

## VIDEO RECORDING AND EDITING

### What is Editing?

Today's nonlinear computer editors are capable of just about any effect you can dream up. Because of this, it's tempting to try to impress your audience with all the production razzle-dazzle you can manage.

But, whenever any production technique calls attention to itself, especially in dramatic productions, you've diverted attention away from your central message. Video professionals - or maybe we should say true artisans of the craft - know that production techniques are best when they are transparent; i.e., when they go unnoticed by the average viewer.

However, in music videos, commercials, and program introductions, we are in an era of where production primarily editing techniques are being used as a kind of "eye candy" to mesmerize audiences.

To make your videos enjoyable for everyone, video editing is essential. Videos that were before just a collection of disconnected ideas will become meaningful, even powerful. You may even find that you enjoy video editing and, after you have revamped your own video collection, opt to edit for others.

**Video Editing is the process of re-arranging or modifying segments of video to form another piece of video.** The goals of video editing are the same as in film editing — the removal of unwanted footage, the isolation of desired footage, and the arrangement of footage in time to synthesize a new piece of footage.

### Video Editing: Basic Concepts

#### Capture

The first concept is called **capture**. You have to move all of the footage out of the camera and onto your computer's hard disk. There are three ways to do this:

1. You can capture all of the footage in a single file on your hard disk. A half hour of video footage might consume 10 gigabytes of space.
2. You could bring it in as five or 10 smaller files, which together will total 10 gigabytes but will be a little more manageable.

3. You can have a piece of software bring in the footage shot by shot. Adobe Premiere can do this manually, but a program like DV Gate Motion which comes standard on many Sony computers can automatically scan the tape, find the beginning and end of every shot, and then bring them all in. Each shot will be in a different file when it's done. If you have access to a program like this, it makes your life very easy.

### **AVI and MOV files**

The capture process will create AVI on the PC) or MOV on the Mac) files on your hard disk. These files contain your footage, frame by frame, in the maximum resolution that your camera can produce. So these files are huge. Typically, three minutes of footage will consume about 1 gigabyte of space. You can never have enough disk space when you do a lot of video editing

### **Shots**

Once you have all of your footage into your machine, you need a way to select the parts that you are going to use. For example, let's say that you want to include a scene in your birthday movie that shows the candles on the birthday cake being lit. You filmed this activity from three angles and have three minutes of raw footage total. But in the final movie you are going to have 15 seconds of the movie devoted to this scene, in the form of three shots:

- A 3-second shot showing a match being lit
- A 5-second shot showing a close-up of one candle on the cake being lit
- A 7-second shot of the cake with all the candles lit being carried into the room

Out of the big file of all the footage, you need a way to mark the beginning and end of these three little clips so that you can move them around as individual units and bond them together into the final scene.

You do this by looking at the raw footage and marking an IN and OUT point for the little sections that you want to use. Then you drag these little clips onto the **timeline**.

## Timeline

Once you have your shots figured out, you need a place to arrange them in the proper order and hook them together. The place where you do that is called a timeline. You line the shots up in sequential order. Then you can play them as a sequence.

**With just three concepts -- capture, shots and timeline -- you can make a movie.** It will not be fancy, but it will be 10 times better than watching raw footage.

## Running Adobe Premiere

Once you get past the Project Settings dialog, you come to the main working screen of Premiere, which looks something like this:



**The main working screen for Adobe Premiere**

There are five different areas on the screen that are important.

## The Project Area



**The project area**

The project area keeps track of all of the different AVI/MOV files containing the raw footage that you are using to create your movie. In this illustration, the project area has had five different files imported into one bin.

