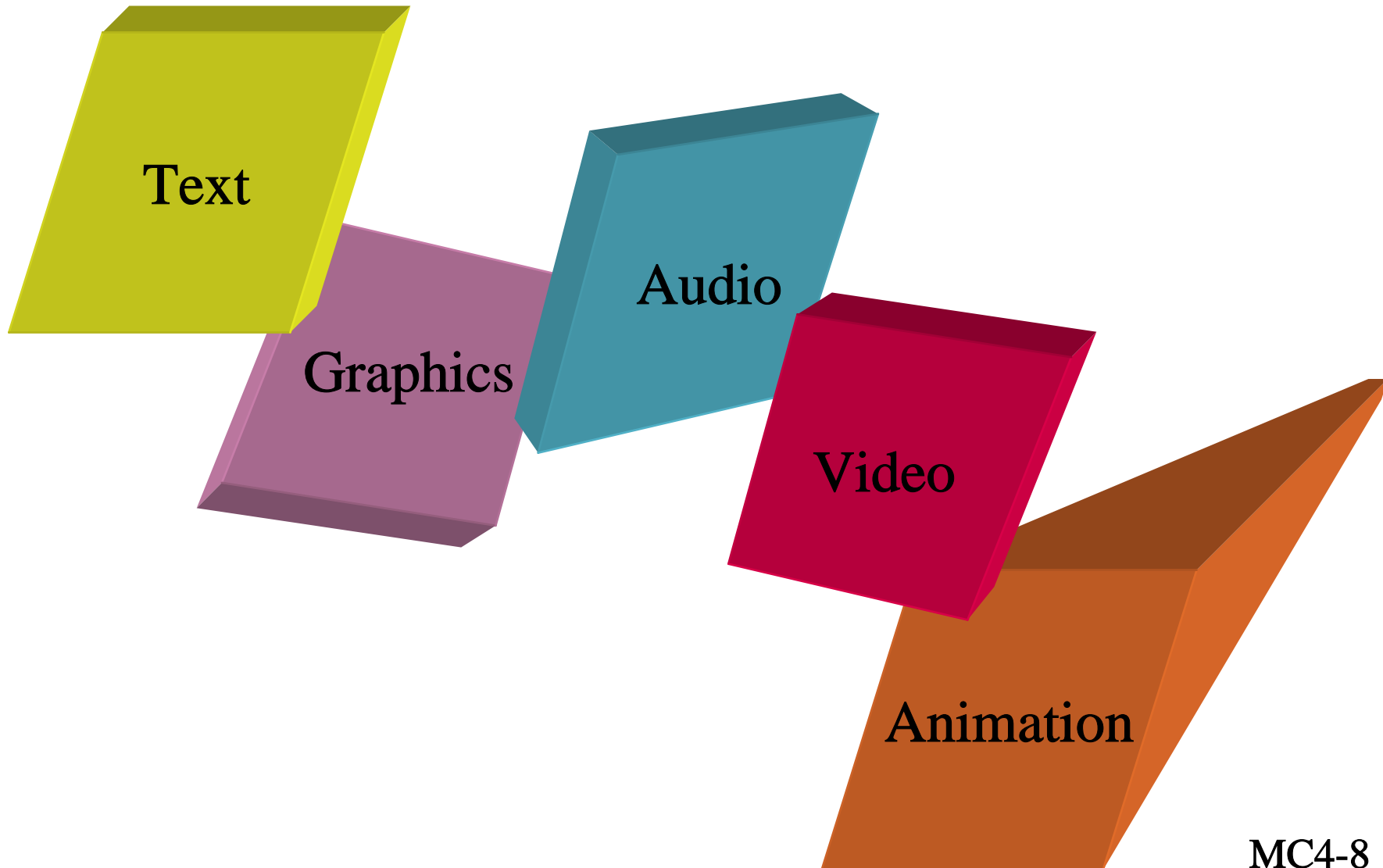


Technology: Media Categories



Video

Digitized video refers to motion sequences that have been recorded with a computer and saved as a computer file. Digital video has the potential to add realism to multimedia projects; but beware: The files sizes can be extremely large.

