up the iris of the camera you determine your video's brightness and "depth of field" (how much focus and what area is in focus). Basically, a low f-stop setting (f1-4) means the object in focus is surrounded or "backdropped" by out of focus objects while a higher f-stop means the entire scene is in focus.

Set the Focus Manually

This helps you avoid the auto-focus accidentally auto-finding something else to focus on in the middle of your shot. While sometimes this refocusing effect provides a more documentary-style look, usually this is not a pretty effect. To set your focus manually:

- 1) Start with the auto-focus turned on.
- 2) Zoom in on your subject (Beth Corwin, of ABC News, suggests the eyes if it's a person)
- 3) Wait for the auto focus to set.
- 4) Switch to manual focus
- 5) Zoom out to your desired frame. No more weird blurring effect for you . . .

Compositional Aspects of Cinematography

Composition is the art of framing, balancing, and arranging the elements of your video image. By composing your shots with different camera frames, angles, moves, and lighting- you can create a range of dramatic effects. There are a variety of ways to talk about a given shot's composition. Here it is broken down into: Framing, Angles and Moves, Lighting, and Rules of Thumb.

Framing

The primary aspect of composition is the framing of the subject or scene. Here are some classic terms used to describe what is encompassed in a given shot:

ELS- extreme long shot- landscape, satellite photo, planet earth LS- long shot- whole room, façade of building, street scene MS- medium shot- waist up- think ESPN news desk Bust Shot- chest to top of head- traditional "live- at the scene" interview framing

CU- close up- collar to top of head- personal and emotional ECU- extreme close up- mouth to eyebrows- a rarity, but think *60 minutes* hotseat (shifty eyes, sweaty brow, tears, etc.) 2 shot- two people's heads and/or bodies completely in the frame (the opening shot of any local news program)

Angles and Moves

Additionally, the compositional element of tilting, panning, moving, and zooming of the camera can greatly add to the composition. These terms describe traditional angles and moves:

Tilt- Moving the camera angle up or down

Pan- rotating the camera from side to side

Track- moving the camera laterally in relation to the subject

Dolly- moving the camera forward and backward in relation to the subject Low Shot- a.k.a. the mythic or heroic shot- see Citizen Kane

High Shot- a.k.a. the God Shot- see Hitchcock

Reverse Shot- changing POV from subject's POV to the POV of what the subject is looking at.

Follow Shot- every chase scene and Robin Hood movie, ever Dutch Tilt- disorienting skewing of the camera angle- see Rocky Reveal- tilting, panning, tracking, and revealing an important element or person (every horror and western flick, . . . ever.)

Over the Shoulder Shot- a subject in focus and the back of the shoulder of a subject being talked to. (a classic shot for dialogue)

Liahtina

There is just a ton to say about lighting- just ask any gaffer (an assistant lighting person on a set). So, while entire books and careers have been devoted to the subject, here are a few basics you should know:

Shooting outdoors- Shoot with the sun to you back- or at least to your side. If the sun is behind or directly above you subject they will be crazy with shadows or completely silhouetted by the brightness of the sky. If the shadows are unavoidable, consider using a reflective white foamboard just outside the shot.

Shooting indoors- Get some kind of light directed right at you subject. Avoid shooting with an open window behind your subject unless you are going for a silhouette. Lastly, consider using some foamboard if the light seems too dark or severe. Remember- DV cameras really thrive in brightly lit environments but struggle in the dark. So as a rule- go brighter than you think you need. If you have a light kit available, use it- there are some great dramatic effects that can only be created with good lighting. For interviews, consider 3 point lighting. A great web preference on this is http://www.andrew-whitehurst.net/3point.html

Rules of Thumb

Lastly, there are a few good rules for composing the various elements within the frame:

Offset you subject a.k,a. "the rule of 3rds"

Basically, try not to put you subject right smack dab in the middle of the picture. By offsetting them a bit to the right or left they become less "in you face" and it's easier to observe them.

Balance Light and Counterbalance Objects

Whether it is an equal balance of light and dark (think ying-yang) or a counterbalancing of the left or right side objects in your image (think whistler's Mother)- consider the fact that a balanced frame is more pleasing to the human eye.

Move from Left to Right

In Western society, we are so used to reading form left to right that it's more natural, calming, aesthetic, etc to move in this direction.

3/4 Your Subjects

All object in 3D including human faces, will show the greatest sense of space/depth when viewed from a ¾ angle. Documentaries and interviews abound with this ¾ look and the subject offset to the right.

Pyramid groups

3 subjects can be arranged in a triangular formation for differing effects. See examples.

Unbusy your Background

No distracting goofballs dancing in the back, light poles sticking out of heads, powerlines coming out of ears, etc. in the background.

Watch out for wardrobe

Small patterns (e.g., hounds tooth, strips, plaid), bright colors (especially red), and pure whites can cause the video footage to look not so good (e.g., small patterns vibrate, bright reds bleed, and pure whites "bloom"). This is why there is a wardrobe person on movie sets . . .

Continuity Aspect of Cinematography

Continuity is the seamless flow of the natural elements that make up the reality of your movie. When the element of time, space, direction, and appearance are consistent, the illusion or reality of your film goes unquestioned. When these things suddenly or confusingly change- things can get distracting or unintentionally comical.

Most continuity breaks are easy to recognize and avoid- you cannot suddenly change the time of day, lighting, setting, costume, and (worst of all) actors without people noticing. However there are also subtle continuity breaks that you might also take care to avoid:

Keep the Same Lighting

As much as possible, try to avoid shooting any one scene in the same space with different light (i.e. once in the sun, then in the rain, then at night). Come out at the same time the next day if need to

Align Your Eyelines

This is hugely important for dialogue. When shots switch from one person to another, be sure that the subjects' eyeline angles are appropriate for the direction and angle for the party they are speaking to in the scene.

Cutaway for Jump Cuts

a sudden change in position or size of a subject. A jump cut can be the result of running out of tape or power (a.k.a. the "juice") and shooting again without noticing changes to the placement or settings of the camera. To solve this, you can A) re-shoot the scene or B) if re-shooting is not an option (e.g. during a lecture or interview), you fill in the gap between shots with a cutaway shot. In a movie, a cutaway may be a shot of the other person in a dialogue, a wide shot of the setting, etc. In an interview, cutaways are filmed afterwards (sometimes even when there is no jump cut to avoid). They give a sense of interaction. An interview cutaway usually takes the form of the interviewer nodding in agreement, looking puzzled, etc. (often this is filmed long after the interview is over!)

Stay Behind the Line a.k.a "the 180° Rule"

This is particularly goofy shot that most people don't think about. Imagine you are filming someone running down the street (training montage, chase scene, etc.) You film the person from their left side for one shot and then switch sides and film them from their right. If you decide to edit these shot back to back, the person will appear to be running one direction- and then suddenly running the opposite way! Truly goofy. So as a rule- imagine any moving subject with a circle surrounding them. Divide the circle in half (thus creating the infamous "Line"), and stay on one half of "The Line".