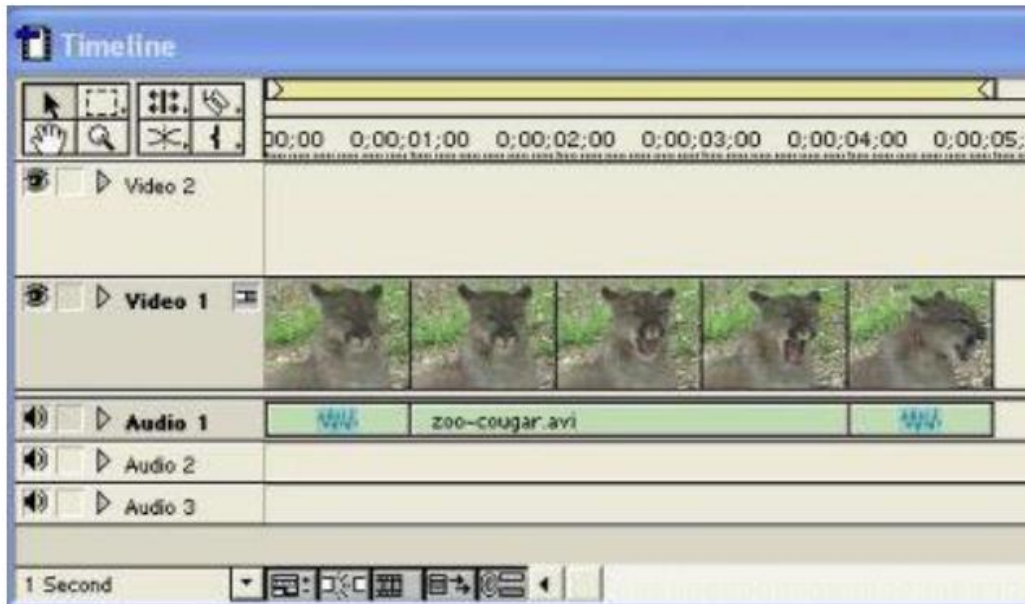
## The Monitor Area



**The monitor area**

The monitor area has two video windows. The left window, called the Source window, lets you look at different AVI files so that you can identify the IN and OUT points for the clips you want to use. The right window, called the Program window, lets you view your movie as it develops on the timeline. Both have standard controls to play, stop, and repeat and so on.

## The Timeline Area



The timeline area is where you assemble audio and video clips into your final movie. This timeline initially has room for two video tracks and three audio tracks, but it can handle dozens if you like.

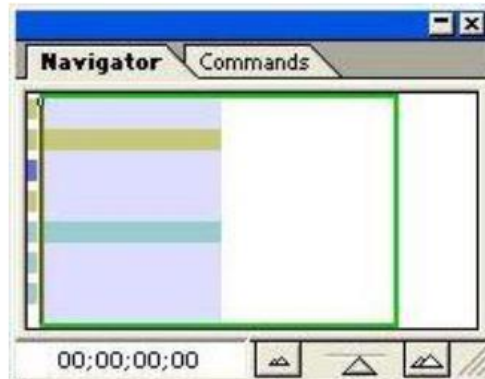
## The Transitions Area



**The transitions area**

The transitions area lets you choose different transitions so you can drop them on the timeline.

### **The Navigator Area**



**The navigator area**

The navigator area lets you see your whole project at a glance, no matter how big it gets. It also lets you set the zoom level in the timeline area.

### **Guideline #1: Edits work best when they are motivated.**

In making any cut or transition from one shot to another there is a risk of breaking audience concentration and subtly pulling attention away from the story or subject matter.

When cuts or transitions are motivated by production content they are more apt to go unnoticed. For example, if someone glances to one side during a dramatic scene, we can use that as motivation to cut to whatever has caught the actor's attention.

For example, when one person stops talking and another starts, that provides the motivation to make a cut from one person to the other. If we hear a door open, or someone calls out from off-camera, we generally expect to see a shot of whoever it is. If someone picks up a strange object to examine it, it's natural to cut to an insert shot of the object.

### **Guideline # 2: Whenever possible cut on subject movement.**

If cuts are prompted by action, that action will divert attention from the cut, making the transition more fluid. Small jump cuts are also less noticeable because viewers are caught up in the action.

If a man is getting out of a chair, you can cut at the midpoint in the action. In this case some of the action will be included in both shots. In cutting, keep the 30-degree rule in mind.

### **Maintaining Consistency in Action and Detail**

Editing for single-camera production requires great attention to detail. Directors will generally give the editor more than one take of each scene. Not only should the relative position of feet or hands, etc., in both shots match, but also the general energy level of voices and movements.

You will also need to make sure nothing has changed in the scene - hair, clothing, the placement of props, etc. and that the talent is doing the same thing in exactly the same way in each shot.

Note that if we cut from the close-up of the woman talking to the four-shot on the right that the angle of her face changes along with the lighting.

These things represent clear continuity problems -- made all the more apparent in this case because our eyes would be focused on the woman.

Part of the art of acting is in to maintain absolute consistency between takes.

This means that during each take talent must remember to synchronize moves and gestures with specific words in the dialogue. Otherwise, it will be difficult, if not impossible, to cut directly between these takes during editing.

It's the Continuity Director's job to see not only that the actor's clothes, jewelry, hair, make-up, etc., remain consistent between takes, but that props movable objects on the set also remain consistent.

It's easy for an object on the set to be picked up at the end of one scene or take and then be put down in a different place before the camera rolls on the next take.

When the scenes are then edited together, the object will then seem to disappear, or instantly jump from one place to another. Discounting the fact that you would not want to cut between two shots that are very similar, do you see any problem in cutting between the two shots above?