Procedures for Digitizing Video

When video is digitized, it must be processed through a special card in the computer. Video-digitizing cards (or peripherals) convert the electronic signals of regular video into digital bits of information for each pixel of the computer screen. (In case you are wondering, *pixel* is a contraction of the words *picture element* -- if you recall, we warned you about these odd terms earlier when we discussed *Netiquette* -- and is a single dot or point on an image on a computer screen.) The conversion process makes it possible to use a camera, videotape, videodisc, or broadcast television as a computer input device and to display the video on a standard computer monitor. To digitize video with a digitizing card, follow this procedure:

1. Open the software program that controls the digital video card.
2. Connect a video source (camera, videotape, or videodisc) to the video input on the card. If you are also recording audio, connect an audio source (microphone, tape recorder, videodisc, etc.) to the audio input on the computer.
3. Choose "Record" on the menu of the digitizing software program.
4. Select "Stop" when you have recorded the segment you want.
5. Test the recording with the "Play" command. If the video is what you want, save the file to the computer disk.

Constraints on the File Size of Digital Video

If you are capturing video segments, you will discover very quickly that the files generated by digitizing motion video can be huge. A 1-minute sequence can easily take up many megabytes of storage space. To constrain the size of digital video files, you can adjust several factors, including the number of colors, the display size, and the display (or frame) rate.

Number of Colors

When you capture video, you can choose to digitize in black and white or with various numbers of colors (usually 16, 256, 65,000, or 16.7 million). The more colors you use, the larger the file size will be. In most cases, 256 colors is more than sufficient for multimedia projects. Probably 16.7 million isn't the best idea, unless you are trying to get a job with Spielberg.

Display Sizes

Three basic display sizes are used for digital video, although other sizes are possible. A full screen on a computer display that is set for digitized video is usually 640 pixels by 480 pixels; 1/4 of a screen is 320 x 240; and 1/16 of a screen is 160 x 120. The file sizes are proportional;

Advice on: VIDEOTAPING INTERVIEWS

Use this handout as you plan and conduct interviews. Use the empty bullet points to fill in your own reminders and tips.

Before the interview:

- Decide on a location to shoot in. Keep in mind the visual background and potential background noise.
- Decide on what type of shots to get and what microphone to use. Consider whether you want a shot of both the interviewer and the interviewee, or just the interviewee. You may want to try shooting "over the shoulder" of the interviewee to get a good shot of the interviewer (a good shot to use for transitions when editing).
- A lavalier mic or hand-held microphone will work best for capturing good interview sound. Test it to make sure it works.
- Decide on clearly defined production roles ahead of time. Ask and decide: What needs to be done? Who will do what?
- Schedule the interview so that all needed people and equipment are available.
- If time allows, do a practice run of the interview with a stand-in. Generally, you may not want to do a practice run with the actual interviewee -- the person may be very busy and not have time for it. Also, decide whether you want the person's responses to be spontaneous or more rehearsed and thought-out. Set up the camera and decide where the interviewer and interviewee will sit. Test the microphone placement. Practice the shot and run through the interview questions.
- Test all the equipment before you go out into the field. If something is broken, you want to find that out before you get started. Make sure you have batteries, videotape, and all the essential items you need.
- Make sure you know where you are going -- get directions if you need them.
- Arrive early to get set up, if the conditions allow for it. When you greet your interviewee, you want to have finished setting up the equipment and be ready to start the interview. If the person or people you are interviewing are not used to being around cameras, the set-up can make them nervous.
- Advise your interviewee to avoid wearing clothing with tight patterns (like pinstripe) because such designs tend to look like they are "dancing" on video, and this can be distracting to the viewer. Also, the person should avoid wearing white -- this often looks very bright on camera and has a tendency to make people look like they weigh more than they do. In general, a camera makes a person look 10 pounds heavier. Also, if the person is wearing glasses, check to see if the glasses are reflecting any light you might be using. If they are, adjust the angle of the glasses or the light so you cannot see the lights reflected off the glasses.

