Objectives
After completing this chapter, you will be able to:
• Identify the difference between linear editing and non-linear editing processes.
• Summarize the creation and use of an edit decision list.
• Explain the considerations related to editing and action.
• Recall the application of edit transitions.
• Summarize the steps involved in non-linear editing.

Introduction
Because television program scenes are not shot in order, they must be rearranged (or edited) into the correct order. Additionally, errors must be removed and any footage that is unwanted must be edited out. Editing is a very complex process with important ethical issues. In broadcast journalism, it is unethical to fundamentally change the intended message of a program or person. Advances in editing technology have made it relatively simple to manipulate the spoken word. A video editor has an awesome responsibility and power over the thoughts of the viewers. This chapter presents the basic concepts and skills necessary to begin using professional non-linear editing systems (NLE).
Editing Systems

Editing is the process of selecting the best portions of raw video footage and combining them into a coherent, sequential, and complete program. Editing also includes the post-production addition of music and sound effects, as well as video effects used as scene transitions. All the editing processes are performed using pieces of equipment collectively called an editor.

Linear editing systems predate the non-linear editing systems of today. Non-linear editing systems are currently the primary tool for editing video.

Linear Editing Systems

Linear editing systems are based on videotape. Raw footage is placed in a playback VCR, or source VCR, with a blank videotape in the record VCR. Good takes of the program footage are copied to the record VCR in the order the audience will see them. Using this process, the program is assembled in a straight line, or “linear” fashion. Simple linear editing systems only perform cuts while editing the footage.

Linear editing systems have been in use for several decades. These systems require a minimum of five pieces of equipment: a source VCR, a record VCR, an edit controller to operate both VCRs, a monitor for the source VCR, and a monitor for the record VCR.

Videotape Generation Losses

A generation is each videotaped duplication of original camera footage. Generations are noted sequentially. Raw footage straight from the camera to tape is the first generation. If the footage is placed in an editor and edited, the edited version is second generation because it is a copy of the first generation. If the edited tape is placed into a duplication system to make 20 copies, each of the copies made is a third generation because they are all copies of a second generation tape. Using a duplication system to make many copies of a master tape is called dubbing, or duping. A copy of the master recording is a dub, or a dup.

Talk the Talk

The word “dub” rhymes with “cub.” The word “dup” rhymes with “loop.”

The quality of the picture decreases with each generation of videotape. While most types of videotape experience generational losses, the losses are greatest with VHS. Currently, only digital tapes can be duplicated without significant deterioration in quality. The speed at which a tape is recorded is a factor in duplication. The slower the tape moves, the greater the loss in picture quality on the copy, Figure 24-1. Other factors that affect the quality of the copied tape include:

- The quality of the videotape.
- The quality of the VCRs.
- Use of a time base corrector, processing amplifier, distribution amplifier, or any combination of these.
A *time base corrector (TBC)* is a machine that corrects mechanical errors, due to age or use, related to the operation of a VCR. A TBC strips any quality-related imperfections out of the signal and leaves only pure audio, video, and sync in the signal. This piece of equipment compensates for any deterioration in VCR functionality by giving the signal a virtual facelift!

A *processing amplifier (proc amp)* corrects some color and brightness problems in the video signal as it passes through. It is commonly used in videotape recording and duplication systems.

A *distribution amplifier (DA)* is used when a signal must be split and sent to multiple outputs. A DA amplifies the signal before it is split, so each output receives nearly 100% of the original signal. If the original signal was simply split and sent, each output would receive only a portion of the signal. For example, if a signal is split and sent to five outputs, each may receive only 20% of the original signal (100% / 5 = 20%).

### Non-Linear Editing Systems

*Non-linear editing systems (NLE)* are software applications that make use of digital technology and high-capacity computer hard drives to store and process video and audio, Figure 24-2. Raw footage is converted to a digital format and copied to the computer’s hard drive. Scenes can then be properly arranged, with special effects and transitions added during the process. Once a program is complete, the video and audio can be recorded onto a blank videotape, DVD, or other media format.

