Topic no.71
Film Editing

Editing is where the material that has been shot is blended together to form a convincing, persuasive presentation. However, editing has a much more subtle role to play than a simple piecing together process. It is the technique of select- ing and arranging shots; choosing their order, their duration, and the ways in which they are to be joined together. Editing is where graphics, music, sound effects, and special effects are added to the footage shot earlier. It has a significant influence on the viewers' reactions to what they see and hear. Skilled editing makes a major contribution to the effectiveness of any production. Poor editing can leave the audience confused and bored. The mechanics of editing are simple enough; but the subtle effects of the editor's choices are a study apart.

Editing goals

Basically, editing or postproduction is the process of combining individual shots in a specific order. It has several purposes:

- To assemble material in a sequential fashion the *shooting order* may differ from the *running order* (see Figure 15.1).
- To correct mistakes by editing them out or by covering them with other footage
- To create, enhance, embellish, and bring to life images and events that were once captured live. Tools such as visual effects, sound effects, and music can give the story more drama, thus more impact on the audience.

While I am cutting a show, I am always trying to determine what was in the director's mind. But if I have been successful, I will be able to present the director with some unexpected surprises. My goal is to make the show better than it was in the script and even better than the director hoped for.
Lance Luckey, Emmy-Winning Editor

Shooting order versus running order

During the production process, when possible, events are usually shot in the order that is most convenient or practical, and then the takes are joined together during the editing process so that they appear consecutive. The eventual "running order" may be very different from the order in which the scenes were shot (the "shooting order"). Some of the various shooting situations follow:

Sometimes the action is shot from start to finish, such as might occur if you are shooting someone who is blowing a glass vase.

Only sections of the total action may be deliberately shot, omitting unwanted action.

The action may be repeated so that it can be shot from various positions.

All of the action at one location may be shot before going on to the next location, although the script may cut between them.

A series of similar subjects may be shot that have reached different stages. For example, shots of various newborn foals, yearlings, colts, and aging horses can be edited together to imply the life cycle of a specific horse.

Editing video and audio
SPLICING

The original video edit technique included cutting and splicing segments of the videotape together. However, the edits were physically hard on the VCR's delicate heads and did not look good on the television screen. This method was short-lived.

LINEAR EDITING

Next, editing moved on to the process of linear "dubbing" or copying the master tape to another tape in a sequential order (Figure 15.1). This worked well for editors until the director or client wanted significant changes to be made in the middle of a tape. With a

linear tape, that usually meant that the whole project had to be entirely reedited, this was incredibly time-consuming and frustrating. Linear editing also did not work well if multiple generations (copies of copies) of the tape had to be made, because each generation deteriorated a little more. Linear systems are generally made up of a "player" and a "record" VCR along with a control console. The original footage is placed into the player and then is edited to the recorder (Figure 15.2). Although some segments of the television industry are still using *linear* editing, the majority of programming today is edited on a *nonlinear* editor.

NONLINEAR

Today almost all video and television programs are edited on a nonlinear editor. Nonlinear editing is the process whereby the recorded video is digitized (copied) onto a computer. Then the footage can be arranged or rearranged, special effects can be added, and the audio and graphics can be adjusted using editing software. Nonlinear editing systems make it easy to make changes, moving clips around until the director or client is happy. Hard disk and memory card cam- eras have allowed editors to begin editing much faster because they do not need to digitize all of the footage. Nonlinear systems cost a fraction of the price of a professional linear editing system. Once the edited project is complete, it can be output to whatever medium is desired: tape, Internet, iPod, CD, DVD, and so on.

Logging

An often-neglected important aspect of the production process is logging the recorded material. Logging saves time during the actual editing process because the logging can be completed before the edit session (Figures 15.3 and 15.4).

FIGURE 15.1

Linear editing— copying the contents of one tape to another tape, one clip after another linearly—is still used on a limited basis. Although the use of linear editors has been significantly reduced, segments of the industry, such as news, still use them. (Photo by Jon Greenhoe.)