Okay, you may have caught the obvious disappearance of her earrings and a difference in color balance, but did you notice the change in the direction of the key light and the position of the hair on her forehead?

### **Entering and Exiting the Frame**

As an editor, you often must cut from one scene as someone exits the frame on the right and then cut to another scene as the person enters another shot from the left.

**It's best to cut out of the first scene as the person's eyes pass the edge of the frame, and then cut to the second scene about six frames before the person's eyes enter the frame of the next scene.**

### **The Timing is significant**

**It takes about a quarter of a second for viewers' eyes to switch from one side of the frame to the other.** During this time, whatever is taking place on the screen becomes a bit scrambled and viewers need a bit of time to refocus on the new action. Otherwise, the lost interval can create a kind of subtle jump in the action.

Like a good magician that can take your attention off something they don't want you to see, **an editor can use distractions in the scene to cover the slight mismatches in action that inevitably arise in single-camera production.**

An editor knows that when someone in a scene is talking, attention is generally focused on the person's mouth or eyes, and a viewer will tend to miss inconsistencies in other parts of the scene.

Or, as we've seen, scenes can be added to divert attention. Remember the role insert shots and cutaways can play in covering jump cuts.

**Guideline # 3: Keep in Mind the Strengths and Limitations of the Medium.**

**Remember: Television is a close-up medium.**

An editor must remember that a significant amount of picture detail is lost in video images, especially in the 525- and 625-line television systems. The only way to show needed details is through close-ups.

Except for establishing shots designed to momentarily orient the audience to subject placement, the director and the editor should emphasize medium shots and close-ups.

**There are some things to keep in mind in this regard:**

Close-ups on individuals are appropriate for interviews and dramas, but not as appropriate for light comedy. In comedy the use of medium shots keeps the mood light. You normally don't want to pull the audience into the actors' thoughts and emotions.

In contrast, in interviews and dramatic productions it's generally desirable to use close-ups to zero-in on a subject's reactions and provide clues to the person's general character.

In dramatic productions a director often wants to communicate something of what's going on within the mind of an actor. In each of these instances, the judicious and revealing use of close-ups can be important.

**Guideline # 4: Cut away from the scene the moment the visual statement is made.**

If you ask someone if he or she enjoyed a movie and they reply, "Well, it was kind of slow," that will probably be a movie you will avoid. "Slow moving" connotes boring. In today's fast-paced and highly competitive film and television fields that's one thing you don't want to be if you want to stay in the business. **The pace of a production rests largely with the editing, although the best editing in the world won't save bad acting or a script that is boring to start with.** So how long should scenes be?

First, keep in mind that audience interest quickly wanes once the essential visual information is conveyed. Shots with new information stimulate viewer interest.

## **New v/s Familiar Subject Matter**

Shot length is in part dictated by the complexity and familiarity of the subject matter.

How long does it take for a viewer to see the key elements in a scene? Can they be grasped in a second take a look at some contemporary commercials, or does the subject matter require time to study?

You wouldn't need a 15-second shot of the Statue of Liberty, because we've all seen it many times. A one- or two-second shot would be all you would need to remind viewers of the symbolism unless, of course you were pointing out specific areas of damage, restoration, or whatever).

On the other hand, we wouldn't appreciate a one or two second shot of a little green Martian who just stepped out of a flying saucer on the White House Lawn. Those of us who haven't seen these space creatures would want plenty of scene) time to see what one really looks like.

With this technique shots may be only a fraction of a second 10 -15 video frames long. Obviously, this is not enough time even to begin to see all of the elements in the scene. The idea in this case is simply to communicate general impression. Commercials often use this technique to communicate such things as excitement."

Next, cutting rate depends on the nature of the production content.

For example, tranquil pastoral scenes imply longer shots than scenes of rush hour in downtown New York. **You can increase production tempo by making quick cuts during rapid action.**

## **Varying Tempo through Editing**

**A constant fast pace will tire an audience; a constant slow pace will induce them to look for something more engaging on another channel.** If the content of the production doesn't have natural swings in tempo, the editor, with possible help from music, should edit segments together to create changes in pace. This is one of the reasons that editors like parallel stories in a dramatic production - pace and cutting back and forth between stories can vary content.

How you start a production is critical, especially in commercial television.

If you start out slow and boring, your audience will probably immediately go elsewhere. Remember, it's during these opening seconds that viewers are most tempted to "channel hop" and see what else is on.

Because the very beginning is so important, TV programs often show the most dramatic highlights of the night's program right at the start. To hold an audience through commercials, newscasts regularly "tease" upcoming stories just before commercial breaks.