Arranging scenes on an NLE is similar to the cut and paste or drag and drop functions of a computer word processing program. Instead of moving text within a document, scenes are arranged on a timeline. There are many different brands of non-linear editing systems on the market, each offering different features. The basic functionality of each brand is the same, but the processing options vary. Each NLE brand or model has a different appearance on the computer screen—the workspace is laid out differently and different brands call the same feature or operation by different names. All of the options available are the manufacturer’s effort to provide for almost every conceivable editing situation. However, all of the options and features, in addition to the differences between brand interfaces, creates a learning curve for NLE users. A new NLE operator looking to perform a simple task, such as a dissolve without any other fancy effects, may be a bit overwhelmed. Fortunately, the basic features of an NLE are usually easy to find on the interface, which allows simple editing to begin fairly quickly and gives users time to become familiar with the interface.
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**Edit Decision List (EDL):** A list noting which take of each scene should be used in the final program and the location of each take on the raw footage tape.

**Figure 24-2.** The capability of a non-linear editing system depends on the hard drive capacity of the computer used. The camera footage is uploaded onto the hard drive, all the program components are manipulated, and the completed program is output to the desired format.

**PRODUCTION NOTE**

Because each NLE system has its own operational commands and procedures, review the manuals and training materials provided for the system by the manufacturer. Most NLE manufacturers also offer resources for private or group training, phone support, and many helpful forums online. Be sure to thoroughly explore the NLE manufacturer’s website for usage tips.

**Program Editing Basics**

Some editing processes and concepts are the same on every brand of NLE system. Understanding and effectively utilizing these concepts, such as screen time vs. real-time and editing action sequences, adds to the production values of a program, which strengthens the delivery of the program’s message.

**Previewing the Raw Footage**

The editing process begins with previewing all the footage shot. While previewing the raw footage, note the specific takes of each scene that should be used in the finished product and where those takes are located on the recording media. This list of scene and take numbers becomes an edit decision list (EDL). To indicate the location of “good” takes, make note of the time code at the beginning and end of each good take while reviewing the footage, Figure 24-3. Creating an accurate EDL saves hours of expensive time in an editing suite because the good takes of each scene can be quickly located.

The take log (discussed in Chapter 20, Directing) that was created while shooting notes the number of takes recorded per scene and can be used as the foundation of an EDL. An accurate and detailed take log saves time when creating the EDL. Remember that the head recorded before each take displays the slate and countdown. Even during high-speed scanning, the slate is noticeable on the monitor and assists in locating the good takes of each scene recorded.
Time Code

Time coding is a system of assigning each frame of a video a specific number, like an address, Figure 24-4. To use time code editing, the camera must have a circuit that records time code while shooting. The time code is recorded on an area of the footage that does not affect the picture. The editing system must also have a circuit that reads time code. Time code editing is very precise. If all the necessary equipment is enabled with time code capability, the editor can make an edit within 1/30th of a second of where the edit is actually desired.

PRODUCTION NOTE

Many professional production companies, as well as schools, require that an EDL be prepared before using an available video editor. This ensures the efficient use of costly editing equipment for editing purposes only—not for reviewing raw footage. To save a great deal of time spent on the editors, view the raw footage on a regular digital playback unit with time code reading circuitry. The digital playback unit should display the time code to be noted in your EDL.

Screen Time

An important goal of successful editing is to create the illusion that the audience has not missed anything in the sequence of action. In editing a program, the “real time” of the footage shot must be edited to reflect the available “screen time” in order to keep the audience’s attention. Consider the host of a cooking program demonstrating how to make chocolate chip cookies. The cookies go into the oven and the camera shoots them baking through the window of the oven for the entire 10 minutes of cooking time. This “real
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time” footage does not contain action that keeps an audience’s interest. Too often, directors feel that every frame of video shot is “too good to lose” and are unwilling to part with anything. The result can be 20 minutes of torturous programming that would have been quite interesting if it had been cut to five minutes. In the cooking program example, 10 minutes of real time can be cut to 10 seconds of screen time by editing the shots as follows:

- Shot of cookies in the oven.
- Cut to a shot of a timer set to 10 minutes.
- Dissolve to the timer’s alarm sounding 10 minutes later.
- Cut to a shot of the baked cookies being removed from the oven.

**Editing and Action**

An edit must occur between two shots within a scene and between two scenes in a program in a way that connects them together. Carefully consider where and when an edit should be performed. All shots have a 10 second head recorded, which includes the countdown and slate. At what point during the head should the edit be made? All shots also have a 10 second tail. At what point during the tail should the edit be made? Some guidelines for video cuts and editing include (Figure 24-5):

- If shot A includes a moving object/action or the shot is taken by a camera that is moving or zooming, shot B should also include an action shot or camera movement for continuity.
- An edit should not take place between a still (non-action) shot and an action (moving) shot.
- Edits can occur between two still (non-action) shots.