During the interview:

- Be aware of the background and whether it adds or distracts from the subject.

- To put interviewees at ease, you might give them a general idea of the questions you are going to ask, or talk about something that interests them. The more at ease interviewees are, the more natural the responses they'll give.
- To put people at ease, let them know that this video will be edited (if it will be), so if they don't say something clearly and want to start that sentence over again, they can. People will relax if they know they don't have to be perfect.
- Try to be clear and to the point. Ask follow-up questions when appropriate.
- Consider whether or not you want the person to include your question in their answer. Is the viewer going to hear you ask the question?
- Remember to place the microphone close enough to the subject to get clear sound (4 to 6 inches away from the mouth).
- If the person wears glasses, is there a reflection of you or the light source in those glasses?
- Get shots of items the interviewer and/or interviewee talks about (this is called B-roll). These could be documents, a special poster, a building, and so forth.
- Before you leave, thank the person for the interview. Make sure to leave your surroundings as they were when you arrived.
- Make sure you have the person sign a release form before you leave if you need one. This form is written authorization signed by the person you videotape that says you can use the videotape of them, their business, their school project, etc. If you are videotaping for any reason other than personal use (for example, showing a tape to your class, putting material on the Internet), you will probably need one. If you will need a form, click here for a printable form.

After the interview:

- Look at the tape and talk about what went well during the interview process.
- What could have gone better?
- How can you and your team plan to avoid the same problems in the next interview?
- How was the interview useful to your project? Advice on: VIDEOTAPING INTERVIEWS

<<http://pblmm.k12.ca.us/TechHelp/VideoHelp/bProduction/AdviceOnInterviews.html>> Adapted with permission from San Mateo County Office of Education.

Microphones for Video

There are several types of microphones that you can use to gather sound. Which one you use depends on your purposes.

Generally speaking, the longer the microphone, the more powerful (sensitive) it is in one direction. A shorter microphone tends to pick up sound all around it.

On-Camera Mic -- this is built onto the camera. This small microphone is about 1.5 inches long and it is omni-directional, meaning it will pick up sounds from all directions. This is good to use to capture general audio from an event, but nothing very specific. An exception to that would be if a room was very quiet, except for one person talking; an on-camera this microphone would pick up that sound. Because the microphone is closer to you than to your subject, be careful -- if you're talking, your voice will be the loudest one on the tape.

Lavalier Mic -- this is a small microphone, about an inch tall, that can be clipped onto a piece of clothing about 4 inches below the speaker's mouth. A thin cord attaches the microphone to a battery pack that the speaker can put in his or her pocket or clip onto his or her clothing. Because it is not directly attached to the camera, it is a wireless microphone. This is good to use to capture the sound of the speaker. It is generally used when the speaker is moving around, versus sitting still or standing at a podium. If the person is sitting with you, or standing at a podium, you can use a handheld mic (with a mic stand if the person is at the podium).

Handheld Mic -- this is a microphone, attached to the camera by a long cable, that picks up sound very close to it. It often looks like a ball of ice cream sitting on a sugar cone. As the name implies, you usually hold this in your hand (while interviewing someone, for instance). You can also put in on a table or floor stand (while a person is speaking at a podium or in front of the class).

Shotgun Mic -- This long, narrow microphone is designed to pick up sound that is far away. For example, if some people are 30 feet away, and you want to hear what they saying, point this microphone directly at them. The range of the microphone will vary. You may see this type of microphone used in sports (for example, broadcasters trying to pick up what the coach is saying to the quarterback on the other side of the field).

<<http://pblmm.k12.ca.us/TechHelp/VideoHelp/aGoodStuffToKnow/Microphones.html>>

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