So, try to start out with segments that are strong-segments that will "**hook**" your audience. But, once you have their attention, you have to hold onto it. If the action or content peaks too soon and the rest of the production go downhill, you may also lose your audience.

**It's often best to open with a strong audio or video statement and then fill in needed information as you go along.** In the process, try to gradually build interest until it peaks at the end. A strong ending will leave the audience with positive feelings about the program or video segment.

To test their productions, directors sometimes use special preview sessions to try out their productions on general audiences. A director will then watch an audience's reaction throughout a production to see *if* and exactly *where* attention drifts.

### **Guideline # 5: Emphasize the B-Roll.**

Howard Hawks, an eminent American film maker, said: "**A great movie is made with cutaways and inserts.**" We've previously noted that in video production these commonly go under the heading of "**B-roll footage.**"

In a dramatic production the B-roll might consist of relevant details insert shots and cutaway shots that add interest and information.

One valuable type of cutaway, especially in dramatic productions, is the reaction shot--a close-up showing how others are responding to what's going on. Sometimes this is more telling than holding a shot of the person speaking.

For example would you rather see a shot of the reporter or the person being interviewed when the reporter springs the question: "Is it true that you were caught embezzling a million dollars?"

The do's and don'ts of interviewing can be found here.

By using strong supplementary footage the amount of information conveyed in a given interval increases. More information in a shorter time results in an apparent increase in production tempo.

The A-roll in interviews typically consists of a rather static looking "talking head." In this case the B-roll would consist of scenes that support, accentuate, or in some way visually elaborate on what's being said.

For example, in doing an interview with an inventor who has just perfected a perpetual-motion machine, we would expect to see his creation in as much detail as possible, and maybe even the workshop where it was built.

Given the shortage of perpetual motion machines, this B-roll footage would be more important to see than the A-roll talking head interview footage.

**Guideline # 6:** The final editing guideline is: **If in doubt, leave it out.**

If you don't think that a scene adds needed information, leave it out. By including it, you will probably slow down story development, and maybe even blur the focus of the production and sidetrack the central message.

For example, a TV evangelist paid tens of thousands of dollars to buy network time. He tried to make his message as engrossing, dramatic, and inspiring as possible. But, during the message the director saw fit to cutaway to shots of cute, fidgety kids, couples holding hands, and other "interesting" things going on in the audience.

So, instead of being caught up in the message, members of the TV audience were commenting on, or at least thinking about, "that darling little girl on her father's shoulders," or whatever. There may have been a time and place for this cutaway, but it was not in the middle of the evangelist's most dramatic and inspiring passages.

**So, unless an insert shot, cutaway, or segment adds something significant to your central message, leave it out!**

## **2.2. Five Rules for Editing News Pieces**

Although the rules centered on news pieces, many of the principles apply to other types of production. The rules are condensed and paraphrased below.

1. Select stories and content that will elicit an emotional reaction in viewers.
2. If the piece has complex subject matter, buck the rapid-fire trend and make sure that neither the audio nor the video is paced too quickly.
3. Try to make the audio and video of equal complexity. However, if the video is naturally complex, keep the audio simple to allow the video to be processed.
4. Don't introduce important facts just before strong negative visual elements. By putting them afterwards the audience will have a better chance of remembering them.
5. Edit the piece using a strong beginning, middle, and end structure. Keep the elements as concrete as possible.

**A dedicated editor is designed to do only one thing: Video Editing.**

Dedicated editing equipment was the norm until desktop computer software started to become available in the late 1980s. Software-based editors use desktop and laptop computers as a base. Video editing is just one of the tasks they can perform; it all depends on the software you load.

### **Audio Editing**

**Audio Editing** is the process of taking recorded sound and changing it directly on the recording medium.

**Audio editing** was a new technology that developed in the middle part of the 20th century with the advent of magnetic tape recording. Originally, editing was done on reel-to-reel tape machines and edits were made with straight razors and special tape to connect pieces of tape that had been cut. Audio editors would listen to recorded tapes at low volumes, and then located specific sounds using a process called scrubbing, which is the slow rocking back and forth of the tape reels across the playback heads of the tape deck.

With the development of microcomputer technology, and specifically the Macintosh, Sound Recordists were able to digitize their recordings and edit them

## Lecture six

as files on a computer's hard disk. The computer programs responsible for this task are known as digital audio editors. The earliest program to become widely used in this application was a **wave editor** called Sound Designer in the late 1980s and early 1990s. Sound Designer was created by a company called Digidesign who achieved early industry dominance. In recent years, however, that dominance has been challenged by a number of companies attempting to grab a portion of Digidesign's market share.

In recent years, with the growing popularity of GNU/Linux, a number of Open Source software projects have sprung up in order to develop an open source audio editing program.