<table>
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<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action to Action</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Action to Still</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Still to Still</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Still to Action</td>
<td></td>
<td>✔</td>
</tr>
</tbody>
</table>

**Figure 24-5. Guidelines for video cuts and editing between action and still shots.**

The director of a program may, however, actually want the audience to be jarred, startled, or surprised by the edit. This reaction may help communicate the program’s message or the feeling the director is trying to convey. To create a jarring edit, perform a cut or edit in a manner that contradicts the guidelines provided. There should always be a purposeful reason that supports the program and its message when conventional rule is broken.

**Matched Cuts and Matched Dissolves**

A matched cut is a creative type of edit that places a similar action, concept, item, or a combination of these on either side of a cut. The following are examples of match cuts:

*matched cut:* A type of edit in which a similar action, concept, item, or a combination of these is placed on either side of a cut.
A historical drama portrays a prisoner about to have his head removed on a guillotine. The camera watches the blade fall in a close-up and the program cuts to a butcher swinging a meat cleaver onto a piece of beef. The same kind of action occurs on both sides of the edit.

A man leaves his home, gets in a car, and drives off screen right. The program cuts to the car driving into the frame from screen left, as the man arrives at his workplace 15 miles from home. The same item (man and car) and same action (driving) occur on either side of the edit.

A **matched dissolve** is another type of creative edit that uses a similar action, concept, item, or combination of these to transition from one scene to the next. Instead of a cut between the scenes, a dissolve ties the scenes together. Cooking shows regularly use matched dissolves:

- A cake is placed in an oven.
- The oven closes and the camera zooms to a clock that reads “1:15 p.m.”
- The shot dissolves to same clock that now reads “1:35 p.m.” (20 minutes later).

The same concept (time) and same item (a clock) occur on either side of the dissolve.

**Editing and Audio**

In addition to video, there is also audio on both sides of an edit. The audio must also be considered when determining the best timing for an edit.

- If the audio track is the primary focus, pauses between the talent’s lines must be a natural length of time.
- When the response to an interview question runs long and is more than can be used, the response is edited. This edit may create a jump cut. To correct the jump cut, keep the audio flowing and insert a nod shot or cutaway of the interviewer or a shot of relevant B-roll footage.
- All of the background sounds in each take of a scene must match to ensure continuity in the edits. Just as there must be video continuity within a scene, there must also be audio continuity within a scene. This is where taking extra time on location to record a few minutes of room tone and background sound can save a program in the editing room. The room tone and background sound can fill audio gaps so there are no periods of “dead” air in the program.
- The level of the accompanying music and sound effects tracks must not compete with the primary audio of the scene. The volume level of the background sound or music should be no higher than one-quarter the level of the primary sound (usually dialogue).

Breaking these rules for audio and video is acceptable only if the producer or director intends to jar the audience. Any time a conventional rule is broken, there should be a purposeful reason for doing so that supports the program and its message.

**Editing Transitions**

In English class, a “poor transition” means the ending of one paragraph does not flow well into the beginning of the next paragraph. Video editing is like writing a paper—each scene must transition into the next scene. An **edit transition** refers to the way one scene ends and the next scene begins, such as fading scene 6 out while fading scene 7 in. An edit transition can be a **matched dissolve**: A type of edit in which a similar action, concept, item, or a combination of these is placed on either side of a dissolve.

**edit transition**: The way in which one scene is edited to end and the next scene is edited to begin.
fade, dissolve, wipe, special effect, or a digital video effect. Regardless of the method used for an edit transition, the action, plot, and theme must all transition smoothly from one scene to the next. If these elements do not transition smoothly, the audience is left confused. In the television industry, a confused audience will likely reach for the remote and change the channel.

Even on the simplest editor, called a “cuts-only” editor, all editing transitions do not necessarily look like cuts. It is possible, for example, to edit a fade out followed by a fade in if the script is marked appropriately before shooting. If the director indicates on the script that scene 6 should fade out and scene 7 fades in, the scene can be shot with the applicable fade out or fade in. Some camcorders have an automatic fade feature. If this feature is not available, shoot a fade out by smoothly closing the iris of the camera. Since the end of scene 6 fades to black and the beginning of scene 7 fades in, the edit between the scenes can be made while the screen is black. A cut from black to black is not noticeable to the audience. This kind of edit is called an edit through black, or kiss black.

To create the illusion of moving in and out of a flashback, a shot can be brought into and out of focus. While the picture is out of focus, the cut to another out of focus shot is nearly invisible to the audience. For this type of transition, the scenes must be shot using rack focus on the camera.