FIGURE 15.2

Laptop linear systems have been popular with news and sports crews that are on the road. They also can be used as two separate tape decks when needed.
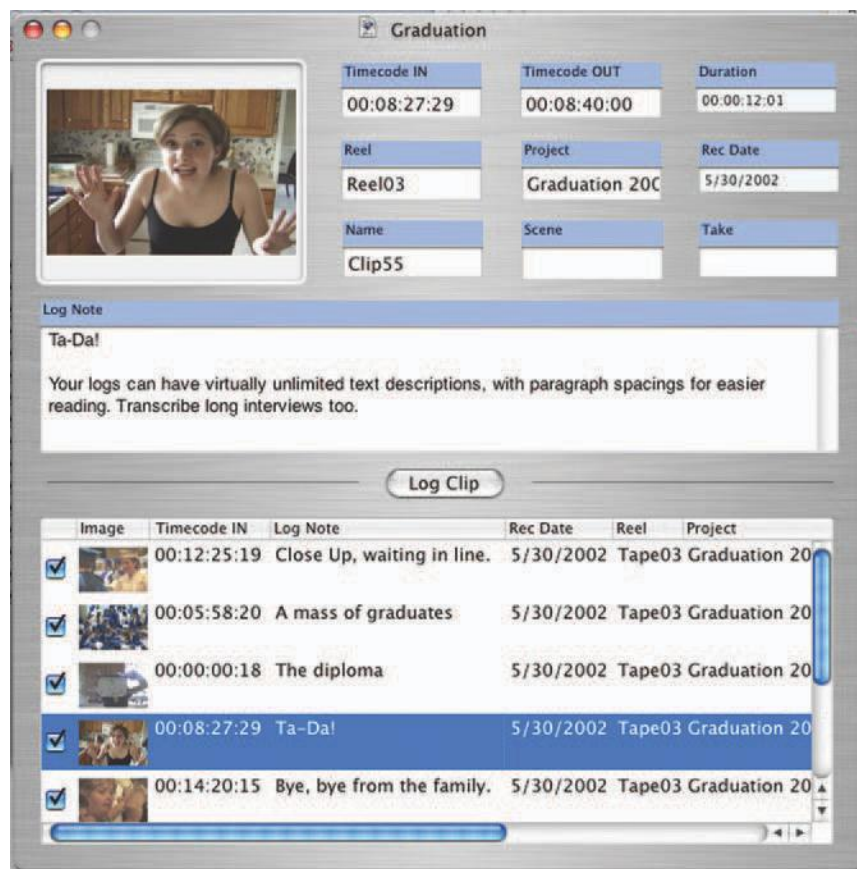
FIGURE 15.3

Logging can be done on paper or utilizing software. Here a camera is connected directly into the computer to capture still frames from each clip and automatically import time code

Ins and outs. The screenshot shows the stored thumbnail frame, duration, and description. (Photos courtesy of Imagine Products.)

FIGURE 15.4

Sample of a log sheet (Courtesy of the Avanti Group)

After logging the footage, the editor can then just digitize the specific clips that will be used in the program instead of taking time to search through all of the clips. By digitizing the specific clips instead of all of the footage, logging also saves hard drive space. Generally

some type of log sheet is used where notes can be written including time code (the address where the footage is located), scene/take numbers, and the length of each shot. The notes may also include a description of the shot and other comments like "very good," "blurry," and so on. Logging can be simple notes on a piece of paper or can be based on computer logging software. An advantage to some of the logging software is that it can work with the editing software by importing the edit decisions automatically into the computer.

Shots can be identified for the log a number of different ways:

- Visually ("the one where he gets into the car")
- By shooting a "slate" (clapboard) before each shot, containing the shot number and details (or an inverted board, at the end of shots)
- By *time code*, a special continuous time-signal throughout the tape that shows the precise moment of recording

An overview of the nonlinear process

Step 1
Digitize the footage into the computer
Step 2
Trim (clean up) each video segment or *clip,* deleting unwanted video frames.
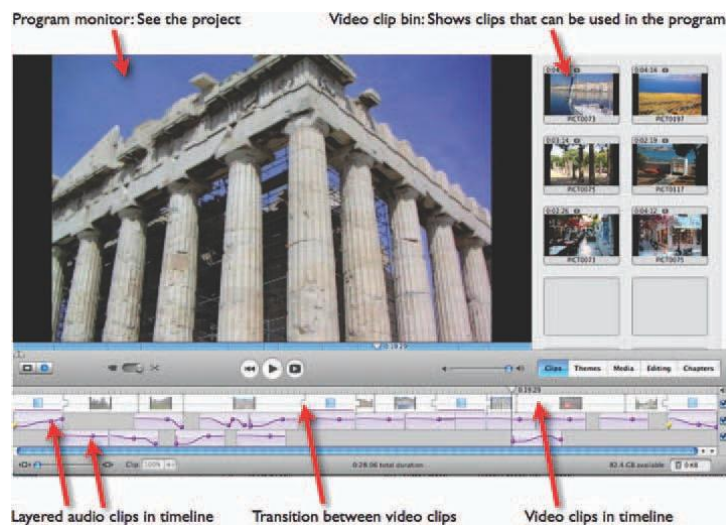
FIGURE 15.5
Screen shot showing the composition
Page of an editor. The program monitor allows the editor to see the program or to trim a clip to the desired length. The video clip bin is usually where video clips are stored that are to be used in the program. At the bottom is the timeline. This specific editor has two audio tracks and one video track in the timeline.

Step 3

Place the clips into the timeline. The timeline usually i n c l u d e s multiple tracks of video, audio, and graphics. This timeline allows the editor to view the production and arrange the segments to fit the script (Figure 15.5).

Step 4

Add video special effects and transitions. Nonlinear edit systems allow all kinds of effects such as ripple, slow/fast motion, and color correction. Transitions include dissolves, cuts, and a variety of wipes.

Step 5

Insert additional audio, if desired, at this point. Audio effects may be used to "sweeten" the sound. Music or voiceovers may be added at different points in the project (Figure 15.6).

Step 6

Output the final program to the distribution medium.

FIGURE 15.6

The talent is doing a voiceover in an edit *suite* for a news story at a local news station. (Photo by Jon Greenhoe.)