The frequency of cuts or edits during a program is the pace, or cut rate, and is usually expressed as a “per minute” rate. The pace of most prime time television programs averages one cut every 7 seconds. Always strive to keep a program moving to retain the audience’s interest.

**PRODUCTION NOTE**

While most NLEs offer hundreds of editing transitions, it is not appropriate to use the transitions just because they are available. Programs with gimmicky, flashy transitions are often assumed to be the work of amateur producers. The most common edit used, by far, is a simple cut. Dissolves and fades trail closely behind simple cuts.

**Assistant activity**

Watch one hour of prime time network television, not including the spots that appear during the hour of programming. One hour of prime time programming is only 42–44 minutes of program time when the spots are removed. With an average of 7 seconds between each edit, there are approximately 370 edits during an hour of programming. Watch the programming carefully and note the number of edits that are NOT a cut, dissolve, or fade. You’ll notice a very small number of other edits used. Professionals do not use many edit transitions other than dissolves, cuts, and fades.

**Cutaways and B-Roll**

The importance of recording cutaway and B-roll footage has been discussed in previous chapters (see Chapter 8, *Scriptwriting* and Chapter 19, *Production Staging and Interacting with Talent*) and was presented as a way
to bridge jump cuts. In the process of editing a program, cutaways and B-roll have several other uses.

**Talk the Talk**

In this context, the terms *cutaway* and *B-roll* mean the same thing. The only difference is the industry that most commonly uses each term—“cutaway” is primarily used in television production and “B-roll” is primarily used in broadcast journalism.

Cutaways can be used to pick up the pace of the program and create more visual interest. In a slow moving program with little action and few cuts between cameras, for example, cutaways can be inserted throughout the program to break up shots with little or no movement.

Cutaways can be added to a program to provide reaction shots. For example, the audience sees a drill sergeant yelling at a recruit. While the drill sergeant is yelling, the program cuts to the recruit’s face so the audience can see the recruit’s reaction to the yelling.

Cutaways may be used to support the message of the program. During a lecture or speech program, for example, the editor may insert cutaways of charts, graphs, or presentation slides with information related to the lecture or speech topic.

Cutaways may also be used to cover an audio edit of a long-winded speaker.

**Video and Audio Delay Edits**

While editing a program, it is possible to separate the video and the audio signals and edit each at different times. Consider the following scene:

Maria and Janet are sitting in Janet’s office. Maria asks, “What time is your husband flying in?” Janet responds, “He’ll be landing at five o’clock this afternoon.” Cut to a shot of the airplane landing at the airport.

A *video delay edit* cuts to the audio portion of the next scene before the corresponding video is seen by the audience, Figure 24-6. Using a video delay edit, the sound of the airplane landing is audible when Janet says the word “landing” and video of the airplane is cut in after the word “afternoon.” An *audio delay edit* cuts to the video portion of the next scene before the corresponding audio is heard by the audience. Using the example above, video of an airplane is cut in on the word “landing” as we hear Janet complete her line, “…at five o’clock this afternoon.” The audio of the plane landing then cuts into the scene.

**Non-Linear Editing**

One of the greatest advantages of using a non-linear editing (NLE) system is the efficiency that digital technology offers. Once the EDL is finalized and all the necessary raw footage is accessible, editing with a non-linear editing system can begin. The following are steps in the NLE editing process:
1. Capture, or digitize, the recorded footage.
2. Split the footage into clips.
3. Separate audio from video, as needed, to be edited individually.
4. Color correction.
5. Audio correction.
6. Create a timeline of scenes.
7. Trim the clips.
8. Apply audio and video effects and transitions, including music.
9. Insert titles.
10. Output the completed program.

**Production Note**

The duration of the editing process is dependent on the editor's knowledge of the NLE processes, the rendering capabilities of the system, and, of course, the number and complexity of the needed edits. The best way to become proficient in operating an NLE is to practice on the system as often as possible.

**Capturing Recorded Footage**

The first step in NLE is to copy all the good footage onto a computer with a high-capacity hard drive or, if available, a video server. This copying process is called *capturing* or *digitizing* the footage. For footage recorded...
onto digital videotape, capturing the video and audio is a real-time copying process. Footage recorded directly to a portable hard drive or other tapeless recording format, however, can be captured in seconds by connecting the portable hard drive or other tapeless recording format directly to the NLE computer. The footage files can be copied to the NLE computer or to a video server.

**Talk the Talk**

In a professional production environment, the terms *capturing* and *digitizing* are used interchangeably. Neither of these terms is used more commonly than the other.

**PRODUCTION NOTE**

If the footage is copied to a server, all the NLE editors can access the footage from any workstation. An editor can work on one editing station today and on a different editing station tomorrow, and still have access to the centrally-located footage. With footage stored on a server, it is even possible for several editors to work on different parts of the same program simultaneously.

Depending on the size and type of production, there may be a large amount of program footage to capture. While servers usually have sufficient space to store the footage, the computers used with NLE systems must have high-capacity hard drives with a great amount of available memory to store all the program footage. Using an EDL reduces the amount of hard drive space required to store the program footage and reduces the capture time, as well. The editor can upload and capture only the “good” takes with the corresponding heads and tails by referring to the EDL, instead of uploading all the program footage.

By converting the audio and video footage to a digital format, individual images, scenes, and audio tracks can be manipulated and edited using the features and technology available on an NLE system. Images can be viewed as they are transferred to the hard drive, if the capturing process is a real-time transfer. As the beginning of each new scene is displayed, the NLE operator presses a button to *split* the footage into individual clips. A *clip* is a captured scene or piece of video that can be used when compiling the completed program. If the footage is captured from portable hard drive or other tapeless recording format, splitting the footage is a separate operation that must be performed after the footage is placed on the NLE. Many newer NLE systems can detect when the incoming video footage contains a break (a record stop/start) and will automatically begin a new clip without any NLE operator action necessary.

As footage is loaded onto the NLE, a frame of each video clip—usually the first frame containing the slate—is displayed on the computer screen as a thumbnail icon. This is why it is so important that the slate be recorded during the head of every take while shooting. All of the thumbnail icons for the footage are contained in a folder called the *bin*, which may be viewed in a separate window on the computer screen (Figure 24-7). If there are 45

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**split**: Non-linear editing operation in which program footage is separated into individual clips.

**clip**: A captured scene or piece of video that can be used when compiling the completed program.

**bin**: A folder on a non-linear editing computer that contains all of the captured footage for a program. A thumbnail icon of the first frame of each video clip contained in the bin may be viewed in a window on the computer monitor.
Trimming: Non-linear editing process of determining the exact place an edit should occur and cutting the clip to remove unnecessary footage.

Edit point: The exact location in the footage where an edit should occur. The edit “out point” is the edit point at the end of a scene. The edit “in point” is the edit point at the beginning of a scene.

Trimming

Trimming is the process of determining the exact place an edit should occur and cutting the clip to remove unnecessary footage. The exact place a scene begins or ends is called an edit point. The edit point at the end of a scene is called an edit “out point” and the edit point at the beginning of scenes or video clips of a program loaded onto the hard drive of an NLE computer, the bin will contain 45 thumbnail icons. On some NLEs, both bins and clips can be given a short name that describes the contents. Bins may be named for the corresponding program, and clips may be named to reflect the scene footage, such as “Scene 4, Take 3.”

At this point, the editor does not spend time on perfectly editing the clips. The clips are rough cuts and may still contain complete heads and tails. Precise editing occurs later in the process during trimming.

Timeline Creation

The captured rough scenes are arranged along a timeline in the order they will appear in the finished program, Figure 24-8. NLE systems offer the ease of click-and-drag scene organization—click on the footage file or clip for a scene, drag it to the desired place on the timeline, and drop the scene into the sequence. To place a scene on the timeline with some NLE systems, the NLE operator simply double clicks the footage icon. If another scene or effect is inserted at a previous point on the timeline, the existing material shifts forward along the timeline to make room; previous work is not overwritten. This process is very similar to inserting a sentence into a paragraph using a word processing program—all the exiting text after the inserted sentence moves down on the page to accommodate the new sentence.

Figure 24-7. The first frame of each scene is displayed to help identify the footage contained in the bin.
a scene is called an edit “in point.” The head and tail recorded for each scene are removed by the trimming process. However, the recorded heads and tails provide the editor with more flexibility in deciding when a scene should start. During the 15-second head, the slate is recorded for the first 10 seconds. This leaves 5 seconds before the first “important” action or dialogue begins in the scene. The editor may choose to allow an emphatic pause before the main action of the scene begins, or the editor may jump directly into the scene. Editing is all about choices, and the recorded heads and tails give the editor more choices.

When the scenes are placed in order, they are trimmed to flow naturally. Depending on the NLE system, precision trimming can occur between fields – 1/60th of a second. (The term field is discussed in Chapter 25, Getting Technical.) The order of the scenes, effects, or audio can be adjusted, previewed, and moved again until correctly placed.

**Correction**

Minor discrepancies sometimes occur between two scenes. For example, the color of an item is not identical in both scenes. Most NLE systems have color correction features to address this type of discrepancy. These features can help match scenes and correct the image to some degree. Color correction features on an NLE are considered quite advanced and may not satisfactorily correct the images. Shoot the scene right the first time and do not regard “fixing it in post” as a viable option.

Audio correction features are also available on most NLEs and are a bit more user-friendly than color correction features. However, audio correction features are not designed for a novice editor either. Again, shoot the scene right the first time.
Audio Editing

Once the clips of a program are trimmed and the program flows smoothly, the audio mixing, music, nat sound, and sound effects can be applied. Many NLEs offer an abundance of tracks of audio to use while editing. Using these tracks, each type of audio is placed on a different track to be easily mixed with all the other tracks. Although many tracks of audio are available to an editor, the primary audio (usually dialogue) should never be difficult for the audience to hear. Typically, other audio tracks should be no higher than 1/4th the level of the primary audio.

Effects and Transitions

NLEs are equipped with built-in special effects, DVEs, and editing transitions (Figure 24-9). A transition may be selected from a menu and set to last for a specific amount of time. The default edit type on an NLE is a simple cut. To perform any other transition type—from a dissolve to spinning an image then shrinking it, or curling the edges into a circle, inflating it into a 3D ball, and making it fly off the screen into infinity—requires additional menu and button selections. Before deciding to use a transition other than a cut, decide if the transition contributes to the overall message/purpose of the program or if it just looks cool. What looks “cool” to an editor may be “cheesy” to the viewer. In some academic environments, teachers require that students use only cuts in the first few projects they undertake.

Figure 24-9. Selecting the transition from one shot to another is as simple as clicking an option from an on-screen menu.
Titles

Many NLEs offer built-in titling devices, Figure 24-10. The opening and closing titles may be created and added to the finished program or keyed over existing video, if desired.

Exporting

Once a program is complete, it can be exported for duplication and distribution in the necessary format, such as videotape or DVD, or the program may be aired directly from the hard drive without any loss in quality. Exporting an edited program to tape is usually a real-time process. Exporting to DVD is a much faster process, but the speed of the export depends on the capabilities of the equipment being used.

Producing Quality Programs

The goal of every production operation should be to produce the best program possible—from pre-production all the way through the process to duplication and distribution. Unfortunately, there are so many things involved in creating a really good program that sometimes the simple steps and details get overlooked. Failing to remember the simple things can often ruin an otherwise great program. Appendix A contains a comprehensive review of production values and technical considerations for maximum quality programs.
Wrapping Up

Editing is one of the most exciting positions on the production team. Novice editors should practice with cuts only, regardless of the type of editing system available. Learn to tell a simple story without flashy special effects and practice until the results are acceptable. The features and functions of more elaborate editing systems will become familiar with experience. Technology promises to provide continual changes and improvements to video editing systems. To be successful, you must learn to make the best use of new technology and adapt to the changes.

Review Questions

Please answer the following questions on a separate sheet of paper. Do not write in this book.

1. What is the difference between linear editing systems and non-linear editing systems?
2. What information is included on an EDL? When is the EDL created?
3. Summarize the guidelines for editing and action.
4. What is a matched dissolve?
5. What is an edit transition?
6. Explain how cutaways are used in the editing process.
7. Identify the steps involved in the NLE process.
8. What is the purpose of trimming?
9. What is the benefit of using several tracks of audio while editing?

Activities

1. Watch a few prime time television programs. Make a list of all the matched cuts you notice. Be prepared to describe the matched cuts in class.
2. Compare the cut rates of two different types of programs. Is the cut rate of one faster or slower than the other? Does the cut rate serve a particular purpose in either program?

STEM and Academic Activities

1. What advancements have been made in video editing software products available on personal computers in the last 10 years? What video editing functions are you familiar with on your home computer?
2. The pace of most prime time television programs averages one cut every 7 seconds. How many cuts are in a 30-minute program, with 10 minutes subtracted for spots?
3. Watch a program that makes use of cutaway shots. List each and identify the purpose of each cutaway shot. Examples of purposes include picking up the pace of the program, providing a reaction shot, supporting the message of the program, covering an audio edit.

4. Find an example of an edit between shots or scenes that was intentionally jarring or surprising. Why did you find the edit jarring or surprising? How did this edit contribute to the program?
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